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Report to the Congress

Medicare and the Health Care Delivery System

MEDPAC



The Medicare Payment Advisory Commission (MedPAC) is an independent congressional agency established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. In addition to advising the Congress on payments to health plans participating in the Medicare Advantage program and providers in Medicare’s traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

The Commission’s 17 members bring diverse expertise in the financing and delivery of health care services. Commissioners are appointed to three-year terms (subject to renewal) by the Comptroller General and serve part time. Appointments are staggered; the terms of five or six Commissioners expire each year. The Commission is supported by an executive director and a staff of analysts, who typically have backgrounds in economics, health policy, and public health.

MedPAC meets publicly to discuss policy issues and formulate its recommendations to the Congress. In the course of these meetings, Commissioners consider the results of staff research, presentations by policy experts, and comments from interested parties. (Meeting transcripts are available at www.medpac.gov.) Commission members and staff also seek input on Medicare issues through frequent meetings with individuals interested in the program, including staff from congressional committees and the Centers for Medicare & Medicaid Services (CMS), health care researchers, health care providers, and beneficiary advocates.

Two reports—issued in March and June each year—are the primary outlets for Commission recommendations. In addition to annual reports and occasional reports on subjects requested by the Congress, MedPAC advises the Congress through other avenues, including comments on reports and proposed regulations issued by the Secretary of the Department of Health and Human Services, testimony, and briefings for congressional staff.

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REPORT TO THE CONGRESS

Medicare and the Health Care Delivery System

MEDPAC | Medicare Payment
Advisory Commission

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Advisory Commission

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June 15, 2023

The Honorable Kamala D. Harris
President of the Senate
U.S. Capitol
Washington, DC 20510

The Honorable Kevin McCarthy
Speaker of the House
U.S. House of Representatives
U.S. Capitol
Room H-232
Washington, DC 20515

Dear Madam President and Mister Speaker:

I am pleased to submit the Medicare Payment Advisory Commission's June 2023 *Report to the Congress: Medicare and the Health Care Delivery System*. This report fulfills the Commission's legislative mandate to evaluate Medicare payment issues and make recommendations to the Congress.

The 10 chapters in this report include:

- Addressing high prices of drugs covered under Medicare Part B
- Assessing postsale rebates for prescription drugs in Medicare Part D
- Standardized benefits in Medicare Advantage plans
- Favorable selection and future directions for Medicare Advantage payment policy
- Disparities in outcomes for Medicare beneficiaries with different social risks
- Congressional request: Behavioral health services in the Medicare program
- Mandated report: Telehealth in Medicare
- Aligning fee-for-service payment rates across ambulatory settings
- Reforming Medicare's wage index systems
- Mandated report: Evaluation of a prototype design for a post-acute care prospective payment system

I hope you find this report useful. I and the rest of the Commission remain cognizant of the challenges the health care community and country as a whole face as the nation emerges from the COVID-19 pandemic. We remain ready to assist the Congress and CMS as part of our mission to preserve beneficiaries' access to high-quality care, control Medicare spending growth, and provide sufficient payment for efficient providers.

Sincerely,

A handwritten signature in black ink, appearing to read "m. chernew", with a horizontal line extending to the right from the end of the signature.

Michael E. Chernew, Ph.D.
Chair

Enclosure

Acknowledgments

This report was prepared with the assistance of many people. Their support was key as the Commission considered policy issues and worked toward consensus on its recommendations.

Despite a heavy workload, staff members of the Centers for Medicare & Medicaid Services and the Department of Health and Human Services were particularly helpful during preparation of the report. We thank Lindsey Baldwin, Heather Barkes, Susan Bogasky, Nicolas Brock, Liz Goldstein, Michele Hudson, Marissa Kellam, Laura Kennedy, Jana Lindquist, Amy Miller, David Pope, Cheri Rice, Suzanne Seagrave, Sarah Shirey-Losso, Don Thompson, Michael Treitel, David Vance, and Rachael Zuckerman.

The Commission also received valuable insights and assistance from others in government, industry, and the research community who generously offered their time and knowledge. They include Chris Adamec, Anna Anderson-Cook, Alexis Apple, Kristin A. Bass,

Gregory Berger, Kristen Bernie, Jenny Bryant, Randy Burkholder, Shawn Coughlin, Shannon Curtis, Ashley Delosh, Anne Deutsch, Iola D'Souza, Tim Dube, Matthew Fiedler, Meredith Freed, Jeannie Fuglesten Biniek, Leslie Gordon, Cornelia Hall, Jennifer Hananoki, Tamara Hayford, Doug Holtz-Eakin, Rebecca Hunt, Gretchen Jacobson, Joanna Kim, Richard Kronick, David Lipschutz, Sandy Marks, Ateev Mehrotra, Meiti Negari, Asha Saavoss, Roslyne Schulman, Karyn Schwartz, Ben Silver, Jennifer Snow, Steve Spiel, and Shannon Wu.

Programmers and staff at Acumen LLC provided highly capable assistance to Commission staff. In particular, we appreciate the hard work of Bruno Garcia, Cuong Nguyen, Ayush Manandhar, Kathrine Sanieel, Susan Siford, Yuting Wang, Jonah Weiner-Brodkey, Xuanqi Wu, Xiao Xiao, Dashi Xu, and Rio Yan.

Finally, the Commission wishes to thank Sara June Arnold, Hannah Fein, and Melissa Lux for their help in editing and producing this report. ■

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Executive summary

Executive summary

As part of its mandate from the Congress, each June the Commission reports on refinements to Medicare payment systems and issues affecting the Medicare program, including changes to health care delivery and the market for health care services. The 10 chapters of the June 2023 report cover the following topics:

- **Addressing high prices of drugs covered under Medicare Part B.** The Commission makes recommendations to address high launch prices for certain accelerated approval drugs with limited clinical evidence, the lack of price competition among products with therapeutic alternatives, and the financial incentives associated with the percentage add-on to Medicare Part B's payment rate.
- **Assessing postsale rebates for prescription drugs in Medicare Part D.** Using data newly available to the Commission as a result of the Consolidated Appropriations Act, 2021, the Commission discusses trends and issues associated with the rapid growth of negotiated rebates and discounts received by Part D plan sponsors.
- **Standardized benefits in Medicare Advantage plans.** The Commission discusses the challenges that beneficiaries face in comparing Medicare Advantage (MA) plan benefits and selecting the plan with benefits that best meet their needs, and we outline an approach for standardizing MA benefits.
- **Favorable selection and future directions for Medicare Advantage payment policy.** The Commission discusses the effects of favorable selection on payments to MA plans and alternative approaches to setting MA benchmarks that would be less reliant on fee-for-service (FFS) spending than the current system is.
- **Disparities in outcomes for Medicare beneficiaries with different social risks.** The Commission presents an analysis of outcome measures for Medicare beneficiaries stratified by race/ethnicity and low-income status and discusses approaches to account for differences in patients' social risk factors and to encourage providers to focus on reducing health disparities.
- **Congressional request: Behavioral health services in the Medicare program.** In response to a congressional request, the Commission presents an analysis of utilization and spending for behavioral health services and discusses trends and issues in inpatient psychiatric care for beneficiaries.
- **Mandated report: Telehealth in Medicare.** As mandated by the Consolidated Appropriations Act, 2022, the Commission presents data on the use of telehealth services during the public health emergency and an analysis of the relationship between expanded telehealth coverage and quality, access, and costs.
- **Aligning fee-for-service payment rates across ambulatory settings.** The Commission recommends more closely aligning Medicare payment rates across ambulatory settings—hospital outpatient departments, ambulatory surgical centers, and freestanding physician offices—for selected services.
- **Reforming Medicare's wage index systems.** The Commission discusses the inaccuracies and inequities of Medicare's wage indexes and recommends a wage index approach for all of Medicare's prospective payment systems that would result in more accurate and equitable payments across providers.
- **Mandated report: Evaluation of a prototype design for a post-acute care prospective payment system.** As mandated by the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014, the Commission presents an evaluation of a prototype design of a uniform prospective payment system for post-acute care providers—skilled nursing facilities, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals.

Addressing high prices of drugs covered under Medicare Part B

In Chapter 1, the Commission makes recommendations to address high launch prices for certain accelerated approval drugs with limited clinical evidence, the lack

of price competition among products with therapeutic alternatives, and the financial incentives associated with the percentage add-on to Medicare Part B's payment rate.

Medicare Part B covers drugs that are administered by infusion or injection in physician offices and hospital outpatient departments. It also covers certain drugs and biologics furnished by suppliers. In 2021, FFS Medicare and its beneficiaries paid about \$43 billion for Part B-covered drugs and biologics. From 2009 to 2021, Medicare Part B drug spending grew at an average rate of about 9 percent per year.

The largest factor contributing to growth in Part B drug spending has been the rise in the average price paid by Medicare. Manufacturers set prices based on what they believe the U.S. health care market will bear and have established increasingly high launch prices for many new treatments, whether or not evidence exists that the product is comparatively more effective than existing standards of care. Likewise, prices have grown rapidly for some older drugs and biologics, even those with therapeutic alternatives, despite a lack of evidence of increased effectiveness.

Addressing high launch prices for drugs with limited clinical evidence by capping the payment of select Part B “accelerated approval” drugs and biologics

Drugs come to the market faster under the accelerated approval pathway than under traditional approval because the Food and Drug Administration (FDA) approves them based on intermediate clinical or surrogate endpoints that are *reasonably likely to predict* a clinical benefit, but before the clinical benefit has been verified. Consequently, some accelerated approval drugs are approved before evidence exists about their effect on the Medicare population, and some manufacturers establish high prices relative to their accelerated approval drug's expected clinical benefit. In addition, some manufacturers' postmarketing studies that are conducted to confirm an accelerated approval drug's clinical benefit are delayed.

The accelerated approval pathway is intended to expedite the approval of promising products. But tools are needed to ensure that Medicare is not overpaying for products approved on an accelerated basis if a product's clinical benefit is not confirmed.

Also, manufacturers need an incentive to complete postmarketing confirmatory trials on a timely basis so that information about a product's effects on health outcomes are available as soon as possible.

The Commission recommends that the Congress require the Secretary of Health and Human Services to cap the Medicare payment rate of Part B drugs and biologics (with limited exceptions) that are approved under the accelerated approval program if:

- postmarketing confirmatory trials for the product are not completed within the deadline established by the manufacturer and the FDA,
- the product's clinical benefit is not confirmed in postmarketing confirmatory trials, or
- the product is covered under a “coverage with evidence development” policy.

In addition, the Congress should give the Secretary the authority to cap the Medicare payment rate of Part B drugs and biologics that are approved under the accelerated approval program if their price is excessive relative to the upper-bound estimates of value.

To implement this policy, the payment cap could be set based on a drug's net clinical benefit and cost compared with the standard of care. The policy could be operationalized using a rebate under which manufacturers pay Medicare back for the difference between the Medicare payment amount and the cap, with the beneficiary sharing in the rebate via a reduced cost-sharing percentage.

Spurring price competition by establishing a single payment based on average sales price for Part B drugs and biologics with similar health effects

The current average sales price (ASP) payment system maximizes price competition among generic drugs and their associated brand products by assigning these products to a single billing code. By contrast, products that are assigned to their own billing code and paid according to their ASP—single-source drugs, originator biologics, and biosimilars—do not face the same incentives for price competition.

To promote price competition, the Commission recommends that the Congress give the Secretary the

authority to establish a single ASP-based payment rate for groups of drugs and biologics with similar health effects. To implement this policy, the Secretary could develop reference groups of products that:

- have similar FDA-approved indications or off-label use;
- work in a similar way (e.g., same drug classification, mechanism of action); and
- are listed similarly by clinical guidelines (e.g., classification of products, recommended versus not recommended).

The Secretary could first focus on applying reference pricing to drug groups for which all of a given product's indications could be included in the group. The Secretary could begin with those reference groups for which implementation would be the most straightforward: (1) biosimilars and originator biologics, (2) 505(b)(2) drugs and related brand-name drugs and generics, and (3) drugs for which reference pricing has been implemented or considered previously. In most instances, the Secretary could set the reference price based on the volume-weighted ASP of drugs assigned to the reference group.

Improving financial incentives by modifying add-on payments for Part B drugs and biologics

Under Section 1847A of the Social Security Act, Medicare pays providers for most Part B drugs at a rate of the ASP plus 6 percent (ASP + 6 percent). In addition, Medicare makes a separate payment for drug administration services under the physician fee schedule or outpatient prospective payment system. Like all Medicare services, the Medicare program's payment for Part B drugs (but not beneficiary cost sharing) is subject to the 2 percent sequester through March 2032.

While clinical factors play a central role in prescribing decisions, at the margins, financial considerations can also figure into providers' choice of drugs. Medicare's percentage add-on to ASP may create incentives for use of higher-priced drugs since a percentage add-on generates more revenue for the provider when applied to a higher-priced product than a lower-priced product. The percentage add-on may also affect a provider's decision to initiate or continue drug treatment in some circumstances.

To improve financial incentives under the ASP payment system, the Commission recommends an approach that would minimize the relationship between price (ASP) and add-on payments by reducing add-on payments for costly drugs. The Commission developed a framework to illustrate how such an approach could be operationalized. In developing this approach, we sought to:

- reduce or eliminate the percentage add-on for moderate- and high-priced drugs to minimize the relationship between price (ASP) and add-on payments,
- retain a portion of the percentage add-on for all but the most expensive drugs to accommodate price variation or other factors that might lead to some purchasers acquiring drugs at a price greater than ASP, and
- avoid applying a flat fee for low-cost drugs, which would constitute a substantial increase in payment rates relative to the price of a drug and potentially create incentives for overuse.

Our illustrative approach would maintain the current ASP add-on for lower-priced drugs, reduce the percentage add-on and add a fixed fee for mid-priced drugs, and place a fixed dollar cap on the add-on for the highest-priced drugs. Overall, this approach would improve financial incentives by reducing the difference in add-on payments between differently priced drugs, with the largest reduction occurring among the highest-priced products.

In addition, the Commission recommends eliminating add-on payments for drugs lacking ASP data and paid based on wholesale acquisition cost (WAC). Because WAC is generally a higher price than ASP and does not reflect discounts, eliminating the WAC add-on would reduce excess payments and improve financial incentives.

Assessing postsale rebates for prescription drugs in Medicare Part D

In Chapter 2, using data newly available to the Commission as a result of the Consolidated Appropriations Act, 2021, the Commission discusses trends and issues associated with the rapid growth of negotiated rebates and fees received by Part D plan sponsors.

Insurers that offer plans (plan sponsors) and their pharmacy benefit managers (PBMs) negotiate with drug manufacturers and pharmacies for rebates and fees that take place after a prescription has been dispensed. Consequently, the final amounts that Part D plans pay for the prescriptions that their enrollees fill are often lower than prices at the pharmacy. Collectively, CMS refers to negotiated rebates and postsale fees as direct and indirect remuneration (DIR). Plan sponsors can use their portion of DIR to restrain growth in premiums or reduce cost sharing. Plan sponsors have long believed that Part D enrollees focus most on premiums when making their plan selection, and thus plan sponsors have strong incentives to use the DIR to keep premiums low. Because rebates and fees have become so large, the way in which sponsors apply DIR to constrain premiums or cost sharing has implications for the distribution of Part D costs among all enrollees, particularly those who use rebated drugs, and for the Medicare program at large.

DIR has grown rapidly: Between 2010 and 2021, it ballooned from \$8.6 billion to \$62.7 billion, expanding as a share of gross Part D spending from 11 percent to 29 percent. Most of that total has consistently been made up of manufacturer rebates, though the share declined as pharmacy DIR grew. In 2010, rebates accounted for 99 percent of DIR, but by 2021, rebates' share of total DIR declined to 80 percent. In 2021, the Medicare program kept about one-third of DIR to offset some of Part D's reinsurance subsidies.

Multiple factors have contributed to growth in manufacturer rebates.

- **Therapeutic competition and Medicare formulary policies.** Manufacturers negotiate rebates with PBMs for brand-name products that have therapeutic competitors in exchange for putting their drug on a plan's formulary and placing it in a position that helps the drug maker win market share. For certain classes of drugs, regulatory hurdles and extensive patent protection have slowed generic entry. With a lack of generic competition but considerable rivalry among competing brands, manufacturers have chosen to raise gross prices and compete using postsale rebates. In contrast, for protected classes of drugs in which virtually all drugs must be covered, price competition is weakened, hindering plans' ability to negotiate rebates.

- **Part D's benefit structure and emphasis on premium competition.** Part D's unusual benefit design—with its coverage gap and provision of Medicare reinsurance in its catastrophic phase—has resulted in plan sponsors bearing relatively little insurance risk for their enrollees' drug spending. Trends in prescription use are also a contributing factor because high-cost biologics and specialty medications account for a mounting share of spending, and Medicare's payments to plans increasingly take the form of cost-based reinsurance. Because the program emphasizes premium competition, sponsors have had incentives to try to maximize rebates and keep premiums low. In some drug classes, sponsors can select high gross-price, high-rebate drugs for their formularies over lower gross-price alternatives. In addition, many entities in the drug supply chain benefit from high gross prices because compensation for their services is often paid as a percentage of price.
- **Vertical integration of plan sponsors, PBMs, and pharmacies.** Since the start of Part D in 2006, plan sponsors and their PBMs have consolidated. Vertically integrated insurers with their own PBMs and specialty pharmacies now control a larger proportion of covered lives and the dispensing of higher-priced drug products. Larger market shares of enrollment and dispensing tend to provide sponsors with greater bargaining leverage for postsale price concessions from both manufacturers and pharmacies.

While large rebates help constrain premium increases, using rebates primarily to lower premiums also means that beneficiaries who use such drugs or Medicare (in the case of Part D's low-income subsidy (LIS) enrollees) sometimes pay cost sharing that is higher than the drug's cost. In recent years, for about 8 percent of gross spending aggregated across all phases of the Part D benefit, the cost-sharing amounts set by plan sponsors exceeded net drug costs after deducting rebates, meaning that the beneficiary or Medicare (on behalf of LIS beneficiaries) paid more than the total cost of the drug. For enrollees without the LIS, high cost sharing can affect whether they fill their prescriptions.

Our analysis focused on a range of drug classes and products for prescriptions filled between 2015 and 2021. While rebates vary considerably across drug

classes and over time, we observed large rebates in classes that had strong brand rivalries but lacked generic or biosimilar entry. In contrast, for protected classes of drugs in which virtually all drugs must be covered, price competition was weakened, hindering plans' ability to negotiate rebates and allowing gross and net prices of single-source drugs in many protected classes to grow faster than for drugs in other classes.

We found that rebates can vary widely for the same product among plans operated by the same sponsor and that rebates obtained by large, vertically integrated plan sponsors increased over time and were larger than those received by other plan sponsors.

Vertical integration may pose a particular challenge for Part D as the market becomes increasingly concentrated among the largest sponsors that own (or are owned by) a PBM and pharmacies. For a limited number of drug categories, we found that payments and costs (after manufacturer rebates) were more likely to be higher at vertically integrated (VI) pharmacies compared with costs at other pharmacies, particularly when those prescriptions were filled for their own VI plans. Because Part D's DIR reporting requirements do not include discounts or fees retained by pharmacies that are paid by manufacturers, CMS may lack information about the true benefit costs of plans operated by plan sponsors that are vertically integrated with a PBM and pharmacies.

The Inflation Reduction Act of 2022 includes numerous policies related to prescription drugs and the Part D benefit. As that law is implemented over the next several years, its changes to policy are likely to alter the drug-pricing landscape and affect the degree to which plan sponsors and manufacturers continue to use rebates. The Commission's analyses of DIR data will serve as a baseline for future evaluations of how rebates are used in the Part D program.

Standardized benefits in Medicare Advantage plans

In Chapter 3, the Commission discusses the challenges that beneficiaries face in comparing Medicare Advantage (MA) plan benefits and selecting the plan with benefits that best meet their needs. The chapter outlines an approach for standardizing MA benefits.

This year, Medicare beneficiaries have an average of 41 MA plans (offered by an average of 8 insurers) available in their area. The average number of available plans has more than doubled in the last five years. Plan benefits vary, and research has found that beneficiaries have difficulty comparing plans and deciding which one best meets their needs when they have many choices.

One way for beneficiaries to compare plans more easily would be to require plans to have standardized benefits. This approach is used in both the Medigap market and the health insurance exchanges created by the Affordable Care Act of 2010. We use the term *standardization* to refer to both (1) the set of services covered by the plan and (2) the cost sharing that the plan's enrollees pay for those services. For Part A and Part B services, efforts to standardize benefits would be limited to changing enrollee cost sharing since all plans cover the same required set of services. For supplemental benefits, efforts to standardize benefits would be more complicated because they would raise questions about what services plans should cover and how those services should be defined, in addition to changes in enrollee cost sharing.

The use of standardized benefits in MA would require policymakers to consider a number of complex issues, such as the number and design of any standardized plan benefits and whether insurers could still offer plans that are not standardized. One option would be to develop a limited number of plan benefits for Part A and Part B cost sharing and require insurers to use them in their plans. These packages would specify the plan's annual limit on enrollee out-of-pocket costs and the cost-sharing amounts for all major services.

Standardizing supplemental benefits could make these benefits more transparent and help ensure that plans provide sufficient value to MA enrollees and taxpayers, but policymakers would need to balance the goals of simplifying beneficiaries' plan comparisons and letting plans design their own benefits. One way to realize some of the gains from standardized benefits while giving plans flexibility would be to standardize a limited number of common supplemental benefits, such as dental, hearing, and vision benefits. For example, policymakers could specify the coverage limits, cost-sharing rules, and per enrollee spending limits for those benefits. These requirements would apply only to plans that choose to provide dental, hearing, and vision

benefits. The rules that govern all other supplemental benefits would remain the same.

Using the approach outlined in this chapter, beneficiaries who compare MA plans would be able to understand with relative ease what each plan charges for Part A and Part B services and the major supplemental benefits it provides. Selecting a plan would still involve other important factors—such as the plan’s premium, the drugs on its formulary, and its provider network—but these changes would make the process simpler and easier to navigate. In addition, by requiring MA plans to submit encounter data for supplemental benefits, policymakers and researchers can better understand the impact of supplemental benefits on MA enrollees.

Favorable selection and future directions for Medicare Advantage payment policy

In Chapter 4, the Commission discusses the effects of favorable selection on payments to MA plans and alternative approaches to setting MA benchmarks that would be less reliant on FFS spending than the current system is.

Medicare pays MA plans a capitated rate that is the product of a base payment rate and a risk score. A plan’s base rate is determined by its bid and a county benchmark. The bid is intended to represent the dollar amount that the plan estimates it will need to cover the Part A and Part B benefit package for a beneficiary of average health status; the benchmark is the maximum amount Medicare will pay for an MA plan to provide Part A and Part B benefits and is set for each county based on Medicare spending for the county’s beneficiaries enrolled in Medicare’s traditional FFS program, standardized to represent a beneficiary with average health status.

Risk scores increase payment for plan enrollees whose expected health care costs are higher than the costs for the FFS beneficiary of average health status, and the risk scores decrease payment for enrollees whose expected costs are lower. The accuracy of Medicare’s payments to MA plans depends in large part on how well the risk-adjustment model (i.e., risk scores) predicts the expected costs for the plans’ enrollees. The purpose of risk adjustment is not to accurately predict costs for a particular person, but rather to accurately

predict the average costs for a group of people with similar attributes.

Medicare’s payments for MA plans assume that after risk adjustment, average spending for MA enrollees is equal to average spending for FFS beneficiaries. However, MA enrollees’ risk scores consistently overpredict MA enrollees’ actual spending in part because of favorable selection of beneficiaries who choose to enroll in an MA plan rather than FFS Medicare. Favorable selection into MA causes payments to plans to be systematically greater than plans’ spending for their enrollees. Consistent with other research, the Commission estimates that, prior to the effects of any utilization management from MA plans, MA enrollees’ spending in 2019 was about 11 percent lower than the spending of FFS beneficiaries with the same risk scores. The benefits of favorable selection for MA plans are separate from the effects of MA plans’ higher diagnostic coding intensity relative to coding in FFS (which we estimated in our March 2023 report to the Congress resulted in overpayments to MA plans of about 6 percent). Further, the effects of the two phenomena are additive.

Estimates of FFS spending form the basis for MA benchmarks, but these estimates do not align well with MA plans’ (lower) costs of providing the Medicare benefit package. In a county with a benchmark set at 100 percent of FFS spending, for instance, the costs of providing Medicare services to the average MA enrollee equal an estimated 89 percent of FFS spending due to the effects of favorable selection alone. (The effects of MA plan benefit design, cost containment efforts, and diagnostic coding could push that percentage down even further.) Favorable selection thus results in overpayments to MA plans, which are made at the expense of taxpayers and beneficiaries (through higher Part B premiums). In addition, favorable selection distorts efforts to assess how efficient MA plans are relative to FFS.

These findings raise major concerns about the appropriateness of continuing to base MA benchmarks exclusively on Medicare FFS spending data. Those concerns are heightened as more beneficiaries enroll in MA and the share of Medicare beneficiaries enrolled in FFS declines. If the number of FFS beneficiaries in a county becomes too small, Medicare’s estimates of FFS spending for the county could become unstable, as

small changes in enrollment or health service delivery can cause large shifts in average spending. Further, certain population characteristics—such as whether a beneficiary is eligible for Medicaid or qualified for Medicare due to disability—become skewed if those characteristics are associated with a preference for MA or FFS Medicare coverage.

Policymakers could set MA benchmarks using an approach that relies less on FFS spending. Policymakers could use a competitive bidding system that relies entirely on MA bids to determine benchmarks; they could base benchmarks on both FFS and MA Medicare spending instead of just FFS spending; or they could set benchmarks at a point in time and update them using administratively set rates. Any of these approaches would help address the problems associated with a declining FFS population, but the extent to which they would address the favorable selection of enrollees in MA would vary.

Disparities in outcomes for Medicare beneficiaries with different social risks

In Chapter 5, the Commission presents an analysis of outcome measures for Medicare beneficiaries stratified by race/ethnicity and low-income status and discusses approaches to account for differences in patients' social risk factors and to encourage providers to focus on reducing health disparities.

Social risk factors such as income, housing, social support, transportation, nutrition, and race/ethnicity can influence health outcomes. These factors stem from social determinants of health (SDOH), which are the conditions in which people are born, live, learn, work, play, worship, and age, conditions that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Addressing SDOH aims to reduce health disparities—that is, differences among populations in the burden of disease or in opportunities to achieve optimal health—and achieve health equity across patient populations. Widespread recognition of health disparities has prompted many policymakers and health care organizations to prioritize health equity as a key component of health care quality improvement.

To better understand steps that health care providers, payers, and other organizations have taken to address SDOH, the Commission contracted with L&M Policy

Research in the summer and fall of 2021 to review the literature and conduct stakeholder interviews. Five broad themes emerged from this work. First, many approaches and specific interventions have been used to try to address SDOH. Second, SDOH initiatives are usually aimed at populations that include but are not exclusive to Medicare beneficiaries. Third, participation in value-based payment arrangements, such as accountable care organizations, may help motivate efforts to address SDOH. Fourth, most health care organizations are not operating SDOH initiatives by themselves; they usually collaborate with community-based organizations such as food banks or public housing agencies. And finally, though many organizations are working to address SDOH, objective evaluations of the effectiveness of these efforts are limited, and their findings are often mixed.

Recognizing that health outcomes can be influenced by patients' social risk factors, we report findings from an examination of ambulatory care-sensitive hospitalizations and emergency department visits for FFS beneficiaries stratified by race/ethnicity and low-income status in 2019. We also analyzed hospital readmission rates by race/ethnicity and low-income status for beneficiaries who had had a recent hospital stay. For those who had used skilled nursing facilities (SNFs) and home health agencies (HHAs), we examined rates of successful discharge to the community.

We found that both race/ethnicity and low income contributed to differential outcomes. Beneficiaries with low incomes were more likely to have worse outcomes. At the same time, beneficiaries who were Black or Hispanic were more likely to have worse outcomes, while Asian/Pacific Islander and non-Hispanic White beneficiaries were more likely to have better outcomes. Worse outcomes for low-income beneficiaries were seen across race/ethnicity categories for all the measures examined. However, even within income categories, differences across race/ethnicity groups persisted.

In addition to accounting for patient social risk in quality payment programs and supporting safety-net providers, the Commission also generally supports two policies to encourage providers to focus on reducing health disparities: (1) public reporting of quality results stratified by social risk factors and (2) adding a focus on reducing disparities in quality payment programs.

Congressional request: Behavioral health services in the Medicare program

In Chapter 6, in response to a 2022 congressional request, the Commission presents an analysis of behavioral health services in the Medicare program. This chapter explores two main topics: (1) utilization and spending by FFS beneficiaries for clinician and outpatient behavioral health services and (2) trends and issues in inpatient psychiatric facility (IPF) care for beneficiaries. Where possible, utilization by MA enrollees is examined.

Clinician and outpatient behavioral health services

Clinician and outpatient provision of behavioral health services such as psychiatric evaluations, psychotherapy, opioid treatment programs, and behavioral health integration are covered by Medicare Part B for FFS beneficiaries. In 2021, spending for these behavioral health services and conditions was \$4.8 billion. In that year, 4.9 million FFS Medicare beneficiaries (16 percent) received these services. Beneficiaries who used Part B behavioral health services were more likely to be disabled, low income, and younger than other FFS Medicare beneficiaries. They also incurred nearly twice as much spending on overall health care (including Part D prescription medications) as all FFS beneficiaries. In 2021, the top three behavioral health conditions were depression, anxiety, and substance use disorders. Between 2019 and 2021, opioid use disorders among FFS Medicare beneficiaries increased annually by 7 percent. In 2020, Medicare began an opioid treatment program benefit, which was used by nearly 40,000 FFS beneficiaries in 2021.

In 2022, behavioral health clinicians accounted for 40 percent of clinicians who opted out of Medicare. Among psychiatrists, the opt-out rate is 7.2 percent, which is the highest across physician specialties. We found large shifts in the behavioral health workforce over time: Between 2016 and 2021, substantial growth in behavioral health services provided by nurse practitioners occurred, while volume by psychiatrists declined. The pandemic exacerbated shortages of behavioral health clinicians, but the rapid take-up of telehealth has helped to meet current needs. Telehealth for behavioral health services continued to grow in 2021, even as use of other telehealth services declined from their high in 2020. Notably, some behavioral

health clinicians provided only telehealth in 2021 (i.e., provided no in-person health services in that year)—a trend that should continue to be monitored.

Inpatient psychiatric facility care

Medicare beneficiaries experiencing an acute behavioral health crisis can be treated in specialty IPFs that provide 24-hour care in a structured, intensive, and secure setting. In 2021, 157,500 FFS beneficiaries had 230,500 stays at one of 1,480 hospital-based or freestanding IPFs and incurred \$3.0 billion in IPF spending. Compared with the rest of the FFS Medicare population, Medicare beneficiaries using IPF services are much more likely to be disabled and have low incomes, have more chronic conditions, and consume more health care services. In 2021, Medicare Part A and Part B spending per beneficiary for those with an IPF stay was nearly four times higher than for all FFS beneficiaries. Medicare Part D prescription drug spending for beneficiaries who had an IPF stay was nearly twice as much as that of other FFS beneficiaries. As of January 2023, nearly 50,000 Medicare beneficiaries had reached or were within 15 days of reaching the 190-day lifetime limit on freestanding IPF days. These beneficiaries were more likely to be disabled, younger, low income, and Black compared with other beneficiaries who had an IPF stay in 2021.

Using data from 2018, we found a high rate of emergency department visits and acute care hospital admissions before and after an IPF admission. We also found a relatively low rate of visits with behavioral health clinicians, suggesting that many of these beneficiaries were not receiving effective, well-coordinated outpatient behavioral health care.

Our indicators of Medicare payment adequacy for IPFs revealed some concerning trends and identified gaps where additional information is needed to assess the accuracy of payments and the quality of IPF care.

Beneficiaries' access to IPF care—While the number of IPFs has declined since 2017, the number of psychiatric beds has grown, fueled by growth in the number of beds at for-profit IPFs. In 2021, aggregate occupancy rates decreased to 70 percent (from 76 percent in 2017), suggesting IPF availability. However, IPF interviewees agreed that labor shortages limited the number of staffed beds available. Moreover, higher occupancy rates at government IPFs—which frequently function

as providers of last resort—also indicate insufficient supply for persistently mentally ill beneficiaries. Overall Medicare FFS volume at IPFs has been declining for several years. The decline in utilization between 2019 and 2021 was particularly steep, likely related to avoidance or deferral of inpatient stays in response to spread of COVID-19 and to IPFs' limited treatment capacity due to staffing shortages.

Quality of IPF care—Data on the quality of care provided by IPFs are currently too limited to meaningfully assess and compare quality across facilities.

IPFs' access to capital—Access to capital appears to be strong among IPFs. Almost two-thirds of IPF providers are hospital-based units that would access any necessary capital through their parent institutions. Overall, acute care hospitals maintained strong access to capital in 2021. Freestanding IPFs also had access to capital.

Medicare payments and IPFs' costs—In 2021, the overall aggregate margin for IPFs was -9.4 percent, though margins varied substantially across IPFs. The variation tracked with differences in costs by IPF type, with freestanding for-profit IPFs having lower costs (and higher margins (15.0 percent)) and hospital-based IPFs having higher costs (and lower margins (-28.3 percent)). Differences in scale likely account for this pattern (for-profit IPFs tend to be larger). It is not clear whether differences in the mix of patients served or the quality of care provided also plays a role. To properly assess whether the IPF payment system is accurately capturing costs and classifying patients, policymakers need more information on patient severity and resource use, including use of ancillary services.

Mandated report: Telehealth in Medicare

In Chapter 7, the Commission presents an evaluation of the utilization of telehealth services during the public health emergency (PHE) and the relationship between expanded telehealth coverage and quality, access, and costs, as mandated by the Consolidated Appropriations Act, 2022.

Telehealth includes health care services delivered through a range of online, video, telephone, and other communication methods. Medicare has historically been cautious about covering telehealth services

broadly because of uncertainties about the impact of telehealth on quality and spending. However, Medicare temporarily expanded coverage of telehealth to allow beneficiaries to maintain access to care and to help limit community spread of COVID-19 during the PHE, which ended on May 11, 2023. The Congress has extended many of Medicare's telehealth expansions through December 31, 2024.

Alternative approaches to paying for telehealth services

—Before the PHE, Medicare coverage of telehealth services was limited by statute under the physician fee schedule (PFS). Medicare covered a limited set of telehealth services, modalities, and providers, and only in rural locations (with certain exceptions). For most telehealth services, Medicare required the patient to be located at an “originating site”—specified types of health care providers—in a rural area and required the clinician to be located at a “distant site” without any geographic limitations. During the PHE, Medicare coverage of telehealth was expanded to include additional allowable telehealth services and providers, and originating site and geographic restrictions were lifted.

Medicare pays the clinician at the distant site a PFS payment based on the type of service provided (e.g., an evaluation and management (E&M) office/outpatient visit). Whether provided in person or by telehealth, many PFS services have two payment rates depending on whether they are provided in a facility setting (e.g., a hospital or a skilled nursing facility, which also receives a separate payment for the accompanying non-clinician services) or a nonfacility setting (e.g., a freestanding clinician's office). Before the PHE, CMS paid clinicians performing a telehealth visit the PFS's lower, facility-based payment rate instead of the higher, nonfacility rate regardless of where the clinician was located. However, during the PHE, CMS paid the same rate it would pay if the telehealth service had been provided in person (the PFS's facility rate or nonfacility rate, depending on the clinician's location). CMS has said that the agency will continue this policy through the end of 2023.

As described in our March 2021 report to the Congress, the Commission asserts that CMS should resume paying the lower, facility rate for telehealth services as soon as practicable after the PHE. CMS should also collect data from practices on the costs they incur to

provide telehealth services and adjust future payment rates, if warranted, based on the information gathered.

During the PHE (and continuing until the end of 2024), the Congress has permitted federally qualified health centers (FQHCs) and rural health clinics (RHCs) to bill for telehealth services as the distant site. Clinicians can furnish distant-site telehealth services from any location, including their home, while they are working for an FQHC or RHC. Although Medicare pays higher rates for in-person clinician services provided in FQHCs and RHCs than for comparable services provided under the PFS, during the PHE the Medicare payment rate for FQHC and RHC telehealth services is based on PFS rates for comparable telehealth services, essentially establishing payment parity for telehealth services billed under the two payment systems. If policymakers decide to permanently cover distant-site telehealth services delivered by FQHCs and RHCs, the Commission supports continued payment parity with the lower PFS rates.

Spending and use of telehealth services in Medicare—

FFS Medicare spending for telehealth services was very low in 2019 (\$130 million) but rose dramatically during the early months of the PHE, peaking at \$1.9 billion in the second quarter of 2020, as providers and beneficiaries shifted rapidly from in-person visits to telehealth. Telehealth spending declined in the latter half of 2020 and in 2021, falling to \$827 million in the fourth quarter of 2021. In total, Medicare telehealth spending was \$4.8 billion in 2020 and \$4.1 billion in 2021, more than 30 times greater than spending in 2019. Similarly, between 2019 and 2020, the number of FFS beneficiaries who received at least one telehealth service paid under the PFS accelerated rapidly from 239,000 to 14.2 million (40 percent of Part B FFS beneficiaries), then declined in 2021 to 9.7 million (29 percent of Part B FFS beneficiaries).

In 2020 and 2021, evaluation and management (E&M) services accounted for almost all (98 percent) of PFS telehealth spending. Within the category of E&M services, office/outpatient visits (as opposed to other types of E&M services) accounted for 73 percent of spending for telehealth in 2020, declining to 68 percent of spending in 2021. Between 2020 and 2021, behavioral health services (e.g., psychiatric evaluation) rose from 17 percent of telehealth spending for all E&M services to 23 percent, highlighting the growing significance of telehealth use for behavioral health services.

Beneficiary and clinician experiences with telehealth—

In focus groups that we conducted in the summer of 2022, many beneficiaries reported having telehealth visits predominantly with clinicians with whom they had an existing relationship. They were generally satisfied with these visits. Consistent with our analysis of Medicare claims, clinicians in our focus groups reported some continued use of telehealth after initial rapid expansion early in the pandemic. Some clinicians appreciated the convenience and flexibility it allowed in terms of the visit location, while others preferred in-person visits due to perceived better quality of care, or preferred to provide specific services better suited to in-person care. Clinicians reported that telehealth visits generally took less time and cost less. Beneficiaries and clinicians reported continued use of audio-only visits. Many beneficiaries and clinicians in our focus groups reported that they would like to continue the option of telehealth visits after the PHE ends. In the Commission's annual survey of Medicare beneficiaries, 40 percent of telehealth users said they were interested in continuing to use telehealth after the pandemic ends.

Telehealth and program integrity—The Consolidated Appropriations Act, 2023, requires the Secretary to conduct a study using medical records to review program integrity related to telehealth services. Our findings support the need for medical records review and other program integrity activities to ensure that clinicians are accurately billing for telehealth services. If time clinicians spend with patients is typically shorter during telehealth services than in-person visits, a smaller share of telehealth visits should be coded at higher levels (more time spent) than in-person visits. Another area that could be analyzed in the future is the use of audio-only services since, in 2023, clinicians are required to indicate audio-only services on Medicare claims.

Relationship between expanded telehealth coverage and quality, access, and costs during the PHE—We reviewed and summarized the literature on telehealth and quality that was published during the PHE. We found that the body of literature grew during the PHE, but it is still small, and many of the studies have methodological and data issues.

Our ability to assess the impact of telehealth on quality, access, and costs is limited because of the time lag

in claims data. The FFS claims data available at the time of our analysis were from 2021, which overlaps with surges in COVID-19 cases that likely influenced the use of telehealth and patient outcomes, making it impossible to disentangle the effects of telehealth from the pandemic itself. Acknowledging these limitations, we conducted a difference-in-differences analysis using Medicare FFS administrative data to compare population-based outcomes across hospital service areas with different levels of telehealth service use. Our findings suggest that during the pandemic, greater telehealth use was associated with little change in measured quality, slightly improved access to care for some beneficiaries, and slightly increased costs to the Medicare program. Because our results were confounded by surges in COVID-19 cases, further research should be done using more recent data as they become available. As we stated in our March 2021 report to the Congress, policymakers should continue to monitor the impact of telehealth on access, quality, and cost and should use this evidence to inform any additional permanent changes to policy.

Aligning FFS payment rates across ambulatory settings

In Chapter 8, the Commission presents an analysis of an approach to more closely align the payment rates across ambulatory settings—hospital outpatient departments (HOPDs), ambulatory surgical centers (ASCs), and freestanding physician offices—for selected services.

Medicare FFS payment rates often differ for the same service across ambulatory settings. These payment differences encourage arrangements among providers, such as consolidation of physician practices with hospitals. These arrangements result in care being provided in settings with the highest payment rates, which increases total Medicare spending and beneficiary cost sharing without significant improvements in patient outcomes.

Adjusting rates paid for certain services delivered in higher-cost settings to more closely align with the rates paid in lower-cost settings in which it is safe and appropriate to provide the service would reduce incentives to shift the billing of Medicare services from low-cost settings to high-cost settings. The result would be lower Medicare program spending, lower beneficiary cost sharing, and an incentive for providers

to improve efficiency by caring for patients in the lowest-cost site that is appropriate for their condition.

To identify the services for which it is potentially appropriate to align payment rates across the ambulatory settings, we modeled an approach based on the volume for each service in each setting. If freestanding offices had the highest volume for a service, it would arguably be safe to provide that service in freestanding offices for most beneficiaries. Therefore, our model aligns the payment rates in the outpatient prospective payment system (OPPS) (the payment system for most services provided in HOPDs) and the ASC payment system with the payment rates from the PFS. If ASCs had the highest volume for a service, we aligned the OPPS payment rate with the ASC payment rate and left the PFS payment rate unchanged. If HOPDs had the highest volume for a service, we determined that it likely was not safe to provide that service outside the HOPD setting for a majority of beneficiaries. Moreover, for these services, aligning OPPS payment rates with those from a lower cost setting could adversely affect beneficiaries' access to those services. Hence, for these services, the payment rates in each setting were left unchanged.

Because of the recent growth in hospital acquisition of physician practices and our own empirical analysis, the Commission recommends that the Congress more closely align payment rates across ambulatory settings for selected services that are safe and appropriate to provide in all settings and when doing so does not pose a risk to access. In the context of the OPPS's current-law budget-neutrality requirement, this recommendation would have no immediate effect on total Medicare revenue for OPPS hospitals in aggregate. Over time, however, this recommendation could indirectly affect program spending because it would reduce incentives for hospitals to acquire physician practices and bill for services under the usually higher-paying OPPS. This recommendation would have differing effects across hospitals, as some would see Medicare revenue gains while others would experience revenue losses. Despite the potential losses for some hospitals, this recommendation would not be expected to affect providers' willingness or ability to furnish the affected services. Any concerns about specific hospital categories being adversely affected should be addressed through targeted assistance to those hospitals rather than maintaining higher payment rates for site-neutral services for all hospitals.

Reforming Medicare's wage index systems

In Chapter 9, the Commission discusses a wage index approach that would result in more accurate and equitable payments across providers. Medicare's prospective payment systems (PPSs) use wage indexes to adjust Medicare base payment rates for geographic differences in labor costs. For the inpatient prospective payment systems (IPPS), the Congress initially specified that the wage index should reflect the labor costs of hospitals in a geographic area relative to the national average hospital level. For other PPSs (such as the PPS for SNFs), the Congress granted CMS the authority to determine how to adjust Medicare PPS base rates for geographic differences in labor costs, and CMS has chosen to use a version of the IPPS hospital wage index. However, because of the limited data sources, the use of broad labor market areas, and the number of wage index exceptions that the Congress and CMS have added over time to the IPPS wage index, Medicare's wage indexes are inaccurate and inequitable. In 2022, about two-thirds of IPPS hospitals' wage index values were affected by exceptions, and, because most of the exceptions are budget neutral, payments to all hospitals—including those not benefiting from any exceptions—were reduced by 2.2 percent to compensate.

To accurately reflect geographic differences in labor costs among IPPS hospitals and other types of providers and to be more equitable across providers, the Commission recommends that Medicare's wage index systems:

- use all-payer, occupation-level wage data with different occupation weights for the wage index of each type of provider;
- reflect local differences in wages between and within metropolitan statistical areas and statewide rural areas;
- cap wage index differences across adjacent local areas; and
- have no exceptions.

This wage index approach would be applied to all PPSs, including those for IPPS hospitals and for post-acute care (PAC) providers such as SNFs. To illustrate how this approach would improve the accuracy and equity of Medicare payments, we developed illustrative

IPPS and SNF PPS wage indexes. Using data from all employers in a labor market area instead of just IPPS hospitals would establish a more robust basis for Medicare's wage indexes and mitigate circularity issues that result in current wage indexes reflecting hospitals' historical advantages and disadvantages, such as relative market power. Incorporating local (e.g., county) wage data would allow the wage indexes to recognize differences in labor costs within a broader labor market area, and it allows for a smoother and more equitable distribution of wage index values across adjacent local areas. Furthermore, eliminating all wage index exceptions would remove hospitals' opportunities for wage index manipulation.

Because of the large inaccuracies in the current wage index systems, implementing the Commission's recommended changes would have a material effect on many providers. For example, based on our illustrative models, we estimate that, once the changes were fully phased in, IPPS payments would fall by more than 5 percent for about 10 percent of hospitals and rise by more than 5 percent for 18 percent of hospitals. Therefore, implementation of these changes would need to be phased in over multiple years or managed through a stop-loss policy. Once fully implemented, a wage index system such as the one we modeled would result in more equitable payments across regions and across types of providers. To the extent that policymakers are concerned about certain providers—in particular, those that are important for access and are vulnerable to closure—any additional support should be targeted specifically to those providers to achieve defined and relevant policy goals and not made inefficiently through unrelated policies such as the wage index.

Mandated report: Evaluation of a prototype design for a post-acute care prospective payment system

In Chapter 10, as mandated by the IMPACT Act of 2014, the Commission presents an evaluation of a prototype design of a uniform PPS for PAC providers (SNFs, HHAs, inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs)).

Our previous work on this topic confirmed that a PAC PPS was feasible and identified the basic design features that would help keep payments under a PAC PPS aligned with the cost of care. These features

include the PAC stay—not an episode of PAC—as the unit of service, a common risk adjustment across provider types, and short-stay and high-cost outlier policies. In addition, because HHAs have considerably lower costs than institutional PAC providers, an adjuster for home health stays would be needed to guard against overpayments for HHA stays and underpayments for institutional PAC stays. Our analyses indicate that there would be no need for a payment adjustment based on the rural location of the provider, nor would adjustments be needed for beneficiaries who had a preceding hospital stay or for beneficiaries with low incomes. A PAC PPS would likely need to include some measure of functional status as a risk adjuster. We note, however, that providers have an incentive to record functional status information in ways that raise payments rather than capture patients' actual clinical care needs. Therefore, CMS would need to pursue strategies to address the inevitable bias in the recording of this information. CMS would also need to make regular across-the-board adjustments to payments to address the effects of upcoding, as CMS does for hospital and MA payments.

While CMS's work on a unified PAC PPS is consistent with the Commission's proposals, CMS's prototype PPS includes adjusters that account for cost differences across the four settings. Though an adjuster for HHA stays would be needed to account for their very low costs, including other setting adjusters would incorporate into the PAC PPS potentially unwarranted existing cost differences among the PAC settings. Including other setting adjusters would therefore undermine the goal of payment alignment across settings for clinically similar cases. That said, including setting adjusters in an initial design may be a reasonable transition policy to give providers time to adjust to a unified PPS.

The impacts of a PAC PPS on providers' payments would depend on the details of the design but would likely redistribute payments across providers. Given the wide variation in estimated impacts and the expected

pattern of changes in payments, a transition to the payment system would give providers time to adjust their costs to anticipated changes in their payments and regulatory requirements but would be costly for CMS to administer. And while not the purpose of a PAC PPS, policymakers should consider lowering the level of aggregate payments to align them with the cost of care, consistent with standing Commission recommendations to lower the base payment rates for HHAs, SNFs, and IRFs.

While designing a payment system is relatively straightforward, developing and implementing the companion policies that would need to accompany a PAC PPS would not be. Medicare's benefit and coverage rules and cost-sharing requirements would need to be aligned across settings so that beneficiaries do not make treatment decisions based on financial considerations. Conditions (or requirements) of participation for providers would also need to be aligned so that providers face the same costs associated with meeting them. (Given the noninstitutional nature of home health care, HHAs would likely need somewhat different regulatory requirements.) A new PAC value incentive program also would be necessary to help counter the incentives inherent in any PPS for providers to stint on needed care or generate unnecessary volume. Developing these companion policies could take many years; implementing them would be complex and possibly controversial.

The changes CMS has implemented to the SNF, HHA, and LTCH PPSs in recent years have helped reduce the incentives these providers had to furnish low-value care (including unnecessary rehabilitation therapy and paying LTCH rates to cases that do not require that level of service). Given the considerable resources that would be required to develop and implement a PAC PPS, policymakers may wish to look for opportunities to adopt smaller-scale site-neutral policies that could address some of the overlap of similar patients in different settings. ■

C H A P T E R

1

**Addressing high prices of
drugs covered under
Medicare Part B**

R E C O M M E N D A T I O N S

- 1-1** The Congress should require the Secretary to cap the Medicare payment rate for Part B drugs and biologics that are approved under the accelerated approval program (with limited circumstances for the Secretary to waive the payment cap) if:
- postmarketing confirmatory trials for the product are not completed within the deadline established by the manufacturer and the Food and Drug Administration,
 - the product’s clinical benefit is not confirmed in postmarketing confirmatory trials, or
 - the product is covered under a “coverage with evidence development” policy.

In addition, the Congress should give the Secretary the authority to cap the Medicare payment rate of Part B drugs and biologics that are approved under the accelerated approval program if their price is excessive relative to the upper-bound estimates of value.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

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- 1-2** The Congress should give the Secretary the authority to establish a single average sales price-based payment rate for drugs and biologics with similar health effects.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

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- 1-3** The Congress should require the Secretary to:
- reduce add-on payments for costly Part B drugs and biologics paid based on average sales price in order to minimize the relationship between average sales price and add-on payments, and
 - eliminate add-on payments for Part B drugs and biologics paid based on wholesale acquisition cost.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Addressing high prices of drugs covered under Medicare Part B

Chapter summary

Medicare Part B covers drugs and biologics that are administered by infusion or injection in physician offices and hospital outpatient departments. It also covers certain drugs and biologics furnished by suppliers. In 2021, fee-for-service Medicare and its beneficiaries paid about \$43 billion for Part B–covered drugs and biologics. From 2009 to 2021, Medicare Part B spending on drugs and biologics grew at an average rate of about 9 percent per year. (Hereafter, we use the term *drugs* to refer to drugs and biologics unless otherwise noted.)

The largest factor contributing to growth in Part B drug spending has been the rise in the average price paid by Medicare, driven by the introduction of new, higher-priced drugs; increased prices for existing products; and shifts in the mix of drugs furnished to beneficiaries. Manufacturers set prices based on what they believe the U.S. health care market will bear, and they have established increasingly high launch prices for many new treatments, whether or not evidence exists that the product is comparatively more effective than existing standards of care. Likewise, prices have grown rapidly for some older drugs, even those with therapeutic alternatives, despite a lack of evidence of increased effectiveness.

In this chapter

- Part B drug spending has been growing rapidly
- Addressing high launch prices for drugs with limited clinical evidence by capping the payment of select Part B “accelerated approval” drugs and biologics
- Spurring price competition by establishing a single ASP-based payment for Part B drugs and biologics with similar health effects
- Improving financial incentives by modifying add-on payments for Part B drugs and biologics

While the recently enacted Inflation Reduction Act gave Medicare certain tools to influence the price the program and beneficiaries (through cost sharing) pay for certain Part B–covered drugs, the program continues to lack the authority to pay for Part B drugs in a way that promotes price competition among Part B drugs with therapeutic alternatives or that balances a drug’s net clinical benefit with an appropriate reward for innovation and affordability for beneficiaries and taxpayers. In addition, concern remains that Medicare’s payment formula for Part B drugs (specified in Section 1847A of the Social Security Act)—a 6 percent add-on to the drug’s average sales price (ASP)—can create financial incentives that favor prescribing higher-priced drugs in some circumstances.

In this chapter, the Commission makes recommendations to address high launch prices for certain accelerated approval drugs that have limited clinical evidence, little or no price competition among products with therapeutic alternatives, and misaligned financial incentives associated with the percentage add-on to Medicare Part B’s payment rate.

Addressing high launch prices for drugs with limited clinical evidence by capping the payment of select Part B “accelerated approval” drugs and biologics

Drugs come to the market faster under the accelerated approval pathway than under traditional approval because the Food and Drug Administration (FDA) approves them based on intermediate clinical or surrogate endpoints that are *reasonably likely to predict* a clinical benefit, but before the clinical benefit has been verified. Consequently, some accelerated approval drugs are approved before evidence exists of their effect on the Medicare population, and some manufacturers establish high pricing relative to their accelerated approval drug’s expected clinical benefit. Thus, Medicare’s spending for these drugs is relatively high, affecting beneficiaries and taxpayers. In addition, some manufacturers’ postmarketing studies that are conducted to confirm an accelerated approval drug’s clinical benefit are delayed.

The accelerated approval pathway is intended to expedite the approval of potentially promising products for cancer and other complex or rare conditions; incentives for drug development in these areas are important. At the same time, tools are needed to ensure that the Medicare program is not overpaying for products approved on an accelerated basis if a product’s clinical benefit is not confirmed. Such tools are particularly relevant for products approved on this pathway since some may not have any competitors. Also, manufacturers need an incentive to complete postmarketing confirmatory trials on a timely basis so that information about a product’s effects on health

outcomes is available as soon as possible to providers who may prescribe it and beneficiaries who may receive it. Section 1847A of the Social Security Act, which specifies the payment methodology for Part B–covered drugs, does not differentiate Medicare payment for a drug approved under the FDA’s traditional process versus one on an accelerated approval pathway. A targeted approach to capping Medicare’s payment of select accelerated approval drugs would balance these trade-offs. Setting the payment cap based on net clinical benefit would reward companies with very promising drug products, acknowledging the advances they provide over the status quo.

To maintain financial rewards for innovation while improving access and affordability of care for beneficiaries and taxpayers and spurring manufacturers to complete their required confirmatory trials on time, the Commission recommends that the Congress require the Secretary of Health and Human Services to cap the Medicare payment rate of Part B drugs and biologics (with limited circumstances for the Secretary to waive the payment cap) that are approved under the accelerated approval program if:

- postmarketing confirmatory trials for the product are not completed within the deadline established by the manufacturer and the FDA,
- the product’s clinical benefit is not confirmed in postmarketing confirmatory trials, or
- the product is covered under a “coverage with evidence development” policy.

In addition, the Congress should give the Secretary the authority to cap the Medicare payment rate of Part B drugs and biologics that are approved under the accelerated approval program if their price is excessive relative to the upper-bound estimates of value.

There are two key implementation issues for Medicare to consider in setting a cap on a new drug’s Part B payment rate: how to set the cap on a drug’s payment rate and how to operationalize the cap.

- The cap could be set based on a drug’s net clinical benefit and cost compared with the standard of care. Such an approach would take into account a new drug’s potential effect on beneficiaries’ outcomes and costs.
- The payment cap could be put into effect using a rebate under which manufacturers would reimburse Medicare for the difference between the Medicare payment amount and the cap based on claims utilization for the accelerated approval diagnosis. The rebate could also be structured

to permit the beneficiary to share in the rebate through a reduced cost-sharing percentage. As of 2023, CMS is using a similar rebate approach for Part B drugs to implement the ASP inflation rebate established by the Inflation Reduction Act of 2022.

Spurring price competition by establishing a single ASP-based payment for Part B drugs and biologics with similar health effects

The current ASP payment system maximizes price competition among generic drugs and their associated brand products by assigning these products to a single billing code. By contrast, products that are assigned to their own billing code and paid according to their ASP—single-source drugs, 505(b)(2) drugs, originator biologics, and biosimilars—do not face the same incentives for price competition.

To promote price competition among drugs with similar health effects, the Commission recommends that the Congress give the Secretary the authority to establish a single ASP-based payment rate for groups of drugs and biologics with similar health effects. Such a policy is consistent with the Commission's long-held position that Medicare should pay similar rates for similar care.

To implement this policy, the Secretary could develop reference groups of products that:

- have similar FDA-approved indications or off-label use according to Medicare claims data or have medically accepted (compendia-listed) off-label use;
- work in a similar way (e.g., same drug classification, mechanism of action); and
- are listed similarly by clinical guidelines (e.g., classification of products, recommended vs. not recommended).

The Secretary also could first focus on applying reference pricing to those groups for which all of a given product's indications could be included in the group. The Secretary could begin with those reference groups for which implementation would be the most straightforward: (1) biosimilars and originator biologics; (2) 505(b)(2) drugs and related brand-name and generic drugs; and (3) drugs for which reference pricing has been implemented or considered previously (including erythropoietin-stimulating agents and viscosupplements for the treatment of osteoarthritis). In most instances, the Secretary could set the reference price based on the volume-weighted ASP of drugs assigned to the reference group.

Improving financial incentives by modifying add-on payments for Part B drugs and biologics

Under Section 1847A of the Social Security Act, Medicare pays providers for most Part B drugs at a rate of the ASP plus 6 percent (ASP + 6 percent). In addition, Medicare makes a separate payment for drug administration services under the physician fee schedule or outpatient prospective payment system. Like all Medicare services, the Medicare program's payment for Part B drugs (but not beneficiary cost sharing) is subject to the 2 percent sequester through March 2032. When the sequester is in effect, the statutory payment rate of ASP + 6 percent translates into a net payment from the perspective of the provider of ASP + 4.3 percent (with the beneficiary paying 20 percent of ASP + 6 percent and the Medicare program paying 80 percent of ASP + 3.9 percent (i.e., ASP + 6 percent reduced by the 2 percent sequester)).

While clinical factors play a central role in prescribing decisions, at the margins, financial considerations can also play a role in providers' choice of drugs. Medicare's percentage add-on to ASP may create incentives for use of higher-priced drugs when less-expensive therapeutic alternatives are available. Since a percentage add-on generates more revenue for the provider when applied to a higher-priced product than a lower-priced product, selection of the higher-priced product could generate more profit for the provider, depending on their acquisition costs for the two products. The percentage add-on may also affect a provider's decision to initiate or continue drug treatment in some circumstances.

To improve financial incentives under the ASP payment system, the Commission recommends an approach that would minimize the relationship between price (ASP) and add-on payments by reducing add-on payments for costly drugs. The Commission developed a general framework to illustrate how such an approach could be operationalized. In developing this approach, we sought to:

- reduce or eliminate the percentage add-on for moderate- and high-priced drugs to minimize the relationship between price (ASP) and add-on payments,
- retain a portion of the percentage add-on for all but the most expensive drugs to accommodate price variation or other factors that might lead to some purchasers acquiring drugs at a price greater than ASP, and
- avoid applying a flat fee for low-cost drugs, which would constitute a substantial increase in payment rates relative to the price of the drug and potentially create incentives for overuse.

Our illustrative approach would maintain the current ASP add-on for lower-priced drugs, reduce the percentage add-on and add a fixed fee for mid-priced drugs, and place a fixed-dollar cap on the add-on for the highest-priced drugs. Overall, this approach would improve financial incentives by reducing the difference in add-on payments between differently priced drugs, with the largest reduction occurring among the highest-priced products.

In addition, the Commission recommends eliminating add-on payments for drugs lacking ASP data that are paid based on wholesale acquisition cost (WAC). Because WAC is generally a higher price than ASP and does not reflect discounts, eliminating the WAC add-on would reduce excess payments and improve financial incentives. ■

Background

Medicare Part B covers drugs and biologics that are administered by infusion or injection in physician offices and hospital outpatient departments. It also covers certain drugs and biologics furnished by suppliers. In 2021, traditional fee-for-service (FFS) Medicare and its beneficiaries paid about \$43 billion for Part B-covered drugs and biologics. From 2009 to 2019, Medicare Part B spending on drugs and biologics grew at an average rate of about 9 percent per year. Between 2019 and 2021, spending growth slowed to 5 percent per year on average, but this slower growth reflected the decline in FFS enrollment over the period. Controlling for the number of FFS beneficiaries, Part B spending on drugs and biologics between 2019 and 2021 grew nearly 9 percent per year on average. (Hereafter, we use the term *drugs* to refer to drugs and biologics unless otherwise noted.)

Prescription medicines that Part B covers play a crucial role in managing or treating many conditions, including cancer, rheumatoid arthritis, macular degeneration, and others. Important pharmacologic breakthroughs—such as immunotherapy for melanoma, second-generation androgen receptor antagonists for prostate cancer, and new drugs for myeloma—have contributed to patients' increased life expectancy (Schnog et al. 2021). Some products—such as vaccines for COVID-19 and treatments for age-related macular degeneration—are transformative and represent large advancements in the standard of care and health outcomes (Finger et al. 2020). At the same time, many new drugs represent only modest improvements over existing treatments or have efficacy similar to products already on the market. For example, six studies that reviewed newly approved cancer drugs over various time periods found that, among the group of new products included in each study, the median or mean gain in overall survival was roughly two to four months (Schnog et al. 2021). In addition, manufacturers sometimes develop new products that are modifications of existing products (e.g., different formulations or routes of administration, modifications of delivery devices like inhalers or injector pens) as ways to potentially improve products' utility, extend patents or marketing exclusivity, or increase product revenues (Berger et al. 2016, Feldman 2018, Sumarsono et al. 2020).

An important driver of Part B drug spending is the price Medicare pays for drugs. The largest factor contributing to growth in Part B drug spending has been the rise in the average price paid by Medicare, driven by the introduction of new, higher-priced drugs; increased prices for existing products; and shifts in the mix of drugs furnished to beneficiaries. Manufacturers set prices based on what they believe the U.S. health care market will bear, and they have established increasingly high launch prices for many new treatments, whether or not evidence exists that the product is comparatively more effective than existing standards of care. Likewise, prices have grown rapidly for some older drugs, even those with therapeutic alternatives, despite a lack of evidence of increased effectiveness. Cost sharing for high-priced products can deter appropriate uptake, and Medicare program spending on high-priced products can crowd out valuable alternative uses of taxpayer resources.

Research suggests that drug launch prices have been increasing without commensurate gains in efficacy. For example, Howard and colleagues analyzed the prices of new anticancer drugs that were launched from 1995 to 2013 and found that, after controlling for inflation and differences in survival benefits, launch prices increased about 10 percent per year (about \$8,500 per year) (Howard et al. 2015). However, the authors did not find a statistically significant relationship between launch prices and survival benefits. Similarly, a study by Vokinger and colleagues of 65 cancer drugs found no significant relationship between a drug's price and the product's level of clinical benefits (as measured by the American Society for Clinical Oncology's value framework scores) in the U.S. and in several European countries (England, Switzerland, and Germany) (Vokinger et al. 2020).

Prices also have grown rapidly for some older products, despite a lack of evidence of increased efficacy. In a report from the Institute for Clinical and Economic Review (ICER), researchers determined that, among the top drugs with price increases in 2020 that contributed to the largest increase in U.S. spending (including all prescription drugs, not just Part B drugs), 9 of 12 drugs lacked adequate new evidence to demonstrate a substantial clinical benefit that was not yet previously known.¹ The 2020 price increases of these products, even after rebates and other price concessions, resulted in an additional \$1.7 billion in spending (Rind et al. 2022).

Drug prices in the U.S. are substantially higher than in other countries. The Assistant Secretary for Planning and Evaluation found that Medicare Part B's payment rates (106 percent of average sales price (ASP), or ASP + 6 percent) in 2018 were, on average, about double the average prices in 19 high-income countries included in the Organisation of Economic Co-operation and Development (Department of Health and Human Services 2020). Similarly, a study by Hwang and colleagues compared the ASP for 67 Part B drugs with prices from 4 other high-income countries (Japan, Germany, Switzerland, and the U.K.). Median prices in the comparator countries were roughly 45 percent to 60 percent lower than ASP (Hwang et al. 2019).

Higher prices in the U.S. are the result of both higher launch prices and higher price inflation once products are on the market. According to research by Vokinger and colleagues on 65 new drugs approved between 2009 and 2019 to treat solid-state tumors and hematologic cancers, launch prices were substantially higher in the U.S. than in England, Germany, and Switzerland (Vokinger et al. 2021). Among the group of cancer drugs included in the study, the U.S. median monthly treatment costs at launch, adjusting for currency and inflation, were 45 percent higher than in Germany, 57 percent higher than in Switzerland, and 63 percent higher than in England. After launch of these products, prices tended to increase faster than inflation for most products (74 percent) in the U.S., but not in England, Germany, or Switzerland (Vokinger et al. 2021).

Historically, Medicare has had only an indirect influence on how Part B-covered drugs are priced. Under the Part B payment system based on ASP, the program is a price taker. The recently enacted Inflation Reduction Act of 2022 gives Medicare certain tools to influence the price that the program and beneficiaries pay for certain Part B-covered drugs; however, some challenges remain. Additional policies that would set caps on payment for new drugs with uncertain clinical evidence and promote price competition among products with similar health effects would provide Medicare with additional pricing tools that would help the program strike a balance between maintaining incentives for innovation and ensuring affordability for beneficiaries and taxpayers. However, because Medicare operates within a context involving other payers as well as federal and state laws, agencies, and

policies, many influences over drug prices are outside Medicare's purview, including funding for biomedical research and development (R&D), patent policy, tax policy, and the Food and Drug Administration's (FDA's) drug approval process.

Medicare coverage of Part A and Part B drugs

Section 1862(a)(1)(A) of the Social Security Act requires that the Medicare program cover Part A and Part B items and services that are included in a Medicare benefit category, are not statutorily excluded, and are "reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member." (CMS considers a service reasonable and necessary if the service is safe and effective, not experimental or investigational, and appropriate for beneficiaries.) Based on statutory and regulatory text, FFS Medicare covers on-label use of a drug that the FDA has approved that is reasonable and necessary for the beneficiary. According to the *Medicare Benefit Policy Manual*:

Use of the drug or biological must be safe and effective and otherwise reasonable and necessary. . . . Drugs or biologicals approved for marketing by the Food and Drug Administration are considered safe and effective for purposes of this requirement when used for indications specified on the labeling. Therefore, the program may pay for the use of an FDA approved drug or biological, if:

- *It was injected [furnished] on or after the date of the FDA's approval;*
- *It is reasonable and necessary for the individual patient; and*
- *All other applicable coverage requirements are met (Centers for Medicare & Medicaid Services 2021).*

In addition, beginning in 1994, the Omnibus Budget Reconciliation Act of 1993 expanded Medicare coverage of Part B cancer drugs for indications not approved by the FDA if the drug's off-label use is supported by selected third-party drug compendia. Medicare may cover off-label use of noncancer drugs if the use is recognized, following Medicare's review of the peer-reviewed literature, as an appropriate treatment. Part B drug coverage is limited to products that are furnished

“incident to” a physician’s service, provided that the drugs are not usually self-administered by the patients who take them.

Some Part B drugs are covered without the need for an explicit coverage policy. If the product is used for indications that the FDA approved and can be reimbursed on the basis of an existing billing code or a bundled payment system (e.g., the inpatient prospective payment systems (IPPS)), Medicare may cover it without an explicit coverage policy.

For other products, either CMS or Medicare’s administrative contractors (MACs) make explicit coverage determinations under which a formal review of the medical, technical, and scientific evidence is conducted to evaluate the relevance, usefulness, and medical benefits of an item or service to Medicare beneficiaries, with opportunities for public participation. MACs develop the majority of explicit coverage policies through the local coverage determination (LCD) process that determines coverage of items and services that apply only in the contractor’s regional jurisdiction. CMS develops coverage determinations for items and services that apply nationwide through the national coverage determination (NCD) process. Outcomes of the coverage process include (1) Medicare coverage of an item or service with no restrictions, (2) coverage for beneficiaries with certain clinical conditions or when furnished by certain providers or facilities, (3) leaving the coverage determination to the discretion of the MACs, or (4) Medicare not covering the service. CMS can initiate an NCD internally or can initiate one at a stakeholder’s request under certain circumstances² or when a service’s rapid diffusion is anticipated and the evidence may not adequately address questions regarding its impact on Medicare beneficiaries. The Commission’s previous review of NCDs and LCDs for drugs found (1) the coverage policies appear to be aligned with the FDA’s label indications, and (2) some policies delineate off-label conditions (for noncancer drugs) and the types of facilities or providers that Medicare will cover (Medicare Payment Advisory Commission 2022b).

A small subset of NCDs links a service’s national coverage to participation in an approved clinical study or to the collection of additional clinical data. This policy is referred to as *coverage with evidence*

development (CED), and its goal is to expedite early beneficiary access to innovative technology while ensuring that patient safeguards are in place. CED allows coverage of certain items or services when additional data gathered in the context of clinical care would further clarify the impact of these items and services on the health of Medicare beneficiaries. Because CED provides Medicare the opportunity to generate clinical evidence that otherwise might not have been collected, it enables the program to ultimately develop better, more evidence-based policies. CED also provides an opportunity to collect clinical evidence for groups that are often underrepresented in clinical trials, including older beneficiaries and minorities. As of May 2022, CMS applied CED to 21 items and services, and since the program’s inception in 2005, 3 CED policies have been applied to drugs.³

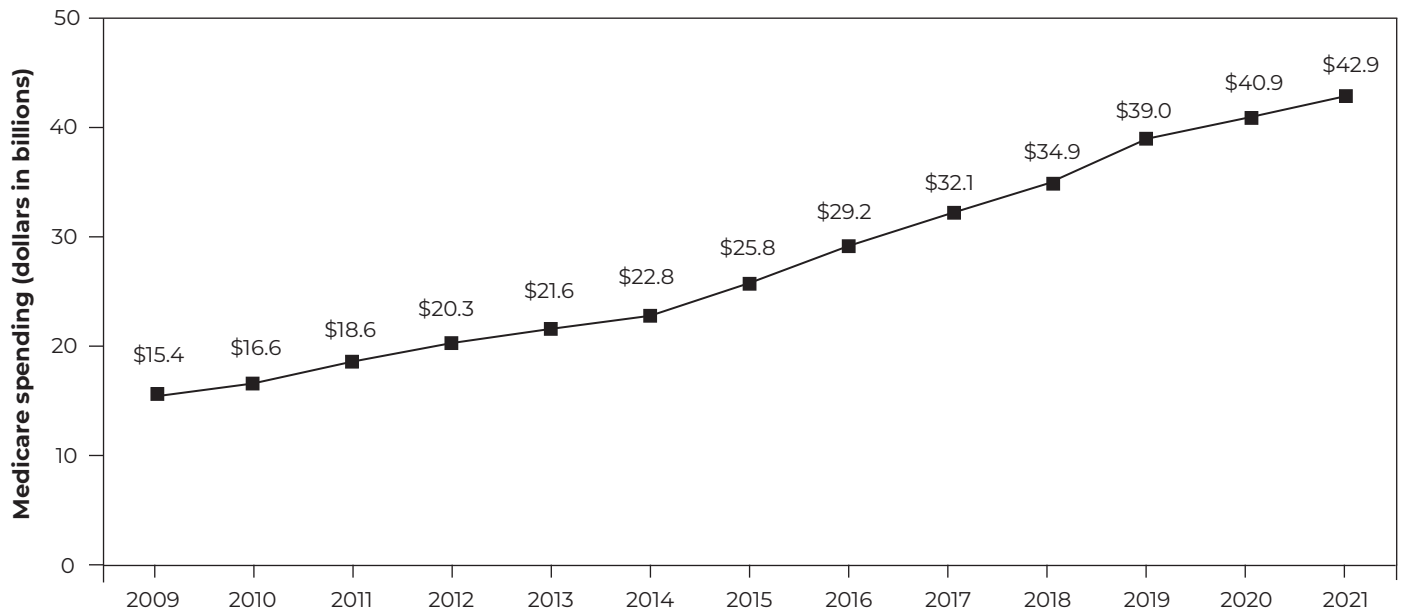
For Part B drugs, FFS Medicare generally bases payments on manufacturer-reported or provider-reported data

FFS Medicare largely acts as a price taker for Part B-covered drugs and historically has been able to do little to affect the amount the program pays for these products. Part B covers drugs that are administered by infusion or injection in physician offices and hospital outpatient departments, as well as certain drugs furnished by suppliers. Under FFS Medicare, these providers purchase drugs in the marketplace for whatever price the provider is able to negotiate. FFS Medicare pays these providers a prospectively determined rate for a Part B-covered drug, regardless of what the provider paid for the product. In many cases, FFS Medicare makes a separate payment for each drug administered, although in some cases Medicare bundles payment for drugs with payment for other services.

Medicare pays physicians and hospital outpatient departments for Part B drugs based on the manufacturer’s ASP, which reflects the average price realized by the manufacturer for sales to most U.S. purchasers, net of rebates, discounts, and price concessions, with certain exceptions. ASP is determined by the manufacturer’s pricing decisions and is generally unrelated to a product’s clinical value. Medicare pays physicians and outpatient hospitals for most separately payable Part B drugs

**FIGURE
1-1**

Medicare Part B drug spending has grown rapidly since 2009



Note: Data include Part B-covered drugs furnished by several provider types, including physicians, suppliers, and hospital outpatient departments, and exclude those furnished by critical access hospitals, Maryland hospitals, and dialysis facilities. “Medicare spending” includes program payments and beneficiary cost sharing. Data reflect all Part B drugs whether they were paid based on the average sales price or another payment formula. Data exclude blood and blood products (other than clotting factor).

Source: MedPAC and Acumen LLC analysis of Medicare claims data.

based on 106 percent of the ASP, or ASP + 6 percent.⁴ For 340B hospitals, Medicare paid a lower rate (ASP - 22.5 percent) for Part B drugs (except for those with pass-through status) between 2018 and 2022; however, the Supreme Court recently ruled that CMS’s approach to establishing this lower payment amount was not consistent with its statutory authority.⁵ In calendar year 2023, payment for Part B drugs furnished in 340B hospitals has reverted to ASP + 6 percent.

Medicare FFS pays some providers for Part B drugs as part of a broader payment bundle. For example, under the hospital outpatient PPS (OPPS), hospitals are paid for a subset of Part B-covered drugs—those that are low cost or that function as supplies to a service—as part of the ambulatory payment classification (APC) payment for other services. The APC payment rates are determined based on a relative weight-setting process, in which CMS estimates the average cost of services associated with each APC, including bundled drugs.⁶ Similarly, under the end-stage renal disease (ESRD)

PPS, Medicare makes a single patient-level adjusted payment to ESRD facilities that bundles composite rate services and other ESRD-related services, including drugs, that were separately billable under the prior payment method. Including drugs in the ESRD payment bundle has spurred price competition and use of less costly products among some ESRD drug groups.

Medicare’s payment systems, including for Part B drugs, are determined by statutory provisions that generally do not consider a service’s comparative clinical effectiveness. Medicare’s payment for Part B drugs is determined without any requirement for evidence demonstrating that the product in question is equally or more effective than other available covered treatment options. Likewise, Medicare lacks authority to adjust the payment rate for a Part B drug when new evidence does not confirm its clinical benefit or significant safety concerns are discovered. Some researchers have called on Medicare to adopt “dynamic pricing” policies that would adjust a drug’s payment

rate over time as clinical evidence about the drug evolves (Pearson and Bach 2010, Robinson 2022).

Medicare Part B currently has limited tools to manage drug prices

Historically, Medicare Part B has lacked tools to influence launch prices for new products or spur price competition among competing brand alternative products. For these products, Medicare Part B pays each product an ASP-based rate under the product's own billing code. For sole-source drugs, this policy means that Medicare will pay whatever launch price the manufacturer establishes for a product without generic competitors. Even for therapeutic classes in which there are multiple brand products, Medicare pays each product under its own billing code based on its own ASP, which permits manufacturers to establish high launch prices for “me-too” products (i.e., a brand product launched in the same therapeutic class as an already existing product that is generally used for the same therapeutic purpose and is structurally related) and does little to spur price competition.

In contrast, for brand drugs with generic competitors, Medicare Part B pays for the brand product and its generic equivalents in the same billing code based on 106 percent of a volume-weighted ASP. This policy creates incentives for providers to select the lower-cost product within a billing code, which in turn lowers the volume-weighted ASP in future calendar quarters, leading to substantial price reductions in payment rates for brand products after generic entry.

Medicare pays for biosimilars differently than it does for generic drugs. Each biosimilar receives its own billing code and is paid 100 percent of its own ASP, plus 6 percent or 8 percent of the originator's ASP. Medicare payment rates for originator biologics and their biosimilars have declined to some degree, but not to the extent observed with generic drugs. In 2017, the Commission recommended that biosimilars and originator biologics be paid in a consolidated billing code at the same rate to spur price competition among these products (Medicare Payment Advisory Commission 2017).

The recently enacted Inflation Reduction Act of 2022 makes changes to how Medicare and beneficiaries pay for some Part B drugs. Beginning in 2028, the Secretary will have the authority to negotiate the

price of certain high-expenditure single-source products that lack generic or biosimilar competitors and that have been on the market for at least 9 years for drugs or at least 13 years for biologics. In addition, beginning in January 2023, Part B drug manufacturers are required to pay Medicare a rebate if the price of their product increases faster than inflation. The legislation includes additional provisions that affect Part B drugs, such as limiting beneficiary cost sharing for Part B-covered insulin and certain changes to payment for biosimilars. (See text box, pp. 14–15, for a summary of the Part B drug provisions in the Inflation Reduction Act.) However, some challenges remain. The program continues to lack tools to influence launch prices of new drugs, including those with limited clinical evidence. In addition, because Medicare pays for single-source drugs and biologics in separate billing codes based on their own ASP, concerns remain about a lack of price competition among products with similar health effects during the period before they are eligible for negotiation. With respect to Medicare's payment to providers, concerns remain that the percentage add-on can create financial incentives that favor prescribing higher-priced drugs in some circumstances.

Part B drug spending has been growing rapidly

Medicare Part B spending on prescription drugs is substantial and has been growing rapidly. Between 2009 and 2021, FFS Medicare Part B drug spending grew about 9 percent per year, from \$15.4 billion to \$42.9 billion (Figure 1-1). Although Part B drug price growth slowed between 2019 and 2021, rising about 5 percent per year on average, this slower growth reflected the decline in FFS enrollment over the period. Controlling for the number of FFS beneficiaries, Part B drug spending grew nearly 9 percent per year on average between 2019 and 2021.

Price has been the largest driver of Part B drug spending growth

Overall, the largest factor contributing to spending growth has been the change in the average price Medicare pays for Part B drugs, which reflects increased prices for existing products; the introduction of new, higher-priced drugs; and shifts in the mix of drugs.⁷ Between 2009 and 2021, spending on separately

The Inflation Reduction Act of 2022 will make several changes related to Medicare payment and cost sharing for Part B drugs

The Inflation Reduction Act makes several changes to payment and cost sharing for Part B-covered drugs that have gone into effect or will go into effect in mid-2023 or 2024, including changes to payment for biosimilars, a manufacturer inflation rebate, and changes to cost sharing for Part B-covered insulin. In addition, beginning in 2028, Medicare will have authority to negotiate prices for certain Part B drugs.

Temporary increase to biosimilar payment rates

In general, biosimilars are paid 100 percent of a biosimilar's average sales price (ASP) plus 6 percent of the originator biologic's ASP. The Inflation Reduction Act increases the biosimilar add-on percentage from 6 percent to 8 percent for five years. New biosimilars launched before 2028 (for the first five years on the market) and existing biosimilars (for five years beginning October 1, 2022) will receive the 8 percent add-on, as long as the biosimilar's ASP does not exceed the originator's ASP.

Limit on payment rate for new biosimilars when ASP data are not yet available

Effective July 1, 2024, in the initial quarters when ASP data are not yet available, a new biosimilar's payment rate of 103 percent of its wholesale acquisition cost will be capped by the payment rate for the originator biologic.

Limit on coinsurance and deductible for Part B-covered insulin

Starting July 1, 2023, there will be a \$35 limit on monthly cost sharing for Part B-covered insulin and the Part B deductible will not apply.

Manufacturer Part B inflation rebate

Beginning January 1, 2023, manufacturers of Part B single-source drugs, biologics, and biosimilars are required to pay Medicare a quarterly rebate if their product's ASP grows faster than inflation.

Beginning April 1, 2023, for products that incur a rebate, beneficiary cost sharing will be based on the lower, inflation-adjusted ASP. Certain types of products are excluded from the policy (e.g., low-cost drugs, preventive vaccines, drugs experiencing a shortage or supply chain disruption, and biosimilars meeting certain criteria). Certain Part B utilization is also exempt from a rebate (including utilization subject to a 340B discount or Medicaid rebate and utilization for which payment is packaged). The per unit rebate amount will equal the difference between the actual ASP + 6 percent payment amount and the inflation-adjusted payment amount (that is, what ASP + 6 percent for a product would have been if ASP had grown at the same rate as inflation between the benchmark period in 2021 and the current period).

Negotiation of prices for certain Part B drugs

Beginning in 2028, the Secretary will have authority to negotiate certain Part B drug prices. (This authority also applies to Part D drugs beginning in 2026.)

Negotiation applies to high-expenditure drugs that have been on the market for many years. Eligible drugs are single-source drugs that have no direct generic or biosimilar competitors and that are at least 9 years postapproval for drugs and at least 13 years postapproval for biologics. Eligible drugs are defined as being in the top 50 of Part B or Part D expenditures. Each year, the Secretary will select a specified number of eligible drugs for negotiation. The specified numbers of drugs subject to negotiation are 10 Part D drugs for 2026, 15 Part D drugs for 2027, 15 Part B or Part D drugs for 2028, and 20 Part B or Part D drugs for each subsequent year. To select among drugs for negotiation, the Secretary is required to rank eligible drugs by total expenditures under Part B and Part D and select the most highly ranked drugs. Some products are excluded, such as vaccines, certain orphan drugs, low-expenditure drugs (less than \$200 million annually, indexed to inflation), plasma-

(continued next page)

The Inflation Reduction Act of 2022 will make several changes related to Medicare payment and cost sharing for Part B drugs (cont.)

derived products, and, through 2028, certain small biotechnology products. In addition, the Secretary can delay application of negotiation for a biologic for up to two years at the request of its manufacturer if the Secretary determines there is a high likelihood of imminent biosimilar competition (with the manufacturer liable for certain rebates if biosimilar entry does not occur).

When the Secretary negotiates a drug's price, referred to as the maximum fair price, with the manufacturer, the statute directs the Secretary to consider two types of information:

- **Manufacturer-provided information**—including research and development costs, market data, unit costs of production and distribution, prior federal financial support for discovery and development of the drug, data on patents and existing or spending exclusivity, national sales data, and information on clinical trials.
- **Evidence about alternative treatment**—including the drug's comparative effectiveness and alternative treatments, including with respect to subpopulations, and the extent to which the drug addresses unmet need.

The Inflation Reduction Act also places limits on the maximum fair price. It cannot exceed a specified percentage of the nonfederal average manufacturer price. In general, the specified percentage is set at one of three levels depending on the length of time since the drug received Food and Drug Administration (FDA) approval: 75 percent for “short-monopoly drugs” (less than 12 years since

FDA approval); 65 percent for “extended-monopoly drugs” (at least 12 years but less than 16 years since FDA approval); and 40 percent for “long-monopoly drugs” (at least 16 years since FDA approval). For Part B drugs, the maximum fair price also cannot exceed the ASP from a specified reference year.

The Act provides a process for updating a product's maximum fair price after the initial year that the price is effective. The maximum fair price for subsequent years is equal to the initial maximum fair price indexed to inflation. In addition, the statute permits the Secretary to renegotiate a product's maximum fair price under certain circumstances, including when a new indication is added; a drug product switches categories (e.g., to “extended-monopoly” or to “long-monopoly” categories); the Secretary determines that “material changes” have occurred in the factors considered; or renegotiation is likely to result in a significant change in the negotiated price.

Manufacturers of Part B drugs are required to participate in negotiation when their drug is selected by the Secretary. Manufacturers that do not comply face tax penalties based on a percentage of their sales up to 95 percent, depending on the number of days of noncompliance.

For Part B drugs, manufacturers are required to make the maximum fair price available to Medicare providers such as hospitals, physicians, and other providers furnishing these drugs to Medicare beneficiaries. For drugs subject to negotiation, Medicare will pay providers 106 percent of the maximum fair price. ■

payable Part B drugs (excluding vaccines, certain Part B drugs that were separately payable for only part of the period, and certain drugs that were billed in not-others-classified codes) climbed, on average, by about 10.8 percent per year (Table 1-1, p. 16).⁸

Medicare's average annual payment per drug increased at an average rate of 7.7 percent per year. The number of beneficiaries using Part B drugs also increased between 2009 and 2021, by an average of 3.2 percent per year, while the number of Part B drugs received per

**TABLE
1-1**

Growth in the average payment per Part B drug was the largest factor contributing to spending growth for separately payable Part B drugs, 2009–2021

	2009	2021	Average annual growth, 2009–2021
Total payments: Separately payable* Part B drugs, excluding vaccines (in billions)	\$11.4	\$39.1	10.8%
Number of beneficiaries using a Part B drug (in millions)	2.5	3.6	3.2
Average total payments per beneficiary who used a Part B drug	\$4,585	\$10,790	7.4
Average number of Part B drugs per user	1.35	1.31	-0.3
Average annual payment per Part B drug per user	\$3,396	\$8,241	7.7

Note: This analysis includes Part B drugs paid based on the average sales price as well as the small group of Part B drugs that are paid based on other methods. “Vaccines” refers to three Part B–covered preventive vaccines: influenza, pneumococcal, and hepatitis B. Data include Part B drugs furnished by physicians, hospitals paid under the outpatient prospective payment system, and suppliers and exclude data for critical access hospitals, Maryland hospitals, and dialysis facilities. Yearly figures presented in the table are rounded; the average annual growth rate was calculated using unrounded data.

*For purposes of this analysis, spending on separately payable Part B drugs excludes any drug that was bundled in 2009 or 2021 (i.e., drugs that were packaged under the outpatient prospective payment system in 2009 or 2021 were excluded from both years of the analysis, regardless of the setting in which the drug was administered), vaccines, drugs billed under not–otherwise–classified billing codes, and blood and blood products (other than clotting factor). Because of these exclusions, total spending reflected in this table is lower than spending in Figure 1-1 (p. 12).

Source: MedPAC analysis of Medicare claims data for physicians, hospital outpatient departments, and suppliers.

user declined slightly during this period (by about 0.3 percent per year).

Medicare spending on Part B drugs

In 2021, Medicare and its beneficiaries paid about \$42.9 billion for Part B–covered drugs.⁹ Although there are roughly 900 billing codes for Part B drugs, spending is concentrated. In 2021, Part B drug spending for the top 10 products that accounted for the most aggregate spending, which were all biologics (including some with biosimilars), accounted for \$17.4 billion, or 41 percent of total Part B drug spending. Spending on the top 20 products accounted for \$22.9 billion, or about 53 percent of total Part B drug spending.

The top 20 Part B drugs tend to be concentrated in certain therapeutic areas, though some are used to treat multiple conditions (Table 1-2). Eleven of the top 20 Part B drugs are for cancer patients: 8 drugs that treat cancer and 3 supportive drugs that treat cancer side effects. The top 20 also include 5 products to treat rheumatoid arthritis or other inflammatory disorders

and 3 products used to treat macular degeneration and other eye conditions. Also among the top 20 are one product for multiple sclerosis, one extremely high-cost product (spending of over \$380,000 per patient year) for rare autoimmune conditions, one product for immunodeficiency or neuropathy, and one influenza vaccine product.

The patterns of spending among the top 20 products illustrate the effect of high launch prices on Medicare spending. For example, two products—Keytruda and Opdivo—were approved in late 2014 and were the first products belonging to a newer class of immunoncology biologics. Spending on these products in 2021 was \$4.0 billion for Keytruda and \$1.6 billion for Opdivo, reflecting the products’ substantial launch prices followed by additional price inflation after launch. In 2021, average annual Medicare spending per user for these products exceeded \$60,000. Other recently launched cancer products in the top 20, such as Darzalex and Tecentriq, also had substantial average annual spending per patient, exceeding \$80,000 and \$50,000 per patient year, respectively.

**TABLE
1-2**

The top 20 highest-expenditure Part B drugs accounted for over half of total Part B drug spending in 2021

Part B drugs	Indication	Number of beneficiaries who used product, 2021	Total spending (in billions), 2021	Average spending per user, 2021	Average annual ASP growth 2005–2023 ^c
Keytruda	CA	63,200	\$4.0	\$62,900	2.4%
Eylea	MD	312,200	3.4	11,000	-0.9
Prolia/Xgeva	CA SE, OS	627,600	1.8	2,800	4.4
Opdivo	CA	25,600	1.6	61,500	2.4
Darzalex	CA	18,800	1.5	81,400	3.9
Rituxan ^a	AR, CA, ID	64,900	1.3	20,100	3.5
Lucentis ^a	MD	115,200	1.0	9,100	-3.5
Orencia	AR, CA SE	31,700	1.0	31,200	5.4
Avastin ^a	CA, MD	191,200	0.9	4,600	1.2
Neulasta ^a	CA SE	85,700	0.9	10,100	-1.9
Tecentriq	CA	12,700	0.7	51,700	1.3
Remicade ^a	AR, ID	53,900	0.6	12,000	-2.3
Soliris	AI	1,700	0.6	382,700	1.7
Ocrevus	MS	12,800	0.6	47,600	0.9
Entyvio	ID	16,000	0.5	32,900	3.5
Herceptin ^a	CA	18,500	0.5	27,600	2.5
Gammagard	IMD, NE	18,800	0.5	27,000	2.5
Cimzia	AR, ID	21,500	0.5	23,300	2.4
Alimta	CA	17,500	0.5	27,300	-2.1
Fluzone High-Dose ^b	VA	7,596,800	0.5	62	7.5
Top 20 drugs			22.9		
All Part B drugs			42.9		

Note: ASP (average sales price), CA (cancer), MD (macular degeneration and other eye disorders), SE (side effects), OS (osteoporosis), AR (arthritis), ID (inflammatory disorders), AI (autoimmune), MS (multiple sclerosis), IMD (immune deficiency), NE (neuropathy), VA (vaccine). "Total spending" includes Medicare program payments and beneficiary cost sharing. Number of beneficiaries, total spending, and average spending per user displayed in the table are rounded; average spending per user was calculated using unrounded numbers.

^aSpending and utilization data for 2021 reflect the originator biologic and its biosimilars (except for Lucentis, which experienced biosimilar entry after 2021). The average annual growth rate of ASP is based on the ASP-based payment rate for the originator biologic.

^bFluzone High-Dose is a preventive vaccine paid based on 95 percent of the average wholesale price (AWP). Percent change in the AWP-based payment rate rather than the ASP-based payment rate is displayed in the table.

^cAverage annual ASP growth between 2005 and 2023 is calculated using payment rates from the first quarter of each year. For products not on the market for the full period from 2005 to 2023, the average annual growth rate was calculated using the following alternate base years: 2018 (Ocrevus, Tecentriq), 2017 (Darzalex), 2016 (Keytruda, Opdivo, Entyvio), 2013 (Eylea), 2012 (Prolia/Xgeva), 2011 (Fluzone High-Dose), 2010 (Cimzia), 2008 (Lucentis, Soliris, Gammagard), and 2007 (Orencia).

Source: MedPAC analysis based on claims data, publicly available ASP payment rate files, and outpatient prospective payment system Addendum B from CMS.

Price inflation among products that have been on the market for a longer period also contributes to spending growth. For example, between 2005 and 2023 (or since launch if after 2005), Darzalex, Entyvio, Orencia, and Prolia/Xgeva have all experienced ASP

growth of between 3.3 percent and 5.4 percent per year on average (Table 1-2). Fluzone High-Dose, which is paid 95 percent of the average wholesale price, also experienced substantial price growth (7.5 percent per year on average over the analysis period). While some

**TABLE
1-3**

Prices for certain biologics have declined due to biosimilar entry, after substantial price growth for these products during the preceding 10-year period

	First biosimilar entry	Percent change in originator biologic's ASP		Biosimilars' payment rate as a percentage of originator biologic's payment rate (2023 Q1)	Biosimilar market share (2022 Q3)
		In 10 years before biosimilar entry	Since biosimilar entry (through 2023 Q1)		
Neupogen and biosimilars	2015 Q3	71%	-2%	24-41%	83%
Remicade and biosimilars	2016 Q4	54	-58	71-130*	26
Neulasta and biosimilars	2018 Q3	117	-66	67-108*	43
Procrit/Epogen and biosimilars	2018 Q4	35	-33	98	52
Avastin and biosimilars	2019 Q3	42	-13	45-48	77
Herceptin and biosimilars	2019 Q3	69	-23	40-71	74
Rituxan and biosimilars	2019 Q4	68	-14	40-61	59
Lucentis and biosimilars	2022 Q3	-31	-14	99	N/A

Note: ASP (average sales price), Q (quarter). N/A (not available). An originator biologic is a drug product derived from a living organism. A biosimilar product is a follow-on product that is approved by the Food and Drug Administration (FDA) based on the product being highly similar to the originator biologic. The biosimilars included in the analysis are Zarxio, Nivestym, and Granix for originator Neupogen; Inflectra, Renflexis, and Avsola for originator Remicade; Fulphila, Udenyca, Ziextenzo, and Nyvepria for originator Neulasta; Retacrit for originator Procrit/Epogen; Mvasi and Zirabev for originator Avastin; Ontuzant, Herzuma, Ogivri, Trazimera, and Kanjinti for originator Herceptin; Truxima, Ruxience, and Riabni for originator Rituxan; and Byooviz for originator Lucentis. Although Granix is not a biosimilar in the U.S. (because it was approved under the standard FDA approval process for new biologics), we include it here because it was approved as a biosimilar to Neupogen in Europe and it functions as a competitor to Neupogen in the U.S. market. "First biosimilar entry" date reflects the earliest market date for a product approved by the FDA as a biosimilar to the originator biologic.
*As of the first quarter of 2023, there was one biosimilar for Remicade and three biosimilars for Neulasta with Medicare payment rates that exceeded the originator's payment rate, while the other biosimilars had payment rates below the originator's payment rate (data not shown).

Source: MedPAC analysis of Medicare ASP payment rate files publicly available on CMS website and Medicare claims data for physicians and outpatient hospitals.

products have experienced substantial price increases over many years, price growth varies across products. As shown in the Commission's 2022 data book, a price index for Part B drugs, which measures postlaunch price growth at the individual product level, finds that, on average, Part B drug prices increased 16 percent cumulatively over the 10-year period from 2010 to 2020, with a 37 percent increase for biologics and an 18 percent decrease for drugs (Medicare Payment Advisory Commission 2022a).¹⁰

Biosimilar entry has led to some price competition. Recently, some biologics, including several in the top 20 (Rituxan, Lucentis, Avastin, Neulasta, Remicade, and Herceptin), have faced biosimilar entry. Biosimilars have resulted in savings because originators have

generally lowered their prices in response to biosimilar competition and because biosimilar prices are in some cases substantially below innovators' prices (Table 1-3). However, the extent to which originator biologics have reduced their prices has varied substantially. Some originator biologics have reduced prices only modestly since biosimilar entry despite the availability of biosimilar competitors at substantially lower prices. For example, since the introduction of biosimilars for Neupogen, Avastin, and Rituxan that are less than half the price of the originator biologics, the prices of the originators have fallen just 2 percent, 13 percent, and 14 percent, respectively, and the ASP-based payment rate for the originator Avastin actually increased 4 percent between January 2022 and 2023 (data not shown). Note that for all but one originator biologic now facing

biosimilar competition (Lucentis), recent price declines have come after many years of price increases prior to the entry of biosimilars.

In 2021, spending for drugs that had yet to be assigned to their own billing code totaled nearly \$142 million.¹¹ Medicare claims do not provide a way to identify these products because claims data do not provide the drug's national drug code (which is a universal product identifier). To better track spending trends and conduct pharmacoepidemiology research, including examining the adoption of newly launched accelerated drugs, the Secretary could consider requiring providers to report the drug's national drug code on claims for drugs that lack their own billing code. Moreover, coding these claims would further the ability of researchers and Medicare to use claims data to conduct pharmacoepidemiologic analyses if providers reported national drug codes for all drugs—including those assigned their own billing code.

The relationship between Medicare payment and drug research and development

As we discussed in our June 2022 report to the Congress, the price that Medicare and other entities pay for drugs is one of many factors that influence manufacturer research and development (R&D) investment (Medicare Payment Advisory Commission 2022b). According to the Congressional Budget Office (CBO), manufacturer R&D investment is influenced by the lifetime global revenues a new drug is expected to generate, the expected cost of developing the new drug, and any policies that affect supply or demand for the drug (Congressional Budget Office 2021b). Expected global revenues from new drug development depend on the prices and volume of sales that companies expect in different markets and the likelihood that drug development efforts will succeed (Congressional Budget Office 2021b). Several studies have found a positive relationship between market size, as measured by expected revenue or other related proxies, and R&D investment, such as the number of products undergoing clinical trials or the number of new products launched (Blume-Kohout and Sood 2013, Cerda 2007, Dubois et al. 2015).

Not only is the amount of R&D investment of interest, so too are the types of products R&D is focused on. In response to the establishment of Medicare Part D,

several studies found increased clinical trial activity among drugs intended to treat clinical conditions prevalent among Medicare beneficiaries (Blume-Kohout and Sood 2013, Dravone et al. 2020). However, Dravone and colleagues found that the increase in clinical trial activity following the introduction of Part D was most pronounced among “less scientifically novel” products, while clinical trials for products that were in the most scientifically novel category (meaning the first use of a targeted base action) increased modestly (Dravone et al. 2020).

R&D is influenced by many factors beyond Medicare policy, including federal regulatory policies related to drug approval and patents and intellectual property; federal tax policy; payment policies of other payers in the U.S. and internationally; the cost of drug development, including capital availability and costs; and collaboration between pharmaceutical manufacturers and academic institutions (Congressional Budget Office 2021b). In addition, the federal government contributes to innovation both indirectly (through its substantial funding of basic science research) and directly (through its funding of drug development research for some products) (Galkina Cleary et al. 2018, Sampat and Lichtenberg 2011).¹²

Some stakeholders have raised concerns that reducing Medicare spending for drugs would lead to lower expected manufacturer profitability and reduce incentives for product improvement or innovation (Frank and Ginsburg 2017). CBO addressed this issue in a working paper discussing how the agency analyzes legislation that may affect drug development (Congressional Budget Office 2021a). CBO assumes that policies that reduce earnings for drug manufacturers would lead to some reduction in the number of new drugs developed (however, CBO explicitly makes no assumptions about the types of new drugs affected or the effect on health outcomes).¹³

However, under current Medicare policy, drug manufacturers are largely able to set their own prices even when incremental benefits to Medicare beneficiaries are low or are not well established. Implementing payment policies that focus on a drug's net clinical benefit could drive R&D investment toward products that have potential for larger effects on patient health and expected profitability. For example,

Sachs and Frakt suggest that some drug payment policies, including reference pricing, have the potential to shift R&D toward drugs that provide more value (Sachs and Frakt 2016). It is important, therefore, for Medicare to design payment policies that strike an appropriate balance between creating incentives for innovation and ensuring that the program is getting good value for beneficiaries and taxpayers.

Addressing high launch prices for drugs with limited clinical evidence by capping the payment of select Part B “accelerated approval” drugs and biologics

The FDA’s accelerated approval program allows drugs to come to market faster than under the traditional approval process. Although this pathway was originally used for HIV drugs, approximately 85 percent of accelerated approvals in the last decade have been granted in oncology (Beaver and Pazdur 2021). This pathway is intended to expedite the approval of potentially promising products for cancer and other complex or rare conditions by reducing the development or review time needed to bring a potentially innovative drug to market; incentives are important for drug development in these areas. Under this pathway, the FDA approves drugs based on intermediate clinical or surrogate endpoints that are *reasonably likely to predict* a clinical benefit, but before the clinical benefit has been demonstrated. The FDA requires manufacturers to conduct postmarketing studies to verify and describe the clinical benefit and risk profile. After the completion of a drug’s confirmatory trial(s), an accelerated approval drug generally fits into one of three categories: (1) converts to traditional approval based on confirmatory studies that document a drug’s clinical benefit; (2) continued marketing authorization under accelerated approval even though the required confirmatory trials do not end up finding a clinical benefit, a so-called “dangling” approval; or (3) voluntary withdrawal by the manufacturer or involuntary withdrawal by the FDA.¹⁴

Concerns with how Medicare pays for accelerated approval drugs

Whether and how accelerated approval drugs impact clinical outcomes is uncertain at the time of approval.

Concerns about how Medicare pays for accelerated approval drugs include the following:

- Accelerated approval is not based on measures of clinical benefit related to how a patient feels, functions, or survives. Thus, products approved under the accelerated approval pathway have more uncertainty about their clinical benefit than products approved under the traditional pathway.
- Completion of postmarket confirmatory clinical trials is often delayed.
- Over time, an increasing number of drugs have been approved under the accelerated approval pathway, and Medicare spending for such drugs is significant. Medicare’s Part B payment rate for a drug may exceed the payment justified by its net clinical effectiveness (Medicare Payment Advisory Commission 2022b).

It is important that Medicare’s payments for accelerated approval drugs strike an appropriate balance between creating incentives for innovation and ensuring good value and affordability for beneficiaries and taxpayers. This need is particularly relevant for products with accelerated approval since some may not have any competitors. At the same time, Medicare’s payment policies could help create incentives for companies to complete postmarketing confirmatory trials on a timely basis. That way, information about a product’s effects on health outcomes is available as soon as possible to providers who may prescribe the product and beneficiaries who may receive it.

FDA accelerated approval is not based on measures of clinical benefit related to how a patient feels, functions, or survives

The FDA instituted its accelerated approval program to allow for earlier approval of drugs that treat serious conditions and fill an unmet medical need. Under the program, the FDA approves drugs based on a surrogate or intermediate clinical endpoint that is *reasonably likely to predict* a clinical benefit.¹⁵ The use of such endpoints can considerably shorten the time to receiving FDA approval. However, products approved under the accelerated approval pathway have more uncertainty about their clinical benefit than products approved under the traditional pathway. According to researchers, roughly 40 percent of drugs granted accelerated approval in the U.S. between 2007 and

2021 were rated (according to international health technology assessments) as providing moderate or greater therapeutic value compared with existing therapies. The share of cancer and noncancer drug indications rated as having high added therapeutic value were 36.0 percent (27 of 75) versus 53 percent (8 of 15), respectively (Vokinger et al. 2022).¹⁶ One aspect of this uncertainty pertains to whether there is, in fact, any relationship between the selected surrogate endpoint and the intended clinical outcome. For example, researchers concluded that most trial-level validation studies of surrogate endpoints in oncology find low correlations with patients' overall survival (Prasad et al. 2015).¹⁷ According to the FDA, using surrogate endpoints creates a risk that patients could be exposed to a drug that later is shown not to provide an actual clinical benefit.¹⁸ Further, because accelerated approval may rely on smaller or shorter clinical trials than used under traditional approval, this pathway may result in less information about the likelihood of rare or delayed adverse events (Food and Drug Administration 2014). Because of the use of surrogate outcomes and other design features (e.g., use of single-arm trials and trials with relatively small sample sizes), clinicians and patients generally have less data with which to judge the benefits and risks of products approved under the accelerated approval pathway compared with drugs approved under traditional pathways.

Completion of postmarket confirmatory clinical trials is often delayed

Sponsors conduct postmarket confirmatory trials while these drugs are available to the public on a timeline agreed to by the FDA and the sponsor. Some drug manufacturers never complete required postmarket confirmatory clinical trials or do so only after long delays.¹⁹ Table 1-4 (p. 22) gives examples of Part B products and indications with late confirmatory trials. For example, the FDA approved Opdivo for a specific type of colorectal cancer under the accelerated approval pathway in July 2017 with a final report due in September 2021 (as of April 2023, the product remains marketed under its accelerated approval). According to the Commission's analysis, about 30 percent of accelerated approval drug indications with incomplete confirmatory trials are past their original planned completion dates, including two that are more than five years past those dates.²⁰ Our analysis of FDA data found that among the 290 unique accelerated approval

drug indications approved under the accelerated approval pathway between 1992 and 2022, the agency has converted 56 percent to traditional approval and has withdrawn approval from 13 percent; the remainder have not yet converted (e.g., confirmatory trials are still under way).²¹ Because current law does not differentiate Medicare payment between a drug approved under traditional versus accelerated approval, some sponsors may have little incentive to complete postapproval confirmatory trials promptly. According to OIG, two common challenges that affect sponsors' abilities to complete confirmatory trials are advances in the standard of care, which can make it difficult for a drug's confirmatory trial to detect clinical benefit attributable to the drug, and changes in the ownership of a drug application (Office of Inspector General 2022).

In addition to drugs with late confirmatory trials, some accelerated approval drugs remain on the market despite their postapproval confirmatory trials not confirming a clinical benefit—"dangling" accelerated approvals. For example, according to researchers, the use of Keytruda for hepatocellular carcinoma, which was approved in November 2018 with a postmarket confirmatory study due in October 2019, is an example (as of April 2023) of such a product (Beaver and Pazdur 2021). In 2021, the FDA's advisory committee voted in favor of maintaining accelerated approval of Keytruda for hepatocellular carcinoma (based on results of the ongoing confirmatory trial); in 2022, the manufacturer announced additional results from the confirmatory trial; and, as of April 2023, this indication remains under accelerated approval (Cohen et al. 2022).

Some manufacturers have ultimately withdrawn their product many years after their accelerated approval. For example, Romidepsin for peripheral T-cell lymphoma was approved in 2011, and its confirmatory trial's final report was scheduled to be completed by April 2019; its manufacturer withdrew the indication in 2021 because the trial did not meet its primary efficacy endpoint (progression-free survival). Part B spending for Romidepsin's withdrawn indication in 2020 and 2021 was nearly \$10 million. Sulfamylon, an antimicrobial agent (covered under Part D) that controls bacterial infection in the treatment of burns, was approved in 1998; in December 2021, the manufacturer (Viartis) sent the FDA a letter asking to withdraw the drug because

**TABLE
1-4**

Examples of Part B accelerated approval drugs that missed the deadline for completion of their confirmatory trials

Drug name	Drug's clinical indication	Date of accelerated approval	Due date of final report	Average spending per user, 2021
Beleodaq	Treatment of peripheral T-cell lymphoma	7/3/2014	1/31/2021	\$124,100
Folotyn	Treatment of relapsed or refractory peripheral T-cell lymphoma	9/24/2009	6/30/2017	140,300
Jemperli	Treatment of mismatch repair deficient recurrent or advanced solid tumors	8/17/2021	10/31/2022	27,000
Keytruda	Treatment of hepatocellular carcinoma for patients who have been previously treated with sorafenib*	11/9/2018	10/31/2019	62,900
Libtayo	Treatment of basal cell carcinoma	2/9/21	2/28/2022	66,200
Opdivo	Treatment of microsatellite instability-high or mismatch repair deficient metastatic colorectal cancer	7/31/2017	9/30/2021	61,500
Pepaxto	Treatment of relapsed or refractory multiple myeloma	2/26/2021	2/28/2022	21,000
Rybrevent	Treatment of locally advanced or metastatic non-small cell lung cancer	5/21/2021	2/28/2023	43,700
Zepzelca	Treatment of metastatic small cell lung cancer**	6/15/2020	2/28/2021	46,600

Note: Deadline date based on date of final report submission for accelerated approval. If more than one trial was required, the final report date is based on the latest date. Average spending per user is determined across all indications (i.e., accelerated and traditional approval indications) of the drug.

*The product's confirmatory trial is complete but the Food and Drug Administration has continued its marketing authorization.

**In 2020, the manufacturer announced that the confirmatory trial did not meet its primary endpoint. In 2021, the manufacturer announced the initiation of new confirmatory trials with estimated study completion dates of 2025 and 2026 (Food and Drug Administration 2022b).

Source: MedPAC analysis of data from the Food and Drug Administration on accelerated approvals as of December 31, 2022 (Food and Drug Administration 2022a), with the status of an indication updated as of April 15, 2023, using data from the Food and Drug Administration found at <https://www.fda.gov/drugs/nda-and-bla-approvals/accelerated-approval-program>.

a confirmatory study was not feasible (Food and Drug Administration 2022c). As of December 31, 2022, the FDA has withdrawn both products.

Over time, an increasing number of drugs have been approved under the accelerated approval pathway, and Medicare spending for such drugs is significant

Since 2010, the number of unique drug indications approved through the FDA's accelerated approval pathway has grown dramatically. Between 2006 and

2010, just 25 drugs were given accelerated approval; that number climbed to 40 approvals between 2011 and 2015, 108 between 2016 and 2020, and 37 in 2021 and 2022. Nearly 30 percent of accelerated approvals (82 of 290) occurred between 2020 and 2022. Some of this increase is linked to multiple accelerated approvals of a given drug for the same condition but with different dosing schedules (Keytruda with 17 approvals).

As of December 31, 2022, there were 73 Part B drugs with 134 clinical indications that were approved

through the accelerated approval pathway, including 8 of the top 20 highest-expenditure Part B drugs (Table 1-2, p. 17): Alimta (with 3 indications), Avastin (with 2 indications), Darzalex (with 1 indication). Darzalex Faspro (with 1 indication), Keytruda (with 34 indications), Opdivo (with 11 indications), Remicade (with 1 indication), and Tecentriq (with 3 indications). Of these 134 clinical indications approved through the accelerated approval pathway, 44 indications have not converted. Two immune-oncology drugs, Keytruda and Opdivo, account for about one-quarter of all Part B indications that have not converted (six indications and five indications, respectively).

Medicare spending for accelerated approval drugs that have not converted to traditional approval is substantial. In 2021 alone, according to the Commission's analysis, Medicare spending totaled \$363 million for 7 accelerated approval indications for 4 of the top 20 drugs (Table 1-2, p. 17):

- Darzalex Faspro spending for light chain amyloidosis was \$67 million, representing 6 percent of the drug's total spending in that year;
- Keytruda spending for gastric, hepatocellular, and Merkel carcinoma indications was \$123 million, accounting for 3 percent of the drug's \$4.0 billion in total spending in that year;
- Opdivo spending for hepatocellular carcinoma was \$48 million, representing 3 percent of the drug's \$1.6 billion in total spending in that year; and
- Tecentriq spending for breast and urothelial carcinoma indications was \$125 million, accounting for 19 percent of the drug's \$660 million in total spending in that year.

These findings—the share of total spending associated with accelerated approval indications among the top 20 drugs—are conservative. This analysis does not include the spending for accelerated approval indications that overlap with traditional approval indications, particularly for Keytruda and Opdivo. In addition, these findings do not account for Medicare spending among non-top 20 drugs. For example, in 2021, spending totaled nearly \$245 million for the accelerated approval indications of select non-top 20 drugs (Aliqopa, Amondys 45, Beleodaq, Blenrep, Folutyn, Pepaxto, Monjuvi, Polivy, Romidepsin, Rybrevant, Yervoy, Zepzelca, and Zynlonta).

Furthermore, these numbers do not account for utilization of these drugs by Medicare Advantage enrollees.

Since Medicare lacks tools to influence the prices of new drugs, manufacturers have significant market power to set a new drug's price because the statute requires that Medicare assign the drug to its own billing code and set a payment rate based on its individual ASP. Manufacturers typically set a high launch price for drugs approved under the accelerated approval program, yet these prices may not reflect the expected clinical benefit of the product. According to CBO, drug manufacturers set launch prices for new drugs to maximize future net revenues, taking into account manufacturing and distribution costs. The amount spent on R&D for a particular product does not influence the price a drug company establishes for that product because R&D costs associated with a new product have already been incurred (commonly referred to as “sunk costs”) (Congressional Budget Office 2021b).²² Other factors that manufacturers may consider when establishing a drug's price include the competitiveness of the market, the drug's uniqueness (e.g., first-in-class products), its net clinical benefit compared with existing therapies, the pricing of existing therapies, how the price established may affect physicians' willingness to prescribe the product, and payers' reimbursement policies (e.g., how payers set payment rates or use tools such as formularies or prior authorization) (Robinson 2022). A congressional report on how the manufacturer of Aduhelm established its initial launch price provides an example of how manufacturers consider drug pricing (House Committee on Oversight and Reform and House Committee on Energy and Commerce 2022). That report indicated that the manufacturer of Aduhelm (a first-in-class product approved under the accelerated approval pathway for Alzheimer's disease) considered several competing factors before setting the product's initial launch price at \$56,000 (per patient year) in June 2021. The manufacturer considered comparative clinical and cost-effectiveness, maximizing patient volume, pushback from payers and other stakeholders, and revenue maximization. The company's initial price of \$56,000 was consistent with price levels suggested by revenue maximization, whereas the other considerations suggested lower pricing, according to the report.

Some high-priced products that are given accelerated approval are later withdrawn from the market after failing confirmatory trials. As of April 2023, 19 Part B drugs with 24 clinical indications have been withdrawn. The length of time that these indications were marketed (i.e., years between their dates of accelerated approval and withdrawal) averaged 6.8 years. Examples of relatively costly Part B accelerated approval products with Medicare spending in the year prior to their withdrawal include the following:

- Blenrep (average spending \$52,800 per user in 2021) for multiple myeloma was approved in August 2020 and withdrawn in November 2022. In 2021, total spending for this accelerated approval indication was \$36 million.
- Imfinzi (average spending \$55,000 per user in 2020) for urothelial carcinoma was approved in May 2017 and withdrawn in February 2021. In 2020, total spending for this accelerated approval indication was \$4 million.
- Opdivo (average spending \$62,200 per user in 2020) for hepatocellular carcinoma was approved in September 2017 and withdrawn in July 2021. In 2020, total spending for hepatocellular carcinoma was \$68 million.
- Tecentriq (average spending \$51,700 per user in 2021) was approved for two indications of urothelial carcinoma; the first indication was approved in May 2016 and withdrawn in April 2022, and the second indication was approved in April 2017 and withdrawn in December 2022. The drug was also approved for one indication for breast cancer in March 2019 and withdrawn in October 2021. In 2021, total spending for the urothelial carcinoma and breast cancer accelerated approvals was \$65 million and \$60 million, respectively.²³

Setting a cap on Medicare’s payment of select accelerated approval Part B drugs

To maintain financial rewards for innovation while improving access and affordability of care for beneficiaries and taxpayers and spurring manufacturers to complete their required confirmatory trials on time, Medicare should cap the payment rate of certain Part B drugs and biologics that are approved under the accelerated approval program. To implement this policy, the Congress would need to provide the

Secretary with statutory authority to apply a payment method to Part B drugs other than the ASP-based method in Section 1847A of the Social Security Act.

Setting a cap on payment of accelerated approval Part B drugs would help to make Medicare a more prudent purchaser of health care services while ensuring access to high-quality care for Medicare beneficiaries. In most instances, the Secretary could set a cap on payment based on the clinical benefit and cost of the accelerated approval drug relative to the standard of care. Capping a drug’s payment based on its net clinical benefit would limit beneficiaries’ and taxpayers’ financial risk of using products with uncertain benefit (Lederer and Dusetzina 2021). This targeted application of a payment cap for accelerated approval drugs balances the tradeoffs between incentives for manufacturers’ innovation and affordability and access for beneficiaries and taxpayers. On the one hand, Part B accelerated approval drugs offer beneficiaries earlier access to drugs that may improve clinical outcomes. On the other hand, the prices for those products are not necessarily commensurate with their benefits, even if surrogate outcomes were assumed to perfectly translate to clinical outcomes. In addition, capping payments would also provide strong incentives for the completion of postapproval trials; under current Medicare payment policies, there is no incentive to do so.

RECOMMENDATION 1-1

The Congress should require the Secretary to cap the Medicare payment rate for Part B drugs and biologics that are approved under the accelerated approval program (with limited circumstances for the Secretary to waive the payment cap) if:

- **postmarketing confirmatory trials for the product are not completed within the deadline established by the manufacturer and the Food and Drug Administration,**
- **the product’s clinical benefit is not confirmed in postmarketing confirmatory trials, or**
- **the product is covered under a “coverage with evidence development” policy.**

In addition, the Congress should give the Secretary the authority to cap the Medicare payment rate of Part B drugs and biologics that are approved under the accelerated approval program if their price is excessive relative to the upper-bound estimates of value.

RATIONALE 1-1

The accelerated approval pathway is intended to expedite the approval of potentially promising products for cancer and other complex or rare conditions; incentives for drug development in these areas are important. At the same time, tools are needed to ensure that the Medicare program is not overpaying for products approved on an accelerated basis if a product's clinical benefit is not confirmed. Such tools are particularly relevant for products approved on this pathway, as some may not have any competitors. Manufacturers also need an incentive to complete postmarketing confirmatory trials on a timely basis so that information about a product's effects on health outcomes is available as soon as possible to providers who may prescribe it and beneficiaries who may receive it. The accelerated approval cap policy seeks to balance these trade-offs through the targeted application of the payment cap. Furthermore, by designing the payment cap based on net clinical benefit, the approach would reward companies with very promising drug products, acknowledging the advances they provide over the status quo.

IMPLICATIONS 1-1

Spending

- This recommendation would decrease federal program spending relative to current law.

Beneficiary and provider

- This recommendation would be expected to generate savings for beneficiaries through lower cost sharing but should not adversely affect beneficiaries' appropriate access to needed Part B drugs. The policy would be expected to result in more timely development of evidence of the clinical outcomes of accelerated approval drugs for beneficiaries and providers. This recommendation would not be expected to affect providers' willingness and ability to serve beneficiaries.

Applying a payment cap according to the status of a drug's confirmatory trial and Medicare's coverage requirements

Under the recommendation, the Secretary would be required, with rare exceptions, to apply a payment cap to accelerated approval drugs under three circumstances. First, the Secretary would cap Part B accelerated approval drugs that miss the deadline that

the manufacturer set in collaboration with the FDA to complete their accelerated approval postmarket confirmatory trial. Table 1-4 (p. 22) provides examples of drugs with particular accelerated approval indications that have missed their deadline for completion (of their final report).

The Secretary could base a confirmatory study's completion date on either the "trial completion" date or the "final report submission" date specified in the FDA's approval letter to the drug sponsor. In cases in which an accelerated approval drug has multiple confirmatory trials for a given clinical indication, the Secretary could base the "deadline" on the trial with the latest date or the date of the trial whose population is most relevant to Medicare (e.g., adults vs. pediatric patients).

Second, the Secretary would cap the payment of accelerated approval drugs whose clinical benefit was not verified in postapproval confirmatory trials. Per statutory and regulatory provisions (noted on p. 10), the Secretary currently can cover and pay for off-label use of cancer and noncancer drugs in certain circumstances:

- The statute requires that Medicare cover Part B cancer drugs for indications not approved by the FDA if the drug's off-label use is supported by selected third-party drug compendia.²⁴ Use of Avastin for breast cancer is an example of Medicare off-label coverage of a cancer drug. When the FDA withdrew Avastin's breast cancer accelerated approval indication, CMS announced that it would still cover and pay for the product (Yukhananov and Selyukh 2011). In 2021, Medicare's Part B spending for Avastin for breast cancer totaled about \$4 million, which represents less than 1 percent of the biologic's FFS Medicare spending for cancer-related conditions.
- FDA-approved drugs used for noncancer indications other than what is indicated on the official label can be covered under Medicare if the MAC determines the use to be medically accepted, taking into consideration the major drug compendia, authoritative medical literature, or accepted standards of medical practice. These decisions are generally made by the MAC on a case-by-case basis (Centers for Medicare & Medicaid Services 2021).

Thus, the Secretary would cap the payment rate of accelerated approval drugs whose clinical benefit was not verified in postapproval confirmatory trials, including the off-label use of such drugs that remain supported by compendia (as is the case for Avastin for breast cancer) as well as the on-label use of drugs whose marketing authorization under the FDA continues (i.e., “dangling” drugs).²⁵

Third, the Secretary would cap accelerated approval drugs that the Secretary covers under a “coverage in evidence development” (CED) policy. As previously noted, Medicare applies CED when there is insufficient clinical evidence that an item or service is reasonable and necessary for the treatment of an illness or a disease. In 2022, CMS established CED for anti-amyloid monoclonal antibody drugs for the treatment of Alzheimer’s disease.²⁶ Under this policy, the Secretary would apply a payment cap on such drugs approved under accelerated approval and subject to CED until they convert to traditional approval. Medicare’s Part B payment rate would revert to current law once the manufacturer’s postmarketing confirmatory trials confirm the drug’s clinical benefit or once the Secretary withdraws the CED policy.

As part of this policy, the Congress would prescribe very limited circumstances in which the Secretary could waive the payment cap—for example, circumstances outside a manufacturer’s control, such as a public health emergency that significantly affects patient recruitment. For all three circumstances in which the Secretary is required to apply a payment cap (based on the status of a drug’s confirmatory trial and Medicare’s CED requirements), the Secretary could consider a drug’s financial impact on beneficiaries and taxpayers. To reduce the administrative burden on CMS, the Secretary could waive the cap for drugs with a very small financial impact on beneficiaries and taxpayers (e.g., \$100,000 in a given year). When spending for such a drug exceeds the dollar threshold, the Secretary would establish a cap.

However, policymakers should develop clear and consistent criteria for any waivers of the policy cap. Unless carefully designed, such waivers could undo the policy’s intent to ensure that the Medicare program is not overpaying for products approved on an accelerated basis if a product’s clinical benefit

is not confirmed and that manufacturers have an incentive to complete postmarketing confirmatory trials on a timely basis. In addition, clear and consistent criteria would help support innovation by reducing uncertainty for manufacturers.

Applying a cap on accelerated approval drugs with a price that is excessive relative to upper-bound estimates of value

Under the recommendation, the Secretary would have the authority to cap the payment at launch for selected accelerated approval drugs with an excessive price relative to the upper-bound estimates of value for Medicare beneficiaries. Such a policy would balance the goal of providing access to beneficiaries for needed medicines while protecting beneficiaries and taxpayers from the manufacturer setting an excessive price relative to the drug’s upper bound of estimated value.

Some have raised concerns that giving the Secretary such flexibility might have an adverse impact on research and innovation and might lead to manufacturers being uncertain about whether to use the FDA accelerated approval pathway, which together might outweigh the benefits of Medicare acting as a prudent purchaser. In recognition of that concern, the Commission envisions that the Secretary would apply this policy sparingly, so that it serves as a safeguard available to the Medicare program in rare circumstances to manage products with an excessive price and small net clinical benefit (as assessed in health technology assessments outlined in the text box on pp. 29–31) compared with the standard of care that would result in a substantial budget impact on beneficiaries and taxpayers.²⁷ Examples of accelerated approval drugs whose pricing has been judged to be high relative to their net clinical benefit include:

- Aduhelm, for the treatment of Alzheimer’s disease. The manufacturer originally priced the product at \$56,000. Based on an assessment of this product (using an optimistic treatment benefit scenario) compared with the standard of care (supportive care), researchers concluded that this price was substantially above the estimate of a value-based price for the product; to achieve a cost-effectiveness threshold of \$100,000 and \$150,000 per equal value of life years gained, the

**TABLE
1-5**

How should the cap on payment be determined?

Approach	Ease of implementation	Advantages/disadvantages
A drug's net clinical benefit and cost compared with the standard of care	Requires identifying the standard of care and evidence on outcomes and costs for the new drug and the standard of care	Would best capture the new drug's potential effect on beneficiaries' outcomes
Some increment (e.g., 100 percent or less) of the payment rate under current law for the standard of care	Requires identifying the standard of care	Does not account for the new drug's potential to improve outcomes compared with the standard of care
A fixed percentage discount off the drug's payment rate under current law	Easiest to implement because the cap is based on a percentage of the manufacturer's launch price for the new drug	Might incentivize manufacturers to launch at higher prices Does not account for the new drug's potential effect on beneficiary outcomes

Source: MedPAC.

manufacturer's price of \$56,000 per year would have to be discounted by between 60 percent and 74 percent (Institute for Clinical and Economic Review 2021).

- Folutyn, for treatment of peripheral T-cell lymphoma. At the time of its approval, many observers raised concerns about Folutyn, particularly about its high price relative to other therapies (roughly three times the monthly cost of other available chemotherapy products) and the lack of evidence about its clinical benefit (Pollack 2009).

Implementation issues for Medicare regarding a payment cap

There are two key implementation issues for Medicare to consider in setting a cap on a new drug's Part B payment rate: how to set the cap on a drug's payment rate and how to operationalize the cap. Medicare would need to develop a clear, transparent, timely, and predictable decision-making framework that ensures transparency and opportunities for public input. For example, Medicare should obtain input from a wide range of stakeholders in listening sessions and a formal public comment period when first developing

its general methods for setting the cap on a drug's payment rate and operationalizing the cap.

Determining the payment cap A key design issue is how Medicare would determine the payment cap for a particular drug (Table 1-5). One approach would be for the Secretary to set a cap based on the accelerated drug's net clinical benefit and cost compared with the standard of care.

Such an approach would enable Medicare to set a higher cap for drugs that have a greater expected benefit, unlike a cap based on a percentage (100 percent or less) of the payment rate under current law for the standard of care or applying a fixed percentage discount off the drug's payment rate under current law. A cap based on a drug's net clinical benefit recognizes important and transformative therapies (which, in turn, incentivizes the development of better drugs) while ensuring that beneficiaries and taxpayers do not overpay; that is, Medicare's payment is at a rate that is not deemed excessive relative to the drug's expected benefit.

A clear, public, predictable, transparent, and timely process will need to be established for Medicare to

assess a drug's net clinical benefit and cost compared with the standard of care. For Medicare's payment and coverage determinations, CMS has developed methods to assess a new technology's clinical benefit (see text box on setting payment caps relative to a drug's comparative clinical effectiveness and cost). Specifically, the Secretary would need to develop a standard set of methods, informed by public input, that could be used across products to assess their clinical and economic outcomes, including approaches to (1) determine the standard of care and (2) assess the costs and health outcomes of the accelerated approval drug and the standard of care. In the Commission's June 2005 report to the Congress, we concluded that Medicare could play an important role in advancing the field of cost-effectiveness—an approach that could be used to compare the relative costs and benefits of alternative interventions—by helping to standardize the methods in these analyses in an open process (Medicare Payment Advisory Commission 2005). The Secretary could look for opportunities to harmonize the methods that Medicare uses across different policies that assess a product's or service's clinical evidence. In addition, as part of the process to set the payment cap, we envision that the drug's manufacturer, along with other stakeholders, would have the opportunity to provide clinical and cost (i.e., pricing) information about the new drug.

Another approach would base the cap for a new drug on a percentage of the price for the standard of care. Such an approach would be somewhat easier to implement because it would not require evidence about a new drug's outcomes and costs compared with one or more identified standards of care. While this feature would make the policy more straightforward to implement, basing the cap on the price of the standard of care would not account for a new product's potential for a greater clinical benefit than the standard of care.

A third approach would base the cap on a fixed percentage of the manufacturer's ASP for the new product. This approach would be the easiest to implement, but manufacturers may respond to such a policy by increasing their launch price (ASP) to partially or fully offset the effect of the cap. Under this approach, manufacturers could continue to price the product as high as the market will bear, despite

the limited evidence underlying the product's clinical benefits. Thus, this method could result in a higher payment rate than under the other two alternatives, and that payment rate could have no relationship to the drug's expected clinical benefit.

In most instances, sources of evidence will be available for the Secretary to establish a cap based on the accelerated approval drug's net clinical value compared with the standard of care. As discussed in the text box, sources of evidence to conduct health technology assessments include data from clinical trials submitted by manufacturers for FDA approval and meta-analyses of the new drug and the standard of care. In those few instances in which sufficient data are not available to conduct such assessments, the Secretary could have the flexibility to cap the new drug's payment based on a percentage of the price for the standard of care (e.g., 100 percent or less), applying a fixed discount to the drug's payment rate under current law, or some combination of both approaches.

In situations where an accelerated approval drug fails to demonstrate clinical benefit in a postapproval clinical trial, the Secretary should use a method to set the cap that best aligns the drug's payment to its clinical benefit (as assessed by the results of the failed confirmatory study and other relevant peer-reviewed clinical studies). With the failure to find a clinical benefit over the standard of care, setting the cap based on a percentage of the price for the standard of care could be a reasonable, practical approach in these circumstances.

How to operationalize the cap The payment cap could be operationalized using a rebate under which manufacturers would reimburse Medicare for the difference between the Medicare payment amount and the cap based on claims utilization for the accelerated approval diagnosis. This rebate approach is used for Part B drugs beginning in 2023 to implement the manufacturer discarded drug refund and inflation rebate policies.²⁸ Providers would enter the diagnosis code for the product's clinical indication (as specified by CMS), which is consistent with information they already report on drug claims. Thus, under this approach, the total payment the provider receives for the drug (i.e., the combined Medicare

Set a payment cap based on a new drug's comparative clinical effectiveness and cost

One approach to setting a cap on a drug's payment rate could be based on the new drug's net clinical benefit and available cost information compared with the standard of care. Cost-effectiveness analysis (CEA) is one approach that considers evidence on a product's net clinical effectiveness and cost compared with the standard of care. CEAs assess trade-offs involving benefits, side effects, and costs inherent in alternative options by measuring the effect (outcome) of a medical intervention in terms of the quantity of health gained. The results of CEAs are typically summarized in a series of incremental cost-effectiveness ratios that show, for one intervention compared with another, the cost of achieving an additional unit of health (outcome). To estimate expected health effects and costs, CEAs require data on each treatment's clinical effectiveness, health outcomes, and health care resource use and costs. The results of such an analysis of comparative clinical effectiveness and cost-effectiveness could inform the payment cap for the accelerated approval drug (Sachs et al. 2022).

CMS has current experience in conducting analyses that assess a new technology's net clinical benefit compared with the standard of care. For example, on an annual basis for the inpatient and end-stage renal disease prospective payment systems, the agency assesses whether new technologies meet certain criteria, including substantial clinical improvement compared with the standard of care, to qualify for new technology add-on payments. Under the national coverage determination process, CMS reviews the clinical evidence for the technology in question and has the option to sponsor a technology assessment—a systematic analysis of the performance characteristics, safety, effectiveness, outcomes, and appropriateness of a service—from an external entity such as the Agency for Healthcare Research and Quality. In several instances, when determining coverage for certain preventive services (fecal occult blood tests, computed tomography colonography, and DNA stool testing for colorectal cancer screening), CMS sponsored external groups,

including universities, other government agencies, and health care providers (e.g., cancer centers) to conduct technology assessments that assessed the cost-effectiveness of these screening technologies.

For drugs that are first in class, including some accelerated approval drugs, a key design element would be identifying the standard of care—that is, the treatment that is accepted by medical experts as a proper treatment for a certain type of disease and is widely used by health care professionals. For example, it may be feasible to obtain clinical evidence for the drug in question and its standard of care from separate clinical trials. These clinical studies, particularly for accelerated approval drugs, could be small, single-arm designs with limited follow-up. However, health technology assessments of clinical benefits and cost assessments authored by researchers that conduct health technology assessments demonstrate that it is feasible to assess the cost-effectiveness of first-in-class drugs. Examples of researchers identifying the standard of care for first-in-class products include:

- In clinical and cost assessments of Yescarta, a first-in-class CAR-T (chimeric antigen receptor T-cell) agent approved for adults with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy, the standard of care included so-called salvage therapies, such as rituximab, dexamethasone, cytarabine, and cisplatin, and stem-cell transplantation (Choe et al. 2022, Institute for Clinical and Economic Review 2018). In clinical and cost assessments of Aduhelm, a first-in-class disease-modifying anti-amyloid drug for Alzheimer's disease, the standard of care included nonpharmacologic interventions and pharmacologic interventions (Institute for Clinical and Economic Review 2021). Other researchers have also defined the standard of care in a similar fashion when determining the clinical and cost-effectiveness of anti-amyloid agents (Boustani et al. 2022, Ross et al. 2022).

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Set a payment cap based on a new drug's comparative clinical effectiveness and cost (cont.)

Potential sources of clinical evidence for a given treatment include randomized and nonrandomized clinical trials that manufacturers conduct and submit to the Food and Drug Administration for new drug approvals, cross-sectional studies, and meta-analyses (the statistical analysis of the results from more than one trial for the purpose of integrating the findings). CMS uses these sources when making national coverage determinations and in its assessments of an item's or service's clinical benefit under the inpatient, outpatient, and end-stage renal disease prospective payment systems. Organizations that conduct health technology assessments also use these sources when conducting cost-effectiveness assessments.

Other design issues must also be considered, such as:

- The process for identifying the standard of care, or a treatment that is accepted by medical experts as proper for a certain disease and is widely used by health care professionals. Omission of relevant comparators can produce misleading results. For example, researchers may overestimate the cost-effectiveness of an intervention (and underestimate its incremental cost-effectiveness ratio) because the intervention has not been compared with other available cost-effective alternatives (Drummond et al. 2015).
 - The method of defining costs. Costs would include direct medical (e.g., cost of medical services to
- payers and patients) but also could include direct nonmedical (e.g., transportation costs) and non-health care costs (also referred to as indirect costs, such as productivity losses and caregiver burden). The assignment of prices to pharmaceuticals (as well as other medical items and services) to which the new product being evaluated is compared will affect the results and conclusions from CEAs. We envision that the price of the existing drugs under consideration would be based on each product's average sales price or other measures that are net of discounts, rebates, and other price concessions; for newly launched drugs, wholesale acquisition cost could initially be used. As we discussed in our June 2022 report to the Congress, if comparator products are priced high relative to their net clinical benefit, those high prices will carry through into the price determination of the new product (Medicare Payment Advisory Commission 2022b).
 - The time horizon. Researchers must choose the period of time to measure a service's costs and outcomes. The time horizon of the analysis should extend far enough into the future to capture important health effects, and the choice of a time horizon should not bias the analysis in favor of one intervention over another (Drummond et al. 2015).
 - The uncertainty of clinical events, costs, and outcomes. Sensitivity analyses vary the assumptions of the clinical, cost, and outcome data

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program payment and beneficiary cost sharing) would be unaffected by the cap; the provider would continue to receive the same total payment regardless of indication.²⁹ Once a manufacturer verified the drug's clinical benefit, the cap on the payment would cease and the payment rate would revert to current law.

The rebate could also be structured to permit the beneficiary to share in the rebate. Similar to how the Medicare Part B drug ASP inflation rebate is

structured (under the Inflation Reduction Act of 2022), the beneficiary's cost-sharing percentage could be reduced upfront to a percentage of the drug's ASP that is equivalent to 20 percent of the capped price.³⁰ Medicare's share of the payment could then be increased to compensate for the lower cost sharing, so that the provider payment is unaffected and Medicare obtains the rebate payment from the manufacturer on the back end.

Set a payment cap based on a new drug's comparative clinical effectiveness and cost (cont.)

to test the robustness of the results, to identify the data elements to which the results are particularly sensitive, and to test the point at which one intervention becomes more costly or more effective than another.

Other design issues specific to CEA are discussed in the Commission's June 2022 report to the Congress, including the perspective of the analysis and the discounting of costs and outcomes (<https://www.medpac.gov/document/june-2022-report-to-the-congress-medicare-and-the-health-care-delivery-system/>).

There is no exhaustive research on the use of CEAs by commercial payers, pharmacy benefit managers (PBMs), or other purchasers. Nonetheless, reports in peer-reviewed journals and lay press suggest an increasing interest in determining the net clinical benefit and cost-effectiveness of medical interventions. Medical professional societies and other organizations have developed practice guidelines incorporating findings from CEAs (Neumann and Cohen 2015). For example, the American College of Cardiology and the American Heart Association described how both organizations can address the cost and value of care when making guideline recommendations and developing performance measures (Anderson et al. 2014). The sponsorship of nonprofit and for-profit organizations that conduct cost-effectiveness analyses by federal government agencies, commercial payers, purchasers, and PBMs suggests that these

organizations are seeking information on the cost-effectiveness of health care services (Glassman et al. 2020, Neumann and Cohen 2015). Medicare organizations that take on financial risk, including Medicare Advantage plans and accountable care organizations, have flexibility in using cost-effectiveness in the design of their medical and pharmacy management programs. Stakeholders have raised concerns surrounding the use of CEA by payers and purchasers. For example, some contend that it could affect beneficiary access. A more detailed discussion of these concerns can be found in our June 2018 report at https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/jun18_ch10_medpacreport_sec.pdf.

Some manufacturers use cost-effectiveness analysis to predict the price that purchasers will be willing to pay for a new drug (Neumann et al. 2015, Neumann et al. 2005). For example, in setting the launch price of \$2.8 million for a new gene cell therapy, the manufacturer said: "When pricing Zynteglo, we took into consideration the therapy's benefit to patients and society, including measures of positive clinical outcomes as well as expected quality of life improvements, health systems' cost savings, and societal impact of patients and families living lives more fully" (Casey 2022).³¹ In addition, as one component of their pricing strategy, some manufacturers show the value of a new drug to formulary committees and other purchasers. ■

Spurring price competition by establishing a single ASP-based payment for Part B drugs and biologics with similar health effects

The current ASP payment system maximizes price competition among generic drugs and their associated brand products by assigning these products to a single

billing code, which we call a consolidated billing code. For example, after the launch of generic zoledronic acid (a drug used to treat high blood calcium levels, bone metastases, and osteoporosis), the ASP for the branded product and generics assigned to the same billing code declined by roughly 55 percent in four quarters. By contrast, products that are assigned to their own billing code and paid according to their ASP—single-source drugs, 505(b)(2) drugs, originator biologics, and

biosimilars—do not face the same incentives for price competition. In addition, the 6 percent add-on to ASP can create incentives for some providers to choose higher-priced products over lower-priced products (Dusetzina and Mello 2021).

Thus, the current system does not spur competition among therapeutically similar single-source drugs and biologics. Despite the availability of products with similar health effects, several of the top 20 Part B products ranked by expenditure have ASPs that have either remained the same or increased over more than a decade. For example, Orencia and Cimzia, biologics indicated for the treatment of rheumatoid arthritis, have experienced significant ASP growth (5.4 percent per year since 2007 for Orencia and 2.4 percent per year since 2010 for Cimzia) despite the availability of several other biologics for the treatment of rheumatoid arthritis.

In addition, the current system does not always spur competition among originator biologics and their biosimilars. Since the availability of biosimilars, the ASP for some originator biologics has declined. Others, however, do not face much price competition. For example, the originator biologic Rituxan, used to treat cancer and rheumatoid arthritis, has faced biosimilar competition since the fourth quarter of 2019 but has reduced its price, as measured by ASP, by only 14 percent. As of the first quarter of 2023, the payment rates for Rituxan's biosimilars ranged from 39 percent to 60 percent lower than the originator's payment rate. Biosimilars accounted for 59 percent of the market share as of the third quarter of 2023. Addressing the issue of price competition, in 2017 the Commission recommended that the Congress establish consolidated billing codes to pay for a reference biologic and its biosimilars (Medicare Payment Advisory Commission 2017).

Indeed, research suggests that in many therapeutic classes, approval of a new brand-name drug or biologic leads to higher list prices, not just for the new product but also for the existing products. For example:

- Between 2005 and 2017, the mean cumulative price increase of 24 Part B anticancer drugs was 36.5 percent. Using multivariate regression, researchers reported that new supplemental FDA approvals, new off-label indications, and new competitors did not influence rates of changes in each drug's ASP (Gordon et al. 2018).³²

- A systematic review of 10 original studies on competition among branded drugs found no evidence of a price-lowering effect of new drug entry on intraclass brand-name products (Sarpawari et al. 2019).
- The mean annual increase in the net prices (measured using data from SSR Health) of drugs (available in January 2007) in six therapeutic classes was 4.5 percent between 2007 and 2018.³³ When the authors included drugs that entered the market after 2007, the estimates for net price increases rose (Hernandez et al. 2020).

One reason some new drugs that are not first in class have not experienced price competition could be that lowering prices has not historically resulted in selling more units of a drug. Instead, some manufacturers with lower market share in a given therapeutic class have raised their drug's price to make up for lost market share. Drugs in the class with larger market shares can, in turn, follow with price hikes (Herper 2020). According to San-Juan-Rodriguez and colleagues, the rising prices for existing products could reflect manufacturers' opportunism in response to new, higher-priced agents (San-Juan-Rodriguez et al. 2019).

Internal reference pricing is a tool that some payers use to spur price competition among therapeutically similar drugs (and other medical services) to lower the average price paid. Under such a policy, a payer establishes the price (reimbursement rate) that it is willing to pay for a group of drugs with similar health effects—the reference price, which is typically based on the payer's own prices.

There is substantial precedent for the use of policies to spur price competition among drugs with similar health effects. Health plans and pharmacy benefit managers (PBMs) commonly use policies such as formularies and step therapy to spur price competition among products with similar health effects. Medicare's use of internal reference pricing would pursue the same objective—more price competition among drugs with similar health effects—and would not be expected to deter innovation. Furthermore, as others have noted, spurring price competition among products with similar health effects could increase the relative profitability of a new drug versus me-too products, potentially increasing incentives for the development of new innovative drugs (Sachs and Frakt 2016). Some observers have raised

concerns that reference pricing could have an adverse impact on access if a clinician were unwilling to supply expensive drugs that were coded with and paid the same rate as other, less expensive products. However, though reference pricing would create incentives for clinicians to use the lower-priced products within a code, the clinician would continue to have the choice to select the product most appropriate for the patient. Further, if the reference price were established based on the weighted average price for drugs in the reference group, providers would earn a profit when choosing the lower-priced product, which could help to offset the additional cost of using the higher-priced product if needed for a particular patient. In addition, a payment exception process can be employed in limited circumstances to reimburse a provider based on the ASP of the higher-priced product if the clinician provides justification that the product is medically necessary, such as in instances in which there has been documented clinical failure of a lower-priced alternative.

Internal reference pricing approaches are frequently used by other countries (Australia, Canada, Japan, and many European countries).³⁴ As of 2017, 22 of 28 European Union member states used internal reference pricing (Vogler et al. 2017). An earlier study reviewing drug pricing policies used in 20 European countries reported that in 2011, 16 European countries used internal reference pricing. Of these 16 countries, 8 defined reference groups based on a product's active substance while another 8 had a broader classification system that defined groups of drugs based on therapeutic classes (Dylst et al. 2012).

In the past, Medicare used internal reference pricing policies to pay for Part B drugs, but it no longer does so. Between 1995 and 2010, Medicare implemented two reference pricing policies—referred to as the least costly alternative (LCA) and functional equivalence policies—to pay for groups of drugs with similar health effects (prostate cancer drugs and anti-anemia biologics). Since 2010, because of judicial rulings and statutory changes, Medicare Part B no longer uses either reference pricing policy and pays for each drug according to its own ASP. Because the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) requires that biologics and single-source drugs (without generic competition) be paid based on their ASP and not averaged with other products' ASPs, a change in the statute would be necessary. Consequently, the

Secretary would require statutory authority to apply either reference pricing (or consolidated billing policies) to groups of drugs with similar health effects. (A detailed description of Medicare's prior application of reference pricing approaches can be found in our June 2019 report at https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/jun19_ch3_medpac_reporttocongress_sec.pdf.)

Using reference pricing to establish a single ASP-based payment rate for groups of drugs with similar health effects would likely reduce spending for Part B drugs

The Commission has long held that Medicare should pay similar rates for similar care. As such, this principle might warrant that Medicare Part B use reference pricing, an approach that sets a single reference price for products with similar health effects that are currently assigned to their own billing codes. Such an approach would spur price competition among products with similar health effects. Compared with other drug management strategies (e.g., formularies), reference pricing does not restrict the selection of drugs within a given therapeutic class. By contrast, Medicare Advantage (MA) plans have several mechanisms to promote more efficient prescribing of Part B provider-administered drugs—through use of prior authorization and contracting arrangements that direct enrollees to more efficient sites of care. Anderson and colleagues noted that in four clinical scenarios where similarly or equally effective Part B drugs exist and are substantially different in terms of cost, older adults with MA coverage who receive treatment for the given condition more often receive the low-cost drug alternative compared with older adults with FFS coverage (Anderson et al. 2021).

Under reference pricing policies for Part B drugs, manufacturers would have incentive to lower their prices relative to competitors to make their products more attractive to providers and garner market share. Federal government agencies have estimated that applying reference pricing policies to Part B drugs would result in savings for beneficiaries and taxpayers.

- OIG estimated that using an LCA policy in 2008 and 2009 to pay for drugs that treat wet age-related macular degeneration (Avastin and Lucentis) would have saved beneficiaries \$275 million and Medicare \$1.1 billion (Office of Inspector General 2011).

- CBO projected that if Medicare had used an LCA policy between 2010 and 2019 for drugs that treat osteoarthritis of the knee, the program would have saved almost \$500 million (Congressional Budget Office 2008).
- OIG has twice recommended that the Secretary apply LCA policies to prostate cancer drugs paid under Part B.³⁵ In 2004, OIG estimated that if Medicare’s contractors had applied LCA policies to all applicable prostate cancer drugs, beneficiaries and taxpayers would have saved \$40 million per year (Office of Inspector General 2004). In 2012, OIG reported that after LCA policies were removed for a group of Part B drugs that treat prostate cancer because of judicial rulings and statutory changes in 2010, utilization shifted in favor of costlier products; if an LCA policy had been in place, OIG estimated that Medicare would have achieved one-year savings of nearly \$27 million and nearly \$7 million for beneficiaries (Office of Inspector General 2012).

Researchers have also estimated significant savings from reference pricing:

- Dickson and colleagues estimated Medicare savings of \$7 billion for setting a “domestic reference price” for new drugs based on the payment rates of three existing drugs that are clinically comparable (i.e., of similar therapeutic class, mechanism of action, and indication) (Dickson et al. 2021). The domestic reference price would be calculated as the inflation-adjusted launch price of its comparators, weighted by the relative utilization of each comparator, and adjusted by an innovation premium based on the average time since approval for comparators. Under their approach, the domestic reference price of the 66 drugs analyzed was not always lower than the launch price of the new drug. However, across all Part B and Part D drugs, the researchers estimated that this approach would have yielded Medicare savings of \$7 billion between 2015 and 2019.
- After adjusting for sociodemographic and clinical characteristics and regional effects, Anderson and colleagues found that, compared with FFS beneficiaries, MA enrollees were more likely to receive the lower-cost drug in four therapeutic

drug classes (Anderson et al. 2021). The authors estimated that if FFS use aligned with MA prescribing patterns, FFS spending (in 2016 dollars) would be reduced by (1) \$204 million for anti-vascular endothelial growth factor used to treat macular degeneration (representing 8 percent of FFS spending for this drug group), (2) \$28 million for bone resorption inhibitor treatment of osteoporosis (representing 6 percent of FFS spending for this drug group), (3) \$101 million for bone resorption inhibitor treatment of malignant neoplasms (representing 20 percent of FFS spending for this drug group), and (4) \$6 million for intravenous iron treatment of anemia (representing 7 percent of FFS spending for this drug group).

- The Committee for a Responsible Federal Budget proposed “clinically comparable drug pricing,” under which Part B drug payment would be set at a single price for groups of drugs within the same therapeutic class (Committee for a Responsible Federal Budget 2021). For any such group, Medicare would set the payment for all drugs at a volume-weighted average price, which would be calculated quarterly using each product’s quarterly ASP, weighted by the average annual usage of each product, and amortized based on each drug’s standard dosing. The researchers estimated that for drugs that treat macular degeneration, rheumatoid arthritis, and prostate cancer, their policy would reduce Medicare FFS spending between 2021 and 2030 by \$81 billion and result in \$29 billion in savings for the MA program. Most of these estimated savings come from the macular degeneration and rheumatoid arthritis groups, due to the high price differential for the drugs in these groups and their significant use among FFS beneficiaries.

Establishing a single ASP-based payment rate for groups of drugs and biologics with similar health effects

To promote price competition, Medicare should establish a single ASP-based payment rate for groups of drugs and biologics with similar health effects. The Congress would need to give the Secretary the authority to apply internal reference pricing approaches to Part B drugs. Reference pricing would not be applied to all Part B drugs; rather, the Secretary would consider the ease of implementing reference

pricing and apply the policy to groups of products that may have similar indications.

RECOMMENDATION 1-2

The Congress should give the Secretary the authority to establish a single average sales price-based payment rate for drugs and biologics with similar health effects.

RATIONALE 1-2

The current ASP payment system maximizes price competition among generic drugs and their associated brand products by assigning these products to a single billing code. By contrast, products that are assigned to their own billing code and paid according to their ASP—single-source drugs, 505(b)(2) drugs, originator biologics, and biosimilars—do not face the same incentives for price competition. Thus, the current system does not spur competition among therapeutically similar single-source drugs and biologics or among originator biologics and their biosimilars. This recommendation builds on the Commission's June 2017 recommendation to apply a reference pricing policy to pay for biosimilars and originator biologics. Establishing a single ASP-based payment to drugs and biologics with similar health effects is consistent with the Commission's long-held position that Medicare should pay similar rates for similar care.

IMPLICATIONS 1-2

Spending

- This recommendation would decrease federal program spending relative to current law. We envision that the Secretary would first focus on applying reference pricing to those groups for which all of a given product's indications could be included in the group. The Secretary could begin with those groups for which implementation would be the most straightforward: (1) biosimilars and originator biologics, (2) 505(b)(2) drugs and related brand-name and generic drugs, and (3) drugs for which reference pricing has been implemented or considered previously (including erythropoietin-stimulating agents and viscosupplements for the treatment of osteoarthritis of the knee). In most instances, the Secretary could set the reference price based on the volume-weighted ASP of drugs assigned to the reference group.

Beneficiary and provider

- The recommendation is expected to generate savings for beneficiaries through lower cost sharing. The policy would not be expected to adversely affect beneficiaries' appropriate access to needed Part B drugs. Payments to providers are expected to decrease through increased price competition of drugs and biologics with similar health effects, but profitability might increase (due to the two-quarter lag in ASP payment rates and declining prices and providers choosing the lower-priced product). This recommendation is not expected to affect providers' willingness and ability to serve beneficiaries.

Implementation issues for Medicare regarding reference pricing

A reference pricing policy would require establishing a transparent and predictable process that permits opportunities for public comment. Key issues that Medicare would need to consider in applying reference pricing to Part B drugs include setting the payment rate, defining reference groups, and establishing a process for medical exceptions.

Setting the payment rate There are several ways for Medicare to determine the reference price.

- Under method 1, the reference price would be calculated using the same volume-weighted approach that CMS currently uses when determining the payment rate for generic drugs and their associated brand drug assigned to a single billing code. In 2016 and 2017, CMS used a similar volume-weighted approach to pay for all biosimilar products associated, but not grouped, with a given reference biologic.
- Under method 2, also an approach that CMS currently uses, the reference price would be based on the lower of (1) the volume-weighted ASP of all drugs within the reference group or (2) the ASP for the individual drug.³⁶
- Under method 3, the reference price could be based on the payment rate of the least costly product within the reference group. CMS used such an approach to pay for prostate cancer drugs and anti-anemia drugs between 1995 and 2010.

An advantage of basing payment on the volume-weighted ASP (as done in method 1) compared with the

**TABLE
1-6**

Illustrative example of reference pricing using a weighted average approach for a hypothetical group of three drugs

	(1)	(2)	(3) ASP + 6%		(4)	(5) Number of:		(7)	(8)
	Number of 10 mg billing units		Per billing unit	Per year of therapy (2) × (3)	Billing units from Medicare claims	Year-equivalent billing units (5) / (2)	Reference price (ASP + 6% per billing unit that equalizes cost of year of therapy)	Cost of year of therapy at new payment rate (2) × (7)	
Dosage	Per admin	Per year							
Drug A	20 mg every 2 weeks	2	52	\$15	\$780	300,000	5,769	\$12.65	\$658
Drug B	10 mg every 1 week	1	52	\$10	\$520	500,000	9,615	\$12.65	\$658
Drug C	10 mg every 1 week	1	52	\$25	\$1,300	50,000	962	\$12.65	\$658

Note: ASP (average sales price), admin (administration). Illustrative example of reference pricing for three hypothetical drugs with similar health effects using a weighted average approach to setting the reference price. All products, prices, and utilization are hypothetical.

Source: MedPAC-constructed illustrative example.

other options is that it would more likely give providers time to adjust to the new payment rates without creating financial disruption, especially for practices that already purchased the higher-priced drug before the policy went into effect. Furthermore, the volume-weighted approach is similar to how Medicare handles payment for brand drugs with generic equivalents, whose prices have significantly declined over time due in part to this approach.

While a weighted average approach has a number of advantages overall, there may be circumstances where it would be beneficial for the Secretary to also have discretion to set the reference price using method 2—that is, the lesser of the volume-weighted ASP for the group of products or the individual product’s ASP. If extremely large price differences existed between therapeutic alternatives (e.g., a low-priced drug that has experienced generic entry and an expensive single-source brand drug), using a weighted average reference

price could lead to a very large increase in the low-priced drug’s payment rate. If the Secretary had the option to apply method 2 in this circumstance, more efficient payment rates could result. An example of this approach occurred with albuterol and levalbuterol in 2007, when the Congress legislated use of the lesser-of approach to set Medicare’s payment rate.³⁷

To determine the reference price using the volume-weighted average, Medicare could weight each drug’s ASP-based payment according to its utilization under Part B—that is, by the number of units of each drug obtained from Part B Medicare claims data. Thus, the reference price would be influenced over time by Medicare beneficiaries’ use of each drug.

Some reference groups may be composed of products that vary in dosage size and frequency of administration. In calculating the reference price across products, Medicare would need to establish

a method to determine an equivalent dose across products. Potential sources of dosing information include the drug's FDA label dosing, actual use by Medicare beneficiaries derived from Part B drug claims data, or a combination of data from both sources. To implement reference pricing, we envision that the Secretary would be given the authority to determine the equivalent units when the dosing units among drugs in a given reference group are different.

To illustrate how reference pricing could work, Table 1-6 presents an example of three hypothetical drugs with similar health effects. This example assumes that the reference price is established based on the volume-weighted ASP across the products (method 1). In this hypothetical example, the three products with similar health effects have different dosing schedules. Drug A is administered every other week at a dose of 20 mg while drugs B and C are administered weekly at a dose of 10 mg. To account for the products' different dosing schedule, we calculate their price (ASP + 6 percent) for a year of therapy (column 4). Across the three products, the price per year of therapy ranges from a low of \$520 (drug B) to a high of \$1,300 (drug C). To create a weighted average payment rate across the products, we use Medicare claims data to determine the number of billing units of each drug furnished and convert these billing units into years of therapy equivalents. Next, using data for all the products, we calculate the weighted average price (ASP + 6 percent) per treatment year (\$658).³⁸ Next, for each product, we calculate the billing code-level payment rate (column 7) that would result in a payment amount of \$658 for each product per year of treatment (column 8). Comparing the original payment rates (column 3) and the reference-priced payment rates (column 7), the table shows that, under reference pricing, the payment rate per billing unit would decline for drug A (from \$15 to \$12.65) and drug C (from \$25 to \$12.65) and increase for drug B (\$10 to \$12.65).

The example in Table 1-6 is static, reflecting the first quarter when reference pricing is undertaken. Over time, we would expect the reference price to decline, as volume shifts to the lower-priced product and manufacturers of higher-priced products have the incentive to lower prices.

Defining reference groups Medicare would need to develop a process for defining groups of drugs with similar health effects. For example, such a process

could organize reference groups by clinical indications and drug classifications and could include Medicare Part B-covered drugs and biologics that:

- have similar FDA-approved indications or off-label use according to Medicare claims data or medically accepted (compendia-listed) off-label use;
- work in a similar way (e.g., same drug classification, mechanism of action); and
- are listed similarly by clinical guidelines (e.g., classification of products, recommended vs. not recommended).

Medicare's efforts to define reference groups would be similar to what health plans and PBMs commonly do when they identify a group of therapeutic alternatives for the purpose of developing a formulary or fail-first/step therapy policies. For example, for certain drugs (including viscosupplements and targeted immune modulators), Aetna covers and pays for the more costly product only for patients who have a contraindication, intolerance, or ineffective response to the less costly product. While Medicare Part B would be identifying drugs with similar health effects for a different purpose (to determine which products should be paid a similar rate), the processes utilized by health plans and PBMs to identify similar drugs could have applicability for Medicare. For example, like health plans and PBMs, Medicare Part B could develop its own pharmacy and therapeutics committee to advise it on the definition of particular reference groups. CMS could also consider seeking a technology assessment from groups with clinical expertise. Such processes would need to be clear and transparent and provide opportunities for public comment from beneficiaries, clinical experts, and others.

In defining reference groups, Medicare could consider the ease of implementing reference pricing. It would be relatively straightforward to define groups of products that have similar indications. Each drug in the reference group would be paid based on its reference price across all uses. However, in some cases, drugs that are therapeutic alternatives and candidates for inclusion in a reference group may not have the same universe of indications. If substantial differences existed in indications across products that are therapeutic alternatives, Medicare could consider establishing reference groups for specific indications

**TABLE
1-7**

Medicare’s payment system for originator biologics and their biosimilars results in wide price variation across similar products

**Estimated range of payment rates across an originator biologic and its biosimilars:
Average annual payment per beneficiary per year based on first-quarter 2023 ASP payment rates and same annual average dose**

Originator biologic and biosimilars	Number of products (originator biologic and biosimilars)	Lowest-priced product	Highest-priced product	Yearly difference between lowest- and highest-priced product
Neupogen	4	\$729	\$3,001	\$2,272
Remicade	4	7,697	14,111	6,414
Neulasta	5	4,212	6,867	2,656
Procrit/Epogen	2	2,369	2,424	54
Avastin*	3	15,489	34,576	19,086
Herceptin	6	13,022	32,456	19,434
Rituxan	4	9,138	22,856	13,718
Lucentis	2	6,857	6,893	36

Note: ASP (average sales price). Yearly difference between lowest- and highest-priced product is calculated using unrounded figures.
*The estimated annual price for the originator biologic Avastin and its biosimilars is based on the average dose for non-ophthalmological indications (e.g., cancer diagnoses). The dosing for non-ophthalmological indications is much larger than for ophthalmological indications, and the vast majority of Avastin biosimilar administrations in 2021 were for non-ophthalmological indications.

Source: MedPAC analysis of Medicare ASP payment rate files for first quarter 2023 publicly available on CMS website and Medicare claims data for physicians and outpatient hospitals.

or groups of indications. However, such an approach would result in indication-specific pricing, an approach under which payers establish a price for each drug’s clinical indication. Indication-specific pricing is not used under the ASP-based payment rate for Part B drugs. Rather, Medicare pays one ASP for all of a drug’s clinical indications. Adopting an indication-specific policy would likely be complex to administer. For example, some drugs are distributed and purchased without knowledge of their ultimate use, which makes it difficult to link prices with indications (Pearson et al. 2017).

Consequently, we envision that the Secretary could first focus on applying reference pricing to those groups for which all of a given product’s indications could be included in the group. The Secretary could begin with those groups for which implementation

would be the most straightforward: (1) biosimilars and originator biologics, (2) 505(b)(2) drugs and related brand-name and generic drugs, and (3) drugs for which reference pricing has been implemented or considered previously (including erythropoietin-stimulating agents and viscosupplements for the treatment of osteoarthritis).

Applying reference pricing to pay for an originator biologic and its biosimilars The use of reference pricing for originator biologics and biosimilars would promote price competition and eliminate the wide variation in the price that Medicare and beneficiaries currently pay for similar products. As shown in Table 1-7, prices vary widely among products with biosimilar competitors. For example, the amount that Medicare and beneficiaries would pay for the originator biologic Avastin and its three biosimilar competitors (with the

Drugs approved under the 505(b)(2) pathway

A 505(b)(2) application is a type of new drug application (NDA) that contains full reports of investigations of safety and effectiveness, at least some of which come from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. In some cases, drugs approved under Section 505(b)(2) share significant portions of labeling with generic drugs that are paid as multiple-source drugs under Section 1847A of the Social Security Act. The 505(b)(2) pathway is a hybrid between the generic approval process (under 505(b)(j)) and a full NDA under 505(b)(1). CMS proposed but did not finalize a proposal to revise the definition of a multiple-source drug in regulation text by amending the applicable regulatory text to state that multiple-source drugs may include drugs described under Section 505(b)(2) (Centers for Medicare & Medicaid Services 2020). CMS indicated that some stakeholders expressed concern about potential payment reductions and about reduced incentives for innovation of and access to 505(b)(2) drugs, while others expressed support for the proposal.

As of January 2023, CMS assigns many products approved under the 505(b)(2) pathway to their own billing code, rather than grouping them in a multiple-source billing code with other similar brand and generic versions of the drug. The phenomenon of separate billing codes and payment rates for 505(b)(2) products stems from CMS's effort to identify 505(b)(2) products that should receive a separate billing code based on the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (Centers for Medicare & Medicaid Services 2023). Beginning in January 2023, CMS established new separate billing codes

for many 505(b)(2) products that were paid under a shared billing code in 2022, including bortezomib, calcium gluconate, cefazolin sodium, cefepime hydrochloride, daptomycin, decitabine, fulvestrant, glucagon hydrochloride, linezolid, meropenem, micafungin, midazolam, morphine, moxifloxacin, triamcinolone acetonide, and vancomycin (Table 1-8, pp. 40–41).

The establishment of manufacturer-specific codes for 505(b)(2) products has led to wide variation in Medicare's payment rates for some 505(b)(2) and related brand-name and generic products. Pemfexy, a 505(b)(2) version of the brand drug Alimta (chemical name pemetrexed), is an example of this variation. In the Food and Drug Administration's (FDA's) review of Pemfexy's application for 505(b)(2), the FDA states, "Pemfexy is a ready-to-dilute liquid intravenous formulation which was designed to eliminate the reconstitution step of the Reference Listed Drug (RLD) Alimta. Pemfexy is expected to have the same efficacy and safety profile" (Food and Drug Administration 2019a, Food and Drug Administration 2019b). In the first half of 2022, Alimta's marketing exclusivity expired and generic forms of pemetrexed and the 505(b)(2) Pemfexy entered the market. As of January 2023, Alimta and its generic equivalents are paid under the same billing code at a rate of about \$28 per 10 mg (based on the volume-weighted average sales price for the brand and generic) (Table 1-8, pp. 40–41). In contrast, Pemfexy is paid three times more, \$82 per 10 mg, because it is paid under its own billing code. In another example, as of January 2023, Medicare pays different rates for bortezomib (brand and generics J9041) and its three 505(b)(2) drugs (J9046, J9048, and J9049).

(continued next page)

same average annual dose for non-ophthalmological indications) would vary by \$19,000 per beneficiary depending on whether the lowest- or highest-priced version of the product were administered. Across the eight Part B products with biosimilars, the highest-priced product for four of the products was at least

double the price of the lowest-priced product; for two products, the highest-priced product was at least 50 percent more expensive than the lowest priced. In June 2017, the Commission recommended that Medicare pay originator biologics and their biosimilars the same average rate using a combined billing code, a

Drugs approved under the 505(b)(2) pathway (cont.)

**TABLE
1-8**

Wide price variation among drug groups with branded, generic, and 505(b)(2) products

Billing code	Drug type	Billing unit	ASP for Q1 2023
Injection, acetaminophen			
J0131	Generics only	10 mg	\$0.101
J0134	505(b)(2)	10 mg	0.139
J0136	505(b)(2)	10 mg	0.049
Bortezomib			
J9041	Brand and/or generics	0.1 mg	9.011
J9046*	505(b)(2)	0.1 mg	10.959
J9048*	505(b)(2)	0.1 mg	2.677
J9049	505(b)(2)	0.1 mg	7.130
Calcium gluconate			
J0610	505(b)(2)	10 ml	5.168
J0611*	505(b)(2)	10 ml	1.689
Cefazolin sodium			
J0689*	505(b)(2)	500 mg	1.162
J0690	Generics only	500 mg	0.730
Cefepime hydrochloride			
J0692	Generics only	500 mg	1.287
J0701*	505(b)(2)	500 mg	5.431
J0703*	505(b)(2)	500 mg	5.062
Daptomycin			
J0877*	505(b)(2)	1 mg	0.066
J0878	Brand and/or generics	1 mg	0.048
Decitabine			
J0893*	505(b)(2)	1 mg	1.576
J0894	Brand and/or generics	1 mg	1.276
Fulvestrant			
J9393*	505(b)(2)	50 mg	15.443
J9394*	505(b)(2)	50 mg	7.845
J9395	Brand and/or generics	50 mg	12.661
Glucagon hydrochloride			
J1610	Brand and/or generics	1 mg	173.775
J1611*	505(b)(2)	1 mg	162.012
Linezolid			
J2020	Brand and/or generics	200 mg	3.233
J2021*	505(b)(2)	200 mg	16.433
Melphalan			
J9245	Brand and/or generics	50 mg	220.661
J9246	505(b)(2)	1 mg	16.044
Meropenem			
J2184*	505(b)(2)	100 mg	2.126
J2185	Brand and/or generics	100 mg	0.621

Drugs approved under the 505(b)(2) pathway (cont.)

**TABLE
1-8**

Wide price variation among drug groups with branded, generic, and 505(b)(2) products (cont.)

Billing code	Drug type	Billing unit	ASP for Q1 2023
Micafungin sodium			
J2247*	505(b)(2)	1 mg	0.240
J2248	Brand and/or generics	1 mg	0.920
Midazolam hydrochloride			
J2250	Brand and/or generics	1 mg	0.157
J2251*	505(b)(2)	1 mg	0.308
Morphine sulfate			
J2270	Brand and/or generics	10 mg	2.461
J2272*	505(b)(2)	10 mg	7.451
J2274	Brand and/or generics	10 mg	9.101
Moxifloxacin			
J2280	Brand and/or generics	100 mg	10.264
J2281*	505(b)(2)	100 mg	9.728
Pemetrexed			
J9304	505(b)(2)	10 mg	81.563
J9305	Brand and/or generics	10 mg	27.681
Triamcinolone acetonide			
J3299	505(b)(2)	0.1 mg	47.612
J3300	505(b)(2)	1 mg	4.185
J3301	505(b)(2) or generics	10 mg	1.060
J3304	505(b)(2)	1 mg	16.954
Vancomycin hydrochloride			
J3370	Brand and/or generics	500 mg	2.856
J3371*	505(b)(2)	500 mg	6.399
J3372*	505(b)(2)	500 mg	6.491

Note: ASP (average sales price), Q (quarter).

*In 2022, CMS paid for the 505(b)(2) product under a shared billing code (i.e., with other brand, 505(b)(2), and generic products).

Source: Medicare ASP payment rate file for first quarter 2023 publicly available on CMS website.

These clinically comparable products are likely candidates for reference pricing. In the clinical review of each product, the FDA concluded that:

- Dr. Reddy's bortezomib (J9046) is qualitatively and quantitatively similar to brand-name Velcade and that “the benefit and risk of Bortezomib for Injection is expected to be the same as that of the listed drug Velcade” (Food and Drug Administration 2019b).
- Fresenius Kabi's bortezomib (J9048) “has the same indication, dosage form, strength, and route of

administration (IV) as the innovator drug” (Food and Drug Administration 2013).

- “The Hospira [bortezomib] product is nearly identical to the listed product, as the Hospira product has the same active ingredient and inactive ingredient, is the same dosage form and has the same routes of administration and concentration of bortezomib following reconstitution as the Listed Drug, Velcade” (Food and Drug Administration 2017). ■

form of reference pricing. The creation of a reference group containing only an originator biologic and its biosimilars is straightforward, consistent with the Commission's 2017 recommendation that reference pricing for those products be mandatory.

Applying reference pricing to pay for 505(b)(2) products and related brand-name and generic products As discussed in the text box on 505(b)(2) drugs (pp. 39–41), another potential use for reference pricing is for drugs approved under 505(b)(2), a pathway that is a hybrid between the generic approval process (under 505(b)(j)) and a full new drug application (NDA) (under 505(b)(1)). A 505(b)(2) application is a type of NDA that contains full reports of investigations of safety and effectiveness, but at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. According to researchers, most 505(b)(2) applications consist of changes (e.g., a new dosage form, route of administration, or inactive ingredient) to a previously approved reference drug (Freije et al. 2020). Manufacturers of some 505(b)(2) products may adopt these changes (e.g., different inactive ingredients) to evade patents of the reference drug (Wosinska and Frank 2022). The provisions of 505(b)(2) were created, in part, to help avoid unnecessary duplication of studies already performed on a previously approved (“reference” or “listed”) drug. Some stakeholders refer to products approved under the 505(b)(2) pathway as “line extensions” or “505(b)(2) generics” (Centers for Medicare & Medicaid Services 2019, Wosinska and Frank 2022).

Because of statutory provisions in the MMA, Medicare currently assigns a unique billing code and pays for many 505(b)(2) products based on their own ASP rather than placing them in an existing billing code and paying them the same average rate as brand and generic forms of the drug. CMS recently announced that it has identified 505(b)(2) products that should receive a separate billing code based on the MMA, which resulted in a substantial increase in the number of 505(b)(2) products receiving their own manufacturer-specific payment rate in January 2023 (Centers for Medicare & Medicaid Services 2023). As of January 2023, CMS created a manufacturer-specific (unique) billing code for 19 505(b)(2) drugs that the agency, in 2022, assigned to a shared billing code (with related

brand and generic versions of the drug) (Table 1-8, pp. 40–41). The establishment of manufacturer-specific codes for 505(b)(2) products has led to wide variation in Medicare's payment rates for some 505(b)(2) products and related brand-name and generic products (see text box on 505(b)(2) approval process, pp. 39–41). Examples of likely candidates for reference pricing include (1) Velcade, its generics, and its three 505(b)(2) products, and (2) Alimta, its generics, and its four 505(b)(2) products, which include Pemfexy and Actavis.

Applying reference pricing to pay for groups of products for which the Secretary already has some current or prior experience Another category of products on which the Secretary could initially focus are those for which the Secretary already has some current or prior experience with reference pricing. One example is viscosupplements that treat osteoarthritis of the knee (e.g., GenVisc 850 and Gel-One), which CBO included as a policy option in its budget options publication (Congressional Budget Office 2008). While most viscosupplement products have their own billing code, a few viscosupplement products (Hyalgan, Supartz, and Visco-3) are currently grouped together in a combined billing code and paid at an average rate, based on a statutory grandfathering provision that required products that were grouped together as of October 1, 2003, to remain grouped together. Under new authority, CMS could apply reference pricing more broadly to products in this therapeutic class rather than to just a small subset of the products. Other groups of drugs with which the Secretary has reference-pricing experience include erythropoietin-stimulating agents (e.g., Epogen and Aranesp) and prostate cancer drugs (e.g., Lupron, Trelstar, Zoladex, Firmagon, and 505(b)(2) products including Camcevi).

Other groups of drugs to apply reference pricing The Secretary could consider reference pricing for other groups of clinically similar products. Examples include anti-vascular endothelial growth factors that treat wet age-related macular degeneration and other conditions (e.g., Eylea, Lucentis); targeted immune modulators that treat rheumatoid arthritis (e.g., Orencia and Rituxan); leukocyte growth factors that stimulate white blood cells (e.g., Neupogen, Granix, Neulasta); iron products (e.g., Injectafer and Feraheme) and products that treat osteoarthritis and bone cancer (e.g., Evenity, Prolia, Xgeva, Zometa). (See Table 4-6 of the Commission's

June 2022 report (at https://www.medpac.gov/wp-content/uploads/2022/06/Jun22_Ch4_MedPAC_Report_to_Congress_v2_SEC.pdf) for additional potential groups and spending implications.)

How Medicare would define groups of products that are clinically similar—narrowly or broadly—is a key design issue. For example, a group could be defined that would broadly apply to both short-acting erythropoiesis-stimulating agents (ESAs) (Epogen and its biosimilar Retacrit) and long-acting ESAs (Aranesp and Mircera). Alternatively, two groups could be defined—one for short-acting agents and another for long-acting agents. More products in a given group will likely lead to greater price competition. Designing groups more broadly would have a greater effect on Medicare spending than groups defined narrowly.

Another issue relates to whether a repackaged drug used for an off-label indication should be included in a given reference group. One example is the off-label use of Avastin, a cancer treatment that is repackaged by compounding pharmacies into smaller doses for treatment of eye disorders, including wet age-related macular degeneration. Medicare may cover off-label use of FDA-approved drugs and biologics if it determines the use to be medically accepted, which the program has done for off-label Avastin use for ophthalmological indications.³⁹

Establishing a process for medical exceptions CMS could establish a process for determining exceptions to reference pricing policies when a beneficiary's clinical circumstances support the medical necessity of a more costly product. Our recommendation for establishing consolidated billing codes for the original biologic and its biosimilars discussed the potential for a medical exception process (Medicare Payment Advisory Commission 2017). We said that under such a policy, the clinician would continue to have the choice to prescribe the product most appropriate for the patient, with Medicare's payment based on the reference price. The Congress could consider allowing the Secretary to provide a very limited payment exception process under which Medicare would reimburse the provider based on the ASP of the higher-priced product if the clinician provided justification that the product was medically necessary, such as instances for which clinical failure of a particular product has been documented (Medicare Payment Advisory Commission

2017). A payment exceptions process addresses the concern that beneficiary access under a reference pricing policy could be harmed if some providers were unwilling to supply the higher-cost product to a beneficiary for whom the product was a medical necessity. Providers could submit medical justification to the regional MACs, and the exception process could be coupled with Medicare's existing appeals process that gives beneficiaries, providers, or their representatives the right to appeal the MACs' coverage and payment decisions.

The degree to which a payment exceptions process would be needed may depend on the method chosen to establish the reference price. If a weighted average payment rate (method 1) were chosen, there may be less need for an exceptions process than under the other two methods. With the weighted average approach, clinicians who chose the lower-cost product would be paid at the higher weighted average payment rate and earn additional revenues, which the clinician could use to offset the additional cost of a higher-priced product if needed by a particular patient. In contrast, with the least costly alternative (method 3) or the lesser of a product's own ASP or the weighted average price (method 2), the lowest-cost product would continue to be paid based on its own ASP. Thus, with these two approaches, there are fewer opportunities for the profits associated with the use of less costly drugs to offset any additional costs of more costly drugs. Consequently, an exceptions process might be more important if these two methods were chosen.

Unless carefully designed, a payment exceptions process could create incentives for the use of higher-priced products when the beneficiary's clinical circumstance does not support an exception. Since the add-on of a higher-priced product generates more revenue for the provider than the add-on of a lower-priced product, selection of the higher-priced product could generate more profit, depending on the provider's acquisition costs for the two products. In 2017, the Commission said that to minimize such unintended effects:

- the clinician's payment from Medicare when an exception is granted could be set at the higher-cost product's ASP without an add-on payment (i.e., 100 percent of ASP); and

- the Medicare program would pay the provider 80 percent of the ASP of the exception (higher-cost) product that was furnished, and the beneficiary would pay the provider 20 percent of the exception (higher-cost) product's ASP + 0 percent (Medicare Payment Advisory Commission 2017).⁴⁰

Other issues For a drug newly approved by the FDA, the Secretary would need a clear, transparent, and timely process for evaluating the drug's comparative clinical effectiveness against existing drugs that are the standard of care and for determining whether the drug should be included in an existing reference product group.⁴¹ The Secretary already has experience under the prospective payment systems for inpatient, outpatient, and ESRD services to assess whether new services represent clinical improvements compared with existing treatments. While a new drug's comparative clinical effectiveness is being considered, its payment rate could be based on prevailing Medicare payment policies (i.e., ASP + 6 percent), which would obviate delays in beneficiaries' access. Determining the overall length of time for the Secretary to implement this process would also need to be addressed.

Additional design elements would be involved in establishing reference pricing policies:

- how frequently the reference price would be updated (e.g., quarterly, annually);
- providing pricing information to beneficiaries and clinicians (to make them sensitive to the difference in out-of-pocket spending); and
- whether Medigap policies could cover beneficiary cost sharing that is greater than the reference price.

Improving financial incentives by modifying add-on payments for Part B drugs and biologics

The percentage add-on payment to Medicare Part B's ASP payment rates has garnered attention because of concern that it may create incentives for use of higher-priced drugs when lower-priced alternatives exist. While clinical factors play a central role in prescribing decisions, at the margins, financial considerations can

also play a role in providers' choice of drugs. Evidence from several studies examining utilization patterns for certain products suggests that the percentage add-on to ASP likely affects prescribing patterns in some circumstances. A policy to reduce and restructure add-on payments would improve financial incentives.

Medicare's percentage add-on payment to ASP

Under Section 1847A of the Social Security Act, Medicare pays providers for most Part B drugs at a rate of ASP + 6 percent. In addition to the payment for the drug, Medicare also makes a separate payment for drug administration services under the physician fee schedule or hospital outpatient prospective payment system (OPPS).

The 6 percent add-on is often thought of as the profit margin that providers make on Part B drugs, but the actual profit margin may be greater or less than 6 percent (including possibly negative margins in some circumstances), depending on a variety of factors. If a provider purchases a drug at a price equal to ASP, the profit margin on the drug is 6 percent. A provider may purchase a drug at a price other than ASP for several reasons. Since ASP is an average, some providers will pay more and some will pay less than the average if there is price variation across purchasers (e.g., due to volume discounts). Because of two-quarter lags in the ASP payment rates, the provider's margin is reduced when a drug's price increases (and the margin increases when the drug's price declines) until the ASP payment rates catch up two quarters later. In addition, prompt-pay discounts paid by manufacturers to wholesalers (which are anecdotally reported in the range of 1 percent to 2 percent) can create a gap between ASP and the provider's acquisition costs, as these discounts are subtracted from ASP but are reportedly not fully passed on to purchasers.

As with other Medicare services, the current 2 percent sequester reduces Medicare program payments for Part B drugs. From the perspective of the provider, the statutory payment rate of ASP + 6 percent becomes a net payment of ASP + 4.3 percent after application of the sequester. Because the sequester applies to the Medicare program's payment and not beneficiary cost sharing, the Medicare beneficiary continues to pay 20 percent of ASP + 6 percent and the Medicare program pays 80 percent of ASP + 3.9 percent when

the 2 percent sequester is in effect.⁴² The sequester was first implemented in April 2013 but was suspended from May 2020 to March 2022 and reduced to 1 percent from April to June 2022 by the Congress in response to the COVID-19 public health emergency, and then was reinstated at 2 percent beginning July 2022, effective through March 2032.

Information on providers' acquisition costs for Part B drugs is very limited, but a few older studies of certain drugs found that pharmaceutical manufacturers' pricing patterns responded to policy changes. For example, when the ASP payment system was adopted in January 2005, the Commission found evidence suggesting that pharmaceutical manufacturers responded to the new payment system by narrowing the variation in invoice prices across purchasers (Medicare Payment Advisory Commission 2006). In addition, a Commission analysis of IMS Health invoice price data from 2012 to 2015 found evidence suggesting that manufacturers responded to implementation of the sequester in 2013 by changing their pricing to mitigate the effect of the sequester on providers' margins (Medicare Payment Advisory Commission 2016). (See text box in the Commission's June 2022 report to the Congress for a more detailed discussion, https://www.medpac.gov/wp-content/uploads/2022/06/Jun22_Ch4_MedPAC_Report_to_Congress_v2_SEC.pdf.)

There is no consensus on the original intent of the percentage add-on to ASP. Some analysts have suggested that the add-on was intended to cover price variation across purchasers or other factors that can result in a provider's purchase prices exceeding ASP. Another perspective is that the add-on was in part intended to cover costs associated with drug wastage or spillage. However, high-expenditure drugs tend to be packaged in single-use containers, and Medicare pays providers for the wasted amount of drug dispensed from single-use containers.⁴³ Another view is that the add-on was intended to cover drug storage and handling costs, although it seems unlikely that these costs would vary across products based on a percentage of each product's price.⁴⁴ Still others have suggested that the add-on was intended to cover the financing costs associated with maintaining a drug inventory.

Because Medicare Part B covers a diverse set of products ranging in price from very inexpensive to extremely expensive, the size of ASP add-on

payments varies widely across Part B drugs. In 2021, about 35 million Part B drug administrations received a 6 percent add-on, and those add-on payments accounted for about \$1.6 billion of the total \$29 billion in payments for those drugs (excluding drugs acquired by outpatient hospitals under the 340B program).⁴⁵ Most Part B drug administrations involve low-cost products with small add-ons. In 2021, nearly half of Part B drug administrations involved an add-on of less than \$1; 63 percent of Part B drug administrations involved an add-on of less than \$10 (Figure 1-2, p. 46). Examples of products with small add-on payments include corticosteroids injections, vitamin B-12, and contrast agents. However, the bulk of add-on payment spending is concentrated among lower-frequency, high-priced drugs. For example, about 15 percent of drug administrations had an add-on payment exceeding \$100, and those administrations accounted for more than 80 percent of add-on spending (Figure 1-2). Furthermore, less than 2 percent of drug administrations had an add-on payment exceeding \$500, and those administrations accounted for 25 percent of add-on spending. Examples of products with some of the highest add-ons include CAR-T (chimeric antigen receptor T-cell) products, certain clotting factors, and certain products for rare conditions.

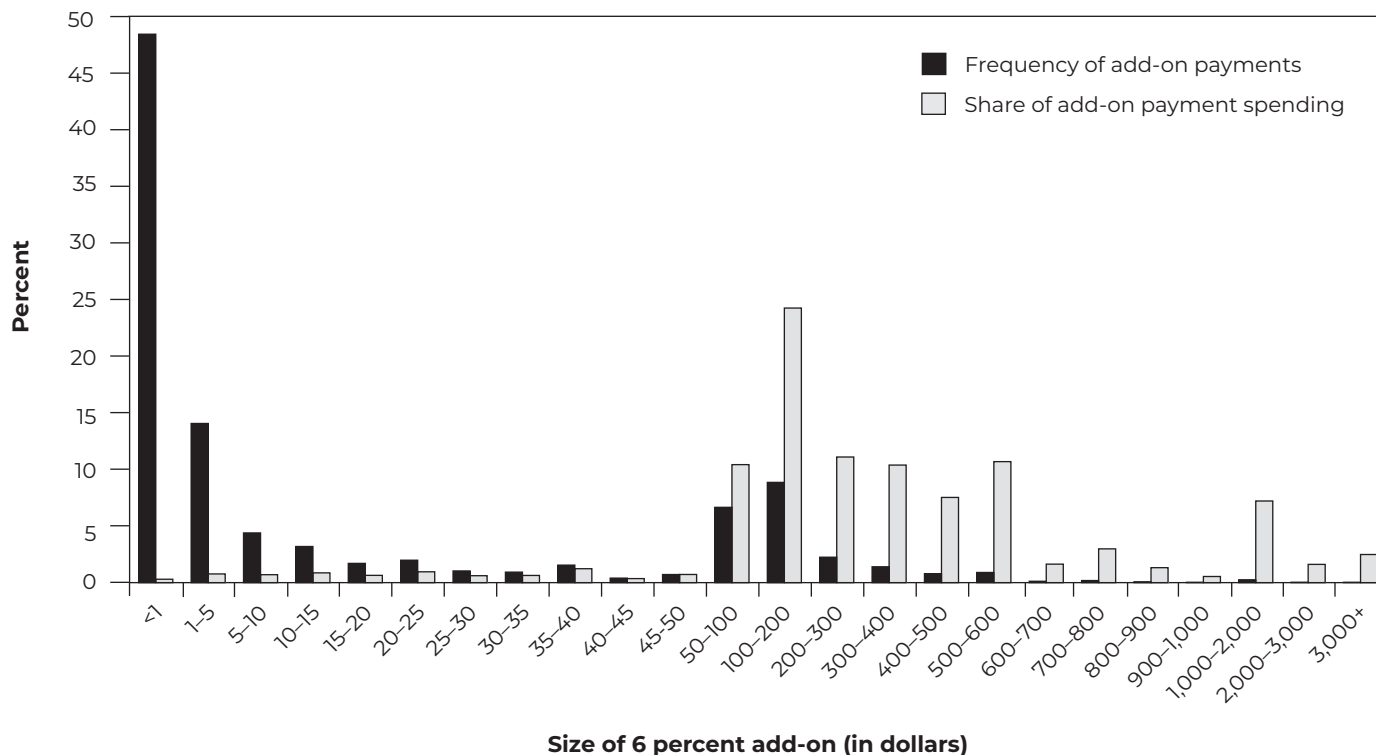
When a provider furnishes a Part B drug, in addition to being paid ASP plus a percentage add-on for the drug, the provider also receives a separate payment for drug administration services. Medicare Part B pays providers for drug administration services under the physician fee schedule and OPPS. For example, under the physician fee schedule in 2023, payment for an injection is about \$74 for a chemotherapy product and \$14 for a nonchemotherapy product, while payment for the first hour of infusion is \$132 for a chemotherapy product and \$65 for a nonchemotherapy product. Additional payments are made if more than one drug is furnished or if an infusion lasts longer than the initial hour. Hospital outpatient departments generally receive higher drug administration payment rates than physician offices. In addition, drug administration payment rates may vary based on the location of the injection (e.g., injections in the eye and in the knee).

Medicare's add-on payment for drugs lacking ASP data

For some Part B drugs, CMS lacks ASP data on which to base the drug's payment. A lack of ASP data can occur

**FIGURE
1-2**

Most Part B drug add-on payments are small, but expensive drugs with large add-on payments account for most add-on spending



Note: Analysis includes all Part B-covered drugs paid under the ASP plus 6 percent system in 2021, excluding drugs billed through not-otherwise-classified Healthcare Common Procedure Coding System codes; drugs furnished by outpatient hospitals that were acquired through the 340B drug pricing program; drugs furnished by critical access hospitals or Maryland hospitals; and drugs furnished to beneficiaries with Medicare as a secondary payer.

Source: MedPAC analysis of Medicare claims data for physicians, hospitals, and suppliers.

in two scenarios. First, for new single-source drugs, in the first six to nine months on the market, ASP data are not yet available. Medicare may also lack ASP data for drugs that are not new for other reasons, such as a manufacturer not reporting ASP data. For example, a recent OIG report found that as of January 2023, many billing codes for skin-substitute products (30 out of 68 billing codes) lacked an ASP-based payment rate because manufacturers were not reporting ASP data (Office of Inspector General 2023).⁴⁶

For most drugs without ASP data, Medicare generally pays providers based on the manufacturer’s list price—the wholesale acquisition cost (WAC)—plus an add-on percentage. When the ASP payment system was first established, Medicare paid all drugs lacking ASP

data WAC + 6 percent. In June 2017, the Commission recommended that payment be changed from WAC + 6 percent to WAC + 3 percent (Medicare Payment Advisory Commission 2017). In 2019, CMS changed the payment amount for new drugs lacking ASP data to WAC + 3 percent, while drugs lacking ASP data for other reasons continue to be paid WAC + 6 percent.

The rationale for the Commission’s 2017 recommendation to reduce the add-on percent payment to WAC + 3 percent stems from differences in the definition of WAC and ASP. WAC is the price at which the manufacturer sells to the wholesaler and, unlike ASP, does not reflect any discounts. As a result, WAC is generally higher than ASP. The Commission’s 2017 analysis found that for a sample

of new drugs, payment rates generally fell when ASP data became available and payment rates moved from WAC + 6 percent to ASP + 6 percent. The Commission recommended a payment of WAC + 3 percent for drugs lacking ASP data because it would set payment at a level that was roughly in parity with ASP + 6 percent for the sample of new drugs we examined. In making the 2017 recommendation of WAC + 3 percent, the Commission indicated that WAC-based payment might be further reduced if the ASP add-on were reduced in the future.

Does the percentage add-on influence use of high-cost drugs?

The percentage add-on to Medicare Part B's ASP payment rates has garnered attention because of concern that it may create incentives for use of higher-priced drugs when lower-priced alternatives exist (Bach and Ohh 2018, Dusetzina and Mello 2021, Hutton et al. 2014, Sanghavi et al. 2014). Prescribing decisions depend on a variety of clinical factors; for example, drugs can vary in terms of their effectiveness in treating patients with certain conditions or comorbidities, and they can differ in terms of side effects. While clinical factors play a central role in prescribing decisions, at the margins, financial considerations can also play a role in providers' choice of drugs. Since a percentage add-on generates more revenue for the provider when applied to a higher-priced product than a lower-priced product, selection of the higher-priced product could generate more profit for the provider, depending on their acquisition costs for the two products. At the same time, other financial considerations might create an incentive to use lower-priced drugs in some situations. For example, when selecting a drug, a provider may take into account the cost sharing associated with each drug and the patient's ability to pay, which might lead to choosing a lower-priced drug for some patients. Also, the financial capital required to acquire and keep an inventory of a high-priced drug can be a disincentive for some providers to furnish expensive drugs.

Evidence from several studies examining utilization patterns for certain products with therapeutic alternatives suggests that the percentage add-on to ASP likely affects prescribing patterns in some circumstances. A study by Jacobson and colleagues

examining oncologists' prescribing patterns for lung cancer found a modest increase in the use of the most expensive cancer drug after January 2005, when Medicare began paying for Part B drugs based on ASP + 6 percent (Jacobson et al. 2010). A study by Conti and colleagues of drugs used to treat colorectal cancer found that use of the chemotherapy drug irinotecan declined (by just under 20 percent) after it went generic in 2008 compared with use of an alternative higher-priced brand drug, oxaliplatin (Conti et al. 2012). The authors suggested that physician reimbursement incentives may have been a driver of those utilization changes, but they also stated that there were changes in recommended treatment regimens over this period, which could also have contributed to these trends. When the LCA policy for certain prostate cancer drugs was removed in 2010 and Medicare began paying for the drugs based on 106 percent of their own ASPs, the Department of Health and Human Services OIG found a shift from the lowest-priced prostate cancer drug toward higher-priced competitor products (Office of Inspector General 2012). Hambley and colleagues examined utilization of several iron products among Medicare beneficiaries between 2015 to 2017, a period that included a shortage of the low-priced product iron dextran during the early part of 2016 (Hambley et al. 2020). The study found increasing market share for a high-priced iron product, ferric carboxymaltose, even after the shortage of iron dextran subsided, which the authors suggest may have been related to its higher add-on payment. Gupta and colleagues found that after the FDA approved denosumab (a bone resorption inhibitor drug) in 2018 for skeletal-related events in patients with multiple myeloma, the product rapidly diffused among FFS beneficiaries with multiple myeloma, despite lack of evidence of superiority compared with its lower-cost alternatives, zoledronic acid and pamidronate (Gupta et al. 2020). The authors questioned the routine use of denosumab except in patients with renal dysfunction or in those unable to tolerate the lower-cost agents.

The percentage add-on may also affect a provider's decision to initiate or continue drug treatment rather than opt for nondrug treatment, watchful waiting, or palliative care. Although studies have not evaluated this question directly, some have looked at whether large reimbursement changes—specifically, the payment rate changes that occurred when the MMA changed the Part B drug payment rates from

95 percent of average wholesale price (AWP) to ASP + 6 percent—affect utilization of drugs. A study by Elliott and colleagues found that when reimbursement for androgen suppression therapy (AST) declined by 64 percent between 2003 and 2005, AST use declined among nonindicated, low-risk patients (from 10 percent to 6 percent receiving AST) but remained steady among higher-risk patients with metastatic disease (Elliott et al. 2010). A study by Colla and colleagues found some reduction in patients with a poor prognosis receiving chemotherapy in physician offices in the last 14 days and 3 months of life, but not in hospital outpatient departments, after the payment rate was reduced from 95 percent of AWP to ASP + 6 percent (Colla et al. 2012). The authors attributed the decrease in chemotherapy provision to physician offices’ response to reduced drug profit margins, hypothesizing that physician offices were more responsive to the payment reduction than outpatient hospitals because physicians’ income is more directly related to chemotherapy use in the physician office setting than in the hospital outpatient setting, where physicians may be salaried employees.

Experience with payment changes under the ESRD payment system also illustrates more broadly how financial incentives can affect utilization, product selection, and price competition. Medicare’s implementation of the ESRD prospective payment system (PPS), which eliminated separate payment for ESAs and included them as part of the broader payment bundle, led to more judicious use of ESAs by nephrologists and dialysis facilities. ESA use declined by 23 percent between 2010 and 2012 (one year before and after, respectively, implementation of the PPS) without adverse effects on beneficiary outcomes (Medicare Payment Advisory Commission 2022c).⁴⁷ Inclusion of drugs in the ESRD payment bundle also led to price competition and incentivized providers to shift to lower-priced products.⁴⁸

Reducing add-on payments for Part B drugs

To improve financial incentives, Medicare should minimize the relationship between price and add-on payments for drugs paid based on ASP and eliminate add-on payments for drugs paid based on WAC. As discussed later in this section, our approach for drugs paid based on ASP would maintain the current add-on for the lowest-cost products, reduce the percentage add-on and add a fixed fee for mid-priced drugs, and

place a fixed-dollar cap on the add-on for the highest-priced drugs. Add-on payments for drugs that lack ASP data and are paid based on WAC should also be eliminated because WAC is an undiscounted list price that is generally higher than ASP.

RECOMMENDATION 1-3

The Congress should require the Secretary to:

- **reduce add-on payments for costly Part B drugs and biologics paid based on average sales price in order to minimize the relationship between average sales price and add-on payments, and**
- **eliminate add-on payments for Part B drugs and biologics paid based on wholesale acquisition cost.**

RATIONALE 1-3

Because a percentage add-on payment generates more revenue for the provider when applied to a higher-priced product, Medicare’s current payment for Part B drugs may create incentives for use of higher-priced drugs when less expensive therapeutic alternatives are available. The percentage add-on payment may also affect a provider’s decision to initiate or continue drug treatment in some circumstances. Reducing the add-on payment for costly Part B drugs would improve financial incentives under the ASP payment system by minimizing the relationships between price (ASP) and add-on payments. For drugs lacking ASP data and paid based on WAC, providers already receive a payment that is generally higher than ASP since WAC is a list price that does not reflect any discounts. Eliminating the add-on to WAC would reduce excessive payments for these drugs, thereby reducing the financial incentives to use such drugs when less expensive alternatives are available.

IMPLICATIONS 3

Spending

- This recommendation would decrease federal program spending relative to current law by at least \$250 million over one year and at least \$1 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have an adverse effect on beneficiaries’ access to care. Providers that furnish Part B drugs would generally

experience reduced add-on payments, except for low-priced drugs. The reduction would result in increased financial pressure for some providers, depending on factors such as manufacturers' pricing response to the policy. Overall, the policy is not expected to affect providers' willingness and ability to serve beneficiaries.

Implementation issues for Medicare regarding reducing add-on payments

In implementing a policy to reduce the ASP add-on, the Secretary would have to consider how to structure the reduced add-on to improve financial incentives. Over the years, the Commission has explored a number of approaches to modify the percentage add-on to ASP. In 2017, the Commission recommended reducing the add-on as part of its recommendation to develop what we described as the Drug Value Program (DVP). As recommended, the DVP would be a voluntary, market-based alternative to the ASP payment system. It would rely on private vendors to negotiate drug prices using tools like a formulary, and it would share savings with providers that choose to enroll. The Commission recommended that the percentage add-on be reduced beginning no later than 2022, regardless of the status of the DVP, in order to create pressure for DVP development and implementation and to encourage provider enrollment in the DVP. Our report suggested that the ASP add-on could be reduced gradually, by 1 percentage point per year (i.e., ASP + 5 percent in 2022, ASP + 4 percent in 2023, and ASP + 3 percent in 2024 and onward).

In our June 2022 report, the Commission continued to explore approaches to modify the percentage add-on. We observed that policies to modify the ASP add-on involve trade-offs. Eliminating the percentage add-on would reduce any incentives for providers to use a higher-priced drug when a lower-priced drug with similar health effects is available to treat a particular patient. At the same time, however, eliminating a percentage add-on might result in Medicare's payment rate being lower than acquisition costs for some products or some providers. An alternative to fully eliminating the percentage add-on is a "hybrid approach," with a reduced percentage add-on and flat fee. Such an approach would improve incentives by reducing the difference in add-on payments between higher-cost and lower-cost drugs, while also reducing the potential for unintentionally harming providers'

ability to acquire drugs for the Medicare payment amount.

However, as we discussed in our June 2022 report, under a hybrid approach (i.e., a reduced percentage add-on and fixed fee), concerns exist related to incentives for very high-priced and very low-priced drugs. The majority of Part B drug administrations are for very low-priced drugs. Under the hybrid approach, the flat add-on for very low-priced drugs could be large relative to the price of such drugs, potentially creating incentives for overuse of these products when treatment might not otherwise be initiated. On the other end of the spectrum, some Part B drugs are extremely high priced (e.g., a few are currently priced over \$400,000 per patient year, and in the future launch prices may be even higher for certain types of products like gene therapies). A percentage add-on is particularly inefficient for high-priced drugs. If one rationale for an ASP add-on is price variation across purchasers, paying a percentage add-on for expensive drugs could result in a large dollar add-on payment that is not in line with actual price variation. Even if prices currently vary across purchasers for high-priced drugs, changes to Medicare add-on payments could spur manufacturers to reduce or eliminate the variation. As noted previously, the Commission's analysis of prior payment changes for Part B drugs found that manufacturers have changed pricing patterns in response to payment policy changes. In addition, the existence of a large add-on on top of an already expensive drug also raises concerns from a beneficiary cost-sharing perspective, particularly when the purpose of large add-on payments is unclear. A hybrid approach could be combined with caps on the add-on for high-priced and low-priced drugs as a way to address concerns about incentives for differently priced drugs.

An illustrative hybrid approach to reduce add-on payments for drugs paid based on ASP

We modeled an approach that would convert a portion of the percentage add-on to a fixed fee and place additional limits on the add-on amounts for high-priced and low-priced products. Under this illustrative policy, the ASP add-on payment per drug per administration day would be the lesser of 6 percent, 3 percent plus \$24, or \$220. This illustrative policy reflects the pre-sequester payment amount, just like the 6 percent add-on policy that it would

replace in Section 1847A of the Social Security Act. We note that policymakers would need to determine the appropriate level of the percentage add-on. The specific percentages and dollar amounts outlined here are illustrative; other percentages and amounts could achieve the Commission's objective of improving Medicare's payment for drugs paid based on ASP.

In developing this approach, we sought to:

- reduce or eliminate the percentage add-on for moderate- and high-priced drugs to minimize the relationship between price (ASP) and add-on payments;
- retain a portion of the percentage add-on for all but the most expensive drugs, to accommodate price variation or other factors that might lead to some purchasers acquiring drugs at a price greater than ASP; and
- avoid applying a flat fee for low-cost drugs, which would constitute a substantial increase in payment rates relative to the drug's price and potentially create incentives for overuse.

Our illustrative approach was developed by first reducing the percentage add-on from 6 percent to 3 percent. This choice is consistent with the level articulated in the Commission's June 2017 report. On the one hand, the more the add-on percentage is reduced, the more incentives are improved by reducing the difference in add-on payments between higher- and lower-cost drugs. On the other hand, a higher percentage add-on gives more cushion for providers if prices vary across purchasers or if manufacturers raise prices.

We arrived at the \$24 flat fee by estimating the budget-neutral equivalent of a 3 percent add-on (i.e., the average of 3 percent of ASP across all drug administrations, using the aggregate residual to set the flat-fee amount). We then applied a hybrid approach, with two limits on add-on payments. First, add-on payments under our illustrative policy could be no greater than 6 percent (current policy). This limit was intended to address concerns that a \$24 flat fee could lead to a very large add-on for very low-priced drugs. Second, add-on payments could be no greater than a fixed dollar amount. This fixed-dollar cap was intended to address concerns about excessive add-on payments for very expensive drugs. Under

our illustrative policy, we set the fixed-dollar cap at the 75th percentile of add-on payments in 2021, or \$220. About 25 percent of Part B drugs in 2021 had an average add-on payment greater than \$220, accounting for less than 6 percent of all drug administrations but more than half of total add-on payments. Determining the appropriate level for an add-on cap is a policy judgment, and policymakers could consider other points in the distribution. We note that the dollar amounts we modeled were intended for the first year of our illustrative policy. Policymakers would need to determine how the flat-fee and the fixed-dollar cap amount would be updated each year. One option would be to update the amounts annually based on an inflation benchmark.⁴⁹

This illustrative add-on policy was developed as a potential modification to Part B drug payment rates specified in Section 1847A of the Social Security Act, which specifies a payment rate of 106 percent of ASP for most Part B drugs. Pursuant to the Budget Control Act of 2011 and subsequent legislation, however, all Medicare program payments under traditional FFS Medicare, MA, and Part D—including Part B drug payments—are subject to a 2 percent sequester through March 2032. If policymakers were to adopt the illustrative policy in Section 1847A of the Social Security Act, the Part B drug payment amount (ASP plus the revised add-on amount) would be subject to the sequester through March 2032 (similar to other Medicare services) and Medicare's portion of the payment would be reduced by 2 percent. Policymakers could choose to offset the effect of the sequester on drugs receiving lower add-on payments under the illustrative policy.⁵⁰ For example, for the most costly products, policymakers could consider designing the fixed-dollar add-on cap such that Medicare's net payment rate would not fall below ASP while the 2 percent sequester was in effect.⁵¹ Similarly, policymakers could consider the effects of the sequester while determining at what level to set the reduced percentage add-on and fixed fee (e.g., 3 percent + \$24, or alternative amounts).

Recently, payment for Part B drugs furnished by 340B hospitals changed from ASP - 22.5 percent to ASP + 6 percent. Although 340B hospitals are now paid ASP + 6 percent, we assume the restructured add-on would not apply to 340B drugs because the Commission has a separate standing recommendation to modify payment

**TABLE
1-9**

ASP add-on payment amounts for differently priced drugs under current policy and under the Commission’s illustrative policy

ASP per drug administered	Add-on payment amount in dollars		Add-on payment amount as percentage of ASP	
	Current policy: 6%	Policy option: Lesser of: (6%, 3% + \$24, \$220)	Current policy: 6%	Policy option: Lesser of: (6%, 3% + \$24, \$220)
10	0.60	0.60	6.0	6.0
100	6	6	6.0	6.0
800	48	48	6.0	6.0
1,000	60	54	6.0	5.4
3,000	180	114	6.0	3.8
5,000	300	174	6.0	3.5
6,500	390	219	6.0	3.4
10,000	600	220	6.0	2.2
13,500	810	220	6.0	1.6

Note: ASP (average sales price). “ASP per drug administered” is defined as the ASP unit price times the number of units of the drug administered to the patient on a particular day. For drugs furnished by suppliers (e.g., nebulizer drugs and certain oral drugs), the data reflect ASP per prescription rather than ASP per administration. Under current policy, the ASP add-on payment per drug per administration day is 6 percent; under the illustrative policy, it would be the lesser of 6 percent, 3 percent plus \$24, or \$220. Add-on payment amounts include Medicare program payments and beneficiary cost sharing and are calculated before application of the sequester, which would reduce the total payment by 1.6 percent.

Source: MedPAC.

for Part B drugs furnished by 340B hospitals. That recommendation would reduce Medicare payments for 340B drugs by 10 percent and direct program savings toward safety-net hospitals (see text box on the Commission’s standing recommendation regarding 340B drugs, p. 53).⁵²

The effect of the illustrative policy on add-on payments for differently priced Part B drugs is displayed in Table 1-9. For drugs with an ASP per administration under \$800, add-on payments are unchanged from current policy. For drugs with an ASP per administration greater than \$800, add-on payments are reduced to 3 percent + \$24. Add-on payments are also capped at \$220, which limits the add-on for drugs with an ASP per administration greater than \$6,533. Thus, for products with an ASP greater \$800, incentives to use a higher-priced product compared with a lower-priced product would be reduced under this illustrative policy. For example, comparing two drugs, one with an ASP per administration of \$1,000 and the other of

\$3,000, the difference in add-on payments between the two products would be reduced from \$120 (\$180 – \$60) under current policy to \$60 (\$114 – \$54) under the illustrative approach. The largest reduction in the add-on differential occurs among higher-priced drugs. For example, comparing a drug with an ASP per administration of \$6,500 and one with an ASP per administration of \$13,500, the add-on differential is essentially eliminated, falling from \$420 (\$810 – \$390) under current policy to \$1 (\$220 – \$219) under the illustrative approach.

Table 1-10 (p. 52) shows the effect of the illustrative add-on policy on overall Part B drug spending. These estimates are based on 2021 utilization data without any assumptions about how the illustrative policy might affect prescribing behavior or manufacturer pricing decisions. Overall, we estimate that the illustrative policy would reduce aggregate Part B drug payments for non-340B drugs by 2.3 percent. The Medicare program and beneficiaries could realize

**TABLE
1-10**

Simulated impact of the Commission’s illustrative policy reducing add-on payments for drugs paid based on ASP: Total Part B drug payments by type of provider

	2021 Total payments for Part B drugs paid ASP + 6% (in billions)	Percentage change under illustrative policy
All	\$28.7	-2.3%
Physician	20.5	-2.3
Oncology	7.7	-2.7
Ophthalmology	4.2	-1.6
Other	2.8	-2.1
Primary care	2.5	-2.3
Rheumatology	2.5	-2.1
Neurology	0.5	-2.8
Urology	0.3	-1.8
Hospital outpatient departments	6.2	-2.7
Suppliers	2.0	-1.7

Note: ASP (average sales price). Under current policy, the ASP add-on payment per drug per administration day is 6 percent; under the illustrative policy, it would be the lesser of 6 percent, 3 percent plus \$24, or \$220. Total payments include Medicare program payments and beneficiary cost sharing. Analysis includes all Part B-covered drugs paid under the ASP + 6 percent system, excluding drugs billed through not-otherwise-classified Healthcare Common Procedure Coding System codes. Part B drugs acquired by hospitals under the 340B drug pricing program are excluded from the analysis. Data for critical access hospitals, Maryland hospitals, and beneficiaries with Medicare as a secondary payer are excluded from the analysis.

Source: MedPAC analysis of Medicare claims data for physicians, hospitals, and suppliers.

additional savings to the extent that the illustrative policy resulted in substitution of lower-cost drugs for higher-cost drugs. However, estimated savings would be lower if the \$220 fixed-dollar cap on the add-on payment resulted in some drugs being furnished in smaller, more frequent doses. In implementing reduced add-on payments for drugs paid based on ASP, CMS could monitor drug administration patterns across providers and products to help ensure that the policy did not incentivize shifts toward more frequent administrations than would otherwise occur. As shown in Table 1-10, the effects of the illustrative policy would vary across clinical specialty. We estimate that all specialties and categories of providers that furnish some Part B drugs would experience a decline in Part B drug payments, ranging from 1.7 percent to 2.8 percent.

Stakeholders have raised several concerns specific to policy proposals that would reduce the add-on

for Part B drugs to improve financial incentives. First, some contend that small purchasers and those practicing in medically underserved communities will be unable to acquire drugs for the Medicare payment amount if the ASP add-on is changed. We note that manufacturers set their own prices and have an incentive to price products at a level commensurate with Medicare payment. Prior Commission analyses suggest that manufacturers are responsive to Medicare payment rate changes (such as the shift to the ASP payment system in 2005 and the implementation of the sequester in 2013), narrowing price variation or modifying pricing patterns in ways that help mitigate the effect on providers (Medicare Payment Advisory Commission 2022b). Moreover, our illustrative approach would keep in place the 6 percent add-on for lower-priced drugs and, for more expensive drugs, would apply a larger reduction to the add-on payment as prices increased.

The Commission's standing recommendation on Medicare payment for 340B drugs

In March 2016, the Commission recommended reductions to payments for Part B drugs furnished by 340B hospitals, with the savings directed to the Medicare uncompensated care fund.

The 340B Drug Pricing Program (“340B program”) allows certain hospitals and other health care providers that meet certain criteria to obtain substantially discounted prices on covered outpatient drugs. The discount for each drug obtained through the 340B program is based on a ceiling price. The ceiling price is the maximum allowed amount a manufacturer can charge 340B hospitals. The formula for the ceiling price is the average manufacturer price (AMP) for a drug, less a unit rebate amount (URA). For brand drugs, the URA is the greater of 23.1 percent of AMP or the difference between AMP and best price; plus, if the product's price rises faster than inflation, there is an additional inflation rebate.⁵³ A report from the Office of Inspector General estimated that the 340B ceiling prices were 34 percent below Medicare ASP plus 6 percent (ASP + 6 percent) payments for Part B drugs furnished by 340B hospitals and other 340B entities in 2013 (Office of Inspector General 2015).

Prior to 2018, under the outpatient prospective payment system, Medicare paid 340B hospitals and non-340B hospitals the same rates for Part B drugs, even though 340B hospitals are able to purchase these drugs at steep discounts. Similarly, beneficiaries had cost-sharing liability of up to 20 percent of Medicare's payment rate for outpatient drugs received at both types of hospitals.

In the March 2016 report, the Commission recommended changes to Medicare's payment for 340B drugs. The Commission recommended

that the Congress direct the Secretary of Health and Human Services to reduce Medicare payment rates for 340B hospitals' separately payable 340B drugs by 10 percent of the average sales price (ASP) and direct the program savings from reducing Part B drug payment rates to the Medicare-funded uncompensated care pool. A rationale for the rate reduction was to allow beneficiaries to share in the discounts that 340B hospitals receive from drug companies. Because the Commission did not want to reduce program payments to hospitals providing the most care to the uninsured, it recommended that the program savings from the payment reduction be redirected to the uncompensated care pool.

Subsequent to the Commission's recommendation, CMS lowered payments to 340B hospitals for separately payable non-pass-through drugs to ASP – 22.5 percent. In June 2022, the Supreme Court ruled that CMS's approach to reducing payment for 340B drugs was not consistent with its statutory authority. CMS has established a payment rate of ASP + 6 percent in 2023 for Part B drugs furnished by 340B hospitals. With payments reverting to ASP + 6 percent for 340B drugs, the Commission's 2016 position on 340B drugs remains a recommendation. We continue to believe that this approach is appropriate, and the specific level of payment reduction could be considered further as newer data become available. In addition, the Commission has recently begun to discuss alternative ways of identifying and supporting Medicare safety-net hospitals, including redistributing disproportionate share and uncompensated care funds to support such hospitals. Under this construct, 340B savings from our 2016 recommendation would similarly be distributed to support these hospitals. ■

Second, some stakeholders have cautioned that reducing the ASP add-on could accelerate a trend toward hospitals buying community oncology practices. The forces driving hospitals' acquisition of these practices are multifactorial and include

the availability of 340B discounts at some hospitals, general reimbursement pressures, a movement toward integrated care models, and interest among some physicians in employment rather than running a practice. If a change to the ASP add-on resulted in

some practices having difficulty purchasing drugs at the Medicare payment rate, this circumstance might contribute to the trend toward more hospital-based oncology care. We note, however, that it is in drug manufacturers' interest to support community oncology practices since acquisition of practices by hospitals potentially subjects more manufacturer sales to 340B discounts.

Last, some stakeholders assert that the percentage add-on to ASP should not be reduced because it is used to cover some of physicians' drug administration costs, which they claim are not adequately paid for under the physician fee schedule payment rates. Data that could be used to compare physicians' cost for administering

drugs with physician fee schedule payment rates are not available. However, Medicare's ASP-based payment is intended to cover drug acquisition costs and is separate from its payment for drug administration services under the physician fee schedule and hospital OPPS. If there are concerns about Medicare's payment for drug administration, CMS should use existing processes—such as the American Medical Association's Specialty Society Relative Value Scale Update Committee—to evaluate the adequacy of those rates. Using a percentage add-on to a drug's ASP to compensate physicians for drug administration costs would be inefficient: There is no evidence that the costs of a drug's administration are proportionate to the price of the drug. ■

Endnotes

- 1 On the basis of SSR Health data, the authors identified a list of prescription drugs that met each of the following criteria: (1) were among the top 250 drugs by 2020 U.S. sales revenue; (2) had list price increases that were more than 2 percentage points higher than the rate of medical inflation between the end of 2019 and the end of 2020; (3) had net price increases after accounting for rebates and other concessions; and (4) after net price increases were vetted with manufacturers, were found to be the top 10 drugs whose price increases—as opposed to volume increases—contributed to the largest increase in U.S. spending. Based on public input, an additional two drugs were included in the analysis.
- 2 Such circumstances include when practitioners, patients, providers, or other members of the public have raised significant questions to the Secretary about the health outcomes attributable to the use of services by Medicare beneficiaries.
- 3 In 2005, CMS applied CED to cover off-label use of colorectal cancer drugs (oxaliplatin, irinotecan, cetuximab, or bevacizumab), linking coverage to participation in nine clinical trials sponsored by the National Cancer Institute. As of September 2021, this CED was ongoing. In 2009, Medicare applied CED for pharmacogenomic testing for warfarin response. In April 2022, CMS applied CED to the use of anti-amyloid mAb products.
- 4 Like all Medicare services, the Medicare payments for Part B drugs are subject to the 2 percent sequester through 2032. A statutory payment rate of ASP + 6 percent after application of the sequester results in a net payment from the perspective of the provider of ASP + 4.3 percent (with the Medicare program paying 80 percent of ASP + 3.9 percent and the beneficiary paying 20 percent of ASP + 6 percent).
- 5 The 340B Pricing Program allowed certain hospitals to obtain discounted prices from drug manufacturers on drugs and biologics other than vaccines. Under the hospital outpatient prospective payment system, new drugs, biologics, and biosimilars typically receive pass-through status for the first two to three years on the market. Between 2018 and 2022, 340B hospitals were paid ASP + 6 percent for drugs with pass-through status while other Part B drugs were paid ASP – 22.5 percent. CMS has not yet determined how the agency will remedy payment rates for past years based on the Supreme Court ruling.
- 6 CMS takes the charges for items and services, including bundled drugs, and multiplies them by department-level cost-to-charge ratios to estimate the average cost associated with each APC. In this way, an estimate of hospitals' average drug costs flows into the bundled payment rates under the OPSS.
- 7 By price, we mean the amount Medicare paid per drug per beneficiary over a one-year period. Because Part B drugs vary in their frequency of administration, we measure price in terms of payment over a one-year period in order to help control for dosing differences across products.
- 8 This analysis of separately payable Part B drugs between 2009 and 2021 excludes any drug that was bundled in 2009 or 2021. That is, if payment for the drug was packaged into the payment for another service in 2009 or 2021, that drug was excluded from both years of the analysis, regardless of the setting in which the drug was administered.
- 9 In addition to payment for a drug, Medicare makes a separate payment for administration of the drug under the physician fee schedule or OPSS. Medicare pays a dispensing or supplying fee to pharmacies that dispense inhalation drugs and oral anticancer, oral antiemetic, and immunosuppressive drugs to beneficiaries; Medicare also pays a furnishing fee to providers of clotting factors. Beneficiaries generally are responsible for a 20 percent copayment.
- 10 The Part B price indexes reflect growth in the ASP at the individual product level, which is a measure of average postlaunch price growth for Part B drugs. Growth at the individual product level is different from the change in the aggregate average price Medicare Part B pays for drugs (Table 1-2, p. 17), which reflects a broader set of dynamics (including changes in the price of existing products, rising launch prices of new products compared with older products, and shifts in the mix of drugs).
- 11 The amount of Medicare spending in not-otherwise-classified billing codes varies on a yearly basis. Over the 10-year period from 2012 to 2021, spending in not-otherwise-classified codes ranged from \$142 million to \$438 million per year.
- 12 Researchers found that NIH-funded projects directly or indirectly contributed to all of the 210 new molecular entities approved by the FDA from 2010 to 2016 (Galkina Cleary et al. 2018). The study found that the NIH-funded projects primarily focused on “molecular targets for new drugs and likely represents basic research or use-inspired basic research, as opposed to applied research.” Nayak and colleagues examined public sector contributions to late-stage research and development for drugs approved by the

- FDA from 2007 to 2018 and found that “publicly supported research had a major role in the late stage development of at least one in four new drugs” (Nayak et al. 2019).
- 13 In describing the assumptions of its simulation mode, CBO stated that “a 15 percent to 25 percent reduction in expected returns for drugs in the top quintile of expected returns is associated with a 0.5 percent average annual reduction in the number of new drugs entering the market in the first decade under the policy, increasing to an 8 percent annual average reduction in the third decade” (Congressional Budget Office 2021a).
 - 14 According to the Office of Inspector General, the process to withdraw an accelerated approval drug can be lengthy (Office of Inspector General 2022). For example, for voluntary withdrawals, the FDA must make a finding about the proposed withdrawal, publish a Federal Register notice of its determination, and address any relevant abbreviated new drug applications and requests for continued access (National Organization for Rare Disorders 2021). The Food and Drug Omnibus Reform Act of 2022 includes several reforms to the accelerated approval process, including enabling the FDA to require that a postapproval study be under way prior to granting accelerated approval and expanding expedited withdrawal procedures.
 - 15 For purposes of accelerated approval: (1) A surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure, that is thought to predict clinical benefit, but is not itself a measure of clinical benefit; (2) an intermediate clinical endpoint, which is also thought to predict clinical benefit, is the measurement of a therapeutic effect that can be assessed earlier than an effect on irreversible morbidity or mortality (Food and Drug Administration 2014).
 - 16 Researchers determined the added therapeutic value of 90 accelerated approval drugs compared with existing therapies using health technology assessments from German, French, and Canadian health technology assessment agencies.
 - 17 A meta-analysis of randomized clinical trials quantifying the association between surrogate endpoints and overall survival in medical oncology found that more than half of reported correlations were of low strength, 25 percent were of medium strength, and 23 percent were highly correlated with survival (Prasad et al. 2015).
 - 18 For example, in 2014, Zydelig, a first-in-class (Part D) drug, was approved for relapsed follicular B-cell non-Hodgkin lymphoma and relapsed small lymphocytic lymphoma through the accelerated approval pathway, with a postconfirmatory trial due December 2019. In 2016, evidence about additional safety risks (including an increased rate of adverse events, including deaths, in the drug’s clinical trials) led the manufacturer to terminate six clinical trials (Banerjee et al. 2023, Food and Drug Administration 2022d). The manufacturer voluntarily withdrew the two accelerated approval indications in 2022.
 - 19 According to the FDA: “For drugs granted accelerated approval, postmarketing confirmatory trials have been required to verify and describe the anticipated effect on IMM (irreversible morbidity or mortality) or other clinical benefit” (Food and Drug Administration 2014).
 - 20 Folutyn and ProAmatine are the two drugs whose confirmatory trials are more than five years late. Folutyn’s confirmatory trial results (for treatment of T-cell lymphoma) is 66 months past its original date. The delay is linked to changes in the standard of care, the design and implementation of new trials, and changes in the drug’s ownership (Office of Inspector General 2022). According to CMS dashboard data, Part B spending for Folutyn was \$177 million between 2012 and 2021. ProAmatine’s confirmatory trial results (for treatment of postural hypotension) is 93 months past its original final report date. The FDA attempted to withdraw this drug in 2010, but stakeholders asked that the drug remain on the market (Office of Inspector General 2022). The delay is also linked to changing ownership of the drug application (Office of Inspector General 2022).
 - 21 The Commission’s analysis includes all drugs, not solely Part B products administered by infusion or injection in physician offices and hospital outpatient departments, and is based on FDA data on accelerated approvals as of December, 31, 2022 (Food and Drug Administration 2022a), with the status of an indication updated as of April 2023 using FDA data found at <https://www.fda.gov/drugs/nda-and-bla-approvals/accelerated-approval-program>.
 - 22 A recent study of 60 new drug products approved between 2008 and 2018 found no association between the products’ launch price and R&D costs (Wouters et al. 2022).
 - 23 Average spending per user in 2021 is determined across all indications (i.e., accelerated and traditional approval indications) of the drug.
 - 24 Researchers have raised several concerns about how compendia are assembled, the conflicts of interest on the part of their contributors, and substantial inconsistencies both among and within these resources (Green et al. 2016).
 - 25 A policy design issue concerns the timing of a cap for a drug whose initial confirmatory trial failed to show a clinical benefit but whose manufacturer has reached an agreement with the FDA for initiating additional trials. For example, in 2020, the confirmatory trial of Zepzelca (used to treat

- small cell lung cancer) did not meet its primary endpoint of overall survival. However, based on several factors (including the initial trial's design), the FDA concluded that the drug's withdrawal is not appropriate at this time and agreed with the manufacturer on the initiation of subsequent confirmatory randomized trials in 2021 (Food and Drug Administration 2022b).
- 26 In 2022, CMS concluded there was insufficient evidence that coverage of anti-amyloid monoclonal antibody drugs for the treatment of Alzheimer's disease was reasonable and necessary. However, because of the prevalence of this disease among Medicare beneficiaries, the agency concluded that the CED paradigm was the most appropriate pathway to provide Medicare coverage while additional evidence is developed.
 - 27 Health technology assessments evaluate issues related to the safety, efficacy, cost, and cost-effectiveness of a medical service, item, or a group of services or items.
 - 28 To operationalize such an approach, the Secretary would need to develop a process to calculate and collect the manufacturer rebate amount, as the Secretary has done for other policies (e.g., discarded drug refund policy). To determine the rebate amount and to facilitate reduced beneficiary cost sharing, CMS could add a modifier or specific billing code so the agency, providers, and researchers could identify claims that qualify for lower beneficiary cost sharing and a retroactive manufacturer rebate to Medicare.
 - 29 Alternatively, Medicare could create temporary drug billing codes for the period that the payment of an accelerated approval drug is capped.
 - 30 Medicare is currently using this type of approach with the ASP inflation rebate; as of April 1, 2023, for products that incur a rebate, beneficiary cost sharing is based on the lower, inflation-adjusted ASP.
 - 31 Zytenglo is a one-time cell-based gene therapy for adult and pediatric patients with beta-thalassemia (a type of inherited blood disorder that causes a reduction of normal hemoglobin and red blood cells in the blood) who require regular red blood cell transfusions. Press reports suggest that the manufacturer is entering into outcomes-based agreements with some commercial and government payers (Harris 2022). ICER's cost-effectiveness modeling concluded that this new treatment achieved commonly accepted value thresholds at an anticipated price of \$2.1 million with an 80 percent payback option for patients who do not achieve and maintain transfusion independence over a five-year period.
 - 32 The study examined 24 Part B anticancer drugs that were approved by the FDA between 1996 and 2012 and did not go off patent during the follow-up period (between 2005 and 2017). Over that period, the mean overall cumulative price increase for the 24 Part B drugs was 36.5 percent. Adjusting for the general inflation rate or the health-related inflation rate, the mean cumulative drug price increases were 19.1 percent and 8.4 percent, respectively. Using multivariate regression techniques, the researchers reported that the number of years after a drug's launch may have influenced price change rates. For every additional year after a drug's launch, there was an additional increase of 0.3 percent in inflation-adjusted price change and a 0.2 percent increase in health-related inflation-adjusted price change rates.
 - 33 The authors included the following six classes: antineoplastic agents, insulins, lipid-lowering agents, multiple sclerosis therapies, noninsulin antidiabetic agents, and TNF inhibitors.
 - 34 For case studies on the use of reference pricing in Australia and Germany, see the Commission's June 2019 report to the Congress (https://www.medpac.gov/document/http-www-medpac-gov-docs-default-source-reports-jun19_ch3_medpac_reporttocongress_sec-pdf/).
 - 35 The prostate cancer drugs were triptorelin pamoate, goserelin acetate implant, and leuprolide acetate suspension.
 - 36 Under the Medicare, Medicaid, and SCHIP Extension Act of 2007, CMS calculates the payment rate for albuterol and levalbuterol based on the lower of (1) the volume-weighted average of 106 percent of the ASP for both drugs or (2) the payment rate based on 106 percent of ASP for the individual drug.
 - 37 In 2007, the ASP for levalbuterol was nearly 20 times that of albuterol. When CMS placed these products in the same billing codes in the third quarter of 2007 and set the payment rate based on the volume-weighted ASP across these products, the payment rate for albuterol, the product that accounted for the vast majority of utilization, increased five-fold while the payment rate for levalbuterol declined substantially (Medicare Payment Advisory Commission 2017). The Congress responded to the large increase in payment for albuterol in the Medicare, Medicaid, and SCHIP Extension Act of 2007 by specifying that the payment rate be based on 106 percent of the lower of (1) the volume-weighted ASP for both drugs or (2) the ASP for the individual drug.
 - 38 Because the three products in this example have the same billing unit (10 mg) and the same dose per year, we would have arrived at the same result if we had taken the unit price of each of the three products (column 3) weighted by the total number of billing units for the year (column 5). In this example, we take the extra step of performing the analysis at the price per year of therapy level because that approach can accommodate more varied situations such as when products have different billing units or different dosing amounts per year.

- 39 The National Eye Institute funded a study that found that off-label Avastin and on-label Lucentis had equivalent effects on visual acuity when administered according to the same schedule (Catt Research Group et al. 2011).
- 40 The cost-sharing amount the beneficiary would pay under the exceptions policy would be less than the amount the beneficiary would have paid under current law (i.e., in the absence of a reference pricing policy) because payment under the exceptions policy would be set at 100 percent of ASP.
- 41 The statute constrains Medicare's use of comparative clinical effectiveness evidence to pay for drugs. Medicare cannot withhold coverage of prescription drugs using comparative clinical effectiveness evidence that the Agency for Healthcare Research and Quality produces. The Affordable Care Act of 2010 constrains Medicare's use of comparative clinical effectiveness research conducted by the Patient-Centered Outcomes Research Institute when making coverage decisions and setting payment rates.
- 42 For example, for a drug with an ASP + 6 percent of \$106, under the sequester, Medicare's payment to the provider equals $\$106 \times 0.98 \times 0.80$ and the beneficiary's payment equals $\$106 \times 0.20$.
- 43 For example, the top 10 drugs that account for the most Medicare Part B spending are all packaged by manufacturers in single-use containers.
- 44 For drugs provided by outpatient hospitals, some portion of the drug payment amount is intended to cover pharmacy overhead. With respect to payment for separately paid drugs under the OPPIs, CMS has stated that the drug payment rate (currently ASP + 6 percent; in prior years, as low as ASP + 4 percent) includes payment for drug acquisition costs and pharmacy overhead (Centers for Medicare & Medicaid Services 2012).
- 45 This analysis of add-on payments excludes drugs furnished by 340B hospitals in 2021. Specifically, we exclude those drugs billed by OPPIs hospitals using the JG or TB modifier (i.e., the modifiers that hospitals are required to include on claims for drugs acquired via the 340B drug pricing program).
- 46 Before 2022, manufacturers of skin substitutes and other products paid by the Medicare program as Part B drugs but approved by the FDA as devices were not required to report ASP data (although some manufacturers voluntarily reported ASP data). The Consolidated Appropriations Act, 2021, changed this requirement, instead requiring manufacturers of these products to begin reporting ASP data for sales occurring on or after January 1, 2022. The OIG report found noncompliance with this new ASP reporting requirement for 30 of 68 skin-substitute billing codes in January 2023. According to the report, Medicare program spending on these 30 skin-substitute billing codes lacking ASP-based payment rates was \$256 million in the third quarter of 2022, almost two-thirds of all spending on skin substitutes that quarter (Office of Inspector General 2023).
- 47 For ESAs, some of this decline could also have stemmed from clinical evidence showing that higher doses of these drugs led to increased risk of morbidity and mortality, which resulted in the FDA changing the ESA label in 2011.
- 48 In at least one situation, switching was an explicit goal: Fresenius Medical Care, a large dialysis organization, announced its intent to have more than 70 percent of the company's ESA patients (110,000 patients) switched to epoetin beta (from epoetin alfa) by the end of the first quarter of 2016 (Reuters 2016). Several sources suggest that this company reduced its total ESA costs due to the switch (Reuters 2016, Seeking Alpha 2016).
- 49 For example, the flat-dollar portions of the add-on formula could be updated using a benchmark of inflation such as the consumer price index, an estimate of average drug price inflation, or the lesser of those two measures.
- 50 Note that, under the Commission's illustrative model, the payment rates for low-cost drugs would be unchanged from current levels (106 percent pre-sequester and 104.3 percent post-sequester), while the payment rates for all other drugs (i.e., the mid-priced and highest-cost groups) would be reduced and the sequester applied to those reduced amounts.
- 51 Under the Commission's illustrative model, the 2 percent sequester for the costliest Part B products (with ASPs in excess of about \$13,530 per administration) would reduce Medicare's net payment rate below 100 percent of ASP. However, policymakers could design the \$220 add-on cap such that net payments did not fall below 100 percent of ASP. For example, policymakers could apply a formula under which the fixed-dollar cap equaled the greater of \$220 or, if the 2 percent sequester is in effect, 101.626 percent of ASP. The 101.626 percent is an artifact of (1) the sequester applying to both ASP and the add-on and (2) the sequester applying to only the Medicare program's portion of payment, not the beneficiary's cost-sharing liability. Thus, a payment amount of 101.626 percent of ASP subject to a 2 percent sequester on the Medicare program's portion of the payment results in a net payment to the provider of 100 percent of ASP.
- 52 The Commission's March 2016 recommendation would reduce payments for 340B drugs by a larger amount than a policy to change the ASP add-on would. The 2016

recommendation concerning payment for drugs furnished by 340B hospitals remains the standing recommendation of the Commission. However, until such time as the Congress acts on that recommendation, from an equity perspective, it could be argued that any reductions to Part B drug add-on payments that are made for non-340B providers should also be made for 340B providers.

53 Best price is defined as the lowest price for a drug available to nongovernment purchasers and reflects discounts, rebates, and other pricing adjustments.

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CHAPTER

2

**Assessing postsale rebates
for prescription drugs
in Medicare Part D**

Assessing postsale rebates for prescription drugs in Medicare Part D

Chapter summary

The final amounts that Part D plans pay for the prescriptions that their enrollees fill are often lower than prices at the pharmacy. This is because the insurers that offer plans (plan sponsors) and their pharmacy benefit managers (PBMs) negotiate rebates and fees from drug manufacturers and pharmacies that take place after a prescription has been dispensed. Collectively, CMS refers to negotiated rebates and postsale fees as direct and indirect remuneration (DIR). Plan sponsors can use their portion of DIR to restrain growth in premiums or reduce cost sharing. Plan sponsors have long believed that Part D enrollees focus most on premiums when making their plan selection, and thus plan sponsors have strong incentives to use the DIR to keep premiums low. Because rebates and fees have become so large, the way in which sponsors apply DIR to constrain premiums or cost sharing has implications for the distribution of Part D costs among all enrollees, particularly those who use rebated drugs, and for the Medicare program at large. The Consolidated Appropriations Act, 2021, included a provision giving the Commission access to DIR data; this chapter provides insights from our analyses of the data.

DIR has grown rapidly: Between 2010 and 2021, it ballooned from \$8.6 billion to \$62.7 billion, expanding as a share of gross Part D spending from 11 percent to 29 percent. Most of that total was consistently made up of

In this chapter

- DIR constrains premium growth but can also lead to higher costs for some beneficiaries
- Rebates vary across drug classes based on therapeutic competition and formulary coverage policies
- Plan sponsors with vertically integrated PBMs have gained market share and negotiating leverage
- Looking ahead

manufacturer rebates, though the share declined over time as pharmacy DIR grew. In 2010, rebates accounted for 99 percent of DIR, but by 2021, rebates' share of total DIR declined to 80 percent. In 2021, the Medicare program kept about one-third of DIR to offset some of Part D's reinsurance subsidies.

Multiple factors have contributed to growth in manufacturer rebates.

- **Therapeutic competition and Medicare formulary policies.** Manufacturers negotiate rebates with PBMs for brand-name products that have therapeutic competitors in exchange for putting their drug on a plan's formulary and placing it in a position that helps the drugmaker win market share. For certain classes of drugs, such as medications used to treat asthma and chronic obstructive pulmonary disease, regulatory hurdles and extensive patent protection have slowed generic entry. With a lack of generic competition but considerable rivalry among competing brands, manufacturers have chosen to raise gross prices and compete using postsale rebates. (For the purposes of this chapter, we define gross drug prices as all point-of-sale payments at the pharmacy, including enrollee cost sharing and plan payments.) In contrast, for protected classes of drugs in which virtually all drugs must be covered, price competition is weakened, hindering plans' ability to negotiate rebates.
- **Part D's benefit structure and emphasis on premium competition.** Part D's current benefit structure leaves plan sponsors bearing relatively little insurance risk for their enrollees' drug spending. This limited risk is due in part to Part D's unusual benefit design—with its coverage gap and provision of Medicare reinsurance in its catastrophic phase. Trends in prescription use are also a contributing factor because high-cost biologics and specialty medications account for a mounting share of spending, and Medicare's payments to plans increasingly take the form of cost-based reinsurance. Because the program emphasizes premium competition, sponsors have had incentives to try to maximize rebates and keep premiums low. In a limited number of drug classes, this strategy has led some sponsors to select high gross-price, high-rebate drugs for their formularies over lower gross-price alternatives. In addition, many entities in the drug supply chain benefit from high gross prices because compensation for their services is often paid as a percentage of price.
- **Vertical integration of plan sponsors, PBMs, and pharmacies.** Since the start of Part D in 2006, plan sponsors and their PBMs have consolidated. Vertically integrated insurers with their own PBMs and specialty pharmacies now control a larger proportion of covered lives

and the dispensing of higher-priced drug products. Larger market shares of enrollment and dispensing tend to provide sponsors with greater bargaining leverage for postsale price concessions from both manufacturers and pharmacies.

While large rebates help to constrain premium increases, using rebates primarily to lower premiums also means that beneficiaries who use such drugs (or the Medicare program, in the case of Part D's low-income subsidy (LIS) enrollees) sometimes pay cost sharing that is higher than the drug's cost. In recent years, for about 8 percent of gross spending aggregated across all phases of the Part D benefit (9 percent of brand spending), the cost-sharing amounts set by plan sponsors exceeded net drug costs after deducting rebates. In those situations, at the time the prescription was filled, the plan effectively faced no liability for the prescription other than its administrative costs. Instead, the beneficiary or Medicare (on behalf of LIS beneficiaries) paid more than the total cost of the drug. For enrollees without the LIS, high cost sharing can affect whether they fill their prescriptions.

Our analysis focused on a range of drug classes and products for prescriptions filled between 2015 and 2021. While rebates vary considerably across drug classes and over time, we observed large rebates in classes that had strong brand-brand rivalry but lacked generic or biosimilar entry. In contrast, for protected classes of drugs in which virtually all drugs must be covered, price competition was weakened, hindering plans' ability to negotiate rebates. As a result, gross prices for drugs in many protected classes grew faster than for drugs in other classes, while rebates were significantly lower, often averaging less than 10 percent of gross prices.

Rebates obtained by large, vertically integrated plan sponsors increased over time and were larger than those received by other plan sponsors. Between 2015 and 2021, we observed compression in the rebates obtained by large sponsors for two out of the three drug classes we examined, consistent with the consolidation taking place among sponsors. However, compression in average rebates could also have resulted from the degree of maturity of therapeutic competition in those classes and payers' better understanding of the magnitude of potential rebates.

We found that rebates can vary widely for the same product among plans operated by the same sponsor. Even plans using the same formulary can face widely divergent costs for the same drug product after rebates. Some of that

variation reflects the fact that large sponsors operate plans that serve different enrollee markets, such as employer groups, Medicare Advantage–Prescription Drug plans, and different types of stand-alone prescription drug plans.

Vertical integration may pose a particular challenge for Part D as the market becomes increasingly concentrated among the largest sponsors that own (or are owned by) a PBM and pharmacies. For a limited number of drug categories, we found that payments and costs (after manufacturer rebates) were more likely to be higher at vertically integrated (VI) pharmacies compared with costs at other pharmacies, particularly when those prescriptions were filled for their own VI plans. Because Part D’s DIR reporting requirements do not include discounts or postsale fees retained by pharmacies that are paid by manufacturers, CMS may lack information about the true benefit costs of plans operated by plan sponsors that are vertically integrated with a PBM and pharmacies.

Our findings provide insights into current rebate practices while also highlighting how competitive dynamics and regulatory policies can affect drug pricing. However, the Inflation Reduction Act of 2022 includes numerous policies related to prescription drugs and the Part D benefit. As that law is implemented over the next several years, its changes to policy are likely to alter the drug-pricing landscape and affect the degree to which plan sponsors and manufacturers continue to use rebates. The Commission’s analyses of DIR data will serve as a baseline for future evaluations of how rebates are used in the Part D program. ■

Background

The final amounts that Part D plans pay for the prescriptions that their enrollees fill are often lower than prices at the pharmacy. This difference exists because the insurers that offer plans (plan sponsors) and their pharmacy benefit managers (PBMs) negotiate rebates and fees from drug manufacturers and pharmacies that take place after a prescription has been dispensed. Collectively, CMS refers to negotiated postsale rebates and fees as direct and indirect remuneration (DIR). To ensure that Medicare's payments to plans take those price concessions into account, CMS requires plan sponsors to report information about DIR (Centers for Medicare & Medicaid Services 2022).

The Consolidated Appropriations Act, 2021, included a provision giving the Commission access to DIR data, which are highly proprietary. The statute specifically prohibits presenting the data “in a form which discloses the identity of a specific manufacturer or wholesaler or prices charged for drugs by such manufacturer or wholesaler.” In addition, the law states that the Commission may not reveal plan-level dollar amounts of rebates and fees or the sources of those price concessions. This chapter presents the Commission's evaluation of DIR data to date and displays our results in a way that abides by the restrictions specified in law.

Last year, the Congress passed the Inflation Reduction Act of 2022 (IRA), which included policy changes related to prescription drugs that are likely to alter the drug-pricing landscape. One such provision is a redesign of the Part D benefit that reflects many of the Commission's 2020 recommendations to cap enrollees' out-of-pocket (OOP) spending and restore stronger incentives to Part D plan sponsors (Medicare Payment Advisory Commission 2020). Among other provisions, the law (1) establishes mandatory rebates for manufacturers of drugs sold to Medicare beneficiaries if the price of their drug rises faster than inflation, and (2) requires the Secretary of Health and Human Services to negotiate prices each year for a select number of drugs with the highest total Medicare spending. (The Secretary will select the first 10 drugs for negotiation in 2023, and negotiated prices for those drugs will be effective in 2026.) Changes adopted in the IRA may affect the magnitude of future

rebates and the circumstances under which Part D plan sponsors are able to negotiate for rebates with manufacturers.

What is DIR?

When a Part D enrollee fills a prescription at a pharmacy, the beneficiary pays the pharmacy the plan's required cost-sharing amount and the plan sponsor pays the pharmacy an amount based on the terms of its network contract; collectively, these point-of-sale payments are referred to as gross drug prices. For many years, the Commission has received and analyzed prescription drug event (PDE) data that are similar to claims and reflect gross drug prices. However, plan sponsors and their PBMs negotiate with drug manufacturers and with pharmacies for postsale rebates and other remuneration, or DIR (Figure 2-1, p. 72). DIR decreases the benefit costs that plan sponsors must pay for and, in turn, tends to keep plan bids lower than they otherwise would be.

Components of DIR

There are two major components of DIR: negotiated rebates from manufacturers and postsale fees to and from pharmacies.

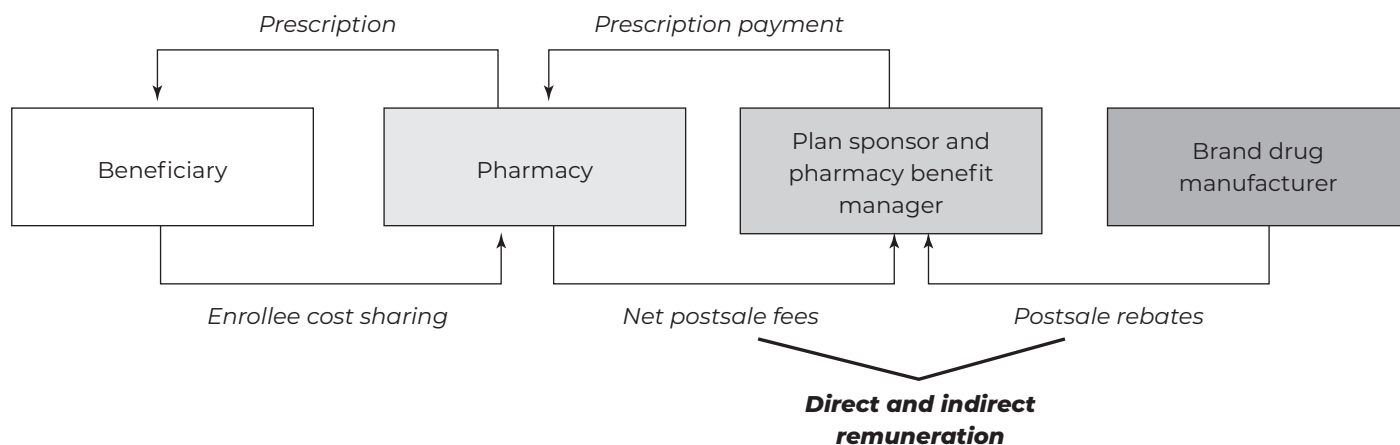
Manufacturer rebates

In general, manufacturers negotiate rebates and other postsale remuneration with PBMs for brand-name products. Typically, plans negotiate larger rebates for products that have therapeutic competitors in exchange for putting their drug on a plan's formulary and placing it in a position that helps the drugmaker win market share. In 2021, over 80 percent of gross Part D spending was for brand-name drugs and biologics, and more than three-quarters of that amount was attributable to products for which manufacturers provided rebates of 1 percent or more of gross prices. Manufacturers provide rebates for some generic prescriptions, but much less frequently. The magnitude of manufacturer rebates varies widely across therapeutic classes. Some brand-name drugs that face no competition have no rebates, while in classes such as diabetic agents that have several alternative therapies, rebates have exceeded 50 percent of pharmacy prices.

Historically, plan sponsors have not disclosed the rebates they receive from manufacturers to enrollees

**FIGURE
2-1**

Gross drug prices at the pharmacy do not reflect postsale rebates and pharmacy fees



Note: Postsale pharmacy payments can flow from a plan sponsor and its pharmacy benefit manager (PBM) to a pharmacy or vice versa. Thus far, in the aggregate, postsale payments from pharmacies to plan sponsors and PBMs have far surpassed those in the other direction.

Source: MedPAC depiction of Medicare Part D pharmacy transactions.

or the broader public. The opaqueness of rebate agreements has been the key reason why drug prices are not transparent. Patient advocates contend that greater price transparency and allocation of rebates at the point of sale would be useful to patients when they make purchasing decisions and could help to lower patient cost sharing and rein in manufacturer price increases. However, manufacturers and plan sponsors consider information about specific rebates to be highly proprietary because, they maintain, revealing that information could alter their negotiating leverage. If one plan sponsor were able to observe the size of a rebate a manufacturer negotiated with a second plan sponsor, the first could demand similar rebate terms. For this reason, the Congressional Budget Office, Federal Trade Commission, and others have suggested that transparency of agreements could compress the range of negotiated rebates and likely lower average rebate amounts (Congressional Budget Office 2008, Danzon 2015, Federal Trade Commission 2009).

In addition to DIR, manufacturers of brand-name drugs and biologics currently must provide a 70 percent discount on prescriptions filled in the

coverage-gap phase of the Part D benefit. This price concession is mandated as a condition of having the manufacturers' drugs paid for by Part D. Under the IRA, beginning in 2025, this coverage-gap discount will end and be replaced with mandated discounts of 10 percent below the redesigned Part D benefit's out-of-pocket (OOP) threshold and 20 percent above the threshold on brand-name and biological products (Medicare Payment Advisory Commission 2023).

Pharmacy DIR

Under Part D, plan sponsors cannot set up exclusive pharmacy networks, but they can include contract terms that try to achieve the same aims, often with postsale payments contingent on pharmacy performance. One reason pharmacies agree to these terms is to obtain preferred status in a plan's pharmacy network, which may increase their sales of prescription drugs and other "front-of-store" products. Plans charge lower cost sharing to attract more enrollees to pharmacies with preferred status. Examples of pharmacy DIR include incentive bonuses (such as those that encourage generic dispensing), fees

that are assessed on other measures that are set by the sponsor or its PBM (such as medication adherence), or other amounts that cannot reasonably be determined at the point of sale.

Because they are contingent on periodic evaluations of pharmacy performance, pharmacy DIR payments can flow from a plan sponsor and its PBM to a pharmacy or vice versa. On the whole, however, pharmacies have made aggregate postsale payments to plan sponsors and PBMs. Beginning in 2024, CMS is adopting a new definition of “negotiated price” to include pharmacy price concessions, including performance-based ones assessed after the point of sale. (The policy will not apply to manufacturer rebates.) This negotiated price will be the basis for assessing enrollee cost sharing when it takes the form of deductibles or coinsurance and will likely lower beneficiary cost sharing relative to current law.

Illustrative example of DIR in a pharmacy transaction

Consider the case of a beneficiary who fills a prescription for her medicine, which has a pharmacy price of \$200 for a 30-day supply. She pays the pharmacy her plan’s required 25 percent coinsurance (\$50) and the plan sponsor pays the pharmacy an amount agreed upon under their network contract (in this example, \$150). PDE data for this prescription would show a \$200 transaction: \$50 from the beneficiary and \$150 from the plan. However, in this example, the plan negotiated a rebate of \$25 per prescription from the drug’s manufacturer and a postsale fee of \$5 from the pharmacy. Thus, the net cost of this prescription is \$170: \$50 from the beneficiary and \$120 from the plan (the \$150 plan payment to the pharmacy minus the \$25 manufacturer rebate and the \$5 payment from the pharmacy to the plan).

What DIR data are collected and how are they used?

CMS requires Part D plan sponsors to report any postsale rebates or other remuneration they or their PBM receive from any source that decreases costs incurred by the plan directly or indirectly. Plan sponsors must submit two types of plan-level DIR data annually to CMS: summary-level and detailed reports. Summary reports provide aggregate data on

categories of DIR.¹ Detailed reports have information that is reported on a drug-by-drug basis (at the 11-digit national drug code (NDC-11) level) about (1) manufacturer rebates and (2) all other DIR in one combined category.

CMS uses reports from plan sponsors about their DIR to reduce a portion of what Medicare pays plans in reinsurance and reflect the plan’s net costs rather than pharmacy prices.² (Under Part D’s current benefit design, once an enrollee has reached the OOP threshold, Medicare covers 80 percent of the costs of each prescription.) Plan sponsors’ bids that they submit to CMS reflect DIR that they expect to retain and sponsors use some or all of that DIR to offset what would otherwise be higher premiums.

Between 2010 and 2021, DIR increased more than sevenfold

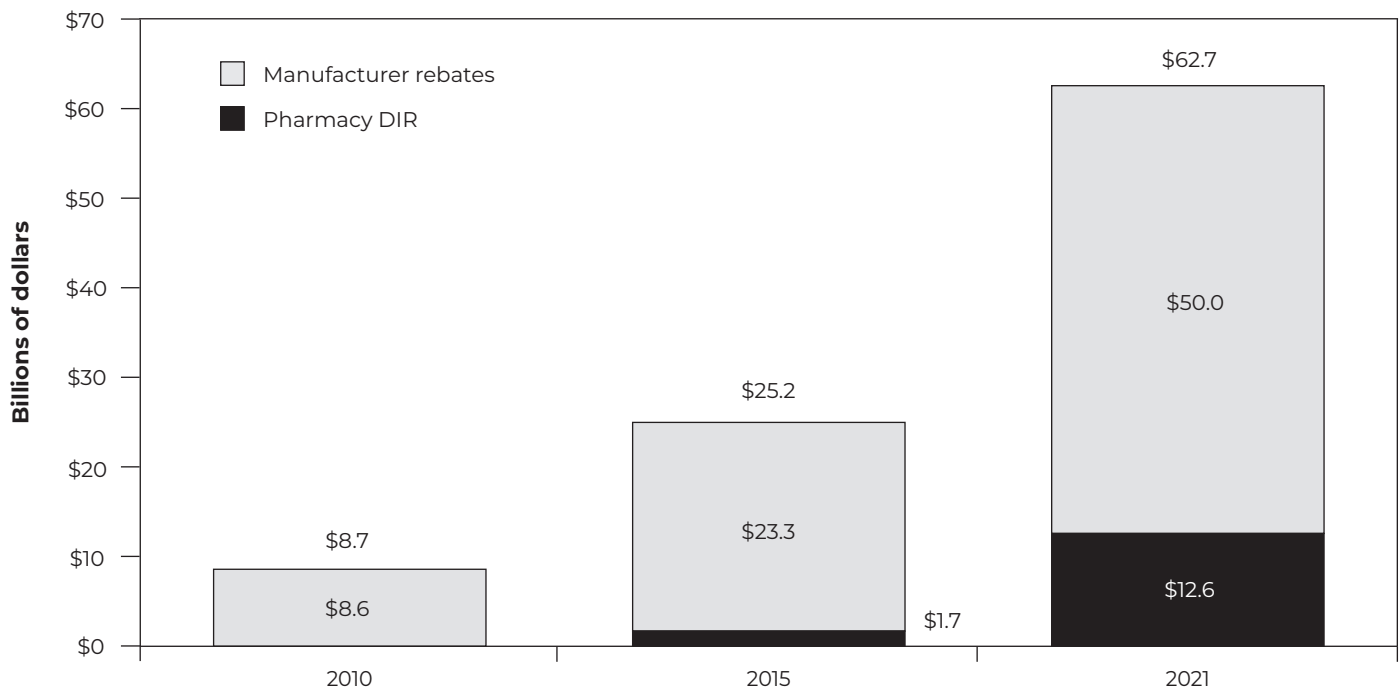
Between 2010 and 2021, the magnitude of DIR ballooned from \$8.6 billion to \$62.7 billion (Figure 2-2, p. 74). The vast majority of that total was consistently made up of manufacturer rebates. In 2010, rebates accounted for 99 percent of total DIR. However, by 2021, rebates’ share of total DIR declined to 80 percent as payments from pharmacies (pharmacy DIR) rose. With manufacturer rebates accounting for roughly 23 percent of gross Part D spending in 2021 and pharmacy DIR another 6 percent, total DIR equaled about 29 percent, up from 11 percent in 2010.

Despite this rapid expansion of DIR, manufacturer rebates negotiated by Part D plans tend to be lower than discounts and rebates obtained by other federal purchasers such as Medicaid or the Department of Veterans Affairs, for which steeper statutory price discounts and rebates apply.³ For example, for a subset of top-selling single-source drugs, average net prices obtained by Medicaid were about 35 percent of those obtained by Medicare Part D in 2017 (Congressional Budget Office 2021).

Under Part D, plan sponsors and their PBMs must report all rebates as DIR, including those retained by PBMs as part of their compensation. In recent years, PBMs for Part D plans have retained less than 1 percent of the rebates they have negotiated for plan sponsors, instead earning revenues through volume-based and per member fees (Government Accountability Office 2019).

**FIGURE
2-2**

DIR expanded rapidly in Part D, 2010–2021



Note: DIR (direct and indirect remuneration).

Source: MedPAC analysis of Medicare Part D direct and indirect remuneration data from CMS.

DIR constrains premium growth but can also lead to higher costs for some beneficiaries

In 2021, Medicare kept about one-third of the \$62.7 billion in DIR reported by plan sponsors to offset some of the program’s reinsurance subsidies. Plan sponsors can use the remaining DIR to offset what would otherwise be higher premiums or to lower cost sharing. Because DIR amounts have become so large, the way in which sponsors apply these amounts has distributional consequences across enrollees, particularly those who use rebated drugs, as well as cost implications for the Medicare program.

Lower Part D premiums for all enrollees and the Medicare program

Private plans compete for Part D enrollees. Ideally, beneficiaries evaluate several factors when they pick

a plan and reevaluate their selection periodically. Historically, Part D enrollees were thought to focus most on premiums when making their plan selection, and thus plan sponsors have had strong incentives to use DIR toward keeping premiums low.⁴ Between 2018 and 2022, average enrollee premiums declined from about \$32 per month to \$26 per month (Medicare Payment Advisory Commission 2022a).

When plan sponsors apply their share of DIR in this way, benefit costs that are paid by all Part D enrollees through premiums and by the Medicare program through general premium subsidies are lower than they otherwise would be. Medicare also subsidizes most or all premium costs for low-income subsidy (LIS) enrollees, and thus lower enrollee premiums reduce that component of program spending as well. In 2021, plan sponsors’ portion of DIR amounted to the equivalent of about \$850 per Part D enrollee.⁵

Higher cost sharing for enrollees who use rebated drugs and higher Medicare cost-sharing subsidies and reinsurance

One concern with using DIR to lower premiums for all enrollees is that the subset of enrollees who use rebated drugs may pay disproportionately high cost sharing relative to the net benefit cost of their medicines. In those situations, Medicare spends relatively more on reinsurance subsidies and on low-income cost-sharing subsidies.

For many rebated brand-name drugs on plan formularies, plan sponsors typically charge a fixed-dollar copayment during Part D's initial coverage phase. However, in the deductible, coverage-gap, and catastrophic phases, plans charge a percentage of a drug's gross price at the pharmacy rather than on its net-of-DIR price. CMS also permits plan sponsors to use a specialty tier with coinsurance of 25 percent to 33 percent for expensive therapies, and it is common for plan sponsors to use coinsurance on other formulary tiers. In those situations, enrollees who use rebated drugs pay disproportionate cost sharing. In our example above, the beneficiary paid 25 percent of the pharmacy price for her diabetes medicine (\$200), or \$50. That \$50 in cost sharing makes up about 29 percent of her medicine's final (net-of-DIR) cost after rebates and postsale fees (\$50 divided by \$170) rather than 25 percent (\$50 divided by \$200). As beneficiaries use more specialty drugs and biologics, the burden of this coinsurance and its application to gross prices rather than net costs increases. High patient cost sharing can pose a financial hurdle to treatment, potentially affecting beneficiaries' decisions to fill their prescriptions (Dusetzina et al. 2022).

Certain changes in the IRA are intended to address the problem of burdensome cost sharing. Beginning in 2024, enrollees will no longer be charged cost sharing above the OOP threshold, and in 2025, that threshold will be set at \$2,000.⁶ Plan sponsors will also be required to offer their enrollees the option to smooth cost-sharing payments over the year rather than charging different amounts depending on the benefit phase, as is now the case.

Because Part D provides LIS enrollees with cost-sharing assistance, most do not face similarly steep financial hurdles to treatment. However, Medicare pays for the difference between the plan's cost-

sharing requirements and the LIS enrollee's nominal copayments through Part D's low-income cost-sharing subsidy. As a result, disproportionately high cost sharing on rebated drugs increases Medicare program spending.

When enrollees pay disproportionately high cost sharing, they may reach Part D's catastrophic phase more quickly, at which point Medicare's reinsurance (currently) pays for 80 percent of each prescription.⁷ In the catastrophic phase of the benefit, plan sponsors are responsible for just 15 percent of spending. For some brand prescriptions filled in this phase (as well as the coverage-gap phase), the value of rebates and postsale fees can exceed plan liability. From our earlier example, say our beneficiary has reached Part D's catastrophic phase. When she fills her prescription, she pays 5 percent coinsurance (or \$10), the manufacturer pays a rebate of \$25, and the pharmacy pays the plan \$5. In the catastrophic phase, Medicare would pay \$160 in reinsurance (80 percent of \$200) and later recoup a portion of the DIR from the plan when CMS reconciles payments. At the time the prescription is filled, the plan would effectively face no liability for the prescription other than its administrative costs. As a result, plan sponsors can reduce their plan liability by including certain highly rebated brand-name drugs on their formulary, giving that drug preferred status even when an alternative therapy with a lower gross price is available. In those situations, plans' formulary placement decisions can increase costs for enrollees and Medicare.

In Part D, growth in brand prices has outpaced growth in rebates

Because enrollee cost sharing sometimes takes the form of coinsurance, the degree to which prices at the pharmacy for brand-name drugs have grown is significant. At the same time, monitoring the costs of providing Part D benefits net of DIR is important because these costs are relevant for enrollee premiums and Medicare's premium subsidies. We find that even with sizable and rapidly growing manufacturer rebates between 2015 and 2021, Part D plans' benefit costs for brand-name drugs and biologics increased.

To compare growth in prices at the pharmacy with costs net of DIR, we constructed gross and net indexes for brand-name drugs filled under Part D.⁸ One key difference between developing indexes of gross prices

and drug costs net of rebates relates to the flow of information about pharmacy prices versus DIR. Part D enrollees fill prescriptions every day of the year, which permits us to build monthly indexes of how prices for those prescriptions change. By contrast, CMS receives DIR information from plan sponsors through annual reports. Plan sponsors themselves likely receive DIR in a variety of ways, depending on their negotiated contracts, and we lack detailed information about the timing of those financial flows.⁹ For that reason, we made the distributional assumption to develop quarterly indexes of drug costs with DIR percentages spread uniformly throughout the year.

Our analysis found that, between 2015 and 2021, gross prices for all single-source drug and biologic prescriptions filled under Part D grew by 67 percent, compared with about 39 percent for prices net of manufacturer rebates.¹⁰ Changes in our indexes imply an average growth rate of 7.6 percent annually for gross prices, compared with 4.8 percent annually for prices net of rebates.

The fact that average Part D premiums remained low and even declined in the face of upward pressure from brand pricing suggests that other factors in addition to DIR likely played a role in constraining premium growth. Those factors included enrollees' broad use of generics, proportionately higher cost sharing for some Part D drugs, the entry of large cohorts of younger enrollees into Part D, and Medicare Advantage—Prescription Drug plans' (MA-PDs) use of some Medicare Advantage payments (so-called MA payment rebates) to offset Part D benefit costs.

Rebates vary across drug classes based on therapeutic competition and formulary coverage policies

Under the U.S. system of drug development and pricing, manufacturers of brand-name drugs are granted temporary monopolies through patents and licensing after demonstrating that their products are novel, safe, and effective. Those temporary monopolies take the form of marketing exclusivity—a period of time during which manufacturers face no generic or biosimilar products because such competitors cannot obtain licenses and enter the market. Manufacturers

are thus free to set the price of their products at levels they believe the market will bear, but they must also consider whether other products are therapeutic competitors. When faced with therapeutic competition, manufacturers sometimes offer rebates to payers in order to win market share. Once a drug's period of marketing exclusivity has ended, brand manufacturers face greater price competition if generics or biosimilars to their product enter the market. For this reason, some manufacturers have taken measures to extend exclusivity periods for their drugs by building “walls” of patents around a product and its manufacturing processes, paying generic and biosimilar manufacturers to delay market entry, and strategically managing the entry of follow-on products such as launching a new formulation that would not be subject to competition (Medicare Payment Advisory Commission 2023).

In 2021, manufacturer rebates averaged 23 percent of gross Part D spending, including spending for generics (which typically have no rebates). However, rebates were not uniform across specific brand products or across classes of drugs; they varied depending on the degree of therapeutic competition. For example, for diabetic therapies (a broad class that includes both oral treatments and injected insulin products), rivalry among brand-name products (especially insulins) has been strong and manufacturers provided rebates of more than 50 percent to plan sponsors in 2021, up from 30 percent to 39 percent in 2015 (Table 2-1). On a percentage basis, rebates were also high (40 percent or more in 2021) for anticoagulants, treatments for asthma and chronic obstructive pulmonary disease (COPD), and urinary incontinence agents—drug classes that have a high degree of therapeutic competition.

By contrast, for drug classes in which brand drugs face less competition, rebates are typically lower—for example, dermatological (antipsoriatic) products, in which rebates in 2021 ranged between 10 percent and 19 percent. Further, in Part D, for six “protected classes” of drugs, program rules require plans to cover “all or substantially all drugs,” thus shielding manufacturers from having to compete with one another as much as they might otherwise. Manufacturers have greater bargaining leverage for these drugs because of the mandatory coverage provisions of the protected-class policy. In 2021, sponsors were only able to negotiate rebates averaging less than 10 percent of gross prices

**TABLE
2-1**

Magnitude of rebates varies across therapeutic classes and over time, 2015 and 2021

Therapeutic class, ranked by gross Part D spending in 2021	2021			Comparative data from 2015	
	Gross spending* (in billions)	Negotiated rebates as a share of gross spending	Rank by net spending	Gross spending* (in billions)	Negotiated rebates as a share of gross spending
Diabetic therapy	\$39.7	≥50%	2	\$17.5	30% to 39%
Antineoplastics**	28.8	<10%	1	9.9	<10%
Anticoagulants	18.6	40% to 49%	3	3.7	10% to 19%
Asthma/COPD therapy agents	15.5	40% to 49%	4	9.0	20% to 29%
Disease-modifying anti-rheumatoid drugs	10.4	20% to 29%	5	3.7	10% to 19%
Antipsychotics (neuroleptics)**	7.5	10% to 19%	7	6.2	<10%
Antiretrovirals**	7.3	<10%	6	4.3	<10%
Antihypertensive therapy agents	6.9	10% to 19%	8	4.9	10% to 19%
Ophthalmic agents	5.6	30% to 39%	12	3.7	30% to 39%
Antihyperlipidemics	5.0	10% to 19%	9	7.8	20% to 29%
Multiple sclerosis agents	4.5	10% to 19%	11	4.6	<10%
Anticonvulsants**	4.2	<10%	10	4.4	10% to 19%
Dermatological (antipsoriatics)	3.6	10% to 19%	13	0.3	<10%
Antidepressants**	2.9	<10%	14	2.6	<10%
Urinary incontinence treatment agents	2.7	40% to 49%	18	1.7	30% to 39%
Subtotal, top 15 drug classes in 2021	163.2	27%		84.3	18%
Total, all drug classes	215.8	23%		137.4	17%

Note: COPD (chronic obstructive pulmonary disease). "Gross spending" reflects payments from all payers, including beneficiaries (through cost sharing), but does not include rebates and postsale fees from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System. Components may not sum to totals due to rounding.

*Includes spending for both brand and generic products.

**Protected drug class.

Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

from manufacturers of brand-name antineoplastics, antiretrovirals, anticonvulsants, and antidepressants.

The magnitude of rebates in some therapeutic classes has changed significantly over time. For example, between 2015 and 2021, gross Part D spending for anticoagulants swelled from \$3.7 billion to \$18.6 billion, as newer and safer products entered the market at much higher prices than older therapies and larger

numbers of beneficiaries filled prescriptions for those products. During that same period, rebates for anticoagulant products also expanded—from an average range of 10 percent to 19 percent to 40 percent to 49 percent (Table 2-1). Rebates grew similarly for diabetic therapies, treatments for asthma/COPD, and other therapeutic classes. Meanwhile, the magnitude of rebates changed little for other categories, such as many protected-class drugs.

Table 2-1 (p. 77) displays top therapeutic classes ranked by gross Part D spending in 2021. However, because rebates vary across drug classes, rankings based on spending net of rebates and other price concessions may differ. For example, manufacturers of antineoplastics provided, on average, rebates of less than 10 percent, and thus that class ranked first in 2021 on a net-of-rebate spending basis, above diabetic therapies. Similarly, net spending on antiretrovirals (ARVs), for which manufacturers paid low rebates, was higher than that for antipsychotics and ranked ARVs in sixth rather than seventh place.

Factors affecting the prevalence and size of rebates

To better understand when and how manufacturers have used rebates in Part D, we analyzed three therapeutic subclasses that experienced rapid growth in rebates over the 2015 to 2021 period—medications for asthma/COPD, insulin, and tumor necrosis factor (TNF) inhibitors. While the details of each subclass differ, we found commonalities. Here we summarize what they had in common and then examine one case study of asthma/COPD treatments.

Each of the three selected subclasses demonstrated significant rivalry among brand products and limited entry of competing generic or biosimilar products. Lack of generic entry is notable because generics contain the same active ingredients as originator products and, in many cases, pharmacists can automatically substitute equivalent generics when they dispense a prescription.¹¹ To encourage pharmacies (which purchase the drugs) to make such substitutions, generic manufacturers often compete on the basis of lower list prices. In two of the subclasses, asthma/COPD products and insulins, generic entry was limited because many of the products were complex in that they combined one or more medications with a delivery device. Those drug-device combinations offered manufacturers opportunities for additional patents and provided regulatory hurdles before generic manufacturers could demonstrate “sameness” to the originator product. Both insulins and TNF inhibitors (a treatment for a variety of autoimmune diseases) are biologic products. Until recently, the pathway to approval for biosimilars has been challenging, and originator manufacturers have taken steps to stave off competition, delaying entry of biosimilars covered under Part D. In the case of TNF inhibitors,

prodigious numbers of patents have extended the market exclusivities of originator biologics, and some manufacturers have engaged in strategic behavior to further limit their competition. The biosimilar pathway to FDA approval was not available for insulin products until a statutory change that became effective in March 2020 (Food and Drug Administration 2020).¹²

For each of the three subclasses, gross prices at the pharmacy and manufacturer rebates both grew. Consistent with other literature, research found that competition among brand-name products did not result in downward pressure on prices at the pharmacy (Sarpawari et al. 2019). Rather, gross prices increased, and price competition occurred through postsale rebates. Rebates for insulins and asthma/COPD therapies grew enough that the average cost per prescription net of rebates declined during this period; the average cost per prescription net of rebates for TNF inhibitors still increased during this period, but not as fast as gross prices.

The expanded use of rebates took place over a period in which plan sponsors bore low and declining shares of risk for benefit spending. The limited risk resulted in part from Part D’s unusual benefit design, with its coverage gap and provision of Medicare reinsurance in its catastrophic phase (Medicare Payment Advisory Commission 2023). Trends in prescription use were also a contributing factor, as high-cost biologics and specialty medications accounted for a mounting share of spending and Medicare’s payments to plans increasingly took the form of cost-based reinsurance. For some brand prescriptions filled in Part D’s coverage gap and catastrophic phases, the value of rebates and postsale fees exceeds plan liability. In some instances, plan sponsors have placed certain highly rebated brand-name drugs in a favorable position on their formulary.

For the most highly rebated drugs in these three subclasses, cost sharing was disproportionately high and sometimes exceeded plans’ net drug ingredient costs. Cost sharing varies depending on the formulary status of the drug, the phase of the benefit in which the prescription is filled, and whether the beneficiary receives the LIS.¹³ Among prescriptions for the three subclasses of products we examined, cost sharing for insulins and asthma medications routinely constituted a higher share of net-of-rebate prices than cost sharing for TNF inhibitors. For some insulin and

asthma products, we found that cost sharing exceeded 50 percent of plans' net costs and sometimes even exceeded plans' net costs entirely. That is, at the time the drug was dispensed, beneficiaries and Medicare (on behalf of LIS enrollees) paid more than the net ingredient cost of the drug to the plan. In comparison, cost sharing for the TNF inhibitors we examined rarely exceeded 20 percent of plans' net costs. The IRA now limits Part D copayments to \$35 per month for insulin products, which would likely prevent cost sharing for insulin products from exceeding plans' net costs.¹⁴

Across all therapeutic classes and phases of the Part D benefit, we estimated that for about 8 percent of gross spending in 2021 (9 percent of spending on brand-name drugs), enrollee cost sharing was larger than plans' net ingredient costs for the drugs. About 75 percent of such prescriptions were filled by LIS enrollees, meaning that beneficiary cost-sharing liability was paid by Medicare's LIS. (For comparison, in 2021, about 45 percent of all brand or biologic prescriptions were filled by LIS enrollees.) LIS beneficiaries were more likely to fill these types of prescriptions because by law, under Part D's separate benefit structure for LIS enrollees, plans are responsible for a smaller share of benefit costs than for other enrollees. (Medicare's low-income cost-sharing subsidy pays for nearly all spending in the coverage-gap phase.) In such situations, plan sponsors may prefer to place products with higher rebates on their formularies, even if alternatives with lower gross prices are available. Of brand drug fills in which cost sharing was greater than net plan cost, 28 percent occurred within Medicare Advantage (MA) special needs plans (SNPs), most of which enroll only LIS beneficiaries who are dually eligible for Medicare and Medicaid. For comparison, MA SNPs account for 14 percent of all prescription fills for brand products. Prescriptions for diabetes and asthma/COPD therapies made up 70 percent of gross spending in which cost sharing exceeded plans' net ingredient costs.

Case study: Asthma inhalers

Asthma inhalers are a subclass of asthma/COPD products. As noted above, there are many similarities between insulin and inhaler products and the pricing strategies their manufacturers have employed. We estimate that, between 2015 and 2021, rebates in the broader asthma/COPD therapeutic class expanded from a range of 20 percent to 29 percent to a range

of 40 percent to 49 percent.¹⁵ The findings presented here provide a snapshot of some of the likely causes of growth and variation in rebates and coverage decisions found among products and across plan sponsors.

Significant brand-brand competition among asthma products

Inhalers have been widely available for many decades, and yet brand-name products continue to enter and dominate the market. The metered dose inhaler (MDI), still one of the most commonly used devices for treating asthma, was developed in the 1950s. The first versions of two of today's most commonly used rescue inhalers—Proventil and Ventolin—were introduced in 1981 (Stein and Thiel 2017). Asmanex, an inhaled corticosteroid, and Atrovent, a short-acting muscarinic antagonist, both originally introduced in 1986, are also still used today after being updated in the 2000s. Combivent Respimat, which combined the albuterol found in Proventil and Ventolin and the ipratropium bromide in Atrovent, was introduced in 1996; it had nearly 240,000 Part D users in 2020. Generic albuterol did not enter the market until 1995. Still, despite this generic being available for more than 25 years, more than 50 percent of gross Part D spending on albuterol products is for brand-name drugs (Centers for Medicare & Medicaid Services 2021). Over the past 70 years, many new types of inhalers have been introduced, and as of 2018, there were over 230 drug-device combinations to treat respiratory diseases (Biddiscombe and Usmani 2018).

One reason for so many asthma products on the market is that patients often require two types of products to treat their disease—one for sudden asthma attacks and one for long-term maintenance or prevention.¹⁶ Thus, there are different types of medicines used to treat asthma. In fact, there are four subclasses of short-acting asthma medications, four classes of long-acting medications, and two classes with products that combine short-acting and long-acting medicines.

Further, because of how the drugs are delivered, most inhalers are approved as drug-device combination products (like many insulins and commonly used TNF inhibitors), and some manufacturers pair an existing drug with a new delivery device so there are multiple products for a single active ingredient. For example, one recent study found that only one of the 62 inhalers

approved by the FDA over the past 35 years contained an active ingredient with a new mechanism of action (Feldman et al. 2022).

In 7 of the 10 subclasses of asthma products, at least 4 brand-name products are on the market; in just one subclass is there a single brand-name product with only generic competitors. In 6 of the 10 subclasses, brand-name products accounted for 75 percent or more of the Part D claims in that class in 2020 (Centers for Medicare & Medicaid Services 2021).

Regulatory hurdles inhibited generic competition

Brand-name products continue to dominate the inhaler market because generic competitors have only recently become available. Additionally, when generics from other manufacturers have been approved, manufacturers of the original product have often introduced their own authorized generics (or authorized their introduction by another manufacturer), thereby limiting generics' ability to gain a foothold and exerting more control over the degree of price competition (Jones et al. 2016).

Two key regulatory hurdles have slowed generic entry in the asthma market—the approval process for drug-device combinations and patent protections. Pursuit of approval for a drug-device combination is complicated because both the drug and delivery mechanism must undergo regulatory approval. As a result, such products often have much longer periods before generic competitors enter the market (Food and Drug Administration 2019).^{17,18}

Manufacturers of combination products also benefit from the fact that both the drug and device can be patented, and would-be competitors must wait for the patent protections on both to expire before they may sell a product that relies on any of those patents (Beall et al. 2016).¹⁹

A study examining patents for inhalers approved between 1986 and 2020 found that, among the 62 inhalers approved during this time, a median of 7 patents per inhaler were obtained prior to the product's approval, and over half were for the devices rather than the drug (Feldman et al. 2022). Following FDA approval, manufacturers of these 62 products have received an additional 68 patents. These device patents helped these products qualify for a median of 15.4 years

of protection at the products' time of approval, plus an additional 10 months for those patents received after approval. As a result of the substantial protection from competition, 53 of the 62 inhaler products approved over the past 34 years were brand-name products rather than generics.

Manufacturers have often further extended their protection from market competition by obtaining patents for new delivery mechanisms for an existing drug—a practice known as “device hopping.”²⁰ While updated delivery mechanisms may improve the patient experience by making it easier, safer, or more convenient to take the medicine, the effect on generic entry nonetheless remains.

Lack of generics allowed brand competition to take place through rebates rather than through list-price reductions

The most competitive subclass—both among brand-name products and from generics—is what is known as SMART therapies (single maintenance and reliever therapies), which combine a quick-acting inhaled corticosteroid (ICS) with a long-acting beta agonist (LABA). In 2021, three of the top four asthma medicines in Part D (by gross sales) were SMART therapies (Symbicort, Breo Ellipta, and Advair Diskus), each with gross sales over \$1 billion.²¹ Advair originally came to market in 2000, followed by Symbicort in 2006 and Breo Ellipta in 2013. Despite this direct competition, gross prices for each product have steadily increased, with Symbicort and Advair Diskus climbing 6.2 percent and 5.6 percent, respectively, on average from 2012 to 2021, and Breo Ellipta growing 4.8 percent annually from 2013 to 2021.

Even after the introduction of Wixela Inhub—the first true generic to Advair Diskus—downward pressure on gross prices was temporary and limited to Advair Diskus. Wixela entered the market at roughly half the price of Advair and after two years had more than half as many Part D claims as Advair Diskus. After years of steady price increases, the gross price of Advair Diskus declined slightly in both 2019 and 2020, though it remained closely aligned with that of Symbicort and Breo Ellipta. In 2021, however, even with the introduction of a second generic, the list price for Advair Diskus increased 8 percent from the year prior while the price for Wixela decreased 5 percent. These pricing strategies suggest that the generics are

competing with each other on list price while brand-name drugs continue to compete (even with generics) via rebates.

Formulary coverage decisions are influenced by rebates

Formulary coverage decisions by plan sponsors also suggest that rebates—rather than list prices—are driving competition and increasing program costs. A study examining coverage and costs for inhaler products across seven subclasses in Medicare Part D found that the product with the lowest total point-of-sale (POS) cost did not always have the highest rate of coverage (Tseng et al. 2017).²² For example, plans were much more likely to cover Proair (92 percent) than Ventolin (56 percent), despite Ventolin having a slightly lower total cost (\$47 vs. \$52 for Proair) and an even larger POS price advantage for the insurer—at least before rebates are provided. The same was true among ICS products: QVAR had the highest coverage rate despite three other products (Flovent, Asmanex, and Pulmicort) having lower total costs, including lower POS costs for the insurer. These coverage decisions are another example of the effects of the misaligned incentives created by the current benefit design in which plans bear little financial risk and benefit from the use of higher-priced, high-rebate drugs. The higher point-of-sale cost may increase beneficiary OOP costs and program spending, as beneficiaries reach the catastrophic phase more quickly.

Coverage of higher-priced products increased beneficiary cost sharing

When plan sponsors choose to cover higher-priced products, the amounts that beneficiaries must pay out of pocket and that Medicare must pay in low-income cost-sharing subsidies typically climb. For example, the aforementioned study examining costs and coverage of asthma products found that QVAR and Dulera had higher beneficiary OOP costs than other products in their respective classes with lower coverage rates (Tseng et al. 2017).

Our own analysis of Part D claims for certain asthma/COPD products in 2021 also shows that enrollee cost sharing can sometimes exceed plans' net costs (Figure 2-3, p. 82). In those circumstances, the sponsor did not incur any cost for covering the drug beyond its administrative expenses. Plan bids,

and therefore enrollee premiums and subsidies that Medicare pays to plans, reflect the amount of DIR they expect to receive. The actual DIR that plans collect may be higher or lower than what they anticipated at the time that they submitted their bids. Some or all of the excess amount collected may be retained by the plan as profit. For example, enrollees of all but one of the six plan sponsors studied had a median cost-sharing amount greater than 50 percent of the plan's cost net of rebates for LABA/ICS product D. The median cost-sharing amount for LABA/ICS product E was greater than 50 percent of the plans' net cost for all six plan sponsors.

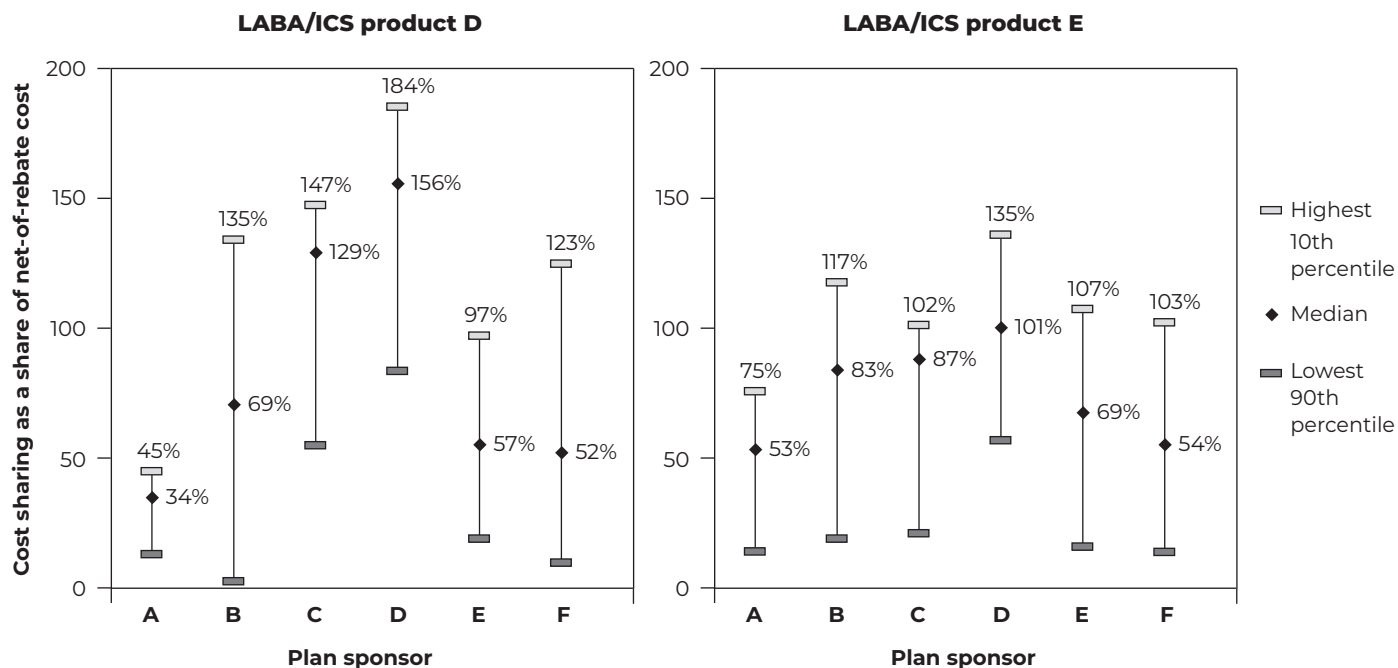
In summary, this case study shows the myriad factors—strong therapeutic competition and a benefit structure that limits plan liability for high-priced drugs while incentivizing the use of rebates to keep premiums low—that encourage higher rebates. The effects of plan sponsors' different organizational structures and their ability to obtain significant rebates on beneficiary cost sharing is further detailed below.

Protected-class drugs

Under Part D, plans are required to include on their formularies substantially all drugs in six classes: anticonvulsants, antidepressants, antineoplastics, antipsychotics, antiretrovirals, and immunosuppressants for the treatment of transplant rejection. The “protected classes” policy was intended to ensure access to medications in those classes and prevent plan sponsors from designing formularies that discourage enrollment by beneficiaries who take medications in those classes. These drug classes were often used by Medicaid beneficiaries whose drug coverage was transferred to the Part D program when it began in 2006, and at the time, CMS had concerns about “the risks and complications associated with an interruption of therapy for these vulnerable populations” (Centers for Medicare & Medicaid Services 2014b, Centers for Medicare & Medicaid Services 2014c). Now, many of these drugs are used by a disproportionate share of beneficiaries receiving the LIS (27 percent of all Part D enrollees): Beneficiaries receiving the LIS make up 70 percent of Part D enrollees using antiretrovirals, 69 percent of those using antipsychotics, 46 percent using anticonvulsants, and 32 percent using antidepressants (Medicare Payment Advisory Commission 2022a).

FIGURE 2-3

Cost sharing for two asthma/COPD products often exceeded 50 percent of net ingredient costs, 2021



Note: COPD (chronic obstructive pulmonary disease), LABA (long-acting beta agonist), ICS (inhaled corticosteroid). Each vertical line depicts the range of each plan sponsor's aggregate enrollee cost sharing (for their plans) as a share of aggregate ingredient cost net of rebates.

Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

There are some exceptions to the protected-class coverage provisions. Part D plans are permitted to exclude coverage for the following: a brand-name product when a generic is available, extended-release formulations if an immediate-release formulation is available, and drugs for which multiple formulations exist and have the same route of administration (Centers for Medicare & Medicaid Services 2014c). Plans may impose utilization management tools, but not for enrollees already using these drugs, and never for antiretrovirals (Centers for Medicare & Medicaid Services 2019).

While access to necessary medicines remains a top concern for policymakers and regulators, CMS has expressed concern in recent years that the broad mandatory coverage results in higher Part D costs by “substantially limit[ing] Part D sponsors’ ability to

negotiate price concessions in exchange for formulary placement of drugs in these categories or classes” (Centers for Medicare & Medicaid Services 2014a). The agency has also posited that the policy results in overutilization of these medications, particularly for off-label indications. CMS has in the past proposed to limit the number of protected classes and provide plans greater flexibility related to coverage of protected-class drugs. In both cases, however, after stakeholders expressed concerns and opposition to the proposed policies, CMS chose not to finalize these proposals.²³

Mandatory coverage of protected classes limits price competition and rebates

Evidence shows that there can be some negative consequences to the limited ability of plans to manage utilization of products in the protected classes. Data suggest that pricing among products in some of the

**TABLE
2-2**

Spending and brand price growth varied among protected classes, 2015–2021

Therapeutic class ranked by gross Part D spending in 2021	Gross spending, 2021 (in billions)*	Share of net spending on brand-name drugs, 2021	Single-source brand-name drugs, AAGR, 2015–2021	
			Gross price	Net-of-rebate costs
Antineoplastics	\$28.8	95.0%	7.9%	7.6%
Antipsychotics (neuroleptics)	7.5	78.9	8.5	7.3
Antiretrovirals	7.3	97.6	6.7	6.6
Anticonvulsants	4.2	49.9	10.0	9.0
Antidepressants	2.9	22.7	9.4	6.0
Immunosuppressants	0.3	23.7	6.1	5.9
Subtotal, protected classes	51.0	85.7	8.0	7.5
Total, all drug classes	215.8	59.1	7.6	4.8

Note: AAGR (average annual growth rate).

*Includes spending for both brand and generic products.

Source: MedPAC and Acumen LLC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

protected classes tended to be less competitive than in nonprotected classes. Both gross prices and net-of-rebate costs of drugs in protected classes often grew faster than prices in nonprotected classes (Table 2-2), and postsale manufacturer rebates were smaller as a share of gross spending (Table 2-1, p. 77). Growth was significantly constrained, however, in some protected classes once generic substitution was accounted for, particularly antidepressants, anticonvulsants, and antipsychotics (Medicare Payment Advisory Commission 2022a).

Knowing the price and spending implications of the protected-class policy is also important for understanding how program spending might evolve over the next few years, particularly given that antineoplastics are one of the fastest-growing drug classes by spending. Analysts expect that 100 new oncology treatments will enter the market over the next 5 years, and few existing products will lose their marketing exclusivity during this period, which could increase spending on antineoplastics by 10.6 percent per year from 2022 to 2026 (IQVIA 2022). Given the upcoming changes to Part D’s benefit design, namely

the cap on beneficiaries’ OOP spending and increased plan liability, there will likely be increased demand for drugs for which plans may have limited bargaining leverage or tools to manage.

The relationship between gross prices and net-of-rebate costs varied widely among protected classes

Our price index shows that, between 2015 and 2021, gross prices for all Part D–covered single-source brand-name drugs grew at an average annual rate of 7.6 percent, while the prices of such drugs in protected classes grew at a slightly higher average annual rate of 8.0 percent (Table 2-2). Among the protected classes, gross prices grew fastest among anticonvulsants and antidepressants, at an average annual rate of 10.0 percent and 9.4 percent, respectively.

Rebates in protected classes were typically much smaller as a share of gross prices than in nonprotected classes. While most of the protected classes ranked among the top 15 therapeutic classes of drugs covered under Part D by gross spending, average rebates for 4 of these classes were less than 10 percent, compared

with an average of 38 percent for the nonprotected classes in the top 15 (data not shown).

Although some classes experienced significant growth in rebates between 2015 and 2021, the practical effect on net costs varied, depending on the value of gross spending and the share of spending on brand-name products in a class. For example, from 2015 to 2021, the difference between gross and net indexes for antidepressants grew 23 percentage points, but because brand spending and rebates in that class were relatively small, rebates still represented less than 10 percent of gross spending (Table 2-1, p. 77, and Table 2-2, p. 83). Conversely, during the same period, rebates for antineoplastics grew more than 800 percent, but the impact on net costs was minimal. This is because, for this class, gross spending on brand-name drugs, which accounted for over 90 percent of total gross spending, also grew rapidly during the same period. Thus, the growth in net costs for antineoplastics was much larger than for antidepressants, despite much larger rebate growth for antineoplastics.

Even when more significant brand-brand competition exists within a protected class, predicting when rebates will be offered can be difficult. Consider the varying dynamics of different subclasses of one protected class. In one subclass, there were multiple brand-name products and nearly two-thirds of the products had rebates, though still less than the average for all drug classes. Most of those rebates were for products with the highest spending and the highest cost per prescription in the class. In another subclass, only about one-third of the products had a rebate; however, the products with the largest average rebate as a share of gross spending were toward the bottom of the cost and spending distribution of the subclass. In the subclass with the largest number of products, only 14 percent had any rebate and the largest average rebate for a given product was quite small. These examples further illustrate that there are distinct differences in rebate offerings, particularly when coverage of all products in a class is required.

Given the limited rebates available for protected-class drugs, in addition to the high rate of growth in gross prices, net-of-rebate costs for single-source brand-name protected-class drugs have grown between 2015 to 2021 nearly as fast as gross prices for all single-source brand-name drugs (averaging 7.5 percent per year vs. 7.6 percent per year) (Table 2-2, p. 83).

Generic availability in protected classes has had varying effects on prices

The availability of generics has often constrained price growth of protected-class drugs, but not always. Of the 5 protected classes ranked among the top 15 by gross spending in 2021, 4 had a higher generic dispensing rate than the average for the top 15 (85 percent). These high generic dispensing rates can be partially attributed to plans' coverage decisions since plans are allowed to exclude coverage of brand-name products when generics are available. A study from 2018 found that, across the protected classes, 40 percent of brand-name products were not covered, compared with no more than 25 percent for generics (Partnership for Part D Access 2018). Still, the share of net spending attributed to brand-name products was 86 percent in the protected classes, relative to 59 percent among all drug classes, indicative of the overall high prices of brand-name drugs in the protected classes (Table 2-2, p. 83).

But the effect of generic availability on pricing varied widely across classes, as research has shown that market size and the type of product can have a considerable effect on how influential generics will be in a given market (Frank et al. 2021). Consider, for example, antineoplastics and antipsychotics. In 2021, these two classes both had high generic dispensing rates (88 percent and 91 percent, respectively). The Commission's price indexes found that accounting for generic substitution in both classes yields cumulative price growth rates considerably lower than that of single-source branded products alone, but the effect was far greater for antipsychotics than for antineoplastics: Generic substitution for antipsychotics yielded prices in 2021 that were roughly half of what they were in 2010, while prices for antineoplastics still grew by 67 percent after accounting for generics. A key difference regarding antineoplastics is that generic use across the many subclasses was quite varied and many subclasses saw the introduction of a considerable number of new therapies; thus the overall effect of generics was closer to that of antiretrovirals, where generics were used much less frequently.

Antiretrovirals had a generic dispensing rate of just 18 percent, and nearly all net spending in this class was for brand-name products (Table 2-2, p. 83). From 2010 through 2021, prices for antiretrovirals grew 71 percent after accounting for the relatively limited generic

substitution. The text box on pp. 86–87 provides more information on some of the market dynamics at play in this class.

Use of high cost sharing and utilization management in protected classes

Aside from encouraging the use of generic drugs, plans may also use various forms of utilization management (UM) of brand-name drugs to moderate spending in the protected classes. UM can consist of requiring prior authorization from the insurer before allowing coverage of a brand-name drug over a generic, the use of step therapy under which a patient is required to first try a less expensive (often generic) product before being provided coverage of the more expensive product if the first one fails, or placing higher-priced products on higher formulary tiers with greater cost-sharing requirements to encourage use of less-expensive products on the lower tiers.

A study by Avalere found that UM strategies used by Part D plan sponsors from 2014 to 2018 reduced use of products by an average of roughly 75 percent in four out of the five protected classes where UM was allowed compared with when no UM tools were in place (Avalere 2020).²⁴ A separate Avalere study found that 78 percent of brand-name protected-class products were placed on nonpreferred tiers compared with 66 percent of protected-class generics (Partnership for Part D Access 2018). Prior authorization was required for 49 percent of brand-name products in protected classes. The high rate of UM among protected-class products reflects plans' limited ability to control costs and negotiate rebates for these products.

Plan sponsors with vertically integrated PBMs have gained market share and negotiating leverage

About 300 organizations operate Part D plans: Most offer only MA-PDs and about 50 operate stand-alone prescription drug plans (PDPs). Sponsors use PBMs (either a subsidiary firm or an unaffiliated firm under contract) to conduct administrative and clinical services, such as developing formularies, processing claims, establishing networks of pharmacies, and negotiating with drug manufacturers and pharmacies

for postsale rebates and fees. PBMs combine purchasing leverage across payers to create stronger competition among therapies and counter drug manufacturers' pricing power. By aggregating certain functions for payers, PBMs may also achieve economies of scale, such as in claims processing or mail-order dispensing. However, PBMs also benefit from growth in the list prices of drugs, and the complexity of drug pricing makes it difficult for payers to evaluate how well contracted PBMs have performed at managing drug spending (Garthwaite and Morton 2017). The largest plan sponsors are vertically integrated with PBMs and typically operate their own mail-order and specialty pharmacies.

Large Part D plan sponsors received a disproportionate share of DIR

Combined, the two largest plan sponsors by enrollment (UnitedHealth and Humana) operated plans that have accounted for about 40 percent of total Part D enrollment each year since 2007 (including both PDP and MA-PD enrollees). Over time, however, other sponsors gradually expanded their market shares through horizontal mergers and acquisitions. Several also consolidated vertically, merging with or acquiring health plans, PBMs, and pharmacies, which contributed to their bargaining leverage.

Between 2010 and 2021, the proportion of beneficiaries enrolled in plans offered by each year's top five plan sponsors expanded from about 53 percent to 74 percent (Figure 2-4, p. 88). Those sponsors accounted for similar (if slightly larger) shares of gross Part D spending. Companies with the most Part D enrollees have consistently obtained, on average, greater shares of all DIR through their larger negotiating leverage. For example, in 2010, plan sponsors with 53 percent of Part D enrollees obtained 66 percent of Part D DIR. By 2021, however, the top five companies sponsored plans with 74 percent of Part D enrollees and obtained 81 percent of DIR.

The differential between DIR negotiated by large and smaller plan sponsors can be substantial. Each year between 2010 and 2021, the top five plan sponsors were able to negotiate manufacturer rebates that grew from about 13 percent to 24 percent of their plans' gross spending (Figure 2-5, p. 88). In 2021, rebates obtained by top sponsors ranged from 20 percent to

Antiretroviral medications

Antiretrovirals are one of the six protected classes and are used to treat and prevent human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS). When CMS has considered expanding flexibilities for protected-class drugs, HIV drugs have typically been excluded to maintain the strongest coverage protections, and HIV drugs are the only protected class for which current regulations prohibit any use of prior authorization or step therapy (Centers for Medicare & Medicaid Services 2019, Centers for Medicare & Medicaid Services 2014c).

Truvada was approved by the Food and Drug Administration (FDA) in 2004 as a treatment for HIV, combining two existing medications into a single, once-daily pill; in 2012, it received approval as a preventive therapy (pre-exposure prophylaxis, or PrEP) for individuals at risk but not yet infected (Centers for Disease Control and Prevention 2012). These approvals were important advances in efforts to end the HIV epidemic. The price of Truvada and limited generic uptake, however, has undermined the possibility of success by making it inaccessible for many. Further, because Medicare is estimated to cover roughly half of the federal government's cost for HIV care, these high prices are straining

the sustainability of the program (Kaiser Family Foundation 2016).

The first generic for Truvada reached the market in October 2020, and 10 more were available by April 2021. Research by the FDA shows that when there are 10 or more generics available, the median generic price falls to between roughly 1 and 2 percent of the brand's list price (Food and Drug Administration 2022). While it did not happen immediately, generic prices for Truvada are now in this range. This change has left policymakers and patient advocates wondering why generic uptake has been limited.

There are several potential explanations for the limited generic use. Oftentimes brand-name products will continue to dominate a market even after generic competition because their manufacturers offer steep rebates, but that is not the case here: As with most protected classes, rebates for antiretrovirals are low (averaging less than 10 percent). Instead, two other factors seem to be primarily responsible for low generic uptake. First, Gilead developed another drug, Descovy, to treat and prevent HIV, which it began marketing to Truvada patients by highlighting findings that

(continued next page)

25 percent of their gross spending (data not shown). By comparison, plan sponsors with fewer enrollees obtained considerably less DIR, even though some smaller sponsors contract with PBMs owned by the top sponsors to negotiate on their behalf. In 2010, smaller sponsors received manufacturer rebates that were about 5 percentage points lower as a share of their gross spending. That difference grew to nearly 7 percentage points by 2015 but declined back to about 5 percentage points by 2021. Between 2015 and 2021, smaller plan sponsors negotiated much less pharmacy DIR than the top five plan sponsors, and the larger

sponsors' differential grew steadily, plateauing after 2019 (data not shown).

Market focus of each plan sponsor affects how they structure formularies and manage pharmacy benefits

In 2021, the top five plan sponsors as ranked by enrollment each owned a PBM (Table 2-3, p. 89). Some sponsors used their wholly owned subsidiary to perform all PBM functions, while others outsourced activities such as claims processing or rebate negotiations to unaffiliated PBMs. Certain

Antiretroviral medications (cont.)

Descovy was less likely to cause bone-related and kidney-related problems; this is sometimes referred to as product hopping, as discussed in earlier case studies (Dickson and Killelea 2021). One notable fact that stands out in this case is that the research underlying the development of Descovy actually began years before Truvada was approved but was allegedly put on hold when Truvada was approved, despite the company's earlier reporting that initial results were favorable. Over the next few years, Gilead filed for multiple patents related to the active ingredient eventually used in Descovy. Then, in the same year that Gilead entered a settlement agreement with Teva for the eventual launch of its generic version of Truvada, Gilead published the results of its research related to Descovy from more than a decade prior showing that it may be safer and more effective than Truvada. Descovy was approved by the FDA in 2016, four years before generic Truvada was scheduled to enter the market; one year before Teva's generic entry, Descovy received approval as a PrEP preventive therapy. Gilead engaged in similar practices to encourage Stribild patients to switch to Genvoya.

In Medicare Part D, claims for Descovy quickly overtook those of Truvada and stalled generic use. In 2021, when 11 generic products for Truvada were on the market, there were nearly 14 times more claims for Descovy than Truvada and nearly 5 times more claims than for generic Truvada (Centers for Medicare & Medicaid Services 2021).

Another explanation for low generic use may be the high share of users receiving the low-income subsidy (LIS). In 2014, 77 percent of Medicare beneficiaries with HIV qualified for the LIS (Kaiser Family Foundation 2016). The Commission has previously discussed the lack of incentives for LIS beneficiaries to use generic products over their brand-name counterparts (Medicare Payment Advisory Commission 2020).

The 340B Drug Pricing Program—and the ability of providers to acquire drugs at costs far below their reimbursement rates—may also play a role in the continued high market share of brand-name HIV products, particularly given the 340B status of Ryan White HIV Clinics (Killelea and Horn 2023). ■

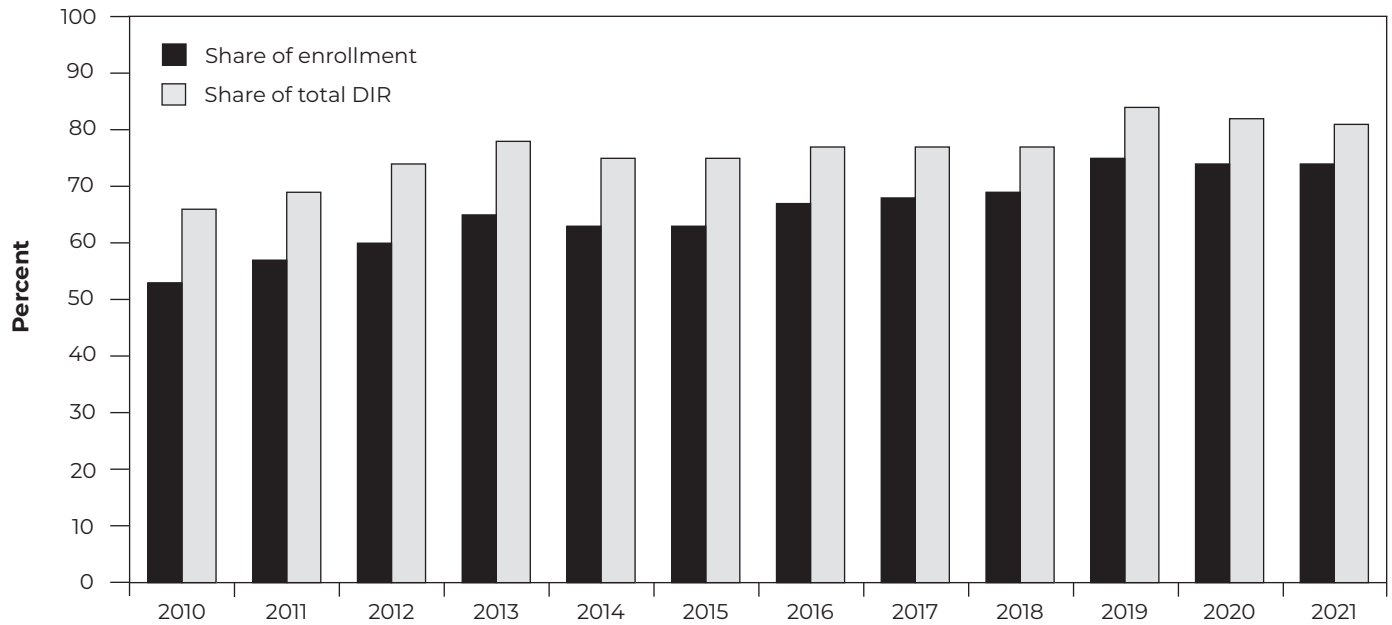
plan sponsors and their PBMs have an exclusive arrangement; for example, Humana Pharmacy Solutions serves only Humana's health plans. In addition to serving their parent organizations, other PBMs—most notably OptumRx, CVS Caremark, and Express Scripts—market their services to smaller plan sponsors, some of which compete with the PBM's parent.

The largest plan sponsors differ regarding which segments of the Part D market they focus on. Large sponsors often use multiple formularies to distinguish among benefit types or to tailor benefits for specific populations. For example, all of the largest sponsors operate separate formularies for stand-alone PDPs and MA-PDs, the latter of which often include additional

coverage beyond Part D's basic benefit. For PDPs, large sponsors typically offer two types of enhanced plans, segmenting enrollees (under separate formularies) between one with a lower premium (to compete for enrollees who have lower drug spending and are more sensitive to premiums) and another with a higher premium (Medicare Payment Advisory Commission 2022c). Large sponsors operate formularies for employer group waiver plans (EGWPs), which tend to offer more generous coverage, separately from other Part D plans with which they must compete directly for enrollees. Some large sponsors focus more heavily on LIS enrollees, who have nominal copayments set by law and tend to use more brand-name drugs.

**FIGURE
2-4**

Both Part D enrollment and DIR became more concentrated among each year's top five plan sponsors ranked by enrollment, 2010-2021

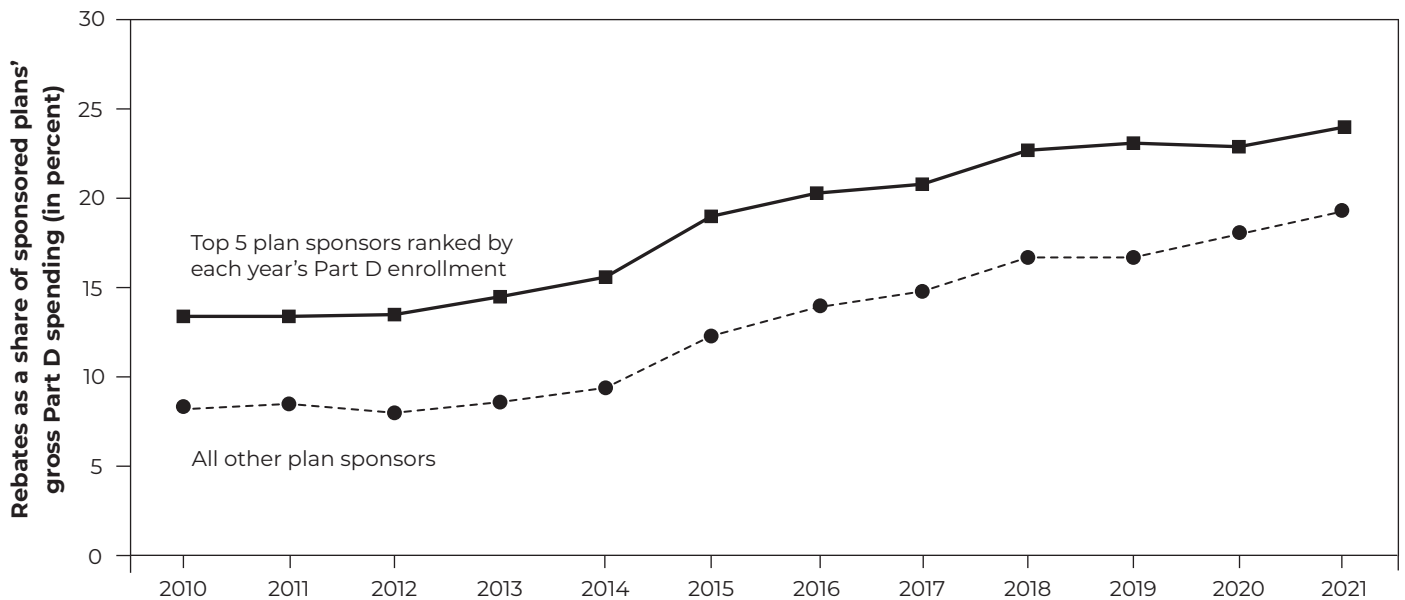


Note: DIR (direct and indirect remuneration). Enrollment totals are from July of each year. The composition of plan sponsors in the top five varied from year to year, particularly in earlier years.

Source: MedPAC analysis of Medicare Part D reconciliation and enrollment data from CMS.

**FIGURE
2-5**

Part D plan sponsors with the largest enrollment negotiated higher manufacturer rebates, on average, 2010-2021



Note: Enrollment totals are from July of each year.

Source: MedPAC analysis of Medicare Part D reconciliation and enrollment data from CMS.

**TABLE
2-3**

Largest plan sponsors emphasized different segments of the Part D market and were vertically integrated, 2021

Plan sponsor	Vertically integrated PBM	Is PBM exclusive to affiliated sponsor?	Total enrollment of sponsor's plans (in millions)	Sponsor's share of all Part D enrollment (in percent)	Share of sponsor's enrollment (in percent)			LIS share of enrollment (in percent)
					EGWPs	Excluding EGWPs PDPs	MA-PDs	
UnitedHealth Group	OptumRx	No	11.0	23%	16%	33%	51%	25%
Humana	Humana Pharmacy Solutions	Yes	8.1	17	7	43	50	27
CVS Health (Aetna)	CVS Caremark	No	7.7	16	22	56	22	28
Centene	Centene Pharmacy Services	Yes	5.3	11	0	78	22	36
Cigna	Express Scripts	No	3.8	8	44	41	15	25
All Part D			48.5	100	15	40	44	27

Note: PBM (pharmacy benefit manager), EGWP (employer group waiver plan), PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug plan), LIS (low-income subsidy). Enrollment numbers from April 2021. In 2021, PBMs owned by Centene and Anthem (now Elevance) conducted some PBM services internally and outsourced other services to CVS Caremark. Subsequent to 2021, Centene decided to divest PBM operations and outsource many of those services.

Source: MedPAC analysis of Medicare Part D enrollment data from CMS; Fein 2023.

Targeting different sectors of the market affects the characteristics of plan sponsors' covered populations and how they structure their formularies, with implications for the magnitude of rebates and pharmacy fees each can negotiate. For example, a formulary for an enhanced plan with lower cost sharing or less utilization management of drugs on its preferred tiers may increase patient adherence to medicines and thus boost manufacturers' drug sales. Brand manufacturers may be willing to offer higher rebates to secure a preferred position on such a formulary. However, a drugmaker may be less willing to negotiate rebates on a formulary that includes more drug options within the same class because it would be subject to more therapeutic competition.

How rebates varied across large plan sponsors and their plans

To examine how rebates varied, we analyzed DIR data on rebates obtained by large plan sponsors for brand-name drugs from drug classes that had some degree of brand-brand therapeutic competition. We first assessed 10 drug classes in detail using 2020 data and then evaluated rebates over time (2015 vs. 2021) for the three drug classes described earlier in this chapter (TNF inhibitors, insulins, and asthma/COPD agents). We used variation in the dollar amount of rebate per prescription as our measure of interest.

Variation in rebates across large plan sponsors

Most broadly, we found that both a drug's gross price and its average rebate varied across plan sponsors, but

rebates varied far more. For example, among the largest sponsors in 2020, prices at the pharmacy for one TNF inhibitor tended to vary by about 10 percent while median rebates varied by as much as 2.5 times that of the sponsor with the lowest median rebate. That wider variation in rebates likely reflects differences in the drug's formulary placement relative to its therapeutic alternatives across plans.

For the three drug classes that we analyzed over time (between 2015 and 2021), the magnitude of rebates per prescription grew. However, in two of the three classes, variation in rebates among large plan sponsors declined over the same period. One might expect compression of variation in rebates as the market structure of plan sponsors grew more consolidated and vertically integrated. At the same time, therapeutic competition among the drug products in those classes matured, and payers and manufacturers may have become more aware of the magnitude of rebates negotiated by others.

Variation in rebates across plans operated by the same large plan sponsor

Next, we assessed whether plans operated by the same sponsor had similar rebates. Average rebates for the products we examined varied less among plans operated by the same plan sponsor than across plan sponsors. For example, for four of six plan sponsors, the variation in average rebate for one TNF inhibitor was less than half of the overall variation across all plans. Nevertheless, wider variation existed in some cases. For two large plan sponsors, variation in the average rebate for one asthma/COPD product was nearly as large across their plans as across all Part D plans. We expected to observe considerable variation when large sponsors operate plans for different sectors of the market—for example, for EGWPs, MA-PDs, and three types of stand-alone PDPs. For the limited number of drug products and classes we examined, we did not observe systematic differences in rebates across types of plans.

We also examined variation among each sponsor's plans that used the same formulary. Because a drug's formulary position plays an important role in rebate negotiations, we expected to observe rebates of similar magnitude when plans shared the same formulary. While plans with the same formulary tended to receive similar rebates per prescription, there were instances in which large differences remained. For example,

one plan sponsor used the same formulary for many of its plans, yet average rebates for those plans varied by as much as the variation observed across all of the sponsor's plans, including those with different formularies. We also found that plans using a particular formulary sometimes received widely divergent rebates on one product (e.g., a TNF inhibitor) but similar rebates on another (e.g., an asthma/COPD product), suggesting that patterns of variability in rebates may be specific to a product.

When comparing rebates obtained between 2015 and 2021, we found that, for some large sponsors, variation in the rebates across each sponsor's plans and across its formularies widened over time. (We observed this even though, over the same period, there was some compression in the overall average rebate amounts obtained by large plan sponsors.) Greater variation may reflect that, over that time period, plan sponsors merged with other companies. Sponsors operated newly acquired plans and formularies alongside plans that were already in their portfolio, some of which may have had significant differences in approaches.

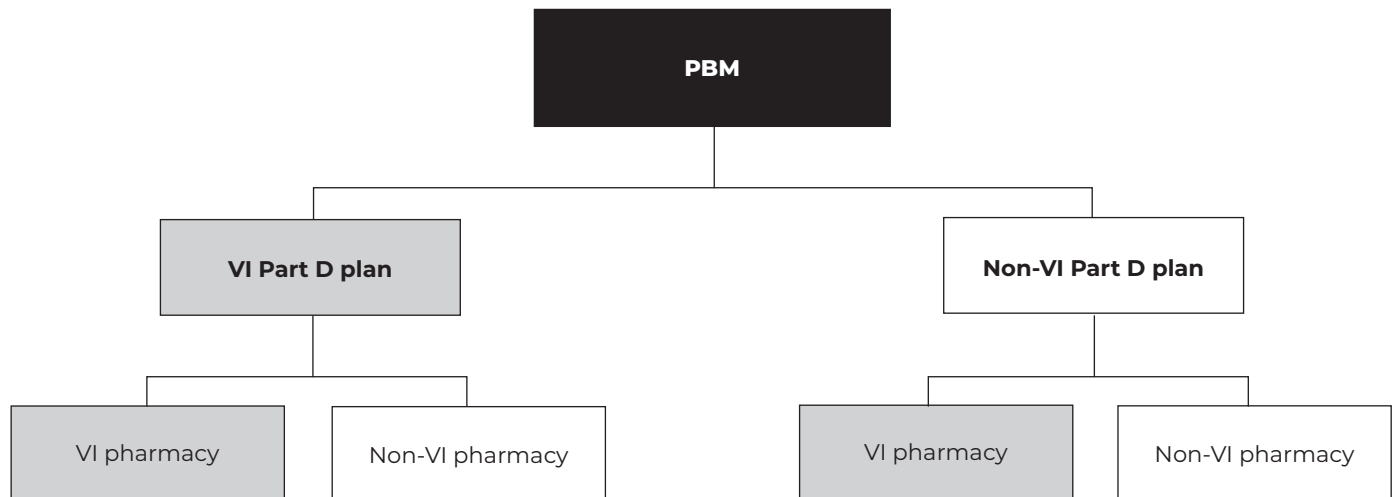
Part D enrollees are increasingly served by vertically integrated PBMs and their pharmacies

The mix of drugs used by the Medicare population has been shifting toward more expensive specialty drugs and biologics. While Part D enrollees continue to obtain most of their medications at retail pharmacies, a growing share of prescriptions was dispensed at mail-order pharmacies (nearly 16 percent in 2021, up from just over 11 percent in 2015).²⁵ Specialty pharmacies accounted for less than 1 percent of prescription volume in both 2015 and 2021, but their share of gross Part D spending grew from less than 7 percent to over 11 percent during this period. Combined, mail-order and specialty pharmacies accounted for over 20 percent of gross spending in 2021, up from about 14 percent in 2015.

Many of the largest plan sponsors participating in Part D are vertically integrated with their own PBMs and operate mail-order, specialty, and sometimes retail pharmacies (Figure 2-6). Vertical integration may reduce transaction costs between the upstream and downstream entities or increase visibility into highly proprietary information about drug prices, allowing sponsors to overcome information asymmetry.

**FIGURE
2-6**

An example of a vertically integrated PBM serving both a VI plan and a non-VI plan



Note: PBM (pharmacy benefit manager), VI (vertically integrated).

Source: MedPAC depiction of a hypothetical structural relationship among entities involved in providing the Medicare Part D benefit.

But a PBM that both administers pharmacy benefits for a payer and operates a pharmacy may have conflicting interests: On the one hand, payers contract with the PBM to lower pharmacy benefit costs. On the other hand, the pharmacy revenues depend on greater prescription volume. As with other participants in the drug supply chain (e.g., wholesalers), pharmacies often benefit from higher list prices. Other concerns relate to potentially anticompetitive behavior (Greaney 2019, Younge 2023). For example, a health plan that also owns pharmacies and a PBM could attempt to use inflated transfer prices between a PBM and its pharmacies to raise the costs of rivals dependent on that PBM or its pharmacies (Medicare Payment Advisory Commission 2023).²⁶

CMS requires Part D plan sponsors to report PBM-negotiated rebates so that Medicare’s payments to plans reflect the actual benefit costs net of all postsale rebates and fees. Over time, as more payers have required PBMs to fully pass through rebates, revenue sources for PBMs have shifted toward fees for services such as administering rebates and clinical programs to increase adherence. Pharmacies that dispense

specialty pharmaceuticals can also receive discounts and service fees directly from manufacturers. In 2022, the difference between prices at specialty and mail pharmacies and their acquisition costs for the drugs accounted for over 50 percent of overall gross profit for the largest PBMs (Fein 2023).²⁷ Under Part D, these discounts and fees received by PBM subsidiaries, such as mail-order and specialty pharmacies, are not reported to CMS, and as a result, the prices established between the PBM and its pharmacies are less transparent to CMS (Office of Inspector General 2021).

In 2021, nearly 90 percent of Part D enrollees were served by the four largest PBMs

In 2021, the four largest PBMs—CVS Health’s Caremark, UnitedHealth Group’s OptumRx, Humana Pharmacy Solutions, and Cigna’s Express Scripts—provided services to nearly 90 percent of Part D enrollment. Caremark, OptumRx, and Express Scripts provided PBM services to both their own Part D plans and to other (unaffiliated) plans. However, they varied in the extent to which they acted as an external PBM to other plan sponsors, with the share of enrollees in unaffiliated plans ranging from less than 20 percent

**TABLE
2-4**

Part D market shares of vertically integrated pharmacies have grown over time, 2015–2021

	2015	2018	2021	AAGR
Standardized prescriptions, millions				
Vertically integrated pharmacies*	570	713	872	7.3%
Other pharmacies	<u>1,550</u>	<u>1,720</u>	<u>1,832</u>	2.8
Total	2,119	2,433	2,704	4.1
<i>Share of prescriptions dispensed by vertically integrated pharmacies</i>				
	27%	29%	32%	
Gross spending, billions				
Vertically integrated pharmacies*	37.7	49.8	70.3	10.9
Other pharmacies	<u>99.7</u>	<u>118.3</u>	<u>145.4</u>	6.5
Total	137.4	168.1	215.7	7.8
<i>Share of spending for prescriptions dispensed by vertically integrated pharmacies</i>				
	27%	30%	33%	

Note: AAGR (average annual growth rate). Prescriptions are standardized to a 30-day supply. "Gross spending" reflects payments from all payers, including beneficiaries (through cost sharing), before accounting for postsale rebates and fees received from pharmacies and manufacturers. *Vertically integrated pharmacies are defined as those that are owned by the four largest pharmacy benefit managers—CVS Health's Caremark, UnitedHealth Group's OptumRx, Humana Pharmacy Solutions, and Cigna's Express Scripts. All four pharmacy benefit managers operate mail-order and specialty pharmacies. In addition, CVS Caremark and OptumRx also operate retail pharmacies (Fein 2023).

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS and pharmacy data from the National Council for Prescription Drug Programs.

to just under half. In contrast, Humana Pharmacy Solutions, the internal PBM of Humana Inc., provides services exclusively to Part D plans operated by Humana Inc. (Guardado 2022). They also differed in the segments of the Part D market that they focused on. For example, in 2021, the share of Part D enrollees in EGWPs ranged from less than 10 percent to over 40 percent of all enrollees served by a given PBM. For the three PBMs that serve both VI and other (unaffiliated) plans, larger employers were more likely to contract directly with the insurers or PBMs (i.e., be classified as a VI plan).

An increasing share of Part D prescriptions are dispensed at vertically integrated pharmacies

All four PBMs operate mail-order and specialty pharmacies. In addition, CVS Caremark and Optum Rx also operate retail pharmacies (Fein 2023). Between 2015 and 2021, the share of prescriptions dispensed at these PBM-operated pharmacies grew from about a

quarter to nearly one-third of all Part D prescriptions (Table 2-4). This growth likely reflects the increasing concentration of enrollment in plans that are operated by the largest PBMs, mergers and acquisitions of pharmacies by these PBMs, and consumers choosing to fill their prescriptions at chain pharmacies.²⁸

The shares of prescriptions and spending accounted for by the VI pharmacies are smaller than the combined market share for these four PBMs (about 90 percent of Part D enrollment). The lower shares are primarily due to Part D rules that limit plans' ability to use restrictive pharmacy networks.

First, in Part D, CMS requires plan sponsors to allow any pharmacy that is willing to accept the sponsor's terms and conditions to participate in their pharmacy network (known as the any-willing-pharmacy rule). Further, CMS regulation requires convenient access for beneficiaries by prohibiting plan sponsors from

**TABLE
2-5**

Vertically integrated and other pharmacies mostly dispensed medications in the same broad therapeutic categories, 2021

Vertically integrated pharmacies		Other pharmacies	
Therapeutic category	Share of total gross spending	Therapeutic category	Share of total gross spending
1 Endocrine	20%	1 Endocrine	21%
2 Antineoplastics	13	2 Antineoplastics	14
3 Cardiovascular therapy agents	11	3 Central nervous system agents	11
4 Hematological agents	10	4 Hematological agents	9
5 Respiratory therapy agents	10	5 Respiratory therapy agents	8
6 Analgesic, anti-inflammatory, or antipyretic	7	6 Anti-infective agents	7
7 Central nervous system agents	7	7 Cardiovascular therapy agents	7
8 Multiple sclerosis agents	4	8 Analgesic, anti-inflammatory, or antipyretic	6
9 Anti-infective agents	3	9 Gastrointestinal therapy agents	4
10 Dermatological	3	10 Dermatological	3
Total, top 10 therapeutic classes by spending	88	Total, top 10 therapeutic classes by spending	89

Note: Vertically integrated pharmacies are defined as pharmacies that are owned by the four largest Part D plan sponsors (CVS Health, Cigna, Humana, and UnitedHealth Group) that own an "in-house" PBM along with mail-order, specialty, and sometimes retail pharmacies.

Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

restricting access to certain Part D drugs to specialty pharmacies within their network. An exception to this rule is allowed if a manufacturer of a specialty drug has limited the distribution of its product to certain authorized pharmacies (see text box on manufacturer-designated limited distribution networks, p. 94). In this case, Part D enrollees can fill that prescription only at one of the designated specialty pharmacies.

Second, Part D plans may offer mail-order prescriptions, but CMS requires a level playing field between mail-order and network pharmacies in that at least one retail pharmacy must be able to dispense prescriptions with 90-day supplies. However, a plan sponsor could require an enrollee obtaining a 90-day prescription at a network retail pharmacy to pay higher cost sharing than the cost-sharing amount applicable at a mail-order pharmacy (Code of Federal Regulations 2005).

Vertically integrated pharmacies mostly dispensed medications in the same broad therapeutic categories as other pharmacies

In 2021, classes of medications dispensed at VI pharmacies, in terms of broad therapeutic categories, were nearly identical to those dispensed at other (unaffiliated) pharmacies, with endocrine therapies (mostly consisting of diabetic therapies) and antineoplastics topping the list based on gross spending for both types of pharmacies (Table 2-5). The only categories that did not appear in both lists were multiple sclerosis agents (in VI pharmacies' top 10) and gastrointestinal therapy agents (in other pharmacies' top 10).

The share of gross spending accounted for by VI pharmacies varied across therapeutic classes (Figure 2-7, p. 95). VI pharmacies accounted for a relatively large share of spending for cardiovascular therapy

Manufacturer-designated limited distribution networks

Some pharmaceutical manufacturers manage some or all of their specialty medications through limited distribution. Under limited distribution, medications are dispensed by a small number of pharmacies (or network of pharmacies), typically selected based on quality and performance in areas such as clinical expertise, medication adherence and patient support services, and data collection and reporting capabilities (CSI Specialty Group 2019).

Manufacturers use limited distribution networks (LDNs) for a number of reasons. Specialty drugs may require special protocols for handling and dispensing. In some cases, pharmacists may need to educate the patients about use of the drug. For expensive drugs with limited shelf life, LDNs help ensure that the pharmacy services a large enough patient population to supply the drug in a timely manner. Manufacturers also collect data from specialty pharmacies as part of their Risk Evaluation and Mitigation Strategy (REMS) program, or as a way to monitor adherence and effectiveness. Using a smaller network of specialty pharmacies can help streamline such data collection.

Large specialty pharmacies—such as Accredo, CVS Caremark, and Optum specialty pharmacies—are a few of the most common pharmacies that are often part of LDNs (Blue Cross Blue Shield of Florida 2023, Wong 2021). Limited-distribution drugs are typically expensive and have complex regimens to manage, with a higher risk of serious side effects. Many are therapies used to treat cancer, multiple sclerosis,

and autoimmune conditions. Examples of limited-distribution drugs that are exclusively dispensed by large specialty pharmacies include:

- Orkambi (lumacaftor/ivacaftor), used for the treatment of cystic fibrosis (Accredo specialty pharmacy);
- Actemra (tocilizumab), used for rheumatoid arthritis and other inflammatory conditions (Accredo specialty pharmacy and CVS specialty pharmacy); and
- Copiktra (duvelisib), used for the treatment of chronic lymphocytic leukemia (Optum specialty pharmacy).

When a large specialty pharmacy is not included in the limited distribution network, it may enter into bilateral agreements with other specialty pharmacies to fill prescriptions for each other.

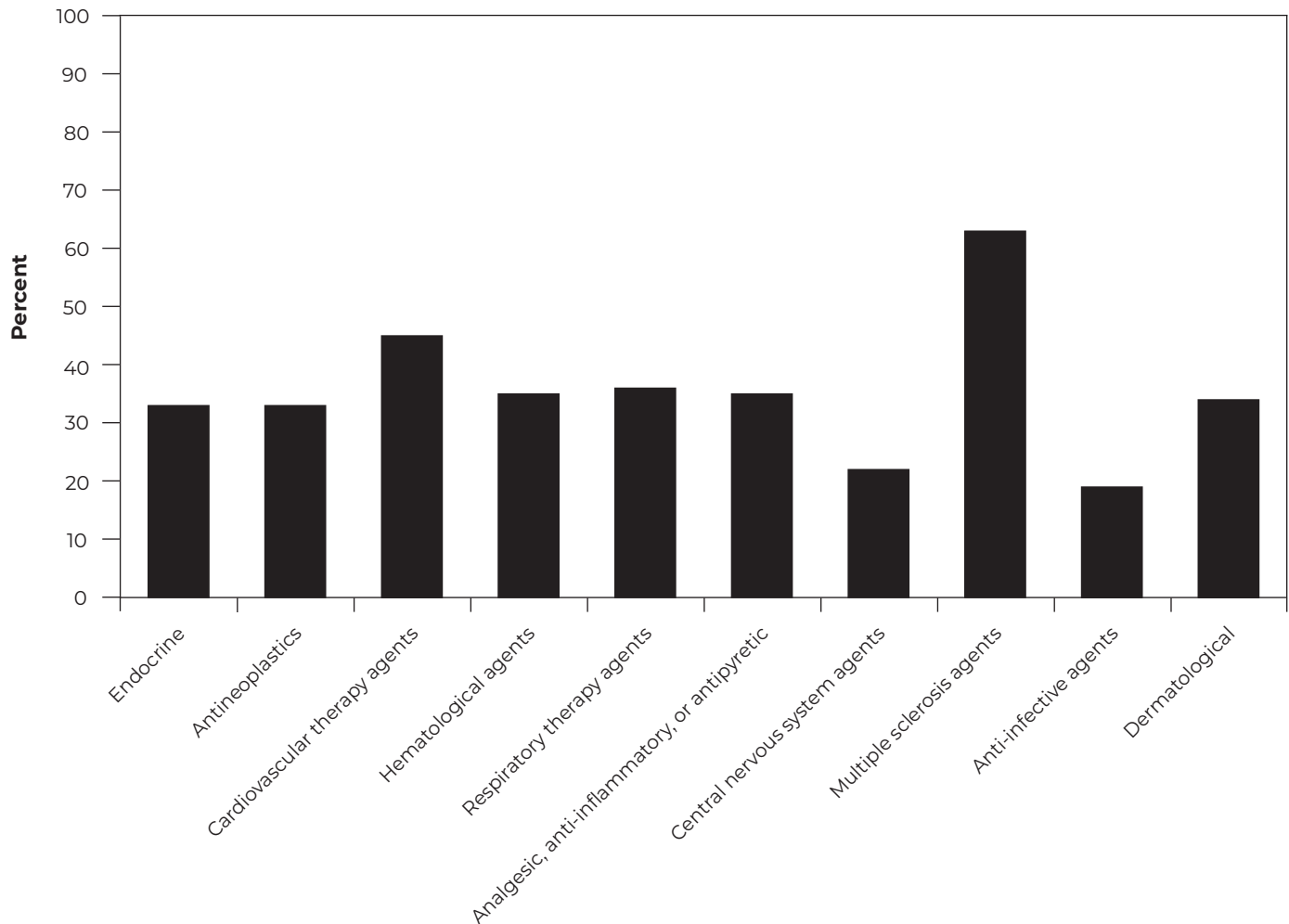
A concern about limited distribution is that when only a small number of specialty pharmacies dispense a drug, the PBM and payer may not be able to negotiate competitive discounts in pharmacy payment rates. There is also a broader concern that manufacturers may misuse the LDNs to increase drug prices and obstruct access to competing drugs (Karas et al. 2018). Some manufacturers cite the Food and Drug Administration's (FDA's) REMS requirement to limit generic and biosimilar drug developers from obtaining the drug products needed for their FDA drug applications (Karas et al. 2018). ■

agents and multiple sclerosis agents. In some cases, differences in ranking of therapeutic categories, such as cardiovascular therapy agents (ranked third under VI pharmacies' list vs. seventh under other pharmacies' list), may reflect differences in the

mix of drugs in those categories. For example, VI pharmacies may dispense more expensive pulmonary antihypertensive therapies, while other pharmacies may have a larger share of prescriptions that are mostly generic antihypertensive drugs, such as angiotensin-converting enzyme inhibitors.

**FIGURE
2-7**

Vertically integrated pharmacies' share of gross Part D spending varied across the top 10 therapeutic classes, 2021



Note: Vertically integrated pharmacies are defined as pharmacies that are owned by the four largest Part D plan sponsors (CVS Health, Cigna, Humana, and UnitedHealth Group) that own an “in-house” PBM along with mail-order, specialty, and sometimes retail pharmacies.

Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

Does vertical integration lower Part D costs?

Health plans have integrated with and built up large PBMs that have significant market power to negotiate rebates with pharmaceutical manufacturers and achieve economies of scale in mail dispensing. At the same time, a PBM may face conflicting interests as a PBM providing services to the payer and as an owner of a pharmacy facing financial incentives to increase dispensing of drugs, particularly those with higher pharmacy spreads (Herman 2022).

In our analysis, we examined pharmacy payments and plan costs at VI and other (non-VI) pharmacies for 2021 to gain insights into whether and how Part D enrollees and Medicare are affected by vertical integration of PBMs with plans and pharmacies. We defined VI pharmacies as those that are operated by the largest Part D plan sponsors’ “in-house” PBMs, including mail-order, specialty, and, for some sponsors, retail pharmacies. We compared the prescriptions dispensed at pharmacies owned by the four largest

Methodology for vertical integration analysis

Our analysis was limited to plans served by the four largest PBMs—CVS Caremark, Express Scripts, Humana Pharmacy Solutions, and Optum Rx. We examined six categories of drugs—disease-modifying anti-rheumatoid drugs (DMARDs), multiple sclerosis agents, two categories of antineoplastics (antiandrogen therapies and protein-tyrosine kinase inhibitors), antiretrovirals, and pulmonary antihypertensive therapies. In 2021, these six categories of drugs had the highest volume, spending, or both at pharmacies designated as specialty pharmacies.²⁹ Three of the six categories (two antineoplastics and antiretrovirals) are in protected classes.

For each PBM, we compared average payments to pharmacies (before accounting for any rebates or postsale fees) and plan costs net of manufacturer rebates. We did not account for pharmacy direct and indirect remuneration (DIR) in this analysis because plans are not required to report pharmacy DIR amounts specific to individual pharmacies. We evaluated transactions between:

- VI plans and their own VI pharmacies,
- VI plans and other (non-VI) pharmacies,
- Non-VI plans and VI pharmacies, and
- Non-VI plans and non-VI pharmacies.

We refer to these four types of transactions as “plan-pharmacy type.” Three of the four PBMs have all

four types of transactions, while Humana Pharmacy Solutions has only two plan-pharmacy types, “VI plans and VI pharmacies” and “VI plans and other (non-VI) pharmacies,” because it only serves its own (Humana) health plans.

For each PBM and plan-pharmacy type, we calculated the average gross prices (payments to pharmacies) and costs net of rebates for each product (e.g., Enbrel Sureclick[®] (a DMARD)) in the six drug categories:

- average gross payments to pharmacies—total amounts paid at the pharmacy from all payers, including beneficiaries, before postsale rebates and fees, per standardized prescription; and
- average plan costs net of rebates—average gross payments to pharmacies minus average manufacturer rebates per standardized prescription, assuming that, for a given plan and product, the average rebate amount per prescription was the same regardless of the type of dispensing pharmacy (VI vs. non-VI).

We then calculated weighted average gross payments and plan costs net of rebates using the standardized prescription volume for “VI plans and VI pharmacies,” for each drug category (six), for each PBM (four), and by plan-pharmacy types. Using the same weights allows us to compare average payment rates and costs across the four plan-pharmacy types without the effects of any differential mix of products across plan-pharmacy types.

(continued next page)

VI organizations participating in Part D—CVS Health, UnitedHealth Group, Humana, and Cigna—with those dispensed at other pharmacies to see whether the behaviors of the VI plan sponsors differed systematically between the affiliated and unaffiliated plans and pharmacies (see text box on analytical method). Our analysis included 24 distinct comparisons (hereafter

referred to as cases) of average gross payments at different plan-pharmacy types for four PBMs and six drug categories. Similarly, we analyzed 24 cases of average costs net of rebates. Our findings are directionally consistent with the hypothesis that a VI entity can financially benefit from higher payments to their VI pharmacies.

Methodology for vertical integration analysis (cont.)

Using a hypothetical PBM A, we developed three cases, drug category 1, drug category 2, and drug category 3 (Table 2-6). Each case has four transaction types, for which we calculated a weighted average of gross prices across all products. To compare gross prices across the four transaction types, we converted the average gross prices into relative prices by dividing by the average gross price paid by VI plan to VI pharmacy (VI-VI). That is, gross prices are 1.0 for a VI-VI transaction. A value greater than 1.0 indicates that the gross prices were higher than VI-VI transaction type, and vice versa.

For each case, the table indicates the transaction type with the highest and lowest average gross prices with a single asterisk and double asterisks, respectively (Table 2-6). Focusing on one case (drug category 1), the average gross price paid by the VI plan to the VI was the highest (a relative price of 1.0), while the average gross price paid by the non-VI plan to the non-VI pharmacy was the lowest (a relative price of 0.92). In this hypothetical example, PBM A paid the highest gross price for VI-VI transactions in two out of three cases. ■

**TABLE
2-6**

An illustrative example of three “cases” for PBM A

		Ratio: Average gross price per prescription (relative to VI-VI)		
		Drug category 1	Drug category 2	Drug category 3
VI plan	VI pharmacy	1.000*	1.000*	1.000**
	Non-VI pharmacy	0.970	0.900	1.040*
Non-VI plan	VI pharmacy	0.950	0.800**	1.030
	Non-VI pharmacy	0.920**	0.850	1.020
Highest average gross cost (*)		VI-VI	VI-VI	VI-non-VI
Lowest average gross cost (**)		non-VI-non-VI	non-VI-VI	VI-VI

Note: VI (vertically integrated).

Source: MedPAC depiction of hypothetical payment rates between plans and pharmacies.

Non-VI pharmacies were more likely to have received the lowest payments

We found that, in 2021, a PBM’s average gross payments across the plan-pharmacy types could vary by as much as 88 percent. However, it was more common for payments to be within 10 percent of each other.

The average costs net of rebates, on the other hand, varied more widely, with nearly 40 percent of the cases varying by more than 30 percent.

While results varied by PBM and by drug category, there were notable patterns. For example, we found that average gross payments to pharmacies were

**TABLE
2-7**

Pharmacy payments and net costs were more likely to be the lowest at non-VI pharmacies and the highest for VI pharmacies filling prescriptions for VI plans, 2021

Type of plan	Type of pharmacy	Average gross payments to pharmacies				Average plan costs net of rebates			
		Highest		Lowest		Highest		Lowest	
		Number of cases	Share of cases	Number of cases	Share of cases	Number of cases	Share of cases	Number of cases	Share of cases
VI	VI	11	46%	2	8%	17	71%	3	13%
	Non-VI	10	42	8	33	5	21	7	29
Non-VI	VI	3	13	4	17	1	4	8	33
	Non-VI	0	0	10	42	1	4	6	25
Total number of cases		24	100	24	100	24	100	24	100

Note: VI (vertically integrated). VI pharmacies are defined as pharmacies that are owned by the four largest Part D plan sponsors (CVS Health, Cigna, Humana, and UnitedHealth Group) that are vertically integrated with an “in-house” PBM along with mail-order, specialty, and sometimes retail pharmacies.

Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

more likely to be the highest for transactions between VI plans–VI pharmacies (11 cases, or 46 percent of all cases) and VI plans–non-VI pharmacies (10 cases, or 42 percent of all cases) (Table 2-7). There were no cases where the average gross pharmacy payments were the highest for non-VI plans–non-VI pharmacies. Non-VI pharmacies were more likely to have received the lowest payments (42 percent for non-VI plans–non-VI pharmacies and 33 percent for VI plans–non-VI pharmacies). Results were similar for protected-class drugs, with non-VI pharmacies receiving the lowest payments in 10 out of 12 cases (83 percent) (data not shown).

In a majority of cases, plans’ net costs were the highest for VI pharmacies filling prescriptions for VI plans

For the average net plan costs, we found that, in 71 percent of the cases (17 of 24), net costs were the highest at VI plans–VI pharmacies, meaning that, for these cases, vertical integration may have resulted in higher costs to Part D and their plan enrollees (Table 2-7).³⁰ For these 17 cases, VI pharmacies’ market share did not seem to be the factor affecting plans’ net costs:

Their market share ranged from less than 20 percent to about 60 percent. VI plans–VI pharmacies had the lowest costs in only three cases. For protected-class drugs, VI plans–VI pharmacies had the highest cost for all but one case (data not shown).

Key takeaways

For a limited number of drug categories, we found that costs net of manufacturer rebates were more likely to be higher at VI pharmacies compared with costs at other pharmacies, particularly when those prescriptions were filled for their own VI plans. Our findings are directionally consistent with the hypothesis that a VI entity financially benefits from higher (gross) payments to their VI pharmacies. In addition to higher gross revenues, higher payments could be financially advantageous if a manufacturer’s payments (e.g., service fees for patient adherence data) to VI pharmacies were based on gross prices paid at the pharmacy, thus contributing to higher spreads.

For a drug product for which VI pharmacies received discounts or fees from manufacturers, higher net costs to the VI Part D plan may not necessarily mean

that the product actually had higher net costs to the vertically integrated organization as a whole. For example, profits at a VI plan's VI pharmacy could offset the plan's higher costs incurred for those prescriptions. Part D's DIR reporting requirement, however, does not include manufacturer discounts or fees retained by pharmacies. If the payments and costs at VI pharmacies are, on average, higher than at non-VI pharmacies, an increase in the share of Part D prescriptions dispensed at VI pharmacies could mean higher Part D costs.

There are a few caveats. First, our findings are pertinent only to the six categories of drugs we examined. Second, our analysis focused on the four largest PBMs and their pharmacies. PBMs vary widely in their business models, and an examination of pharmacy payments and net costs for other, smaller PBMs could lead to different findings.

Looking ahead

Our findings provide insights into current rebate practices while also highlighting how competitive dynamics as well as regulatory policies can affect drug pricing. However, last year, the Congress passed the IRA, which included policy changes related to prescription drugs that are likely to alter the drug-pricing landscape. Among other provisions, the law (1) establishes mandatory rebates for manufacturers of

drugs sold to Medicare beneficiaries if the price of their drug rises faster than inflation, and (2) requires the Secretary of Health and Human Services to negotiate prices each year for a select number of drugs with the highest total Medicare spending. (The Secretary will select the first 10 drugs for negotiation in 2023, and negotiated prices for those drugs will be effective in 2026.) The IRA also restructures Part D's benefit design in significant ways, some of which are consistent with the Commission's 2020 recommendations for the program (Medicare Payment Advisory Commission 2020). For example, beginning in 2024, enrollees will no longer pay cost sharing in Part D's catastrophic phase; the threshold for that phase will be lowered to \$2,000 in 2025. Beginning in 2025, capitated payments will replace much of what is now Medicare's cost-based reinsurance, restoring stronger incentives for plan sponsors to manage drug spending. By better aligning plan incentives with those of Medicare and its beneficiaries, the changes are expected to reduce plans' incentives to place high-gross-price, high-rebate drugs on their formularies.

Changes adopted in the IRA will thus affect the magnitude of future rebates and the circumstances under which Part D plan sponsors are able to negotiate rebates with manufacturers. The analyses in this chapter will serve as a baseline from which to evaluate changes in the pricing and rebate practices as the provisions of the IRA are implemented. ■

Endnotes

- 1 The summary report also includes other categories of fees that take place between manufacturers and PBMs or between PBMs and pharmacies. In recent years, such fees were trivial—less than one-half of 1 percent of all DIR. Ultimately, all information the Medicare program has about Part D DIR is derived from the same source: information that plan sponsors submit to CMS. We did not conduct audits of plan sponsors, and there are no external sources of information that we can use to test the data's validity (Ippolito and Levy 2022). Nevertheless, based on the comparisons with other publicly available data, the DIR data received by the Commission seem generally complete.
- 2 CMS also uses DIR data to calculate whether each plan should make or receive risk-corridor payments. For background on Part D's payment system, see our *Payment Basics on Part D payment* (Medicare Payment Advisory Commission 2022b) and the Commission's March 2023 report (Medicare Payment Advisory Commission 2023).
- 3 Both programs can negotiate additional price concessions beyond the statutorily mandated amounts based on inclusion in preferred formularies.
- 4 However, data from the 2020 Medicare Current Beneficiary Survey suggest that among the factors beneficiaries consider when choosing their plan, more reported considering OOP costs (30 percent) than premiums (26 percent), perhaps because average base beneficiary premiums have remained low and even declined in recent years.
- 5 We calculated this amount from the aggregate portion of DIR that plan sponsors retained in 2021 (about two-thirds) after CMS reconciled Medicare's reinsurance payments to plans, divided by aggregate Part D enrollment months, and then multiplied by 12.
- 6 The \$2,000 cap will be indexed based on the annual increase in average Part D drug expenditures per beneficiary.
- 7 Under the IRA provisions that redesign Part D's basic benefit, beginning in 2025, Medicare will pay 20 percent reinsurance on brand-name and biologic prescriptions in the catastrophic phase and 40 percent for generics. Plan sponsors will bear risk for 60 percent of spending in the catastrophic phase, and manufacturers of brand and biologic products will provide a 20 percent discount.
- 8 For years, the Commission has used PDE data to construct Part D price indexes that show how prices faced by beneficiaries at the pharmacy have changed over time (Medicare Payment Advisory Commission 2023). Gross indexes reflect all amounts paid to pharmacies at the point of sale for Part D prescriptions before retrospective rebates and fees. Using the detailed drug-level DIR data, we developed indexes of Part D costs for brand-name drugs net of rebates (net indexes) using methods consistent with the Commission's indexes for gross prices. The indexes measure growth in postlaunch prices and costs and do not reflect rising launch prices of new products.
- 9 For example, some sponsors may negotiate quarterly rebate payments from manufacturers, while others might be more frequent. Rebates could be lower at the start of the year and larger at the end of the year once a manufacturer's product has reached a certain volume of claims. If a manufacturer has raised its price for a drug above a certain threshold later in the year, it may rebate that incremental price increase to the plan. Sponsors and their PBMs may use monthly or quarterly "true-ups" of payments with chain pharmacies or the pharmacy services administrative organization that represents independent pharmacies. There may be bonuses or risk-sharing payments from sponsors to pharmacies and manufacturers after the benefit year's end.
- 10 Because pharmacy DIR can apply to both generic and brand-name drugs but manufacturer rebates apply only to the latter, for this index, we focused exclusively on the effect of growth in rebate dollars.
- 11 The FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (Orange Book) identifies drug products approved on the basis of safety and effectiveness. "Highly rated generics" refer to A-rated generic drugs that have been determined to be bioequivalent to the brand drug, while other (B-rated) generic drugs are considered not to be bioequivalent.
- 12 The Biologics Price Competition and Innovation Act of 2009, included in the Affordable Care Act of 2010, required that certain drug products previously approved under Section 505 of the Federal Food, Drug, and Cosmetic Act (such as insulin) would be deemed to be approved as a biologic under Section 351 of the Public Health Service Act after a 10-year period for purposes of opening a regulatory approval pathway for biosimilars of such products. While follow-on insulins had been approved under Section 505(b)(2), until this change went into effect, manufacturers could not rely on the abbreviated biosimilar pathway for drugs approved under Section 505.
- 13 Under the defined standard benefit, cost sharing ranges from 5 percent in the catastrophic phase of the benefit to 100 percent in the deductible phase, and for beneficiaries who receive the LIS, 100 percent in the coverage gap.

- Most LIS beneficiaries pay nominal copayments set in law; Medicare pays for the remainder of the plans' cost-sharing requirements on their behalf. In 2021, cost sharing paid by beneficiaries and Medicare's LIS totaled \$49.3 billion. Of that total, \$31.4 billion (nearly 64 percent) was paid by Medicare in low-income cost-sharing subsidies.
- 14 Each of the three largest brand-name insulin manufacturers (Eli Lilly, Novo Nordisk, and Sanofi) announced list-price cuts of 70 percent to 80 percent for several of their older insulin products in March 2023. While manufacturer price cuts are likely to have little effect on Part D beneficiary cost sharing because of the new monthly OOP cap, the cuts may significantly reduce rebates received by plans and thus have potential implications for plan premiums.
 - 15 Other organizations such as the Government Accountability Office have consistently estimated comparable rebate magnitudes (Government Accountability Office 2019).
 - 16 For example, people with asthma may use a maintenance inhaler once or twice per day but keep a rescue inhaler for sudden onset of symptoms.
 - 17 As the FDA notes on its website, "Because combination products involve components that would normally be regulated under different types of regulatory authorities, and frequently by different FDA Centers, they raise challenging regulatory, policy, and review management challenges. Differences in regulatory pathways for each component can impact the regulatory processes for all aspects of product development and management."
 - 18 One requirement for drug-device combination generic approval is that users of the product must be able to use the generic product as easily as they can the original without any additional training or intervention. This requirement can be challenging for generic manufacturers to prove and makes the approval process for a drug-device combination product more costly and burdensome relative to noncombination small-molecule drug products.
 - 19 A study examining the length of marketing exclusivity derived from patents for 49 drug-device combination products (specifically, products to treat asthma/COPD, insulin, and allergic reactions) found that more than half of the products had device patents that shielded them from competition beyond what would be provided by the product's patents for its active ingredient, with a median of 4.7 years of additional protection. Another 14 products listed only device patents, and the median length of protection remaining from those patents from the time of the study was 9 years. Of the 49 products studied, 18 had patents for the original drug compound that expired prior to 2000 but still had a patent offering market protection as of 2015.
 - 20 For example, GlaxoSmithKline received 35 years of marketing exclusivity following FDA approval of its fluticasone inhaler, first introduced as Flovent in 1996, by subsequently introducing Flovent Rotadisk in 1997, Flovent Diskus in 2000, Flovent HFA in 2004, and reformulating as Arnuity Ellipta in 2014 with a protected patent through 2030.
 - 21 Breo Ellipta and Advair Diskus are both manufactured by GlaxoSmithKline.
 - 22 Of the products listed here, Proair, Ventolin, and Pulmicort each have generic competitors.
 - 23 In 2014, CMS proposed to provide a drug class protected status only if a delay in obtaining a medication is likely to result in serious health consequences and the clinical needs of patients treated with one or more medications in that drug class cannot be met unless all Part D drugs in that class are included in a plan formulary. CMS determined that three classes—immunosuppressants for transplant rejection, antidepressants, and antipsychotics—did not meet both proposed criteria, though antipsychotics would be spared from removal because of the clinical risk associated with untreated psychotic illness. In 2018, CMS proposed allowing plans to (1) use prior authorization or step therapy to ensure that the drug is being used for a protected-class indication, including for patients already using it; (2) exclude a drug from the formulary if it is solely a new formulation of an existing single-source drug, regardless of whether the older formulation remains on the market; and (3) exclude a drug from the formulary if the drug's price increased faster than inflation. The Commission generally supported these proposals, noting the importance of balancing the goals of beneficiary access and welfare with Part D plans' tools to manage the drug benefit and appropriately constrain costs.
 - 24 Utilization management is not allowed in Part D for antiretrovirals.
 - 25 Type of pharmacy is based on pharmacy information recorded on Part D's prescription drug event data.
 - 26 When money transfers from one part of the company to another, insurers may keep more of the premiums they collect. This is sometimes referred to as intercompany elimination (Herman 2022). In the case of Part D, if a beneficiary enrolled in a Part D drug plan operated by one sponsor fills a prescription through that same sponsor's specialty pharmacy, any profit made at the pharmacy is also a profit for the parent company. Higher payments to the pharmacy (transfer price) may contribute to higher overall profit for the company.

- 27 In the case of a pharmacy that is vertically integrated with a PBM, all else equal, any fees or rebates that are received by the pharmacy could increase the profits obtained by the pharmacy.
- 28 For example, in 2019 UnitedHealth Group's Optum Rx acquired the largest independent specialty pharmacy (Minemyer 2019). In 2020, Aetna Specialty Pharmacy was combined with CVS Specialty after CVS Health acquired Aetna in late 2018 (Richman 2018).
- 29 Specialty pharmacies were identified based on pharmacy type codes reported in National Council for Prescription Drug Programs' pharmacy database.
- 30 The plan-pharmacy type with the highest (or the lowest) net costs can differ from the type with the highest (or the lowest) gross payments because of differences in the average rebates obtained by vertically integrated (VI) plans and non-VI plans. Separately, we also investigated whether pharmacy DIR as a percentage of gross spending was higher or lower for VI plans relative to non-VI plans in the six drug categories. We found no consistent pattern: For some PBMs and drug categories, the percentage of pharmacy DIR was similar, but there were other cases in which the average percentage of pharmacy DIR was higher for VI plans.

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CHAPTER

3

**Standardized benefits in
Medicare Advantage plans**

Standardized benefits in Medicare Advantage plans

Chapter summary

This year, Medicare beneficiaries have an average of 41 Medicare Advantage (MA) plans (offered by an average of 8 insurers) available in their area. The average number of available plans has more than doubled in the last five years. Plan benefit packages vary, and research has found that beneficiaries have difficulty comparing plans and deciding which one best meets their needs when they have many choices.

One source of variation is cost sharing for Part A and Part B services, which MA plans are required to cover (with the exception of hospice). MA plans can develop their own cost-sharing rules for these services, but their cost sharing must be actuarially equivalent to cost sharing in Medicare's traditional fee-for-service (FFS) program, and there are limits on how much plans can charge for certain services. Plans must also have an annual cap on out-of-pocket costs. Most plans use some of the rebates they receive under the MA payment system to reduce enrollee cost sharing. Conventional plans (plans that are available to all beneficiaries) tend to use the same broad type of cost sharing for a given service, such as daily copayments for inpatient acute care, coinsurance for dialysis, and flat per service copayments for physician visits. However, the actual amounts that plans charge for some services vary widely. Special needs plans have different incentives than conventional plans when developing

In this chapter

- Selecting an MA plan can be a challenging process for beneficiaries
- Standardization has been used in other health insurance markets
- MA cost sharing for Part A and Part B services
- Coverage of supplemental benefits
- Policy options for standardizing MA benefits

cost-sharing rules and are more likely to either use the same cost sharing as FFS Medicare or have no cost sharing.

Another source of variation is the coverage of non-Medicare supplemental benefits. All plans cover at least some supplemental benefits, and they play an important role in attracting enrollment. However, the coverage of these benefits is entirely optional, unlike coverage for Part A and Part B services, and varies widely across plans. Some of the most common supplemental benefits are vision, fitness, hearing, and dental benefits, but plans can cover a variety of other benefits as well. In recent years, plans have been given more flexibility to cover a wider range of benefits, such as nonmedical benefits like meals or transportation, and to target benefits to disease-specific groups of enrollees. Our understanding of utilization and spending trends for supplemental benefits is limited because plans do not submit encounter data for them.

One way for beneficiaries to compare plans more easily would be to require plans to have standardized benefits. This approach is used in both the Medigap market and the health insurance exchanges created by the Affordable Care Act of 2010. We use the term *standardization* to refer to both (1) the set of services covered by the plan and (2) the cost sharing that the plan's enrollees pay for those services. For Part A and Part B services, standardization would be limited to changes in enrollee cost sharing since all plans cover the same required set of services. For supplemental benefits, standardization would be more complicated because it would raise questions about what services plans should cover and how those services should be defined, in addition to changes in enrollee cost sharing.

The use of standardized benefits in MA would require policymakers to consider a number of complex issues, such as the number and design of any standardized benefit packages and whether insurers could still offer plans that are not standardized. One option would be to develop a limited number of benefit packages for Part A and Part B cost sharing and require insurers to use them in their plans. These packages would specify the plan's annual limit on enrollee out-of-pocket costs and the cost-sharing amounts for all major services.

Standardizing supplemental benefits could make these benefits more transparent and help ensure that plans provide sufficient value to MA enrollees and taxpayers, but policymakers would need to balance the goals of making it easier for beneficiaries to compare plans and letting plans design

their own benefits. One way to realize some of the gains from standardized benefits while giving plans flexibility would be to standardize a limited number of common supplemental benefits, such as dental, hearing, and vision benefits. For example, policymakers could specify the coverage limits, cost-sharing rules, and per enrollee spending limits for those benefits. These requirements would apply only to plans that chose to provide dental, hearing, and vision benefits. The rules that govern all other supplemental benefits would remain the same.

Using the approach outlined in this chapter, beneficiaries who compare MA plans would be able to understand with relative ease what each plan charges for Part A and Part B services and the major supplemental benefits it provides. Selecting a plan would still involve other important factors—such as the plan’s premium, the drugs on its formulary, and its provider network—but these changes would make the process simpler and easier to navigate. In addition, by requiring MA plans to submit encounter data for supplemental benefits, policymakers and researchers can better understand the impact of supplemental benefits on MA enrollees. ■

Introduction

Enrollment in the Medicare Advantage (MA) program has grown steadily for years, and this year a majority of beneficiaries with Part A and Part B coverage are enrolled in MA plans. Between 2018 and 2023, the average number of plans available to beneficiaries more than doubled, from 20 to 41.¹ MA plans can design their own benefit packages, which usually include extra benefits not offered in Medicare's traditional fee-for-service (FFS) program, such as reduced cost sharing for Part A and Part B services and non-Medicare supplemental benefits, such as dental, hearing, and vision services. The large number of plans, combined with the variation in benefits, can make it difficult for beneficiaries to compare plans and select the one that best meets their needs.

One way to address this challenge would be to require plans to have standardized benefits. We use this term to refer to both (1) the set of services covered by the plan and (2) the cost sharing that the plan's enrollees pay for those services. There are several ways to standardize benefits, but they often involve specifying some or all of the services that plans must cover and some or all of the cost-sharing amounts that plans charge for those services. This arrangement would make it easier for beneficiaries to compare plans by giving them a more clearly defined set of choices.

This chapter reviews the difficulties beneficiaries face when comparing a large number of health plans and efforts to standardize benefits in other programs. We examine the cost-sharing rules that MA plans use for Part A and Part B services, which all plans are required to cover (with the exception of hospice), and plans' coverage of supplemental benefits, where coverage is entirely optional and varies widely across plans. We then consider some ways that policymakers could standardize MA benefits. For Part A and Part B services, standardization would be limited to changes in enrollee cost sharing since all plans cover the same required set of services. For supplemental benefits, standardization would be more complicated because, in addition to changes in cost sharing, it would raise questions about what services plans should cover and how those services should be defined.

Selecting an MA plan can be a challenging process for beneficiaries

The MA program gives beneficiaries the option of receiving their Medicare benefits through a managed care plan. Beneficiaries who wish to enroll select a plan in a regulated market in which competing insurers offer a variety of plans. A fundamental assumption of this model is that beneficiaries are in the best position to decide which plan meets their needs.

However, selecting a plan is difficult because plans differ in many respects: premiums, cost-sharing rules, provider networks, supplemental benefits, the drugs they cover (for plans that include Part D drug coverage), quality, and other factors, such as brand reputation. CMS has taken actions to make it easier for beneficiaries to get information on the plans available in their area, such as requiring plans to use standard marketing materials and creating the Medicare Plan Finder website, but the process remains challenging.

The increasing number of MA plans adds to the difficulty. Between 2018 and 2023, the average number of plans available to beneficiaries more than doubled, from 20 to 41. The entry of new insurers into the MA market and regulatory changes that have made it easier for insurers to offer multiple plans are among the reasons for this growth.²

Researchers have found that individuals have more difficulty selecting a health plan when they have many choices. Studies included in a review of the literature on consumer decision-making for health plans have found that, as the number of choices increases, individuals are less likely to correctly identify the lowest-cost plan, less likely to review all of their coverage options, and more likely to select a plan that is clearly inferior to another available plan (Taylor et al. 2016). Many of those studies found that individuals had difficulties even when the increase in the number of choices was relatively small—for example, from around 5 choices to around 10. The same literature review found that many people have difficulty understanding concepts such as coinsurance and deductibles, tend to put too much emphasis on premiums over cost sharing when picking plans, and are susceptible to how plan choices are presented.

One study that compared growth in MA enrollment with growth in the number of MA plans found that enrollment grew faster in areas where the increase in the number of plans was relatively small (fewer than 15 plans), suggesting that beneficiaries were more likely to enroll when they had a more manageable number of choices (McWilliams et al. 2011). The same study also found that beneficiaries with some degree of cognitive impairment did a poorer job of selecting plans that minimized their out-of-pocket costs.

One way that policymakers could address these challenges is by requiring MA plans to have standardized benefits. Standardization could be implemented in several ways, but one approach, used in other health insurance programs, would be for Medicare to develop a limited number of benefit packages that insurers would be required to offer in their plans. This approach would make it easier for beneficiaries to compare plans by giving them a more clearly defined set of choices.

Standardization has been used in other health insurance markets

The MA program's basic structure, where beneficiaries select a health insurance plan from a range of available options, is used in other health care programs, such as Medigap and the health insurance exchanges created by the Affordable Care Act of 2010 (ACA). These programs have also faced the challenge of ensuring that individuals can adequately understand their plan options and select one that meets their needs. In our view, standardization in these programs can be instructive for standardization efforts in MA.

The Medigap market

One of the best-known examples of standardization is the market for Medicare supplemental or Medigap policies, which are private insurance policies that cover some or all of the cost sharing for Part A and Part B services. Medigap policies can be sold only to beneficiaries enrolled in Medicare FFS. Prior to standardization, there had been persistent concerns that the market was too confusing for beneficiaries—insurers sold hundreds of different policies, which made it difficult to compare plans—and was prone to marketing abuses, such as agents selling multiple

policies with duplicative coverage to the same person. In 1990, the Congress addressed those concerns by requiring all Medigap policies to have standard benefit packages. This requirement applies to all policies sold after July 31, 1992 (McCormack et al. 1996).³

The Congress assigned the task of developing the standardized plans to the National Association of Insurance Commissioners, which created 10 plans known simply as Plan A through Plan J. The plans were roughly ordered from least comprehensive to most comprehensive, with Plan A covering a minimum set of “core benefits” and the other plans covering both the core benefits and a variety of additional benefits.⁴

Since then, there have been relatively few changes to the lineup of standardized plans:

- Four original plans—E, H, I, and J—were closed to new entrants in 2010 following legislative changes to the Medicare benefit package. Plan E was the only plan that covered certain preventive and at-home recovery services; it became redundant when Medicare added coverage for those services. Similarly, Plans H, I, and J were the only plans with prescription drug coverage; they became redundant following the creation of the Part D drug benefit.
- Four new plans—K, L, M, and N—have been added. Plans K and L were added in 2005; they cover less cost sharing than other Medigap plans but also have an annual limit on out-of-pocket costs. Plans M and N were added in 2010; Plan M differs from most other plans because it covers only half of the hospital deductible, while Plan N is distinctive because beneficiaries have copayments of \$20 for physician office visits and \$50 for emergency room visits.
- Plans C and F were closed to new entrants in 2020. They were the only plans that covered the Part B deductible; the Congress closed them due to concerns that their “first dollar” coverage led to higher Medicare spending. Beneficiaries who already had C or F policies were allowed to keep them.

Table 3-1 shows which types of cost sharing are covered by each Medigap plan. Most plans cover either all or none of a particular type of cost sharing (indicated by “Yes” and “No,” respectively). Three

**TABLE
3-1**

Benefits covered by the 10 standard Medigap plans

	Plan type									
	A	B	C	D	F	G	K	L	M	N
Part A cost sharing										
Hospital deductible	No	Yes	Yes	Yes	Yes	Yes	50%	75%	50%	Yes
Hospital coinsurance and 365 additional lifetime days	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Skilled nursing facility coinsurance	No	No	Yes	Yes	Yes	Yes	50%	75%	Yes	Yes
Hospice coinsurance or copayment	Yes	Yes	Yes	Yes	Yes	Yes	50%	75%	Yes	Yes
Part B cost sharing										
Deductible	No	No	Yes	No	Yes	No	No	No	No	No
Coinsurance or copayment	Yes	Yes	Yes	Yes	Yes	Yes	50%	75%	Yes	Yes
Excess charges	No	No	No	No	Yes	Yes	No	No	No	No
Other benefits										
Blood deductible	Yes	Yes	Yes	Yes	Yes	Yes	50%	75%	Yes	Yes
Foreign travel exchange	No	No	80%	80%	80%	80%	No	No	80%	80%
Out-of-pocket limit	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Yes	N/A	N/A

Note: N/A (not applicable). Plans C and F have been closed to new entrants since the start of 2020. Plan N requires beneficiaries to make copayments for physician office visits and emergency room visits. Plans F and G have a high-deductible option in some states.

Source: "How to compare Medigap policies" on the Medicare.gov website.

plans—K, L, and M—cover either 50 percent or 75 percent of some types of cost sharing. In addition, six plans cover emergency care received during foreign travel, which Medicare does not cover. Despite the array of options, most Medigap enrollment is concentrated in a handful of plans. In 2020, almost 90 percent of beneficiaries with standardized plans were enrolled in Plan F (49 percent), Plan G (29 percent), or Plan N (11 percent) (America’s Health Insurance Plans 2022).

The adoption of standardized Medigap plans is generally viewed as a success, with consumer representatives and state insurance regulators reporting that beneficiaries found it easier to compare plans, consumer complaints declined, and the overall market remained stable. However, it is unclear whether

the reforms made the market more competitive (Fox et al. 2003, McCormack et al. 1996). One study found that the scope for price competition is limited because the market is dominated by two large insurers and beneficiaries have strong brand preferences (Starc 2014). Another study found that standardization reduced the share of beneficiaries with Medigap coverage because it raised the minimum level of coverage relative to some pre-reform policies and thus made it more expensive (Finkelstein 2004).

The ACA’s health insurance exchanges

The ACA created state-based health insurance exchanges to replace the individual and small-group markets, and it provides subsidies to help people who meet certain income limits buy coverage through

those exchanges. States can either develop their own exchange or let CMS provide coverage through a federally run exchange. As of 2023, 20 states and the District of Columbia have their own exchanges; the other 30 states use the federally run exchange (Kaiser Family Foundation 2023).⁵

The ACA exchanges have several structural features that have helped standardize their plans. Most notably, all plans are grouped into four “metal tiers” that use actuarial value—the average share of spending covered by the plan—to measure the generosity of the plans’ coverage. Plans in the lowest tier, bronze, cover 60 percent of spending, followed by silver (70 percent), gold (80 percent), and platinum (90 percent). All plans must also cover a set of essential health benefits and have a cap on annual out-of-pocket spending. These provisions still give insurers significant flexibility to develop their own benefit packages and have raised concerns that the resulting variation in plan benefits makes it difficult to compare plans, even within the same metal tier.

As a result, in 2022, 11 of the 21 states that operated their own exchanges required insurers to offer some type of standardized plan.⁶ The level of standardization varied. For example, Maryland had a low level of standardization; it required all standardized plans within a given metal tier to have the same deductible, but insurers developed the other cost-sharing rules and could still offer nonstandardized plans. In contrast, nine states with higher levels of standardization had detailed plan designs that specified the exact deductible, annual out-of-pocket limit, and cost-sharing amounts to be used in each metal tier. Six of these states also limited the sale of nonstandardized plans. For example, California prohibits the sale of nonstandardized plans entirely and, starting in 2023, Washington limits insurers to one or two nonstandardized plans in each metal tier (Assistant Secretary for Planning and Evaluation 2022).

One prominent state that uses standardized plans is Massachusetts, which created its exchange in 2006 and served as a model for the ACA. The state required insurers to sell standardized plans starting in 2010. One study found that this change led consumers to select more generous plans—the share of people enrolled in bronze plans declined—and resulted in “substantial shifts” in the market shares for participating

insurers. The study attributed these effects to changes in the consumer decision-making process (standardization made the differences between metal tiers more apparent) and the mix of plans being offered (standardization led insurers to offer plans that had not been available previously). There was relatively little impact on premiums (Marzilli Ericson and Starc 2016).

More recently, CMS required insurers to sell standardized ACA plans on the federally run exchange starting in 2023.⁷ A key motivation for this requirement was the rapid growth in the number of plans due to changes such as an increase in the number of insurers selling ACA plans and the repeal of rules requiring insurers to offer plans with “meaningful differences.” Between 2019 and 2022, the average number of plans available on the exchange (across all metal tiers) grew from 26 to 108, and in 2022 almost three-quarters of enrollees (73 percent) had more than 60 plans available (Assistant Secretary for Planning and Evaluation 2022). Under the new policy, in areas where insurers offer a nonstandardized plan, they must also offer a standardized plan with the same metal tier and product type (such as an HMO or preferred provider organization (PPO)) (Centers for Medicare & Medicaid Services 2022c). CMS did not initially put any limits on the sale of nonstandardized plans but announced earlier this year that, within a given metal tier and product type, insurers will be limited to four nonstandardized plans in 2024 and two nonstandardized plans in 2025 and later years (Centers for Medicare and Medicaid Services 2023).

The designs for the federally standardized plans are shown in Table 3-2. Each design specifies the plan’s deductible, out-of-pocket limit, and cost-sharing amount for most major service categories, including prescription drugs. CMS aimed to make the standardized plans similar to the most popular existing plans and developed these designs by using 2021 enrollment and benefit data to calculate the enrollment-weighted median cost-sharing amount for each metal tier and service category.

Since plans become more generous across the metal tiers ranging from bronze to platinum, the cost-sharing requirements become steadily smaller. The bronze plan is effectively a form of catastrophic coverage since it does not provide any coverage until enrollees have met a \$9,100 deductible and then covers all costs

**TABLE
3-2**

Standardized plan designs that are offered in the federal health insurance exchange in 2023

Metal tier

Service category	Bronze	Silver	Gold	Platinum
Annual limit on cost sharing	\$9,100	\$8,900	\$8,700	\$3,000
Deductible	\$9,100	\$5,800	\$2,000	\$0
Inpatient hospital services	NCAD	40%	25%	\$250*
Skilled nursing facility	NCAD	40%	25%	\$150*
Outpatient facility fee	NCAD	40%	25%	\$150*
Outpatient surgery physician and services	NCAD	40%	25%	\$150*
Emergency room services	NCAD	40%	25%	\$100*
Primary care visit	NCAD	\$40*	\$30*	\$10*
Urgent care	NCAD	\$60*	\$45*	\$15*
Specialist visit	NCAD	\$80*	\$60*	\$20*
Mental health and substance abuse disorder outpatient office visit	NCAD	\$40*	\$30*	\$10*
Speech therapy	NCAD	\$30*	\$30*	\$10*
Occupational and physical therapy	NCAD	\$30*	\$30*	\$10*
Imaging (CT/PET scans, MRIs)	NCAD	40%	25%	\$100*
X-rays and diagnostic imaging	NCAD	40%	25%	\$30*
Laboratory services	NCAD	40%	25%	\$30*
Generic drugs	NCAD	\$20*	\$15*	\$5*
Preferred brand drugs	NCAD	\$40*	\$30*	\$10*
Nonpreferred brand drugs	NCAD	\$80	\$60*	\$50*
Specialty drugs	NCAD	\$350	\$250*	\$150*

Note: NCAD (no charge after deductible is met), CT (computed tomography), PET (positron emission tomography), MRI (magnetic resonance imaging). This table does not include designs for an “expanded bronze” plan or for three types of silver plans for individuals who receive cost-sharing reduction subsidies. The requirement to offer these standardized plans does not apply to states with their own health insurance exchanges. There are slightly different plan designs for Delaware and Louisiana.
*Plan deductibles do not apply to these services.

Source: HHS Notice of Benefit and Payment Parameters for 2023, table 12.

beyond that point. The other three plans have a mix of copayments and coinsurance. Copayments are used for professional services (such as primary care visits and physical therapy) and prescription drugs, while coinsurance is largely used for the other service categories. The high deductibles in many ACA plans have been a concern for policymakers, so designs for the silver, gold, and platinum plans specify that some services (marked with an asterisk) are not subject to the deductible.⁸

MA cost sharing for Part A and Part B services

The MA program differs from traditional Medicare because it relies on private plans that receive capitated payments instead of FFS reimbursement to deliver the Part A and Part B benefit package. As an alternate delivery system, MA plans can manage costs using a

**TABLE
3-3**

The in-network MOOP limits for MA plans have increased since 2020

Limit type	2011–2020	2021	2022	2023	2024
Lower	\$3,400	\$3,450	\$3,450	\$3,650	\$3,750
Intermediate	N/A	N/A	N/A	6,000	6,450
Mandatory	6,700	7,550	7,550	8,300	9,100

Note: MOOP (maximum out-of-pocket), MA (Medicare Advantage), N/A (not applicable). Between 2011 and 2022, the lower limit was known as the voluntary limit. The figures for 2024 are projections that CMS will update as more recent fee-for-service spending data become available.

Source: MedPAC analysis of MA rate announcements (2011–2020), Health Plan Management System memoranda (2021–2022), and 2022 final rule on MOOP limits and service category cost-sharing standards (2023–2024).

variety of tools that are unavailable to the FFS program, such as provider networks and prior authorization, and that can affect how enrollees receive services.

MA plans also have the flexibility to develop their own cost-sharing rules instead of using FFS cost-sharing rules. However, this flexibility is subject to numerous limitations that are aimed at ensuring that plans do not have benefit designs that discriminate against beneficiaries who are sicker and use more services. Some of those limitations apply to aggregate cost sharing, while others apply to cost sharing for particular services.

Aggregate limits on cost sharing

MA plans' overall cost sharing is constrained in two ways. First, plans must ensure that their cost sharing for all Part A and Part B services is, in aggregate, actuarially equivalent to FFS cost sharing. As a result, any efforts by plans to charge higher cost sharing for some services must be offset by lower cost sharing on other services. Plans can also charge less in overall cost sharing than FFS; if they do, the difference between the two amounts is treated as an extra benefit and financed by plan rebates or supplemental enrollee premiums.

Second, MA plans must have an annual cap on out-of-pocket spending for in-network services, known as a maximum out-of-pocket (MOOP) limit.⁹ CMS calculates three types of limits based on FFS spending data:

- The mandatory limit is based on the 95th percentile of out-of-pocket FFS spending.

- The lower limit (known in earlier years as the voluntary limit) is based on the 85th percentile of out-of-pocket FFS spending, a lower amount.
- Starting this year, CMS has added an intermediate limit, which is the midpoint between the lower and mandatory limits.¹⁰

Plans have the flexibility to set their MOOP limit anywhere between \$0 and the mandatory limit. CMS encourages plans to have more generous limits by allowing plans that are at or below the intermediate limit to charge higher cost sharing for certain services. If an MA plan has the same distribution of per beneficiary spending as in FFS, roughly 5 percent of its enrollees will reach the mandatory limit and 15 percent will reach the lower limit.

The MOOP limits have increased since 2020 after remaining unchanged for a decade (Table 3-3). The higher limits are largely due to the enactment of the 21st Century Cures Act, which in 2021 lifted restrictions on the ability of beneficiaries with end-stage renal disease (ESRD) to enroll in MA plans.¹¹ Before then, beneficiaries with ESRD were largely prohibited from enrolling in MA, so CMS excluded them from the FFS spending data used to calculate the MOOP limits. After the prohibition was lifted, CMS began including them in its calculations. Since beneficiaries with ESRD typically have very high spending, this change has resulted in higher MOOP limits, especially the mandatory limit. CMS is gradually phasing in the effects of including the ESRD population and expects

to complete this transition in 2024. At that point, the voluntary and mandatory limits will be about 10 percent and 36 percent higher, respectively, than they were in 2020.

The increase in the MOOP limits has raised concerns that some MA plans will increase their limits accordingly and thus provide less protection against high out-of-pocket costs. In response, CMS added the intermediate limit and broadened the range of services for which plans with more generous MOOP limits can charge higher cost sharing. CMS intends for the added flexibility to provide a sufficient incentive to keep plans from raising their MOOP limits.

In 2023, among conventional MA plans, 29 percent have MOOP limits in the lower range (\$0 to \$3,650), 47 percent have limits in the intermediate range (\$3,651 to \$6,000), and 24 percent have limits in the mandatory range (\$6,001 to \$8,300). Those shares have changed relatively little since 2015 (we combined the figures for the intermediate and mandatory ranges to make the 2023 data comparable with earlier years) (Centers for Medicare & Medicaid Services 2022b). The median in-network limit for conventional MA plans (plans that are available to all beneficiaries) is \$4,700, and 50 percent of enrollees are in plans that have limits between \$3,450 and \$6,000. Only 2 percent of enrollees are in plans that use the mandatory limit of \$8,300. This pattern suggests that competitive pressures lead most plans to provide greater protection against out-of-pocket costs than the minimum CMS requirement. However, the lack of plans with very low MOOP limits (only 8 percent of conventional plans have limits of \$2,000 or less) also suggests that plans believe there is a point at which enrollees are more interested in other plan features.

Service-specific limits on cost sharing

In addition to the aggregate limits, plans must also comply with a complex set of limits on the cost sharing they can charge for certain service categories (Table 3-4, p. 120). Conceptually, there are three major types of service-specific limits:

- Services for which plans cannot charge more in cost sharing than FFS does. This limit applies to such major categories as inpatient care, skilled nursing facility (SNF) care, dialysis, and Part B drugs.

- Services for which plans can charge more than FFS does but that are subject to some specified limit. This limit applies to categories such as physician services.
- Services for which plans cannot charge more than 50 percent in coinsurance or an actuarially equivalent copayment. This general limit applies to any categories, such as outpatient hospital services, for which CMS does not have any specific limits on cost sharing.

Some of these limits—such as the prohibition on charging higher cost sharing than FFS for dialysis, SNF care, or Part B drugs—are specified in law. CMS also has the authority to put cost-sharing limits on other services to prevent plans from using benefit designs that the agency considers discriminatory. For example, CMS added cost-sharing limits for rehabilitation services, starting with the 2020 plan year, and has indicated it may add a limit for ambulance services in the future (Centers for Medicare & Medicaid Services 2022b).

The service-specific limits take several forms. Some put a cap on allowable coinsurance; for example, plans with mandatory MOOP limits cannot charge more than 20 percent in coinsurance for some types of durable medical equipment (DME). Some put a cap on allowable copayments, such as the 2023 limits of \$95 for an emergency room visit (for plans with mandatory MOOP limits) or \$196 per day for SNF care. And some services have both types of limits; for example, in 2023 plans cannot charge more than 20 percent in coinsurance or a \$65 copayment for therapeutic radiological services. CMS uses FFS spending data to determine the copayment limits. For example, if CMS wanted to limit copayments for a particular service category to the equivalent of 40 percent in coinsurance, it would calculate the average FFS-allowed amount for the service category, multiply that figure by 40 percent, and use the resulting dollar amount as the copayment limit. However, the agency has not updated its copayment limits regularly.

Some limits have a much greater effect on plan behavior than others. For example, the limits for physician services have relatively little effect: In 2023, less than 1 percent of conventional MA plans charge the maximum copayment for primary care and

**TABLE
3-4**

MA plans are subject to several service-specific limits on cost sharing

Type of service-specific limit	Services affected	Can plans with more generous MOOP limits charge more?
Plans cannot charge higher cost sharing than FFS	Inpatient (acute and psychiatric)	Yes, up to 125% of FFS
	Skilled nursing facility care	Yes, can charge copayments during first 20 days of stay
	Home health	Yes, can impose cost sharing
	Dialysis	No
	Part B drugs	No
	DME	Yes, for some types of DME, but limit still applies to overall cost sharing for all DME services
Plans can charge higher cost sharing than FFS but are still subject to limits 2022: Copayment limits that were originally equal to 50% coinsurance but were not updated regularly 2023–2026: Transition to new limit of 30% coinsurance or equivalent copayments	Physician services	2022: No
	Rehabilitation services	2023–2026: Yes, transition to new limits of 40% coinsurance (intermediate MOOP plans) or 50% coinsurance (lower MOOP plans) or equivalent copayments
	Urgent care	
	Partial hospitalization	
Plans must charge lower cost sharing than FFS (15% of projected 2021 median FFS cost)	Emergency services	Yes, can charge up to 20% of projected 2021 median FFS cost
	Preventive services	No
Plans cannot charge cost sharing	Any services not listed above	No

Note: MA (Medicare Advantage), MOOP (maximum out-of-pocket), FFS (fee-for-service), DME (durable medical equipment). These limits apply only to in-network care.

Source: MedPAC analysis of MA rate announcements, Health Plan Management System memoranda, and 2022 final rule on MA cost-sharing limits.

only 3 percent charge the maximum copayment for specialist care. Conversely, 98 percent of plans charge the maximum amounts for chemotherapy drugs and dialysis.

Changes to the MOOP limits that took effect in 2023 were accompanied by several changes to the

service-specific limits. Two changes are particularly noteworthy. First, the limits for categories such as physician services, which previously had copayment limits that applied equally to all plans, have been replaced with a three-tiered system that allows plans with more generous MOOP limits to charge higher cost sharing. Under the new system, plans with mandatory

MOOPs can charge up to 30 percent in coinsurance, plans with intermediate MOOPs can charge up to 40 percent, and plans with lower MOOPs can charge up to 50 percent. (Each tier also has an actuarially equivalent limit on copayments.) Second, many copayment limits are being increased to reflect more current FFS spending data. Some increases will be substantial because many limits had not been updated for years. The changes for Part B drugs are especially large; the copayment limit for chemotherapy drugs will rise from \$75 to \$280, and the limit for other drugs will rise from \$50 to \$320. Most changes to the service-specific limits are being implemented over a four-year period and will take full effect in 2026.

Plans with more generous MOOP limits already had the ability to charge higher cost sharing for some services—such as inpatient acute and psychiatric care, the first 20 days of SNF care, home health care, and emergency services—so the new flexibility described above is an incremental expansion. Overall, relatively few conventional MA plans with more generous MOOP limits take advantage of the ability to charge higher cost sharing than they could with a mandatory MOOP. For example, in 2023, the share of plans with lower or intermediate MOOPs that charge higher cost sharing than they could with a mandatory MOOP is less than 1 percent for inpatient acute care, 4 percent for inpatient psychiatric care, 7 percent for SNF care, and 1 percent for home health care. The main exception is emergency services, where 43 percent of plans with lower and intermediate MOOPs charge higher cost sharing.

How much do MA plans charge in cost sharing for Part A and Part B services?

Any discussion of using standardized benefits in MA should be informed by an understanding of what plans now charge in cost sharing for Part A and Part B services, how that cost sharing varies across plans, and how MA cost sharing differs from FFS cost sharing. We therefore examined the current cost-sharing arrangements in MA plans using plan-level benefit data for 2022 and 2023 that MA insurers submitted as part of the bid process. We used the cost-sharing amounts that plans charge for in-network care. We excluded employer-sponsored plans from our analysis because they are available only to beneficiaries who previously worked for certain employers; we also excluded private fee-for-service plans and Medicare

medical savings account plans because they have relatively low enrollment (as of February 2023, about 37,000 beneficiaries and 8,000 beneficiaries, respectively). We divided the remaining plans into two groups: conventional plans, which are available to all beneficiaries who have both Part A and Part B and live in a plan's service area, and special needs plans (SNPs), which serve only beneficiaries who have both Medicare and Medicaid, need the level of care provided in a long-term care facility, or have certain chronic conditions. Unless indicated otherwise, the figures we present are weighted by plan enrollment.

Three general differences between MA and FFS cost sharing make it more difficult to compare the two sectors. First, the type of cost sharing used can differ. The FFS program has uniform cost-sharing rules that largely use copayments for Part A services and coinsurance of 20 percent for Part B services.¹² In contrast, MA plans can use either coinsurance or copayments for most services.¹³ CMS encourages plans to use copayments because they are easier for beneficiaries to understand, but plans nonetheless use a variety of arrangements.

Second, when FFS beneficiaries receive services in a facility such as a hospital, they typically have to make multiple cost-sharing payments. For example, a beneficiary who has outpatient surgery could have to pay cost sharing to three different providers—the hospital, the surgeon, and the anesthesiologist. In contrast, MA plans are required to charge a single, bundled cost-sharing amount (paid to the facility) for the entire service.

Third, nearly all MA plans receive rebates that they use to provide extra benefits to their enrollees. In 2023, conventional plans receive an average of \$196 per member per month in rebates and use \$76 of that amount (39 percent) to reduce cost sharing for Part A and Part B services (Medicare Payment Advisory Commission 2023). Plans can deduct administrative costs and profits from the rebates they use to reduce cost sharing; when those amounts are excluded, conventional plans spend about \$66 per member per month to reduce cost sharing. The benefit data we used for our analysis include the effect of rebates but do not specify which services have lower cost sharing as a result.

**TABLE
3-5**

Conventional MA plans' daily copayments for inpatient acute care vary widely, but two-thirds fall within a narrower range

Daily copayment	Number of copay days						Total plans	Share
	1-3	4	5	6	7	8+		
\$0-\$50	5	3	38	7	6	4	63	2%
\$50-\$100	2	9	56	13	9	15	104	3
\$100-\$150	9	7	65	24	22	13	140	4
\$150-\$200	4	10	107	59	62	25	267	7
\$200-\$250	2	11	174	134	122	41	484	13
\$250-\$300	2	30	374	409	208	12	1,035	28
\$300-\$350	3	54	424	269	62	2	814	22
\$350-\$400	4	99	456	58	0	0	617	16
\$400-\$450	5	81	42	0	0	0	128	3
\$450-\$500	8	62	3	0	0	0	73	2
Above \$500	13	7	0	0	0	0	20	1
Total plans	57	373	1,739	973	491	112	3,745	100%
Share	2%	10%	46%	26%	13%	3%	100%	

Note: MA (Medicare Advantage). Copayment amounts are for in-network care. The figures in this table exclude special needs plans, employer-sponsored plans, private fee-for-service plans, and Medicare medical savings account plans. We also excluded a small number of plans that use more than one daily copayment amount. We counted "plans" using unique combinations of contract number, plan number, and segment number. About two-thirds of all plans fall in the gray shaded area. Components may not sum to totals due to rounding.

Source: MedPAC analysis of 2023 plan benefit package data.

Part A services

For Part A services, we focused on cost sharing for inpatient acute care and SNF care. We did not include other major services such as inpatient psychiatric care, where our findings were broadly similar to those for inpatient acute care; home health care, for which plans rarely charge cost sharing; or hospice, which MA plans do not cover.

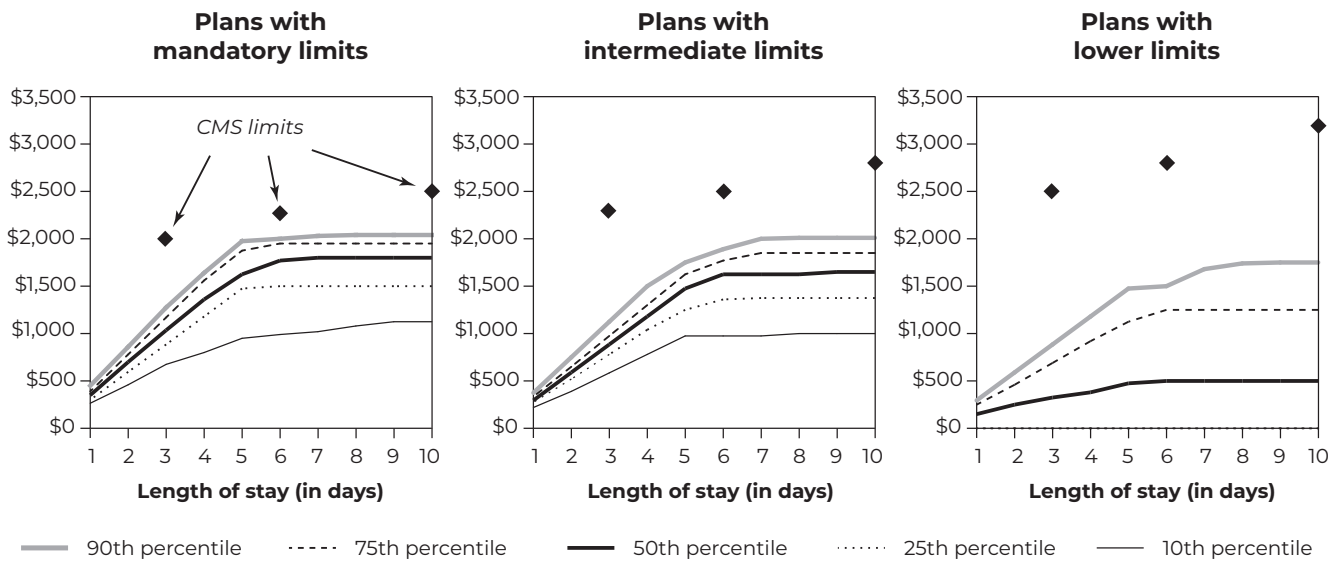
Inpatient acute care Under FFS, beneficiaries who receive inpatient care must pay the Part A deductible (\$1,600 in 2023) but have no other Part A cost sharing until they have been in the hospital for 60 days. They must also pay cost sharing (typically 20 percent coinsurance) for any Part B services they receive during the stay, such as physician services.

In contrast, conventional MA plans typically use daily copayments for inpatient acute care. In 2023, 83 percent of plans use daily copayments, 7 percent use a flat, per admission copayment (akin to the Part A deductible), and 9 percent have no cost sharing. Less than 1 percent of plans use FFS cost-sharing rules. Since MA plans use bundled cost sharing, their copayments cover all services received during the inpatient stay. Plans likely prefer daily copayments because they are more attractive to beneficiaries than the Part A deductible and may be particularly appealing to healthier beneficiaries.

Among the plans that use daily copayments, both the amount of the copayment and the number of days for which a copayment is charged vary (Table 3-5). This year, 79 percent of plans charge between \$200

FIGURE 3-1

Total cost sharing for an inpatient acute stay, by type of MOOP limit and percentile, 2023



Note: MOOP (maximum out-of-pocket). Cost-sharing amounts are for in-network care. These figures exclude special needs plans, employer-sponsored plans, private fee-for-service plans, and Medicare medical savings account plans. We also excluded a small number of plans that use more than one daily copayment amount. All percentiles are enrollment weighted.

Source: MedPAC analysis of 2023 plan benefit package data.

and \$400 per day, and 85 percent of plans charge copayments for between five days and seven days. About two-thirds of all plans fall within the relatively small area on the table shaded in gray.

Plans with mandatory MOOP limits cannot charge higher cost sharing than FFS for inpatient care. (Plans with more generous limits are allowed to charge higher cost sharing than FFS.) CMS enforces this requirement by calculating the average amount that FFS beneficiaries pay in cost sharing (under both Part A and Part B) for inpatient stays that last 3, 6, 10, and 60 days. Plans must ensure that their cost sharing for stays of those lengths does not exceed the FFS average. For plans that use daily copayments, this approach creates a trade-off between the size of the copayment and the number of copayment days—plans with higher copayments charge for fewer days, and vice versa.

Figure 3-1 shows how the total cost sharing that conventional MA plans charge for inpatient acute care varies by length of stay and the plan’s MOOP limit. The CMS limits for 3-day, 6-day, and 10-day stays are also shown; the limits for plans with intermediate and lower MOOPs are 12.5 percent and 25 percent higher, respectively, than the limits for plans with mandatory MOOPs. The preference for daily copayments means that cost sharing typically rises for the first 5–7 days of the stay and then flattens out.

Nearly all plans charge less than the CMS cost-sharing limits, with many plans charging much less. (The only CMS limit that appears to have any noticeable impact is the six-day limit for plans with mandatory MOOPs.) The clear implication is that most MA enrollees pay less for inpatient acute care than they would if they were enrolled in FFS and did not have supplemental coverage. Nonetheless, cost sharing varies substantially

**TABLE
3-6**

Conventional MA plans vary in cost sharing charged for SNF care, 2023

Daily copayment	Number of days for which copayment is charged	Share of plans	Share of enrollees
\$196 (maximum)	80 (maximum)	34%	31%
<\$196	80	27	25
\$196	<80	28	33
<\$196	<80	10	11

Note: MA (Medicare Advantage), SNF (skilled nursing facility). Copayment amounts are for in-network care. The figures in this table exclude special needs plans, employer-sponsored plans, private fee-for-service plans, and Medicare medical savings account plans. All figures are for days 21–100 of a SNF stay. We also excluded plans that either impose no cost sharing or use fee-for-service cost-sharing rules (these two groups collectively account for about 3 percent of all conventional MA plans). We counted “plans” using unique combinations of contract number, plan number, and segment number.

Source: MedPAC analysis of 2023 plan benefit package data.

across plans. For example, the median cost sharing for a five-day stay is \$1,450, but the plan at the 10th percentile charges \$120 and the plan at the 90th percentile charges \$1,860.

Although plans with more generous MOOPs are allowed to charge higher cost sharing, plans with intermediate MOOPs tend to charge somewhat less cost sharing than plans with mandatory MOOPs, while plans with lower MOOPs tend to charge much less. For example, the median cost sharing for a five-day stay is \$1,625 for plans with mandatory MOOPs and \$1,475 for plans with intermediate MOOPs, but only \$475 for plans with lower MOOPs. (More than 25 percent of plans with lower MOOPs have no cost sharing for inpatient acute care.) This discrepancy suggests that plans with more generous MOOP limits actually tend to have lower cost sharing, instead of offering a trade-off between a more generous MOOP limit and higher cost sharing.

Skilled nursing facility care Compared with inpatient acute care, there are fewer differences between FFS and MA cost sharing for SNF care. In FFS, there is no cost sharing for the first 20 days of a SNF stay, followed by a daily copayment for days 21 through 100. After that, Medicare coverage ends. The MA cost-sharing limits are similar. Plans cannot charge cost sharing during the first 20 days of a stay and cannot charge more than the projected FFS copayment during days 21 through 100. (The two copayment amounts

typically differ slightly—in 2023, the FFS copayment is \$200 per day while the MA limit is \$196 per day—because CMS calculates them at different points in time using somewhat different data.) Plans with lower or intermediate MOOP limits can charge modest copayments during the first 20 days, but as noted earlier, relatively few do so. Plans have the option of charging lower copayments, charging copayments for fewer than 80 days, or both. As a practical matter, many MA enrollees with very long SNF stays will not pay cost sharing for the entire stay due to their plan’s MOOP limit.

This year, almost a third of conventional MA plans (31 percent) essentially use FFS cost-sharing rules because their copayments are set at the \$196 maximum and they charge copayments for the entire 80-day period (Table 3-6). The other 69 percent of plans have cost sharing that is lower than the FFS amounts. Most of these plans either use the maximum copayment but have fewer than 80 copayment days (33 percent) or charge less than the \$196 maximum copayment but have 80 copayment days (25 percent). Only 11 percent of plans have both lower copayments and fewer copayment days.

However, among plans that have lower cost sharing than FFS, the differences are often relatively modest. For example, about 50 percent of the plans that charge less than the \$196 maximum and have 80 copayment

days still charge more than \$175 per day, and about 90 percent of the plans that use the maximum copayment but have fewer copayment days still require enrollees to pay copayments for at least days 21 through 40 of their stay, which is well above the average length of stay (figures not shown in table).

Part B services

Table 3-7 (p. 126) shows the amounts that conventional MA plans charged in 2022 for some selected Part B services. We used 2022 data for this table so we could include the average cost-sharing amounts (in dollar terms) in FFS for comparison. We took these FFS figures from the 2022 final rule that updated the MOOP and service-specific limits for MA plans; that rule did not include equivalent amounts for services that do not have a cost-sharing limit, such as outpatient hospital services. The table also shows the share of plans that used each type of cost sharing (copayments, FFS rules, other, or none) and, for plans that used copayments, the distribution of the copayment amounts. The “copayment” category is limited to plans that used the same copayment for all services in a given category, while the “other” category is used for plans with cost-sharing rules that did not fit within the other three categories, such as coinsurance that was lower than FFS, a mix of copayments and coinsurance, or variable copayments.

Copayments were the predominant type of cost sharing used for the services shown in the table, with some exceptions. Most plans in the “other” category for outpatient hospital services and urgent care also used copayments but had no cost sharing for certain services. For example, roughly a third of the “other” plans in the outpatient hospital category had no cost sharing for a single service (diagnostic colonoscopies) and more than half of the “other” plans in the urgent care category had no cost sharing for care provided by the enrollee’s primary care physician. The two exceptions to the use of copayments were primary care, where almost three-quarters of plans had no cost sharing, and dialysis, where almost all plans followed FFS rules and charged 20 percent coinsurance.¹⁴

Copayment amounts for a given service often varied substantially across plans. For four of the five services for which we show the distribution of copayments, plans at the 90th percentile charged two to three times more than plans at the 10th percentile. Emergency

services were the exception since nearly all plans used the maximum copayment allowed at the time by CMS.

The relationship between MA and FFS cost sharing varied by service:

- Almost all MA plans charged lower cost sharing than FFS for primary care visits—nearly three-quarters of plans had no cost sharing, and those that did tended to have relatively low copayments (a median copayment of \$10 vs. an average FFS amount of \$23). Compared with FFS, plans have an incentive to promote the use of primary care over other, more expensive alternatives. Plans charged about the same as FFS for specialist visits (\$35 vs. \$36).
- MA plans charged lower cost sharing for emergency services than the FFS average (\$90 vs. \$150), due to the relatively low CMS limits on cost sharing for those services, and more for urgent care (\$40 vs. \$27).
- Even though FFS and MA both use 20 percent coinsurance for dialysis, MA cost sharing was probably higher in dollar terms in most instances because many plans pay providers more than FFS rates for dialysis services (Lin et al. 2022, Medicare Payment Advisory Commission 2021). However, MA enrollees who receive dialysis likely benefit from their plan’s MOOP limit.

Another notable difference between FFS and MA cost sharing, which is not shown in the table, is the use of a deductible. The FFS program includes a deductible for Part B services—\$233 in 2022—but only 3 percent of conventional MA plans have a deductible for medical services. (However, many plans have a separate deductible for Part D drug benefits.) When plans do use a deductible, they have flexibility to specify which Part A and Part B services are subject to it.

The MA cost-sharing amounts for the services shown in Table 3-7 (p. 126) changed relatively little between 2022 and 2023. The median copayments for the five services with copayment data remained the same except for outpatient hospital services, where the median copayment fell from \$275 to \$250. The only notable changes in the type of cost sharing used were for primary care services, where the share of plans that do not charge cost sharing rose from 73 percent to

**TABLE
3-7**

Type of cost sharing used by conventional MA plans and copayment amounts for selected Part B services, 2022

FFS cost sharing	MA cost sharing						
	Type of cost sharing used	Share of enrollees	Percentile amounts				
			10th	25th	50th	75th	90th
Primary care visit							
20% coinsurance (~\$23 on average)	Copayments	23%	\$5	\$5	\$10	\$10	\$15
	FFS rules	1					
	Other	3					
	None	73					
Specialist visit							
20% coinsurance (~\$36 on average)	Copayments	85	20	25	35	40	45
	FFS rules	1					
	Other	4					
	None	10					
Outpatient hospital							
20% coinsurance	Copayments	19	125	200	275	325	350
	FFS rules	2					
	Other	73					
	None	6					
Emergency services							
20% coinsurance (~\$150 on average)	Copayments	99	90	90	90	90	120
	FFS rules	<1					
	Other	<1					
	None	<1					
Urgent care							
20% coinsurance (~\$27 on average)	Copayments	64	20	30	40	45	55
	FFS rules	1					
	Other	27					
	None	8					
Outpatient dialysis							
20% coinsurance (~\$64 on average)	Copayments	1					
	FFS rules	97					
	Other	1					
	None	1					

Note: MA (Medicare Advantage), FFS (fee-for-service). MA cost-sharing amounts are for in-network care. The figures in this table exclude special needs plans, employer-sponsored plans, private fee-for-service plans, and Medicare medical savings account plans. "Copayments" indicates that the plan has a single copayment for all services in the benefit category. "Other" refers to any approach not captured by the other cost-sharing categories used in the table, such as a combination of coinsurance and copayments, coinsurance that is lower than FFS rules, or variable copayments. Components may not sum to totals due to rounding.

Source: MedPAC analysis of 2022 plan benefit package data and 2022 final rule on MA cost-sharing limits.

86 percent, and urgent care, where the share of plans using copayments rose from 64 percent to 82 percent.

SNPs often have different cost-sharing rules than conventional MA plans

We looked separately at SNPs in our analysis because they have very different incentives when it comes to cost sharing. SNPs are based on the rationale that certain beneficiaries will receive better care from a specialized MA plan that is tailored to meet their distinct care needs than from conventional MA plans. There are three types of SNPs: those serving beneficiaries with certain chronic conditions (known as C-SNPs), those serving dual-eligible beneficiaries (D-SNPs), and those serving beneficiaries in long-term care institutions (I-SNPs).¹⁵ Beneficiaries must belong to one of those groups to enroll in a SNP, but they also have the option of enrolling in conventional MA plans.

The vast majority of SNP enrollees (90 percent) are dual-eligible beneficiaries, who qualify for both Medicare and Medicaid, compared with only 12 percent of enrollees in conventional MA plans. Medicaid covers Part A and Part B cost sharing for most dual-eligible beneficiaries, while other MA enrollees—aside from those in employer-sponsored plans—typically do not have any supplemental coverage. The ability to offer lower cost sharing for Part A and Part B services (through the use of MA rebates) thus helps conventional MA plans attract enrollment but does relatively little to help SNPs attract enrollment. Instead, SNPs largely use their rebates to cover non-Medicare supplemental benefits (Medicare Payment Advisory Commission 2019).

As a result, cost sharing for Part A and Part B services can differ significantly between conventional plans and SNPs. Figure 3-2 (p. 128) compares the MOOP limits in 2023 for conventional plans and SNPs. The vertical axis shows the share of total enrollment for each plan type. The limits for most conventional plans are distributed relatively evenly between \$3,400 and about \$7,500. In contrast, 70 percent of SNPs use the mandatory limit of \$8,300, the highest possible amount. Since most SNP enrollees do not pay cost sharing, those plans have an incentive to use the mandatory limit to minimize the cost of the MOOP limit.

There are also noticeable differences between conventional MA plans and SNPs in the type of cost

sharing used for individual services. The figures shown in Table 3-8 (p. 129) for Part B services (“primary care visit” through “dialysis”) provided by conventional plans are identical to those shown in Table 3-7, so they also reflect 2022 data. Compared with conventional plans, the rationale for SNPs to use copayments is weaker: Since most enrollees pay no cost sharing, they do not benefit from the predictability of copayments, and plans can do relatively little to use cost sharing to encourage or discourage the use of specific services. As a result, the share of SNPs that either used FFS cost-sharing rules or had no cost sharing was much higher for many services. For example, for outpatient hospital services, only 2 percent of conventional plans used FFS rules and only 6 percent had no cost sharing. The corresponding figures for SNPs were 39 percent and 20 percent, respectively. When SNPs did use copayments, their median copayments did not appear to be consistently higher or lower than the median copayments for conventional plans.

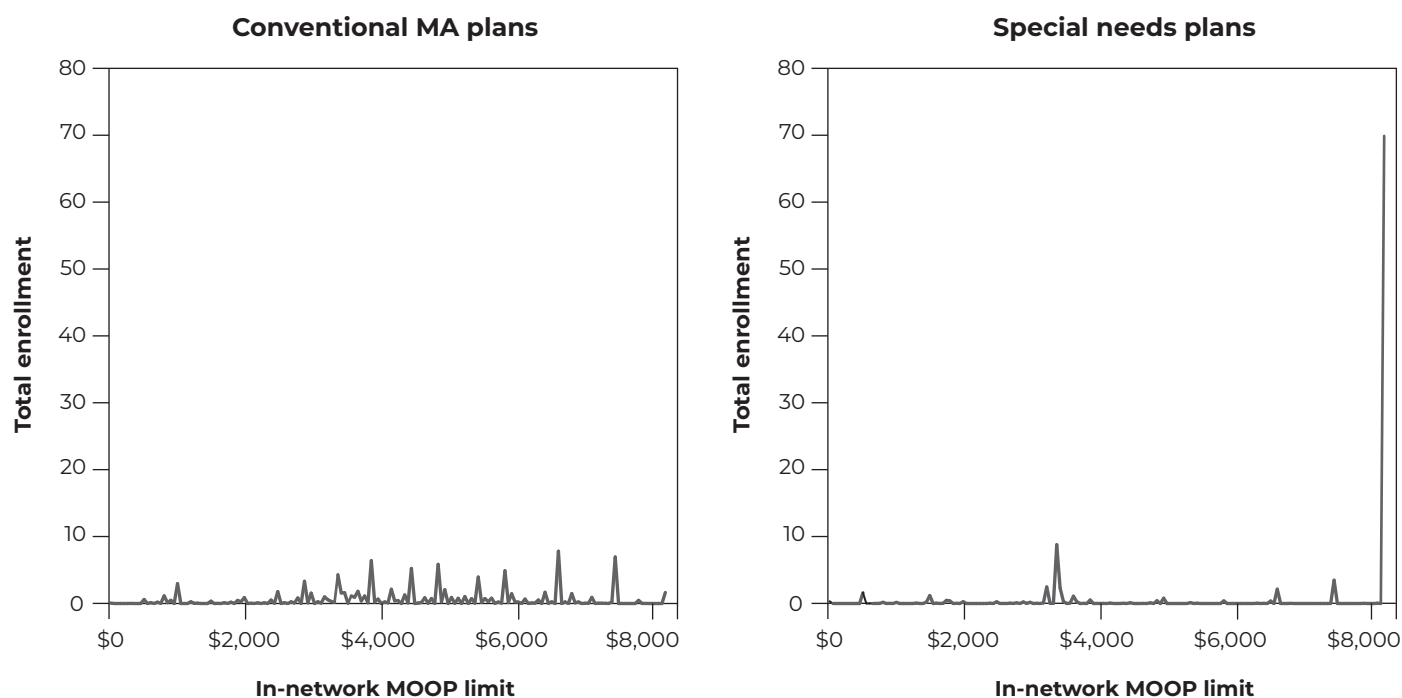
Coverage of supplemental benefits

Under the MA program, plans are required to provide the Part A and Part B benefit package, but they can also provide extra benefits not covered under traditional FFS. Many of those extra benefits are tied to Medicare-covered services in some way, such as lower cost sharing for Part A and Part B services, enhanced Part D drug coverage, lower Part D premiums, and lower Part B premiums. However, plans can also provide a variety of supplemental medical and nonmedical benefits that FFS Medicare does not cover.¹⁶

Plans can offer a supplemental benefit as either a *mandatory* or *optional* benefit. Mandatory benefits are part of the plan’s standard benefit package and are available to all enrollees; they are financed by the rebates that most plans receive under the MA payment system, premiums paid by enrollees, or both. Optional benefits are not part of the plan’s standard benefit package; enrollees must pay an additional premium to receive them and plans cannot use rebates to finance their costs. Our work focuses on mandatory benefits because they account for the vast majority of MA supplemental benefits.¹⁷

FIGURE
3-2

Conventional MA plans and SNPs often have different MOOP limits



Note: MA (Medicare Advantage), SNP (special needs plan), MOOP (maximum out-of-pocket). The vertical axis shows the share of enrollees in plans with a given MOOP limit. For 2023, the highest amount that plans can use as their in-network MOOP limit is \$8,300. Figure does not include employer-sponsored plans, private fee-for-service plans, or Medicare medical savings account plans.

Source: MedPAC analysis of 2023 plan benefit package data.

Plans have been using a growing share of their rebates to provide supplemental benefits (Table 3-9, p. 130). The figures in this table are based on MA bid data, in which plans indicate how they will spend their rebates on five broad categories of extra benefits. Between 2020 and 2023, the share of rebates used for supplemental benefits rose from 18 percent to 26 percent for conventional plans, and from 68 percent to 82 percent for SNPs. In 2023, on an annual basis, conventional MA plans and SNPs spend about \$600 and \$2,430 in rebates per enrollee, respectively, on supplemental benefits (figures not shown in table).

Compared with conventional MA plans, SNPs use a much higher share of their rebates to provide supplemental benefits because most of their enrollees (about 90 percent) are dually eligible for Medicare

and Medicaid. Many out-of-pocket costs for these beneficiaries are already covered by other programs: Medicaid covers Part A and Part B cost sharing and pays the Part B premium in most cases, and Part D's low-income subsidy typically covers the premium and all or most cost sharing for prescription drug coverage. As a result, SNPs have less reason than conventional plans to use their rebates to cover these costs.

Plans have been given greater flexibility in how they provide supplemental benefits

Plans' ability to offer supplemental benefits has always been subject to requirements that specify the types of benefits that can be offered and the types of enrollees who can receive them. For many years, two key requirements were that supplemental benefits had to

**TABLE
3-8**

Conventional MA plans and SNPs often use different types of cost sharing

Service category	Type of cost sharing used	Conventional MA plans		Special needs plans	
		Share of enrollees	Median copayment	Share of enrollees	Median copayment
Inpatient acute	Daily copayment	82%	\$295	14%	\$325
	Flat copayment	8	325	46	1,480
	FFS rules	<1		22	
	None	9		19	
Skilled nursing facility (days 21-100)	Copayments	96	188	30	188
	FFS rules	1		51	
	None	3		19	
Primary care visit	Copayments	23	10	1	5
	FFS rules	1		53	
	Other	3		2	
	None	73		44	
Specialist visit	Copayments	85	35	6	20
	FFS rules	1		64	
	Other	4		2	
	None	10		27	
Outpatient hospital	Copayments	19	275	2	195
	FFS rules	2		39	
	Other	73		39	
	None	6		20	
Emergency services	Copayments	99	90	71	90
	FFS rules	<1		15	
	Other	<1		1	
	None	<1		13	
Urgent care	Copayments	64	40	48	65
	FFS rules	1		28	
	Other	27		2	
	None	8		22	
Dialysis	Copayments	1		<1	
	FFS rules	97		82	
	Other	1		1	
	None	1		16	

Note: MA (Medicare Advantage), SNP (special needs plan), MOOP (maximum out-of-pocket), FFS (fee-for-service). Copayment amounts are for in-network care. The figures in this table exclude employer-sponsored plans, private fee-for-service plans, and Medicare medical savings account plans. Components may not sum to totals due to rounding.

Source: MedPAC analysis of 2022 plan benefit package data.

**TABLE
3-9**

Conventional MA plans' supplemental benefits have grown sharply since 2020, and special needs plans use a growing share of their rebates to provide supplemental benefits

Service category	Conventional MA plans		Special needs plans	
	2020	2023	2020	2023
Average rebate (per member per month)	\$122	\$196	\$141	\$247
Average allocation of rebates:				
Reduced cost sharing for Part A/Part B services	49%	39%	15%	8%
Supplemental benefits	18	26	68	82
Enhanced drug coverage	18	19	6	3
Reduction in Part D premium	13	14	7	4
Reduction in Part B premium	2	3	4	2

Note: MA (Medicare Advantage). Figures do not include plans that do not provide Part D drug coverage, employer-sponsored plans, private fee-for-service plans, or Medicare medical savings account plans. Components may not sum to totals due to rounding.

Source: MedPAC analysis of MA bid data for 2020 and 2023.

be (1) “primarily health related,” meaning that their main purpose was “to prevent, cure, or diminish an illness or injury,” and (2) “offered uniformly to all enrollees” (Centers for Medicare & Medicaid Services 2016). These requirements prevented plans from providing benefits that were not directly health related but could address other enrollee needs (such as in-home supports for people with functional limitations) and from targeting benefits to specific types of enrollees (such as those with a particular health condition).

However, policymakers have taken several steps in recent years to loosen those requirements:

- In 2018, CMS broadened its definition of “primarily health related” to include services that address physical impairments, lessen the functional or psychological impact of injuries, or reduce avoidable health care utilization (Centers for Medicare & Medicaid Services 2018a). Under this new definition, plans can provide services such as in-home support services and home modifications. This change took effect in 2019.
- At the same time, CMS modified the uniformity requirement to let plans target supplemental

benefits to enrollees with a particular “health status or disease state” (Centers for Medicare & Medicaid Services 2018b). Plans that choose to target benefits in this manner must ensure that all enrollees with the targeted health status or disease state are treated in the same manner. This change also took effect in 2019.

- The Bipartisan Budget Act of 2018 gave plans the flexibility to provide supplemental benefits to chronically ill enrollees that “have a reasonable expectation of improving or maintaining the health or overall function” and do not have to be primarily health related. These benefits are known as special supplemental benefits for the chronically ill (SSBCI). Plans can use this authority to cover services such as meals, food and produce, nonmedical transportation, and pest control services (Centers for Medicare & Medicaid Services 2019).¹⁸ This change took effect in 2020.
- In 2017, the Center for Medicare & Medicaid Innovation started a demonstration called the Medicare Advantage Value-Based Insurance Design (VBID) Model that lets participating plans offer a wider range of supplemental benefits

and target them to certain types of enrollees. The demonstration has been partly overtaken by the subsequent policy changes listed above, which gave plans some of the same flexibilities. However, the demonstration remains distinctive because it provides the only way for plans to target supplemental benefits to beneficiaries based on socioeconomic status instead of chronic illness or disease state (more specifically, plans can target beneficiaries who receive Part D's low-income subsidy) and reduce or eliminate cost sharing for Part D drugs. The VBID demonstration is scheduled to continue through 2030.

As a result of these changes, MA plans can now provide a wider range of supplemental benefits to their enrollees and target them under certain circumstances. In recent years, there has been widespread interest in using health plans to provide nonmedical services that address social determinants of health (SDOH), such as housing and nutrition. Although MA plans now have the authority to provide some of those services, they are not allowed to target benefits on the basis of SDOH alone.

Supplemental benefits play an important role in the competition among MA plans

Beneficiaries enroll in MA plans voluntarily, and insurers rely on extra benefits to make their plans attractive. This dynamic gives insurers an incentive to offer multiple plans, each with a different package of extra benefits, that can appeal to beneficiaries with different preferences. MA insurers also compete with each other to attract enrollment and need to ensure that the extra benefits in their plans are comparable, if not superior, to those offered by other plans. As shown in Table 3-9, supplemental benefits are just part of the extra benefits that MA plans provide, but they nonetheless play an important role.

For example, one recent study examined differences between plans that gained or lost enrollment during the 2022 open enrollment period (Cates et al. 2022). Among conventional MA plans, those gaining enrollment tended to have lower premiums and lower copayments for primary care visits. They were also more likely to offer certain supplemental benefits—dental coverage, eyeglasses or contacts, hearing aids, and an allowance for over-the-counter (OTC) items—and their coverage of those benefits tended to be more generous than the coverage for plans that

lost enrollment. Other features were relatively similar between gaining and losing plans, such as overall cost sharing for Part A and Part B services, copayments for specialists, and maximum out-of-pocket limits. Among dual-eligible SNPs, plans that gained enrollment were much more likely to participate in the VBID demonstration and waive all cost sharing for Part D drugs.

Few data exist on utilization of and spending for supplemental benefits

CMS requires all MA plans to submit encounter data (analogous to FFS claims data) for the Part A and Part B services they provide to their enrollees. These data should be a valuable source of information about a host of MA-related issues, such as patterns of service use and quality of care, but the Commission has found that the encounter data that plans have submitted to date are incomplete and cannot be used for many analyses (Medicare Payment Advisory Commission 2019).

One particular limitation is that plans are not required to submit encounter data for supplemental benefits. As a result, while the government has reasonably good information about the specific types of supplemental benefits that each plan offers (information that is collected through the MA bid process), there is almost no data on actual service use and plan spending for those benefits. For example, though Medicare and its beneficiaries subsidize the provision of supplemental benefits, policymakers do not know how much plans spend on each supplemental benefit, what share of enrollees use those benefits, or whether service use differs by such factors as age, sex, race, disability status, and geographic area. In 2019, the Commission made a recommendation to improve the accuracy and completeness of MA encounter data that included the use of a payment withhold to give plans a financial incentive to submit more accurate and complete data (Medicare Payment Advisory Commission 2019). That work focused on encounter data for Part A and Part B services but would apply equally well to encounter data for supplemental benefits.

Despite the lack of encounter data, information from other sources indicates that service use of one prominent supplemental benefit—dental services—is relatively low. A small study by the actuarial firm Milliman analyzed 2018 MA claims for 1.9 million beneficiaries who were 65 or older and enrolled in

plans that provided dental coverage as a mandatory benefit (Wix and Fontana 2020). The study found that only 11 percent of enrollees had MA-covered claims for preventive dental care (which the study defined as cleanings, oral exams, and periodontal cleanings) and another 1 percent had claims for some other type of dental care. The study did not indicate which dental services were covered by the unnamed MA insurer(s) that provided the claims data; the low utilization rates, especially for other types of dental care, could be because those plans had limited coverage of those services. According to the study, low utilization could also have been due to enrollees being unaware of their plan's dental benefits or enrollees finding that their dentist did not participate in the plan's provider network.¹⁹ More broadly, MA plans arguably have an incentive to emphasize their coverage of supplemental benefits at a high level while downplaying features that limit the actual scope of those benefits.

Another study that used the annual Medicare Current Beneficiary Survey also found that MA dental coverage has a somewhat limited impact on enrollees (Willink et al. 2020). The study found that, in 2016, 55 percent of MA enrollees with dental coverage had a dental visit in the past year, about the same as the figure for MA enrollees without dental coverage (52 percent). Those figures count dental visits regardless of whether they were covered by insurance or paid for on an out-of-pocket basis. The discrepancy between over half of MA enrollees using dental care in a given year and the Milliman finding that only 12 percent of enrollees had MA-covered dental claims suggests that many enrollees are either unaware of their plan's dental coverage or do not use it. The Willink study also found that, among those using dental services, MA enrollees with dental coverage had higher spending on dental care than MA enrollees without such coverage (\$1,331 vs. \$925). However, MA enrollees with dental coverage had substantial out-of-pocket costs that equaled 76 percent of their overall spending on dental care, underscoring the limited scope of their dental coverage. One potential limitation of the study is that the share of MA enrollees with dental coverage has increased significantly since 2016 and patterns of service use may have changed.

Starting with the 2023 plan year, MA plans will provide some information about their spending on supplemental benefits when they report their

medical loss ratios (MLRs). The MLR is the percentage of total revenues that plans spend on medical and other benefits; the ACA requires plans to have an MLR of 85 percent or higher to limit their spending on administrative costs and profits. Plans with MLRs below 85 percent must remit the difference to CMS.

The information that MA plans are required to submit when they report their MLRs has changed over time. From 2014 to 2017, plans had to provide supporting data for their MLR calculation that included their overall combined spending on all Medicare-covered and supplemental benefits. From 2018 to 2022, plans did not have to provide any supporting data, just their MLR and any remittance amount. Starting in 2023, CMS will again require plans to provide supporting data, but this time plans will have to break out their spending for 18 types of supplemental benefits, including dental, vision, hearing, transportation, fitness benefits, OTC items, and SSBCI (Centers for Medicare & Medicaid Services 2022a).

These more detailed MLR data should provide a high-level picture of spending on supplemental benefits—for example, it should help show how much plans spend on SSBCI relative to more traditional benefits such as vision or hearing—but its usefulness will be somewhat limited. The main reason is that insurers report MLRs at the MA contract level, so the data cannot be used to assess spending on supplemental benefits for individual plans. In addition, many insurers offer both conventional MA plans and SNPs under the same contract, so the data cannot be used to compare spending on supplemental benefits across those two plan types. The MLR data for 2023 should be available sometime in the second half of 2025.

The current landscape of MA supplemental benefits

Although MA plans have the flexibility to cover a wide range of supplemental benefits, they have typically favored some benefits over others. Table 3-10 uses information that plans submit as part of the MA bid process to show the share of conventional plans and D-SNPs that covered 15 types of supplemental benefits in 2018 and 2022. (The table is not an exhaustive list but includes most of the major “primarily health-related” benefits.) In 2022, the most common benefits were vision, fitness, hearing, and dental benefits,

**TABLE
3-10**

MA coverage of many supplemental benefits increased between 2018 and 2022

Service category	Share of conventional plans with coverage		Share of D-SNPs with coverage	
	2018	2022	2018	2022
Vision benefits				
Eye exams	93%	99%	87%	92%
Eyewear	68	92	93	97
Fitness benefits	84	98	68	93
Hearing benefits				
Hearing exams	82	92	82	89
Hearing aids	72	94	82	92
Dental benefits				
Preventive services	60	93	85	90
Comprehensive services	30	82	90	96
Over-the-counter benefits	41	84	89	97
Meals	22	71	32	81
Acupuncture	16	45	44	53
Podiatry	39	45	63	76
Transportation	21	39	78	90
Health education	30	31	32	27
Nutritional/dietary benefits	13	24	13	26
Smoking cessation	18	22	22	35

Note: MA (Medicare Advantage), D-SNP (dual-eligible special needs plan). Figures are based on plans that cover the given service as a mandatory supplemental benefit. Figures exclude employer-sponsored plans. All figures are weighted by enrollment. This table does not include every type of supplemental benefit that plans can provide.

Source: Friedman and Yeh 2022a, Friedman and Yeh 2022b.

which in many cases were covered by more than 90 percent of conventional plans and D-SNPs. Nearly all D-SNPs also covered OTC benefits (97 percent) and transportation (90 percent). At the same time, less than half of conventional plans covered benefits such as acupuncture, health education, or additional sessions of smoking cessation counseling.

With the exception of health education, the share of plans covering each supplemental benefit shown in Table 3-10 increased between 2018 and 2022. These increases are consistent with our findings that MA rebates have risen rapidly in recent years and that plans are now using a larger share of their rebates to provide supplemental benefits (see Table 3-9, p. 130).

The increases in coverage were much larger for certain benefits. For conventional plans, the largest increases were for meals, OTC benefits, and comprehensive dental services; for D-SNPs, the largest increases were for meals and fitness benefits.

The uneven growth between 2018 and 2022 gives us a sense of plans' priorities for providing supplemental benefits. Since plans were less likely to cover certain benefits when they had more limited rebate dollars, many plans appear to think the benefits that experienced large increases in coverage during this period fall somewhere in the middle in terms of their attractiveness to enrollees, had been too expensive to provide previously, or both. In 2018, when rebates were lower, plans preferred to cover other benefits such as eye exams, hearing benefits, and fitness benefits. By 2022, when rebates were higher, plans prioritized enhancing their coverage of dental services, OTC benefits, and meals over services such as podiatry and acupuncture. The policy changes that broadened what plans could cover as supplemental benefits likely also played a role in the increases for some categories, such as meals.

Plans have gradually expanded their coverage of supplemental benefits that take advantage of the SSBCI authority and changes to the “primarily health related” and uniformity requirements, but those benefits are not as widely available as many of the traditional supplemental benefits shown in Table 3-10 (p. 133):

- Between 2020 (the first year of implementation) and 2022, the share of nonemployer MA plans providing some type of SSBCI increased from 7 percent to 24 percent (ATI Advisory 2022). SNPs are much more likely to provide SSBCI than conventional plans are (42 percent vs. 19 percent in 2022). Plans have largely used the SSBCI authority to provide nonmedical benefits; in 2022, the most common nonmedical benefits were food and produce, expanded coverage of meals, and nonmedical transportation.
- Between 2020 and 2022, the share of nonemployer plans that provide supplemental benefits under the expanded “primarily health related” definition grew from 11 percent to 19 percent (ATI Advisory 2022). In 2022, the most popular benefit was in-home support services, which were covered by 12 percent of conventional MA plans and 20 percent of D-SNPs (Friedman and Yeh 2022a, Friedman and Yeh 2022b).

- In 2022, about 10 percent of nonemployer plans targeted some supplemental benefits to disease-specific groups of enrollees based on the change to the uniformity requirement (Murphy-Barron et al. 2022). The most common diseases for which plans targeted their benefits were diabetes, congestive heart failure, and chronic obstructive pulmonary disease. Plans have been more likely to use the new flexibility to target additional supplemental benefits rather than reduce cost sharing.

Several factors might explain the somewhat limited availability of the “newer” supplemental benefits. First, plans must use their existing rebate dollars to finance any new benefits, and they may be reluctant to pare back longer-standing supplemental benefits. This reluctance could lead plans to gradually add newer supplemental benefits over time as rebates increase. Second, plans have an incentive to offer supplemental benefits with broad appeal, and they may determine that the newer benefits are less attractive, on balance, than the more traditional benefits. (Since eligibility is tied to specific health conditions, the share of enrollees who qualify for SSBCI will typically be smaller than the share who qualify for more traditional benefits, and beneficiaries may have difficulty determining whether they would qualify.) Finally, plans may need time to develop the infrastructure to offer some of the newer benefits, such as finding a suitable vendor for delivering food and produce and prepared meals (Kornfield et al. 2021).

Dental, hearing, and vision benefits illustrate how MA coverage can vary across plans

Efforts to compare MA supplemental benefits are further complicated by the fact that, even when plans cover the same benefit, their coverage can vary in several ways. Three high-profile benefits that nearly all MA plans cover—dental, hearing, and vision services—illustrate these coverage differences.

Plans can limit the type and number of services that are covered

MA plans are required to cover the same Part A and Part B services as FFS Medicare, with the exception of hospice, so the coverage of these services is the same across plans. In contrast, supplemental benefits are not tethered to a common reference point like the FFS

**TABLE
3-11**

Supplemental dental, hearing, and vision benefits encompass a range of distinct services

Dental benefits (11 services)	Preventive services (4 services)	Oral exams Prophylaxis (cleaning) Dental X-rays Fluoride treatment
	Comprehensive services (7 services)	Restorative services Extractions Periodontics Endodontics Prosthodontics Diagnostic services Nonroutine services
Hearing benefits (6 services)	Hearing exams (2 services)	Routine hearing exam Fitting/evaluation for hearing aid
	Hearing aids (4 services)	Hearing aids (all types) Hearing aids (over the ear) Hearing aids (inner ear) Hearing aids (outer ear)
Vision benefits (7 services)	Eye exams (2 services)	Routine eye exams Other eye exams
	Eyewear (5 services)	Contact lenses Eyeglasses (lenses and frames) Eyeglass lenses Eyeglass frames Upgrades

Source: MedPAC analysis of 2023 plan benefit package data.

program, and plans have the flexibility to determine the extent of their coverage for each benefit.

As part of their bid, plans indicate which types of dental, hearing, and vision services they plan to cover as supplemental benefits. For 2023, plans had to provide information for 11 distinct types of dental services, 6 types of hearing services, and 7 types of vision services (Table 3-11). Plans decide whether they will cover none, some, or all of these services. (When

plans cover a service, they can also limit the amount they spend per enrollee and charge cost sharing.) Plans get credit in the Medicare Plan Finder tool for providing benefits in the broader categories listed on the left of Table 3-11 if they cover at least one of the services listed. For example, a plan that covers only routine hearing exams gets credit for providing hearing benefits, as does a plan that covers hearing exams, fittings and evaluations for hearing aids, and the hearing aids themselves.

**TABLE
3-12****Differences in coverage of preventive and comprehensive dental services between conventional MA plans and special needs plans**

	Share of plans covering service	
	Conventional MA plans	Special needs plans
Preventive services:		
Oral examinations	97%	87%
Prophylaxis (cleaning)	97	86
Dental X-rays	97	87
Fluoride treatment	77	81
Comprehensive services:		
Extractions	86	88
Periodontics	85	88
Restorative services	84	93
Diagnostic services	82	84
Prosthodontics	79	91
Endodontics	77	86
Nonroutine services	71	80

Note: MA (Medicare Advantage). Figures are based on plans that cover service as a mandatory supplemental benefit. Figures for conventional plans exclude employer-sponsored plans, private fee-for-service plans, and Medicare medical savings account plans. All figures are enrollment weighted. Plan coverage may include limits on the number and type of services that enrollees can receive, limits on per enrollee benefit spending, and enrollee cost sharing.

Source: MedPAC analysis of 2023 plan benefit package data.

Among these three types of benefits, coverage of services is more varied for dental benefits than for hearing or vision benefits. The share of conventional MA plans and SNPs that cover each type of dental service is shown in Table 3-12. Among preventive services, nearly all plans with dental coverage cover oral exams, cleanings, and dental X-rays. A smaller share of plans cover fluoride treatments. The coverage of comprehensive services is more variable, ranging for conventional plans from 86 percent for extractions to 71 percent for nonroutine services. The share of SNPs that cover a given comprehensive service is consistently somewhat higher than the corresponding figure for conventional plans. The differences between conventional plans and SNPs used to be much larger, but the coverage rates for the former have increased significantly in recent years. We found that 61 percent of conventional plans and 70 percent of SNPs have

some coverage of services in all 11 dental categories (figures not shown in table).

In contrast to the variation in dental coverage, we found that 93 percent of plans with hearing benefits cover routine exams and hearing aids; 68 percent of those plans also cover fittings and evaluations for hearing aids.²⁰ Similarly, 97 percent of plans with vision benefits cover routine exams, contact lenses, and eyeglasses.

Even when MA plans cover a particular supplemental benefit, they may limit the number and type of services that enrollees can receive. Service limits are particularly common for routine, relatively low-cost services where plans typically do not use cost sharing. For example, between 76 percent and 82 percent of plans have limits for the various types of preventive dental services, while 98 percent and 95 percent of

plans have limits for routine hearing and eye exams, respectively. Those limits are relatively uniform across plans for some services (nearly all plans with hearing benefits cover one routine hearing exam per year) and more variable for other services (34 percent of plans with dental benefits cover two cleanings per year, while 27 percent cover three cleanings per year, 18 percent have no limit, 11 percent cover six cleanings per year, and 6 percent cover one cleaning every six months).

The use of service limits is less common for more complicated dental, hearing, and vision services, although in most cases a majority of plans still have them. Limits on these services could be less important because plans typically use other mechanisms to manage spending, such as maximum per enrollee spending limits or cost sharing.

Determining exactly what services an MA plan covers can be challenging, and beneficiaries will likely need to examine a plan's marketing or member materials, or contact a plan representative, to get an accurate picture. For example, when the Kaiser Family Foundation tried to determine in 2021 whether a sample of 10 plans covered dentures (which are part of the "prosthodontics" category under comprehensive dental services), they had to examine each plan's Evidence of Coverage document, which describes all of the services covered by the plan and is often more than 200 pages long (Freed et al. 2021).

Plans can limit benefit spending and charge cost sharing

In addition to limiting the number of services, MA plans can also limit the amount they will spend per enrollee on a supplemental benefit. These limits are common for dental, hearing, and vision benefits (Table 3-13, p. 138). In 2023, among conventional plans, spending limits are used by 87 percent of plans with dental benefits, 38 percent of plans with hearing benefits, and over 99 percent of plans with vision benefits. The corresponding figures for SNPs are similar, except that SNPs are much more likely to limit spending on hearing benefits (78 percent vs. 38 percent).

The type of spending limit used varies, both across and within benefits. For dental benefits, the most common approach is a combined limit that applies to all dental benefits, with a smaller share of plans using limits that apply only to comprehensive services.

Plans with hearing and vision benefits typically use limits that apply only to so-called hardware (hearing aids, eyeglasses, contacts). Even then, there are also differences: Some plans have a limit on spending for hearing aids that applies to both ears, while other plans have separate limits for each ear.

For conventional plans, the median spending limits are higher for dental benefits (\$1,500 across all dental services) and hearing benefits (\$1,500 for limits that apply to spending on hearing aids for both ears) than for vision benefits (\$200 across all types of eyewear). SNPs have higher median limits than conventional plans for all three types of benefits. The richer coverage reflects the fact that SNPs typically use a larger share of their rebates to provide supplemental benefits.

Plans can also charge cost sharing for supplemental benefits, and in 2023, notable differences exist among conventional MA plans across the three services:

- For dental benefits, plans are more likely to use cost sharing for comprehensive services (22 percent charge cost sharing for at least one service) than for preventive services (only 2 percent charge cost sharing for at least one service). When plans charge cost sharing for comprehensive services, they mainly use coinsurance; the median coinsurance rate for each service is 50 percent.
- For hearing benefits, plans are more likely to use cost sharing for hearing aids (62 percent of plans) than for routine hearing exams (6 percent). Nearly all plans that charge cost sharing for hearing aids rely on copayments and charge different amounts, depending on the product model. One distinctive feature of MA hearing benefits is the interplay between cost sharing and per enrollee spending limits. Nearly all plans use one or the other, but not both: 61 percent charge cost sharing but have no spending limit, and 37 percent have a spending limit but do not charge cost sharing. The contrast between these approaches makes it more difficult for beneficiaries to compare the hearing benefits for different plans.
- For vision benefits, cost sharing is rare: About 6 percent of plans charge cost sharing for eye exams and less than 1 percent charge cost sharing for eyeglasses or contacts.

**TABLE
3-13**

Dental, hearing, and vision benefits often have per enrollee spending limits, 2023

	Conventional MA plans	Special needs plans
Dental benefits		
Type of limit used		
Limit applies to all dental services	68%	64%
Limit applies to comprehensive services only	18	19
Other type of limit	<1	<1
No limit	13	17
Median limits		
Limit applies to all dental services	\$1,500	\$3,500
Limit applies to comprehensive services only	1,500	3,500
Hearing benefits		
Type of limit used		
Limit applies to hearing aids only, both ears	13%	57%
Limit applies to hearing aids only, per ear	24	20
Other type of limit	1	1
No limit	62	22
Median limits		
Limit applies to hearing aids only, both ears	\$1,500	\$3,000
Limit applies to hearing aids only, per ear	1,000	1,000
Vision services		
Type of limit used		
Limit applies to all eyewear	86%	90%
Separate limits for exams and eyewear	11	5
Other type of limit	3	4
No limit	<1	1
Median limit		
Limit applies to all eyewear	\$200	\$400

Note: MA (Medicare Advantage). Figures are based on plans that cover, as mandatory supplemental benefits, both preventive and comprehensive dental care, both hearing exams and hearing aids, or both eye exams and eyewear. Figures for conventional plans exclude employer-sponsored plans, private fee-for-service plans, and Medicare medical savings account plans. All figures are enrollment weighted. Components may not sum to totals due to rounding.

Source: MedPAC analysis of 2023 plan benefit package data.

Plans can also have benefit-specific deductibles, but very few plans use them for dental benefits, and no plans use them for hearing or vision benefits. Compared with conventional plans, the share of SNPs that use cost sharing is much lower (about 4 percent

for comprehensive dental services and 9 percent for hearing aids).

The extent to which plans' coverage of a particular supplemental benefit can vary is illustrated by Humana,

**TABLE
3-14**

Conventional MA plans that receive higher rebates have more generous dental, vision, and hearing benefits in 2023

Plan rebate (per member per month)	\$0– \$50	\$50– \$100	\$100– \$150	\$150– \$200	\$200– \$250	Over \$250
Number of plans	67	391	1,160	1,475	714	498
Dental benefits						
Share of plans covering comprehensive dental	41%	62%	79%	93%	98%	98%
Average number of service categories covered (maximum = 7)	6.0	5.4	5.9	6.2	6.3	6.2
Average spending limit	\$1,079	\$1,411	\$1,592	\$2,049	\$1,902	\$2,241
Hearing benefits						
Share of plans covering hearing aids	71%	87%	94%	97%	98%	99%
Average spending limit	\$1,200	\$1,129	\$1,453	\$1,639	\$1,270	\$1,570
Vision services						
Share of plans covering eyeglasses	71%	84%	94%	97%	99%	99%
Average spending limit	\$180	\$200	\$196	\$207	\$247	\$332

Note: MA (Medicare Advantage). Figures are based on conventional MA plans and do not include special needs plans, employer-sponsored plans, private fee-for-service plans, or Medicare medical savings account plans. Figures are based on plans that provide the benefit as a mandatory supplemental benefit; figures for the share of plans covering each benefit are enrollment weighted. Average spending limits are based on plans that use a limit that applies to all dental services (dental benefits), plans that use a limit that applies to spending on hearing aids for both ears (hearing benefits), and plans that use a limit that applies to all eyewear (vision benefits).

Source: MedPAC analysis of 2023 plan benefit package and bid data.

which is the second-largest MA insurer and has 234 distinct dental packages in the MA plans it offers in 2023 (Humana 2023).

Prevalence and generosity of benefits vary based on plan rebates

As noted earlier, MA rebates play a key role in financing supplemental benefits. Rebates also vary geographically and are typically larger in areas with high FFS spending. Table 3-14 shows the relationship in 2023 between plan rebates (shown on a per member per month basis) and conventional MA plans’ coverage of dental,

hearing, and vision benefits. As rebates increase, plans are more likely to cover more expensive items and services—comprehensive dental services, hearing aids, and eyeglasses—as mandatory benefits. For example, among plans that receive less than \$50 in rebates, 41 percent cover comprehensive dental services, 71 percent cover hearing aids, and 71 percent cover eyeglasses. The corresponding figures for plans that receive more than \$250 in rebates are 98 percent, 99 percent, and 99 percent, respectively.

Plans also tend to provide more generous benefits as rebates increase. The plans that provide comprehensive

dental services cover a wider range of services, based on how many of the seven types of comprehensive dental services they cover. When plans have limits on per enrollee spending, the average spending limit for all three types of benefits also tends to be higher for plans that receive more rebates.

Policy options for standardizing MA benefits

Experience in the Medigap and ACA markets illustrates that “standardized benefits” is a broad term that can be used to describe a wide range of policies. For the MA program, standardization would involve both advantages and tradeoffs. Since MA plans are required to cover Part A and Part B services but have flexibility to decide which supplemental benefits to cover, policymakers would likely want to use different approaches to standardize the two types of benefits.

Cost sharing for Part A and Part B services

Since all MA plans cover the same required set of Part A and Part B services, standardization for these services would be limited to changes in enrollee cost sharing. Similar to the Medigap and ACA markets, the standardization of enrollee cost sharing would most likely involve the development of a limited number of distinct benefit packages.

How many standardized benefit packages would there be, and how would they differ?

One key question is the number of benefit packages that would be developed. Using a larger number of benefit packages would provide more choice but might not make it easier for beneficiaries to compare plans; using a smaller number would limit beneficiary choice but might make it easier to compare plans.

One factor to consider is whether MA insurers would be able to offer plans that use the same benefit package but have different provider networks. For example, California’s health insurance exchange has standardized plans but allows insurers to offer one HMO version and one PPO version of each plan. The MA program also has HMOs and PPOs, and both have significant enrollment, suggesting that beneficiary preferences vary when it comes to provider

networks. If insurers could offer plans with different networks, fewer benefit packages would arguably keep the overall number of plans more manageable. For example, if the MA program had three benefit packages and insurers could offer HMO and PPO versions of each benefit package, insurers would be able to offer up to six plans in a market. Under this scenario, an area with 8 insurers (the current MA average) would still have as many as 48 plans.

There are several ways that benefits could be standardized. One less prescriptive option would be to require all MA plans to have certain actuarial values, similar to the ACA’s metal tiers, but otherwise allow them to develop their own benefit designs. For example, all MA plans could be required to have an actuarial value of 105 percent, 110 percent, or 115 percent of FFS. (Those percentages are purely illustrative.)

A more prescriptive option would be to specify the cost-sharing amounts for major service categories, similar to many standardized ACA plans. Table 3-15 provides an illustrative example of this approach. In this example, there would be three benefit packages for MA cost sharing for Part A and Part B services: lower generosity, medium generosity, and higher generosity. The more generous packages would have lower MOOP limits and lower cost sharing for many services. All conventional MA plans could be required to use one of these benefit packages. Policymakers would also need to decide whether this requirement would apply to SNPs; since most SNP enrollees do not pay cost sharing, those plans could potentially be exempt from the requirement or be required to use a separate set of benefit packages.

The parameters for these benefit packages are illustrative, but they are informed by current cost-sharing practices among conventional MA plans. We measured each plan’s generosity using 2023 data for plan bids and any rebates used to reduce Part A and Part B cost sharing; plans that used more rebates to reduce cost sharing were considered more generous. We stratified plans based on their generosity and divided them by enrollment into three equal groups. The cost-sharing amounts shown in the table are similar to the enrollment-weighted median amounts for each group. Since nearly all conventional MA plans use at least some rebates to reduce Part A and Part B

**TABLE
3-15**

Illustrative MA benefit packages with standardized cost sharing for Part A and Part B services

Service category	Package 1 (lower generosity)	Package 2 (medium generosity)	Package 3 (higher generosity)
Maximum out-of-pocket limit	\$6,200	\$4,900	\$3,400
Deductible	\$0	\$0	\$0
Inpatient acute care (days 1-5 of stay)	\$335 per day	\$300 per day	\$225 per day
Skilled nursing care (days 21-100 of stay)	\$196 per day	\$196 per day	\$178 per day
Primary care visit	\$0	\$0	\$0
Specialist visit	\$40	\$35	\$20
Outpatient hospital service	\$300	\$295	\$200
Emergency care	\$90	\$90	\$90
Urgent care	\$40	\$40	\$30
Dialysis	20%	20%	20%

Note: MA (Medicare Advantage). All amounts are for in-network care.

cost sharing, enrollees would pay less in cost sharing (at least in aggregate) under each benefit package than they would in FFS.

For the sake of simplicity, the illustrative packages show only the Part A and Part B services discussed earlier in the chapter. In practice, the benefit packages would likely specify the cost-sharing amounts for other services as well, similar to the standardized ACA plans shown in Table 3-2 (p. 117). MA plans would still be required to cover any Part A and Part B services that are not covered by the benefit packages, other than hospice, but plans would have the flexibility to develop their own cost-sharing rules for those services. (That flexibility could nonetheless be subject to certain limits, much like current MA cost-sharing rules.)

Policymakers would need to consider whether the benefit packages continued to follow the existing service-specific limits on cost sharing. If the service-specific limits remained in place, benefit packages could vary little in cost sharing for services such as SNF care, emergency services, and dialysis. However, under a policy allowing some benefit packages to charge higher cost sharing for these services, some enrollees would face higher out-of-pocket spending than others,

which could deter enrollees from seeking necessary care, depending on the plan they chose.

Would insurers be required to offer every type of standardized plan? Would they be able to offer nonstandardized plans?

Policymakers would also need to decide whether MA insurers would be required to offer one or more of the standardized benefit packages. Several other programs have this feature: All Medigap insurers must offer Plan A, all ACA insurers must offer silver and gold plans, and all insurers that sell stand-alone Part D prescription drug plans (PDPs) must offer a plan with basic coverage. The goal of these requirements is to ensure that all beneficiaries have a minimum level of access to standardized plans, but their impact can be fairly limited if the plans that insurers are required to offer are unpopular (with either beneficiaries or insurers). For example, Plan A accounts for less than 1 percent of all Medigap policies (America's Health Insurance Plans 2022). Some PDP insurers charge high premiums for their basic plans and do little to promote them because they are more interested in offering plans with enhanced coverage.

A more important issue is whether insurers would still be allowed to offer nonstandardized plans. There

are several potential options. When Medigap plans were standardized, beneficiaries could keep their existing policies but insurers could not sell any more nonstandardized policies.²¹ Some states with standardized ACA plans do not allow insurers to sell any other plans, while other states allow insurers to sell a limited number of nonstandardized plans. CMS added standardized plans to the federal ACA exchange without putting any limits on nonstandardized plans but will impose limits starting in 2024.

Allowing insurers to offer both standardized and nonstandardized plans would minimize disruption for existing enrollees but limit the potential gains from using standardized plans. In some ways, such an arrangement could make it even harder to compare plans because more plans would be on the market, and insurers would likely not promote the standardized plans if they viewed them as less profitable or attractive products. On the other hand, requiring all MA plans to have standardized benefit packages could cause disruption for many enrollees, although the amount of disruption would depend on the standardized plans' designs. There would be less disruption if the standardized plans were similar to the large plans now on the market. It is also worth noting that enrollees can already experience disruption under the current MA program when plans may make year-to-year changes in their premiums, cost-sharing rules, supplemental benefits, provider networks, and drug formularies.

Supplemental benefits

The starting point for efforts to standardize supplemental benefits would be quite different from standardizing cost sharing for Part A and Part B services because plans currently decide which supplemental benefits to provide and the extent of their coverage. Policymakers would need to balance the competing goals of allowing plans to design their own benefits with making it easier for beneficiaries to distinguish among plans so they can select the one that best meets their needs. Standardization could make supplemental benefits more transparent to beneficiaries by clarifying what plans cover and could help ensure that plans provide sufficient value to MA enrollees and taxpayers, which is a particular concern given the lack of utilization and spending data.

One way to realize some of the gains from standardized benefits while giving plans a significant amount of flexibility would be to focus on standardizing a limited number of common supplemental benefits. Dental, hearing, and vision benefits could be candidates for standardization for several reasons. Almost all MA plans cover these benefits (at least to some extent), and they are often highlighted in plan marketing efforts, suggesting that they play a more important role in beneficiary decision-making than many other supplemental benefits. Currently, the specific services that plans cover as part of these benefits, the cost-sharing rules, and the plan spending limits all vary. Finally, all three benefits have been offered for many years and are well developed, unlike services such as SSBCI, where plans have relatively limited experience.

There are several ways that Medicare could standardize these benefits. Some options would focus on the specific services that plans cover as part of these benefits, while others would focus on the types of enrollee cost sharing and per enrollee spending limits that plans use.

Standardizing the services that plans cover

One option for standardizing dental, hearing, and vision benefits would be to require plans to cover certain services as part of the benefit. For example, plans with dental benefits could be required to cover all preventive services, which would largely expand coverage of fluoride treatments, or they could be required to cover all 11 categories of preventive and comprehensive dental services (see Table 3-11, p. 135). Similarly, almost all plans with hearing benefits now cover routine exams and hearing aids; they could also be required to cover fittings and evaluations for hearing aids. The standards could require plans to cover at least some services in each category; plans would continue to determine the exact coverage limits for each service.

Policymakers could also develop standards that are more prescriptive. Instead of a more general requirement for plans to cover at least some services in particular benefit categories, Medicare could specify at a more granular level the number and type of services that plans would need to cover, while letting plans use more generous coverage limits if they wanted. This approach would make it easier for

enrollees to understand what services are covered and at least partly replace the coverage limits now set by plans. The coverage requirements could be based on the typical limits now used by MA plans and, for dental and vision benefits, could also be informed by the limits used in commercial plans. As an example, this year almost all conventional MA plans with hearing benefits cover hearing aids, but 77 percent cover two hearing aids per year, 13 percent have less generous limits (such as covering two hearing aids every two years or every three years), and 10 percent have no limit. Requiring plans to cover two hearing aids per year would thus affect 13 percent of plans, and a less stringent requirement, such as covering two hearing aids every two years, would affect an even smaller share of plans.

Standardizing cost sharing and plan spending limits

As with covered services, efforts to standardize enrollee cost sharing and per enrollee spending limits for supplemental benefits can be less prescriptive or more prescriptive. One example of a less prescriptive approach would be to specify the types of cost sharing or spending limits that plans could use, without specifying the exact amounts. For example, based on current MA plan designs:

- For dental services, plans that wanted to charge cost sharing for comprehensive services could be required to use coinsurance, and those that wanted to use a spending limit could be required to use a single limit that applied to all dental benefits.
- For hearing benefits, plans that wanted to charge cost sharing could be required to use copayments, and those that wanted to use a spending limit could be required to use a limit that applied to spending on hearing aids for both ears.
- For vision benefits, where cost sharing is rarely used, plans could be required to use a limit that applied to total spending on eyewear only.

These steps would make it easier to compare plans on an apples-to-apples basis while still giving plans flexibility to determine the exact features of their supplemental benefits.

Policymakers could also go further and put some limits on actual cost-sharing amounts for a given

supplemental benefit. For example, the general prohibition on MA plans charging more than 50 percent in coinsurance (or an actuarially equivalent copayment) for Part A or Part B services could also be applied to some supplemental benefits. However, any limits on cost sharing would not apply after beneficiaries reached their plan's per enrollee spending limit.

Giving plans a limited number of ways to provide a particular supplemental benefit would achieve a high level of standardization

The options outlined above could be combined into a single approach that standardizes both the set of services covered and enrollee cost sharing. One alternative that could achieve a high level of standardization would be to give plans a limited number of options for covering a particular supplemental benefit. These options would essentially be benefit-specific versions of the standard packages for Part A and Part B cost sharing. Each option would specify the benefit's coverage limits, cost-sharing rules, and per enrollee spending limit. This approach could make it easier for beneficiaries to compare MA plans and understand how their coverage differs.

Table 3-16 (p. 144) provides an illustrative example of standardized options for dental benefits. This example is based partly on current MA dental benefits and partly on the stand-alone dental plans sold in the Federal Employees Dental and Vision Insurance Program (FEDVIP). FEDVIP plans are not fully standardized, but they nonetheless have several common elements. Each insurer offers only two types of coverage—standard and high—and the high coverage is clearly more generous, with lower cost sharing and a higher annual limit (and a higher premium). The dental services covered by the plans are also divided into three standard categories:

- Class A (preventive services, such as oral exams);
- Class B (intermediate services, such as fillings); and
- Class C (major services, such as root canals or crowns).

In this example, conventional MA plans that wanted to cover dental benefits would have only two options,

**TABLE
3-16**

Illustrative example of standardized options for MA dental benefits

	Annual benefit limit	Deductible	Beneficiary coinsurance		
			Class A: Preventive services	Class B: Intermediate services	Class C: Major services
Options for conventional MA plans:					
Standard	\$1,500	\$0	0%	30%	50%
High	No limit	0	0	20	35
Options for SNPs:					
Standard	\$2,500	0	0	0	0
High	No limit	0	0	0	0

Note: MA (Medicare Advantage), SNP (special needs plan).

standard and high coverage. Both options would have the same limits on the number and type of services covered. Consistent with the typical features in existing MA dental benefits, these options would have no deductible, no cost sharing for preventive services, and a maximum coinsurance rate of 50 percent for major services. The standard option would have a specific annual benefit limit, while the high option would not. SNPs could have a separate set of options with higher annual limits and no cost sharing, features that would be consistent with the dental benefits those plans typically offer.

Standardizing supplemental benefits in this fashion would resemble the approach that Medigap plans used to provide prescription drug coverage prior to the start of the Part D benefit. In that case, when standard Medigap plans were created, 3 of the 10 plan designs included drug coverage. The only difference in their drug coverage was the annual limit: Each plan required beneficiaries to pay a \$250 deductible and 50 percent coinsurance, two plans had the same annual drug coverage limit of \$1,250, and the third plan had a limit of \$3,000.

For hearing benefits, one challenge with standardization would be to address the differences among plans in the use of cost sharing and annual

limits for hearing aids. More than half of conventional MA plans use cost sharing without any annual limit, but a substantial minority of plans do the opposite and use an annual limit without any cost sharing. In addition, when plans charge copayments for hearing aids, the amount that enrollees pay often varies depending on the specific model chosen. If the standard options used the same approach, policymakers would likely need to provide guidance on the cost-sharing amount that would apply to each hearing aid model.

Compared with dental and hearing benefits, the development of standard options for vision benefits could be more straightforward since almost all plans with vision benefits already cover the same services (eye exams, contacts, and eyeglasses) and very few plans use cost sharing. In this case, the only difference between the standard packages might be the annual limit.

Some potential implications of standardization

Efforts to standardize supplemental benefits would require MA insurers to modify their plan designs and would thus lead to some disruption in the market. The level of disruption would depend on the extent

to which the standardized benefits were similar to current MA plan designs.

Standardization could also lead plans to change their bidding behavior. If plans did not have enough rebates to provide a particular benefit package, they could finance the added cost by lowering their bids to generate more rebates, raising their premiums, or adjusting their coverage of benefits not covered by the standardization requirements. (In cases where a nonstandardized benefit is a Part A or Part B service, plans could charge higher cost sharing. For supplemental benefits, plans could charge higher cost sharing, reduce the scope of their coverage, or eliminate their coverage entirely.) Similarly, plans that have more rebates than needed to provide a particular benefit package could respond by increasing their bids (since they would need fewer rebates), lowering their premiums, or enriching their coverage of nonstandardized benefits.

The use of standardized benefits would also give plans fewer ways to respond to changes in payment rates. For example, plans could not respond to lower payment rates by making targeted changes to specific benefits—such as raising their MOOP limit, charging higher cost sharing for an inpatient stay, or lowering the annual limit for dental benefits. Plans would instead be limited to switching to a less generous standardized benefit package, if one were available. Changes in MA payment rates could thus have a particularly large impact on any services not covered by the standardization requirements. Plans might also be more likely to respond by reducing the size of their provider networks and adjusting the rates they use to pay providers.

Even with standardization, there would still be geographic variation in MA plan benefits due to the underlying variation in plan rebates and the high correlation between rebates and benefit generosity. This variation would likely affect the mix of standardized plans offered in each area. For example, if MA plans had to offer dental benefits that use the standard and high options in Table 3-16, low-rebate areas could generally have plans with standard coverage (or no dental coverage), medium-rebate areas could have a mix of plans with standard coverage and plans with high coverage, and high-rebate areas could generally have plans with high

coverage. Standardizing supplemental benefits in a way that leaves some flexibility for plans should thus also be viewed as a way to accommodate geographic variation in MA rebates.

How the process of selecting an MA plan might look with standardized benefits

For beneficiaries, the process of comparing MA plans and selecting the one that best meets their needs is challenging because plans can differ in multiple ways. The continued growth in the number of MA plans adds to the difficulty. The use of standardized benefits would make it easier for beneficiaries to compare plans by giving them a more clearly defined set of choices.

This chapter has outlined an approach for standardizing benefits that has three key elements:

- For Part A and Part B services, plans would be required to use a limited number of benefit packages that specify the plan's MOOP limit and cost-sharing amounts for most major services. The generosity of those benefit packages would vary, but in ways that beneficiaries could easily identify.
- For certain high-profile supplemental benefits like dental, hearing, and vision benefits, plans would have a limited number of options for providing the benefit, such as "standard" and "high" options. Each option would specify the benefit's coverage limits, cost-sharing rules, and per enrollee spending limit. These requirements would apply only to plans that chose to provide dental, hearing, and vision benefits.
- For all other supplemental benefits, the current rules would remain the same. Plans could provide the same benefits they do now, including benefits that are not primarily health related, and could still target those benefits to certain types of enrollees.

The use of standardized benefits could be accompanied by supporting changes aimed at helping beneficiaries understand the coverage that each MA plan offers. For example, plan marketing materials and Medicare Plan Finder could use standard terms to describe each plan's benefits (such as "Lower Out-of-Pocket Costs" vs. "Medium Out-of-Pocket Costs" vs. "Higher Out-of-Pocket Costs" for Part A and Part B services and "Standard Dental" vs. "High Dental" for dental benefits). MA insurers could also be required to include some

or all of this information in plan names, similar to the practice of including the metal tier in the names of ACA plans.

Plans could also be required to submit encounter data for supplemental benefits so that policymakers and researchers could better understand the impact of these benefits on MA enrollees.

With these changes, beneficiaries who compare MA plans would be able to understand with relative ease what each plan charges for Part A and Part B services and the major supplemental benefits it provides. Selecting a plan would still involve other important factors—such as the plan’s premium, the drugs on its formulary, and its provider network—but these changes would make the process simpler and easier to navigate. ■

Endnotes

- 1 These figures are based on conventional MA plans that are open to all beneficiaries who have Part A and Part B and live in the plan's service area. They do not include specialized plans that serve only certain types of beneficiaries, such as special needs plans (SNPs) or employer-sponsored plans. The numbers of SNPs and employer-sponsored plans have also grown in recent years.
- 2 Between 2011 and 2018, CMS limited the number of MA plans an insurer could offer by requiring the insurer to demonstrate that its plans had "meaningful differences" from each other. CMS eliminated this requirement starting in 2019.
- 3 Beneficiaries who purchased Medigap policies before this date were allowed to keep them. In addition, the requirement does not apply to policies sold in Massachusetts, Minnesota, or Wisconsin because those states had already standardized their Medigap markets.
- 4 Although Medigap policies have been standardized in terms of their coverage of Part A and Part B cost sharing, Medigap insurers have some flexibility to offer benefits that are not part of traditional Medicare, such as dental, vision, or hearing coverage. However, in 2020, only about 7 percent of Medigap plans covered any additional benefits (Ali and Hellow 2021).
- 5 The states with their own exchanges include three states that rely on the federal Healthcare.gov website to perform eligibility and enrollment functions.
- 6 Another state (Colorado) began offering standardized plans in 2023.
- 7 CMS also gave insurers the option of offering standardized plans in 2017 and 2018.
- 8 The high deductibles for many ACA plans are due to the interaction of (1) the highly skewed distribution of health care spending, (2) the program's annual out-of-pocket limit, and (3) the generosity levels of the metal tiers. Among people ages 18 to 64 (roughly the population served by the exchanges), 10 percent of people account for 67 percent of total health care spending (Kaiser Family Foundation 2021). Plan coverage of spending above the out-of-pocket limit thus represents a relatively large share of overall spending, which forces plans to cover a relatively low share of the spending for their other enrollees, especially in the lower metal tiers, and leads to high deductibles.
- 9 Plans that use a PPO model, which provides some coverage for services provided by out-of-network providers, must also have a cap on total out-of-pocket spending for both in-network and out-of-network services.
- 10 CMS rounds each MOOP limit to the nearest \$50, but the intermediate limit is calculated using the unrounded values for the lower and mandatory limits. As a result, once the rounding rules have been applied, the intermediate limit may differ slightly from the midpoint of the lower and mandatory limits.
- 11 Before the enactment of the Cures Act, beneficiaries with ESRD could enroll in MA plans only if (1) they had ESRD while enrolled in a commercial plan and enrolled in an MA plan offered by the same company when they became eligible for Medicare, (2) they enrolled in an MA plan before they were diagnosed with ESRD, or (3) they enrolled in one of a small number of MA special needs plans that serve beneficiaries with ESRD.
- 12 Somewhat confusingly, many Part A cost-sharing requirements are referred to as "coinsurance" even though they are really copayments (specific dollar amounts that beneficiaries pay regardless of the overall cost of the service).
- 13 If a particular service has a cost-sharing limit that is based solely on coinsurance and a plan would prefer to use copayments, it generally can use a copayment that is actuarially equivalent. The same principle applies to services with cost-sharing limits that are based solely on copayments.
- 14 Plans are prohibited by law from charging more than FFS for dialysis. As a result, when CMS first put limits on dialysis cost sharing in 2011, it specified that plans could not charge more than 20 percent coinsurance (the same as in FFS) or a \$30 copayment. At the time, the two amounts were actuarially equivalent. However, CMS did not update the copayment limit to reflect newer data until 2022, when it calculated that the actuarially equivalent copayment had increased to \$64. The updated figure implies that the \$30 limit had become roughly equal to 10 percent coinsurance and that any effort to use copayments meant, in effect, charging much lower cost sharing than FFS. This discrepancy between the coinsurance and copayment limits may be one reason why almost all plans now use 20 percent coinsurance for dialysis. The updated copayment limit (rounded to \$65) will be phased in between 2023 and 2026; at that point, some plans might begin using copayments.
- 15 I-SNPs can also enroll beneficiaries who live in the community but need the level of care provided in a long-term care institution.

- 16 Although the term “supplemental benefits” is used to refer to items and services that traditional Medicare does not cover, some supplemental benefits may still be closely related to Part A and Part B services. For example, most MA plans cover an unlimited number of additional inpatient hospital days (beyond Medicare’s limit of 60 lifetime reserve days) as a supplemental benefit.
- 17 In 2021, between 35 percent and 40 percent of conventional MA plans offered optional supplemental benefits. Dental coverage accounted for the vast majority of the optional benefits (Friedman and Yeh 2021).
- 18 Plans had already been able to provide meals as a primarily health-related benefit on a limited basis following surgery or an inpatient stay.
- 19 MA plans do not have to meet any network adequacy requirements for their provision of supplemental benefits.
- 20 In 2022, the Food and Drug Administration issued a regulation that allows consumers to buy hearing aids for mild to moderate hearing loss without a prescription. The first OTC hearing aids have begun to enter the market, and observers expect them to be significantly less expensive than traditional hearing aids. The introduction of OTC hearing aids could prompt MA plans to revisit both their hearing benefits (which could cover hearing aids for severe hearing loss where beneficiaries still need a prescription) and their OTC benefits (which could cover the new hearing aids).
- 21 A small number of these nonstandardized policies are still in effect more than 30 years later.

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CHAPTER

4

**Favorable selection and
future directions for Medicare
Advantage payment policy**

Favorable selection and future directions for Medicare Advantage payment policy

Chapter summary

Medicare pays Medicare Advantage (MA) plans a capitated rate that is the product of a base payment rate and a risk score. A plan's base rate is determined by its bid and a county benchmark. The bid is intended to represent the dollar amount that the plan estimates it will need to cover the Part A and Part B benefit package for a beneficiary of average health status; the benchmark is the maximum amount Medicare will pay for an MA plan to provide Part A and Part B benefits and is set for each county based on Medicare spending for the county's beneficiaries enrolled in Medicare's traditional fee-for-service (FFS) program, standardized to represent a beneficiary with average health status.¹

Risk scores increase payments for plan enrollees whose expected health care costs, based on their demographics and medical conditions, are higher than the costs for the FFS beneficiary of average health status and decrease payment for enrollees whose expected costs are lower. The accuracy of Medicare's payments to MA plans—that is, how well payments match the cost of covering Medicare services for plan enrollees—depends in large part on how well the risk-adjustment model (i.e., risk scores) predicts the expected costs for the plans' enrollees. The purpose of risk adjustment is not to accurately predict costs for a particular person, but rather to accurately predict the average costs for a group of people with

In this chapter

- Medicare pays MA plans based on FFS spending
- Favorable selection results in higher-than-warranted benchmarks and payments for MA plans
- Declining FFS enrollment potentially compromises the accuracy of MA benchmarks
- Alternatives for determining MA payment rates

similar attributes. For beneficiaries with the same risk score, the average cost of covering Medicare services will equal the cost predicted by the risk score, but actual costs will exceed the predicted cost (an underprediction) for some beneficiaries and will be below predicted costs (an overprediction) for others.

Medicare's payments for MA plans assume that, after risk adjustment, average spending for MA enrollees is equal to average spending for FFS beneficiaries. However, MA enrollees' risk scores consistently overpredict MA enrollees' actual spending in part because of favorable selection of beneficiaries who choose to enroll in an MA plan rather than FFS Medicare. Favorable selection into MA causes payments to plans to be systemically greater than plans' spending for their enrollees. Consistent with other research, the Commission estimates that prior to the effects of any utilization management from MA plans, MA enrollees' spending in 2019 was about 11 percent lower than the spending of FFS beneficiaries with the same risk scores. The benefits of favorable selection for MA plans are separate from the effects of MA plans' higher diagnostic coding intensity relative to coding in FFS (which we estimated, in our March 2023 report to the Congress, resulted in overpayments to MA plans of about 6 percent), and the effects of the two phenomena are additive.

As a result of this favorable selection, the FFS spending estimates that are the basis for MA benchmarks do not align well with plans' costs of providing the Medicare benefit package, since the spending estimates reflect the higher level of costs associated with beneficiaries enrolled in traditional FFS Medicare. In a county with a benchmark set at 100 percent of FFS spending, the costs of providing Medicare services to the average MA enrollee equal an estimated 89 percent of FFS spending due to the effects of favorable selection alone. (The effects of plan benefit design, cost containment efforts, and diagnostic coding could push that percentage down even further.) Favorable selection thus results in overpayments to MA plans, which are made at the expense of taxpayers and beneficiaries (through higher Part B premiums). In addition, favorable selection distorts efforts to assess how MA plan bids, benchmarks, and payments compare with FFS spending because these comparisons are made on a risk-standardized basis. For example, a plan that submits a bid equal to 89 percent of FFS spending will appear more efficient than FFS (and receive MA rebates) without having produced any efficiencies in care delivery.

These findings raise major concerns about the appropriateness of continuing to base MA benchmarks exclusively on Medicare FFS spending data. Those

concerns are heightened as more beneficiaries enroll in MA and the share of Medicare beneficiaries enrolled in FFS declines. If the number of FFS beneficiaries in a county becomes too small, Medicare's estimates of FFS spending for the county could become unstable, as small changes in enrollment or health service delivery can cause large shifts in average spending. Further, certain population characteristics—such as whether a beneficiary is eligible for Medicaid or qualified for Medicare due to disability—become skewed if those characteristics are associated with a preference for MA or FFS Medicare coverage.

Policymakers could take an approach to setting MA benchmarks that would be less reliant on FFS spending. Possible approaches include (1) a competitive bidding system that relies entirely on MA bids to determine benchmarks, (2) basing benchmarks on both FFS and MA spending instead of just FFS spending, and (3) establishing benchmarks at a point in time and updating them using an administratively set growth rate. Any of these approaches would help address the problems associated with a declining FFS population, but the extent to which they would address the favorable selection of enrollees in MA would vary.

Setting benchmarks using competitive bidding

Under competitive bidding, each county's benchmark (the maximum amount Medicare will pay for an MA plan to provide Part A and Part B benefits, including administrative costs and plan profits) would be set based on MA plan bids rather than on the spending for FFS beneficiaries in the county. (Most competitive bidding proposals have suggested using the enrollment-weighted average bid as the benchmark; the Part D program uses this approach to calculate its national average bid.) As with the current system, a plan that bid above the benchmark would charge their enrollees a premium equal to the difference between the plan's bid and the average bid, while a plan that bid below the benchmark would receive rebates that would be used to lower enrollee premiums or provide extra benefits or both. If desired, policymakers could change the rebate formula so that plans could receive the full difference between the benchmark and the bid (instead of just part of the difference, as under current policy) to give them stronger incentives to lower their bids. (Note that under this form of competitive bidding, the FFS program would not be treated like a competing plan in the bidding system; the benchmark would have no bearing on Medicare payments for FFS beneficiaries.)

One advantage of competitive bidding is that it would reduce the impact of favorable selection and coding intensity on program spending. However, the use of competitive bidding in MA would reduce the rebates that plans receive and plans' ability to offer extra benefits, which could make MA less attractive relative to traditional Medicare than it is now. This challenge could be addressed by requiring plans to include a certain amount of extra benefits in their bids. But it is unclear how plans' behavior would change under a competitive bidding system. Plans with more market power could face less pressure to submit bids that reflect their true costs. Indeed, in highly concentrated markets, plans might submit bids that are actually higher than their current bids, resulting in relatively low program savings and, at least in some areas, potentially higher program spending. Even with changes in bidding behavior, plans that now have relatively high bids would be more likely to charge premiums under competitive bidding and could find themselves at a disadvantage. (For example, if the benchmark equaled the enrollment-weighted average bid, roughly half of plans would charge premiums.) One potential consequence is that enrollment in HMOs could increase at the expense of preferred provider organizations, which have grown more rapidly than HMOs in recent years but also tend to have higher bids.

Basing benchmarks on both FFS and MA spending

A second approach to setting benchmarks would be to base them on spending for the entire Medicare population in each market, including those enrolled in MA. A benchmark alternative that blends average local area FFS and MA spending would strive to closely reflect the market average spending for providing Part A and Part B services for all Medicare beneficiaries. This approach would keep the same bidding and benchmark infrastructure that exists under current policy with little added administrative burden for CMS or for MA plans. CMS would need to calculate an FFS rate and an MA rate for each local area. Spending for the FFS population would be calculated for those with both Part A and Part B coverage (the MA-eligible population). In the absence of sufficient encounter data, spending for the MA population could be calculated using the weighted average of each local area bid. (In the longer term, more complete MA encounter data could be used to estimate spending on Part A and Part B services for plan enrollees, and MA bids could be used to estimate plan administrative expenses and profits.)

The Commission's simulations of this approach suggest that MA plans would continue to bid below their benchmarks, which would preserve MA as an affordable option for beneficiaries, relative to FFS Medicare. We simulated

benchmarks that blend average local area FFS and MA spending and estimate that benchmarks would have been 100 percent of projected FFS spending in 2022, which is 8 percentage points lower than the actual 2022 benchmarks. Because the extra benefits offered in MA rely on the plans' ability to bid below benchmarks, we measured actual 2022 plan bids as a percentage of our simulated benchmarks. Nationally, plan bids were 86 percent of simulated benchmarks on average (compared with an average 79 percent of benchmarks under current policy). In nearly all MA markets, the enrollment-weighted average plan bid was more than 5 percent below their simulated benchmark. These results indicate that benchmarks based on all Medicare spending would likely allow plans to continue to provide some level of extra benefits, including reduced premiums and cost-sharing liability, to enrollees while reducing Medicare spending. Further, while our simulations assume no change in bidding behavior relative to 2022 levels, at least some plans would likely respond to lower benchmarks with lower bids, which could allow some plans to maintain their current levels of extra benefits.

A benchmark approach that uses all Medicare spending could be desirable if policymakers seek to move away from FFS-based benchmarks but want to keep the current MA bidding and benchmark infrastructure. Benchmarks based on all Medicare spending would more closely reflect Medicare's per capita spending in a local market area. As the FFS population in a local area decreased, the benchmark would more closely reflect spending for the area's MA population. One concern with this approach is that, to the extent that it relies on the FFS population, it would continue incorporating some of the effects of favorable selection into MA benchmarks. A second potential concern about basing benchmarks on all Medicare spending, as with competitive bidding, is the high level of market concentration in the MA market. For example, if a majority of a market's Medicare population is enrolled in plans offered by one MA organization, that organization could potentially have a large influence on a market's benchmark. This concern could be addressed by capping the weight of individual MA organizations in a county's benchmark calculation or by capping benchmarks at what they would be under a blended approach (50/50 local/national FFS), as described in the Commission's June 2021 report to the Congress.

Updating established MA benchmarks with an administratively set growth rate

A third approach to benchmark setting would be to establish baseline benchmarks and then apply a fixed growth rate that is set in advance. The fixed

growth rate could be based on CMS Office of the Actuary projected changes in Medicare prices, volume and intensity, and beneficiary demographic mix. Because MA plans have had success in constraining growth in volume and intensity, policymakers could apply a discount factor to those components of the growth rate; without such a discount factor, the growth rate would likely be too high. Another option would be to determine the fixed growth rate using U.S. gross domestic product (GDP), which is the total value of all final goods and services produced in the country over a specified time period, and couple that rate with a factor tied to policy goals. However, because GDP is not closely linked to Medicare spending, it might not always provide a reasonable basis for updating payments to MA plans.

Although choosing the basis for the fixed growth rate could be fairly straightforward, other elements of this approach would not be. Policymakers would need to ensure that the base benchmarks were not set too low or too high. If the base benchmarks were tied to base-year FFS spending, all of the effects of favorable selection would persist (and would require an adjustment to be removed). Any errors in setting the base benchmarks could be carried forward in perpetuity. In addition, because the fixed growth rate would be independent from current Medicare spending and any spending shocks that could arise, policymakers would need to regularly assess whether payments to MA plans are adequate and, if not, determine how to adjust the fixed growth rate. However, assessing the adequacy of MA payments and identifying a trigger for when to override the existing fixed growth rate would be a complex undertaking. ■

Introduction

The Medicare Advantage (MA) program allows Medicare beneficiaries enrolled in both Part A and Part B to receive benefits from private plans rather than the traditional fee-for-service (FFS) program. The MA program is quite robust: In 2022, it included 5,261 plan options offered by 182 organizations, enrolled about 29 million beneficiaries, and paid MA plans \$403 billion (not including Part D drug plan payments). The Commission has long acknowledged that the MA program gives beneficiaries more coverage options and has the potential to reduce overall Medicare spending. However, over Medicare's nearly 40-year history of making risk-based payments to private plans, the program has always paid more to private plans than it would have spent to cover the same beneficiaries through FFS. We previously estimated that, in 2023, Medicare will pay MA plans about \$27 billion more than it would have spent to cover the same beneficiaries through FFS, largely due to the effects of coding intensity that is greater in MA than in FFS (Medicare Payment Advisory Commission 2023).

The Commission has made a series of recommendations that address diagnostic coding intensity and the quality bonus program (Medicare Payment Advisory Commission 2022a, Medicare Payment Advisory Commission 2020a). In addition, in 2021, the Commission recommended replacing MA's current payment benchmarks with a system that (1) bases benchmarks on a 50/50 blend of a local area's FFS spending and national FFS spending and then (2) lowers all benchmarks by a discount rate of at least 2 percent. Under this recommendation, the local areas used for payment would be larger than the current county-based system (e.g., counties that are located in the same state and the same metropolitan area would be part of the same local area, as would counties that are not part of a metropolitan area but belong to the same health service area). This approach would maintain benchmarks that are lower than FFS spending in high-FFS-spending areas and benchmarks that are higher than FFS spending in low-FFS-spending areas, but it would allocate differences between plan bids and benchmarks more equitably among MA plans, MA enrollees, and the taxpayers who fund the Medicare program.

Although the Commission's recommendation would improve upon the current benchmark system, both approaches rely on FFS spending data. However, MA enrollment has grown substantially in recent years. Among Medicare beneficiaries who are eligible to enroll in MA plans (those with both Part A and Part B), the share enrolled in MA between 2011 and 2022 grew from 26 percent to 49 percent (Figure 4-1, p. 160). If recent trends continue, in 2023, MA's share of Medicare beneficiaries will surpass 50 percent.

Although overall Medicare enrollment is currently split about equally between MA and FFS, the figures for individual counties vary substantially (Figure 4-2, p. 161). Enrollment by county is significant because Medicare spending by a county's FFS beneficiaries is the basis for determining that county's MA payment rates.

As of February 2022, MA represented more than half of eligible beneficiaries in 28 percent of counties in the 50 states and the District of Columbia. In Puerto Rico, MA enrollment represents about 95 percent of all eligible beneficiaries and at least 85 percent of each county's enrollment.²

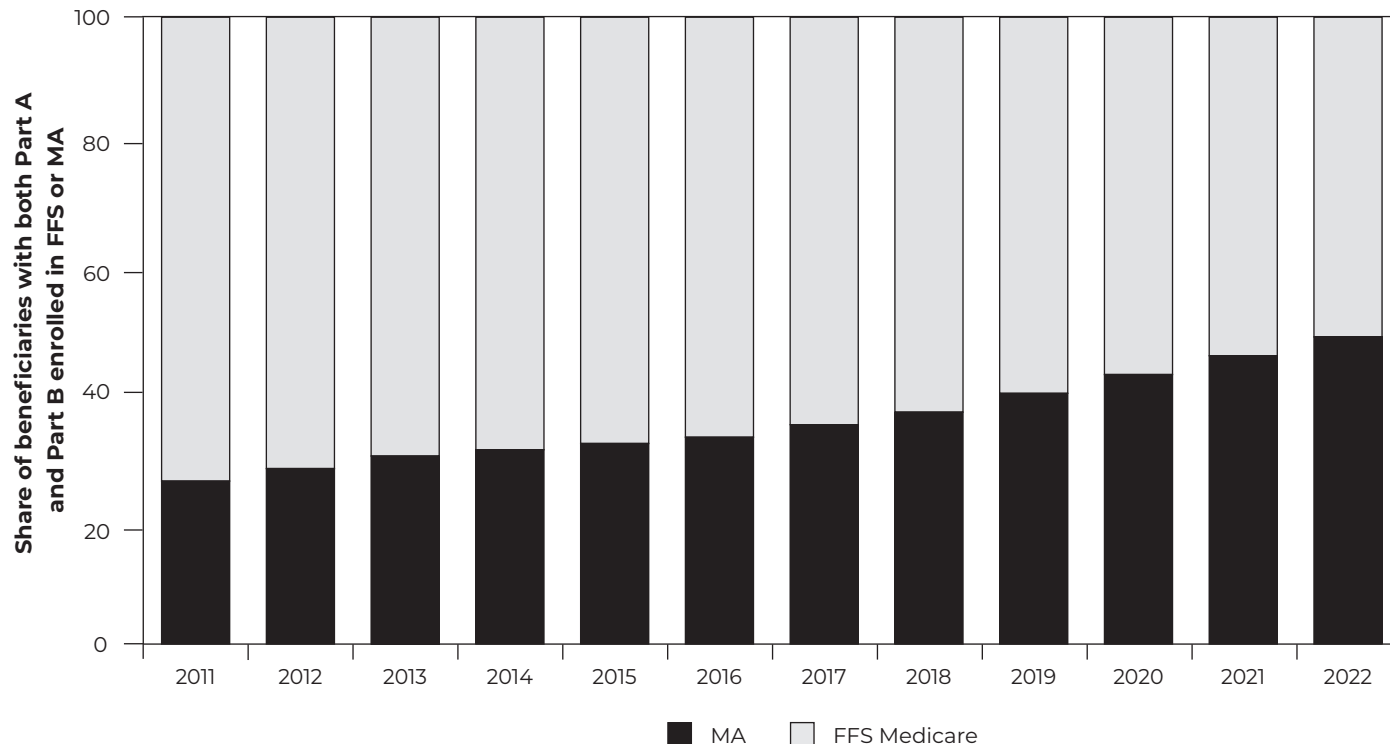
In this chapter, we examine two challenges with using FFS-based payment benchmarks: favorable selection in MA plans and the possibility that declining FFS enrollment makes benchmarks unreliable in some areas. Potential alternatives would establish benchmarks without relying solely on FFS spending.

Medicare pays MA plans based on FFS spending

Medicare pays MA plans a monthly capitated amount per enrollee to provide all Part A and Part B services except hospice; plans must also include a limit on enrollees' out-of-pocket spending. The capitated payment is calculated by multiplying a plan-specific base rate by an enrollee-specific risk score. CMS determines a plan's base rate using the plan's bid and the county-level benchmarks for the plan's service area. CMS standardizes the base rates using the health status of the national average FFS beneficiary. CMS then uses a risk score to adjust the standardized base rate for an MA plan up or down for each enrollee, depending on the enrollee's health status relative to

**FIGURE
4-1**

Share of beneficiaries with both Part A and Part B who enrolled in FFS versus MA, 2011–2022



Note: FFS (fee-for-service), MA (Medicare Advantage), ACS (ambulatory care sensitive).

Source: MedPAC analysis of CMS enrollment files, 2011–2022.

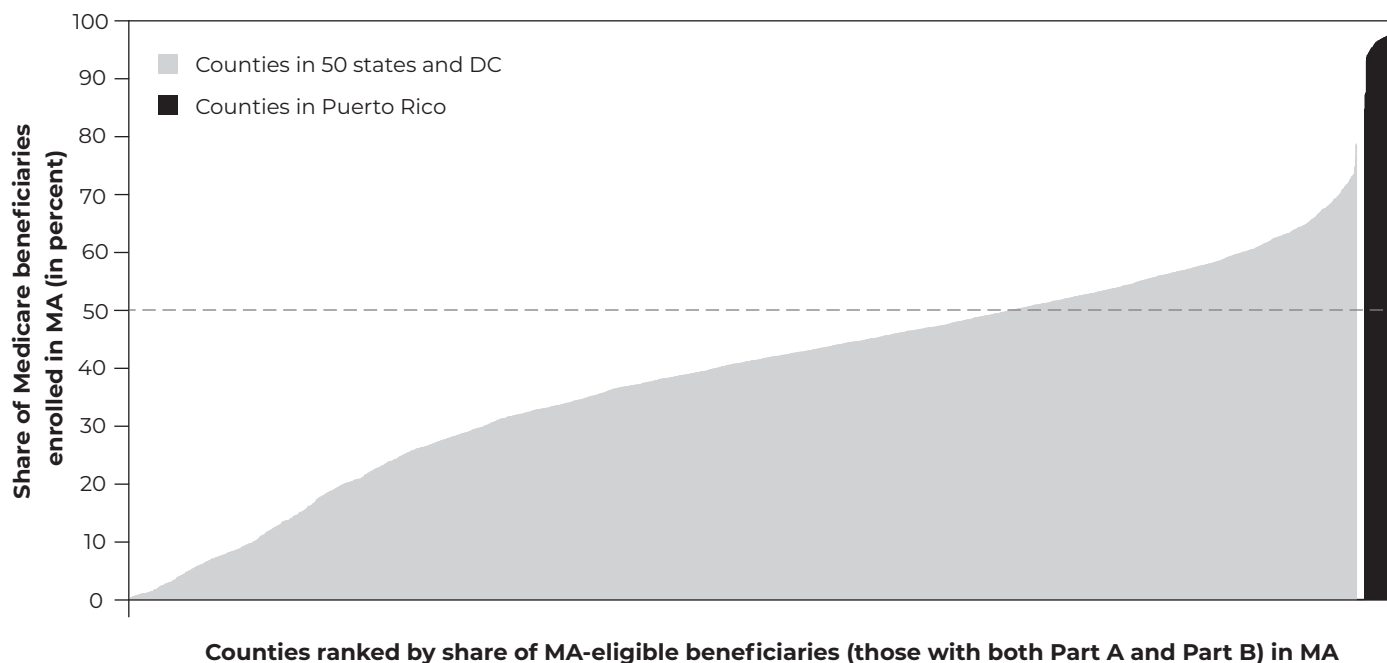
the national average. The risk scores are beneficiary-level indexes that indicate the expected Medicare costs for an enrollee relative to the national average for FFS beneficiaries.

Plans' base payment rates are determined by the MA plan bid and the benchmark for the county in which the beneficiary resides. The benchmark is the maximum amount that Medicare will pay the plan.³ If a plan's standardized bid (i.e., adjusted to reflect average risk) is above the standardized benchmark, the plan's base payment rate is set at the benchmark and its enrollees have to pay a premium equal to the difference (in addition to the usual Part B premium). If a plan's bid is below the benchmark (as is the case for over 99 percent of plans), its payment rate equals

its bid plus a share (as low as 50 percent but typically either 65 percent or 70 percent, depending on a plan's quality rating) of the difference between the bid and the benchmark. This additional amount is referred to as the rebate. The beneficiary pays no additional premium to the plan for Part A and Part B benefits (but continues to pay the Part B premium and may pay a premium for additional benefits). Plans must use their rebates to provide additional benefits to enrollees in the form of lower cost sharing, lower Part B or Part D premiums, or supplemental benefits. Plans can also keep some of the rebate for administrative costs and profits.⁴ (A more detailed description of the MA payment system can be found in our MA program *Payment Basics* document, available at <http://www.medpac.gov>.)

**FIGURE
4-2**

Share of Medicare beneficiaries enrolled in MA varies by county, February 2022



Note: MA (Medicare Advantage), DC (District of Columbia).

Source: Centers for Medicare & Medicaid Services enrollment data, February 2022.

How Medicare calculates risk scores

Risk scores are beneficiary-level index values that indicate the expected Medicare costs for an enrollee relative to the national average FFS beneficiary. How well Medicare's payments to MA plans match their enrollees' costliness depends in large part on how well the risk scores predict the expected costs for the plans' enrollees.

Medicare spending varies widely among beneficiaries. Some of this variation is predictable because it depends on beneficiary characteristics that can be observed, such as age, chronic medical conditions, or historical health care use. The rest of the variation is generally not predictable from information that CMS has available because the variation is due to random medical events, such as a heart attack or hip fracture. The demographic characteristics included

in risk adjustment therefore reflect the costs of these unpredictable medical events.

Risk-adjustment models strive to address predictable spending variation; otherwise, MA plans could use beneficiaries' observable characteristics to their advantage through favorable selection—avoiding beneficiaries with certain (unprofitable) attributes and attracting those with favorable (profitable) attributes. The general purpose of risk adjustment is to accurately predict costs not for a particular person but on average for a group of people with the same attributes that affect health care costs (Newhouse et al. 2012). For enrollees who have the same risk score, payments will be below actual costs for some (that is, the risk model will underpredict costs for some) and above actual costs for others (that is, the risk model will overpredict costs for others) but will be accurate on average. This result is a feature of all models that use patients' conditions to predict costs.

CMS calculates risk scores with the CMS hierarchical condition category (CMS-HCC) risk-adjustment model, which uses demographic information (e.g., age, sex, Medicaid enrollment, and disability status) and certain diagnoses grouped into HCCs to calculate a risk score for each enrollee. HCCs are categories of medical conditions or groups of related conditions with similar treatment costs. Each demographic component and HCC in the risk-adjustment model has a coefficient based on the expected spending associated with that characteristic or condition. A risk score is the sum of all coefficients for a beneficiary.

How Medicare calculates MA benchmarks

Each county's benchmark—the maximum base payment rate for the county's MA plans—equals a certain percentage (95 percent, 100 percent, 107.5 percent) of the projected average per capita FFS spending for the county's beneficiaries. The percentage specified for each county is determined by grouping all counties into quartiles based on their FFS spending. In counties where FFS spending is low, benchmarks are set above the county's FFS spending level to help attract plans to the area; in counties where FFS spending is high, benchmarks are set below the county's FFS spending level to generate Medicare savings. Plans with a 4-star rating or higher are awarded quality bonuses that can increase benchmarks by 5 percentage points (or 10 percentage points in some counties) relative to the standard county benchmarks.

Favorable selection results in higher-than-warranted benchmarks and payments for MA plans

Because MA benchmarks are based on risk-standardized county-level FFS spending, CMS relies on enrollee risk scores to help ensure comparability between the MA and FFS populations. The risk score indicates a beneficiary's expected cost relative to the cost of the national average FFS beneficiary (e.g., a beneficiary with a risk score of 1.65 has expected costs that are 65 percent higher than the national average). The accuracy of Medicare's payments to MA plans (how well payments match the cost of covering Medicare services for plan enrollees) depends in large part on how well the risk scores predict the expected costs

for the plans' enrollees, given their demographics and medical conditions. When setting MA benchmarks, CMS assumes that if MA enrollees were in FFS, their average Medicare spending would be equal to that of current FFS enrollees after adjusting for differences in risk scores (prior to the effects of differences in coding practices between MA and FFS).

However, a substantial body of research suggests that risk scores do not fully account for spending differences between the FFS and MA populations because of favorable selection into MA (Brown et al. 2014, Curto et al. 2021, Curto et al. 2019, Goldberg et al. 2017, Government Accountability Office 2021, Jacobs and Kronick 2018, Jacobson et al. 2019, Medicare Payment Advisory Commission 2012, Meyers et al. 2019, Newhouse et al. 2015, Rahman et al. 2015, Riley 2012). (See text box describing the plan and beneficiary incentives that may lead to favorable MA selection, pp. 164–165.) Our analysis examining favorable selection in MA finds that, on average, MA enrollees have lower spending than FFS beneficiaries with the same risk scores—resulting in higher-than-warranted benchmarks and payment rates for MA plans. We found that:

- MA entrants nationally over the period from 2008 to 2020 had lower risk-standardized spending prior to joining an MA plan;
- beneficiaries who subsequently stayed in MA for longer periods of time tended to have lower risk-standardized spending than enrollees who disenrolled earlier; and
- for beneficiaries who remained in MA, the effects of favorable selection—lower risk-standardized spending—persisted for years after they entered MA.

We estimate that favorable selection across all MA enrollees resulted in spending in 2019 that was approximately 11 percent lower than for FFS beneficiaries with the same risk score. These findings raise concerns about the appropriateness of basing MA benchmarks exclusively on FFS spending data. Favorable selection into MA causes risk scores to systemically overpredict spending for MA enrollees. Thus, the average MA enrollee is healthier relative to their risk score and more profitable than the average beneficiary in FFS. This lower-than-predicted spending

FIGURE 4-3

Illustrative example of estimating the favorable selection percentage for MA entrants in 2016

	Inclusion criteria	2015 FFS spending
MA cohort	2015 FFS enrollment and 2016 MA entry	\$561 per member per month
FFS comparator	Continuous FFS enrollment in 2015 and 2016	\$601 per member per month

$$\text{MA cohort selection percentage in 2016} = \frac{\$561}{\$601} = 93\%$$

Note: FFS (fee-for-service), MA (Medicare Advantage). Both the MA cohort and FFS comparator groups had FFS enrollment in 2014. The analysis excludes beneficiaries without at least two full years of enrollment in FFS Part A and Part B prior to the year of MA entry as well as those who joined an employer plan or non-MA private plan (e.g., cost plan), elected hospice, had end-stage renal disease, had Medicare as a secondary payer, resided in multiple counties during the year, or resided in Puerto Rico (due to the relatively small number of FFS beneficiaries in that territory). Spending for the FFS comparator group reflects the county-level average, adjusted by the geographic and risk score distribution of the MA cohort. The selection percentage reflects the risk-standardized spending below the local FFS average prior to any MA efficiencies or coding differences. The selection percentage reflects 2015 spending and CMS-HCC risk scores.

Source: MedPAC analysis of Medicare enrollment, Medicare claims spending, and risk-adjustment files, 2014–2016.

is evident in the years prior to a beneficiary enrolling in an MA plan, and thus this overprediction by a beneficiary’s risk score is not attributable to any plan activity (such as utilization management). Because plan benchmarks rely on risk-standardized FFS Medicare spending estimates, they reflect the higher level of costs associated with the FFS-enrolled population rather than the costs associated with a plan’s enrollees. For example, in a county with a benchmark set at 100 percent of FFS spending, favorable selection allows plans to submit bids that are lower than FFS spending without producing any efficiencies in care delivery (that is, before accounting for the added effects of plan benefit design and cost containment efforts). Note that the favorable selection that MA plans experience is separate from the effects of higher MA coding intensity, but the effects of the two phenomena are additive.

The amount of favorable selection that MA plans experience in payment benchmarks can be quantified as a selection percentage, which represents the risk-standardized payments for MA enrollees as a percentage of the local FFS spending average. Some

prior research (Jacobson et al. 2019, Newhouse et al. 2015, Medicare Payment Advisory Commission 2012) estimated the effect of favorable selection in the year prior to MA entry for beneficiaries who switch from FFS to MA; this approach has some advantages because it eliminates the effects of MA plan benefit design, utilization management, and coding differences on spending. Our analysis uses this method for several cohorts of beneficiaries who switched from FFS to MA (see text box describing prior research measuring MA favorable selection, pp. 164–165).

Measuring favorable selection when beneficiaries first enroll in MA

As an initial step to understand favorable selection, we built upon our previous method of analyzing FFS spending in the year prior to MA enrollment by analyzing a much longer period (2006 through 2020). We compared the FFS spending for beneficiaries who had FFS coverage before enrolling in MA with the spending for FFS beneficiaries who did not switch to MA (Figure 4-3). For example, we calculated the ratio of 2015 FFS spending for beneficiaries who switched to

MA plan and beneficiary incentives may produce a favorable selection of enrollees

Even after risk standardization, the beneficiaries who choose to enroll in a Medicare Advantage (MA) plan systemically incur lower costs than those who stay in the fee-for-service (FFS) program (or switch from MA to FFS), implying a correlation between a beneficiary choosing to join an MA plan and having lower risk-standardized spending. When the risk-adjustment model overpredicts spending for MA enrollees on net, this leads to overpayments for MA plans and distorts the comparison of risk-standardized spending of MA and FFS enrollees (Curto et al. 2021).

MA plans have a financial incentive to enroll beneficiaries with actual costs that are below Medicare's payment for that beneficiary, as adjusted by the beneficiary's risk score. This incentive does not result in a strict preference for healthy enrollees but, rather, an incentive to enroll beneficiaries who will incur lower costs than others with a similar risk profile (Brown et al. 2014).⁵ Plans can develop offerings designed to attract such enrollees—and discourage the enrollment of beneficiaries with higher expected costs relative to their risk scores—using strategies such as care management restrictions, extra benefits, and favorable cost-sharing arrangements.

Beneficiaries tend to enroll in a plan when the plan's benefit package matches their own self-assessed

preferences and needs. Because health needs, appetite for health care service use, and financial priorities vary across the Medicare population, plans that are attractive to some beneficiaries will be unattractive to others. Risk scores account for some, but not all, of the variation in cost for MA beneficiaries (Brown et al. 2014, Jacobson et al. 2019). Likewise, beneficiaries' health needs and financial situations change over time, and beneficiaries may find that a plan that worked well for them in the past no longer meets their needs. A growing literature has found that a disproportionate share of the beneficiaries who leave MA for FFS are chronically ill, costly, or nearing the end of life (Goldberg et al. 2017, Government Accountability Office 2021, Meyers et al. 2019, Rahman et al. 2015, Riley 2012).

Plan networks and care management restrictions

MA plans can influence which beneficiaries enroll in their plan by maintaining narrow provider networks. Narrow networks can potentially lead to higher-quality care by ensuring that only high-quality providers are in the network. However, a more limited network can also contribute to favorable selection by discouraging beneficiaries with certain health conditions from enrolling in MA plans. For instance, MA plan networks typically do not include cancer centers and include only a relatively small share of psychiatrists (Jacobson et al. 2017,

(continued next page)

MA in 2016 to the 2015 FFS spending for beneficiaries who remained in FFS in 2016, and then we converted the result to a percentage that we call the “selection percentage.” (When calculating benchmarks, CMS adjusts for geographic distribution of beneficiaries and differences in risk scores. Similarly, we adjusted the spending of beneficiaries who remained in FFS to have the same geographic distribution and risk scores as the beneficiaries who switched to MA.) We calculated

an initial selection percentage for each cohort that entered MA in 2008 through 2020.

Study and comparison populations

We included beneficiaries in our study population if they (1) enrolled in MA between 2008 and 2020 and (2) had been enrolled in FFS and had both Part A and Part B coverage for at least two full calendar years prior to enrolling in MA. We required beneficiaries to have at

MA plan and beneficiary incentives may produce a favorable selection of enrollees (cont.)

Jacobson et al. 2016). A plan's network design can also contribute to favorable selection by including clinicians whose practice patterns and patient populations tend to have lower overall medical spending, or by dropping clinicians whose practice patterns and patient populations have higher overall medical spending.

Plans also use other techniques, like prior authorization or claims denials, to encourage the use of high-value care and discourage the use of low-value services.⁶ However, beneficiaries with complex care needs may view these techniques as barriers to obtaining medically necessary care, which lead some enrollees with complex care needs to disenroll (Meyers et al. 2019). In addition, these techniques may influence some skilled nursing facilities to either encourage beneficiary MA disenrollment or even disenroll beneficiaries from MA plans without the beneficiaries' consent (Centers for Medicare & Medicaid Services 2021, Centers for Medicare & Medicaid Services 2015).

Cost sharing

MA plans may be attractive to some beneficiaries because they often have a different cost-sharing

structure than FFS Medicare. Although plans require cost sharing for most services, they can use different cost-sharing arrangements to steer beneficiaries to less costly sites of care. Beneficiaries who expect to use more medical services than average may prefer more comprehensive coverage of their cost sharing and therefore remain in FFS and purchase supplemental Medigap insurance to cover their out-of-pocket spending (Direct Research 2014). Plans are required to have an overall limit on out-of-pocket spending and may also offer a variety of extra benefits for no additional premium.

As described above, actual health care spending does not perfectly correlate with the spending predicted by risk scores. For a number of reasons (including personal attitudes toward health care use, provider treatment decisions, and interactions between health conditions), beneficiaries with the same risk scores can have higher or lower actual costs. The typical MA cost-sharing rules, which pair cost sharing for many services with an out-of-pocket maximum, likely attract beneficiaries who are not inclined to use many health services while discouraging beneficiaries who use more services from enrolling. ■

least two full calendar years of FFS enrollment because the CMS-HCC risk-adjustment model calculates risk scores using diagnoses from the prior year's claims, so we needed data on MA beneficiaries with two years of prior FFS enrollment to calculate risk scores for their last year of FFS enrollment. In 2019, nearly half of MA entrants (47 percent) met these criteria; for the remaining entrants, 10 percent had between one and two years of prior FFS enrollment, 13 percent had less than one year of prior FFS enrollment, and 31 percent had no prior FFS enrollment (meaning they enrolled directly in MA when they first became eligible for Medicare).⁷ We then divided the study population into 13 annual cohorts based on the year they enrolled in MA (2008 through 2020).

We excluded beneficiaries from our study population if they were enrolled in employer-sponsored MA plans. Those plans have different enrollment processes than other MA plans because employers often require all former employees to enroll in the same plan, similar to the commercial group market. Since the beneficiaries in employer-sponsored plans have limited control over their decision to join or leave MA, we assumed no favorable selection for those plans. We tested this assumption by examining spending for beneficiaries who joined employer-sponsored plans in 2019 and found that their average FFS spending in the prior year was nearly the same as the average spending for beneficiaries who stayed in FFS (i.e., there was little to no evidence of favorable selection). We also excluded

An overview of prior research measuring favorable selection in Medicare Advantage

Medicare Advantage (MA) plans benefit from favorable selection of enrollees if their spending on Part A and Part B benefits is, on average, consistently lower than the amount predicted by their enrollees' risk scores. (Conversely, plans would be adversely affected by unfavorable selection if their spending is, on average, consistently higher than the amount predicted by their enrollees' risk scores.) In measuring the effects of favorable selection, it is necessary to control for other important factors that can affect spending on MA enrollees, such as plan benefit designs, cost containment efforts, and diagnostic coding practices.

Measuring the impact of favorable selection in MA is challenging because plans do not submit beneficiary-level spending data, and plans' diagnostic coding practices increase their risk scores relative to fee-for-service (FFS), preventing an apples-to-apples comparison of actual and projected spending amounts for beneficiaries enrolled in MA plans. Some studies have found evidence of favorable selection using indirect measures, such as mortality (Curto et al. 2019, Newhouse et al. 2019) and Part D event data (Jacobs and Kronick 2018). Other studies have examined the risk scores and spending in the year before a sample of beneficiaries switch from FFS to MA (Jacobson et al. 2019, Newhouse et al. 2015). The prior-year spending and risk scores published in one study indicated that the risk-standardized spending of beneficiaries who switched from FFS to MA in 2010 was 13 percent lower than that of beneficiaries who remained in FFS (Newhouse et al. 2015). A more recent study found that risk-standardized spending

was 16 percent lower for beneficiaries in the year before switching to MA in 2016 compared with beneficiaries who stayed in FFS (Jacobson et al. 2019).

In 2012, the Commission also used the method of examining spending in the year before MA entry and found favorable selection both within CMS hierarchical condition categories (CMS-HCCs) and among one year of MA entrants overall (Medicare Payment Advisory Commission 2012). The Commission found MA favorable selection within 68 of 70 CMS-HCCs and found that MA entrants had risk-standardized spending that was 15 percent lower overall than that of beneficiaries who remained in FFS. In addition, the Commission found that MA plans benefited from beneficiaries who switched from MA to FFS. The spending for these beneficiaries was 16 percent higher than for beneficiaries who were continuously enrolled in FFS.

Despite results that suggest favorable selection for MA enrollees, examining spending in the year prior to MA entry has its limitations. In 2012, the Commission noted that using only one year of data on MA enrollees to measure favorable selection captures the effect of selection during the MA enrollment period, including when beneficiaries switch between FFS and MA, but does not provide direct information about the persistence of the effects of favorable selection throughout the duration of MA enrollment. Researchers who used indirect measures of selection (e.g., mortality) have also acknowledged this limitation (Newhouse et al. 2019). ■

beneficiaries who enrolled in Medicare plans that are not part of the MA program, such as cost plans.

For the comparison population, we used FFS beneficiaries who did not switch to MA. We included any FFS beneficiaries who met our inclusion criteria

for sufficient data and would have been part of CMS's MA benchmark calculation. These beneficiaries had to have both Part A and Part B coverage for at least two full years by the end of the reference year (the study population's last year of FFS enrollment). For both our MA and FFS comparison populations, we required

that beneficiaries live in the same county during the reference year because we used county-level figures in our spending calculations.

We excluded beneficiaries from either population if they had end-stage renal disease (ESRD) or if they had another source of health coverage for which Medicare acted as a secondary payer during the reference year. CMS excludes beneficiaries with ESRD from benchmark calculations and adjusts benchmarks and payments for those with Medicare as a secondary payer to remove the secondary-payer effect. In addition, we excluded beneficiaries who received hospice care during either the reference year or the subsequent year. While beneficiaries who receive hospice care are included in MA benchmarks, their spending can be unusually high and thus can reduce the comparability of the two populations.

Calculation of average FFS spending per capita

We calculated the average FFS spending per capita for the study and comparison populations using beneficiary-level spending to calculate average spending in each county. We then aggregated the county-level figures into an overall national average:

- We divided each beneficiary's actual FFS spending in the reference year by their CMS-HCC risk score for that year to generate their risk-standardized annual spending; we then divided that figure by 12 to produce the beneficiary's average risk-standardized monthly spending amount.
- We then calculated the average risk-standardized monthly spending in each county for the study and comparison populations. We did this by multiplying the beneficiary-level figures by the number of months in the following year that beneficiaries were enrolled in MA (for the study population) or FFS (for the comparison population) and dividing those amounts by the total number of MA or FFS enrollment months in the county. For beneficiaries who had some MA enrollment and some FFS enrollment during the year, we allocated their spending based on the number of months enrolled in each program. When a county's study or comparison population had fewer than 1,000 beneficiaries, we blended its average spending figure with the corresponding figures for neighboring counties, similar to the credibility

adjustment that CMS makes to MA benchmarks to ensure that they are reliable.

- We then calculated a national figure for average risk-standardized monthly spending for the study and comparison populations. We did this by summing the FFS and MA county-level spending figures weighted by the number of MA enrollment months and the average MA risk score for each county and then dividing by the national total of MA enrollment months. This approach ensured that the figure for the comparison population (FFS stayers) had the same geographic distribution and risk scores as the figure for the study population (new MA entrants).

We performed separate calculations for each annual cohort of MA entrants and its corresponding comparison population.

Calculation of effect of favorable selection on benchmarks

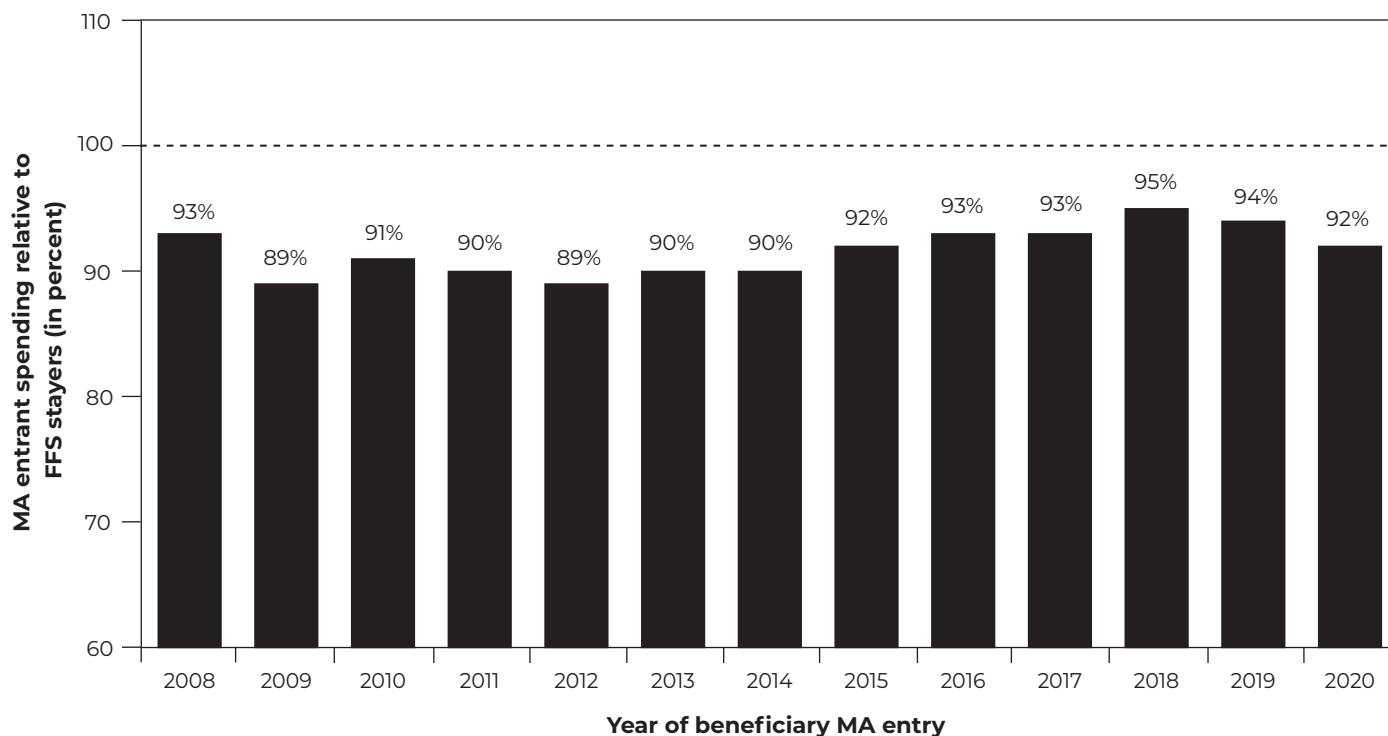
We calculated the effect of favorable selection for each cohort by dividing the national figure for average risk-standardized monthly spending for the study population (new MA entrants) by the corresponding figure for the comparison population (FFS stayers) and converting the result into a percentage, called the selection percentage. There was favorable selection in MA if the selection percentage was less than 100 percent and unfavorable selection if the percentage was more than 100 percent. For example, a figure of 95 percent means that the prior-year FFS spending for new MA entrants was 5 percent less than the prior-year spending for beneficiaries who remained in FFS, even after adjusting for differences in the risk scores and geographic distribution of the two groups.

Beneficiaries enrolling in MA throughout the period between 2008 and 2020 showed evidence of favorable selection at the time of MA entry

We examined the prior-year spending of MA entrants nationally and found evidence of favorable selection among new MA enrollees between 2008 and 2020 (Figure 4-4, p. 168). MA entrants in 2008 had risk-standardized FFS spending in the prior year that was 93 percent of the spending for beneficiaries who stayed in FFS. In 2009, MA entrants had FFS spending in the year before enrollment that was just 89 percent of FFS stayers. The increase in favorable selection between

**FIGURE
4-4**

Beneficiary FFS spending in the year before MA enrollment shows evidence of favorable selection from 2008 to 2020



Note: FFS (fee-for-service), MA (Medicare Advantage). “MA entrants” are beneficiaries who switched from FFS to MA. “FFS stayers” are beneficiaries who remained in FFS. Spending reflects the year prior to MA entry and is risk standardized. The analysis excludes beneficiaries without at least two full years of enrollment in FFS Part A and Part B prior to the year of MA entry as well as those who joined an employer plan or non-MA private plan (e.g., cost plan), elected hospice, had end-stage renal disease, had Medicare as a secondary payer, resided in multiple counties during the year, or resided in Puerto Rico (due to the relatively small number of FFS beneficiaries in that territory).

Source: MedPAC analysis of Medicare enrollment, Medicare claims spending, and risk-adjustment files, 2006–2020.

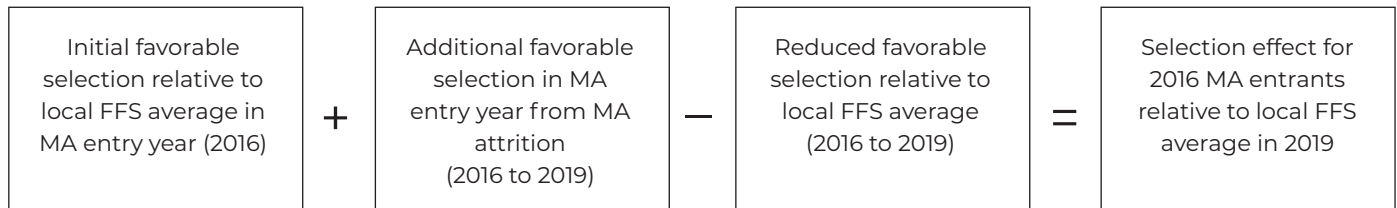
2008 and 2009 coincides with the requirement that private fee-for-service (PFFS) plans—which in 2008 enrolled nearly 40 percent of MA entrants—establish a network if two other network-based plans have enrollees in a county. Prior to this point, PFFS plans were not required to have contracted networks, and thus they likely benefited from relatively little (if any) selection. After the network requirement was implemented, enrollment in PFFS plans declined sharply, while enrollment in HMOs and preferred provider organizations (PPOs) grew.⁸ After 2009, favorable selection among MA entrants remained steady for several years but in 2014 began to steadily

decline. (Given the method we used to measure favorable selection, a decline in selection would mean that the selection percentages shown in Figure 4-4 began to rise.) From 2014 through 2018, the favorable selection among MA entrants fell, as shown by the 5 percentage point increase in the selection percentage over this period. Between 2018 and 2020, the favorable selection for all MA entrants rebounded, and 2020 MA entrants had spending in the year before enrollment that was 92 percent of FFS stayers.

The effects of favorable selection among MA entrants were not explained by risk score differences with the comparison population. For example, the prior-year

**FIGURE
4-5**

Illustration of the components that determine the amount of favorable selection in 2019 for MA entrants in 2016



Note: MA (Medicare Advantage), FFS (fee-for-service). "Favorable selection" is the percentage of risk-standardized spending below the local FFS average prior to any MA efficiencies or coding. "Attrition of MA" enrollment reflects the beneficiaries who were not continuously enrolled in MA from 2016 through at least the first month of 2019.

Source: MedPAC.

average risk score of 2017 MA entrants was only 2 percent lower than the prior-year average risk score of 2017 FFS stayers (data not shown). We observed similarly small differences in prior-year average risk scores between MA entrants and FFS stayers in 2018, 2019, and 2020, a period during which the effects of favorable selection far exceeded these risk score differences (data not shown).

We found that favorable selection in 2020 was somewhat correlated with county-level MA penetration (i.e., a county's share of beneficiaries enrolled in MA).⁹ While favorable selection among new MA entrants persisted in areas with high MA penetration, the largest effects of favorable selection among new entrants tended to be in areas where MA had a smaller share of the market (data not shown). Thus, the effects of favorable selection among new MA entrants could decrease as the share of FFS beneficiaries becomes smaller.

Estimating the overall effect of favorable MA selection

While the conventional approach of examining FFS spending prior to MA entry provides clear evidence of favorable selection when beneficiaries first enroll in MA, it does not provide an estimate of the overall impact of favorable selection on the FFS spending estimates used for MA benchmarks in any given year. The conventional approach is limited because it does

not account for subsequent changes that can either increase or reduce favorable selection. Figure 4-5 shows how the estimate of favorable selection for the 2016 cohort of MA entrants could change between 2016 and 2019.

The effect of favorable selection for a cohort of MA enrollees is affected by both attrition out of MA over time and the convergence of risk-standardized spending for the beneficiaries who remain in the MA cohort toward the annual average risk-standardized spending for all FFS beneficiaries that is used for benchmarks. Estimates of the overall effects of favorable selection need to account for both factors.

- After the initial year of MA entry, some enrollees will either return to FFS or die. Because beneficiaries who leave MA or die are likely to have high utilization of services in that year, the attrition in MA enrollment likely increases favorable selection for MA plans. Thus, the selection percentage that we calculated for the initial year of MA entry (shown in Figure 4-4) must be adjusted to reflect the population that is still enrolled in MA in later years.
- While a cohort of MA enrollees may have favorable risk-adjusted spending relative to the local FFS population when they first enter MA, the effect of favorable selection may become smaller in

later years. This concept is often referred to as “regression to the mean,” but previous studies have largely assumed it occurs rather than measured it directly.¹⁰ Regression to the mean presupposes that the effects of favorable selection will decline over a period of time because the growth in spending for MA enrollees will exceed their growth in risk scores during their enrollment (independent from the effects of coding differences and any plan interventions). To the extent that risk scores of MA entrants grow at the same rate as their spending, the effect of favorable selection of MA entrants will not decline (i.e., there will be no regression to the mean).

These two factors work in opposite directions: Attrition due to beneficiaries leaving MA or dying tends to increase favorable selection, while regression to the mean tends to reduce favorable selection. On net, however, the effects of favorable selection may remain roughly constant, or even increase over time for a given cohort of MA entrants.

We built upon our previous method of analyzing FFS spending in the year prior to MA enrollment by estimating the overall effect of favorable selection on MA benchmarks in 2019. To accomplish this, we largely aligned our approach for estimating favorable selection with CMS’s method for calculating FFS spending for purposes of constructing MA benchmarks, which are based on risk-standardized county-level averages of FFS spending.

Our approach for measuring overall favorable selection accounts for both the subsequent attrition of MA enrollees and the tendency of spending for the remaining MA enrollees to converge toward the local FFS average.

- First, we accounted for beneficiaries who either died or switched back to FFS by calculating the selection percentages for each MA entry cohort who were continuously enrolled in MA through 2019. For example, we compared the 2015 FFS spending of beneficiaries who switched to MA in 2016 and remained in MA through 2019 with the 2015 FFS spending of beneficiaries who remained in FFS in 2016.
- Second, we estimated the change in the selection percentage during MA enrollment by using

the spending history of a proxy cohort of FFS beneficiaries who entered MA in 2020. For example, we compared the 2015 FFS spending of beneficiaries who were in FFS from 2014 through 2019 and enrolled in MA in 2020 with the 2015 FFS spending of all other beneficiaries who were in FFS from 2014 through 2015 (and did not enter MA in 2016). For the same set of beneficiaries who were in FFS from 2014 through 2019 and enrolled in MA in 2020, we compared their FFS spending in 2019 with that of beneficiaries who were in FFS from 2018 through 2019 (and did not enter MA in 2020). The change in relative FFS spending from 2009 to 2019 was used to estimate the change in the selection percentage during the 2016 to 2019 period. We add this change in selection percentage to the initial selection percentage estimated for 2016 MA entrants who were continuously in MA.

Favorable selection in MA is reinforced by lower-spending enrollees remaining in MA longer and higher-spending enrollees leaving MA

An examination of favorable selection solely among MA entrants is limited because it does not account for differences between the beneficiaries who subsequently leave MA (either through FFS enrollment or death) and those who remain enrolled. The initial selection percentage of a cohort of MA entrants in Figure 4-4 (p. 168) cannot be used to estimate the amount of favorable selection in a future year. For example, the MA entry cohort in 2016 may have changed substantially by 2019. Thus, the initial favorable selection for 2016 MA entrants (i.e., the selection percentage “starting point”) would have to be recalculated using only the MA entrants who were continuously in MA through 2019.

While some MA enrollees die while being continuously enrolled in MA, a notable share disenroll from MA and enroll (or reenroll) in FFS. Studies following the same cohort of beneficiaries over several years show that over time, a larger share of beneficiaries switch from MA to FFS than would be apparent from a one-year snapshot of switching across all cohorts (Dong et al. 2022, Meyers and Trivedi 2022, Newhouse et al. 2019). One study examined the rate of switching for beneficiaries who were newly eligible for Medicare in 2008 and elected MA in that year; after five years, 19 percent of enrollees had switched to FFS at some

point during the period, and the switching rate was somewhat higher (23 percent) among enrollees who initially switched from FFS to MA (Newhouse et al. 2019). Another study followed all MA entrants who had switched from FFS during the 2011 through 2019 period; this study similarly found that 23 percent of these beneficiaries switched back to FFS at some point within five years of MA enrollment (Meyers and Trivedi 2022). We identified all beneficiaries who entered MA in 2010 and followed their enrollment for a nine-year period. By 2019, 51 percent of MA entrants in 2010 remained continuously enrolled in MA, 31 percent switched to FFS at some point between 2011 and 2019, and an additional 18 percent died while enrolled in MA (data not shown).

Studies have shown that beneficiaries with full Medicaid benefits or who have nursing home use or high costs in their final year of life are disproportionately more likely to leave MA (Goldberg et al. 2017, Government Accountability Office 2021, Medicare Payment Advisory Commission 2018, Meyers et al. 2019, Rahman et al. 2015). Thus, we should expect the effects of favorable selection to increase at least somewhat when beneficiaries either leave MA for FFS or die (and thus are no longer compared with the local FFS average for benchmark purposes). If the beneficiaries who leave an MA cohort have higher risk-standardized spending, over time, it could reinforce the effects of favorable selection and may even exacerbate those effects for several years after the cohort initially joined an MA plan.

We accounted for the effects of attrition by identifying the subset of beneficiaries in each cohort who remained in MA for a specific period of time. For example, in the 2016 cohort of MA entrants, we identified the beneficiaries who were still enrolled in MA at the beginning of 2017, at the beginning of 2018, and at the beginning of 2019. Thus, a beneficiary in that cohort who switched to FFS or died before 2019 would be excluded from the subset that was still enrolled in MA in 2019. We then recalculated the initial selection percentage for each subset of beneficiaries. Because favorable selection in MA benchmarks would always be relative to the local FFS average, we used a 2016 FFS comparison group in our recalculations.

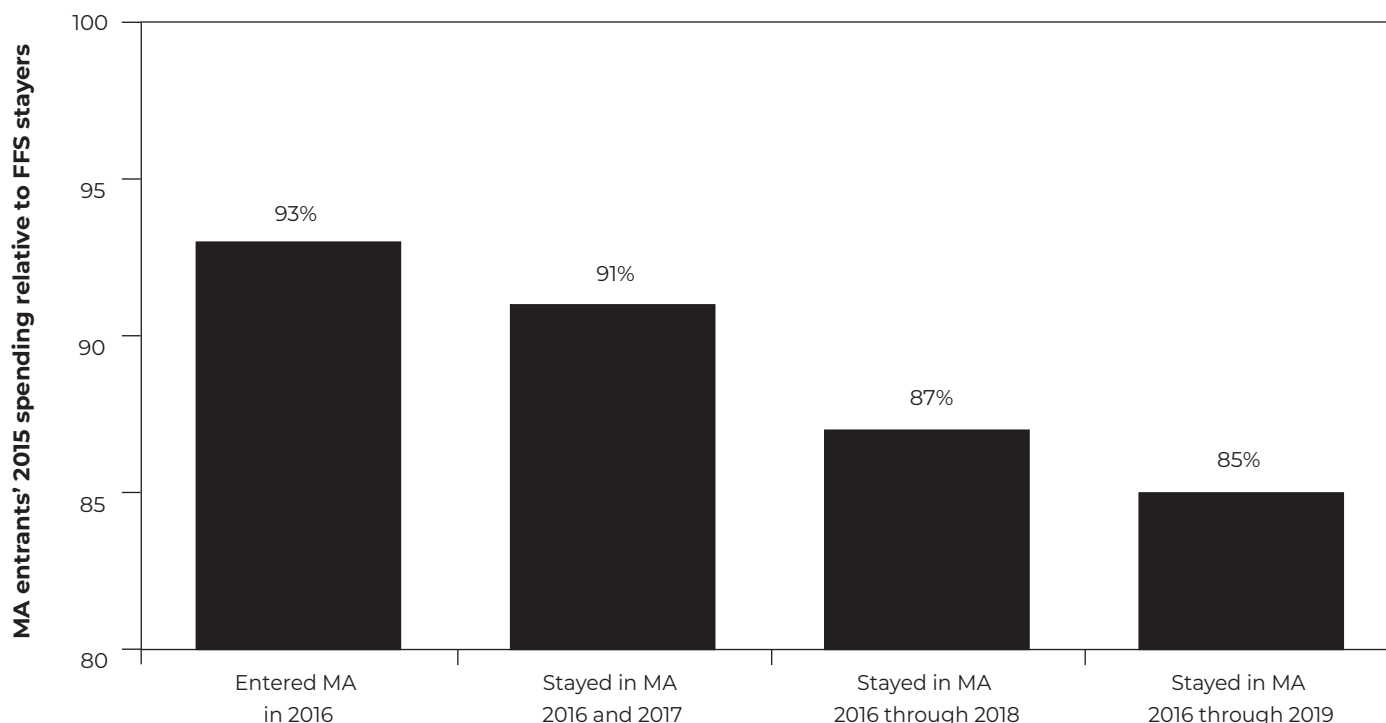
We found that beneficiaries who remained in MA for longer periods of time had lower risk-standardized

FFS spending prior to their enrollment in MA than the beneficiaries who left MA (Figure 4-6, p. 172). We analyzed sub-cohorts of the 2016 MA entry cohort based on the duration of their MA enrollment. While the overall cohort of 2016 MA entrants had prior-year FFS spending that equaled 93 percent of the 2015 FFS average, the sub-cohort of 2016 MA entrants who remained in MA through 2019 had prior-year FFS spending that equaled 85 percent of the 2015 FFS average, while beneficiaries who left MA between 2016 and 2019 (and either returned to FFS or died) were substantially unfavorable to MA plans in 2015. These MA “leavers” had prior-year FFS spending that equaled 121 percent of the 2015 FFS average (data not shown). These analyses suggest that favorable selection for MA plans increases over time, as favorable (lower-spending) beneficiaries tend to remain in MA while relatively unfavorable (higher-spending) beneficiaries tend to leave MA. This phenomenon effectively redefines the selection percentage “starting point” for an MA entrant cohort in future years.

Across all cohorts, more favorable MA enrollees remained in MA longer Similar to the analysis shown in Figure 4-6 (p. 172), we examined the effects of favorable selection within each cohort of MA entrants by examining the subset of enrollees who were still in MA in 2019. Across all cohorts, we found that MA entrants who remained enrolled in MA for longer periods tended to be beneficiaries who had lower risk-standardized spending in the year prior to joining MA (Figure 4-7, p. 173), well below the levels observed for all MA entrants shown in Figure 4-4 (p. 168). These higher levels of favorable selection among enrollees who remain in MA for longer periods are likely influenced by MA enrollees with high risk-standardized spending either leaving MA or dying during this period—those enrollees had average spending either near or above the FFS local average in the year prior to joining an MA plan (data not shown). Nearly all enrollees in the 2017 and 2018 MA entrant cohorts were still in MA in 2019, which means that the effects of favorable selection for the sub-cohorts of enrollees who remained through 2019 are similar to the estimates for the overall cohort. For the cohorts of MA entrants in 2008 through 2016, the share of enrollees who left MA prior to 2019 is larger, as are the differences in the favorable selection effect between all MA entrants in a cohort and the subset who stayed in MA through 2019. The differences in

**FIGURE
4-6**

2016 MA entrants who remained in MA through 2019 had lower pre-enrollment spending than 2016 MA entrants who left MA or died



Note: MA (Medicare Advantage), FFS (fee-for-service). "MA entrants" are beneficiaries who switched from FFS to MA. "FFS stayers" are beneficiaries who remained in FFS. MA entrants who stayed in MA through 2019 are those with at least one month of MA enrollment in 2019. Spending reflects the year prior to MA entry and is risk standardized. This criterion excludes beneficiaries without at least two full years of enrollment in FFS Part A and Part B prior to the year of MA entry as well as those who joined an employer plan or non-MA private plan (e.g., cost plan), elected hospice, had end-stage renal disease, had Medicare as a secondary payer, resided in multiple counties during the year, or resided in Puerto Rico (due to the relatively small number of FFS beneficiaries in that territory).

Source: MedPAC analysis of Medicare enrollment, Medicare claims spending, and risk-adjustment files, 2014–2019.

the favorable selection effect at the time of MA entry is most striking for beneficiaries who entered MA between 2008 and 2012.

A separate question is whether the effects of favorable selection observed at the time of MA entry were evident for several years before the initial year of MA entry (i.e., is there evidence of lower risk-standardized spending among MA entrants in the years prior to joining MA?). We examined the FFS spending of beneficiaries who had at least five consecutive years in FFS prior to joining MA and who were still in an MA plan through at least one month in 2019. We found that

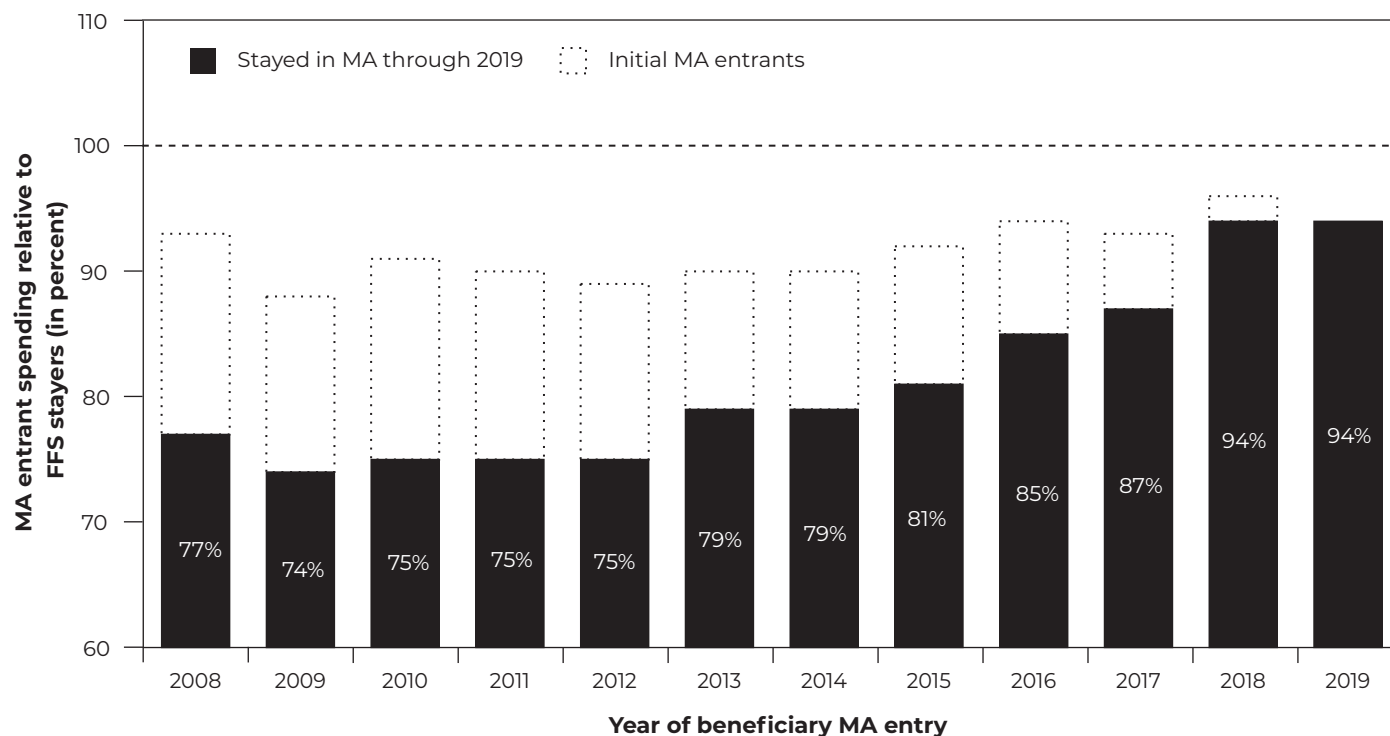
the longer beneficiaries were in MA, the more likely they were to maintain the same selection percentage across all years prior to joining MA (data not shown).

Approximating changes in favorable selection for beneficiaries who remain enrolled in MA

One limitation of the conventional approach of measuring favorable selection based on prior FFS spending is that it focuses on selection at the time of MA entry. This initial favorable selection effect may change while beneficiaries are enrolled in MA, but we cannot directly measure those changes due to the lack of beneficiary-level spending data for MA

**FIGURE
4-7**

Beneficiary spending in the year before MA enrollment shows evidence of much greater favorable selection for enrollees who stayed in MA through 2019



Note: MA (Medicare Advantage), FFS (fee-for-service). “MA entrants” are beneficiaries who switched from FFS to MA. MA entrants who stayed in MA through 2019 are those with at least one month of MA enrollment in 2019. Beneficiaries who left MA after the entry year either returned to FFS or died during the period. Spending reflects the year prior to MA entry and is risk adjusted. The analysis excludes beneficiaries without at least two full years of enrollment in FFS Part A and Part B prior to the year of MA entry as well as those who joined an employer plan or non-MA private plan (e.g., cost plan), elected hospice, had end-stage renal disease, had Medicare as a secondary payer, resided in multiple counties during the year, or resided in Puerto Rico (due to the relatively small number of FFS beneficiaries in that territory).

Source: MedPAC analysis of Medicare enrollment, Medicare claims spending, and risk-adjustment files, 2006–2020.

enrollees. Even if that data were available, the analysis would be limited because MA enrollee risk scores would be affected by plans’ benefit design, utilization management, and diagnostic coding practices. Prior research implies that the effects of favorable selection will “regress to the mean” such that favorable selection essentially fades away; however, the “regression to the mean” assumption has never been tested.

We therefore approximated the change in favorable selection effect for the 2008–2019 cohorts of MA entrants *while they were enrolled in MA* by looking at the experience of a proxy group of beneficiaries who

were in the 2020 cohort of MA entrants but had FFS coverage for many years before that. Simply put, we calculated the change in the selection percentage for those beneficiaries during those prior years of FFS enrollment and assumed that the selection percentage for beneficiaries who were in MA during the same period changed by the same amount. This approach evaluates the degree of “regression to the mean” for enrollees in MA by using a proxy population that likely had similar coverage preferences as other MA cohorts and for which we have complete spending data. Although we cannot directly measure the effects

of favorable selection during MA enrollment, using this proxy population has several advantages:

- It prevents MA plan efficiencies and coding from influencing our estimate of favorable selection.
- It reflects the observation that MA entrants have favorable risk-adjusted spending in the years prior to joining an MA plan, as shown in Figure 4-4 (p. 168).
- It measures the actual change in favorable selection for the proxy group of future MA entrants who had favorable risk-standardized spending prior to MA entry.
- It measures the relative change in selection percentage over the same period of time that the cohort of earlier MA entrants remained in MA.
- It reflects the same FFS spending, risk score, and MA entrant eligibility criteria for both the proxy group of future MA entrants and the actual cohort of earlier MA entrants; these criteria are applied to both the MA entry year and the measurement year (2019).
- Because the change in favorable selection percentage is indexed to a change in selection percentage and risk scores account for differences in demographic characteristics (e.g., age, sex, Medicaid eligibility), it serves as a reasonable proxy for the change in favorable selection for each additional year of MA enrollment.
- It uses a proxy group of future MA entrants who, when faced with similar incentives for choosing to enroll in MA or FFS, ultimately selected an MA plan—indicating that they likely had preferences that were similar to the beneficiaries in the earlier MA entry cohorts. (See text box describing the plan and beneficiary incentives that may lead to favorable MA selection, pp. 164–165.)

Figure 4-8 illustrates how we approximated the change in selection percentage for the 2016 cohort of MA entrants:

- We identified a proxy group of beneficiaries in the 2020 cohort of MA entrants who had both Part A and Part B and were enrolled in FFS from 2014 to 2019. As a result, this subset met the same criteria

as the 2016 cohort of MA entrants, except they remained in FFS through 2019.

- We estimated the selection percentage for this subset of 2020 MA entrants in 2016 (using spending in 2015—the reference year for the 2016 cohort of MA entrants) and 2019 (90 percent and 95 percent, respectively).
- We calculated the change in selection percentage for this subset of 2020 MA entrants over the period from 2016 through 2019 (+4%). If the selection percentage increased, the effect of favorable selection decreased during the period; if the selection percentage decreased, the reverse was true.
- We then estimated the effect of favorable selection in 2019 for the 2016 cohort of MA entrants who remained in MA through 2019 by adding the initial selection percentage for the cohort (85%) to the change in the selection percentage from 2016 to 2019 that we calculated for the subset (i.e., proxy group) of 2020 MA entrants (+4%).

We repeated the steps above for each of the 2008–2018 cohorts of MA entrants. The subsets of beneficiaries from the 2020 cohort of MA entrants that we used to calculate the change in the selection percentage were not mutually exclusive. For example, a beneficiary in the 2020 cohort of MA entrants who was in FFS from 2010 to 2019 would be in the subsets of beneficiaries that we used to estimate the change in favorable selection for both the 2012 and 2018 cohorts of MA entrants.

After we calculated the initial selection percentages for the 2008–2019 cohorts of MA entrants and then trended those figures forward to 2019 using the methodology illustrated in Figure 4-8, we estimated the overall effect of favorable selection in MA in 2019 by calculating the enrollment-weighted average of the trended selection percentages for each cohort. In our calculation, we assumed that the effect of favorable selection for MA enrollees who joined prior to 2008 (which we did not estimate) was the same as the amount for the 2008 cohort. When we calculated the enrollment weights for each cohort, we excluded any beneficiaries who had at least one month during which they had end-stage renal disease or Medicare acted as a secondary payer. We also assumed that there was no favorable selection for enrollees in employer-sponsored MA plans, who represented about 21 percent of MA enrollment in 2019.

FIGURE 4-8

Illustrative example estimating cumulative favorable selection in 2019 for the 2016 cohort of MA entrants

Step 1: For the 2016 cohort in MA through 2019, estimate initial selection percentage in the MA entry year.

$$\text{MA cohort selection percentage in 2016} = \frac{\$462}{\$545} = 85\%$$

Step 2: Using the historical FFS spending of 2020 MA entrants as a proxy, estimate the change in selection percentage from 2016 to 2019.

	Inclusion criteria	T ₁ (2015) FFS spending	T ₂ (2019) FFS spending
Proxy cohort	2015–2019 FFS enrollment and 2020 MA entry	\$518	\$744
T₁ comparator	2015–2016 FFS enrollment	\$573	—
T₂ comparator	2019–2020 FFS enrollment	—	\$786

$$\text{Proxy selection percentage in } T_1 = \frac{\$518}{\$573} = 90\% \qquad \text{Proxy selection percentage in } T_2 = \frac{\$744}{\$786} = 95\%$$

$\triangle = T_2 \text{ selection percentage} - T_1 \text{ selection percentage} = +4\% \text{ (rounded difference)}$

Step 3: Estimate cumulative favorable selection in 2019 for the 2016 MA cohort.

$$\begin{array}{|c|} \hline \text{Step 1 result} \\ \hline \text{2016 initial} \\ \text{selection percentage} \\ \hline \text{(85\%)} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Step 2 result} \\ \hline \text{2016–2019 change in selection} \\ \text{percentage for 2020 proxy cohort} \\ \hline \text{(+4\%)} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Estimated 2019 selection} \\ \text{percentage for 2016 cohort} \\ \hline \text{(89\%)} \\ \hline \end{array}$$

Note: FFS (fee-for-service), MA (Medicare Advantage), T₁ (time period 1 = 2015), T₂ (time period 2 = 2019). Analyses exclude beneficiaries without at least two full years of enrollment in FFS Part A and Part B prior to the years of MA entry (2016 and 2020) as well as those who joined an employer plan or non-MA private plan (e.g., cost plan), elected hospice, had end-stage renal disease, had Medicare as a secondary payer, resided in multiple counties during the year, or resided in Puerto Rico (due to the relatively small number of FFS beneficiaries in that territory). The 2020 MA entrants (proxy cohort) are mutually exclusive from the comparator groups of FFS enrollees. Comparator spending reflects the county-level average, adjusted by the geographic and risk score distribution of the MA cohort in step 1 and the proxy cohort in step 2. The selection percentage reflects the risk-standardized spending below the local FFS average prior to any MA efficiencies or coding differences. Totals and differences may not sum due to rounding.

Source: MedPAC analysis of Medicare enrollment, Medicare claims spending, and risk-adjustment files, 2014–2020.

**TABLE
4-1**

For 2020 MA entrants, the effects of favorable selection were persistent across all prior years of FFS enrollment

MA 2020 entrants' historical spending relative to:	(Consecutive years of prior FFS enrollment) Initial spending year											
	(13+) 2008	(12+) 2009	(11+) 2010	(10+) 2011	(9+) 2012	(8+) 2013	(7+) 2014	(6+) 2015	(5+) 2016	(4+) 2017	(3+) 2018	(2+) 2019
FFS stayers in the initial spending year	88%	89%	89%	89%	88%	91%	90%	91%	90%	90%	92%	94%
FFS stayers in 2019	95%	95%	94%	94%	94%	95%	95%	94%	95%	95%	95%	94%
Change in selection percentage	+6%	+6%	+5%	+5%	+6%	+4%	+5%	+3%	+4%	+4%	+3%	0%
Average risk score in 2019	1.25	1.24	1.22	1.21	1.19	1.17	1.15	1.14	1.10	1.08	1.06	0.99

Note: MA (Medicare Advantage), FFS (fee-for-service). "MA entrants" are beneficiaries who switched from FFS to MA. "FFS stayers" are beneficiaries who remained in FFS. Spending is risk standardized. The analysis excludes beneficiaries without at least two full years of enrollment in FFS Part A and Part B prior to the year of MA entry as well as those who joined an employer plan or non-MA private plan (e.g., cost plan), elected hospice, had end-stage renal disease, had Medicare as a secondary payer, resided in multiple counties during the year, or resided in Puerto Rico (due to the relatively small number of FFS beneficiaries in that territory). CMS hierarchical condition category risk scores are normalized to 1.0. Differences may not sum due to rounding.

Source: MedPAC analysis of Medicare enrollment, Medicare claims spending, and risk-adjustment files, 2006–2020.

Effects of favorable selection likely persist throughout the duration of MA enrollment The extent to which favorable selection for 2019 MA enrollees persists depends largely on how much the selection percentage changes after MA enrollment.¹¹ For 2020 MA entrants, we examined several prior years of their FFS spending to assess whether lower risk-standardized spending is persistent over time. If lower risk-standardized spending is persistent, then favorable selection among MA enrollees is likely to be found across all years of their MA enrollment.

We analyzed cohorts of 2020 MA entrants based on the number of consecutive years of FFS enrollment prior to joining MA and compared them with FFS beneficiaries who remained in FFS. Across all cohorts, 2020 MA entrants systemically exhibited favorable risk-standardized spending in the years prior to joining MA (Table 4-1). These results indicate that MA entrants not only show evidence of favorable selection in the year

prior to joining MA, they have a history of lower risk-standardized spending several years before entering MA. Cohorts with more consecutive years in FFS before joining MA in 2020 had lower initial risk-standardized spending relative to FFS stayers than cohorts with fewer years of prior FFS enrollment. All cohorts had similar risk-standardized spending (94 percent or 95 percent of spending for FFS stayers) in the year prior to joining MA, including cohorts with several consecutive years of FFS enrollment and relatively high risk scores (e.g., 2020 MA entrants with 13 years of prior FFS enrollment who had an average risk score of 1.25). Hence the change in risk-standardized spending relative to FFS stayers between the initial year and 2019 was generally correlated with the number of consecutive years in FFS. For example, the 2020 MA entrants with 13 years of prior FFS enrollment had a 6 percentage point increase in risk-standardized spending relative to FFS stayers, and entrants with 3 years of prior MA enrollment had

**TABLE
4-2**

Favorable selection resulted in substantially lower risk-standardized spending for MA enrollees in 2019

(Consecutive years in MA)
MA entrant year

MA entrant	(12+) 2008	(11) 2009	(10) 2010	(9) 2011	(8) 2012	(7) 2013	(6) 2014	(5) 2015	(4) 2016	(3) 2017	(2) 2018	(1) 2019
Spending relative to FFS stayers	77%	74%	75%	75%	75%	79%	79%	81%	85%	87%	94%	94%
Approximate change in selection percentage while in MA	+6%	+6%	+5%	+5%	+6%	+4%	+5%	+3%	+4%	+4%	+3%	0%
Selection percentage trended forward to 2019	83%	80%	80%	80%	81%	83%	84%	84%	89%	91%	97%	94%
Overall nonemployer plan spending relative to 2019 average (enrollment weighted)												86%
Overall MA plan spending relative to 2019 average (enrollment weighted)												89%

Note: MA (Medicare Advantage), FFS (fee-for-service). “MA entrants” are beneficiaries who switched from FFS to MA. “FFS stayers” are beneficiaries who remained in FFS. MA entrants who stayed in MA through 2019 are those with at least one month of MA enrollment in 2019. Spending reflects the year prior to MA entry and is risk adjusted. The analysis excludes beneficiaries without at least two full years of enrollment in FFS Part A and Part B prior to the year of MA entry as well as those who joined an employer plan or non-MA private plan (e.g., cost plan), elected hospice, had end-stage renal disease, had Medicare as a secondary payer, resided in multiple counties during the year, or resided in Puerto Rico (due to the relatively small number of FFS beneficiaries in that territory). The approximate change in relative risk-standardized spending is based on the historical experience of beneficiaries with continuous years of FFS enrollment before entering MA in 2020. This historical experience is used to trend forward the selection percentage of each MA entry cohort. The MA plan total includes employer plans and assumes that enrollment in those plans did not reflect any favorable selection. Estimates for 2008 are used for enrollees who entered MA prior to 2008. Totals may not sum due to rounding.

Source: MedPAC analysis of Medicare enrollment, Medicare claims spending, and risk-adjustment files, 2006–2020.

an increase of 3 percentage points (Table 4-1). These analyses show that the effects of favorable selection persist in the absence of any intervention from MA plans.

In 2019, favorable selection led to MA enrollees having 11 percent lower spending than FFS beneficiaries

To estimate the overall impact of favorable selection on spending for MA enrollees in 2019, we combined our estimates of favorable selection in the year prior to joining MA with estimates of the change in the level of favorable selection over time. Figure 4-7 (p. 173)

shows the estimates of risk-standardized spending relative to risk-standardized spending for FFS stayers in the year prior to joining MA for the 12 MA entry cohorts (2008 through 2019). These cohorts were continuously enrolled in MA through 2019. We trended these estimates of favorable selection using the cohorts of 2020 MA entrants’ change in risk-standardized spending relative to FFS stayers in Table 4-1. We matched initial favorable selection estimates by MA entry year cohort with the cohort of 2020 MA entrants based on years of consecutive FFS enrollment (Table 4-2). This matching uses the change in risk-adjusted FFS spending for 2020 MA entrants relative to FFS

Sensitivity analyses to address unobservable data and outliers

Our approach assumed that the effect of favorable selection for the Medicare Advantage (MA) entrants who were not in our study population—those with less than two full calendar years of prior fee-for-service (FFS) coverage—was the same as for the MA entrants who were in our study population. In our view, this assumption is conservative (i.e., it understates the degree of favorable selection effect for MA plans in payment benchmarks), for three reasons:

- We contend that MA entrants with less than two years of prior FFS coverage have *lower* risk-standardized spending, on average, than the beneficiaries in the study population. As a sensitivity analysis, we examined beneficiaries who joined MA in 2019 and had between one and two years of prior FFS enrollment (and thus had a full year of FFS spending in 2018). These beneficiaries did not have 2018 risk scores that included diagnostic information, so we instead calculated their risk-standardized spending in 2018 using their 2019 risk scores, which reflect diagnoses from 2018 and demographic information from 2019. We found that the effect of favorable selection was substantially greater for these beneficiaries than those who had at least two years of FFS enrollment before joining MA in 2019.¹² This finding is consistent with a study that used mortality as a proxy for MA favorable selection and found substantially more favorable selection among enrollees who elected MA during their first year of Medicare eligibility—differences that somewhat diminished but persisted after five years without considering the length of MA
- We contend that FFS stayers with less than two years of prior FFS coverage have higher risk-standardized spending, on average, than the beneficiaries in the comparison population. As a sensitivity analysis, we examined beneficiaries who had between one and two years of FFS coverage at the end of 2018 (and thus had a full year of FFS spending in 2018). We calculated their risk-standardized spending in 2018 using their 2019 risk scores—similar to the sensitivity analysis described above—and found that the average per capita spending was 7 percent higher for beneficiaries with only one full year of Medicare eligibility and FFS enrollment. This difference in risk-standardized spending occurred despite an average risk score that was 33 percent lower for FFS beneficiaries with only one full year of Medicare Part A and Part B coverage (indicating that their risk scores substantially underpredicted their actual costs). We used the same approach to analyze the spending of beneficiaries who were in FFS in 2018 but had been in MA in 2017 and found that those beneficiaries had average spending per capita that was 19 percent higher than our FFS comparison population.
- We contend that including beneficiaries who died (i.e., decedents) in 2019 would not markedly change our overall results and may slightly increase the effect of favorable selection. As a

(continued next page)

stayers as a proxy for the change in favorable selection for MA enrollees that would have occurred during their MA enrollment.

By taking the enrollment-weighted sum across all cohorts, we estimate that beneficiaries in nonemployer

MA plans have spending that is approximately 14 percent lower than the spending of beneficiaries in FFS with the same risk scores (i.e., their risk-standardized spending was 86 percent of the FFS stayer comparison population). In addition, our sensitivity analyses of the population which did not meet our inclusion criteria

Sensitivity analyses to address unobservable data and outliers (cont.)

sensitivity analysis, we compared the share of beneficiaries who died in FFS and MA in 2019.¹³ We found that the share of beneficiaries who died in FFS (3.8 percent) was slightly higher than in MA (3.2 percent). Thus, to the extent that beneficiaries who died have higher risk-standardized spending, including decedents in our analysis would have added a greater share of beneficiaries with high risk-standardized spending to the FFS comparator population than to the MA population—potentially increasing the effect of favorable selection in MA. In addition, research shows that high-spending beneficiaries disproportionately disenroll from MA plans back to FFS (especially during the last year of life) (Goldberg et al. 2017, Government Accountability Office 2021, Medicare Payment Advisory Commission 2018, Meyers et al. 2019, Rahman et al. 2015), which suggests that it is unlikely that MA decedents have higher risk-standardized spending than FFS decedents. We examined switching from 2018 to 2019 among decedents, and we found that decedents in MA had twice the rate of switching to FFS (6.2 percent) compared with FFS decedents who switched to MA (3.1 percent).¹⁴ Our sensitivity analyses on beneficiaries who died in 2019 suggest that including these beneficiaries in our analysis would not have had a marked impact on our overall results, but could have slightly increased our estimate of favorable selection in MA.

Further, we tested whether the change in favorable selection that was due to the length of MA enrollment (i.e., MA enrollment attrition) was driven exclusively by beneficiaries who died. We compared the cohort of 2016 MA entrants who stayed in MA through 2019 with FFS beneficiaries who remained

in FFS from 2016 through 2019 and found an increase in the initial effect of favorable selection (a selection percentage of 88 percent compared with 93 percent for the original 2016 cohort of MA entrants). This pattern persisted when comparing the subset of enrollees who remained in MA from 2010 through 2019 with a cohort of beneficiaries who remained in FFS from 2010 through 2019 (a selection percentage of 83 percent compared with 91 percent for the original 2010 cohort of MA entrants).¹⁵ These results indicate that the effect of length of MA enrollment on favorable selection was not driven exclusively by the exclusion of decedents from our analysis.

Moreover, we further tested our results for outliers by excluding long-term institutionalized (LTI) residents from both the reference year and the subsequent year. We found that the effect of favorable selection during the MA entry year was generally similar (no more than 2 percentage points higher in a given year; data not shown). When examining the non-LTI population of 2020 MA entrants, we found almost no change in risk-standardized spending during their prior years of FFS enrollment relative to non-LTI FFS stayers. For example, the 2020 non-LTI MA entrants with at least 13 consecutive years in FFS had a selection percentage that went from 89 percent to 90 percent during the 2008 to 2019 period. These results provide further evidence that the subsets of the FFS population who eventually join MA persistently have lower risk-standardized spending than beneficiaries remaining in FFS (even in the absence of any intervention from MA plans)—particularly for beneficiaries who are relatively healthy and reside in their community rather than in an institution. ■

(i.e., two prior years of FFS spending) indicate that including this population would not decrease our estimate of favorable selection. (See text box on our sensitivity analysis of unobservable data and outliers.) After including enrollees in employer plans, whose spending we assume does not reflect any favorable

selection because of the enrollment process of employer plans, we estimate that beneficiaries in MA plans have spending that is approximately 11 percent lower than the spending of beneficiaries in FFS with the same risk scores (i.e., their risk-standardized spending was 89 percent of the FFS stayer comparison

population). Thus, because beneficiary risk scores do not fully account for the differences between the FFS and MA populations, we estimate that MA benchmarks in 2019 were inflated by approximately 11 percent due to favorable selection alone.

Implications of substantial favorable selection in MA

Prior research has shown evidence of favorable selection in MA. Despite differences in analytic method and years evaluated, our analysis finds a generally similar magnitude of impact as in prior studies. However, our analysis provides new evidence that favorable selection in MA is likely to persist rather than fade to zero or “regress to the mean,” as has been posited by other researchers. First, our analysis of the prior FFS spending for 2020 MA entrants shows that lower risk-standardized spending is persistent over time in the years prior to MA entry. Although the effects of favorable selection are reduced over time, the rate of decline is slow, such that at the time of joining MA, beneficiaries still have lower risk-standardized spending than beneficiaries remaining in FFS. Second, enrollees who remain in MA longer have lower risk-standardized spending at the time of MA entry compared with those who leave MA. Enrollees who have more unfavorable (or less favorable) spending at the time of MA entry are likely to leave MA sooner, thereby bolstering the effects of favorable selection among remaining MA enrollees relative to FFS enrollees who never joined MA or previously left MA. Third, our analysis studied spending patterns over a much longer time period than other studies and found consistent evidence of favorable selection among MA entrants and consistent evidence that this effect was bolstered by MA leavers over the 12-year period of analysis. Given these consistent results, we conclude that the impact of favorable selection on MA spending relative to FFS is unlikely to change meaningfully in future years.

Finally, favorable selection among MA enrollees has implications for comparisons of MA to FFS spending. The Commission recently estimated that MA payments in 2023 will be 6 percent higher than FFS spending, primarily due to higher diagnostic coding intensity relative to coding in FFS (Medicare Payment Advisory Commission 2023). That estimate of MA overpayments would be substantially higher if we had accounted for favorable selection into MA. As we noted in our March

2023 report to the Congress, these overpayments to plans are financed by taxpayers and by all Medicare beneficiaries (including those in FFS) who help fund the MA program through Part B premiums. Our findings here underscore the need for a major overhaul of MA policies. Over the past few years, the Commission has made several recommendations to improve the program, including calling for the Congress to establish more equitable MA payment benchmarks. However, the level of favorable selection among MA enrollees reported here should raise concerns about the appropriateness of continuing to base MA benchmarks exclusively on Medicare FFS spending data. Alternative options for setting MA benchmarks should take into account the extent to which those options address favorable selection.

Declining FFS enrollment potentially compromises the accuracy of MA benchmarks

One benefit of the current MA payment system is that benchmarks are based on observed FFS spending and thus automatically adjust for many factors that affect Medicare spending, including new technologies and coverage decisions, changes in standards of care, and fluctuations in care-seeking behavior (e.g., reductions in the use of most services during the early months of the coronavirus pandemic).

However, with the growth in MA enrollment, there is increasing concern about whether the FFS population in each county continues to provide a reasonable basis for the MA benchmarks. To be clear, apart from favorable selection, we have not identified a problem with the way that FFS spending data are used to calculate MA benchmarks at this time, but problems could arise in the future if FFS enrollment continues to decline, such as if a county’s FFS population were not sufficient to provide reliable spending estimates.

Many counties now have very low FFS enrollment

The number of beneficiaries enrolled in FFS reached its peak in 2017 at 37.8 million (including those with only Part A or only Part B) and has been declining ever since—even as the overall number of Medicare

**TABLE
4-3**

Most counties have declining FFS enrollment, and many have relatively few FFS enrollees, May 2021 to May 2022

County FFS Medicare enrollment, May 2022	Share of counties in U.S.	Share of counties with declining FFS enrollment, 2021-2022	Share of overall FFS enrollment lost, 2021-2022
Less than 1,000	14%	82%	6%
1,001 to 2,000	16	93	6
2,001 to 3,000	15	94	6
3,001 or more	56	94	3

Note: FFS (fee-for-service). Table includes the 50 states and the District of Columbia but excludes Puerto Rico. Enrollment figures are limited to beneficiaries with both Part A and Part B coverage. To produce reliable estimates of FFS spending in counties with fewer than 1,000 FFS beneficiaries, CMS applies a "credibility adjustment" by blending FFS spending in those counties with FFS spending from other counties in the market area.

Source: MedPAC analysis of MA penetration files, May 2021 and May 2022.

beneficiaries increases. As of March 2023, there were 33.4 million FFS enrollees. As FFS enrollment declines, the number of FFS enrollees in some counties may not be large enough to produce accurate and stable spending estimates. To limit the influence of random variation and produce more stable FFS spending estimates, CMS averages county-level FFS spending using the most recent five years of available data and applies a "credibility adjustment" to counties with fewer than 1,000 FFS enrollees by blending FFS spending in those counties with FFS spending from other counties in the market area.¹⁶ For 2023, 436 counties, or about 14 percent of counties in the U.S., required a credibility adjustment. The number of counties requiring a credibility adjustment has increased in recent years, and we expect the number to grow, given the large number of counties with relatively low FFS enrollment and the loss of FFS enrollees between May 2021 and May 2022 for a vast majority of these counties. Table 4-3 shows that, as of May 2022, 14 percent of counties had fewer than 1,000 FFS enrollees, 16 percent had between 1,000 and 2,000 FFS enrollees, and 15 percent had between 2,000 and 3,000 FFS enrollees. Most of the counties with fewer than 3,000 FFS enrollees had declining FFS enrollment between May 2021 and May 2022, losing about 6 percent of FFS enrollment overall.

The credibility adjustment may effectively stabilize FFS spending in counties with few FFS enrollees, but the growing need for credibility adjustments indicates that a different method for establishing benchmarks may be needed in the future.

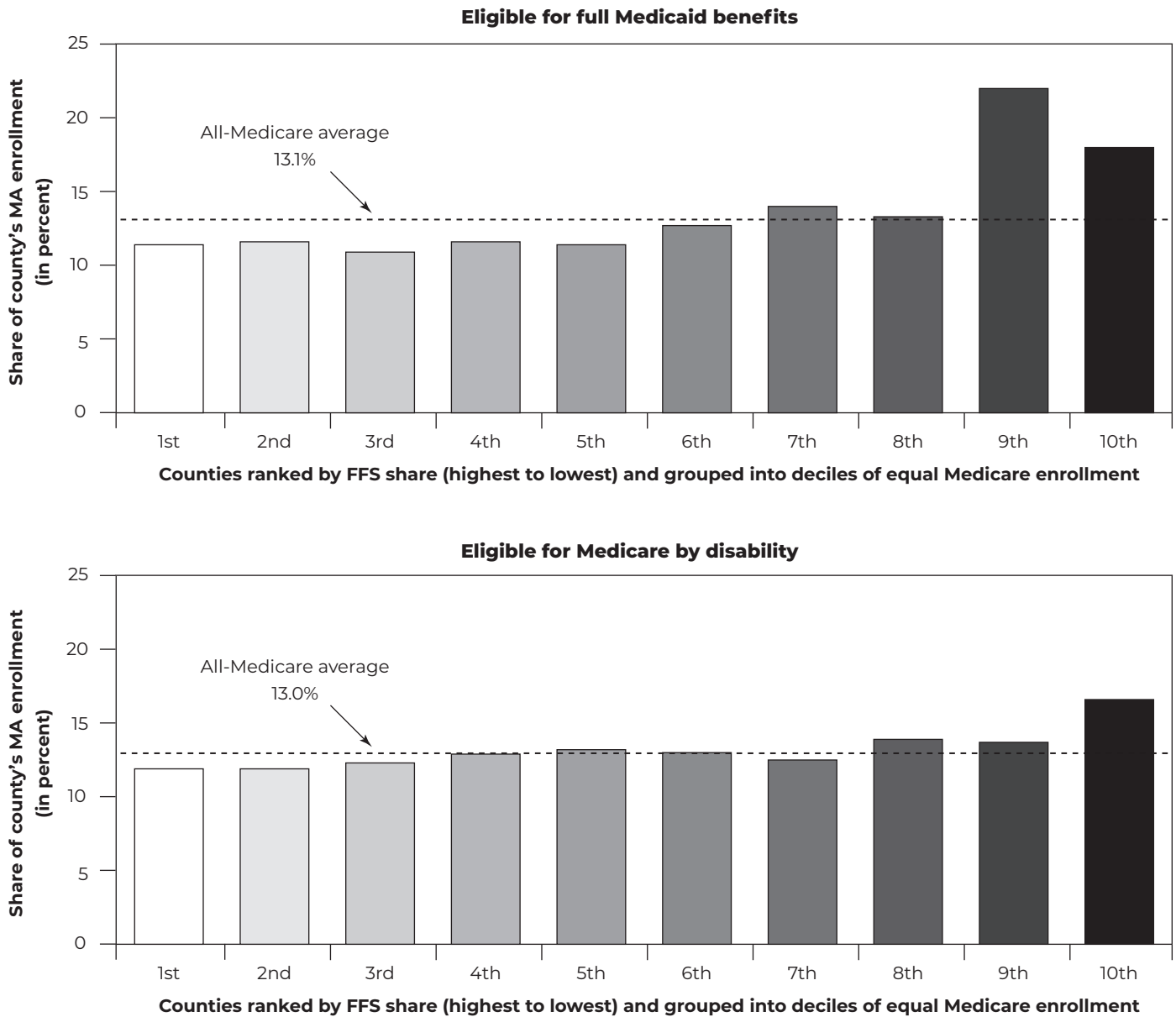
Changing FFS population characteristics

A second potential issue caused by declining FFS enrollment is the possibility that a county's FFS population will no longer be representative of overall Medicare enrollment (including MA). Figure 4-9 (p. 182) shows how the FFS population varies in counties with different levels of MA participation, specifically for two groups of beneficiaries: those who are eligible for full Medicaid benefits and those who have a disability (ages 64 and younger). Counties are ranked by the share of beneficiaries enrolled in MA and then grouped into deciles with roughly equal numbers of beneficiaries. The lighter bars have lower shares of beneficiaries enrolled in MA (i.e., have lower MA penetration), while the darker bars have higher shares of beneficiaries enrolled in MA (i.e., have higher MA penetration).

In counties with lower MA penetration (the first five deciles), a slightly smaller-than-average share of the FFS population is eligible for full Medicaid benefits; by contrast, counties with the highest MA penetration have a larger-than-average share of FFS beneficiaries

FIGURE 4-9

Share of FFS beneficiaries who are eligible for full Medicaid benefits and the share who have a disability somewhat correlate with share of a county's MA enrollment, 2020



Note: FFS (fee-for-service), MA (Medicare Advantage). Figures include the 50 states and the District of Columbia but exclude Puerto Rico. The national average rates of each characteristic for all Medicare beneficiaries are shown by the dashed line.

Source: MedPAC analysis of Medicare enrollment and risk score files, 2020.

who are eligible for full Medicaid benefits. In these high MA-penetration counties, benchmarks used to set payments for plans are based on a higher-than-average share of FFS beneficiaries who are eligible for full Medicaid benefits. A similar, though less strong,

tendency is seen with FFS beneficiaries who are eligible due to disability.¹⁷

The MA risk-adjustment system is designed to account for differing characteristics among Medicare populations, but risk adjustment may not account

for all relevant characteristics, allowing for biased FFS spending estimates. The potential for bias due to population characteristics may increase if MA and FFS Medicare enrollment patterns become more divergent.

Alternatives for determining MA payment rates

We have considered three options for determining MA payment rates that would be less reliant on FFS spending data. The first would use competitive bidding to determine MA benchmarks and payment rates. The other two would modify the current bid-and-benchmark framework to determine payment rates: One would base benchmarks on all Medicare spending in an area by combining FFS and MA spending data on an ongoing basis, and the other would set benchmarks at a point in time and then use a long-term spending forecast to establish an update factor for benchmarks.

Competitive bidding

The MA program currently sets plan payment rates using a combination of plan bids and benchmarks that are determined administratively and are based on FFS spending. If policymakers conclude that factors such as declining FFS enrollment and favorable selection in MA plans have made those benchmarks unreliable, an alternative approach would be to set plan payment rates using a competitive bidding system that does not use FFS-based benchmarks and instead relies entirely on plan bids (as is the case in Part D). The underlying assumption is that competitive bidding would generate more accurate payment rates (relative to MA costs) and have more potential to generate program savings.

Over the years, numerous proposals to use competitive bidding in MA have been offered from several sources: the USC-Brookings Schaeffer Initiative for Health Policy, the President's 2017 budget proposal, and the Bipartisan Policy Center (Bipartisan Policy Center 2013, Department of Health and Human Services 2016, Lieberman et al. 2018).

The concept also received serious consideration during the development of the Affordable Care Act (ACA) in 2009 and 2010; the original Senate version of the legislation included a competitive bidding system for MA, but the final version of the ACA dropped

the provision in favor of the current benchmark system. In the late 1990s, CMS (then known as the Health Care Financing Administration) made several attempts to conduct a demonstration that used competitive bidding, but it abandoned those efforts due to opposition from plans and other stakeholders (Medicare Payment Advisory Commission 2013).

The use of competitive bidding would be limited to MA plans and would not have any direct effect on the FFS program.¹⁸ As we use the term, competitive bidding is thus distinct from premium support, where the FFS program would be treated like a competing plan in the bidding system and the benchmark would determine the government's contribution toward the cost of both FFS and MA coverage.¹⁹

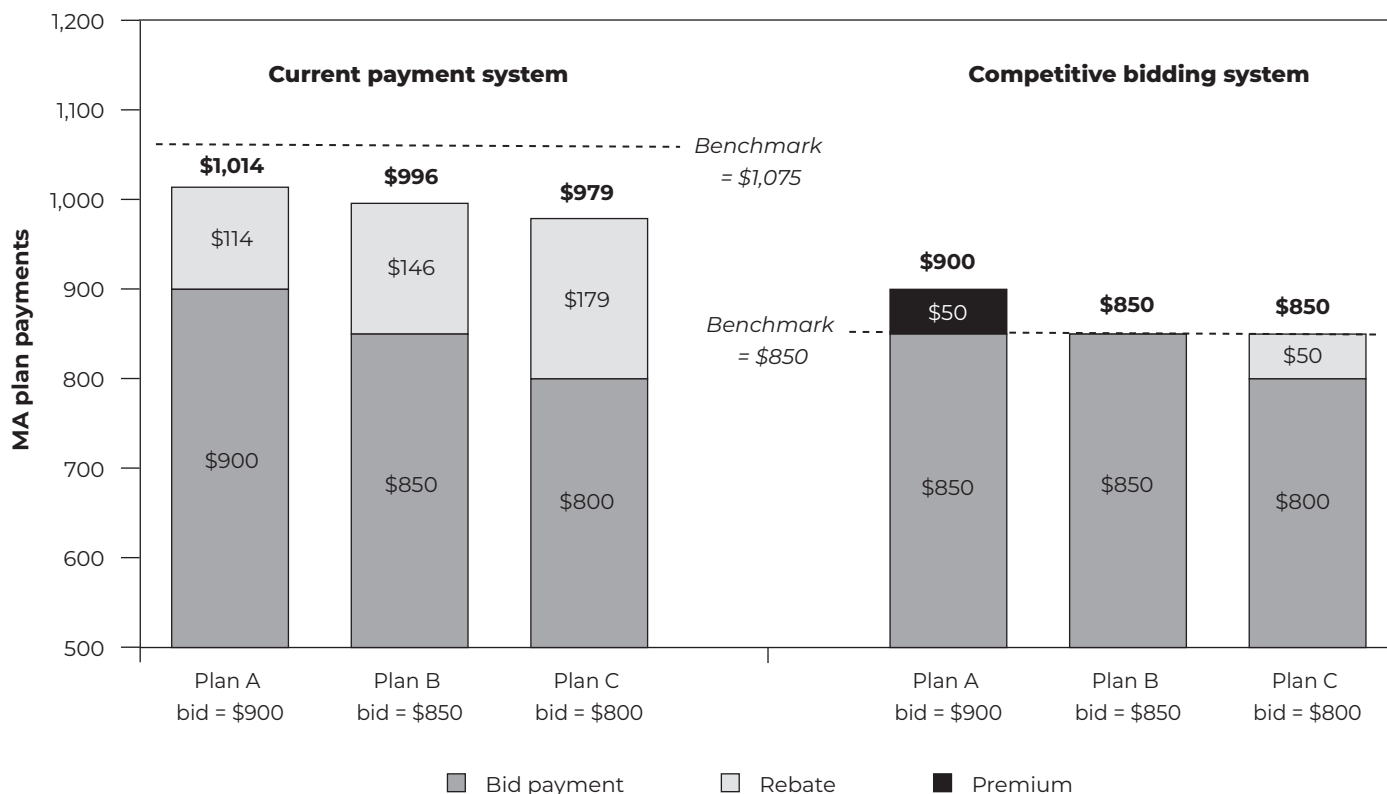
Figure 4-10 (p. 184) provides an illustrative example of how MA plan payments could change under competitive bidding. Under the current payment system shown on the left in the figure, CMS calculates the county's benchmark before plans submit their bids. Under this example:

- Local FFS spending is \$1,000 per month, which places the county in the 107.5 percent quartile, so its MA benchmark equals \$1,075.
- Three plans submit bids that range from \$900 to \$800, and each plan receives a rebate equal to 65 percent of the difference between the plan's bid and the benchmark. (Plans use these rebates to offer extra benefits and attract enrollment.)
- Once those rebates are taken into account, total Medicare payments to the plans range from \$1,014 for Plan A to \$979 for Plan C. Plans with higher bids have higher payment rates.

With competitive bidding, shown on the right in the figure, the benchmark would be determined by plan bids (similar to Part D) and would not be tied to the county's FFS costs. In our illustrative example, the benchmark would equal the enrollment-weighted average bid, or \$850. Like the current system, plans that bid above the benchmark would charge their enrollees a premium equal to the difference between the two, so Plan A's enrollees would pay a \$50 monthly premium. Plans that bid below the benchmark would receive rebates that, depending on the proposal, would be used to either lower enrollee premiums or

FIGURE 4-10

Illustrative example of how MA plan payments would change under a competitive bidding system



Note: MA (Medicare Advantage). All bids and benchmarks are risk adjusted to reflect a beneficiary of average health. Figure assumes that (1) rebates under the current benchmark system equal 65 percent of the difference between the benchmark and the bid (about the national average) and (2) rebates under competitive bidding equal 100 percent of the difference between the benchmark and the bid. Figure does not include any quality bonuses. Note that the vertical axis on the figure has been truncated to show greater detail.

provide extra benefits. In many proposals, the rebate formula would be changed so that plans receive the full difference between the benchmark and the bid (instead of just part of the difference) to give them stronger incentives to reduce their bids; under such a policy, Plan C would receive \$50 in rebates. Since Plan B's bid happens to equal the benchmark, the plan would not charge a premium or receive rebates. As a result, unlike under the current system, Medicare would pay each plan the same amount—the \$850 benchmark amount.

Most competitive bidding proposals have suggested using the enrollment-weighted average bid as the benchmark; the Part D program uses this approach

to calculate its national average bid. Other methods are also possible, such as using the lowest bid, the second-lowest bid (the approach used in the ACA's insurance exchanges), or the median bid. Compared with other methods, using the enrollment-weighted average would probably result in higher benchmarks and generate less program savings, but benchmarks would also be more stable—since they would reflect the experience of all plans in the market and enrollment patterns tend to change slowly—and thus would be less disruptive to beneficiaries and plans. The benchmarks would also tend to be similar to the bids by a market's large insurers, since their bids would be weighted more

heavily in the calculation. In contrast, using the lowest or second-lowest bid could allow a smaller insurer, such as a new entrant, to determine the benchmark.

One thing to note about competitive bidding is that, as with the current payment system, each MA plan is paid the full amount of its bid, which represents the plan's estimate of the revenue needed to provide the Part A and Part B benefit package and includes administrative costs and profits. (For plans that bid at or below the benchmark, the bid is paid entirely by Medicare; for plans that bid above the benchmark, the bid is paid partly by Medicare and partly by enrollee premiums.) As a result, while competitive bidding might reduce MA benchmarks and plan payment rates, those reductions would have little, if any, effect on enrollees' access to Part A and Part B benefits.

One advantage of competitive bidding is that it would lessen the impact of favorable selection and coding intensity on program spending. Under the current system, favorable selection and coding intensity both increase the risk-adjusted benchmarks for plans (since their risk scores are higher than they should be), which results in higher rebates and higher overall payments for MA plans. With competitive bidding, payments to plans would still be risk adjusted, but the starting point for those payments—the benchmarks—would be based on standardized bids (the plan's bid divided by its projected risk score). Under this approach, favorable selection and coding intensity would put downward pressure on benchmarks and plan payment rates because the standardized bids would decrease.

Challenges to using competitive bidding to set MA payment rates

The use of competitive bidding would pose some challenges. The bidding process would reduce the rebates that plans receive and plans' ability to offer extra benefits, which could make MA less attractive relative to traditional Medicare than it is now. In addition, under the current system, in which plans bid against a predetermined benchmark, plans know what their rebates will be when they submit their bid, so their bid can include information on the extra benefits they will offer. Much of this information is later used in plan marketing materials and on the Medicare Plan Finder website. With competitive bidding, plans would not know what their rebates would be until after CMS

had calculated the benchmark, so plan bids could not include much (if any) information about their extra benefits. Once the benchmark was set, plans would need to submit revised bids that indicated how they would use their rebates, an extra step that would make the MA bidding process more complex.²⁰

Many competitive bidding proposals address these challenges by requiring MA plans to be standardized in some fashion. For example, the USC-Brookings proposal would require all MA plans to offer a benefit package that has an actuarial value equal to 105 percent of FFS spending (i.e., the MA benefit package would be 5 percent richer than the FFS benefit package and plans would include this amount of extra benefits in their bids) (Lieberman et al. 2018). This type of standardization would make competitive bidding more workable administratively because plans would include a specific amount of extra benefits in their bids, thus avoiding the need for plans to submit revised bids after benchmarks have been set. In addition, requiring the standard MA benefit package to be richer than FFS would guard against the possibility that competitive bidding generates limited Medicare savings by reducing the extra benefits that MA plans offer to the point at which MA enrollees switch to FFS coverage.

In Chapter 3 of this report, we examine the possibility of standardizing benefits in MA plans using a framework under which plans use one of a limited number of benefit packages for Part A and Part B cost sharing, have a limited number of options for covering certain supplemental benefits (such as dental, vision, and hearing benefits), and have flexibility to determine their coverage of other benefits. This framework could potentially be used in a competitive bidding system, albeit with some adjustments. For example, the options for Part A and Part B cost sharing could reflect a certain level of actuarial value (with each option being more generous than FFS coverage) and an overall limit could be placed on the actuarial value of each plan's supplemental benefits (with plans having flexibility to decide which benefits to offer).

If plans submitted bids for a standard benefit package, the bidding process would determine each plan's premium. Plans that bid above the benchmark would charge an additional premium above the Part B premium, while plans that bid below the benchmark would provide a discount on the Part B premium.

The use of standardization in a competitive bidding system would thus offer a way to promote price competition because beneficiaries could compare plans on an apples-to-apples basis (since each plan would offer a similar benefit package) and any differences in plans' relative efficiency would be reflected in their premiums.²¹ Since a certain amount of extra benefits would be built into the standard MA package, all plans that bid at or below the benchmark would offer extra benefits that beneficiaries would receive without paying any additional premium, which would help ensure that MA plans remained an attractive option relative to FFS. Some plans that bid above the benchmark could also be attractive to beneficiaries if their premiums were reasonable compared with the value of the extra benefits and lower than the premiums for other forms of supplemental coverage, such as Medigap policies.

Another challenge is uncertainty about how plans would react under a competitive bidding system. Several studies, which examined how MA plans responded to previous changes to their benchmarks (Cabral et al. 2018, Pelech and Song 2018, Song et al. 2013), have found that:

- Plans have some degree of market power and do not submit bids that reflect the true cost of providing the Part A and Part B benefit package. As a result, plans raised their bids when benchmarks were increased and lowered them when benchmarks were decreased. The change in plan bids equaled about 50 percent of the change in benchmarks—that is, increasing benchmarks by \$1 led plans to raise their bids by about 50 cents, and decreasing benchmarks by \$1 led plans to lower their bids by about 50 cents.
- Only a portion of earlier changes in MA benchmarks was ultimately passed through to plan enrollees in the form of higher or lower levels of extra benefits. For example, if benchmarks were increased by \$1 and a plan with a 4-star rating raised its bid by 50 cents (but still bid below the benchmark), then the plan's rebates would increase by only 35 cents.
- Plans in more competitive markets are forced to bid closer to the true costs of providing the Part A and Part B benefit package; as a result, their bids

changed less in response to benchmark changes. Thus, the effects of payment changes in more competitive markets were more likely to be passed through to MA enrollees.

A major limitation of these studies is that they examined payment changes in settings where MA plans bid against predetermined benchmarks; plans might respond differently under a competitive bidding system in which benchmarks were a function of plan bids. Nonetheless, it seems reasonable to conclude that plan bids would change under competitive bidding and that efforts to use existing bids to model the effects of competitive bidding would need to be viewed with caution. (In this sense, the illustrative example in Figure 4-10, p. 184, which holds plan bids constant, is unrealistic.) The changes in plan bids could also be larger in less competitive markets, where plans have more market power and face less pressure to submit bids that reflect their true costs.

Even with changes in bidding behavior, many plans that now have relatively high bids would be more likely to charge premiums under competitive bidding and could find themselves at a disadvantage. (For example, if the benchmark equaled the enrollment-weighted average bid, roughly half of plans would charge premiums.) One potential consequence is that enrollment in HMOs could increase at the expense of PPOs, which have grown more rapidly than HMOs in recent years but also tend to have higher bids.

One particular concern about using competitive bidding is the MA market's high level of concentration. In highly concentrated markets, plans face less competition and might submit bids that are actually higher than their current bids, resulting in relatively low program savings and, at least in some areas, potentially higher spending. These outcomes could become more likely if the MA market became more consolidated in the future—for example, through mergers and acquisitions. However, since 2018, the average market shares for the largest MA organizations (measured at the county level) have declined modestly, indicating that the market has become somewhat less concentrated. In addition, the vast majority of beneficiaries (95 percent) now live in counties served by four or more MA organizations, which appears large enough to ensure a sufficient level of competition. Nonetheless, policymakers could address these

concerns by requiring benchmarks under competitive bidding to be lower than a predetermined ceiling amount that is based on current benchmarks or plan payment rates.

Another concern about competitive bidding is beneficiaries' willingness to compare and switch plans. The process of comparing plans is complex because plans differ in many dimensions, such as premiums, extra benefits, provider networks, and drug formularies. One consequence is that the share of beneficiaries who switch plans in a given year is relatively low (although, as noted earlier, the share of beneficiaries who switch plans over longer periods of time is much higher). If relatively few beneficiaries are willing to switch to plans with lower premiums, plans will have weaker incentives to bid competitively. The use of standardized benefits could make it easier for beneficiaries to compare plans and lead to more price competition, but the process of comparing plans would remain challenging and (as with the current system) there would likely be a significant number of beneficiaries who would not be enrolled in the plan that best met their needs.

Benchmarks based on all Medicare spending

A second approach to setting benchmarks would be to base them on spending for the entire Medicare population, including those enrolled in MA. A benchmark alternative that blends average local area FFS and MA spending would strive to closely reflect the market average spending for providing Part A and Part B services for all Medicare beneficiaries. This approach would keep the same bidding and benchmark infrastructure that exists under current policy with little added administrative burden for CMS or for MA plans. This approach would require the calculation of an FFS rate and an MA rate in each local area—both of which would use existing data and processes.

Spending for the FFS population would continue to be estimated as it is now. MA encounter data would be used to estimate spending on Part A and Part B services for plan enrollees (encounter data contain similar information as FFS claims, but the records are not adjudicated for payment), and MA bids would be used to estimate plan administrative expenses and profits. Currently, encounter data do not contain complete cost information (plans are not required to

submit information about payments to providers for encounters occurring under a capitated arrangement), and we have found that plans do not submit encounter data for all items and services as required.²² However, FFS payment rates could be applied to all MA records to approximate cost information for all MA enrollees, although this would involve a considerable amount of effort. Although our analysis shows that encounter data completeness is improving slowly, using encounter data to establish MA benchmarks would provide a significantly better incentive than existing ones for plans to improve the completeness of encounter data submitted to CMS.

In the absence of complete MA encounter data, we developed a simulation of benchmarks based on all Medicare spending using Part A and Part B service spending from MA plan bids, as MA bids are based on actual plan experience from the prior year and are projected forward to the payment year.²³ This approach, shown in Figure 4-11 (p. 188), uses data that are currently available, allowing us to simulate benchmarks based on all Medicare spending.

Simulating benchmarks based on all Medicare spending

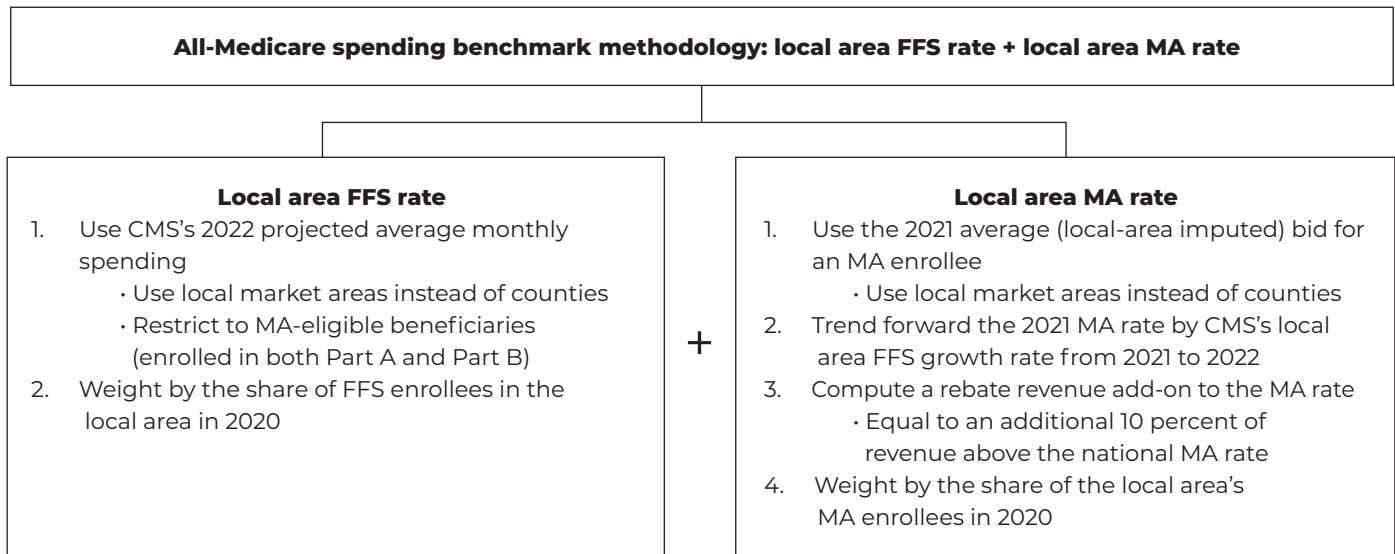
The key components of an all-Medicare spending benchmark would be:

- local area FFS spending,
- the local area average MA bid,
- a local area FFS growth factor to trend the bids forward,
- a rebate revenue add-on for the MA bids, and
- weights for MA and FFS spending in the local area.²⁴

Local area FFS spending As shown in Figure 4-11 (p. 188), in our illustrative methodology, the calculation of local area FFS spending is nearly the same as CMS's current calculation of FFS spending. One key difference would be that—consistent with the Commission's prior recommendations—only the MA-eligible population (those enrolled in both Part A and Part B) is used in the calculation of FFS spending. A second key difference is that local market areas, rather than counties, are used as the payment areas for benchmarks (consistent

**FIGURE
4-11**

Illustrative methodology for calculating 2022 benchmarks that are based on all Medicare spending



Note: FFS (fee-for-service), MA (Medicare Advantage). This alternative benchmark approach would use MA encounter data to estimate spending on Part A and Part B services for plan enrollees and MA bids to estimate plan administrative expenses and profits. However, in the absence of complete MA encounter data, we simulated the benchmark option by using MA bid information to estimate spending on Part A and Part B services, plan administrative expenses, and profits.

Source: MedPAC.

with the Commission's prior recommendations to establish larger geographic areas for payment to MA plans). These local market areas aggregate counties within each state according to metropolitan statistical areas for urban counties and health service areas (as defined by the National Center for Health Statistics) for nonurban counties. To simulate benchmarks based on all Medicare spending for 2022, we adjusted CMS's 2022 county rates by a local factor that accounts for spending differences for the population with both Part A and Part B coverage. We aggregated this spending to the market level.

Local area average MA bid While MA plans bid on service areas that often include more than one county, each plan bid includes an imputed county-level bid based on the difference in county rates and the enrollment assumptions in the bid. These data allow CMS to calculate the risk-standardized bid in each county for that county's average MA enrollee. These county-level bid data are used to prospectively

calculate county-level payment rates in the subsequent year for employer plans. In our simulation of all-Medicare spending benchmarks, we used county-level bid data in 2021 and aggregated county-level averages to the local market level.

Local area FFS growth factor We trended forward the 2021 local area average bid by CMS's projected growth rate in local area FFS spending from 2021 to 2022. Using prior-year bids and trending forward with the FFS spending growth rate would enable plans to be rewarded for having lower spending growth than FFS spending trends. However, the closer that the trend factor is tied to FFS growth, the more likely it is to include favorable selection for MA plans. One way to account for favorable selection would be to intentionally set the trend factor lower than FFS spending growth. Another way would be to use a two-year rather than one-year lag in bids. A two-year lag would generate benchmarks that are less reflective of actual Medicare spending but would give MA plans

additional opportunities to be rewarded for efficiency gains relative to FFS spending growth trends.

Rebate revenue add-on As with competitive bidding, basing benchmarks on MA bids—even in part—could significantly reduce the rebates that plans use to provide extra benefits for their enrollees. MA plans rely on some level of funding above their bids to attract beneficiaries who otherwise would be covered under FFS and who typically purchase supplemental Medigap coverage. Thus, a key policy decision would be to determine the amount of rebate revenue to be added to the MA portion of the benchmark. Between 2016 and 2022, rebates have dramatically increased, from an average of 9 percent to 18 percent of plan bids.²⁵ We simulated all-Medicare benchmarks using the amount of rebate revenue that would have provided an additional 10 percent of revenue above the national MA bid.²⁶ However, given the substantial level of MA favorable selection and coding intensity, policymakers could consider a lower percentage of additional revenue. In addition, rather than applying a specific percentage add-on to each local area, we applied a revenue dollar amount add-on using the national bid average to increase rebate revenues in low-spending areas (where Medicare premiums do not typically reflect the lower wages).

Local area spending weights for FFS and MA After the FFS and MA rates are computed for each local area, weights must be given to each rate that reflect the share of beneficiaries in each program within the area. A downside of this approach is that it retains some degree of favorable selection in MA, depending on the share of FFS enrollees in Medicare. To calculate the share of beneficiaries in each program for our simulation weights, we used 2020 enrollment data because 2021 enrollment data were incomplete at the time when 2022 MA rates were set. We excluded beneficiaries in private plans that do not submit bids (employer plans, cost plans, PACE plans, and Medicare-Medicaid plans). We also excluded beneficiaries who did not have both Part A and Part B coverage.

Simulations of benchmarks based on all Medicare spending show an overall reduction in benchmarks, with plan bids remaining below the (lower) simulated benchmarks

After simulating 2022 plan benchmarks using an all-Medicare spending approach, we compared

simulated benchmarks with CMS's 2022 projection of FFS spending and 2022 actual plan bids. We measured simulated benchmarks as a percentage of CMS's projected local area FFS spending. On average nationally, simulated benchmark levels were 100 percent of projected FFS spending in 2022—8 percentage points lower than the actual 2022 benchmarks, which were 108 percent of projected FFS spending. In addition, we found that simulated benchmarks were largely clustered around their projected local FFS spending but were somewhat higher relative to FFS in low-spending areas (Figure 4-12, p. 190). Half of MA markets had benchmarks between 99 percent and 101 percent of projected FFS spending. The lowest benchmark was 85 percent of its projected local area FFS spending, and the highest benchmark was 113 percent of its projected local area FFS spending.

Because the MA program relies on plans' ability to bid below benchmarks, we measured actual 2022 plan bids as a percentage of our simulated benchmarks. On average nationally, plan bids were 86 percent of simulated benchmarks (compared with 79 percent of benchmarks under current policy). In all MA markets, the enrollment-weighted average plan bid was lower than the simulated benchmark (Figure 4-13, p. 191). In nearly all markets, the enrollment-weighted average plan bid was more than 5 percent below their simulated benchmark. These results indicate that benchmarks based on all Medicare spending would likely provide a viable alternative for MA plans while reducing Medicare spending at current bid levels (through a reduction in plan rebates). Further, while our simulations assume no change in bidding behavior relative to 2022 levels, at least some plans would likely respond to lower benchmarks with lower bids (Congressional Budget Office 2018, Song et al. 2013).^{27,28,29}

Advantages and disadvantages of basing benchmarks on all Medicare spending

In contrast to competitive bidding, the benchmark approach using all Medicare spending would incorporate MA spending information while still giving plans a prospectively set benchmark to bid against. In addition, since most plans bid below their local area FFS spending level, they would likely bid below their benchmark under this approach as well—even for those somewhat less efficient plans relative to other plans. Further, using prior-year average bids and

**FIGURE
4-12**

**Simulated MA benchmarks using an all-Medicare approach
were clustered around their projected local area FFS spending**



Note: MA (Medicare Advantage), FFS (fee-for-service). Each circle in the figure reflects a local market area. Metropolitan counties are grouped into a local market area if they are located in the same state and the same metropolitan statistical area. Nonmetropolitan counties are grouped into a local market area if they are located in the same state and the same health service area as defined by the National Center for Health Statistics. The figure includes 941 markets and excludes markets that did not have at least 1,000 MA enrollees and 10 percent of all beneficiaries enrolled in MA in 2020. Average MA bids by market area are weighted by projected plan enrollment in the market. While plans bid at a service area level that often includes multiple counties, MA bid data contained an imputed bid value at the county level that we aggregated to the market level.

Source: MedPAC analysis of Medicare enrollment and MA bid data, 2020–2022.

trending them forward by the projected increase in FFS spending allows plans to be rewarded for keeping their spending growth lower than FFS trends.

A benchmark approach that uses all Medicare spending could be desirable if policymakers wanted to move away from FFS-based benchmarks but keep the current MA bidding and benchmark infrastructure. Simulations of this approach suggest that MA plans would continue to bid below their benchmarks, which would preserve MA as an affordable option for beneficiaries compared with FFS Medicare. In addition, benchmarks would more closely reflect Medicare's per capita spending in a local market area. As the FFS population in a local area decreased, the benchmark would more closely rely on

spending for the area's MA population. Further, if FFS spending increasingly diverged from an area's average plan bid, policymakers could lower the rebate add-on from the MA portion of the benchmark.

One concern with this approach is that, to the extent that it relies on the FFS population, it would continue incorporating the effects of favorable selection into MA benchmarks. A second potential concern about basing benchmarks on all Medicare spending, as with competitive bidding, is the high level of concentration in the MA market. For example, if a majority of a market's Medicare population is enrolled in plans offered by one MA organization, that organization (or a small number of MA organizations) could have

**FIGURE
4-13**

2022 plan bids were generally much lower than simulated MA benchmarks using an all-Medicare approach



Note: MA (Medicare Advantage), FFS (fee-for-service). Each circle in the figure reflects a local market area. Metropolitan counties are grouped into a local market area if they are located in the same state and the same metropolitan statistical area. Nonmetropolitan counties are grouped into a local market area if they are located in the same state and the same health service area as defined by the National Center for Health Statistics. The figure includes 941 markets and excludes markets that did not have at least 1,000 MA enrollees and 10 percent MA share of enrollees in 2020. Average MA bids by market area are weighted by projected plan enrollment in the market. While plans bid at a service area level that often includes multiple counties, MA bid data contained an imputed bid value at the county level that we aggregated to the market level.

Source: MedPAC analysis of Medicare enrollment and MA bid data, 2020–2022.

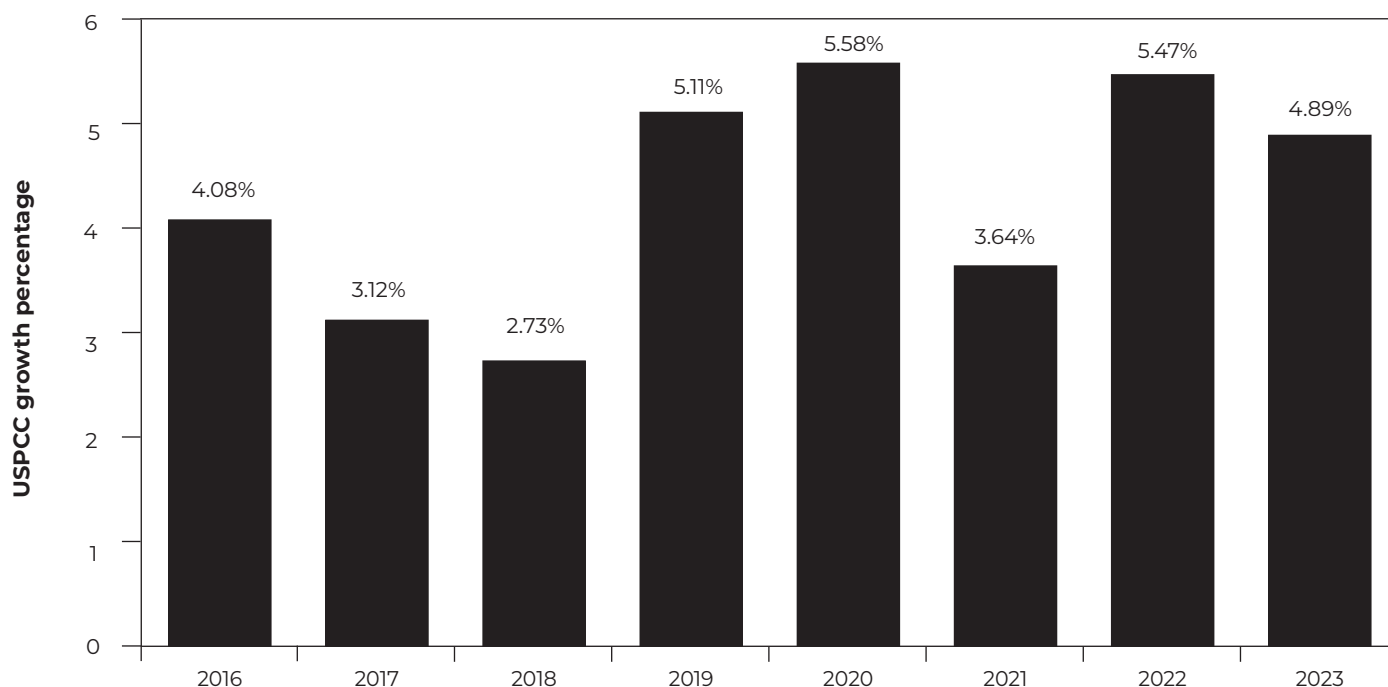
a large influence on a market's MA benchmark. This concern could be addressed by capping the weight of any individual MA organization in a market (e.g., cap at 50 percent) or capping the weight of the two largest MA organizations (e.g., cap at 75 percent). An alternative approach would be to cap benchmarks at what they would be under a blended approach (50/50 local/national FFS), as described in the Commission's June 2021 recommendation to rebalance MA benchmarks. The calculation of this cap would not add administrative burden because it would use the FFS projections that CMS relies on to calculate benchmarks under current policy. In addition, relative to local FFS spending, this cap would allow benchmarks to be

higher in low-FFS-spending areas (where plan bids are relatively higher) and lower in high-FFS-spending areas (where plan bids are relatively lower).

A benchmark approach that used all Medicare spending could be preferable if policymakers wanted to move away from FFS-based benchmarks but keep the current MA bidding and benchmark infrastructure. Simulations of this approach suggest that MA plans would continue to bid below their benchmarks, which would continue to make MA an affordable option for beneficiaries compared with FFS Medicare. In addition, benchmarks would more closely reflect a local market area's Medicare per capita spending. As the FFS population

**FIGURE
4-14**

USPCC growth percentages used for MA benchmarks, payment years 2016–2023



Note: USPCC (U.S. per capita cost), MA (Medicare Advantage). The USPCC is the national average non-end-stage renal disease fee-for-service cost projected for each payment year. The growth percentage is the increase in the projected USPCC for a payment year relative to the projected USPCC for the prior payment year.

Source: CMS annual announcement of MA payment rates, 2016–2023.

in a local area decreased, the benchmark would more closely rely on spending for the area’s MA population. Further, if FFS spending increasingly diverged from an area’s MA spending, policymakers could lower the rebate add-on from the MA portion of the benchmark.

Establishing MA benchmarks with a fixed growth rate

A third approach to benchmark setting would be to set benchmarks using a fixed growth rate. Currently, MA benchmarks are established in the April prior to a given payment year so that MA plan sponsors have the information to prepare bids. Therefore, the county-level FFS spending estimates used in MA benchmarks are projections of what FFS spending will be in each county for the payment year.³⁰ For example, MA benchmarks for 2023 (based on projected spending for

that year) were published in April 2022. The current method of calculating county-level FFS spending for MA benchmarks is the product of two factors: the national FFS per capita cost, also called the U.S. per capita cost (USPCC), and a county-level geographic index called the average geographic adjustment (AGA).

The USPCC includes FFS spending on all Part A and Part B services (except hospice services and kidney acquisition costs) as well as all shared savings and losses paid to FFS providers through the Medicare Shared Savings Program, Innovation Center models, and demonstration programs. The USPCC is projected for the payment year based on the most recent program experience and accounts for various trends, including unit cost changes, utilization and intensity of services, changes in population mix, and changes in Medicare coverage due to legislation, regulation, or

**TABLE
4-4**

Components of per beneficiary annual percentage change in projected Medicare spending

	Medicare prices	Volume and intensity	Beneficiary demographic mix	Per beneficiary total change
2022–2031	1.8%	3.6%	–0.1%	5.3%
2032–2046	2.3	2.1	0.2	4.6
2047–2096	2.2	1.4	–0.1	3.5

Note: Percentage change values combine the CMS Office of the Actuary’s (OACT’s) Part A and Part B projections by assuming the current distribution of about 45 percent Part A and 55 percent Part B spending. OACT’s projection for Medicare spending growth related to an increase in the number of beneficiaries has been excluded from the total to generate a per beneficiary growth rate. The total change is defined as the sum of the following three components as reported in the Trustees report: Medicare prices, volume and intensity, and beneficiary demographic mix. Totals may not sum due to rounding.

Source: MedPAC analysis of Medicare Trustees report, 2022.

national coverage decisions. CMS reports the annual “growth percentage,” which is the increase in the projected USPCC relative to the prior year’s projection. The growth percentage is like an “update factor” for payments to MA plans.³¹ Figure 4-14 shows the USPCC growth percentages for 2016 through 2023.

To calculate the AGA, CMS uses each county’s average FFS spending based on five years of historical claims data, which have been price standardized by applying the most recent FFS pricing policies to all five years of historical claims data. Then the average FFS spending for each county is divided by the national average FFS spending to create an index. Each county’s AGA is the average index across the five years. Each year, CMS updates the five-year basis for the AGA by one year. For 2023, CMS used claims from 2016 to 2020 to estimate the AGA. Finally, AGA factors are adjusted to remove payments for indirect medical education, graduate medical education, and kidney acquisition costs, which are carved out of MA benchmarks, and to account for services covered by the Department of Veterans Affairs or the Department of Defense.

Setting a base benchmark

Before a fixed growth rate can be applied, a base benchmark amount must be determined. The Commission’s analysis shows that existing benchmarks are too high overall and vary considerably across the

country (Medicare Payment Advisory Commission 2021a). One way to avoid this problem would be to use the Commission’s recommendation for revised benchmarks, which blends county and national FFS spending and incorporates a discount factor to establish initial benchmarks under this approach. Determining the appropriate discount factor would be important because if the base benchmarks are too high or too low, an optimally set fixed growth rate would carry forward those errors in perpetuity.

Determining the fixed growth rate

The alternative benchmark options discussed in this section would replace the USPCC projection with another growth rate. The AGA would continue to function as it currently operates.

One option for an alternative growth rate would base its rate on projections by the CMS Office of the Actuary (OACT). OACT projects Part A and Part B Medicare spending growth based on four component trends: volume and intensity, beneficiary demographic mix, prices, and number of beneficiaries. For our purposes, we combined OACT’s Part A and Part B projections into one overall growth rate using the current distribution of about 45 percent Part A and 55 percent Part B spending. Table 4-4 shows OACT’s projections for 2022 to 2031, 2032 to 2046, and 2047 to 2096.

For MA benchmarks, one alternative growth rate could be the combination of changes in Medicare prices, volume and intensity, and beneficiary demographic mix.³² Although MA plans negotiate prices with providers, for most services MA plans pay approximately FFS Medicare rates on average.³³ Because out-of-network payments to providers are capped at the FFS Medicare rate, a strong link between provider payment rates from MA plans (on average) and from FFS Medicare would likely be maintained for many services. Volume and intensity, on the other hand, is a component for which MA plans have had success in constraining costs overall. To convert OACT's projections into a fixed growth rate, policymakers could apply a discount factor to either Medicare prices, volume and intensity, or both. As an example, policymakers could set a fixed growth rate using a 50 percent discount on volume and intensity:

Medicare prices + (50% × volume and intensity) + beneficiary demographic mix

Using this discount factor, over the periods from 2022 to 2031 and 2023 to 2046, the fixed annual growth rate would be about 3.5 percent, after which it would decline to 2.8 percent for 2047 through 2096.

The use of discount factors is a necessary component of this approach. Without a discount factor, the growth rate from 2022 through 2031 would be 5.3 percent, which is among the larger annual increases resulting from the current USPCC method shown in Figure 4-14 (p. 192). One concern about relying on OACT's projections is that the actual (in contrast to the projected) FFS Medicare volume and intensity trend is about 1 percent per year, considerably lower than OACT's projections. Using the Commission's estimate of a 1 percent annual increase in FFS volume and intensity with a 50 percent discount factor, the MA benchmark growth rate would be about 2.2 percent (that is, $1.8 + (0.5 \times 1.0) - 0.1$).

A second option would be to determine the fixed growth rate using U.S. gross domestic product (GDP), which is the total value of all final goods and services produced in the country over a specified time period. The Congressional Budget Office projects that U.S. real GDP (GDP adjusted for changes in prices) will increase by 1.2 percent annually from 2024 to 2025 and by 1.6 percent annually from 2026 to 2031 (Congressional Budget Office 2021). To use real GDP in a fixed growth

rate for MA benchmarks, the easiest approach would be to start with growth in Medicare prices and add the projected real GDP growth rate plus or minus an adjustment factor. For example, Medicare price growth of 1.8 percent plus 1.1 percent (1.6 percent real GDP growth rate minus 0.5 percent adjustment factor) would produce a 2.9 percent fixed growth rate. Picking a rate relative to GDP is relatively simple, but because GDP is not closely linked to Medicare spending, there is no guarantee that a GDP-based fixed rate will continue to be a reasonable rate in the future, thus creating greater potential for the need to adjust the fixed growth rate.

Adjusting the fixed growth rate

Replacing the USPCC growth percentage with a fixed growth rate would be relatively simple to implement. However, switching from an empirically based benchmark to one with annual updates that are independent from Medicare spending creates a new problem: how to adjust for unanticipated factors that influence medical spending. By setting payment rates relative to FFS-based parameters, payments to MA plans are insulated from shocks to Medicare spending as benchmarks automatically adjust for new technologies and coverage decisions, changes in standards of care, and fluctuations in care-seeking behavior.³⁴

In contrast, the defining features of a fixed growth rate system are that the growth rate is set in advance and is independent of current Medicare spending. Without a connection to Medicare spending and the spending shocks that could arise, policymakers must (1) regularly assess whether payments to MA plans are adequate and, if not, (2) determine how to adjust the fixed growth rate. If payments are too high or too low, adjusting the fixed growth rate would be relatively easy, but more thought would be needed to identify an appropriate trigger for overriding the existing fixed growth rate.

In FFS Medicare, annual payment rate updates are empirically based and generally defined in law. The Commission annually assesses payment adequacy in each FFS sector through a consistent framework and set of metrics, but the decision to recommend a payment rate update that is different from the empirically determined update is based on the judgment of the Commission. In examining FFS Medicare, the Commission considers provider

financial performance (e.g., margins), the number of providers participating in Medicare, providers' access to capital, and other factors. Applying these metrics to MA is possible, but judgment would still be required. Policymakers could assess MA plan margins from bid data, but these margins are becoming less informative as plan sponsors employ more physician groups and generate contracting relationships through their venture capital projects. The number of plan sponsors operating or the number of plans available in a market is easily known, but how would policymakers define an adequate number of sponsors and plan options in each market? Other criteria could include the generosity of extra benefits. A final key difference with the Commission's assessment of payment adequacy in FFS Medicare is that the default rate updates are empirically justified. The annual update for FFS

payment systems is calculated based on updating spending for a defined market basket, calculating a productivity adjustment, and making other adjustments based on quantitative estimation. In contrast, a fixed growth rate system, without an empirical basis, is likely to be more vulnerable to political influence.

Vulnerability to favorable selection

Whether favorable selection in MA would continue under this approach depends on how the base benchmarks would be determined. If they were based on FFS spending, adjusting the spending estimates to remove favorable selection would be important before establishing the base benchmarks. As noted earlier, if the base benchmarks were set too high or too low, a fixed growth rate would carry these errors forward in perpetuity. ■

Endnotes

- 1 MA plans are also required to offer a limit on out-of-pocket costs, and the coverage for that benefit is included in plans' bids.
- 2 The MA program in Puerto Rico differs from the rest of the U.S. in a number of ways. For example, MA benchmarks in Puerto Rico are based on FFS beneficiaries with Part A and Part B, are adjusted for a higher share of FFS beneficiaries with no Medicare spending, and are inflated by Medicare's method of distributing disproportionate share hospital payments in FFS Medicare. In addition, the vast majority of counties in Puerto Rico have benchmarks that are based on FFS spending data that have been blended with FFS spending data from surrounding counties because the number of FFS beneficiaries in the county is below 1,000.
- 3 Plans with higher quality ratings (a rating of 4 or more stars) are rewarded with a higher benchmark.
- 4 Plans may also choose to include additional supplemental benefits that are not financed by the rebate in their benefit packages and charge premiums to cover those additional benefits.
- 5 Because plans are paid based on the risk profile of individual enrollees, plans are still incentivized to enroll beneficiaries who have above-average spending such as beneficiaries who are dually eligible for Medicaid. In fact, plans that exclusively enroll dual-eligible beneficiaries (i.e., dual-eligible special needs plans) consistently report higher profit margins relative to conventional MA plans (Medicare Payment Advisory Commission 2023, Medicare Payment Advisory Commission 2022b, Medicare Payment Advisory Commission 2021b, Medicare Payment Advisory Commission 2020b).
- 6 MA plans can also encourage enrollment by offering extra benefits beyond the standard Medicare benefit package. Popular benefits include integrated Part D coverage for no additional premium, gym memberships, and worldwide emergency and urgent care coverage. However, some supplemental benefits (e.g., worldwide emergency and urgent care coverage) are only or disproportionately attractive to relatively healthy beneficiaries, which may contribute to favorable selection in MA plans. These benefits can serve as a signaling mechanism to indicate the type of beneficiary the plan is trying to attract.
- 7 MA entrants do not include beneficiaries with either ESRD or Medicare as a secondary payer.
- 8 In 2009, 16 percent of MA enrollment growth was in PFFS plans. The number of enrollees in PFFS plans has decreased in every subsequent year.
- 9 Restricting our analysis to counties with at least 1,000 MA entrants, we found that counties in the highest quintile of MA penetration had a median favorable selection of 7 percentage points; counties in the lowest quintile of MA penetration had a median favorable selection of 9 percentage points. In addition, the coefficient of correlation between MA market penetration and the estimated effect of favorable selection for 2020 MA entrants was statistically significant.
- 10 One study approximated regression to the mean of mortality rates after the initial year in MA, but the authors noted that this method could not account for the effect of continuous enrollment in MA (Newhouse et al. 2019).
- 11 If the FFS population used for county benchmarks changes only incrementally from year to year (e.g., some beneficiaries die while other individuals become newly eligible), the cohort of MA entrants in a particular year would get older and develop more chronic conditions over time (i.e., the constant MA entry cohort in a particular year would not gain new entrants).
- 12 MA entrants who had only one full year of eligibility and one prior year in FFS (i.e., nearly newly eligible) had risk-standardized spending that was 85 percent of those who stayed in FFS. In comparison, all 2019 MA entrants had spending that was 95 percent of FFS stayers' spending. The relatively higher favorable selection for MA entrants with only one full year of FFS enrollment was of similar magnitude in 2017 and 2018.
- 13 Our sensitivity analysis of beneficiaries who died applied similar exclusions to our main analysis of favorable selection (i.e., end-stage renal disease, Medicare as a secondary payer, employer plans, and non-MA private plans). The results of our sensitivity analyses were similar even after adjusting for the geographic distribution of MA enrollees.
- 14 Our sensitivity analysis of switching from 2018 to 2019 among decedents measured whether each beneficiary had a majority of their 2018 enrollment in MA or FFS and whether they had any months of switching in 2019.
- 15 To stay consistent with the methodology for MA benchmarks, our FFS comparator in our main analysis was the local FFS average in the reference year rather than the cohort of FFS enrollees who survived from the reference year through 2019.

- 16 The credibility adjustment blends county FFS data with other counties from the applicable Medicare core-based statistical area (CBSA) or, for counties outside a CBSA, with other counties in the state. Counties with low FFS enrollment tend to have few Medicare beneficiaries overall. Therefore, the credibility adjustment affects the administration of the program for a growing share of counties with low FFS enrollment.
- 17 We also assessed whether there is a relationship between the share of MA enrollees in a county and beneficiaries who have partial Medicaid benefits or beneficiaries who are long-stay nursing home residents, but there was not a strong correlation.
- 18 Competitive bidding would have an indirect effect on FFS enrollees through the Part B premium, which covers 25 percent of expected spending on all Part B benefits, across both FFS and MA. If competitive bidding reduced payments to MA plans, some of those savings would be allocated to Part B spending and the Part B premium would be commensurately lower. The reverse is also true: FFS enrollees would pay higher Part B premiums if competitive bidding ended up increasing payments to MA plans.
- 19 However, policymakers could consider a competitive bidding system that would treat FFS as a “bid” in the benchmark calculation but have no effect on FFS premiums. Since FFS costs are typically higher than costs estimated in plan bids, treating FFS as a bid in a system that sets the benchmark equal to the enrollment-weighted average bid would likely result in higher benchmarks in most areas.
- 20 Because actual Part D premiums are not known at the time of MA bid submissions, MA plans often resubmit their rebate allocations to reflect needed changes to Part D premium buy-downs. In addition, because regional PPO benchmarks are partially based on an average of regional PPO plans’ bids, these plans must resubmit their rebate allocations after their benchmarks are set.
- 21 Although premiums would become more important under this approach, plans would continue to compete along other dimensions, such as their provider networks, drug formularies, and quality.
- 22 We compared encounter data with other sources of information about MA utilization and found encounter data that were incomplete in each comparison: Medicare Payment and Review data for inpatient hospital stays, Minimum Data Set for skilled nursing services, Outcome and Assessment Information Set for home health services, and risk score indicators for dialysis services. There are no sources of MA utilization for many Part B services. See Chapter 13 of our March 2020 report to the Congress for our most recent comparisons (Medicare Payment Advisory Commission 2020b).
- 23 Because an MA plan’s required cost of providing Part A and Part B benefits includes administrative costs and profit, these amounts are included in the bid.
- 24 Benchmarks for regional PPO plans are currently set in a similar way. Regional PPO benchmarks combine the current-year regional PPO bids with local MA benchmarks. Compared with HMOs and local PPOs, average regional PPO bids and benchmarks are lower relative to their local FFS spending. However, given differences in the regional PPO market and the benchmark methodology used for those plans, caution should be taken in extrapolating from their experience. Key differences are that (1) regional PPO benchmarks use the share of national FFS and MA enrollment as the benchmark weights, (2) there are substantially fewer regional PPOs than other MA plans in a market, and (3) regional PPOs bid before knowing their benchmark (i.e., the previous year’s average bid is not trended forward by one year).
- 25 During this period, the share of rebate dollars used to reduce beneficiary cost sharing and premiums decreased from 72 percent to 60 percent, while the share used for supplemental benefits grew. The most commonly offered benefits in 2021 were worldwide emergency care, urgent care, and emergency care transportation; routine eye exam; fitness benefit; annual physical exam; routine hearing exam; eyewear including contacts and glasses; and preventive dental cleaning and oral exam. CMS has not collected utilization data on these benefits, and the efficacy of these benefits is unclear.
- 26 This amount of rebate revenue is equivalent to average MA plan rebates between 2016 and 2017, when rebates were 9 percent of plan bids and 11 percent of plan bids, respectively. Rebate revenue hit a historic high in 2017 and has increased in every subsequent year through 2023.
- 27 Plans that lose their benchmark bonus status tend to respond by lowering their bids, thereby maintaining rebate levels for beneficiaries. See Chapter 3 of our June 2020 report to the Congress (Medicare Payment Advisory Commission 2020a).
- 28 Song and colleagues found that plans would reduce bids by half of the decrease in plan benchmarks (Song et al. 2013).
- 29 In its estimates of MA costs, CBO has used Song and colleagues’ findings that plans would reduce bids by half the decrease in benchmarks (Congressional Budget Office 2018).
- 30 Benchmarks for regional plans and payment rates for MA enrollees with ESRD are established through different

processes. All FFS spending estimates for county-level benchmarks exclude beneficiaries with ESRD.

- 31 Payments to regional MA plans and payments for enrollees with ESRD—a relatively small share of all payments to MA plans—have a different update factor.
- 32 Note that OACT also projects the effect of an increasing number of Medicare beneficiaries on total Medicare spending growth, but because benchmarks are based on per beneficiary spending, we excluded this component from our discussion and focus on a per beneficiary annual percentage change in Medicare spending.

33 Two exceptions are dialysis services, where MA plans pay more on average, and skilled nursing services, where MA plans pay less on average.

34 The Commission has identified several issues with mechanisms for setting benchmarks in relation to FFS spending, and these issues are addressed in our June 2021 recommendation. In this discussion, we are focused on the use of FFS spending or some other basis for setting MA benchmarks.

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CHAPTER

5

**Disparities in outcomes for
Medicare beneficiaries with
different social risks**

Disparities in outcomes for Medicare beneficiaries with different social risks

Chapter summary

Social risk factors such as income, housing, social support, transportation, nutrition, and race/ethnicity can influence health outcomes. These factors stem from social determinants of health (SDOH), which are the conditions in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risk. Addressing SDOH aims to reduce health disparities—that is, differences among populations in the burden of disease or in opportunities to achieve optimal health—and achieve health equity across patient populations. Widespread recognition of health disparities has prompted many policymakers and health care organizations to prioritize health equity as a key component of health care quality improvement.

To better understand steps that health care providers, payers, and other organizations have taken to address SDOH, the Commission contracted with L&M Policy Research in the summer and fall of 2021 to review the literature and conduct stakeholder interviews. Five broad themes emerged from this work. First, many approaches and specific interventions have been used to try to address SDOH. Second, SDOH initiatives are usually aimed at populations that include but are not exclusive to Medicare beneficiaries. Third, participation in value-based payment arrangements such as accountable care organizations may help

In this chapter

- Beneficiary race/ethnicity and low-income status associated with differential health outcomes
- The Commission's work to improve incentives to deliver high-quality, efficient care to all beneficiaries

motivate efforts to address SDOH. Fourth, most health care organizations are not operating SDOH initiatives by themselves; they usually collaborate with community-based organizations such as food banks or public housing agencies. And finally, though many organizations are working to address SDOH, objective evaluations of the effectiveness of these efforts are limited and the findings are often mixed.

To date, our analyses of claims-based outcome measures have generally assessed outcomes in aggregate for all Medicare beneficiaries or beneficiaries receiving care by certain types of providers. Because health outcomes can be influenced by patients' social risk factors, in this chapter we report findings from an examination of ambulatory care-sensitive (ACS) hospitalizations and emergency department visits for fee-for-service beneficiaries in 2019, stratified by race/ethnicity and low-income status. We also analyzed hospital readmission rates by race/ethnicity and low-income status for beneficiaries who had had a recent hospital stay. We examined rates of successful discharge to the community for beneficiaries who had used skilled nursing facilities and home health agencies. Reporting disparities in quality measure results among groups of Medicare beneficiaries allows for greater transparency regarding inequities in care delivery and is an important first step to developing and implementing strategies to decrease those disparities.

We found that both race/ethnicity and low income were associated with differential outcomes. Beneficiaries with low incomes were more likely to have worse outcomes. For example, beneficiaries receiving the Part D low-income subsidy (LIS) had rates of ACS hospitalization that were 1.3 times higher than those not receiving the LIS (higher rates are worse). The difference in performance was also pronounced for skilled nursing facilities: Non-LIS beneficiaries had a rate of successful discharge to the community that was 1.5 times higher than that of LIS beneficiaries (higher rates are better). At the same time, beneficiaries who were Black or Hispanic were more likely to have worse outcomes, while Asian/Pacific Islander and non-Hispanic White beneficiaries were more likely to have better outcomes. For example, Black beneficiaries had a rate of ACS emergency department visits that was 2.1 times higher than that of Asian/Pacific Islander beneficiaries (higher rates are worse). Outcomes for low-income beneficiaries were worse across race/ethnicity categories for all the measures examined. However, even within income categories, differences across the race/ethnicity groups persisted. For example, among non-LIS beneficiaries, Black beneficiaries had a rate of ACS hospitalizations that was 1.8 times higher (worse) than that of Asian/Pacific Islander beneficiaries.

Much of the Commission's work has focused on modifying payment systems to incentivize health care providers and payers to deliver high-quality care in the most efficient manner. While strong incentives for achieving value-based care objectives are critical, it is also important to recognize when financial incentives place certain patients and the providers who care for them at a relative disadvantage. The Commission's recent work on accounting for differences in patients' social risk factors in quality payment programs and on payment policies for safety-net providers recognizes differences in patient social risk factors and aims to improve incentives to deliver high-quality and efficient care to all beneficiaries.

In addition to accounting for patient social risk in quality payment programs and in supporting safety-net providers, the Commission also generally supports two other policies to encourage providers to focus on reducing health disparities: (1) public reporting of quality results stratified by social risk factors, and (2) adding a focus on reducing disparities in quality payment programs. CMS should weigh implementing these policies on a case-by-case basis and carefully consider any unintended consequences associated with implementing the policies. ■

Defining key terms

Health disparities: Preventable differences in the burden of disease, injury, or violence, or in opportunities to achieve optimal health, experienced by socially disadvantaged racial, ethnic, and other population groups and communities (Centers for Disease Control and Prevention 2017).

Health equity: The attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other factors that affect access to care and health outcomes (Centers for Medicare & Medicaid Services 2022e).

Social determinants of health (sometimes called social drivers of health) (SDOH): Conditions in the environments where people are born, live, learn,

work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. SDOH can be grouped into five domains: economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context (Office of Disease Prevention and Health Promotion 2021).

Social risk factors: A set of constructs that captures the primary ways in which social processes and social relationships can influence key health-related outcomes. Indicators of social risk factors include dual eligibility for Medicare and Medicaid, race and ethnicity, marital status, and neighborhood deprivation (Assistant Secretary for Planning and Evaluation 2016, National Academies of Sciences, Engineering, and Medicine 2016b). ■

Background

Social risk factors such as income, housing, social support, transportation, nutrition, and race/ethnicity can influence health outcomes. These factors stem from social determinants of health (SDOH), which are the conditions in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Addressing SDOH aims to reduce health disparities—that is, differences among populations in the burden of disease or in opportunities to achieve optimal health—and achieve health equity across patient populations. (See text box for definitions of terms used in this chapter.) Strategies to address SDOH include health care policies that provide access to appropriate medical care regardless of a patient's ability to pay. Social policies that are not traditionally considered health care interventions, such as providing

access to housing and nutritious food, can also address SDOH.

The past decade has seen a growing recognition of the importance of social risk factors for health outcomes, prompting many organizations in the public and private sectors to prioritize SDOH as a key component of health care quality improvement. Many U.S. health systems are making sizable investments in addressing SDOH, particularly with housing-focused interventions (Horwitz et al. 2020). (See text box, pp. 208–209, with findings from a literature review and interviews about interventions to address social determinants of health in Medicare.) In the last few years, the disparate effects of COVID-19 across Medicare subpopulations have underscored the role that race/ethnicity plays in health outcomes. Black, Hispanic, and American Indian/Alaska Native Medicare beneficiaries have been disproportionately impacted by the disease compared with White and Asian/Pacific Islander beneficiaries (Centers for Medicare & Medicaid Services 2022g).

Literature review and interviews: Interventions to address social determinants of health in Medicare

To better understand health care providers', payers', and other organizations' efforts to address social determinants of health (SDOH), the Commission contracted with L&M Policy Research in the summer and fall of 2021 to review the literature and conduct stakeholder interviews. Several themes emerged: (1) Many approaches and specific interventions have been used to try to address SDOH; (2) SDOH initiatives are usually aimed at populations that include but are not exclusive to Medicare beneficiaries; (3) participation in value-based payment arrangements such as accountable care organizations may help motivate efforts to address SDOH; (4) most health care organizations are not operating SDOH initiatives by themselves; they usually collaborate with community-based organizations (CBOs) such as food banks or public housing agencies; and (5) though many organizations are working to address SDOH, objective evaluations of the effectiveness of these efforts are limited and the findings are often mixed.

What we found in the literature review

The literature review focused on interventions that included Medicare beneficiaries in 33 peer-reviewed studies, grey literature, and government reports examining a variety of interventions to address social risks and the impact those programs had on health outcomes, utilization, and health expenditures. Many of the studies examined

initiatives to improve population health that included a segment of the Medicare population (e.g., beneficiaries dually eligible for Medicare and Medicaid) but were not aimed exclusively at Medicare beneficiaries. The most common types of interventions involved coordination of care (i.e., connecting at-risk patients with various social and or medical services), food insecurity and nutrition, and housing needs. A handful of studies examined programs that addressed health literacy, social isolation, or transportation. Each study attempted to quantify the impact that the programs had on clinical outcomes, but the specific measures were different across studies. Most of the studies focused on how interventions affected quality and use of health care services.

Most interventions in the reviewed literature were associated with improvements in some measures but mixed or inconclusive results in others. Twenty-four articles showed improvement in at least one measure, nine described trends indicative of improvement, and one article showed no impact (one article is counted twice since it covered two separate interventions). To the extent that studies estimated the effect of SDOH programs on health care expenditures, improvements in health outcomes or decreases in utilization were sometimes, but not always, associated with reductions in spending.¹ Few studies evaluated the relationship between SDOH interventions and Medicare spending, and their findings were mixed.

(continued next page)

Under fee-for-service (FFS) payment systems, providers have little financial incentive to address the social needs of their patient populations since such initiatives often increase practice costs without commensurate increases in revenue. Medicare Advantage (MA) plans and alternative payment models, such as accountable care organizations (ACOs), have

more of a financial incentive to improve outcomes for their enrolled populations, and they have more flexibility to do so. Recent laws, regulations, and guidance from CMS have created more opportunities for MA plans to innovate on supplemental benefits, such as nonmedical benefits that target SDOH (e.g., food and transportation). ACOs also have a financial

Literature review and interviews: Interventions to address social determinants of health in Medicare (cont.)

What we found in the stakeholder interviews

The structured stakeholder interviews were conducted with representatives from a range of health care organizations selected because they conduct programs to address health-related social needs in older adult populations. The interviewees represented three health care plans offering Medicare Advantage (MA) products, a Medicare accountable care organization (ACO), three integrated health care systems (one of which has several ACOs), two organizations taking part in the Center for Medicare & Medicaid Innovation's Accountable Health Communities model, and a state Medicaid agency. Interviewees' organizations focused on improving food insecurity, and most of the organizations also had programs that address transportation and housing needs. The organizations also targeted other types of social needs such as social isolation and interpersonal violence. Organizations generally had not conducted objective evaluations of their impact, but all were in the process of evaluating their programs or planned to do so.

Organizations that took part in the interviews usually pointed to one (or several) of the following reasons for taking steps to address SDOH: mission-driven values, specific community needs, and participation in a value-based payment arrangement (or preparing for such arrangements in the future).

The organizations depended to some extent on local CBOs, such as food banks, public housing authorities, or social service nonprofits. Six of the organizations used a “screen and refer to service” approach, which involved identifying patients who need services and referring them to an appropriate CBO. The other four organizations used a “screen and provide services” approach, which involved taking a more direct role in addressing social needs in collaboration with CBOs. To identify patients for intervention, some organizations used direct patient screening tools, often supplemented by administrative data. Others used predictive analytic tools using information drawn from administrative and secondary data sources.

The organizations cited four types of funding sources for their SDOH activities: pilot and demonstration funding, ongoing operational revenues (including rebates from the MA Special Supplemental Benefits for the Chronically Ill program), philanthropy, and shared savings payments. Stakeholders said that sustainability of their programs depends on CMS continuing policies that provide flexibility to use Medicare and Medicaid funds for nonmedical purposes, value-based payment programs that reward organizations for bringing down costs and improving quality, and adequate funding for CBOs. ■

incentive to invest in staff, services, and partnerships in support of SDOH interventions because, under their payment structure, ACOs allow providers to earn shared savings for keeping the total costs of their covered populations under a targeted spending amount.

Recently, CMS has prioritized advancing health equity across all programs by, among other things,

focusing on improving health equity in payment models tested in the Center for Medicare & Medicaid Innovation (CMMI) (Centers for Medicare & Medicaid Services 2021). The CMS Framework for Health Equity 2022–2023, released in February 2023, includes such priorities as expanding the collection, reporting, and analysis of standardized data and assessing causes of disparities within CMS programs (Centers for Medicare & Medicaid Services 2022d).

**TABLE
5-1**

Shares of FFS beneficiaries by race/ethnicity and income status, 2019

	All	LIS	Non-LIS
All	100%	21%	79%
Race/ethnicity			
Non-Hispanic White	80	60	85
Black	9	18	6
Hispanic	6	13	4
Asian/Pacific Islander	3	6	2

Note: FFS (fee-for-service), LIS (low-income subsidy). The percentages are based on FFS beneficiaries who qualify for inclusion in our ambulatory care-sensitive hospital use measures (because they had a complete year of Part A and Part B coverage in 2019). Totals do not sum to 100 percent because the “Unknown,” “American Indian or Alaska Native,” and “Other” race/ethnicity categories are excluded. The “LIS” group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 FFS Medicare claims data.

Beneficiary race/ethnicity and low-income status associated with differential health outcomes

To date, the Commission’s analyses of claims-based outcome measures have generally assessed outcomes in aggregate for all Medicare beneficiaries or beneficiaries receiving care from certain types of providers. Because health outcomes can be influenced by patients’ social risk factors, in this chapter we report findings from an examination of national rates on certain outcome measures (developed by the Commission) for Medicare beneficiaries, stratified by race/ethnicity and low-income status, in 2019. Reporting disparities in quality measure results among groups of Medicare beneficiaries allows for greater transparency regarding inequities in care delivery and is an important first step to developing and implementing strategies to decrease those disparities.

We found that both race/ethnicity and low income were associated with differential outcomes. Beneficiaries with low incomes were more likely to have worse outcomes, as were beneficiaries who were Black or Hispanic. Worse outcomes for low-income beneficiaries were seen across race/ethnicity

categories for all the measures examined. However, even within income categories, differences across the race/ethnicity groups persisted, with Black and Hispanic beneficiaries having worse outcomes than non-Hispanic Whites and Asian/Pacific Islander beneficiaries.

Analytic approach

We grouped beneficiaries by two social risk factors: race/ethnicity categories and low-income status. These factors conceptually differentiate beneficiaries’ social risk and are readily available in Medicare administrative data.

- **Race/ethnicity:** Race and ethnicity capture social disadvantage, including access to social institutions and rewards; behavioral and other sociocultural norms; inequality in the distribution of power, status, and material resources; and psychosocial exposures (National Academies of Sciences, Engineering, and Medicine 2016b).² We include four race/ethnicity categories in our study: non-Hispanic White, Black, Hispanic, and Asian/Pacific Islander.^{3,4} Using these categories in our 2019 data, we found that about 80 percent of Medicare FFS beneficiaries were non-Hispanic White, 9 percent

were Black, 6 percent were Hispanic, and 3 percent were Asian/Pacific Islander (Table 5-1).

- **Income:** Socioeconomic position (SEP) is an indicator of an individual's absolute and relative position in a socially stratified society. SEP captures a combination of access to material and social resources as well as relative status, meaning prestige-related or rank-related characteristics, and is commonly measured through indicators such as income and wealth, education, and occupation (National Academies of Sciences, Engineering, and Medicine 2016b). Consistent with our work revisiting payment policies for safety-net providers, the Commission's definition of low-income Medicare beneficiaries includes all those who receive full or partial Medicaid benefits, as well as those who do not qualify for Medicaid benefits in their states but who receive the Part D low-income subsidy (LIS) because they have limited assets and an income below 150 percent of the federal poverty level (Medicare Payment Advisory Commission 2023). Collectively, we refer to this population as "LIS beneficiaries" because Medicare beneficiaries who receive full or partial Medicaid benefits are automatically eligible to receive the LIS.

About 20 percent of FFS beneficiaries are in the LIS group (Table 5-1). Non-Hispanic White beneficiaries are the largest proportion of both the LIS and non-LIS groups (60 percent and 85 percent, respectively). Black and Hispanic beneficiaries make up a larger proportion of the LIS group than of the non-LIS group (31 percent compared with 10 percent).

We calculated several outcome measures for groups of beneficiaries by race/ethnicity categories and by LIS status (as a proxy for income level). We also calculated outcome results for beneficiaries classified using both factors (e.g., Black beneficiaries who also receive the LIS). We examined ambulatory care-sensitive (ACS) hospitalizations and emergency department (ED) visits for the FFS beneficiaries in these groups. We also analyzed hospital readmission rates for beneficiaries who had had an inpatient hospital stay. For beneficiaries who used skilled nursing facilities (SNFs) and home health agencies (HHAs), we examined rates of successful discharge to the community.

Future work could include examining differences in outcomes for these groups of beneficiaries across

and within geographic areas. We could also examine differences in these outcomes for beneficiaries residing in rural locations versus urban locations.

Ambulatory care-sensitive hospitalizations and ED visits

The Commission has developed measures of ACS hospitalizations and ED visits to compare quality of care within and across different populations.^{5,6} Both events have adverse effects on beneficiaries and increase the cost of care. Conceptually, an ACS hospitalization or ED visit is one that could have been prevented with timely, appropriate, high-quality care. For example, if a diabetic patient's primary care physician and specialists effectively control the condition and have a system to allow urgent visits, the patient may be able to avoid a visit to the ED for a diabetic crisis. Two categories of ACS conditions are included in the measures: chronic (e.g., diabetes, asthma, hypertension) and acute (e.g., bacterial pneumonia, cellulitis).

We found disparities in rates of ACS hospitalizations across different groups of Medicare beneficiaries, which could indicate differential access to high-quality ambulatory care. Beneficiaries receiving the LIS had a rate of ACS hospitalizations (55.9 per 1,000 beneficiaries) that was 1.3 times higher than those not receiving the LIS (41.7 per 1,000 beneficiaries) (higher rates are worse) (Table 5-2, p. 212). Across the race/ethnicity categories, Black beneficiaries had the highest (worst) rate of ACS hospitalizations: 57.7 per 1,000 beneficiaries, which was 1.7 times higher than the rate of the lowest group (Asian/Pacific Islander beneficiaries, with a rate of 33.8 per 1,000 beneficiaries).

Though rates of ACS hospitalization for all the race/ethnicity categories we examined were lower for non-LIS than for LIS beneficiaries, the differences across the race/ethnicity categories persisted: Among non-LIS beneficiaries, Black beneficiaries had a rate of ACS hospitalizations (49.6 per 1,000 beneficiaries) that was 1.8 times higher than that of Asian/Pacific Islander beneficiaries (28.2 per 1,000 beneficiaries). We present 2019 results here, but we also observed these differences across populations in 2017 and 2018.

We also found disparities in rates of ACS ED visits across different Medicare beneficiary groups, which

**TABLE
5-2**

Risk-adjusted rates of ambulatory care-sensitive hospitalizations by beneficiary race/ethnicity and income status, 2019

Risk-adjusted rate of ACS hospitalizations per 1,000 FFS beneficiaries

	All	LIS	Non-LIS	Ratio of highest to lowest
All	46.2	55.9	41.7	1.3
Race/ethnicity				
Non-Hispanic White	44.9	55.1	41.6	1.3
Black	57.7	63.6	49.6	1.3
Hispanic	48.6	54.1	38.6	1.4
Asian/Pacific Islander	33.8	37.9	28.2	1.3
Ratio of highest to lowest	1.7	1.7	1.8	

Note: Ambulatory care-sensitive (ACS), FFS (fee-for-service), LIS (low-income subsidy). Lower rates are better. To measure population-based outcomes for FFS Medicare beneficiaries, we calculated the risk-adjusted rates of admissions tied to a set of acute and chronic conditions per 1,000 FFS Medicare beneficiaries by groups of beneficiaries. Race and ethnicity categories are defined using the RTI race code. The “Unknown,” “American Indian or Alaska Native,” and “Other” race/ethnicity categories are not presented. The “LIS” group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 FFS Medicare claims data.

also could signal differential access to high-quality ambulatory care. Beneficiaries receiving the LIS had a rate of ACS ED visits that was 1.5 times higher than those not receiving the LIS (89.6 per 1,000 beneficiaries vs. 61.7 per 1,000 beneficiaries) (Table 5-3). Across the race/ethnicity categories, Black beneficiaries had the highest (worst) rate of ACS ED visits (96.2 per 1,000 beneficiaries), which was 2.1 times the rate of ACS ED visits for Asian/Pacific Islanders (46.1 per 1,000 beneficiaries).

Though rates of ACS ED visits for all the race/ethnicity categories examined were lower for non-LIS than for LIS beneficiaries, the differences across the race/ethnicity categories persisted: Among non-LIS beneficiaries, Black beneficiaries had a rate of ACS ED visits (81.5 per 1,000 beneficiaries) that was 2.0 times higher than that of Asian/Pacific Islander beneficiaries (41.7 per 1,000 beneficiaries). We present 2019 results here, but we also observed these differences across populations in 2017 and 2018.

Our results are consistent with other studies that have found disparities across race/ethnicity groups in rates of hospital admissions and ED visits for ACS conditions (Figueroa et al. 2020, Hanchate et al. 2019, Mahmoudi et al. 2020, Ochieng et al. 2021). Other studies also have found that dual-eligible beneficiaries and beneficiaries with lower socioeconomic status had higher rates of hospital admissions and ED use for ACS conditions compared with their non-dual-eligible, higher-income counterparts (Mahmoudi et al. 2020, Radley et al. 2016, Venkatesh et al. 2020, Wallar et al. 2020).

Hospital readmissions

The Commission developed a hospital readmission measure to assess the quality of care provided by hospitals.⁷ Hospital readmissions are disruptive to patients and caregivers and costly to the health care system; they also put patients at additional risk of hospital-acquired infections and complications. Readmissions are a major source of patient and family

**TABLE
5-3**

Risk-adjusted rates of ambulatory care-sensitive ED visits by beneficiary race/ethnicity and income status, 2019

Risk-adjusted rate of ACS ED visits per 1,000 FFS beneficiaries

	All	LIS	Non-LIS	Ratio of highest to lowest
All	70.9	89.6	61.7	1.5
Race/ethnicity				
Non-Hispanic White	67.1	85.5	60.4	1.4
Black	96.2	106.9	81.5	1.3
Hispanic	84.7	95.1	68.0	1.4
Asian/Pacific Islander	46.1	50.0	41.7	1.2
Ratio of highest to lowest	2.1	2.1	2.0	

Note: ED (emergency department), ambulatory care-sensitive (ACS), FFS (fee-for-service), LIS (low-income subsidy). Lower rates are better. To measure population-based outcomes for FFS Medicare beneficiaries, we calculated the risk-adjusted rates of ED visits tied to a set of acute and chronic conditions per 1,000 FFS Medicare beneficiaries by groups of beneficiaries. Race/ethnicity categories are defined using the RTI race code. The "Unknown," "American Indian or Alaska Native," and "Other" race/ethnicity categories are not presented. The "LIS" group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 FFS Medicare claims data.

stress and can contribute substantially to loss of functional ability, particularly in older patients.⁸

We found disparities in risk-adjusted, all-condition hospital readmission rates across different groups of Medicare beneficiaries, which may signal differential access to high-quality hospital and posthospital care. However, rates of hospital readmissions differed less than those of ACS hospitalizations and ED visits. Across the income groups, beneficiaries receiving the LIS had a rate of hospital readmissions (17.2 percent) that was 1.2 times higher (worse) than those not receiving the LIS (14.6 percent). Across the race/ethnicity categories, Black beneficiaries had the highest (worst) rate of hospital readmissions (17.1 percent), followed by Hispanics (16.3 percent) (Table 5-4, p. 214). Non-Hispanic White beneficiaries and Asian/Pacific Islander beneficiaries had the lowest rates of hospital readmissions (15.0 percent). The rate of hospital readmissions for Black beneficiaries was 1.1 times the rate for Asian/Pacific Islanders. We present

2019 results here, but we saw these differences across populations in 2017 and 2018 as well.

Race/ethnicity and low-income status were both associated with differential rates of hospital readmissions. Though the hospital readmission rates for all the race/ethnicity categories we examined were lower for non-LIS than LIS beneficiaries, the differences across the race/ethnicity groups persisted: Among non-LIS beneficiaries, Black beneficiaries had a rate of hospital readmissions (15.8 percent) that was 1.1 times higher than that of Asian/Pacific Islander beneficiaries (13.8 percent) (Table 5-4, p. 214).

Our results are consistent with several recent studies that found higher rates of readmissions among Black beneficiaries compared with White beneficiaries and beneficiaries of other racial/ethnic groups (Anderson et al. 2022, Li et al. 2017, Ochieng et al. 2021, Rivera-Hernandez et al. 2019a, Rodriguez-Gutierrez et al. 2019). Similarly, studies found higher readmission rates among beneficiaries who are dually eligible for

**TABLE
5-4**

Risk-adjusted, all-condition hospital readmission rates by beneficiary race/ethnicity and income status, 2019

	All	LIS	Non-LIS	Ratio of highest to lowest
All	15.3%	17.2%	14.6%	1.2
Race/ethnicity				
Non-Hispanic White	15.0	16.9	14.5	1.2
Black	17.1	18.3	15.8	1.2
Hispanic	16.3	17.3	14.6	1.2
Asian/Pacific Islander	15.0	15.9	13.8	1.2
Ratio of highest to lowest	1.1	1.2	1.1	

Note: LIS (low-income subsidy). Lower rates are better. Analysis includes fee-for-service Medicare beneficiaries ages 65 and older. Race/ethnicity categories are defined using the RTI race code. The “Unknown,” “American Indian or Alaska Native,” and “Other” race/ethnicity categories are not presented. The “LIS” group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 fee-for-service Medicare claims data.

Medicare and Medicaid compared with non-dual-eligible beneficiaries (Anderson et al. 2022, Lloren et al. 2019, Silvestri et al. 2022).

Successful discharge to community from skilled nursing facility and home health agency care

Discharge to a community setting following post-acute care is an important health care outcome for many patients for whom the overall goals of post-acute care include optimizing function and returning home. However, providers should not discharge patients who are not medically ready to return to the community because doing so may result in hospital events.

The Commission has developed a successful discharge to the community measure for SNFs and HHAs.⁹ This measure defines a beneficiary’s successful discharge to the community as a discharge from a post-acute care (PAC) provider to the community without an unplanned hospitalization or death in the next 30 days.¹⁰ The measure uses the same definitions and risk-adjustment variables for SNFs and HHAs.¹¹

Our analysis of 2019 data found disparities in the rates of successful discharge to community across groups of Medicare beneficiaries, though the magnitude varied for combinations of LIS status, race/ethnicity, and PAC setting (Table 5-5 and Table 5-6). In both SNFs and HHAs, LIS beneficiaries had a lower (worse) rate of successful discharge to community compared with the non-LIS population. The difference in performance for income status categories was more pronounced for SNFs, with non-LIS beneficiaries having a rate of successful discharge to community that was 1.5 times (19 percentage points) higher (better) than the rate for LIS beneficiaries (Table 5-5). The difference in performance for income status categories was much smaller in home health care, where the rate of successful discharge to community for LIS beneficiaries (72 percent) was 4 percentage points lower than the rate for non-LIS beneficiaries (76 percent) (Table 5-6).

The rates for successful discharge to community varied by race/ethnicity categories, though there were some commonalities. For both SNF and home health users,

**TABLE
5-5****Risk-adjusted rates of successful discharge to the community for beneficiaries treated in SNFs, by beneficiary race/ethnicity and income status, 2019**

	All	LIS	Non-LIS	Ratio of highest to lowest
All	48%	35%	54%	1.5
Race/ethnicity				
Non-Hispanic White	48	34	54	1.6
Black	45	37	57	1.5
Hispanic	45	39	57	1.5
Asian/Pacific Islander	48	44	54	1.2
Ratio of highest to lowest	1.1	1.3	1.1	

Note: SNF (skilled nursing facility), LIS (low-income subsidy). Successful discharge to the community includes beneficiaries discharged to the community (including those discharged to the same nursing home they were in before) who did not have an unplanned hospitalization or die in the 30 days after discharge. Higher rates are better. Race/ethnicity categories are defined using the RTI race code. The "Unknown," "American Indian or Alaska Native," and "Other" race/ethnicity categories are not presented. The "LIS" group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 fee-for-service Medicare claims data.

**TABLE
5-6****Risk-adjusted rates of successful discharge to the community for beneficiaries treated by home health agencies, by beneficiary race/ethnicity and income status, 2019**

	All	LIS	Non-LIS	Ratio of highest to lowest
All	75%	72%	76%	1.1
Race/ethnicity				
Non-Hispanic White	75	72	76	1.1
Black	72	70	75	1.1
Hispanic	73	73	75	1.1
Asian/Pacific Islander	77	77	77	1.0
Ratio of highest to lowest	1.1	1.1	1.0	

Note: LIS (low-income subsidy). Successful discharge to the community includes beneficiaries discharged to the community (including those discharged to the same nursing home they were in before) who did not have an unplanned hospitalization or die in the 30 days after discharge. Higher rates are better. Race/ethnicity categories are defined using the RTI race code. The "Unknown," "American Indian or Alaska Native," and "Other" race/ethnicity categories are not presented. The "LIS" group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 fee-for-service Medicare claims data.

Black beneficiaries had the lowest (worst) rates, while Asian/Pacific Islanders had the highest (best) rates. The variation by race/ethnicity was greater among LIS beneficiaries than non-LIS beneficiaries. However, the range of variation for LIS beneficiaries between the lowest and highest racial groups was greater for SNFs (1.3) (Table 5-5, p. 215) than for home health care (1.1) (Table 5-6, p. 215). In the home health setting, the ratios between the highest- and lowest-performing racial/ethnic groups fell within a range of 1.0 to 1.1, indicating narrower differences across these groups compared with the SNF beneficiaries. The results indicate that both LIS status and race/ethnicity affect outcomes for beneficiaries in home health care and SNFs, though the magnitude of the impact varies by setting, LIS status, and race/ethnicity.

Our results are consistent with those of other studies that have investigated racial/ethnic disparities in rates of successful discharge to community from SNFs and HHAs. Several recent studies have found lower rates of successful discharge to community among SNFs and HHAs with high proportions of Black and Hispanic beneficiaries (Knox et al. 2022, Rivera-Hernandez et al. 2020, Rivera-Hernandez et al. 2019b). However, we did not identify studies that investigated disparities in rates of successful discharge to community between LIS and non-LIS beneficiary populations.

Several factors should be considered when interpreting the successful discharge to community rates for SNF and HHA by beneficiary race/ethnicity category and low-income status. More so than with our measures of hospital use, the variation across subgroups observed in Table 5-5 (p. 215) and Table 5-6 (p. 215) could reflect the quality of providers most commonly used by beneficiary subgroups. Historically marginalized and low-income beneficiaries use lower-quality SNFs and nursing homes (Rahman et al. 2014b, Sharma et al. 2020, Zuckerman et al. 2019). Dual-eligible beneficiaries are more likely to be discharged to SNFs with lower nurse staffing, and these beneficiaries are more likely to become long-stay nursing residents than Medicare-only beneficiaries if treated in SNFs with low nurse-to-patient ratios (Rahman et al. 2014a).

Analysis limitations

This analysis has certain limitations. First, our analysis is limited to the social risk factors that can be

measured using administrative data. For example, social relationships, including marital/partnership status and living alone, are important for health because they provide access to social networks that can, in turn, provide access to health care resources. However, beneficiary-level data on social relationships is not available in current Medicare administrative data.

Second, the variables used in our analysis have limitations. The race/ethnicity data allow broad categorizations, but we are limited in our ability to differentiate within racial/ethnic groups. For example, data are not available on the origin of Hispanic beneficiaries, such as Cuban, Mexican, and Puerto Rican. The LIS metric is an improvement over dual eligibility as a proxy for income because it includes not just beneficiaries dually eligible for Medicare and Medicaid but also beneficiaries enrolled in Part D who are not enrolled in Medicaid but who have incomes under 150 percent of the federal poverty level. However, it excludes beneficiaries with incomes below 150 percent of poverty who are not enrolled in either Medicaid or Part D.

Third, Medicare does not systematically collect clinical data that can be used to study differences in clinical outcomes across different groups of Medicare beneficiaries (e.g., controlled HbA1c levels for patients with diabetes or controlled high blood pressure).

The Commission's work to improve incentives to deliver high-quality, efficient care to all beneficiaries

Much of the Commission's work has focused on modifying payment systems to create incentives for health care providers and payers to deliver high-quality care in the most efficient manner. While strong incentives for achieving value-based care objectives are critical, it is also important to recognize when these incentives place certain patients and the providers who care for them at a relative disadvantage. The Commission's recent work on accounting for differences in patients' social risk factors in quality payment programs and on payment policies for safety-net providers recognizes differences in patients' social risk factors and aims to improve incentives to deliver high-quality, efficient care to all beneficiaries.

Using peer grouping in quality payment programs to account for differences in providers' patient populations

Under Medicare quality payment programs, providers are held financially accountable for both the cost and quality of health care services. All else equal, patients with fewer social risk factors likely have better health outcomes than patients with more social risk factors, so quality payment programs should account for differences in providers' patient populations. Doing so reduces the possibility that providers will be unfairly rewarded for treating patients with low social risk, thus reducing incentives for providers to avoid caring for patients with high social risk. Rather than adjusting performance measures for patients' social risk factors, which can mask disparities in performance, the Commission has recommended that Medicare adjust payments based on a provider's performance compared with providers whose patients have similar social risk (that is, a provider's "peers") (Medicare Payment Advisory Commission 2018). With peer grouping, each provider's performance is compared with peers to determine rewards or penalties based on performance. A provider would earn points based on its performance relative to national performance scales, but the magnitude of the reward would be higher for peer groups with higher shares of beneficiaries at high social risk and lower for peer groups with higher shares of beneficiaries at low social risk.

Over the past several years, the Commission has recommended redesigned quality incentive payment programs for hospitals, Medicare Advantage plans, and skilled nursing facilities (Medicare Payment Advisory Commission 2021, Medicare Payment Advisory Commission 2020, Medicare Payment Advisory Commission 2019). The redesigned value incentive programs should incorporate peer grouping to account for the differences in the social risk of providers' patient populations. In our illustrative modeling of such designs, we found that peer grouping would result in more equitable quality payments across providers and plans.

Supporting safety-net hospitals and clinicians

The Medicare program strives to ensure access to care for all beneficiaries and to adequately compensate providers to help ensure that access. However,

treating low-income beneficiaries can entail extra costs that are not adequately reflected in Medicare's payments, making it more difficult for providers who are substantially dependent on public payers to compete with other providers who can count on commercially insured patients for better payment rates. The Commission is concerned that caring for low-income beneficiaries or patients with public insurance (when the payment rates are low relative to commercial payers) may create an undue financial strain on providers with high shares of these patients, resulting in diminished access or quality of care for beneficiaries. However, supporting this subset of providers through large, across-the-board Medicare payment rate increases would be an inefficient use of scarce Medicare resources. For these reasons, the Commission has explored how safety-net providers should be defined and how the Medicare program can best support their critical missions (Medicare Payment Advisory Commission 2022b). In March 2023, the Commission recommended providing additional resources to Medicare safety-net hospitals and to clinicians who furnish care to Medicare beneficiaries with low incomes (Medicare Payment Advisory Commission 2023).

Other policies to encourage providers to address health disparities in Medicare

The Commission also generally supports two other policies to encourage providers to focus on reducing health disparities: (1) public reporting of quality results stratified by social risk factors and (2) adding a focus on reducing disparities in quality payment programs. CMS should weigh implementing these policies on a case-by-case basis and carefully consider any unintended consequences associated with implementing the policies. Other policymakers and researchers have also supported or recommended these policies (Assistant Secretary for Planning and Evaluation 2020, National Academies of Sciences, Engineering, and Medicine 2016a, National Quality Forum 2022).

Publicly report quality measures stratified by social risk

Publicly reported national and provider quality measures that are stratified by social risk factors could allow policymakers and providers to measure and track quality over time for beneficiaries with social risk factors. Publicly reporting Medicare quality information

has two main objectives. The first is to increase the accountability of health care providers by offering patients, payers, and purchasers a more informed basis on which to hold providers accountable (e.g., directly through purchasing and treatment decisions). The second objective is to maintain standards and stimulate improvements in the quality of care through economic competition (reputation and increased market share) and by appeals to health care professionals' desire to do a good job (Marshall et al. 2003).

CMS has made progress on publicly reporting stratified performance measures at a national level. For example, CMS's Office of Minority Health publicly reports national trends in MA performance on a number of quality and patient experience measures by race/ethnicity, sex, income, and rural/urban location (Centers for Medicare & Medicaid Services 2022h).¹²

CMS has also made progress on MA plan-level and some provider-level reporting by offering plans and hospitals confidential reports on their quality performance stratified by beneficiary social risk factors. These internal reports can help providers become more familiar with calculation methods and improve before wider reporting is implemented. In the spring of 2022, CMS provided MA plan sponsors with confidential reports, which stratified performance by LIS/dual-eligibility and disability status for most Part C and Part D star rating measures (Centers for Medicare & Medicaid Services 2022b). In the fiscal year 2018 final rules, CMS introduced confidential reporting of hospital quality measure data stratified by social risk factor, specifically reporting readmission rates for dual-eligible beneficiaries (Centers for Medicare & Medicaid Services 2017). CMS created two complementary methods to calculate disparities in condition-specific and procedure-specific readmission measures (Centers for Medicare & Medicaid Services 2022c). The first method (the within-hospital disparity method) calculates differences in outcome rates across beneficiary groups within a hospital while accounting for their clinical risk factors. This method also allows for comparison of those differences, or disparities, across hospitals, so hospitals can assess how well they close disparity gaps compared with other hospitals. The second methodological approach (the across-hospital method) assesses hospitals' outcome rates for subgroups of beneficiaries across hospitals, allowing for a comparison across hospitals on their performance serving beneficiaries with social risk factors.

The Commission supports CMS's overall efforts to measure and report health care disparities by stratifying quality measure results for different subgroups of beneficiaries; however, CMS should consider on a case-by-case basis whether the stratified results accurately measure the quality of care provided to different patient groups. Accurate and meaningful reporting can avoid unintended consequences of public reporting, such as providers avoiding caring for individuals at greater social risk. In the proposed rule-making process, CMS requested input on principles and approaches that could be used in various Medicare quality reporting programs to stratify measure results (Centers for Medicare & Medicaid Services 2022f). The Commission has encouraged CMS to report stratified results that are reliable, meaning they reflect true differences in performance and are not attributable to random variation (Medicare Payment Advisory Commission 2022a). Key steps for CMS include defining the reliability standard for measure results and selecting the strategies to ensure reliable measure results for as many providers as possible.

Focus on reducing disparities in quality payment programs

To encourage providers to reduce disparities, Medicare could develop and add health equity measures to quality payment programs. Including health equity measures can help providers prioritize areas for particular focus; specific measures targeting equity within existing quality reporting programs can motivate a focus on reducing disparities and signal that health equity is an important component of delivery system transformation. These measures could also encourage providers to address health equity through service enhancements, patient engagement activities, and adoption of best practices to improve performance in this domain.

CMS has developed and recently proposed a health equity index (HEI) reward for the 2027 MA star ratings to further incentivize MA plans to focus on improving care for enrollees with social risk factors (Centers for Medicare & Medicaid Services 2022b). The HEI is a composite score of an MA contract's disparities in performance on a subset of star rating measures across multiple dimensions. The HEI focuses on MA contracts' performance on certain quality indicators for LIS, dual-eligible, and disabled enrollees.

The CMS Office of Minority Health has been working to develop a health equity summary score (HESS) that examines MA plan differences by race and ethnicity and dual-eligibility/LIS status and assigns each contract composite scores for some of the clinical and patient experience measures used in the MA star rating system (Agniel et al. 2021, Centers for Medicare & Medicaid Services 2022a). The composite scores are based on a combination of current performance and improvement in performance over a four-year period. CMS continues to refine the HESS and is working to provide HESS reports to help contracts focus on quality improvement efforts.

CMS could consider developing measures of reducing disparities in other quality payment programs outside of MA. For example, CMS could develop and incorporate a measure of improving within-hospital disparities into a hospital quality payment program. If a hospital reduces differences in readmission rates across race/ethnicity groups over time, it could receive bonus points in the scoring of a quality payment program. There are several methodological issues that would need to be considered in the design and testing of health equity measures, such as the minimum sample sizes needed for reliable comparisons across patient populations. The minimum would exclude providers that do not treat a sufficient number of patients with social risk factors. ■

Endnotes

- 1 To the extent that a study indicated there was a reduction in health care spending, this calculation usually did not include the costs of the intervention itself.
- 2 Social rewards are a broad set of stimuli that instigate positive experiences involving other people, including verbal and nonverbal behaviors, gestures, and feelings, such as a smile and praise.
- 3 A beneficiary's race/ethnicity is identified using data collected by the Social Security Administration (SSA), with adjustments to improve the race/ethnicity classification for Hispanic and Asian/Pacific Islander populations. Specifically, CMS applies an algorithm developed with RTI International (RTI) that uses census surname lists for likely Hispanic and Asian/Pacific Islander origin and simple geography (residence in Puerto Rico or Hawaii) to improve the SSA race/ethnicity data. The SSA data are lacking for about 5 percent of beneficiaries (3.3 million) (Office of Inspector General 2022). After applying the RTI algorithm, Medicare lacks race/ethnicity information for about 3 percent of beneficiaries (2 million). Studies comparing self-reported race/ethnicity to the RTI race code variable found high validity for White and Black classification and intermediate validity for Hispanic and Asian/Pacific Islander classification (Eicheldinger and Bonito 2008, Filice and Joynt 2017, Grafova and Jarrin 2021, Jarrin et al. 2020, Office of Inspector General 2022, Zuckerman et al. 2022). We do not include the American Indian or Alaska Native category because these studies have found that the RTI race code does not demonstrate improved identification compared to the SSA code.
- 4 Recently, RAND has developed the Medicare Bayesian Improved Surname Geocoding (MBISG), which uses an improved algorithm to augment administrative measures with surname and geographic data to estimate race/ethnicity.
- 5 We present results of these measures annually in our March report to the Congress.
- 6 ACS hospitalizations include both inpatient admissions and observation stays, whereas ACS ED visits consist only of ED visits that did not result in an admission or observation stay. We defined the outcome variable as the count of ACS hospitalizations or ACS ED visits per beneficiary in each year. We used a regression model to produce risk-adjusted counts of ACS hospitalizations or ACS ED visits. Risk factors included beneficiary age, sex, end-stage renal disease status, disability status, and hierarchical condition categories. Using 2019 data, we identified all ACS hospitalizations and ACS ED visits and aggregated both the observed and expected numbers of events of each type from the beneficiary level to the race/ethnicity category and LIS group. Dividing the total number of observed ACS hospitalizations or ACS ED visits for each beneficiary group by the total number of expected ACS hospitalizations or ACS ED visits yielded the observed to expected ratios, which in turn were multiplied by the nationwide observed rates to obtain risk-adjusted rates.
- 7 We present these measure results annually in our March report to the Congress. Details of how the measure is calculated are described in our June 2019 report to the Congress, available at <http://www.medpac.gov>.
- 8 Measuring and adjusting payments based on a hospital's readmission rates holds the hospital accountable for ensuring that beneficiaries have the discharge information they need, and it encourages hospitals to coordinate with other providers.
- 9 We present these measure results for SNFs and HHAs, as well as for inpatient rehabilitation facilities and long-term care hospitals, in our annual March report to the Congress. For this chapter, we focus on SNFs and HHAs because these are the most common sites of post-acute care for Medicare beneficiaries.
- 10 Medicare-covered SNF stays that end in a discharge to a nursing home are not considered a discharge to the community for purposes of our measure.
- 11 The risk adjustment for the successful discharge to the community measure includes age and sex of the beneficiary, end-stage renal disease and disability status for entitlement, principal diagnosis, comorbidities, the length of stay of the preceding hospital stay (if there was one), and a count of the hospitalizations during the preceding year. Though this measure uses the same risk-adjustment factors for SNFs and HHAs, the rate of successful discharge to the community for each setting is computed in a separate model. The measure also includes all home health care that is not preceded by a hospitalization or SNF stay.
- 12 CMS's Office of Minority Health reporting also includes FFS patient experience results at the state level.

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CHAPTER

6

**Congressional request:
Behavioral health services in
the Medicare program**

Congressional request: Behavioral health services in the Medicare program

Chapter summary

Medicare covers a range of behavioral health services, from screening, assessment, and evaluation to therapy, counseling, and inpatient psychiatric hospitalizations. In January 2022, the Chairman of the House Committee on Ways and Means requested that the Commission conduct an analysis of behavioral health services in the Medicare program. In response, this chapter explores two main topics: (1) utilization and spending by the traditional fee-for-service (FFS) beneficiary population for clinician and outpatient behavioral health services and (2) trends and issues in inpatient psychiatric care for beneficiaries, including discussion of Medicare's inpatient psychiatric facility (IPF) prospective payment system (PPS) and indicators of payment adequacy. Our work is supported by interviews conducted with IPFs on their provision of services and how these services differ by patient characteristics and facility types. Where possible, we include data on Medicare Advantage (MA) enrollees.

Clinician and outpatient behavioral health services

Clinician and outpatient provision of behavioral health services, such as psychiatric evaluations, psychotherapy, opioid treatment programs, and behavioral health integration, are covered by Medicare Part B for FFS beneficiaries. In 2021, spending for these behavioral health services and conditions was \$4.8 billion. In that year, 4.9 million Medicare FFS

In this chapter

- Medicare coverage of behavioral health services
- Clinician and outpatient behavioral health services
- Trends and issues in inpatient psychiatric care

beneficiaries (16 percent) received these services. Beneficiaries who used Part B behavioral health services were more likely to be disabled, low income, and younger than other FFS Medicare beneficiaries. They also incurred nearly twice the spending on overall health care (including prescription medications) as all FFS beneficiaries. In 2021, the top three behavioral health conditions were depression, anxiety, and substance use disorders (SUDs). Between 2019 and 2021, opioid use disorders (OUDs) among Medicare FFS beneficiaries increased annually by 7 percent. In 2020, Medicare began an opioid treatment program (OTP) benefit, which was used by nearly 40,000 FFS beneficiaries in 2021, representing a 27 percent increase from the prior year.

In 2022, behavioral health clinicians accounted for 40 percent of clinicians who opted out of Medicare, a higher rate than for other types of clinicians. Indeed, psychiatrists have the highest opt-out rate of all physician specialties. We found large shifts over time in the behavioral health workforce that provides services to Medicare beneficiaries; between 2016 and 2021, substantial growth in behavioral health services provided by nurse practitioners occurred while volume by psychiatrists declined. The pandemic exacerbated perceived shortages of behavioral health clinicians, but the rapid take-up of telehealth has helped to meet current needs. Telehealth for behavioral health services continued to grow in 2021, even as use of other telehealth services declined from their high in 2020. Among behavioral health services, telehealth was most used for psychotherapy services. Beneficiaries using telehealth for behavioral health visits filled more Part D prescription medications, despite spending less on overall Medicare Part A and Part B services, compared with their in-person-visit counterparts. Notably, some behavioral health clinicians provided only telehealth in 2021 (i.e., provided no in-person health services in that year)—a trend that should continue to be monitored.

Trends and issues in inpatient psychiatric care

Medicare beneficiaries experiencing an acute behavioral health crisis can be treated in general acute care hospitals or in specialty IPFs that provide 24-hour care in a structured, intensive, and secure setting. Medicare reimburses specialty IPFs for care provided to FFS beneficiaries through the IPF PPS. In FY 2021, 157,500 Medicare FFS beneficiaries had 230,500 stays at one of 1,480 hospital-based or freestanding IPFs and incurred \$3.0 billion in spending on IPF care (including both Medicare program costs and beneficiary cost sharing).

Medicare beneficiaries using IPF services are among the most vulnerable. Compared with the rest of the FFS Medicare population, they are much more

likely to be disabled and low income, have more chronic conditions (such as hypertension, kidney disease, and dementia), consume more health care services, and are costlier to Medicare. In 2021, Medicare Part A and Part B spending per beneficiary for those with an IPF stay was nearly four times higher than for all FFS beneficiaries. Medicare Part D prescription drug spending for beneficiaries who had an IPF stay was nearly twice as much as for other FFS beneficiaries. As of January 2023, nearly 50,000 Medicare beneficiaries had reached or were within 15 days of reaching the 190-day lifetime limit on freestanding IPF days. These beneficiaries were more likely to be disabled, younger, low income, and Black compared with other beneficiaries who had an IPF stay in 2021.

Using data from 2018, we found a high rate of emergency department visits and acute care hospital admissions before and after an IPF admission, and a relatively low rate of visits with behavioral health clinicians, suggesting that many of these beneficiaries were not receiving effective, well-coordinated outpatient behavioral health care.

Our indicators of Medicare payment adequacy for IPFs revealed some concerning trends and identified gaps where additional information is needed to assess the accuracy of payments and the quality of IPF care.

Beneficiaries' access to care—We examined trends in IPF supply and the volume of services as indicators of beneficiaries' access to IPFs.

- **Capacity and supply of providers**—While the number of IPFs has declined since 2017, the number of psychiatric beds has grown, fueled by growth in the number of beds at for-profit IPFs. In 2021, aggregate occupancy rates, based on Medicare cost reports, decreased to 70 percent (from 76 percent in 2017), suggesting availability of IPF beds. However, IPF interviewees agreed that labor shortages limited the number of staffed beds available, a situation that is not fully captured by cost reports. Moreover, higher occupancy rates at government IPFs—which frequently function as providers of last resort—also indicate insufficient supply for persistently mentally ill beneficiaries.
- **Volume of services**—Overall Medicare FFS volume at IPFs has been declining for several years, with commensurate decreases in aggregate Medicare FFS spending on IPF services. The decline in utilization between 2019 and 2021 was particularly steep, likely related to avoidance or deferral of inpatient

stays in response to the spread of COVID-19 and to IPFs' limited treatment capacity due to staffing shortages.

Quality of care—Data on the quality of care provided by IPFs are currently too limited to meaningfully assess and compare quality across facilities. As IPFs begin to report patient-level quality results, CMS and others will be able to better assess the quality of care provided by IPFs. Incorporation of more outcomes and patient experience measures into the IPF quality reporting program would also improve policymakers' ability to assess quality.

Providers' access to capital—Access to capital appears to be strong among IPFs. Almost two-thirds of IPF providers are hospital-based units that would access any necessary capital through their parent institutions. Overall, acute care hospitals maintained strong access to capital in 2021. Freestanding IPFs also had access to capital; the largest owner of freestanding IPFs expanded between 2019 and 2022, with plans for new facilities between 2023 and 2025.

Medicare payments and providers' costs—In 2021, the overall aggregate margin for IPFs was -9.4 percent, though margins varied substantially across IPFs. The variation tracked with differences in costs by IPF type, with freestanding for-profit IPFs having lower costs (and higher margins, 15.0 percent) and hospital-based IPFs having higher costs (and lower margins, -28.3 percent). This pattern is likely due in part to differences in scale (for-profit IPFs tend to be larger). It is not clear whether differences in the mix of patients served or the quality of care provided also plays a role. To properly assess whether the IPF payment system is accurately capturing costs and classifying patients, policymakers need more information on patient severity and resource use, including use of ancillary services. Some ancillary services, such as prescription drugs, are expected to be widely used by IPF patients. However, we found that a number of IPFs (over 50 percent of freestanding for-profit IPFs) do not report ancillary services or have changed their cost-reporting designations to “all-inclusive-rate” hospitals, such that they are not required to separately report ancillary services. Some of these issues may be resolved when CMS collects more information on IPFs' resource use and patient characteristics, as required by the Consolidated Appropriations Act, 2023. ■

Introduction

Behavioral health refers to the promotion of mental health and overall wellbeing, including the treatment of substance use disorders (SUDs). Behavioral health conditions include depression, anxiety, substance use, schizophrenia spectrum, bipolar, and other disorders. In 2021, the prevalence of behavioral health conditions among adults in the U.S. was over 30 percent (Substance Abuse and Mental Health Services Administration 2022). Older adults are particularly at risk for behavioral health problems: Functional decline, increased comorbidities, pain, and loss of social support during the aging process can trigger or exacerbate anxiety, depression, and SUDs (Fleet et al. 2022, Koenig et al. 1994). The prevalence of these conditions among older adults has been growing (Substance Abuse and Mental Health Services Administration 2017).

Services to diagnose and treat behavioral health conditions are provided in various settings, such as clinicians' offices, hospital outpatient departments, clinics, emergency departments, inpatient hospital settings, and more recently through telehealth in the patient's home. Clinicians who provide these services also vary widely, including psychiatrists, psychologists, social workers, general and family practitioners, nurse practitioners, and physician assistants. The coronavirus pandemic—and consequent disrupted medical care, increased social isolation, and loss of loved ones—further heightened the risk of behavioral health problems among older adults (Busch et al. 2022a, Friedman 2022, Government Accountability Office 2021a, Yang et al. 2022). Long-standing concerns about access to behavioral health services have also been exacerbated by the coronavirus pandemic (Government Accountability Office 2022a).

In January 2022, the Chairman of the House Committee on Ways and Means requested that the Commission conduct an analysis on the utilization and availability of behavioral health services for Medicare beneficiaries, as follows:

- Describe the utilization of outpatient behavioral health services, including telehealth for behavioral health services, and characteristics of beneficiaries using these services.

- Examine trends and issues in inpatient psychiatric facility (IPF) care for beneficiaries, including examining the adequacy of Medicare's payment to IPFs, quality of IPF care, and information on beneficiaries reaching the 190-day lifetime limit on freestanding psychiatric hospital days.
- To the extent possible, describe use of behavioral health services by beneficiaries enrolled in Medicare Advantage (MA).

In response, we examined Medicare's coverage of behavioral health services; Medicare beneficiaries' use of, and spending on, behavioral health services provided by clinicians and outpatient facilities; and trends and issues in IPF services provided to Medicare beneficiaries, including findings from interviews conducted with IPF officials on the provision of services and how they differ by patient characteristics and facility types.

Our analyses on utilization and spending rely upon Medicare fee-for-service (FFS) claims data. Where possible, we use MA encounter data to examine utilization among MA enrollees. We use diagnosis codes and procedure codes to identify beneficiaries using behavioral health services. To the extent that behavioral health codes are not used, our results undercount utilization and spending. Studies have found underuse of behavioral health services to affect older adults in particular for several reasons, including lack of knowledge of the availability of services, lack of perceived need for care, and stigma (Crabb and Hunsley 2006, Garrido et al. 2011, Sorkin et al. 2016).

Medicare coverage of behavioral health services

Medicare covers a range of behavioral health services, from annual screening, evaluation, and counseling to inpatient psychiatric hospitalizations in a variety of settings, including clinicians' offices, clinics, hospital outpatient and inpatient facilities, and via telehealth (Table 6-1, p. 232). Coverage includes integration of behavioral and physical health services as well as early detection and interventions for SUDs. Behavioral health services covered under Medicare Part B require patient cost sharing through a deductible and 20 percent

**TABLE
6-1**

Medicare coverage of behavioral health services

	Types of services	Location(s)	Beneficiary costs
Screening	<ul style="list-style-type: none"> • Welcome to Medicare • Wellness visit • Depression • Alcohol misuse 	<ul style="list-style-type: none"> • Some services require an outpatient setting that can provide follow-up treatment 	<ul style="list-style-type: none"> • No cost sharing
Counseling	<ul style="list-style-type: none"> • Psychiatric evaluation • Individual or group psychotherapy • Family counseling • Alcohol counseling 	<ul style="list-style-type: none"> • Any setting 	<ul style="list-style-type: none"> • Part B deductible + 20% coinsurance
Behavioral and physical health integration	<ul style="list-style-type: none"> • Behavioral health integration services • Health behavior assessment and intervention 	<ul style="list-style-type: none"> • Any setting 	<ul style="list-style-type: none"> • Part B deductible + 20% coinsurance
Early intervention for nondependent substance use (SBIRT)	<ul style="list-style-type: none"> • Screening for risk of a substance use disorder • Brief intervention • Referral for additional treatment 	<ul style="list-style-type: none"> • Clinician office or hospital outpatient 	<ul style="list-style-type: none"> • Part B deductible + 20% coinsurance, though some services are considered preventive and have no cost sharing
Opioid use disorder (OUD) treatment	<ul style="list-style-type: none"> • Medications for OUD • Substance use counseling • Individual or group therapy • Testing and assessments 	<ul style="list-style-type: none"> • Accredited and certified OTP provider • Clinician office and hospital outpatient can bill some services 	<ul style="list-style-type: none"> • OTPs: Part B deductible only • Non-OTPs: Part B deductible + 20% coinsurance
Partial hospitalization	<ul style="list-style-type: none"> • Intensive outpatient care • Therapy, counseling • Minimum of 20 hours per week 	<ul style="list-style-type: none"> • Hospital outpatient, community mental health centers 	<ul style="list-style-type: none"> • Part B deductible + 20% coinsurance
Inpatient psychiatric hospitalization (IPF or general acute care hospital)	<ul style="list-style-type: none"> • 24-hour care in hospital • Therapy, counseling, rehabilitation, medication management 	<ul style="list-style-type: none"> • Hospital inpatient 	<ul style="list-style-type: none"> • Part A deductible + copay for hospital stay • Part B deductible + 20% coinsurance for clinician services
Prescription drugs	<ul style="list-style-type: none"> • Pharmacy fills for self-administered drugs • Clinician administered in an outpatient setting • Administered in an inpatient setting 	<ul style="list-style-type: none"> • Any setting, but coverage differs by type of drug (self-administered or not) and setting 	<ul style="list-style-type: none"> • Part A when received in hospital or SNF • Clinician administered: Part B deductible + 20% coinsurance • Self-administered: Part D

Note: SBIRT (screening, brief intervention, and referral to treatment), OTP (opioid treatment program), OUD (opioid use disorder), IPF (inpatient psychiatric facility), SNF (skilled nursing facility). This table does not include additional benefits specified by the Consolidated Appropriations Act, 2023.

coinsurance, though cost sharing is waived for certain types of services (such as screening and preventive care). In 2020, Medicare Part B began to cover episodes of care for treating opioid addiction, consisting of counseling, therapy, and medication-assisted treatment (including methadone) from certified opioid treatment providers (Centers for Medicare & Medicaid Services 2021c).

For beneficiaries needing more intensive behavioral health interventions, Medicare covers partial hospitalization, which includes an intensive psychiatric outpatient treatment. Partial hospitalization can provide a “step-down” alternative following an inpatient hospitalization or may be used instead of inpatient care for patients who need more services than can be provided on an outpatient basis but who are not so ill that they need 24-hour care and supervision.¹ Partial hospitalization programs (PHPs) offer a combination of individual, group, family, occupational, and activity therapies and are administered by hospital outpatient departments or community mental health centers (CMHCs). Use of PHPs diminished substantially in the last two decades after findings of fraud, waste, and abuse among CMHCs.² The Consolidated Appropriations Act (CAA), 2023, limits PHPs to beneficiaries requiring a minimum of 20 hours of these services per week while adding a new “intensive outpatient services” benefit for beneficiaries needing a minimum of 9 hours of services per week (effective January 1, 2024). The text box (p. 234) summarizes recent legislation related to Medicare behavioral health services.

Beneficiaries experiencing an acute mental health or SUD-related crisis requiring hospitalization can be treated by specialty IPFs, which are freestanding hospitals or specialized units within acute care general hospitals. Beneficiaries may also receive care for a psychiatric or SUD condition in a general acute care bed (referred to as “scatter beds”). These services are covered under Medicare Part A, which requires patient cost sharing, including a deductible and copayments depending on the length of the stay. Under Medicare Part A, the limit to the total lifetime number of days in freestanding IPFs is 190 days. Services from physicians and other clinicians during hospitalization are covered by Medicare Part B (and subject to Part B cost-sharing requirements).

Finally, a significant component of Medicare’s coverage for treatment and management of behavioral health conditions is coverage of pharmaceuticals. Medicare Part B covers drugs provided incident to clinician services that are not generally self-administered (e.g., long-acting injectable medications that must be administered by a health care professional). Part D, Medicare’s outpatient prescription drug benefit, requires drug plans to cover all drugs in the following classes (with limited exceptions): antidepressant, anticonvulsant, and antipsychotic medications. CMS reviews formularies to ensure that Part D plans are not discriminating against beneficiaries with certain conditions (such as beneficiaries with SUDs). During an inpatient hospital stay, all prescription medications are covered as part of the Medicare Part A-covered inpatient stay.

Medicaid is the largest payer for behavioral health services in the U.S., and some state Medicaid programs offer additional behavioral health services not covered by Medicare (see text box on Medicaid and behavioral health services, p. 235). Nearly 20 percent of beneficiaries in Medicare’s traditional FFS program were dually eligible for Medicaid at some point in 2021 (this was nearly 40 percent among beneficiaries using Part B behavioral health services) and could be eligible for additional Medicaid behavioral health services, depending on their state.

Clinician and outpatient behavioral health services

Our work examines utilization and spending on outpatient-provided and clinician-provided behavioral health services. We identified the characteristics of beneficiaries using these services and the types of practitioners providing them. Notably, we observed a substantial shift from in-person visits to telehealth visits that occurred with the onset of COVID-19.

Medicare’s payment for Part B behavioral health services

Our work focused on Medicare payment of Part B behavioral health services such as psychiatric evaluations, psychotherapy, opioid treatment programs, and behavioral health integration, among

Recent behavioral health legislation

The Consolidated Appropriations Act (CAA) of 2021 and the CAA, 2023, included several Medicare provisions related to behavioral health, including expansion of the behavioral health workforce, making the tele-behavioral health expansion permanent, adding Medicare coverage for intensive outpatient psychiatric services, and requiring the collection of more information related to inpatient psychiatric facilities to refine the payment system and better track quality of care.

Adding marriage and family therapists and mental health counselors to the behavioral health workforce

Effective January 1, 2024, per the CAA, 2023, Medicare will cover and reimburse licensed marriage and family therapists (LMFTs) and licensed professional counselors (LPCs). Prior to this date, LMFTs and LPCs were able to bill for care provided to Medicare beneficiaries only when performed under the supervision of physicians or non-physician practitioners. Medicare will reimburse these clinicians at 75 percent of the payment for psychologists, comparable to the payment rate for clinical social workers.

Permanent expansion of tele-behavioral health

The CAA, 2021, removed the geographic restrictions on tele-behavioral health provision and added the patient's home as an originating site for telehealth services that are used to diagnose, evaluate, or treat a behavioral health disorder. Per the CAA, 2023, starting in 2025, an in-person visit must be provided by the clinician furnishing tele-behavioral health services within six months prior to the initial telehealth visit and annually thereafter; however, the policy does not apply if the practitioner and patient agree that the benefits of an in-person service are outweighed by the risks and burdens associated

with an in-person service. CMS will also pay for tele-behavioral services provided in an audio-only interaction if the clinician has the capability to use an interactive telecommunications system that includes video and the beneficiary is unable to use the video component or does not consent to video use.

New intensive outpatient services benefit

Effective January 1, 2024, per the CAA, 2023, Medicare will cover an “intensive outpatient services” benefit for beneficiaries needing a minimum of nine hours of intensive behavioral health services per week. This differs from the existing partial hospitalization benefit, which is available to Medicare beneficiaries needing at least 20 hours of services per week. Intensive outpatient services may be provided in federally qualified health centers, rural health clinics, and community mental health centers.

Inpatient psychiatric facility data collection

The CAA, 2023, requires CMS to collect additional information to refine payments under Medicare's inpatient psychiatric facility payment system. Starting in October 2023, CMS is required to collect additional data on ancillary service provision (e.g., prescription medications, laboratory services), resource use, and need for monitoring (e.g., violent behavior, physical restraint) and interventions (e.g., detoxification services, dependence on a respirator) through cost reports, claims, or another source. CMS also is required to collect information on patient characteristics (e.g., functional status, cognitive function, comorbidities, and impairments) using a standardized patient assessment instrument beginning in 2028. Last, CMS is required to develop a measure of patients' perspectives on care and add the measure to the quality reporting program by 2031. ■

others (see text box on our methods for identifying behavioral health services, p. 238). We included services for which the diagnosis on the claim indicated a behavioral health condition or for which the place

of service was a behavioral health-related location (e.g., psychiatric treatment facility). From the Part B practitioner (or carrier) claims file, we included Part B behavioral health clinician services performed under

Medicaid and behavioral health services

Federal law mandates that Medicaid cover certain medically necessary behavioral health services, but states can offer other optional services that are important to beneficiaries with behavioral health conditions. States may also participate in demonstrations or waiver programs that provide additional services or test alternative approaches to delivering behavioral health services. Below, we highlight a few notable behavioral health benefits that are unique to Medicaid (i.e., not covered by Medicare). This is not an exhaustive list of additional Medicaid behavioral health benefits.

- **Rehabilitation services option:** States can offer recovery-oriented behavioral health services to beneficiaries. These include some of the same services that are covered by Medicare (such as counseling, therapy, and partial hospitalizations) as well as services Medicare does not cover. For example, as of 2015, over 45 states offer community psychiatric support services or assertive community treatment. Other common services provided by states include employment supports, home-based services, round-the-clock services, and caregiver support services (Medicaid and CHIP Payment and Access Commission 2015).
- **Certified Community Behavioral Health Clinics (CCBHCs):** CCBHCs are specialty clinics that provide comprehensive and coordinated behavioral health care that addresses both physical and behavioral health conditions, including 24/7 mobile crisis support, outpatient mental health and substance use counseling and treatment, and primary care screening. CCBHCs began as a Medicaid demonstration program in 2016 with eight states, and the program has since received over \$300 million in planning grant funds from the federal Substance Abuse and Mental Health Services Administration to expand nationwide (Department of Health and Human Services 2022, Government Accountability Office 2021b).
- **Housing-related supports:** Several state Medicaid programs have seen success in providing and expanding housing-related services for individuals with substance use disorders who are at risk of or experiencing homelessness (Department of Health and Human Services 2020). These include strategies to support transition to housing, housing and tenancy sustaining services, and state-level housing-related collaborative activities.
- **Services from licensed marriage and family therapists (LMFTs) and licensed professional counselors (LPCs):** LMFTs and LPCs are considered eligible providers by most Medicaid plans, while currently they can only practice incident to a physician or other eligible practitioner under Medicare (Schoebel et al. 2022). Under the CAA, 2023, LMFTs and LPCs will be eligible to bill Medicare starting January 1, 2024 (see text box on recent behavioral health legislation, p. 234).
- **Mental health parity:** Medicaid managed care organization (MCO) plans must abide by federal behavioral health parity rules that require that health plans have the same coverage for behavioral health services as for medical/surgical services in terms of financial requirements (e.g., cost sharing) and treatment limits (e.g., prior authorizations).³ States are encouraged to apply parity rules more broadly than to only MCO enrollees. Parity rules do not apply to Medicare or Medicare Advantage plans. For example, some stakeholders have asserted that Medicare's limit on the number of days in freestanding inpatient psychiatric facilities would not meet parity standards (Government Accountability Office 2022b). ■

the physician fee schedule (PFS). From the outpatient claims file, we also included Part B behavioral health services provided by hospital outpatient departments, CMHCs, skilled nursing facilities (SNFs), critical

access hospitals (CAHs), rural health clinics (RHCs), and federally qualified health centers (FQHCs). We calculated total Part B spending as all Medicare

**TABLE
6-2**

Medicare FFS beneficiaries using Part B behavioral health services, 2017–2021

	FFS beneficiaries using behavioral health services (millions)	Share of FFS beneficiaries	Part B spending for behavioral health services			
			PFS allowed charges (billions)	Other total payments (billions)	Total spending (billions)	Total spending per beneficiary
2017	5.3	16%	\$3.4	\$1.1	\$4.5	\$846
2018	5.4	16	3.5	1.1	4.6	860
2019	5.4	16	3.6	1.2	4.7	876
2020	5.0	16	3.5	0.9	4.5	885
2021	4.9	16	3.8	1.0	4.8	981

Note: FFS (fee-for-service), PFS (physician fee schedule). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who used Part B behavioral health services or had a Part B claim with a behavioral health diagnosis code. “Total spending” represents all Part B behavioral health payments made to the provider, including beneficiary cost sharing. “Other total payments” includes Part B payments for services provided in hospital outpatient departments, community mental health centers, skilled nursing facilities, critical access hospitals, rural health clinics, and federally qualified health centers. Components may not sum to totals due to rounding.

Source: MedPAC analysis of carrier and outpatient FFS claims and Medicare enrollment data from CMS.

program payments made to the provider of the service, including beneficiary cost sharing.

In 2021, total spending for Part B behavioral health services was \$4.8 billion (up from \$4.5 billion in 2017) (Table 6-2). Most of this spending was for PFS-covered services (\$3.8 billion, or 80 percent of the total). Between 2017 and 2020, per beneficiary total behavioral health spending was steady, with an annual growth rate of 1 percent. However, between 2020 and 2021, spending per beneficiary grew by 11 percent (from \$885 to \$981). This growth was likely related to increases in the reimbursement of evaluation and management (E&M) services that went into effect January 1, 2021 (Centers for Medicare & Medicaid Services 2020a).

Characteristics of Medicare beneficiaries using Part B-covered behavioral health services

Approximately 16 percent of Medicare FFS beneficiaries use Part B behavioral health services each year (Table 6-2). (See text box, p. 238, for a discussion of the methods we used to identify Part B behavioral health services.) From 2019 to 2021, with the onset of the pandemic (and growth in MA enrollment), the

number of FFS beneficiaries using Part B behavioral health services declined from 5.4 million to 4.9 million; however, this figure continued to represent about 16 percent of the FFS population. In 2021, total spending on Part B behavioral health services was \$4.8 billion; spending per beneficiary was \$981.

FFS beneficiaries using behavioral health services were more likely to be disabled, low income, and have higher Medicare overall spending

In 2021, Medicare beneficiaries using Part B behavioral health services were more likely to be disabled, female, young, low income, and have a higher CMS hierarchical condition category (HCC) risk score (meaning poorer health status) compared with other FFS beneficiaries (Table 6-3). Beneficiaries using Part B behavioral health services were slightly more likely to be located in an urban metropolitan area compared with other FFS beneficiaries (81 percent vs. 79 percent).⁴ Beneficiaries using Part B behavioral health services were less likely to be located in a health professional shortage area (HPSA) (26 percent vs. 29 percent for other FFS beneficiaries).⁵ Total Medicare Part A and Part B spending for

**TABLE
6-3**

Characteristics of Medicare FFS beneficiaries using Part B behavioral health services, 2021

Current eligibility status and demographics (in percent)	Beneficiaries using behavioral health services	All other FFS
Aged	71	90
Disabled	29	10
ESRD	0.2	0.3
Female	62	53
Male	38	47
<45	10	3
45-64	23	14
65-79	50	63
80+	17	20
Non-Hispanic White	80	78
Black	9	9
Asian/Pacific Islander	2	3
Hispanic	6	6
American Indian/Alaska Native	0.6	0.5
Other or unknown	3	3
Metropolitan	81	79
Micropolitan	11	12
Rural (adjacent)	5	6
Rural (nonadjacent)	3	4
Frontier		
No	99	99
Yes	1	1
Mental health HPSA		
No	74	71
Yes	26	29
Dual eligible or LIS during year		
No	58	82
Yes	42	18
HCC risk score	1.40	0.98
Medicare Part A and Part B spending (per capita)	\$19,481	\$7,896
Medicare Part D (per capita)*		
Gross spending**	\$7,085	\$3,926
Fills	74	47

Note: FFS (fee-for-service), ESRD (end-stage renal disease), HPSA (health professional shortage area), LIS (low-income subsidy), HCC (hierarchical condition category). Beneficiaries using behavioral health services include those with at least one month of Part B enrollment in the year who used Part B behavioral health services or had a Part B claim with a behavioral health diagnosis code. Geographic categories are based on the beneficiary's county of residence, mapped using the Office of Management and Budget and U.S. Department of Agriculture's Urban Influence Codes.

*Includes only those beneficiaries enrolled in Part D.

**Reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies.

Source: MedPAC analysis of FFS standard analytic files, Medicare enrollment, HCC risk score, and Part D prescription drug event data from CMS.

Identifying Part B behavioral health services

We created an analytic file consisting of Part B behavioral health services by applying the following criteria to select Medicare fee-for-service (FFS) carrier and hospital outpatient claims line-item records from 100 percent of Medicare FFS standard analytic claims files:⁶

- *Select behavioral health conditions:* records with mental health or substance use disorder–related diagnosis codes specified using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (Table 6-4), or
- *Select behavioral health visits:* records for the following services:
 - psychiatric evaluation: 90791, 90792, 90885, 90887, 90889, 90899
 - psychotherapy visits: 90832–90838, 90839–90840, 90845–90848, 90849, 90853, 90863, 90875–90876, 90880
 - behavioral health integration services: 99492, 99493, 99494, G2214, 99484
 - behavior assessment and intervention: 96150–96159
 - partial hospitalization: G0177, H0035, S0201
 - screening, brief intervention, referral to treatment: G2011, G0396, G0397
 - opioid treatment program: G1028, G2067–G2080, G2215, G2216, G2086–G2088, or
- *Select behavioral health place of service:* records where the place of service is related to behavioral health care:
 - inpatient psychiatric facility
 - residential and nonresidential substance abuse treatment facility
 - psychiatric residential treatment facility
 - opioid treatment facility
 - community mental health center (CMHC) or partial hospitalization in a hospital outpatient department

We include outpatient claims for Part B behavioral health services if they occurred in hospital outpatient departments, CMHCs, skilled nursing facilities, critical access hospitals, rural health clinics, or federally qualified health centers. We summed total payments for these services with allowed charges from the physician fee schedule to obtain total spending for Part B behavioral health services. Total spending represents all payments made to the provider for the service, including beneficiary cost sharing. Unless indicated otherwise, our spending and utilization figures refer to total spending for these Part B behavioral health services rather than all Medicare services. We exclude clinical laboratory claims and claims for Part B drugs

(continued next page)

beneficiaries using behavioral health services in 2021 was two and half times that of other FFS beneficiaries, and their Medicare Part D spending was nearly twice that of other FFS beneficiaries. Medicare spending on Part B behavioral health services represented less than 4 percent of total Part A and Part B spending

for beneficiaries who used Part B behavioral health services in 2021 (data not shown).

In 2021, the two most common behavioral health conditions diagnosed among beneficiaries using Part B behavioral health services were depressive disorders (5.8 percent of FFS beneficiaries, with \$1.4 billion of

Identifying Part B behavioral health services (cont.)

**TABLE
6-4**

Clinical Classifications Software Refined categories for mental, behavioral, and neurodevelopmental disorders

CCSR category	Description
MBD001	Schizophrenia spectrum and other psychotic disorders
MBD002	Depressive disorders
MBD003	Bipolar and related disorders
MBD004	Other specified and unspecified mood disorders
MBD005	Anxiety and fear-related disorders
MBD006	Obsessive-compulsive and related disorders
MBD007	Trauma- and stressor-related disorders
MBD008	Disruptive, impulse-control, and conduct disorders
MBD009	Personality disorders
MBD010	Feeding and eating disorders
MBD011	Somatic disorders
MBD012	Suicidal ideation/attempt/intentional self-harm
MBD013	Miscellaneous mental and behavioral disorders/conditions
MBD014	Neurodevelopmental disorders
MBD017	Alcohol-related disorders
MBD018	Opioid-related disorders
MBD019	Cannabis-related disorders
MBD020	Sedative-related disorders
MBD021	Stimulant-related disorders
MBD022	Hallucinogen-related disorders
MBD023	Inhalant-related disorders
MBD024	Tobacco-related disorders
MBD025	Other specified substance-related disorders
MBD026	Mental and substance use disorders in remission
MBD027	Suicide attempt/intentional self-harm; subsequent encounter
MBD034	Mental and substance use disorders; sequela

Note: MBD (mental, behavioral, and neurodevelopmental), CCSR (Clinical Classifications Software Refined).

Source: CCSR from the Agency for Healthcare Research and Quality.

(reported separately). We refer to these behavioral health services as “Part B behavioral health services” and the beneficiaries who use these services as “beneficiaries using Part B behavioral health services.”

For analyses of the type of behavioral health services that beneficiaries received, we include the types of visits listed above as well as evaluation and management visits and emergency department visits when either type of visit had an accompanying behavioral health diagnosis code. ■

**TABLE
6-5**

Depressive and anxiety disorders were the most common behavioral health conditions among FFS beneficiaries using Part B behavioral health services, 2021

	Number of beneficiaries (thousands)	Share of beneficiaries	Total spending for behavioral health condition (millions)
Depressive disorders	1,784	5.8%	\$1,443
Anxiety and fear-related disorders	1,550	5.0	702
Substance use disorders	704	2.3	541
Trauma-related and stressor-related disorders	664	2.1	511
Schizophrenia spectrum and other psychotic disorders	519	1.7	662
Bipolar and related disorders	416	1.3	425
Neurodevelopmental disorders	217	0.7	100
Disruptive, impulse-control, and conduct disorders	80	0.3	39
Suicide attempt/intentional self-harm	78	0.3	71
Other behavioral health conditions	466	1.5	207

Note: FFS (fee-for-service). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who had carrier or outpatient FFS claims with behavioral health diagnosis codes. Total spending represents all Part B behavioral health payments made to the provider, including beneficiary cost sharing. Diagnoses were grouped using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp). Excluded from this table are behavioral health services for which there was not an associated behavioral health diagnosis code (approximately \$95 million in spending).

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

associated spending) and anxiety and fear-related disorders (5.0 percent, with \$702 million in spending) (Table 6-5). About 2 percent of FFS beneficiaries had an

SUD, associated with \$541 million in Part B behavioral health spending. The true number of beneficiaries with SUDs is likely higher: A recent study reported

**TABLE
6-6**

Part B behavioral health spending was disproportionately higher for FFS beneficiaries with certain dual diagnosis categories, 2021

	Share of beneficiaries using behavioral health services	Share of total spending on behavioral health services
Depression/anxiety/trauma only	60%	49%
Schizophrenia/bipolar only	11	13
Substance use disorder only	10	7
More than one of the above categories	10	27
All other behavioral health conditions	10	4

Note: FFS (fee-for-service). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who had carrier or outpatient FFS claims with behavioral health diagnosis codes. Total spending represents all Part B behavioral health payments made to the provider, including beneficiary cost sharing. Diagnoses were grouped using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp) and categorized as shown. Excluded from this table are behavioral health services for which there was not an associated behavioral health diagnosis code (approximately \$95 million in spending).

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

Accountable care organizations and behavioral health care

Medicare accountable care organizations (ACOs) were designed to promote care coordination and improve quality and delivery of care through shared-savings financial incentives. ACOs should thus be incentivized to address the needs of beneficiaries with behavioral health conditions, given these beneficiaries' high associated spending and the proven effectiveness of coordinated behavioral and physical care (Busch et al. 2017, Figueroa et al. 2022, National Association of State Mental Health Program Directors 2016). However, evidence to date has found that many ACOs have not made the necessary investments to integrate behavioral health into primary care (Busch et al. 2022b). One study found that only 14 percent of ACO respondents to a 2017–2018 national survey reported including a specialty behavioral health

provider in their ACO network (Newton et al. 2022). Moreover, studies to date have found little or no impacts of ACOs on quality of care and spending related to behavioral health (Acevedo et al. 2021, Busch et al. 2017, Busch et al. 2016, Figueroa et al. 2022).

Although ACOs remain interested in addressing behavioral health, and some progress has been made by Medicaid ACOs, studies have reported several barriers to progress. These include the limited behavioral health workforce, slow adoption of the necessary health information technology (to facilitate information exchange across providers), and limited behavioral health-specific quality incentives (Beil et al. 2019, Fullerton et al. 2016, Minkoff 2016). ■

that older adults are at higher risk of undiagnosed and untreated SUD since they are less likely to be screened, assessed, and treated compared with younger adults (Dufort and Samaan 2021). This may be due to greater difficulty in screening because of cognitive impairment, misattributing of symptoms of SUD to the aging process, stigma, and a misconception that substance use is less likely among older adults (Dufort and Samaan 2021).

Beneficiaries with co-occurring behavioral health conditions, or dual diagnoses (particularly with SUDs), are at greater risk of poor outcomes, including arrests, homelessness, increased medical problems, and higher costs of care (Dixon 1999, Pew Research Center 2023, Substance Abuse and Mental Health Services Administration 2023). We defined behavioral health dual diagnoses as having diagnoses in more than one of the following categories: (1) depressive, anxiety and fear-related, or trauma- and stressor-related disorders; (2) schizophrenia or bipolar disorders; and (3) SUDs. We found that beneficiaries with dual diagnoses incurred disproportionately more spending on Part B behavioral

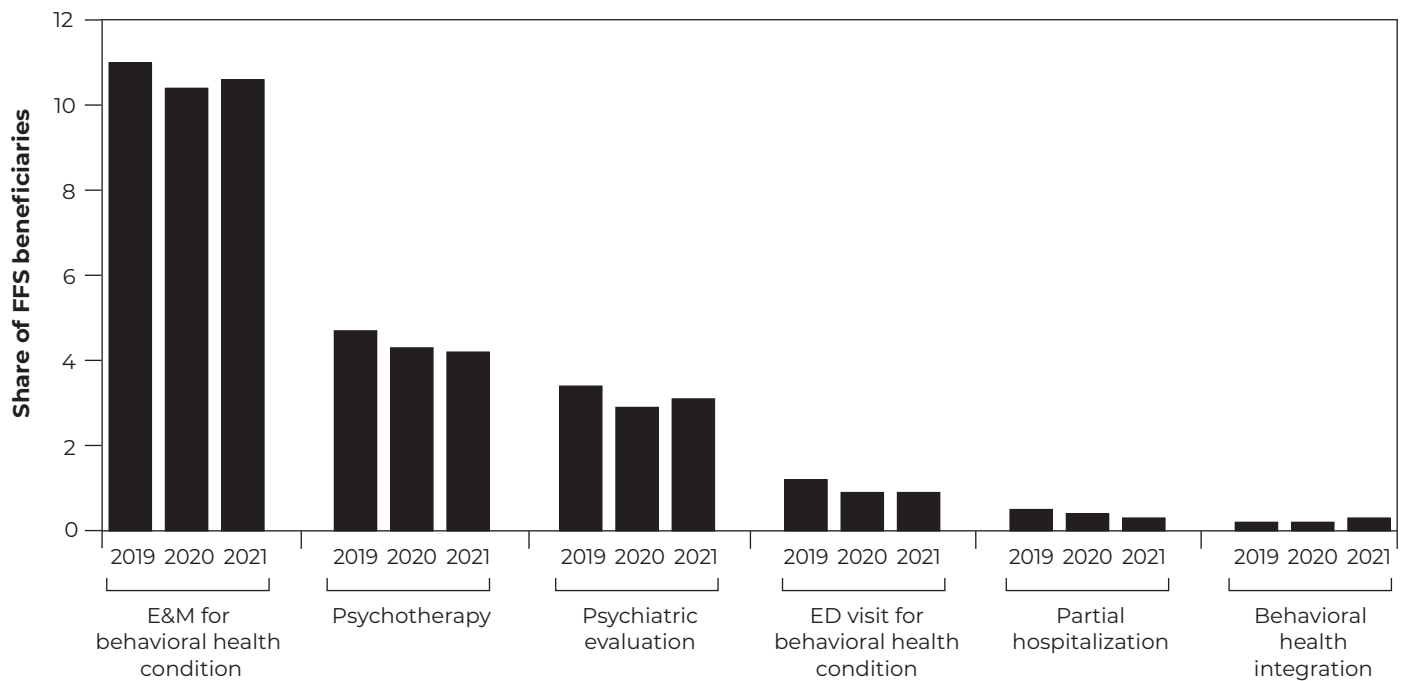
health services compared with others without dual diagnoses in 2021 (Table 6-6). In addition, in the same year, Medicare spent nearly \$30,000 per capita on Part A and Part B services for beneficiaries with dual diagnoses, which was 1.5 times the per capita amount spent for all beneficiaries using behavioral health services (data not shown).

Utilization of Part B behavioral health services

We identified the provision of Part B behavioral health services based on the presence of certain Healthcare Common Procedure Coding System (HCPCS) codes, diagnosis codes, and places of services (see text box on the methodology for defining Part B behavioral health services, pp. 238–239). We identified the following behavioral health service types: psychotherapy, psychiatric evaluation, evaluation & management (E&M) visits for a behavioral health diagnosis, emergency department (ED) visits for behavioral health diagnosis, partial hospitalizations, and behavioral health integration services.

FIGURE 6-1

Share of FFS beneficiaries using behavioral health services, 2019–2021



Note: FFS (fee-for-service), E&M (evaluation and management), ED (emergency department). Figures represent the share of all FFS beneficiaries with at least one month of Part B enrollment in the year who used Part B behavioral health services. Behavioral health conditions were defined using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp).

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

E&M visits for a behavioral health diagnosis were the most common type of behavioral health service among beneficiaries using Part B behavioral health services. In 2021, 11 percent of FFS beneficiaries had this type of visit (Figure 6-1). The next most common behavioral health visits were for psychotherapy and psychiatric evaluations. About 1 percent of the FFS population had an ED visit for a behavioral health condition. Only 0.3 percent of Medicare FFS beneficiaries received partial hospitalization services. For most of these services, utilization dipped in 2020 (with the onset of COVID-19) but increased in 2021, nearing 2019 levels.

Less than 1 percent of beneficiaries received behavioral health integration services, though this share slightly increased between 2019 and 2021 (Figure 6-1). Clinicians

can bill for behavioral health integration services if they implement a multidisciplinary team-based approach to primary care, which is based on the Psychiatric Collaborative Care Model (Centers for Medicare & Medicaid Services 2022a). Versions of the collaborative care model have been shown to be effective through multiple studies over the past few decades (Kroenke and Unutzer 2017, Raney 2015, Reed et al. 2016, Vohs et al. 2022). Integration of primary and behavioral health care is a key component of Health and Human Services' strategy to address the mental health crisis (Assistant Secretary for Planning and Evaluation 2022). Accountable care organizations (ACOs) may also be well placed to promote integrated behavioral health care, though there has been little progress to date (see text box, p. 241).

**TABLE
6-7**

Volume and spending by FFS beneficiaries for selected behavioral health services (physician fee schedule services only), 2021

	Number of unique beneficiaries (millions)	Volume of services (millions)	Average volume per beneficiary using service	Aggregate allowed charges (millions)	Allowed charges per beneficiary using service
E&M visit for behavioral health conditions	3.1	13.3	4.2	\$1,270	\$410
Psychotherapy	1.2	14.8	11.9	1,450	1,170
Psychiatric evaluation	0.9	1.2	1.3	190	210
Behavioral health integration	0.1	0.3	4.0	20	230

Note: FFS (fee-for-service), E&M (evaluation and management). Includes FFS beneficiaries with at least one month of Part B enrollment in the year who used physician fee schedule behavioral health services (see text box on pp. 238–239 for definition of each visit type and list of E&M codes). Table includes only physician fee schedule services. Behavioral health conditions were defined using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp). Volume is measured as the number of services received. Numbers may not sum to totals due to rounding.

Source: MedPAC analysis of carrier standard analytic files and Medicare enrollment data from CMS.

In 2021, E&M services for a behavioral health condition and psychotherapy were the most commonly received behavioral health services. The greatest volume of services was for psychotherapy (Table 6-7). In 2021, 1.2 million FFS beneficiaries had a psychotherapy visit, aggregate spending on the service was nearly \$1.5 billion, and volume of services was 14.8 million. Beneficiaries receiving psychotherapy had, on average, 11.9 encounters and incurred \$1,170 in spending per beneficiary.⁷ In contrast, more beneficiaries had an E&M visit for a behavioral condition (3.1 million), though average per beneficiary volume for those receiving this service was only 4.2 and spending was \$410 per beneficiary.

We found that over 30 percent of beneficiaries using behavioral health services received only one behavioral health visit, and the median number of visits was three (data not shown).⁸ However, the number of visits varied by type of service—over 80 percent of beneficiaries using psychotherapy had two or more visits in a year.

Behavioral health services received by MA enrollees are shown in the text box on pp. 244–246.

Growth in the treatment of substance use disorders

For each year from 2017 to 2021, slightly over 100 per 10,000 FFS beneficiaries received treatment for

alcohol-related, opioid-related, and other substance use disorders (SUDs).⁹ However, the number of beneficiaries treated for an opioid use disorder (OUD) has grown while treatment of alcohol use disorders and other SUDs has declined (Figure 6-3, p. 247).¹⁰ OUDs grew more rapidly in recent years; from 2019 to 2021, they grew by 7 percent annually (from 40 beneficiaries to 44 beneficiaries per 10,000 FFS beneficiaries) compared with 3 percent (from 38 beneficiaries to 40 beneficiaries per 10,000 FFS beneficiaries) from 2017 to 2019 (Figure 6-3). Before 2019, the numbers of beneficiaries treated for alcohol disorders and for other SUDs were steady, but from 2019 to 2021, these declined annually by 5 percent and 8 percent, respectively.¹¹

Growth in the treatment of OUDs was driven by urban areas; the level was steady in rural areas (Figure 6-4, p. 248). This may be related to reported undertreatment of OUDs in rural areas (Andrilla et al. 2019). Several recent studies have found poorer access to OUD treatment centers and providers in rural areas compared with urban areas (Amiri et al. 2021).

Medicare covers early-intervention SUD services for beneficiaries with nondependent substance use, referred to as screening, brief intervention, and referral

Medicare Advantage and clinician- and outpatient-provided behavioral health services

Currently, nearly half of Medicare beneficiaries are enrolled in Medicare Advantage (MA) (Medicare Payment Advisory Commission 2022a). MA plans must cover Medicare Part A and Part B services (except graduate medical education, hospice, and acquisition costs for kidney transplants) and often offer supplemental benefits, such as lower cost sharing or non-Medicare benefits. Plans may limit enrollees' choice of providers, subject to federal and state network adequacy rules that require sufficient providers for "reasonable and timely access to care" (Assistant Secretary for Planning and Evaluation 2021). However, there have been reports of lacking in-network access to behavioral health providers among MA plans, resulting in frequent use of higher-cost out-of-network behavioral health providers (Larson 2022, McGinty 2020). Indeed, behavioral health providers were found to be among the least likely to be included in any MA network (Meyers et al. 2022).

To assess utilization of behavioral health services among MA enrollees, we applied an algorithm similar to our fee-for-service (FFS) analyses using 2019 outpatient and physician/professional MA encounter data. Based on the submitted encounter data, we found that 16 percent of MA beneficiaries used behavioral health services, the same percentage as for FFS beneficiaries (data not shown). Characteristics of beneficiaries using outpatient

behavioral health services are shown in Table 6-8. Differences between FFS and MA beneficiaries using behavioral health services generally followed overall differences between FFS and MA beneficiaries. However, MA enrollees using behavioral health services were less likely to be age 80 or older compared with FFS counterparts (Table 6-8).

Utilization by the type of behavioral health visit was also generally similar among MA and FFS beneficiaries (Figure 6-2, p. 246). However, MA plans have a financial incentive to record all possible diagnoses, while FFS providers do not (Medicare Payment Advisory Commission 2022b). Thus, differential coding practices may lead to higher rates of behavioral health conditions among MA enrollees compared with FFS beneficiaries, all else equal. The differential may be reflected in the higher percentage of evaluation and management services for behavioral health conditions among MA enrollees and may have also affected the share of MA beneficiaries using emergency departments for behavioral health conditions.¹²

In 2019, we concluded that the accuracy of the encounter data was not yet sufficient for use in comparing MA and FFS utilization; this limitation still exists today (Medicare Payment Advisory Commission 2019). While we cannot with certainty make comparisons of the volume of behavioral

(continued next page)

to treatment (SBIRT) services (Centers for Medicare & Medicaid Services 2022d). From 2019 to 2021, use of SBIRT services increased by 6.7 percent annually, from 9.4 to 10.7 per 10,000 FFS beneficiaries.¹³ As of January 1, 2020, Medicare Part B began covering a new benefit for treating OUDs when provided by accredited and certified entities.¹⁴ These entities include hospital outpatient departments, substance use treatment facilities, and health care clinics, among others.¹⁵ The

opioid treatment programs (OTPs) provide Medicare beneficiaries with medications for OUDs, substance use counseling, individual and group therapy, testing, and assessments. OTP providers receive payment for a bundle of services provided during an episode of care, depending on whether medications (which can include take-home medications) were needed. Between 2020 and 2021, use of OTPs increased by 27 percent, from 10 beneficiaries to 13 beneficiaries per 10,000

Medicare Advantage and clinician- and outpatient-provided behavioral health services (cont.)

**TABLE
6-8**

Characteristics of FFS beneficiaries and MA enrollees using behavioral health services, 2019

	Beneficiaries using behavioral health services		All other beneficiaries	
	FFS	MA	FFS	MA
Aged	68%	70%	90%	91%
Disabled	32	30	10	9
Female	59	63	53	55
Male	37	37	47	45
<45	9	5	2	1
45-64	22	24	8	8
65-79	46	52	64	66
80+	24	18	26	25
Non-Hispanic White	77	67	79	68
Black	9	13	9	13
Asian/Pacific Islander	1	2	3	4
Hispanic	5	15	6	12
American Indian/Alaska Native	1	0	1	0
Other or unknown	6	2	3	3
Urban	80	89	78	87
Rural	20	11	22	13
Average HCC risk score	1.48	1.55	1.04	1.14
Dual eligible or LIS during year				
No	56	55	82	78
Yes	44	45	18	22
Medicare Part D (per capita)*				
Gross spending**	\$6,482	\$5,547	\$3,685	\$3,212
Fills	75	74	50	50

Note: FFS (fee-for-service), MA (Medicare Advantage), HCC (hierarchical condition category), LIS (low-income subsidy). FFS beneficiaries include those with at least one month of Part B enrollment in the year who used Part B behavioral health services. MA beneficiaries include those enrolled in a health maintenance organization (HMO) or preferred provider organization (PPO) plan who used similarly defined behavioral health services. All other FFS beneficiaries include those with Part A and Part B coverage at the midpoint of the year. All other MA beneficiaries include MA beneficiaries enrolled in HMO or PPO plans at the midpoint of the year. HCC risk scores do not account for unaddressed coding intensity.

*Includes only those beneficiaries enrolled in Part D. **Reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies.

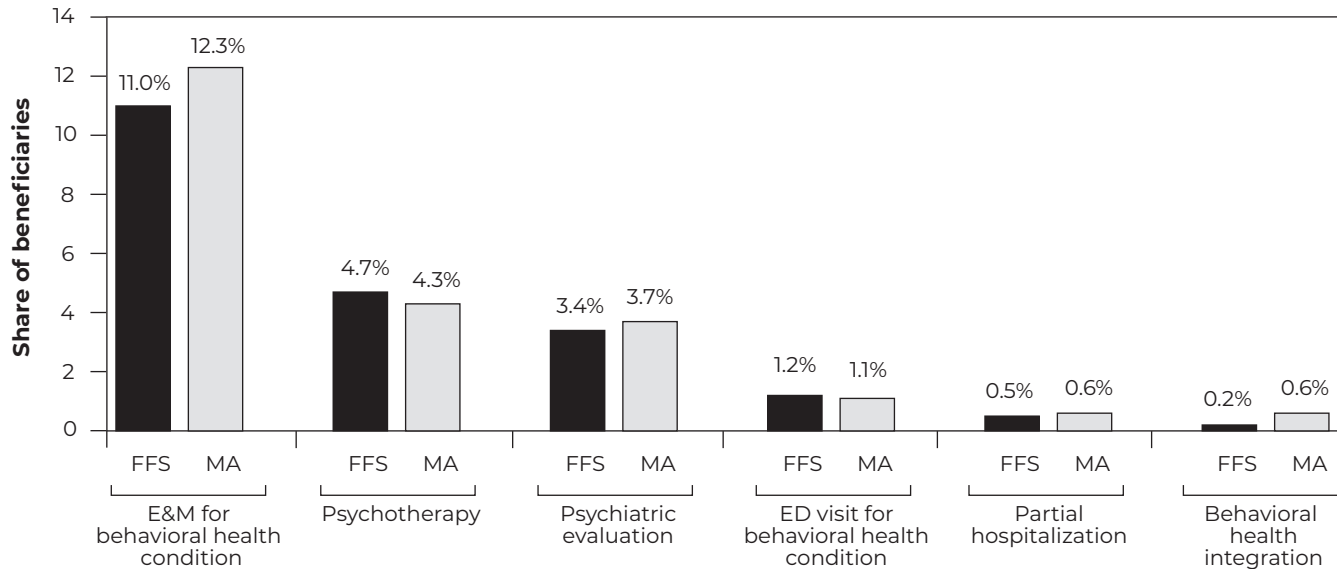
Source: MedPAC analysis of Medicare Provider Analysis and Review, MA encounter, Medicare enrollment, HCC risk score, and Part D prescription drug event data from CMS.

(continued next page)

Medicare Advantage and clinician- and outpatient-provided behavioral health services (cont.)

FIGURE 6-2

Based on submitted encounter data, we find similar use of behavioral health services among FFS and MA beneficiaries, 2019



Note: FFS (fee-for-service), MA (Medicare Advantage), E&M (evaluation and management), ED (emergency department). FFS beneficiaries include those with at least one month of Part B enrollment in the year who used Part B behavioral health services. MA beneficiaries include those enrolled in an HMO or preferred provider organization plan who used similarly defined behavioral health services. Behavioral health conditions were defined using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp).

Source: MedPAC analysis of FFS claims, MA encounter, and Medicare enrollment data from CMS.

health service use between MA and FFS, we maintain that the incentives for MA plans to code diagnoses that contribute to the calculation of an enrollee's

hierarchical condition category risk score allow us to identify MA enrollees who received any (at least one) of a given type of service. ■

FFS beneficiaries (Table 6-9, p. 247). Spending for OTP services was \$250 million, or \$6,440 per beneficiary receiving OTP services, in 2021.

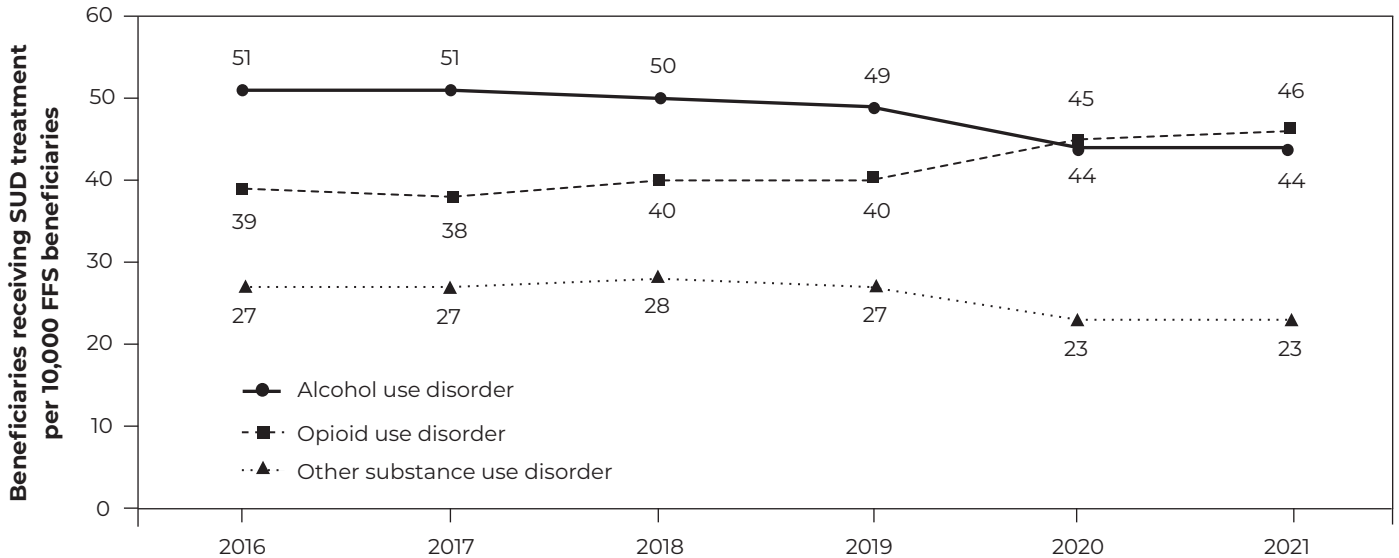
Use of prescription medications

In 2021, Part D gross spending on psychotropic medications for beneficiaries using Part B behavioral health services was nearly \$6 billion (Table 6-10, p. 248).¹⁶ The costliest psychotropic medications were

antipsychotics: Gross spending was nearly \$4 billion for 1.1 million beneficiaries (\$3,420 per beneficiary). Among the costliest antipsychotic medications was paliperidone (brand name Invega), a treatment for schizophrenia and schizoaffective disorders, used by 62,000 beneficiaries. In 2021, spending was \$1.2 billion, or \$19,600 per beneficiary (\$1,900 per 30-day fill) who used this medication (data not shown).

FIGURE 6-3

The number of FFS beneficiaries receiving treatment for opioid use disorders grew while number of those receiving treatment for substance use disorders declined, 2016–2021



Note: FFS (fee-for-service), SUD (substance use disorder). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who had carrier or outpatient FFS claims with substance use disorder diagnosis codes excluding tobacco use disorders (see text box on identifying Part B behavioral health services, pp. 238–239, for list of behavioral health conditions). Diagnoses were grouped using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp).

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

In 2021, Medicare paid roughly \$40 million for (clinician-administered) Part B drugs for behavioral health conditions (i.e., claim for a Part B drug with an associated behavioral health diagnosis) by 43,000

beneficiaries (\$910 per beneficiary) (data not shown). Nearly half the spending was on extended-release paliperidone injection (Invega), which was also among the costliest Part D psychotropic medications.

TABLE 6-9

Medicare implemented an opioid treatment program benefit in 2020

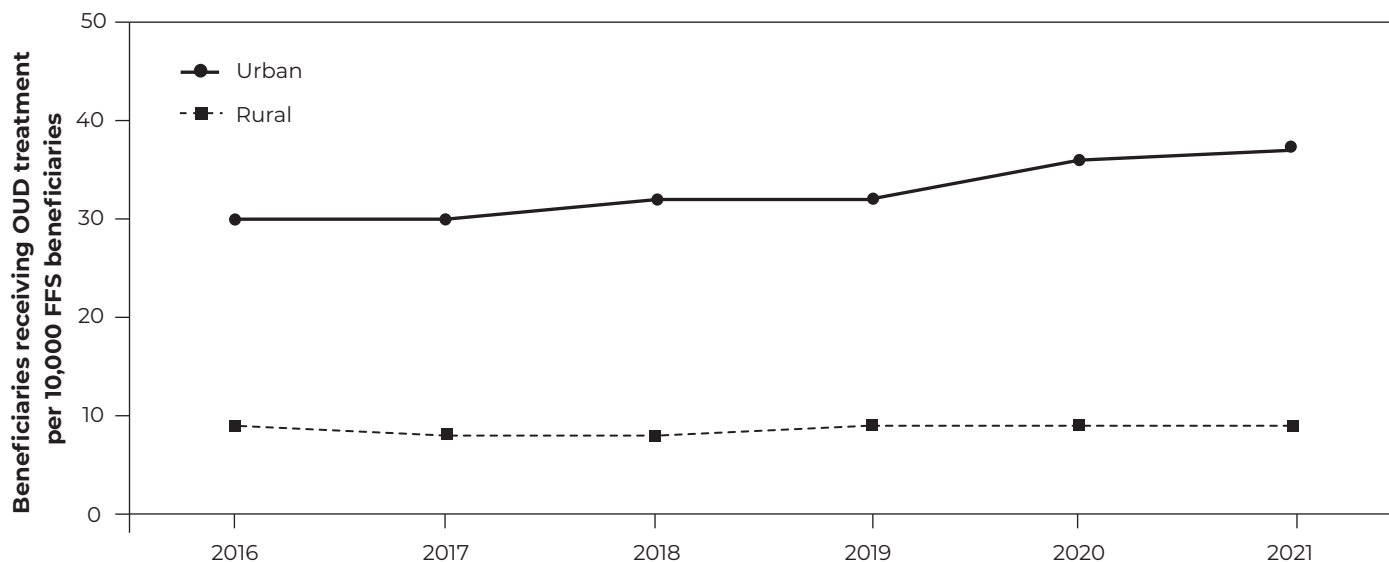
	2020	2021
FFS beneficiaries receiving OTP services	32,150	39,120
Per 10,000 FFS beneficiaries	10	13
Total spending on OTP services (in millions)	\$190	\$250
Total OTP spending per beneficiary receiving OTP services	\$5,930	\$6,440

Note: FFS (fee-for-service), OTP (opioid treatment program). "Total spending" represents all payments made to the provider, including beneficiary cost sharing, and is calculated by summing allowed charges from the Part B carrier claims and total payments from the outpatient claims. Numbers may not calculate to total due to rounding.

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

**FIGURE
6-4**

Growth in the number of FFS beneficiaries receiving treatment for opioid use disorders driven by urban areas, 2016-2021



Note: FFS (fee-for-service), OUD (opioid use disorder). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who had carrier or outpatient FFS claims with opioid use disorder diagnosis codes. Diagnoses were grouped using the Healthcare Cost and Utilization Project Clinical Classifications Software Refined categories for the mental, behavioral, and neurodevelopmental body system (https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp). "Urban" indicates beneficiaries living in metropolitan statistical areas (MSAs) as indicated by core-based statistical areas. "Rural" indicates beneficiaries living outside MSAs, which includes both micropolitan statistical areas and rural areas as indicated by core-based statistical areas.

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

**TABLE
6-10**

Medicare Part D psychotropic medication use and spending by FFS beneficiaries who used Part B behavioral health services, 2021

	Beneficiaries (millions)	Gross spending (billions)	Average spending per beneficiary using specified type of medication
Any psychotropics	3.4	\$5.8	\$1,710
Antidepressants	2.7	0.8	310
Anticonvulsants	1.7	1.0	620
Antianxiety	1.4	0.1	100
Antipsychotics	1.1	3.8	3,420
Bipolar disorder medications	0.1	0.01	120

Note: FFS (fee-for-service). Includes Medicare beneficiaries enrolled in Part D with at least one month of Part B enrollment in the year and who used Part B behavioral health services or had a Part B claim with a behavioral health diagnosis code. "Gross spending" reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not already reflected in prices at the pharmacies. Numbers may not calculate to totals due to rounding.

Source: MedPAC analysis of Part D prescription drug event data from CMS and the First Databank Enhanced Therapeutic Classification System.

**TABLE
6-11**

Volume of services provided to FFS beneficiaries by behavioral health specialists, 2021

	Number of clinicians	Average Medicare allowed charges per clinician	Beneficiaries per clinician	Total beneficiaries (thousands)
Licensed clinical social worker	28,800	\$19,800	21	600
Psychiatrist	23,300	44,400	87	2,030
Psychologist	19,300	38,600	39	760
Addiction medicine	320	35,300	67	20

Note: FFS (fee-for-service). Includes clinicians who served at least five Medicare beneficiaries with at least one month of Part B enrollment in the year. Numbers may not sum to total due to rounding.

Source: MedPAC analysis Medicare fee-for-service carrier claims from CMS.

Fewer psychiatrists, more nurse practitioners and licensed clinical social workers provide behavioral health services to Medicare FFS beneficiaries

Medicare behavioral health specialties include psychiatry, licensed clinical social work, clinical psychology, and addiction medicine.¹⁷ In 2021, 28,800 LCSWs, 23,300 psychiatrists, and 19,300 psychologists billed Medicare (Table 6-11).¹⁸ Psychiatrists served the most FFS beneficiaries, both in aggregate (over 2 million) and per provider (87 FFS beneficiaries per psychiatrist, on average).

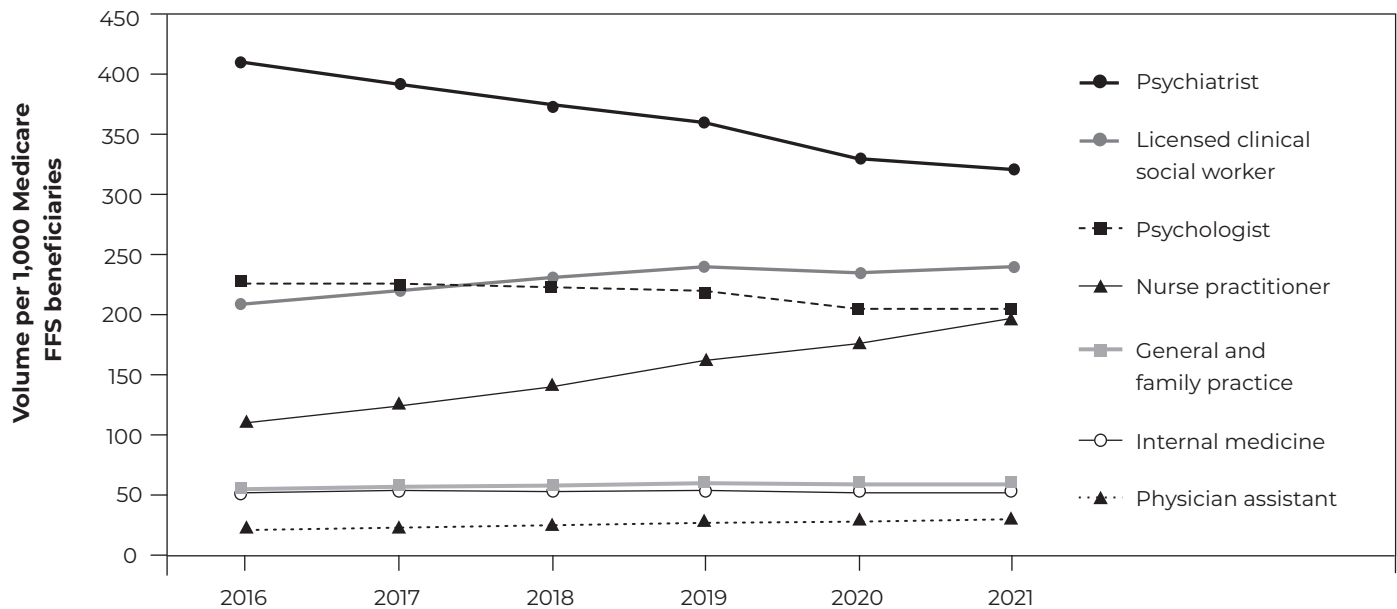
The 23,300 psychiatrists who billed for a Medicare service represented about 60 percent of total licensed psychiatrists in the U.S. (Association of American Medical Colleges 2019). Behavioral health specialists are disproportionately likely to opt out of participating in the Medicare program. Opting out entails contractually agreeing to not receive any payment from Medicare, directly or indirectly, for any Medicare beneficiary. As of October 2022, 29,000 physicians and other health professionals have actively opted out of Medicare (they have current opt-out affidavits on record). Of these 29,000 clinicians, behavioral health providers make up over 40 percent: 17 percent are clinical psychologists, 15 percent are psychiatrists, and 11 percent are LCSWs (Centers for Medicare & Medicaid Services 2022c). Among psychiatrists, the opt-out rate is 7.2 percent, which is the highest across physician specialties (Ochieng et al. 2020).

A study examining the characteristics of psychiatrists opting out of Medicare found that opt-outs were more likely to be older, female, graduates of top-20 medical schools, and practicing in areas with fewer psychiatrists per Medicare beneficiary compared with psychiatrists who did not opt out of Medicare (Yu et al. 2019). This last finding implies that when there is more competition for patients, providers are motivated to accept Medicare, which presumably reimburses less than private-pay rates. However, psychiatrists opt out of the private insurance market as well. One study found that even if psychiatrists accept insurance, they appear to limit the number of insured patients they serve in a year (Benson et al. 2020).

Behavioral health specialists are not the only clinicians who provide behavioral health services. The pandemic exacerbated shortages of behavioral health clinicians (Health Resources & Services Administration 2022, Lopes et al. 2022, Terlizzi and Schiller 2022), but shifts in the provision of these services were occurring prior to the pandemic. In 2021, 61 percent of the beneficiaries who used Part B behavioral health services received them from a behavioral health specialist (down from 69 percent in 2016) (data not shown). We found shifts over time in the specialty of the clinicians who provide Part B behavioral health services. Most notably, between 2016 and 2021, the volume of these services provided by psychiatrists declined (5 percent average annual decrease) and rose for nurse practitioners (12 percent average annual increase) (Figure 6-5, p. 250). Medicare

FIGURE 6-5

Shifts in the types of clinicians treating beneficiaries with behavioral health conditions, 2016-2021



Note: FFS (fee-for-service). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who used Part B behavioral health services or had a physician fee schedule claim with a behavioral health diagnosis code. Volume was calculated by summing the number of services on the claim line item and dividing by the total number of FFS beneficiaries multiplied by 1,000.

Source: MedPAC analysis of FFS carrier claims and Medicare enrollment data from CMS.

does not collect information on the specialties of nurse practitioners, though one study estimated that between 2011 and 2019, the supply of psychiatric nurse practitioners increased by 162 percent (Cai et al. 2022). Volume by psychologists has slightly fallen since 2016 (2 percent annual decline) while volume by LCSWs and by physician assistants has increased (3 percent and 7 percent annual increase, respectively).¹⁹

The literature has discussed the growing role of primary care practitioners in providing behavioral health. One study found that from 2006 to 2018, the prevalence of mental health concerns addressed during primary care visits increased by nearly 50 percent (Rotenstein et al. 2023). The authors found substantial variation by race and ethnicity, with Black and Hispanic patients disproportionately less likely to have mental health concerns addressed by primary care physicians. Behavioral health conditions may be underdiagnosed by primary care practitioners due to those practitioners' high volume of patients (affecting

the amount of time with each patient), confidence in appropriately treating patients with behavioral health conditions, and concerns about confidentiality and stigmatizing the patient (Beck et al. 2019, Kessler et al. 2003, Pincus et al. 2003).

Recent policy to expand the capacity of the behavioral health workforce

The 2023 final rule for Medicare's physician fee schedule expanded the behavioral health workforce by enabling licensed marriage and family therapists (LMFTs) and licensed professional counselors (LPCs) to practice under the general supervision of a physician or nonphysician practitioner (NPP) instead of under direct supervision (Centers for Medicare & Medicaid Services 2022b). General supervision requires that the service be provided under the overall direction and control of a supervising physician or NPP, but the supervising clinician does not have to be present in the office suite while the service is delivered. Under direct supervision,

**TABLE
6-12**

Substantial shift from office-based to tele-behavioral health visits between 2019 and 2021

Place of service	2019		2021	
	Total spending for Part B behavioral health services (millions)	Percent of total	Total spending for Part B behavioral health services (millions)	Percent of total
All locations	\$4,750	100%	\$4,800	100%
Office	1,920	40	1,080	23
Hospital outpatient	590	12	420	9
Skilled nursing facility or nursing facility	500	11	430	9
Inpatient hospital	330	7	250	5
Emergency room	300	6	230	5
Telehealth	40	1	1,340	28
Nonresidential opioid treatment facility*	—	—	240	5
Other place of service	1,070	23	810	17

Note: Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who used Part B behavioral health services or had a Part B claim with a behavioral health diagnosis code. Total spending represents all Part B behavioral health payments made to the provider, including beneficiary cost sharing. Numbers may not sum to the total due to rounding.

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

by contrast, the supervising physician or NPP must be physically present in the office suite and immediately available to furnish assistance and direction throughout the performance of the service. LMFTs and LPCs cannot currently bill Medicare directly, but supervising clinicians are allowed to bill for services they provide to established patients in nonfacility settings under “incident to” billing rules. However, effective January 1, 2024, the CAA, 2023, enables LMFTs and LPCs to bill Medicare directly without supervision of physicians or NPPs (see text box on recent Medicare behavioral health legislation, p. 234).

Since 2019, delivery of behavioral health services substantially shifted from in-person visits to telehealth visits

Medicare covers many behavioral health services when provided by live, two-way video. Before 2018, beneficiaries had to receive behavioral health services using telehealth at an originating site (e.g., a clinician’s office or a hospital) in a rural area, with the clinician at a distant site (U.S. House of Representatives 2016). In 2018, the Congress permanently removed the

geographic restrictions and added the patient’s home as an originating site for telehealth treatment of an SUD or a co-occurring mental health disorder.

The CAA, 2021, permanently removed the geographic restrictions and added the patient’s home as an originating site for telehealth services used to diagnose, evaluate, or treat a behavioral health disorder (independent of a substance use disorder). After the public health emergency ends, the CAA, 2021, requires that the clinician furnishing telehealth services provide an in-person visit within six months prior to the initial telehealth visit.²⁰ For subsequent telehealth services, the Secretary implemented an annual in-person visit requirement; however, the policy does not apply if the practitioner and patient agree that the benefits of an in-person service are outweighed by the risks and burdens associated with an in-person service. The CAA, 2023, delayed these in-person requirements until after December 31, 2024. CMS will also pay for telehealth services provided by an audio-only interaction if the clinician has the capability to use an interactive telecommunications system that includes video and the

**TABLE
6-13**

FFS beneficiaries receiving Part B behavioral health services differed by use of in-person versus tele-behavioral health, 2021 (cont. next page)

	In-person behavioral health only	In-person and tele-behavioral health	Tele-behavioral health only
Share of all FFS beneficiaries receiving behavioral health services	63%	22%	15%
Current eligibility status and demographics			
Aged	78%	55%	64%
Disabled	22	45	35
ESRD	0.2	0.2	0.2
Female	61	63	65
Male	39	37	35
<45	7	17	12
45-64	19	31	27
65-79	53	42	49
80+	21	10	11
Non-Hispanic White	81	80	78
Black	9	9	9
Asian/Pacific Islander	2	2	2
Hispanic	5	6	7
American Indian/Alaska Native	0.6	0.6	0.5
Other or unknown	2	3	3
Metropolitan	80	82	86
Micropolitan	12	11	9
Rural (adjacent)	5	4	4
Rural (nonadjacent)	3	3	2
Frontier			
No	99	99	99
Yes	1	1	1
Mental health HPSA			
No	72	76	80
Yes	28	24	20

beneficiary is unable to use the video component or does not consent to video use.

In 2019, 40 percent of total spending for Part B behavioral health services was for care provided in a clinician's office; by 2021, this percentage fell to 23 percent (Table 6-12, p. 251). During the same time,

telehealth for behavioral health services grew from 1 percent to 28 percent of total behavioral health spending. The availability of telehealth during this period could also be related to lower spending on in-person behavioral health services taking place in hospital outpatient departments, nursing facilities, and other places of service.

**TABLE
6-13**

FFS beneficiaries receiving Part B behavioral health services differed by use of in-person versus tele-behavioral health, 2021 (cont.)

	In-person behavioral health only	In-person and tele-behavioral health	Tele-behavioral health only
Dual eligible or LIS during year			
No	62	46	58
Yes	38	54	42
HCC risk score	1.43	1.40	1.24
Total Medicare Part A and Part B spending	\$21,700	\$18,600	\$11,600
Medicare Part D gross spending*	\$6,100	\$9,300	\$7,700
Any Part D fills	70	84	72
Antidepressants	8	12	10
Anticonvulsants	4	7	5
Antipsychotics	2	7	4
Antianxieties	2	4	3
Bipolar disorder medications	0.1	0.4	0.2

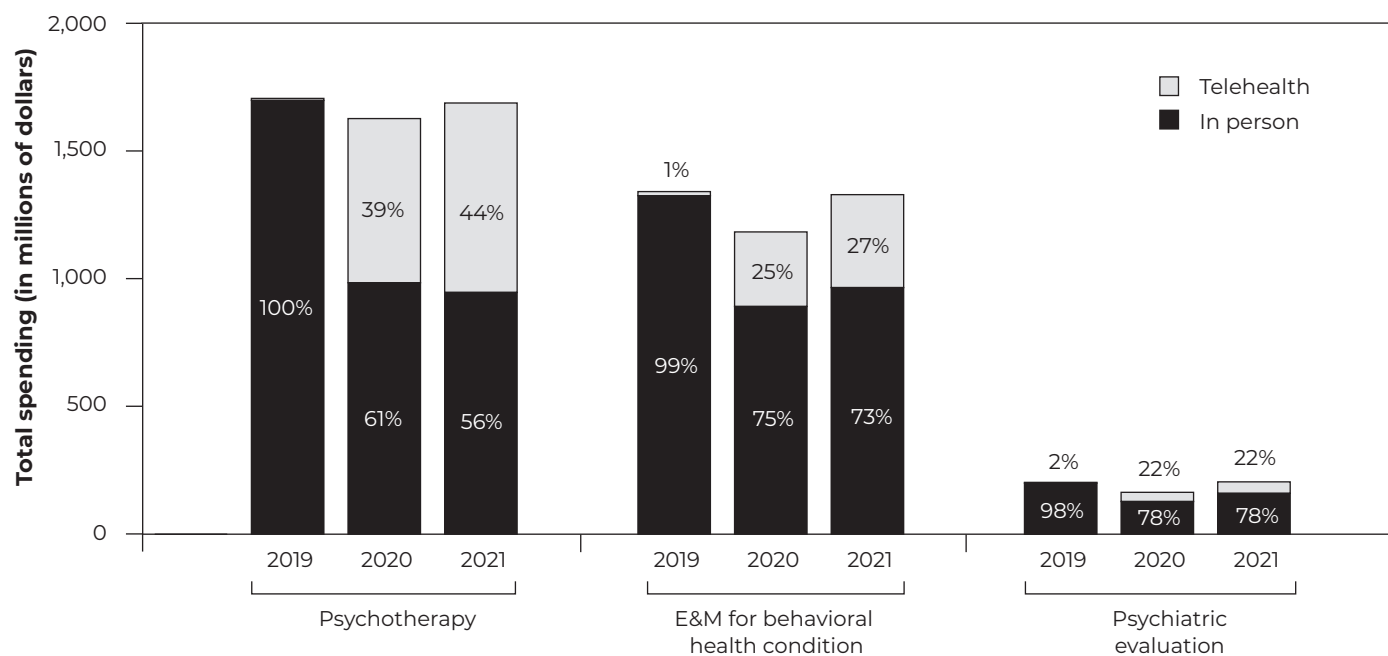
Note: FFS (fee-for-service), ESRD (end-stage renal disease), HPSA (health professional shortage area), LIS (low-income subsidy), HCC (hierarchical condition category). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who used Part B behavioral health services or had a Part B claim with a behavioral health diagnosis code. Geographic categories are based on the beneficiary's county of residence, mapped using the Office of Management and Budget and U.S. Department of Agriculture's Urban Influence Codes.
*Includes only beneficiaries enrolled in Medicare Part D. "Gross spending" reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not already reflected in prices at the pharmacies.

Source: MedPAC analysis of FFS standard analytic files, Medicare enrollment, HCC risk score, and Part D prescription drug event data from CMS.

Overall telehealth use rose sharply in 2020 but declined in 2021, though it was still higher than pre-pandemic levels. In contrast, between 2020 and 2021, telehealth for behavioral health services continued to grow—from 25 percent to 28 percent of total behavioral health service spending. Indeed, telehealth played an important role in maintaining access to behavioral health during the pandemic. For example, one study found that availability of telehealth for behavioral health services substantially improved wait times at an academic medical center (McMahan et al. 2022), and another found increased patient and provider satisfaction and reduced no-show rates for patients of an FQHC (Lombardi et al. 2022).

Characteristics of beneficiaries receiving behavioral health services through telehealth

Among beneficiaries using Part B behavioral health services in 2021, 63 percent used only in-person behavioral health services, 22 percent used both in-person and telehealth delivery, and 15 percent used telehealth only (that is, most beneficiaries using behavioral health services through telehealth also received in-person behavioral health services) (Table 6-13).²¹ Our study of beneficiary characteristics across the three groups using behavioral health services found that beneficiaries who used at least some telehealth tended to be younger, disabled, female, located in an urban area, and low income; had lower HCC risk scores; and incurred lower total Medicare Part A and

FIGURE 6-6**Shift to telehealth visits for behavioral health services began in 2020 and continued in 2021**

Note: E&M (evaluation and management). Includes fee-for-service beneficiaries with at least one month of Part B enrollment in the year who had behavioral health visits. Total spending represents all Part B behavioral health payments made to the provider, including beneficiary cost sharing.

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS

Part B spending compared with beneficiaries who had in-person visits only (Table 6-13, p. 253). Beneficiaries using only telehealth (no in-person visits) for behavioral services incurred the lowest total Medicare Part A and Part B spending—\$11,600, compared with \$21,700 for those using in-person behavioral health services only and \$18,600 for those using both in-person and telehealth for behavioral health services. Beneficiaries who had both in-person and telehealth visits had the highest gross Part D prescription drug spending (\$9,300, compared with \$6,100 for in-person-only users and \$7,700 for telehealth-only users) and more fills of psychotropic drugs. The availability of telehealth may be a more convenient mechanism to obtain prescriptions. Future work could assess new prescriptions and refills via telehealth and whether this differs for beneficiaries who received only telehealth for behavioral health services.

Psychotherapy accounted for largest share of telehealth spending for behavioral services

Among behavioral health services, psychotherapy had the highest share of spending for telehealth: In 2021, telehealth accounted for 44 percent of spending for psychotherapy services, compared with 39 percent in 2020 and virtually none in 2019 (Figure 6-6). Other types of behavioral health visits followed a similar pattern.

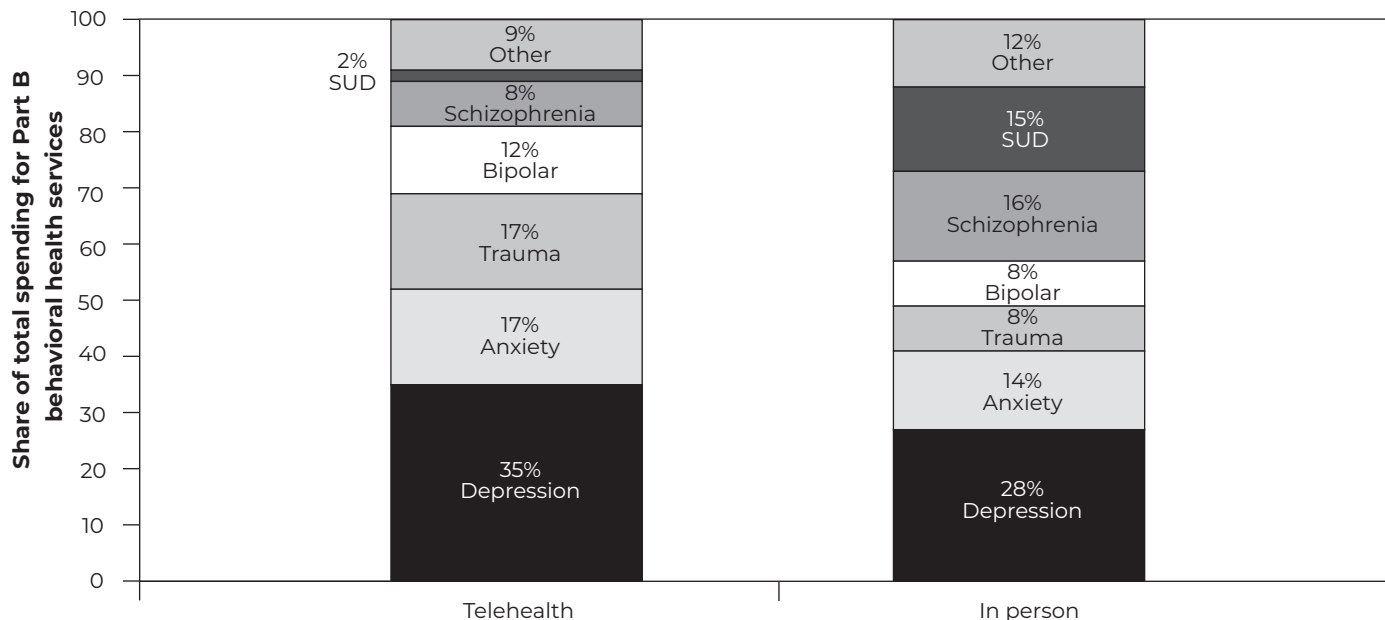
Likewise, in 2021, the majority of telehealth spending for behavioral health services was for psychotherapy (56 percent) (data not shown). In contrast, spending for in-person psychotherapy was 27 percent.

Patients with depressive and anxiety disorders had the highest share of telehealth spending

In 2021, the largest shares of telehealth spending for behavioral services were for treating depressive

FIGURE 6-7

Higher shares of telehealth spending for behavioral services were for depressive and anxiety disorders, 2021



Note: SUD (substance use disorder). Includes Medicare beneficiaries with at least one month of Part B enrollment in the year who used Part B behavioral health services or had a Part B claim with a behavioral health diagnosis code. "Total spending" represents all Part B behavioral health payments made to the provider, including beneficiary cost sharing.

Source: MedPAC analysis of carrier and outpatient standard analytic files and Medicare enrollment data from CMS.

disorders (35 percent), anxiety (17 percent), and trauma conditions (17 percent) (Figure 6-7). Schizophrenia and SUDs accounted for relatively small shares of telehealth spending (8 percent and 2 percent, respectively). In contrast, 16 percent of in-person behavioral health spending was used to treat schizophrenia and 15 percent was used for SUDs.

Clinicians providing telehealth for behavioral health services

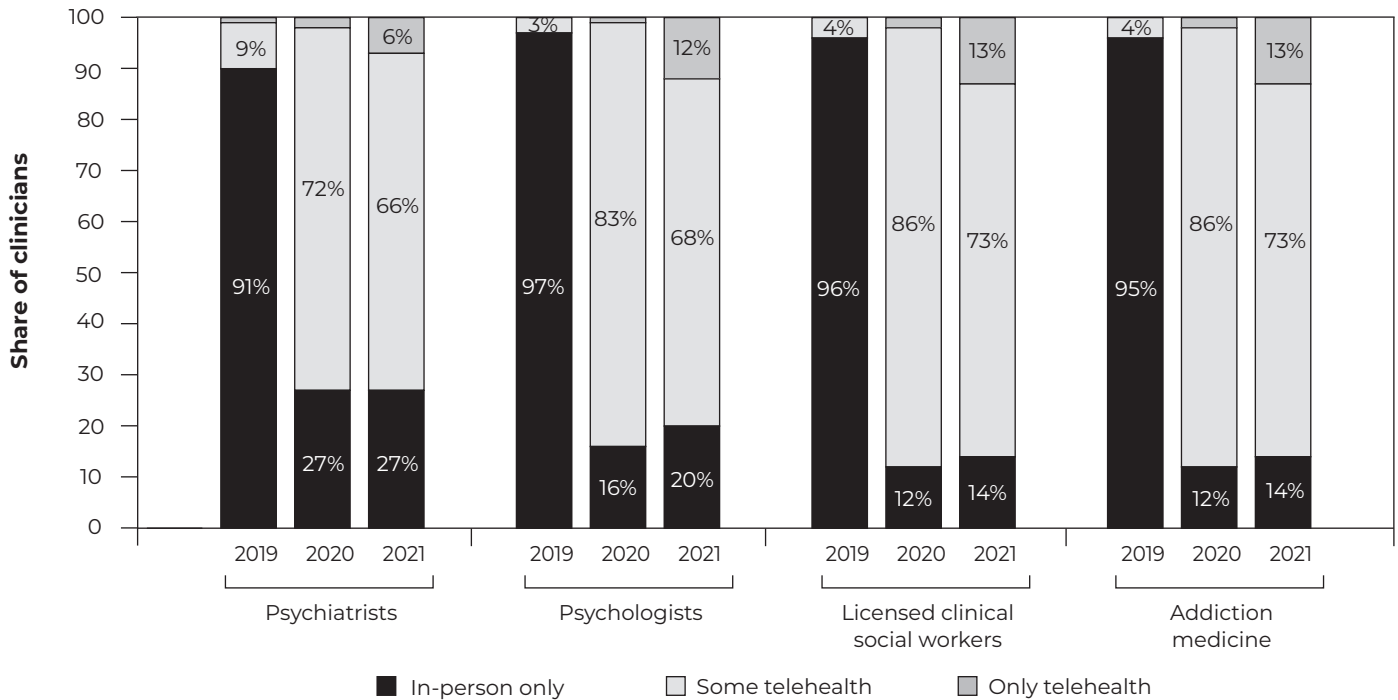
Prior to the pandemic, more widespread availability of telehealth for behavioral health services was already seen as a potential strategy to enhance access to behavioral health care (Dormond et al. 2017). In 2019, 10 percent of psychiatrists and from 3 percent to 4 percent of other behavioral health clinicians provided at least some telehealth (Figure 6-8, p. 256). In 2020,

telehealth rapidly expanded; over 70 percent of psychiatrists and over 80 percent of other behavioral health specialists provided at least some telehealth.

In 2021, not only did substantial provision of telehealth continue, but the share of behavioral health clinicians who provided *only* telehealth also grew (that is, all services billed by the practitioner were provided by telehealth). In 2021, 6 percent of psychiatrists and from 12 percent to 13 percent of other behavioral health clinicians provided only telehealth services (Figure 6-8, p. 256). Growth in the share of behavioral health clinicians who provide telehealth services only could impact access to in-person behavioral health services, and it will be important to monitor as another aspect of assessing access to care in future work.

FIGURE 6-8

Growth in share of behavioral health clinicians providing any telehealth to Medicare beneficiaries, 2019–2021



Note: Includes behavioral health clinicians who had visits with at least five Medicare beneficiaries with one month or more of Part B enrollment in the year. Components may not sum to 100 percent due to rounding.

Source: MedPAC analysis of fee-for-service carrier claims and Medicare enrollment data from CMS.

Trends and issues in inpatient psychiatric care

With regard to inpatient psychiatric care, we examined the adequacy of Medicare payments to IPFs under the prospective payment system (PPS). We used the Commission’s payment adequacy indicators to assess beneficiaries’ access to IPF care, quality of IPF care, access to capital, and the relationship between Medicare payments and IPFs’ costs. We also reviewed the impact on care of the 190-day lifetime limit on days spent in freestanding psychiatric hospitals. Interviews with officials of IPFs conducted by L&M Policy Research from late 2022 to early 2023 informed our findings (see text box).

Introduction to IPFs

Medicare beneficiaries experiencing an urgent, acute mental health or SUD-related crisis may be treated in specialty IPFs that provide 24-hour care in a structured, intensive, and secure setting.²² IPFs can be freestanding hospitals or specialized units within acute care general hospitals. Patients who need inpatient care can be admitted to an IPF where they may receive individual and group therapy, psychosocial rehabilitation, illness management training, family therapy, electroconvulsive therapy, and other treatments. In addition, a majority of IPF patients receive drug therapy in the form of antipsychotics, mood stabilizers, antidepressants, and anticonvulsants. Patients can also receive care for medical comorbidities such as diabetes, infectious disease, wounds, and cardiac conditions. The goal of

Interviews conducted with IPFs

To better understand services provided, patient mix, and challenges facing inpatient psychiatric facilities (IPFs), the Commission contracted with L&M Policy Research to conduct telephone interviews with officials at these facilities. L&M conducted semi-structured interviews with 10 IPFs between November 2022 and February 2023. IPFs were selected to represent various provider types and their characteristics:

- IPF type, ownership, and affiliation
- geographic location
- size

- designation of all-inclusive rate and reporting of ancillary services

Interviews were typically conducted with the IPFs' chief medical officers and chief financial officers. L&M developed an interview guide, including topics related to types of services provided to Medicare beneficiaries (and whether these differ by type of IPF), how services differ by patient characteristics, changes over time, provision and reporting of ancillary services, and general perceptions related to Medicare payment.

L&M's full report can be found on our website at www.medpac.gov. ■

IPF care is to stabilize the individual's condition and enable safe return to the community.

As is the case for general acute care hospital stays, IPF stays are covered under Medicare Part A. Thus, each stay is subject to the Part A deductible (\$1,600 in 2023) and coinsurance (none for days 1–60; \$400 per day for days 61–90). After day 90, the daily coinsurance rate increases (to \$800), and each day counts toward the beneficiary's inpatient lifetime reserve days (which total 60 days).²³ Patients must also pay any Part B cost sharing for services from physicians and other clinicians received during the stay. Beneficiaries are also subject to a 190-day lifetime maximum on the number of days in freestanding psychiatric hospitals.

Medicare requirements for IPFs

To be certified as an IPF eligible for Medicare payment under the IPF prospective payment system (PPS), facilities must meet Medicare conditions of participation for acute care hospitals. They must also meet the following criteria:^{24,25}

- be primarily engaged in providing, by or under the supervision of a psychiatrist, psychiatric services

for the diagnosis and treatment of mentally ill persons;

- admit only patients with a psychiatric principal diagnosis who require active treatment of an intensity that can be provided appropriately only in an inpatient hospital setting;
- furnish, through the use of qualified personnel, psychological services, social work services, psychiatric nursing, and therapeutic activities;
- maintain medical records that permit determination of the degree and intensity of the treatment provided to individuals; and
- meet special staff requirements regarding adequate numbers of qualified professional and supportive staff to evaluate inpatients, formulate written individualized, comprehensive treatment plans, provide active treatment measures, and engage in discharge planning. This includes availability of a registered nurse 24 hours each day.

Medicare's IPF prospective payment system

Under the IPF PPS, Medicare pays predetermined per diem rates based primarily on the patient's condition

(age, diagnosis, comorbidities) and length of stay, and the location of the IPF. Medicare's payment rates are intended to cover all routine, ancillary, and capital costs that efficient providers are expected to incur in furnishing inpatient psychiatric care. Payments to IPFs are determined by adjusting a daily base payment rate for geographic differences in labor costs and for differences in the costs of care related to specified patient and facility characteristics that can be identified using administrative data (Medicare Payment Advisory Commission 2021). The base payment rate for each patient day in an IPF is calculated using the national average daily routine operating, ancillary, and capital costs in IPFs in 2002, updated for inflation. The IPF base payment rate in fiscal year 2023—\$865.63 per day—is adjusted for differences in labor costs by multiplying the labor-related portion of the base payment amount—77.4 percent—by an area wage index. This wage-adjusted base rate is further adjusted for the following patient-specific and facility-specific characteristics:

- Age—In general, payment increases with increasing patient age over 45.
- Diagnosis—Patients are assigned to one of 17 psychiatric Medicare severity–diagnosis related groups (MS–DRGs), such as psychoses, depressive neuroses, and degenerative nervous system disorders. Medicare assigns a weight to each of the MS–DRGs reflecting the average costliness of stays in that group compared with that for the most frequently reported psychiatric diagnosis in fiscal year 2002 (MS–DRG 885, psychosis).
- Comorbidities—This adjustment recognizes the increased costs associated with 17 specific patient conditions—such as renal failure, diabetes, and cardiac conditions—that are secondary to the patient's principal diagnosis and that require treatment during the stay.
- Length of stay—Per diem payments decrease as patient length of stay increases.²⁶
- Cost of living adjustment—IPFs in Alaska and Hawaii are paid up to 25 percent more than IPFs located in other areas, reflecting their disproportionately higher costs. This add-on is applied to the nonlabor portion of the base rate only.
- Rural location adjustment—IPFs in rural areas are paid 17 percent more than urban IPFs.
- Teaching adjustment—Teaching hospitals have an adjustment based on the ratio of interns and residents to average daily census.
- Emergency department adjustment—IPFs with qualifying emergency departments are paid about 10 percent more for their patients' first day of the stay.
- Electroconvulsive therapy (ECT)—IPFs receive an additional payment for each ECT treatment furnished to a patient. In fiscal year 2023, the ECT payment is \$372.67.

The IPF PPS has an outlier policy for stays that have extraordinarily high costs, drawn from an outlier pool of 2 percent of total payments. Medicare makes outlier payments when an IPF's estimated total costs for a case exceed the total payment amount for the case plus a fixed loss amount (\$24,630 in fiscal year 2023, adjusted by the wage index and the facility-specific characteristics outlined above). Medicare will cover 80 percent of the costs above this threshold for days 1 through 9 and 60 percent of the costs above the threshold amount for the remaining days.

Under the CAA, 2023, CMS can begin to collect additional information to refine payments under the IPF PPS. This includes data on resource use, need for monitoring, interventions, and patient characteristics such as functional status, cognitive function, and comorbidities and impairments. Collection of additional data using claims or cost reports will begin by October 2023, and collection of patient assessment data using a standardized tool will begin by 2028.

FFS beneficiaries using IPF services were more likely to be disabled, low income, and have higher Medicare overall spending

In 2021, beneficiaries who used IPFs were substantially more likely than other FFS beneficiaries to be disabled (54 percent vs. 12 percent of other FFS beneficiaries), young (26 percent were under age 45 vs. 3 percent of other FFS beneficiaries), Black (16 percent vs. 8 percent of other FFS beneficiaries), and to have low incomes (64 percent were eligible for the Part D low-income subsidy or for Medicaid benefits (“dual eligible”) vs. 19 percent of other FFS beneficiaries) (Table 6-14).

**TABLE
6-14**

Medicare FFS beneficiaries using IPFs tended to be disabled, under age 65, Black, and low income, 2021

	All IPF users	IPF users with more than one stay in 2021	All other FFS beneficiaries
All	100%	26%	—
Current eligibility status and demographics			
Aged	46	32	88
Disabled	54	68	12
Female	49	46	55
Male	51	54	45
<45	26	36	3
45–64	30	34	12
65–79	31	24	64
80+	12	6	20
Non-Hispanic White	72	68	80
Black	16	19	8
Asian/Pacific Islander	2	2	3
Hispanic	6	7	6
American Indian/Alaska Native	1	1	1
Other or unknown	3	4	3
Metropolitan	80	83	79
Micropolitan	12	11	12
Rural (adjacent)	5	4	6
Rural (nonadjacent)	3	2	4
Dual eligible or LIS during year			
No	36%	25%	81%
Yes	64	75	19
HCC risk score	1.41	1.44	1.01
Medicare Part A and Part B spending (per capita)	\$40,800	\$57,500	\$9,500
Medicare Part D (per capita)*			
Gross spending**	\$7,700	\$8,200	\$4,500
Fills	70	68	51

Note: FFS (fee-for-service), IPF (inpatient psychiatric facility), LIS (low-income subsidy), HCC (hierarchical condition category). Components may not sum to totals due to rounding. "All IPF users" represents beneficiaries with an IPF stay ending in 2021. "All other FFS beneficiaries" represents those with Part A and Part B coverage at the midpoint of 2021 and excludes IPF beneficiaries. Geographic categories are based on the beneficiary's county of residence, mapped using the Office of Management and Budget and U.S. Department of Agriculture's Urban Influence Codes.

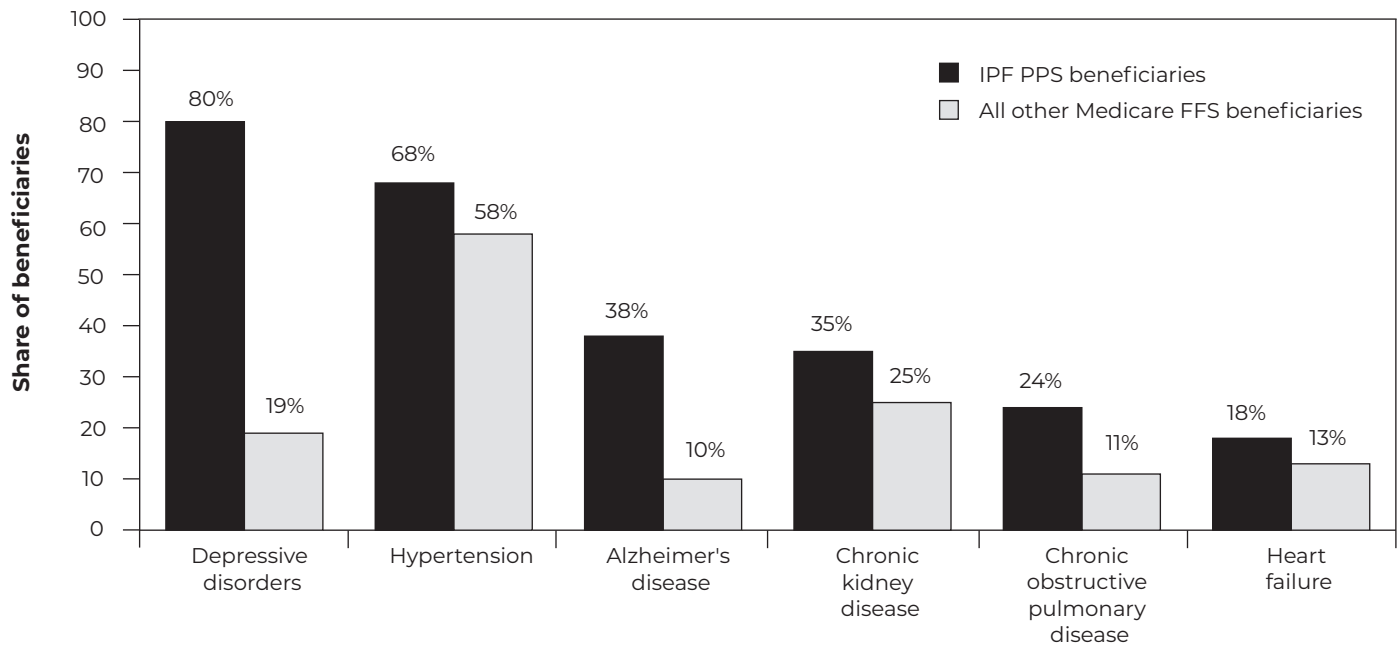
*Includes only those beneficiaries enrolled in Part D.

**Reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies.

Source: MedPAC analysis of Medicare Provider Analysis and Review and enrollment data from CMS.

**FIGURE
6-9**

Beneficiaries using IPFs have more chronic conditions than other FFS beneficiaries, 2019



Note: IPF (inpatient psychiatric facility), FFS (fee-for-service), PPS (prospective payment system). "IPF FFS beneficiaries" represents FFS beneficiaries with an IPF stay ending in 2019. "All other Medicare FFS beneficiaries" represents FFS beneficiaries with Part A and Part B coverage at the midpoint of 2019, excluding beneficiaries using IPFs in the year.

Source: MedPAC analysis of Medicare Provider Analysis and Review, enrollment data, and the Chronic Care Warehouse chronic condition data from CMS.

Beneficiaries with multiple IPF stays in a year were even more likely to be disabled, younger than 65, Black, and low income.

Compared with other FFS beneficiaries, those using IPFs incurred higher overall Medicare spending during the year of their IPF stay (Table 6-14, p. 259). On average, in 2021, Medicare Part A and Part B spending for beneficiaries using IPFs was \$40,800 compared with \$9,500 for the other FFS beneficiaries with Part A and Part B coverage. Average Medicare Part D spending (for those enrolled in Part D) was \$7,700 (with 70 prescription fills) for beneficiaries using IPFs compared with \$4,500 (and 51 prescriptions filled) for the other FFS beneficiaries with Part D. Beneficiaries using IPFs also had a higher average HCC risk score (1.41 versus 1.01 for all other FFS beneficiaries).

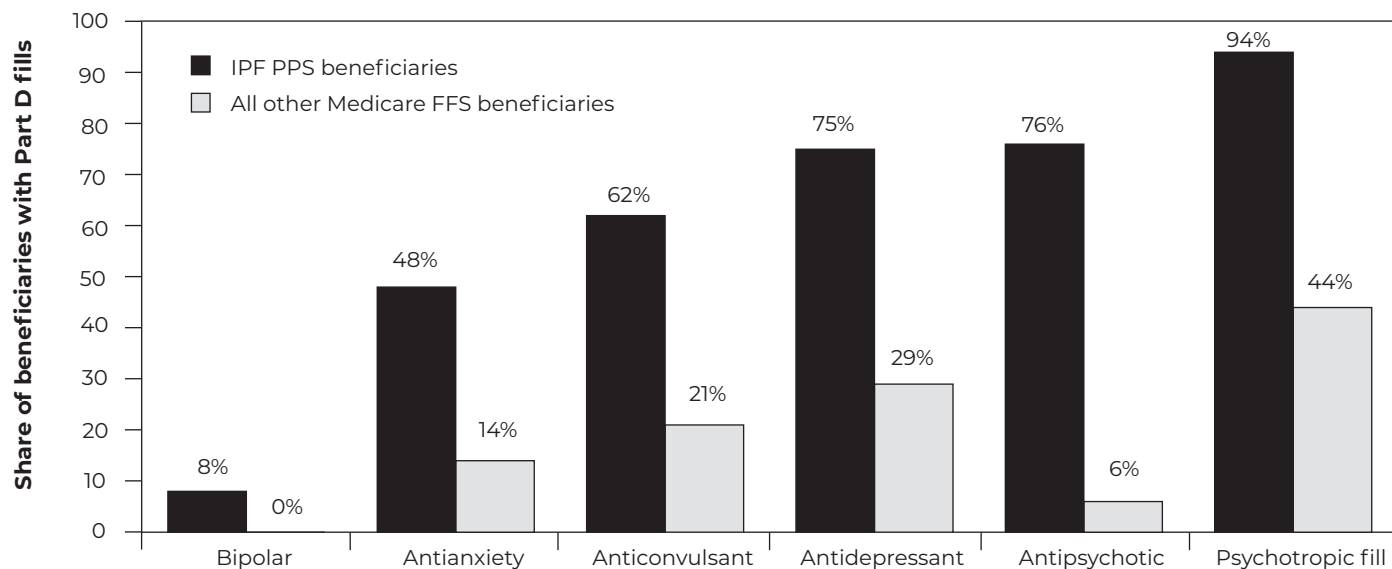
Not surprisingly, in 2019, beneficiaries using IPFs were much more likely to have a diagnosis of depressive

mood disorders (80 percent) compared with other FFS beneficiaries (19 percent) (Figure 6-9).²⁷ In the same year, compared with other FFS beneficiaries, they were also more likely to have hypertension (68 percent vs. 58 percent), Alzheimer's disease (38 percent vs. 10 percent), chronic kidney disease (35 percent vs. 25 percent), and chronic obstructive pulmonary disease (24 percent vs. 11 percent).

In 2021, 94 percent of IPF PPS beneficiaries with Part D filled prescriptions for psychotropic medications compared with 44 percent of other FFS beneficiaries enrolled in Part D (Figure 6-10). Beneficiaries who had IPF stays used more of each type of psychotropic medication: 76 percent filled antipsychotic medication prescriptions (compared with 6 percent of other FFS beneficiaries) and 75 percent filled prescriptions for antidepressants (compared with 29 percent of other FFS beneficiaries). (Since any medications used during an IPF stay are provided by the hospital and paid under the

**FIGURE
6-10**

Type of psychotropic medications filled by FFS beneficiaries using IPFs, 2021



Note: FFS (fee-for-service), IPF (inpatient psychiatric facility). "IPF PPS beneficiaries" represents FFS beneficiaries with an IPF stay ending in 2021. "All other FFS beneficiaries" represents FFS beneficiaries with Part A and Part B coverage at the midpoint of 2021, excluding beneficiaries using IPFs in the year. All populations are limited to Medicare FFS beneficiaries enrolled in Part D in 2021.

Source: MedPAC analysis of Part D prescription drug event data from CMS and the First Databank Enhanced Therapeutic Classification System.

IPF PPS, these would be prescription fills that occurred before or after the IPF stay.)

Medicare FFS patients in IPFs are assigned to 1 of 17 psychiatric Medicare severity–diagnosis related groups (MS–DRGs). However, the MS–DRG system does not differentiate well among Medicare beneficiaries in IPFs; in 2021, 96 percent of stays were assigned to seven MS–DRGs (data not shown) and nearly 75 percent of stays were assigned to the psychosis MS–DRG (Table 6-15, p. 262). The psychosis MS–DRG is a broad category that includes patients with principal diagnoses of mood disorders (such as bipolar disorder and major depression) and non-mood psychotic disorders (such as schizophrenia). From 2019 to 2021, the share of patients with non-mood psychotic disorders (such as schizophrenia) increased by 3 percent annually. In contrast, during that period, the share of patients with mood disorders decreased by 1.5 percent. The text box on pp. 264–265 identifies characteristics of MA enrollees who had an IPF stay in 2019.

When asked about the characteristics of patients treated in their facilities, many IPF interviewees said they tended to screen out patients with comorbidities or other needs that require more medically complex care or specialized equipment, such as intravenous therapy, telemetry, feeding tubes, tracheotomy, or oxygen. They explained that their facilities do not have the equipment or resources necessary to treat these conditions on site, emphasizing that these interventions present ligature and other risks for patients. Many interviewees stated that patients are first medically cleared in the emergency room before being admitted to the IPF to address their behavioral health. However, IPF interviewees also reported that the patients they saw had increasingly more severe mental illness, aggression, more medical comorbidities and secondary SUD diagnoses, as well as greater unmet social needs. Interviewees noted that some patients delay treatment, leading to more severe conditions that take longer to stabilize.

**TABLE
6-15**

Growing share of Medicare FFS beneficiaries' stays at IPFs were for schizophrenia, 2019-2021

Psychiatric MS-DRG grouping	2019	2020	2021	Average annual change 2019-2021
Psychosis	73.4%	74.4%	74.8%	0.6%
Mood disorders	38.6	37.5	36.9	-1.5
Schizophrenia	34.8	36.9	37.9	3.0
Organic disturbances	7.0	6.9	6.8	-1.1
Alcohol/drug dependency	6.4	6.2	6.2	-1.1
Neurosis	4.5	4.2	3.9	-4.4
Nervous system disorder	5.9	5.4	5.3	-3.2
Other psychiatric	1.8	1.9	2.0	3.7
Other nonpsychiatric	1.0	1.0	1.0	0.6
Total	100.0	100.0	100.0	

Note: FFS (fee-for-service), IPF (inpatient psychiatric facility), MS-DRG (Medicare severity–diagnosis related group). Totals may not sum to 100 percent due to rounding. Data represent FFS beneficiaries with an IPF stay ending in each fiscal year. Psychiatric MS-DRG groupings are categorized as the following: mood disorders (885 and International Classification of Diseases, 10th Revision (ICD-10) diagnosis codes F30–F39); schizophrenia, schizotypal, delusion, and other non-mood psychotic disorders (885 and ICD-10 diagnosis codes F20–F29); organic disturbances and mental retardation (884); alcohol/drug abuse or dependency with and without rehabilitation and with and without MCC (894, 895, 896, 897); neurosis with and without depressive (881, 882); degenerative nervous system disorders with and without major complication or comorbidity (056, 057); other psychiatric MS-DRGs (880, 883, 896, 876, 887); other nonpsychiatric MS-DRGs (all others).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

Beneficiaries' access to IPF care

We examined trends in IPF supply and the volume of services as indicators of beneficiaries' access to IPFs. While the number of IPFs decreased by 2 percent annually between 2017 and 2021, the number of psychiatric beds grew slightly during this time, fueled by growth in the number of beds at for-profit IPFs. The mix of IPFs has changed, trending toward for-profit freestanding hospitals, while the number of hospital-based IPFs has declined, and beneficiary characteristics appeared to differ by facility type and ownership. Overall Medicare FFS volume at IPFs has decreased over time, with commensurate decreases in aggregate Medicare FFS payments to IPFs. The decline in utilization between 2019 and 2021 was particularly steep, likely related to avoidance or deferral of inpatient stays in response to the spread of COVID-19. Higher occupancy rates at government IPFs—which frequently function as providers of last resort, serving patients with severe and persistent mental illness who

are difficult to place in other facilities—could indicate insufficient supply for severely mentally ill beneficiaries whose conditions are more difficult to treat. Moreover, IPF interviewees noted that, more recently, staffing shortages (which may not be reflected in occupancy rates based on cost reports) decreased the availability of staffed beds.

Trends in the supply of IPFs

The psychiatric hospital sector has undergone dramatic changes over the last 60 years. Beginning in the 1960s, the downsizing and closure of many state-owned and county-owned psychiatric hospitals resulted in a large drop in the total number of inpatient psychiatric beds and shifted capacity to the private (nongovernment) sector (Salinsky and Loftis 2007). The “deinstitutionalization” movement was partly in response to concern about the inhumane treatment of long-term patients in public psychiatric hospitals, which resulted in a push for community-based

**TABLE
6-16**

Overall number of Medicare-certified IPFs declined while the number of freestanding for-profit facilities increased, 2017–2021

	2017	2018	2019	2020	2021	Average annual change 2017–2021
All IPFs	1,609	1,582	1,542	1,532	1,482	-2.0%
Rural	331	323	300	298	276	-4.4
Urban	1,258	1,238	1,221	1,212	1,186	-1.5
Hospital unit	1,088	1,057	1,008	987	927	-3.9
Nonprofit	663	645	614	599	571	-3.7
For profit	236	228	213	210	196	-4.5
Government	189	184	181	178	160	-4.1
Freestanding	521	525	534	545	555	1.6
Nonprofit	75	77	73	73	70	-1.7
For profit	288	295	313	316	328	3.3
Government	158	153	148	156	157	-0.2
Nonteaching	1,353	1,309	1,272	1,261	1,213	-2.7
Teaching	256	273	270	271	269	1.2
Bed size 1–24	701	685	644	617	580	-4.6
Bed size 25–49	353	335	328	317	311	-3.1
Bed size 50–99	292	296	305	313	309	1.4
Bed size ≥100	251	250	257	269	273	2.1

Note: IPF (inpatient psychiatric facility).

Source: MedPAC analysis of cost report data from CMS.

treatment (Fuller et al. 2016, Mechanic 2014, Salinsky and Loftis 2007, Sisti et al. 2015).

Overall inpatient capacity fell from over 427,000 beds in the 1970s to 86,000 in 2005 (Hutchins et al. 2011), even as the number of private hospital-based and freestanding IPFs increased substantially in the 1980s and early 1990s (encouraged by the cost-based payment method Medicare used to pay for IPF services at that time) (Salinsky and Loftis 2007). Today, researchers, policy analysts, and providers generally agree that demand for public psychiatric hospitals—which historically have cared for patients who have conditions that are the most difficult to treat—far outstrips supply, in large part because community-based treatment for the seriously mentally ill is often inadequate or nonexistent (Fuller et al. 2016, Lamb and

Weinberger 2014, McBain et al. 2022b, Mechanic 2014, Sharfstein and Dickerson 2009, Sisti et al. 2015). Lack of capacity to serve the most seriously mentally ill patients has placed substantial burden on the criminal justice system (Lamb and Weinberger 2014, Lamb et al. 2004, Lurigio and Harris 2022, Sisti et al. 2015).²⁸

IPFs can be freestanding hospitals or specialized units within acute care general hospitals, and within each type, ownership can vary between for profit, nonprofit, and government run. Between 2017 and 2021, the number of hospital-based units declined 3.9 percent per year (Table 6-16). As the number of hospital-based IPF units has fallen, freestanding for-profit IPFs have grown by 3.3 percent per year. Over the same time, freestanding and hospital-based government-run IPFs

Medicare Advantage enrollees using IPFs

We combined Medicare hospital claims data and Medicare Advantage (MA) encounter data to identify MA enrollees who had an inpatient stay in an inpatient psychiatric facility (IPF) in 2019. We identified approximately 120,000 MA enrollees with an IPF stay during the year (Table 6-17). This number represented 0.5 percent of all MA enrollees in 2019.²⁹ In comparison, 0.7 percent of fee-for-service (FFS) beneficiaries had an IPF stay in the same year. We found that the characteristics of MA enrollees who used IPFs were generally similar to those of FFS IPF users, with some demographic differences mirroring the differences in the overall

FFS and MA populations. For example, MA enrollees who used IPFs appeared to be sicker, with an average risk score (1.70) that was about 8 percent higher than that of FFS IPF users (1.57). However, that difference in risk scores is similar to the difference in average risk scores between the MA and FFS populations as a whole (9 percent). The higher risk scores among MA enrollees could be a result of differential incentives for coding between MA and FFS programs (Medicare Payment Advisory Commission 2022c). We also found that MA enrollees who used IPFs had a higher rate of mood disorders than FFS IPF users (50 percent versus 44 percent) and a lower rate of schizophrenia (30

(continued next page)

**TABLE
6-17**

Beneficiary characteristics of MA and FFS enrollees using IPF services, 2019 (cont. next page)

	IPF		Population	
	FFS	MA	FFS	MA
Current eligibility status and demographics				
Aged	45%	47%	86%	88%
Disabled	55	53	14	12
Female	51	54	55	57
Male	49	46	45	43
<45	22	16	3	2
45-64	32	37	10	10
65-79	30	34	61	64
80+	15	13	25	24
Non-Hispanic White	73	67	79	68
Black	16	19	9	13
Asian/Pacific Islander	1	1	3	4
Hispanic	6	11	6	12
American Indian/Alaska Native	1	0	1	0
Other or unknown	2	2	3	3
Rural	20	12	21	12
Urban	80	88	79	88
Average HCC risk score	1.57	1.70	1.11	1.21
Dual eligible or LIS during year				
No	32	35	78	74
Yes	68	65	22	26

Medicare Advantage (MA) enrollees using IPFs (cont.)

percent versus 34 percent). MA IPF beneficiaries had slightly higher rates of antianxiety and antidepressant Part D prescription fills than FFS IPF beneficiaries.

IPF interviewees did not note any differences between MA and FFS patients, but some interviewees reported that they were in the process of appealing MA plan denials for patients they felt needed a longer stay.

We note that using encounter data to identify MA enrollees who use IPF services could undercount

the true number of MA beneficiaries admitted to psychiatric hospitals. We were unable to identify 7 percent of the IPFs used by FFS beneficiaries in the encounter data (i.e., MA enrollees did not have stays with those IPFs or those IPFs were not properly identified). In addition, we were unable to validate whether we have accurately identified all MA enrollees using IPFs since the Medicare Provider Analysis and Review claims for MA enrollees who use IPFs appear to be underreported for IPFs. ■

**TABLE
6-17**

Beneficiary characteristics of MA and FFS enrollees using IPF services, 2019 (cont.)

	IPF		Population	
	FFS	MA	FFS	MA
Psychiatric MS-DRG*				
Mood disorders	44	50	–	–
Schizophrenia	34	30	–	–
Organic disturbances	9	8	–	–
Alcohol/drug dependency	8	8	–	–
Neurosis	6	6	–	–
Nervous system disorder	8	6	–	–
Other psychiatric	3	2	–	–
Had Part D psychotropic drug fills				
Antianxiety	48	50	15	13
Antidepressant	76	80	31	28
Anticonvulsant	64	64	22	21
Antipsychotic	75	73	7	5
Bipolar disorder medications	9	8	0	0

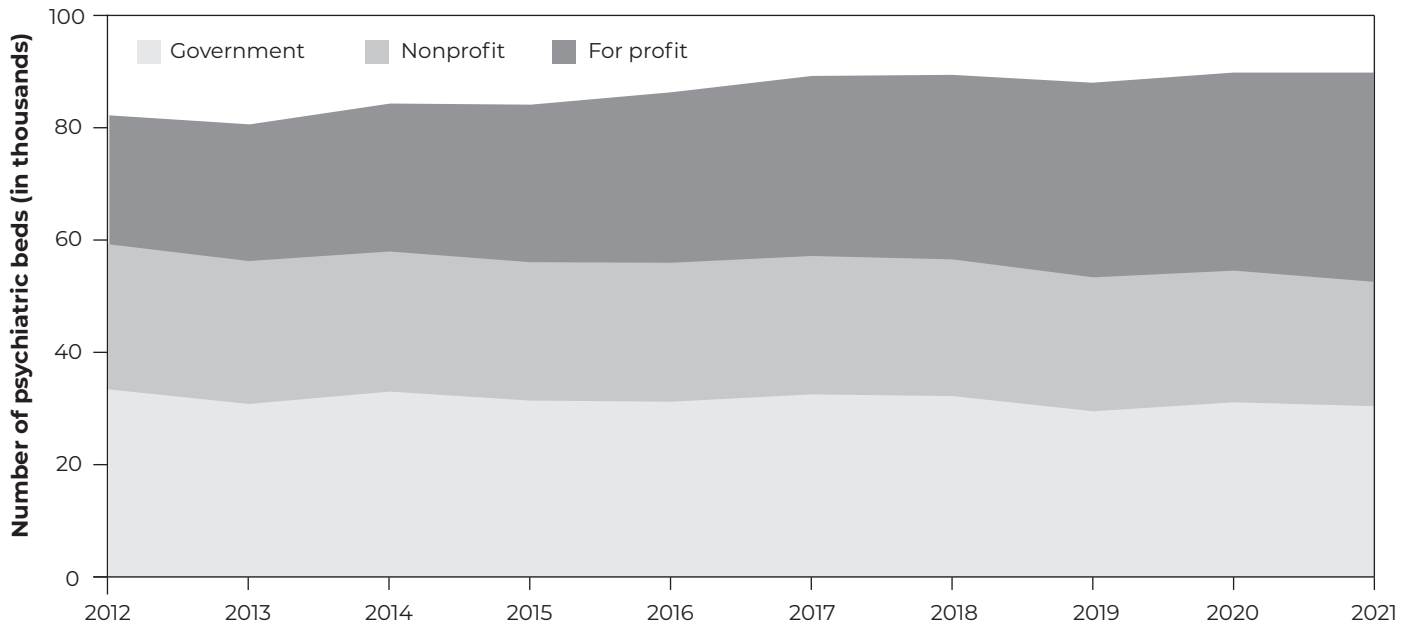
Note: MA (Medicare Advantage), FFS (fee-for-service), IPF (inpatient psychiatric facility), HCC (hierarchical condition category), LIS (low-income subsidy), MS-DRG (Medicare severity–diagnosis related group). The IPF columns represent shares of beneficiaries with at least one IPF stay in the year. FFS columns include those with Part A and Part B coverage at the start of the stay for the IPF column or at the midpoint of the year for the population. MA columns include only those MA beneficiaries enrolled in health maintenance organizations or preferred provider organizations at the start of the stay for the IPF column or at the midpoint of the year for the population. MA IPF beneficiaries were identified as those with at least one IPF stay in the year using the MA encounter data and the Medicare Provider Analysis and Review data. HCC risk scores do not account for unaddressed coding intensity.

*Share of beneficiaries with any stays in year indicating a psychiatric MS-DRG principal diagnosis: mood disorders (885 and International Classification of Diseases, 10th Revision (ICD-10) diagnosis codes F30–F39); schizophrenia, schizotypal, delusion, and other non-mood psychotic disorders (885 and ICD-10 diagnosis codes F20–F29); organic disturbances and mental retardation (884); alcohol/drug abuse or dependency with and without rehabilitation and with and without major complication or comorbidity (MCC) (894, 895, 896, 897); neurosis with and without depressive (881, 882); degenerative nervous system disorders with and without MCC (056, 057); other psychiatric MS-DRGs (880, 883, 896, 876, 887); other nonpsychiatric MS-DRGs (all others).

Source: MedPAC analysis of Medicare Provider Analysis and Review, MA encounter, Medicare enrollment, HCC risk score, and Part D prescription drug event data from CMS. The First Databank Enhanced Therapeutic Classification System was used to identify psychotropic drugs.

FIGURE 6-11

Growth in inpatient psychiatric beds at for-profit IPFs, 2012–2021



Note: IPF (inpatient psychiatric facility).

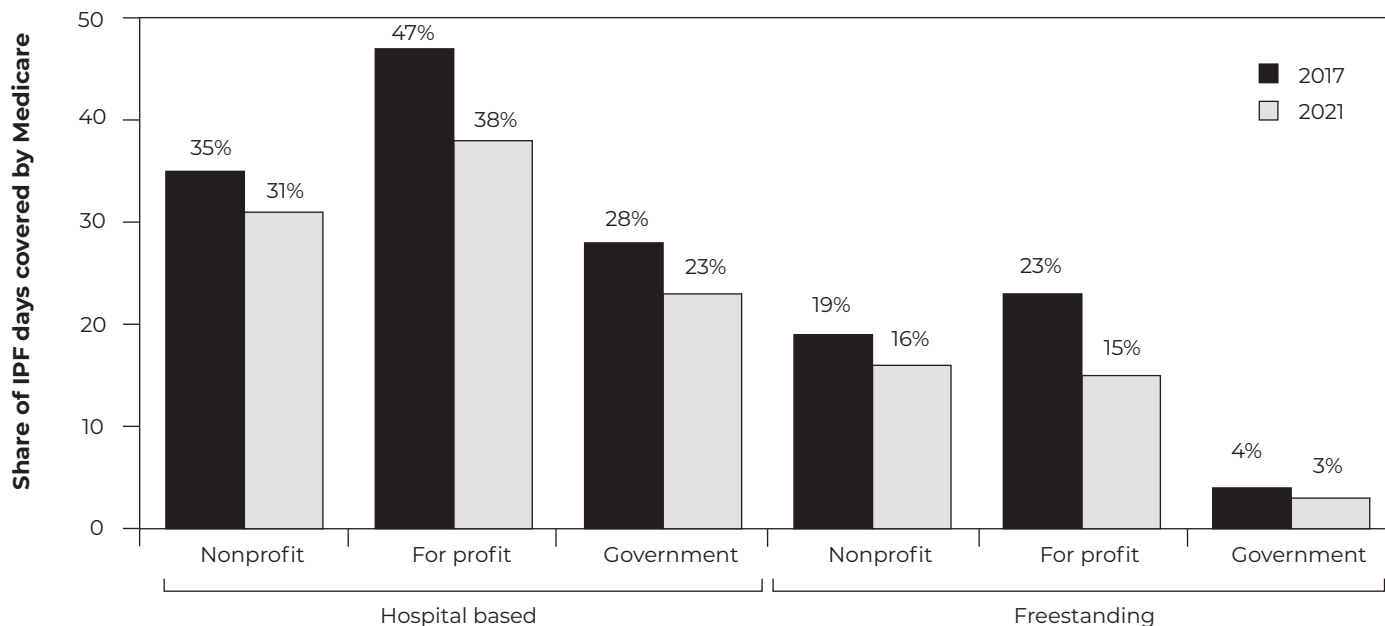
Source: MedPAC analysis of cost report data from CMS.

declined by 0.2 percent and 4.1 percent, respectively. Overall, the number of IPFs fell by 2.0 percent annually from 2017 to 2021 (Table 6-16, p. 263).

Since the 1970s, the nation’s capacity of psychiatric beds has dramatically decreased and shifted toward freestanding for-profit IPFs; in 1970, 80 percent of psychiatric beds were at state and county psychiatric hospitals, but by 2002, only 30 percent of beds were in government IPFs (Salinsky and Loftis 2007). More recently, between 2012 and 2021, the number of beds in for-profit IPFs increased by 5.6 percent annually, while the number of beds at nonprofit and government-owned IPFs fell annually by 1.7 and 1.0 percent, respectively (Figure 6-11). As a result, in 2021, for-profit entities accounted for 41 percent of Medicare-certified psychiatric beds, up from 28 percent in 2012. In 2021, government IPFs accounted for 34 percent of psychiatric beds and nonprofit IPFs accounted for 25 percent of psychiatric beds. Overall, between 2012 and

2021, the total number of IPF beds increased by about 1 percent annually.

Although the total number of IPF beds has been stable in recent years, there are reports of shortages and waitlists for IPF beds that have been exacerbated by COVID-19 (McBain et al. 2022a, Pinals and Fuller 2020). Deinstitutionalization was predicated on the idea that stronger, more humane and effective community and outpatient supports would decrease the need for inpatient psychiatric care, but some have asserted that community-based infrastructure is lacking and more inpatient psychiatric beds are needed (McBain et al. 2022a, Pinals and Fuller 2020). IPF interviewees also frequently noted that geriatric units comprised only a subset of beds within the IPF. Although Medicare beneficiaries can use beds in other units, depending on patients’ medical needs and functional health status, older age was a limiting factor in admitting patients for some IPFs. Thus, not all beds in IPFs are available to over-65 Medicare beneficiaries.

FIGURE 6-12**Medicare share of total IPF days decreased between 2017 and 2021 across all IPF types**

Note: IPF (inpatient psychiatric facility). Medicare-covered days include both fee-for-service and Medicare Advantage enrollees.

Source: MedPAC analysis of cost report data from CMS.

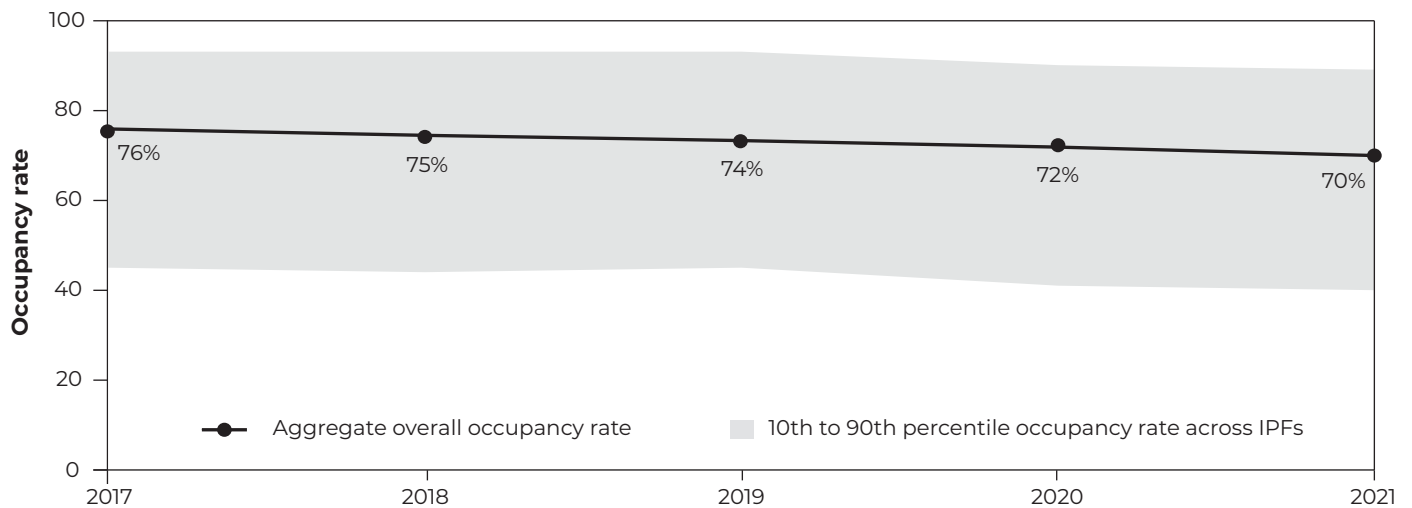
In 2021, Medicare beneficiaries (FFS and MA) represented 16 percent of total IPF days, with the remainder of payers composed of Medicaid, commercial, and other payers (or self-pay), down from 21 percent in 2017. In 2021, the share of Medicare beneficiaries' IPF days of IPFs' total days varied by IPF type, from 3 percent for freestanding government-run IPF days to 38 percent for hospital-based for-profit IPF days (Figure 6-12). The Medicare share of IPFs' days has fallen over time across all IPF types (Figure 6-12). The total number of IPF days has remained relatively stable over the last five years (data not shown), and thus the lower shares of Medicare-covered days appear to represent declines in utilization by Medicare beneficiaries.

From 2017 to 2021, overall occupancy rates (calculated as total occupied bed days divided by total bed days available) declined from 76 percent to 70 percent, though there was substantial variation across IPFs (Figure 6-13, p. 268). Occupancy rates in freestanding

government-owned IPFs—which frequently function as providers of last resort—were among the highest, with more than half of these IPFs having occupancy rates over 80 percent in recent years. This finding suggests that access to services for the sickest beneficiaries is inadequate in some areas. Occupancy rates tended to be higher in urban than in rural areas and in the Northeast and West census regions compared with others (data not shown). As a point of comparison, in 2021, the occupancy rate across short-term acute care hospitals was 65 percent (Medicare Payment Advisory Commission 2023). However, occupancy rates based on Medicare cost reports (as in Figure 6-13) do not account for beds that are temporarily unavailable due to staffing shortages or the need to convert semiprivate rooms to private rooms to isolate a psychiatric patient (for COVID-19 or other reasons). Almost all of the IPF interviewees noted difficulty in staffing all licensed beds. Thus, occupancy rates, as measured from cost reports, are likely underestimated.

**FIGURE
6-13**

Declining occupancy rates overall, though substantial variation across IPFs, 2017–2021



Note: IPF (inpatient psychiatric facility). Aggregate occupancy rates are calculated as the total used bed days divided by total bed days available.

Source: MedPAC analysis of cost report data from CMS.

The characteristics of Medicare FFS beneficiaries using IPFs differed by whether the facility was hospital based or freestanding and by ownership (Table 6-18). These differences have implications for Medicare beneficiaries needing IPF services, especially as hospital-based IPF beds decline and freestanding for-profit IPF beds grow. In summary, we found:

- Freestanding IPFs tended to serve more beneficiaries who were disabled compared with hospital-based units (ranging from 63 percent to 82 percent vs. from 49 percent to 56 percent) and beneficiaries who were younger than 45 years (ranging from 32 percent to 47 percent vs. from 20 percent to 26 percent).
- Freestanding nongovernment IPFs served more patients with a principal diagnosis of mood disorder (ranging from 44 percent to 46 percent vs. from 38 percent to 39 percent among hospital-based nongovernment IPFs).
- Freestanding IPFs served more beneficiaries with a principal diagnosis of alcohol or drug dependency compared with hospital-based IPFs (ranging from 8 percent to 11 percent vs. 4 percent).
- Hospital-based IPFs had higher rates of beneficiaries with principal diagnoses of organic disturbances (ranging from 9 percent to 11 percent vs. from 3 percent to 5 percent) or nervous system disorders (ranging from 8 percent to 9 percent vs. from 2 percent to 4 percent).
- Beneficiaries at hospital-based IPFs tended to have higher risk scores than those at freestanding IPFs (ranging from 1.53 to 1.71 vs. from 1.16 to 1.43).
- Freestanding government IPFs served beneficiaries who were very different from those at other IPFs and composed only 4 percent of Medicare FFS IPF stays. Patients at freestanding government IPFs had longer median lengths of stay (18 days compared with 8 to 11 days among other types of IPFs), had high rates of beneficiaries who were disabled (82 percent vs. from 49 percent to 63 percent), young (47 percent under age 45 vs. from 20 percent to 32 percent), low income (80 percent vs. from 64 percent to 70 percent), and diagnosed

**TABLE
6-18**

Beneficiary characteristics vary by IPF type, FY 2021

	Hospital based			Freestanding		
	Non-profit	For profit	Government	Non-profit	For profit	Government
Share of IPF beneficiaries*	36	16	11	7	37	4
Current eligibility status and demographics						
Aged	49	51	44	37	37	18
Disabled	50	49	56	63	63	82
Female	52	49	48	50	46	40
Male	48	51	52	50	54	60
<45	22	20	26	32	32	47
45-64	29	29	30	32	32	34
65-79	34	35	30	28	27	16
80+	16	16	14	8	9	3
Non-Hispanic White	75	72	67	74	69	67
Black	15	16	21	13	17	18
Asian/Pacific Islander	1	2	2	2	1	2
Hispanic	5	7	6	7	8	6
American Indian/Alaska Native	1	0	1	1	1	2
Other or unknown	3	2	3	4	3	5
Rural	21	18	24	13	17	30
Urban	79	82	76	87	83	70
Average HCC risk score	1.57	1.71	1.53	1.38	1.43	1.16
Dual eligible or LIS during year						
No	36	35	30	33	32	20
Yes	64	65	70	67	68	80
Median length of stay	9	10	10	8	11	18
Psychiatric MS-DRG**						
Mood disorders	39	38	31	44	46	25
Schizophrenia	34	37	42	33	37	53
Organic disturbances	10	11	9	3	5	4
Alcohol/drug dependency	4	4	4	10	11	8
Neurosis	6	4	6	6	3	7
Nervous system disorder	8	8	9	3	4	2
Other psychiatric	3	2	3	2	2	4
Other nonpsychiatric	2	1	2	1	0	2
Had ECT during year						
No	97	99	98	97	99	99
Yes	3	1	2	3	1	1

Note: IPF (inpatient psychiatric facility), FY (fiscal year), HCC (hierarchical condition category), LIS (low-income subsidy), MS-DRG (Medicare severity–diagnosis related group), ECT (electroconvulsive therapy). Data represent fee-for-service beneficiaries with an IPF stay ending in FY 2021. Percentages may not sum to 100 due to rounding.

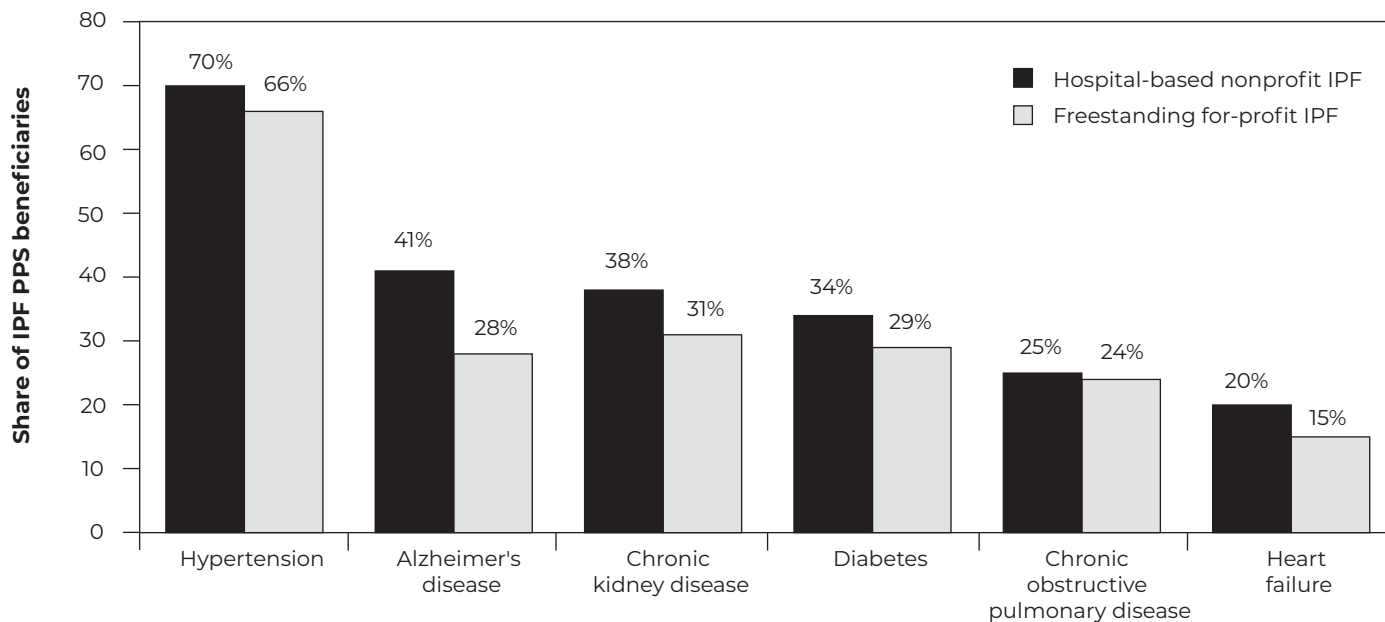
*Percent adds up to greater than 100 percent across IPF types because some beneficiaries have stays with more than one IPF type.

**Percent of beneficiaries with any stays in year indicating a psychiatric MS-DRG principal diagnosis: mood disorders (885 and International Classification of Diseases, 10th Revision (ICD-10) diagnosis codes F30-F39); schizophrenia, schizotypal, delusion, and other non-mood psychotic disorders (885 and ICD-10 diagnosis codes F20-F29); organic disturbances and mental retardation (884); alcohol/drug abuse or dependency with and without rehabilitation and with and without major complication or comorbidity (MCC) (894, 895, 896, 897); neurosis with and without depressive (881, 882); degenerative nervous system disorders with and without MCC (056, 057); other psychiatric MS-DRGs (880, 883, 896, 876, 887); other nonpsychiatric MS-DRGs (all others).

Source: MedPAC analysis of Medicare Provider Analysis and Review data, cost report data, Medicare enrollment, and HCC risk score data from CMS.

**FIGURE
6-14**

Higher rate of certain chronic conditions among FFS beneficiaries using hospital-based nonprofit IPFs compared with freestanding for-profit IPFs, 2019



Note: FFS (fee-for-service), IPF (inpatient psychiatric facility), PPS (prospective payment system).

Source: MedPAC analysis of Medicare Provider Analysis and Review, enrollment data, and Chronic Care Warehouse chronic condition data from CMS.

with schizophrenia (53 percent vs. 33 percent to 42 percent).

- Government IPFs (hospital based and freestanding) served higher rates of rural beneficiaries (ranging from 24 percent to 30 percent vs. from 13 percent to 21 percent among other IPFs).

Note that some (though not all) of the beneficiary characteristics listed in Table 6-18 (p. 269) are also used to adjust payments in the IPF PPS (e.g., advanced age, rural location).

Using data from 2019, we examined the frequency of selected chronic conditions of IPF PPS beneficiaries by IPF type. Focusing on hospital-based nonprofit and freestanding for-profit IPFs, which account for over 70 percent of Medicare IPF PPS beneficiaries, we found that hospital-based nonprofit IPFs tended to serve greater shares of beneficiaries with Alzheimer's disease,

chronic kidney disease, and diabetes than freestanding for-profit IPFs (Figure 6-14).

These findings were generally supported by IPF interviewees—freestanding (nongovernment) IPF interviewees tended to report more restrictive admission criteria than hospital-based IPFs. Patients admitted to freestanding IPFs with medical comorbidities generally had conditions that were well controlled or stable. However, there was some variation in freestanding IPFs' approach toward more medically challenging patients. For example, one freestanding facility reported having internal medicine or family medicine practitioners involved on a regular basis and could take patients with more medical severity.

Trends in the use of IPF services

In 2021, 157,500 Medicare FFS beneficiaries had 230,500 IPF stays (Table 6-19).³⁰ (About 120,000 MA enrollees

**TABLE
6-19**

IPF PPS stays declined while length of stay increased, 2017–2021

	2017	2018	2019	2020	2021	Average annual change*	
						2017–2019	2019–2021
IPF stays	395,100	371,000	345,900	283,000	230,500	–6.4%	–18.4%
Stays per 1,000 FFS beneficiaries	11.9	11.2	10.5	8.8	7.5	–5.7	–15.4
Unique beneficiaries	263,400	248,200	230,700	189,400	157,500	–6.4	–17.4
Multiple users	73,200	68,500	63,400	51,200	41,300	–6.9	–19.3
Length of stay (in days)							
Nongovernment IPFs	12.2	12.3	12.4	12.8	13.1	0.8	3.1
Government IPFs	21.1	23.9	22.7	24.0	27.2	3.7	9.6
Spending (in billions)	\$4.3	\$4.2	\$3.9	\$3.4	\$3.0	–4.4	–12.2
Spending per FFS beneficiary	\$129	\$126	\$120	\$107	\$99	–3.6	–9.1
Payment per IPF beneficiary	\$16,400	\$16,800	\$17,100	\$18,100	\$19,300	2.2	6.2
Payment per covered day	\$880	\$890	\$910	\$940	\$990	1.4	4.6
Payment per stay	\$10,900	\$11,200	\$11,400	\$12,100	\$13,200	2.2	7.5

Note: IPF (inpatient psychiatric facility), PPS (prospective payment system), FFS (fee-for-service). Data exclude scatter beds (beds used in acute care hospitals to treat patients with psychiatric or alcohol- and drug-related conditions).
*Based on unrounded figures.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

were admitted to an IPF in 2019.) Controlling for the number of beneficiaries enrolled in Medicare FFS, IPF stays declined 5.7 percent per year, on average, between 2017 and 2019, possibly reflecting an overall decline in all hospital stays. Between 2019 and 2021, the number of IPF stays per 1,000 FFS beneficiaries fell by 15.4 percent annually. This large decrease could be partially explained by avoidance or deferral of inpatient stays in response to the spread of COVID-19; between 2019 and 2020, general acute care hospital stays fell 12 percent (Medicare Payment Advisory Commission 2023).³¹ However, in 2021, IPF stays declined substantially, while the decline in acute care inpatient hospital stays from the prior year was less than 2 percent.³² IPF interviewees frequently noted their inability to use all licensed beds because of challenges in hiring staff (IPFs possibly face greater difficulty in recruiting staff compared with acute care hospitals), as well as the common use of semiprivate rooms (such

that beds need to be taken offline to accommodate patients needing a single room).

Average lengths of stay have increased over time, particularly between 2019 and 2021 (Table 6-19). For nongovernment IPFs, the average length of stay rose 3.1 percent annually over this time to 13.1 days (by comparison, between 2017 and 2019, the average length of stay rose by less than 1 percent annually). Length of stay tends to be longer for government-run facilities—27.2 days per stay in 2021—and has increased by 9.6 percent annually since 2019. Longer stays led to higher payment per IPF stay, which increased by 7.5 percent annually (last row of Table 6-19).

Reduced overall utilization and longer stays indicate potential changes in the mix of Medicare beneficiaries who use psychiatric hospitals. Several IPF interviewees discussed observing general increases in patients’ aggression and severity over time. Almost all IPF

**TABLE
6-20**

Medicare beneficiaries and the 190-day limit on freestanding psychiatric hospital coverage, 2023

	Any days in freestanding IPF		Reached limit	Within 15 days of reaching limit
	Number	Share of population		
Medicare beneficiaries	847,200	1.5%	38,900	10,400
Fee-for-service	537,900	1.8	27,300	6,800
Medicare Advantage	309,400	1.1	11,500	3,600

Note: IPF (inpatient psychiatric facility). Table figures include the count of Medicare beneficiaries who were enrolled in Medicare fee-for-service or Medicare Advantage in 2021 and had at least one day in a freestanding psychiatric hospital as of January 2023. Percentages represent the share of the relevant population.

Source: MedPAC analysis of enrollment data from CMS.

interviewees discussed challenges with identifying safe and supportive discharge options for patients, resulting in prolonged lengths of stay. As one interviewee stated, “We have a lot of challenges in getting patients to that next step.” Interviewees indicated that referring organizations, such as skilled nursing and assisted living facilities, do not want to readmit patients who require a high level of care and supervision. In some cases, discharge locations such as group homes have beds available but do not have the available or appropriate staff to accommodate admissions from IPFs. Other interviewees noted that closure of government-run psychiatric hospitals in their state, which typically take higher-needs patients, has made it harder to discharge patients who are awaiting placement, resulting in longer stays.

Medicare’s 190-day lifetime limit on treatment in freestanding psychiatric hospitals could affect use of services

Uniquely in Medicare, coverage of treatment in freestanding psychiatric hospitals is subject to a lifetime limit of 190 days. This provision was established in 1965 (with the implementation of Medicare) when the majority of inpatient psychiatric care was in government-run freestanding facilities. The 190-day limit does not apply to hospital-based units (currently 60 percent of IPF stays) and therefore affects the type

of facilities from which some beneficiaries seek care. When beneficiaries reach the limit during an IPF stay, patient care may be disrupted.

Our analyses of lifetime psychiatric hospital days showed that (as of January 2023) for all individuals enrolled in Medicare FFS or MA at some point in 2021, 847,200 beneficiaries had at least one day in a freestanding psychiatric hospital. Among these beneficiaries, 38,900 exhausted all 190 days and 10,400 beneficiaries were within 15 days of reaching the limit. The breakdown by FFS and MA enrollees is shown in Table 6-20. A disproportionate share (70 percent) of beneficiaries reaching the 190-day limit were covered by FFS (the overall share of FFS Medicare beneficiaries in 2021 was 53 percent).³³ It is not clear whether the greater FFS share was due to differences in the type of care needed by the FFS and MA populations or to how well freestanding psychiatric facility days are recorded for MA enrollees. It is also unknown whether some MA plans provide additional coverage of freestanding psychiatric hospital days past the 190-day limit (though no IPF interviewees indicated that this was the case).

The majority of Medicare FFS beneficiaries who had reached the 190-day limit or were near reaching the limit were disabled (75 percent) and low income (85 percent) (Table 6-21).³⁴ Most were male (60 percent) and nearly a quarter were Black. Compared with other

**TABLE
6-21**

Characteristics of Medicare FFS beneficiaries who have reached or are close to reaching the 190-day limit on freestanding IPF days as of January 2023

Characteristic in 2021	FFS beneficiaries reaching or near 190-day limit	All other FFS beneficiaries with an IPF stay in 2021
Current eligibility status and demographics		
Aged	25%	48%
Disabled	75	52
Female	40	50
Male	60	50
<45	22	26
45-64	56	29
65-79	18	32
80+	5	13
Non-Hispanic White	66	73
Black	24	15
Asian/Pacific Islander	2	2
Hispanic	6	6
American Indian/Alaska Native	1	1
Other or unknown	1	3
Urban	84	80
Rural	16	20
Dual eligible or LIS during year		
No	15%	38%
Yes	85	62
HCC risk score	1.48	1.39
Medicare Part A and Part B spending (per capita) ^a	\$22,700	\$40,200
Medicare Part D (per capita) ^b		
Gross spending ^c	\$12,200	\$4,200
Fills	83	52

Note: FFS (fee-for-service), LIS (low-income subsidy), HCC (hierarchical condition category). Beneficiaries at or reaching the 190-day limit include FFS beneficiaries who were enrolled in Medicare in 2021 and had exhausted or were within 15 days of exhausting the 190-day limit in freestanding psychiatric hospitals by January 2023.

^aIncludes Medicare payment of covered services only.

^bIncludes only those beneficiaries enrolled in Part D.

^cReflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not already reflected in prices at the pharmacies.

Source: MedPAC analysis of FFS standard analytic files, Medicare enrollment, and Part D prescription drug event data from CMS.

Medicare FFS beneficiaries who had an IPF stay in 2021, the beneficiaries at or nearing the 190-day lifetime limit had higher risk scores and higher Part D prescription drug spending but lower per capita Medicare Part

A and Part B spending (\$22,700 compared with \$40,200). Lower spending among this group could be related to reaching coverage limits on inpatient stays.³⁵ In fact, we found that nearly half (47 percent)

**TABLE
6-22**

High use of ED and inpatient hospital services before and after an IPF stay, 2018

Type of service	Days before IPF admission			Days after IPF discharge		
	≤90	≤30	≤7	≤7	≤30	≤90
Any ED or inpatient admission	54%	36%	19%	14%	29%	47%
Emergency department only*	42	24	8	9	21	38
Acute care hospital admission**	24	16	11	5	10	19
Inpatient psychiatric hospital admission	30	18	7	7	18	31
Partial hospitalization	8	5	3	6	9	12

Note: ED (emergency department), IPF (inpatient psychiatric facility).

*Includes only ED visits that did not have a subsequent inpatient admission (including IPF admission) within three days.

**Does not include IPF admissions.

Source: MedPAC analysis of the Medicare Provider Analysis and Review (MedPAR), Medicare FFS claims, and Medicare enrollment data from CMS.

of FFS beneficiaries at or near reaching the 190-day freestanding psychiatric hospital day limit had fewer than 60 lifetime reserve days remaining, and that 20 percent had no lifetime reserve days remaining (data not shown). Medicaid may also cover additional care for these beneficiaries that is not captured in Medicare claims data.

Some IPF interviewees discussed the implications of the 190-day limit. They stated that the limit can present significant issues for patients who need longer-term care or those who have multiple periodic inpatient stays, often because of chronic serious mental illness, such as schizophrenia. A couple of the IPF interviewees reported that after surpassing the 190-day limit, IPFs provide uncompensated care and help the patients obtain Medicaid coverage. One noted that they try to get patients who meet the 190-day limit into acute care hospitals (or hospital-based IPFs) so that they can have Medicare coverage. Most IPFs considered the 190-day limit insufficient, especially for patients with chronic mental illnesses, and stated that it increased the difficulty of finding suitable postdischarge placement options.

In future work, we will continue to track beneficiaries who reach the 190-day lifetime limit on freestanding IPF care and determine the types of care these patients receive when reaching the limit.

Health care utilization before and after an IPF stay

Beneficiaries are admitted to IPFs for acute psychiatric episodes requiring 24-hour intensive care. They are expected to have received other medical services prior to the IPF stay and require substantial follow-up care after the IPF stay. Our report on the utilization of certain health care services before and after an inpatient psychiatric hospitalization uses IPF stays that began and ended in 2018. We included only IPF stays for which the beneficiary was alive at the end of 2019. We searched Medicare claims for services that occurred in several time frames before the IPF admission and after the IPF discharge.

Our sample consisted of 259,000 IPF stays for 169,000 beneficiaries. We report on the use of certain types of health care in the 7, 30, and 90 days prior to and following the IPF stay. The percentages shown in the tables and figures that follow are cumulative: If an emergency department (ED) visit occurred in the 7 days prior to IPF admission, it would also have occurred in the 30 and 90 days prior to admission.

Most patients using IPFs are admitted through an ED—over 70 percent of IPF stays in 2021 had an ED visit in the week prior to admission to the IPF (data not shown). IPF interviewees confirmed that IPFs admit most of their patients from the ED, where they are

**TABLE
6-23**

Less than a third of IPF stays had behavioral health practitioner visits occurring before or after the stay, 2018

Type of service*	Days before IPF admission			Days after IPF discharge		
	≤90	≤30	≤7	≤7	≤30	≤90
Any visit with behavioral health practitioner	36%	25%	13%	15%	30%	42%
E&M visit with nonbehavioral health practitioner	66	46	22	25	50	68

Note: IPF (inpatient psychiatric facility), E&M (evaluation and management).

*To avoid double counting with other types of services, we exclude visits with practitioners that occurred in the emergency room, inpatient hospital (including a psychiatric facility), or during a partial hospitalization.

Source: MedPAC analysis of the Medicare Provider Analysis and Review (MedPAR), Medicare FFS claims, and Medicare enrollment data from CMS.

screened to ensure that IPFs admit patients who are medically stable. To better understand the separate encounters with the health care system prior to the IPF stay, we broke down “ED or hospitalizations” into ED-only visits, with no acute care or IPF admission in the following three days; acute care inpatient hospital stays (not including IPF stays); and IPF stays. That is, ED visits that resulted in an acute hospital or IPF stay were counted in these latter categories rather than as an ED visit.

We found that in the seven days prior to IPF admission, 8 percent of beneficiaries had an ED-only visit, 11 percent had an acute care inpatient hospital stay, and 7 percent had a prior IPF stay (Table 6-22). The share of stays for which any of these events occurred in the 30 days before an IPF admission was 36 percent (54 percent in the 90 days prior to the IPF stay). We also found high ED use and hospitalizations in the period following IPF discharge. In the month after IPF discharge, 29 percent of beneficiaries had an ED-only visit, were admitted to an acute care inpatient hospital, or were readmitted to an IPF (Table 6-22). Use of partial hospitalizations was relatively low before and after an IPF stay, with only 12 percent of IPF stays having a partial hospitalization in the following 90 days.

Only 13 percent of beneficiaries had ambulatory visits with a behavioral health practitioner (psychiatrist, psychologist, licensed clinical social worker, or addiction medicine physician) in the week before

IPF admission (Table 6-23). More beneficiaries—22 percent—had an evaluation and management visit with a nonbehavioral health practitioner in the week prior to IPF admission, increasing to 66 percent in the 90 days prior to the IPF stay. Only 15 percent of beneficiaries had a visit with a behavioral health practitioner in the week following discharge, increasing to 42 percent in the 90 days following discharge.³⁶ IPF interviewees discussed difficulty in obtaining appropriate follow-up care for their IPF patients after discharge, particularly with psychiatrists. One stated:

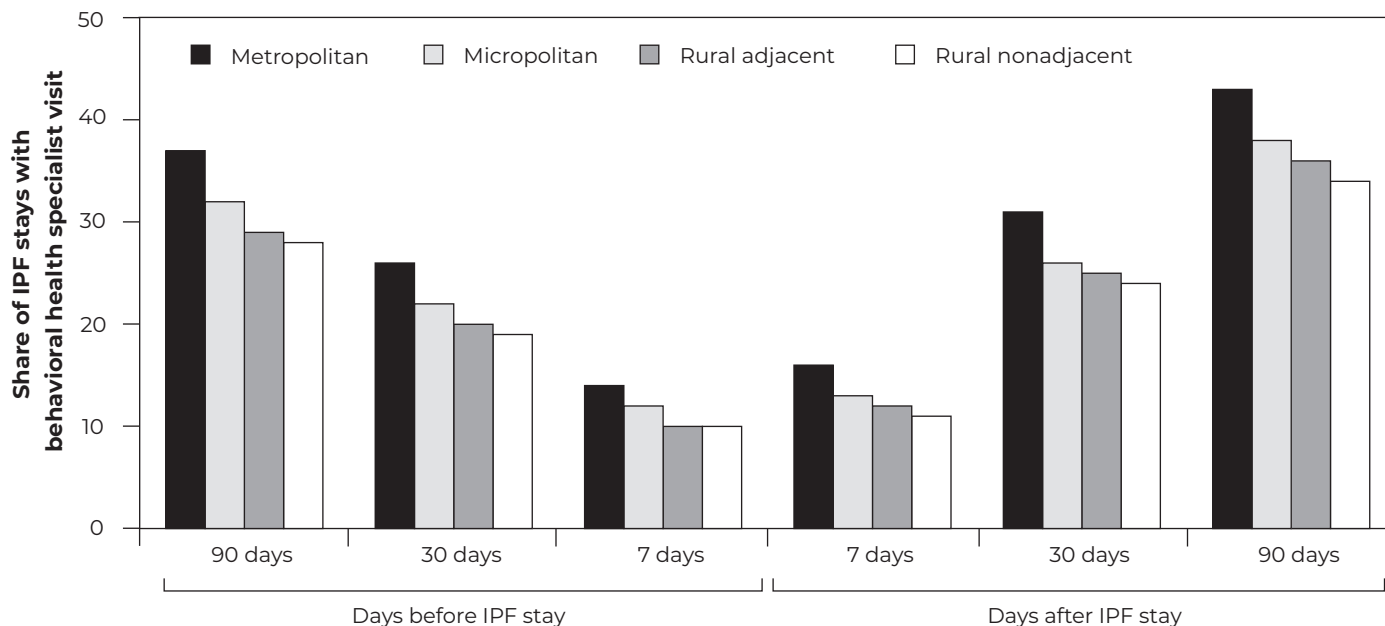
We'll refer them to see a therapist, and they might have to see them two or three times before they can get in with a psychiatrist. It could be two or three months to actually see the psychiatrist because they have to see the therapist so many times—that's how much there is a shortage of psychiatrists. The need is just growing and growing.

Moreover, IPF interviewees noted that the lack of discharge placement options not only lengthens stays but has also resulted in releasing more long-term mentally ill patients back into the community despite significant social, behavioral, and medical needs and inadequate support. Many of these patients are eventually readmitted.

We examined whether these patterns differed depending on the geographic characteristics of the beneficiary's location (Figure 6-15, p. 276, and Figure 6-16, p. 277). The geographic breakdown in our

**FIGURE
6-15**

Compared with beneficiaries in metropolitan areas, beneficiaries in rural areas were less likely to have a behavioral health specialist visit before or after the IPF stay, 2018



Note: IPF (inpatient psychiatric facility). Includes Medicare fee-for-service (FFS) beneficiaries admitted to and discharged from an IPF during calendar year 2018. Geographic categories are based on the beneficiary's county of residence, mapped using the Office of Management and Budget and U.S. Department of Agriculture's Urban Influence Codes. Behavioral health specialists include psychiatrists, psychologists, licensed clinical social workers, and addiction medicine specialists.

Source: MedPAC analysis of the Medicare Provider Analysis and Review (MedPAR), Medicare FFS claims, and Medicare enrollment data from CMS.

sample was as follows: 81 percent of IPF stays were for beneficiaries in urban (metropolitan) counties, 11 percent in rural (micropolitan) counties, 5 percent in rural counties adjacent to an urban area, and 3 percent located in rural (nonadjacent) counties.³⁷

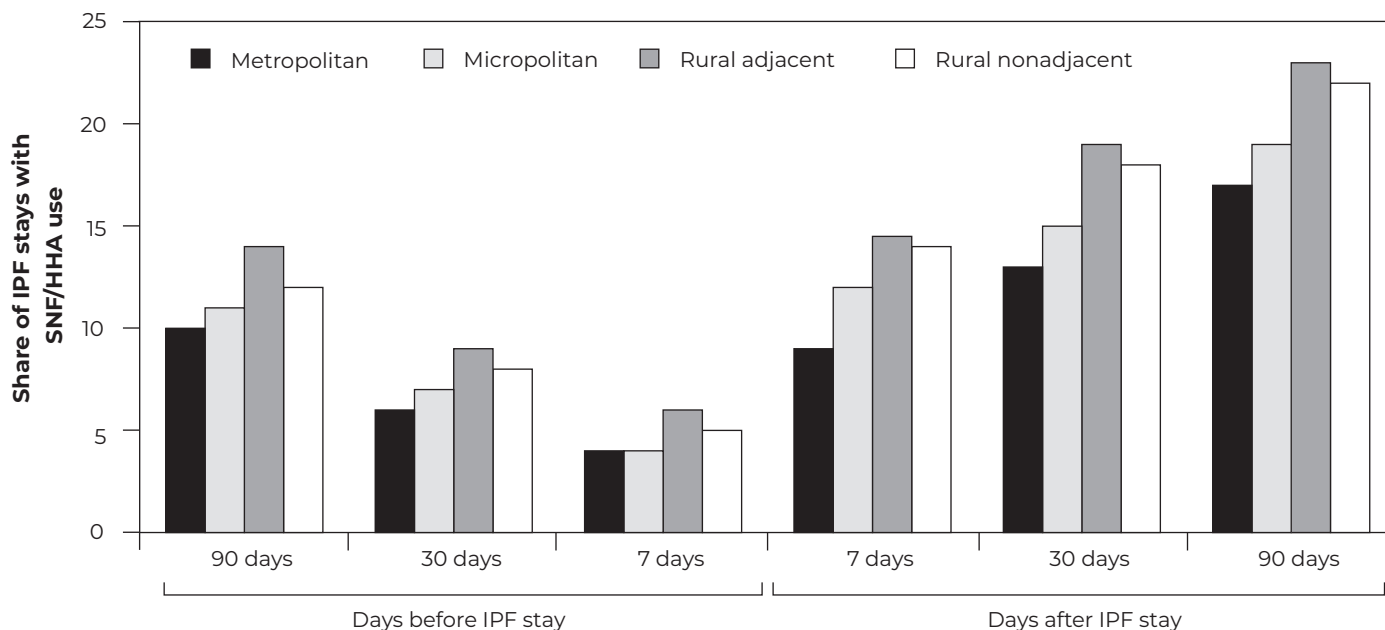
We found fewer hospitalizations, ED visits, and physician visits for rural beneficiaries admitted to IPFs across almost all pre-IPF and post-IPF stay time frames compared with urban beneficiaries. Figure 6-15 shows that 16 percent of urban beneficiaries had a visit with a behavioral health specialist in the seven days following IPF discharge, compared with 11 percent among rural nonadjacent beneficiaries. We found a similar pattern for the other time frames before and after an IPF stay. We did not include rural health clinics (RHCs) or federally qualified health centers (FQHCs) in this analysis, and our counts of visits to behavioral health specialists in rural areas would likely be higher if we included these facilities.³⁸

Compared with urban beneficiaries, beneficiaries in rural areas used post-acute care (SNF and home health care) more before and after the IPF stay. In the seven days following IPF discharge, 9 percent of beneficiaries with an IPF stay in urban areas were admitted to a SNF or home health agency compared with 14 percent of IPF users in rural (adjacent) and rural (nonadjacent) areas (Figure 6-16).

The high rate of ED visits and acute care hospital admissions before and after IPF admission, and the relatively low rate of visits with behavioral health clinicians, suggests that many of these patients do not receive effective, well-coordinated behavioral health care. We did not assess whether the health care received before and after an IPF stay was clinically appropriate. We also did not exhaustively include all available services (for example, we did not include visits with RHCs and FQHCs). Future analyses could include other Medicare services or add stratifications (e.g.,

FIGURE 6-16

Beneficiaries in rural areas were more likely than beneficiaries in metropolitan areas to be admitted to SNFs and HHAs before and after the IPF stay, 2018



Note: SNF (skilled nursing facility), HHA (home health agency), IPF (inpatient psychiatric facility). Includes Medicare FFS beneficiaries admitted to and discharged from an IPF during calendar year 2018. Geographic categories are based on the beneficiary's county of residence, mapped using the Office of Management and Budget and U.S. Department of Agriculture's Urban Influence Codes.

Source: MedPAC analysis of the Medicare Provider Analysis and Review, Medicare FFS claims, and Medicare enrollment data from CMS.

beneficiary characteristics such as age, low income, and race/ethnicity).

IPFs' quality of care

The Chairman of the House Committee on Ways and Means requested that the Commission describe quality-of-care measures for IPFs and, to the extent feasible, analyze how such quality varies for Medicare beneficiaries across facilities. In summary, data on the quality of care provided by IPFs is currently limited. The Medicare program currently has an IPF pay-for-reporting quality program that focuses predominantly on process measures that are reported in aggregate by providers. As IPFs begin to report patient-level quality results, CMS and others will be able to better assess the quality of care provided by IPFs. Beyond improving the validity of IPF-reported quality data, the Commission also encourages CMS to develop and implement

additional quality measures tied to clinical outcomes and patient experience.

IPF quality reporting program

Pursuant to the Affordable Care Act of 2010, CMS implemented the IPF quality reporting (IPFQR) program October 1, 2012. The IPFQR program is a pay-for-reporting program intended to encourage IPFs and clinicians to improve the quality of care provided to beneficiaries. The program collects facility-level quality results and publicly reports them.³⁹

Under the IPFQR program, IPFs must report a numerator and a denominator value for all quality measures based on data in their own administrative and chart records, as well as formally acknowledge the data's accuracy and completeness. CMS has noted that aggregate data reported by IPFs do not allow for comprehensive data validation, thereby diminishing

CMS's ability to detect any errors in chart-abstracted measures that IPFs report. CMS recently finalized a policy to require IPFs to submit patient-level data for select chart-abstracted measures starting from the summer of 2023 onward (Centers for Medicare & Medicaid Services 2021a). IPFs had the option to begin submitting patient-level data to CMS in 2022 on a voluntary basis. Patient-level reporting, or reporting on each patient-abstracted measure, and indicating whether the patient was included in each numerator and denominator of the measure, may address data validation concerns.

Eligible IPFs that do not participate in the IPFQR program or meet all data reporting requirements in a given fiscal year will receive a 2 percent reduction of their annual update to their standard federal rate for the applicable fiscal year.⁴⁰ Since the program's inception, the vast majority of participating IPFs satisfactorily met the IPFQR program requirements and received the full annual update. In fiscal year 2023, 98 percent of the IPFs eligible to participate in the IPFQR program met all requirements and did not experience a reduction in their annual payment update. One percent of eligible IPFs participated in the program but failed to meet all requirements and thus received a 2 percent reduction to their annual update. Another 1 percent of eligible IPFs that chose not to participate in the program also received a 2 percent reduction in their annual update.

IPFQR program measures

For fiscal year 2014, the first IPFQR program year, IPFs were required to report data for six quality measures to meet the program requirements. The program has grown to include 14 measures for fiscal year 2024 (Table 6-24). These measures cover a range of processes the IPFs can implement to maintain or improve the health of their patients during the stay and discharge. The IPFQR program includes one outcome measure—a 30-day all-cause unplanned readmission following psychiatric hospitalization—that measures the impact an IPF has on care during the stay and at discharge to prevent patients from returning to a hospital.

The IPFQR program measures are based on three data sources: chart abstracted, claims based, and the Centers for Disease Control and Prevention's National Healthcare Safety Network (CDC NHSN). The majority of measures for fiscal year 2024 are based on chart-

abstracted data, which IPFs or their vendors calculate based on their own records and then report as aggregate results to CMS (Table 6-24).⁴¹ Claims-based measures are calculated by CMS using Medicare FFS claims data. Finally, the recently adopted COVID-19 health care personnel vaccination measure requires IPFs to submit data to the CDC NHSN, a public health registry.

The Commission encourages CMS to develop and implement additional quality measures tied to clinical outcomes and patient experience. CMS has signaled a move in this direction, as it is currently developing two measures tied to clinical outcomes that may be included in future IPFQR program measure sets: improvement in depression symptoms during the IPF stay (chart abstracted) and 30-day risk-standardized all-cause mortality following IPF discharge (claims based). CMS has also noted that it plans to develop and implement patient experience surveys for IPFs in the future.

IPF quality measure performance

Overall, due to data limitations, it is difficult to interpret IPF quality measure performance. In 2021, the IPFQR program included 15 quality measures (19 indicators, since some measures have multiple rates). Fifteen of these indicators are based on chart-abstracted data, meaning that facilities calculate the measure based on their own medical records and report the results (i.e., numerators and denominators) in aggregate. Without patient-level data, CMS has not been able to assess the accuracy of the chart-abstracted measures that IPFs report.

In 2021, average performance across all IPFs on chart-abstracted quality measures varied widely (Table 6-25, p. 280). For example, for the measure of tobacco use treatment provided at discharge, the lowest mean rate was 21 percent, while the highest mean rate for the measure screening for metabolic disorders was 80 percent. Also, some performance across IPFs on quality measures varied more than others. For example, the IPF at the 75th percentile for tobacco use treatment provided during the stay had a rate that was 4.1 times that of the IPF at the 25th percentile, while the IPF at the 75th percentile for medication continuation following discharge had a rate that was 1.2 times that of the IPF at the 25th percentile. These large ranges and variation in performance suggest opportunities for improvement.

**TABLE
6-24**

IPFQR program quality measures for FY 2024

Measure name	Measure description
Patient safety	
Hours of physical restraint use	Hours that patients spent in physical restraints for every 1,000 hours of care
Hours of seclusion use	Hours that patients spent in seclusion for every 1,000 hours of care
Preventive care and screening	
Screening for metabolic disorders	Patients discharged on antipsychotic medications who had metabolic disorder screenings in the past year
Influenza immunization	Patients assessed and given influenza vaccination
COVID-19 health care personnel vaccination*	COVID-19 vaccination among health care personnel
Substance use treatment	
Alcohol use brief intervention during the stay	Patients with alcohol abuse who received or refused a brief intervention during their stay
Alcohol and other drug use disorder treatment at discharge	Patients who screened positive for alcohol or drug use who, at discharge, received or refused a prescription to treat that disorder or a referral for addiction treatment
Tobacco use treatment during the stay	Patients who use tobacco and received or refused counseling and medication to quit during their stay
Tobacco use treatment at discharge	Patients who use tobacco and who, at discharge, received or refused a referral for outpatient counseling and received or refused a prescription to help them quit
Follow-up care	
Patients discharged on multiple antipsychotic medications with appropriate justification	Patients discharged on two or more clinically appropriate antipsychotic medications
Transition record received by discharged patients	Patients who received a care record and follow-up plans at discharge
Medication continuation following discharge**	Patients who filled at least one prescription within 30 days of discharge
Follow-up after psychiatric hospitalization**	Patients who received follow-up care from an outpatient mental health care provider after discharge: within 30 days and within 7 days
Outcome	
30-day all-cause unplanned readmission following psychiatric hospitalization**	Patients readmitted to any hospital within 30 days of discharge

Note: IPFQR (IPF quality reporting), FY (fiscal year). Unless noted, quality measures are based on chart-abstracted data, meaning IPFs or their vendors calculate values based on their own medical records and report aggregate results to CMS.

*Denotes a measure based on results that an IPF reports to the CDC National Healthcare Safety Network.

**Denotes a claims-based measure calculated by CMS, as opposed to chart-abstracted measures calculated by the IPF.

Source: Final rules for inpatient psychiatric facility prospective payment system.

**TABLE
6-25**

Quality measure performance across IPFs, 2021

Measure	Mean	25th	50th	75th	75th to 25th percentile ratio
Hours of physical restraint use	0.52	0	0.05	0.22	–
Hours of seclusion use	0.37	0	0.02	0.18	–
Screening for metabolic disorders	80%	74%	90%	97%	1.3
Influenza immunization	78	69	88	97	1.4
Alcohol use brief intervention during the stay					
Provided or offered	67	47	78	93	2.0
Provided	73	58	81	95	1.6
Alcohol and other drug use disorder treatment at discharge					
Provided or offered	72	55	80	95	1.6
Provided	59	35	61	88	2.5
Tobacco use treatment during the stay					
Provided or offered	72	59	79	93	1.6
Provided	45	17	47	70	4.1
Tobacco use treatment at discharge					
Provided or offered	57	28	65	88	3.2
Provided	21	0	4	30	–
Patients discharged on multiple antipsychotic medications with appropriate justification	62	37	70	91	2.5
Transition record received by discharged patients	67	43	83	96	2.22
Timely transmission of transition record	59	27	71	90	3.3
Medication continuation following discharge*	73	68	74	79	1.2
Follow-up after psychiatric hospitalization					
Within 30 days*	53	44	53	62	1.4
Within 7 days *	29	21	28	36	1.7
30-day all-cause unplanned readmission following psychiatric hospitalization*	20	18	20	22	1.2

Note: IPF (inpatient psychiatric facility). The analysis includes 1,524 IPFs. A small number of IPFs were excluded from the analysis because of missing results or characteristic information. Not all IPFs had enough cases to report every measure or none of the IPF's cases met the measure criteria. "Hours of physical restraint use and seclusion" are hours for every 1,000 hours of patient care. The table shows unweighted averages.

“–” denotes that a ratio could not be calculated with a zero divisor.

*Denotes a claims-based measure.

Source: MedPAC analysis of IPF quality public use files, January and April 2023.

**TABLE
6-26**

IPF quality measure performance, 2017–2021

Measure description	2017	2018	2019	2020	2021	Percentage point change, 2017–2021
Hours of physical restraint use	0.57	0.49	0.47	0.44	0.52	–0.05
Hours of seclusion use	0.28	0.28	0.30	0.34	0.37	0.09
Influenza immunization	84%	84%	83%	81%	78%	–6
Tobacco use treatment during the stay						
Provided or offered	79	80	81	79	72	–7
Provided	45	46	47	46	45	0
Tobacco use treatment at discharge						
Provided or offered	54	56	58	59	57	3
Provided	16	18	21	22	21	5
Patients discharged on multiple antipsychotic medications with appropriate justification	63	63	63	63	62	–1

Note: IPF (inpatient psychiatric facility). The analysis included about 1,500 IPFs with some variation year to year because of differences in the number of IPFs with complete results and characteristic information. The table includes only measures that are part of the IPF quality reporting program over all five years and that did not have significant changes to the measure specifications. “Hours of physical restraint use” and “seclusion” are hours for every 1,000 hours of patient care.

Source: MedPAC analysis of IPF quality public use files, 2018–2022.

In 2021, average IPF performance on the 30-day all-cause unplanned readmission (claims-based outcome) measure was 20 percent, which suggests that facilities have substantial opportunities to reduce readmissions after psychiatric hospitalizations.⁴² The IPF at the 75th percentile of performance had a rate that was 0.8 times that of the IPF at the 25th percentile of performance.

We also compared rates of 30-day all-cause readmission following psychiatric hospitalization by various IPF provider characteristics. The magnitude of the differences across readmission rates is small, but the variation in readmission rates between groups of IPFs could indicate variation in quality among the different IPF types (data not shown). Urban IPFs had slightly better performance than their rural counterparts. Freestanding facilities had better performance than hospital-based units. When compared by ownership, government IPFs had the best performance, followed by nonprofit facilities and then for-profit facilities. IPFs with the highest share of low-income beneficiaries had the best performance,

compared with facilities with low and medium shares of low-income beneficiaries.

Between 2017 and 2021, some IPFQR program quality measure results improved, while others declined or stayed the same (Table 6-26).⁴³ For example, hours of physical restraint use decreased slightly (lower values are better). Tobacco use treatment provided at discharge improved from 16 percent to 21 percent. Contrastingly, the rate of providing or offering tobacco use treatment during the stay declined from 79 percent to 72 percent. Although we are unsure of the accuracy of the results for these chart-abstracted measures, they could indicate marginal changes in IPF quality results over time.

IPFs’ access to capital

Access to capital, which allows IPFs to maintain, modernize, and expand their facilities, is another of the Commission’s payment adequacy indicators. Almost two-thirds of IPF providers are hospital-based

**TABLE
6-27**

Wide variation in Medicare margin by type of IPF, FY 2018–2021

	Share of Medicare FFS stays		Aggregate Medicare margins			
	2018	2021	2018	2019	2020	2021
All IPFs	100%	100%	-2.1%	-4.0%	-8.7%	-9.4%
Hospital-based unit	58	56	-19.1	-21.3	-28.2	-28.3
Nonprofit	34	32	-23.9	-26.0	-34.2	-34.8
For profit	15	15	-8.0	-10.5	-14.8	-13.0
Government	10	10	-	-	-	-
Freestanding	42	44	20.6	18.3	16.9	15.0
Nonprofit	6	6	-10.9	-10.0	-19.2	-21.6
For profit	32	35	26.7	23.7	24.1	21.7
Government	3	3	-	-	-	-
Teaching	19	20	-21.1	-21.6	-26.8	-24.6
Nonteaching	81	80	1.6	-0.6	-5.0	-6.2
Urban	86	87	-1.8	-3.8	-8.9	-9.2
Rural	13	12	-3.5	-5.1	-7.2	-11.0
<25 beds	26	25	-18.8	-19.5	-26.7	-27.2
25–49 beds	22	21	-12.1	-15.9	-21.8	-20.5
50–99 beds	26	28	5.4	1.8	-0.7	-2.7
≥100 beds	25	26	17.9	16.4	12.3	12.7

Note: IPF (inpatient psychiatric facility), FY (fiscal year), FFS (fee-for-service). Government-owned facilities operate in a different financial context from other facilities, so their margins are not necessarily comparable. They are not included in margin percentages but are included in share of Medicare FFS stays. "Medicare margin" is calculated as aggregate Medicare payments for IPF PPS services minus aggregate allowable Medicare costs for Medicare FFS beneficiaries, divided by aggregate payments for IPF PPS services. Percentages may not sum to 100 due to rounding.

Source: MedPAC analysis of cost report and Medicare Provider Analysis and Review (MedPAR) data from CMS.

units that would access any necessary capital through their parent institutions. Therefore, in assessing access to capital for hospital-based IPFs, we look at the availability of capital for acute care hospitals. Overall, as detailed in our March 2023 report to the Congress (Medicare Payment Advisory Commission 2023), general acute care hospitals' access to capital strengthened in 2021, with the all-payer operating margin among hospitals paid under the inpatient PPS reaching a record high despite a decline in federal relief funds. Additionally, hospitals maintained strong access to bond markets. While the effect of the coronavirus pandemic on hospitals' finances varied substantially

across hospitals, we have no evidence that it has had a negative effect on hospitals' long-term access to the capital markets.⁴⁴

To assess freestanding IPFs' access to capital, we look at the availability of capital for publicly traded IPFs. Market analysts indicate that the IPF industry's largest chain, Universal Health Services (UHS)—which owned over 20 percent of freestanding IPFs and accounted for about 12 percent of Medicare IPF stays in 2021—has good access to capital. This assessment is reflected in the chain's continued expansion before and through the pandemic. Between 2019 and 2022, the company

opened six new facilities and added almost 600 acute psychiatric beds in new and existing facilities. Between 2023 and 2025, the company plans to open at least three new facilities.⁴⁵ However, despite continued growth and expansion, UHS cited the shortage of nurses and other clinical staff as a significant operating issue. The staffing shortage has required UHS to hire expensive temporary staff or enhance wages and benefits to recruit and retain health care providers. In some cases, they have been unable to fill vacant positions and, as a result, have been required to limit patient volumes.⁴⁶

IPFs' access to capital depends in large part on their total (all-payer) profitability. In 2021, the all-payer total margins for freestanding IPFs increased from 0.6 percent in the previous year to an aggregate margin of 3.2 percent.⁴⁷ However, all-payer profitability varied substantially for freestanding IPFs by ownership. In 2021, for-profit freestanding IPFs had an all-payer total margin of about 12.5 percent (up from 10.4 percent in 2019) compared with 4.4 percent (down 0.09 percent from 2019) for nonprofit freestanding IPFs. Data were not available to calculate total all-payer margins for hospital-based IPFs separately from the parent hospital.

Medicare payments and IPFs' costs

We calculated IPF Medicare margins by comparing payments made under the IPF PPS to providers' costs for their Medicare FFS patients using Medicare cost reports. IPF PPS margins have decreased over time (Table 6-27). From 2018 to 2021, the aggregate Medicare margin for IPF PPS services among all IPFs fell from -2.1 percent to -9.4 percent. However, financial performance under the IPF PPS varied widely. In 2021, the aggregate Medicare margin for IPF PPS services among freestanding IPFs was 15.0 percent, compared with -28.3 percent in hospital-based IPFs. The high aggregate margin of freestanding IPFs was driven by for-profit facilities. In 2021, freestanding IPFs that were for profit had an aggregate Medicare margin of 21.7 percent for IPF PPS services. Government-owned IPFs are not included in the aggregate margins reported in Table 6-27.

When we include the COVID-19 public health emergency (PHE) provider relief funds available starting in 2020, the margins improved; aggregate margins including the funds improved by 5.9 percentage points

(from -8.7 percent to -2.8 percent) in 2020 and by 2.6 percentage points (from -9.4 percent to -6.8 percent) in 2021 (data not shown). Aggregate margins improved for rural IPFs from -11.0 percent to -5.1 percent with relief funds.

The variation in margins appears to be driven by differences in costs among IPFs. As shown in Table 6-28 (p. 284), costs varied widely with regard to IPF type, ownership, and bed size. Costs per day were lowest among freestanding for-profit IPFs with 100 or more beds (\$650 per day) and were highest among freestanding government facilities with 100 or more beds (\$2,270). We expected size to have an inverse relationship with costs per day because larger facilities can spread costs over more beds. This relationship was apparent among the for-profit IPFs (both hospital based and freestanding) but did not always hold among nonprofit and government IPFs. Costs per day were higher among hospital-based units compared with freestanding IPFs (\$1,330 vs. \$930 per day). For-profit IPFs had lower costs than nonprofit and government facilities among both freestanding and hospital-based IPFs.

As learned from the IPF interviews, freestanding IPFs tended to have more restrictive admission criteria related to patients' medical conditions. Given that patients with more medically complex conditions or lower functional status require more staff time as well as more specialized equipment, this was likely a factor driving lower costs (and higher margins) among these IPFs. Indeed, one IPF interviewee noted that taking more complicated cases would increase the costs of maintaining a facility that could accommodate these services and questioned whether payments would cover these additional costs:

It's partly a financial consideration. . . . It's cheaper to build a freestanding hospital without all the [medical infrastructure]. And then there's the question of whether or not you're going to be reimbursed for having a medically complicated patient.

Concerning trends among freestanding for-profit IPFs

IPFs' costs for caring for Medicare beneficiaries consist of routine and ancillary costs, which must be reported annually to CMS.⁴⁸ Routine costs include nursing services and room and board, which are typically provided to all patients in a facility. Ancillary costs are

**TABLE
6-28**

Differences in costs by IPF type and size, FY 2021

	Bed size	Number of IPFs	Cost per day	Payment per day
Freestanding		555	\$930	\$890
Nonprofit		70	1,190	980
	1-24	22	1,310	1,060
	25-49	6	1,260	1,050
	50-99	21	1,140	1,030
	≥100	21	1,190	940
For profit		328	690	880
	1-24	38	870	900
	25-49	41	820	930
	50-99	118	650	850
	≥100	131	650	880
Government		157	2,000	860
	1-24	21	1,810	920
	25-49	12	1,550	940
	50-99	37	1,400	1,000
	≥100	87	2,270	800
Hospital-based unit		927	1,330	1,030
Nonprofit		571	1,590	1,010
	1-24	313	1,370	1,010
	25-49	172	1,380	1,010
	50-99	75	1,370	990
	≥100	11	1,270	1,090
For profit		196	1,080	950
	1-24	109	1,180	970
	25-49	53	1,100	980
	50-99	27	1,010	940
	≥100	7	790	830
Government		160	1,560	1,210
	1-24	86	1,220	950
	25-49	27	1,560	1,130
	50-99	31	1,800	1,310
	≥100	16	1,710	1,450

Note: IPF (inpatient psychiatric facility), FY (fiscal year). "Cost per day" includes IPFs' costs for Medicare fee-for-service (FFS) beneficiaries divided by the number of Medicare FFS beneficiary days. Payment per day is calculated as total IPF PPS payments to IPFs divided by the number of Medicare FFS beneficiary days.

Source: MedPAC analysis of cost report data from CMS.

for specific services (e.g., laboratory, radiology, drugs, therapy). Ancillary services vary by patient, and for most IPFs (those not using an "all-inclusive rate"), the charges for ancillary services are to be recorded on each IPF claim for a stay. Ancillary costs per stay can

then be calculated by applying cost-to-charge ratios from the corresponding ancillary cost center on the cost reports to the charges on the claim. Routine costs compose the majority (over 85 percent) of costs for a patient at an IPF (Garrett et al. 2009, RTI International

**TABLE
6-29**

Billing for ancillary services varies by IPF type, FY 2021

Ancillary service	Share of FFS stays with ancillary charges						
	All	Hospital based			Freestanding		
		Non-profit	For profit	Government	Non-profit	For profit	Government
Non-all-inclusive-rate IPFs (180,400 stays at 1,184 IPFs)							
Drugs	83%	97%	99%	99%	78%	40%	88%
Laboratory	80	96	96	97	78	31	72
Radiology—diagnostic	20	25	29	31	4	5	7
Physical therapy	16	21	26	18	6	3	3
Occupational therapy	15	17	18	19	1	2	3
Medical supplies	12	12	17	20	2	19	2
CT scan	10	15	14	16	1	0	1

Note: IPF (inpatient psychiatric facility), FY (fiscal year), CT (computed tomography).

Source: MedPAC analysis of Medicare Provider Analysis and Review (MedPAR) data from CMS.

2005), though most or all IPF patients are expected to incur some ancillary costs. We found similar proportions of routine versus ancillary costs using more recent data.

Hospitals must apportion allowable costs between Medicare and non-Medicare patients to each ancillary department unless they have an all-inclusive rate or no charge structure. An “all-inclusive” rate means that one charge covers all services. CMS allows hospitals without charge structures for individual services rendered to use alternative methods of apportionment. For these hospitals, ancillary services are not commonly or reliably reported separately for each service. Instead, we would expect that the costs of ancillary services would be combined with routine costs into one facility-level amount.

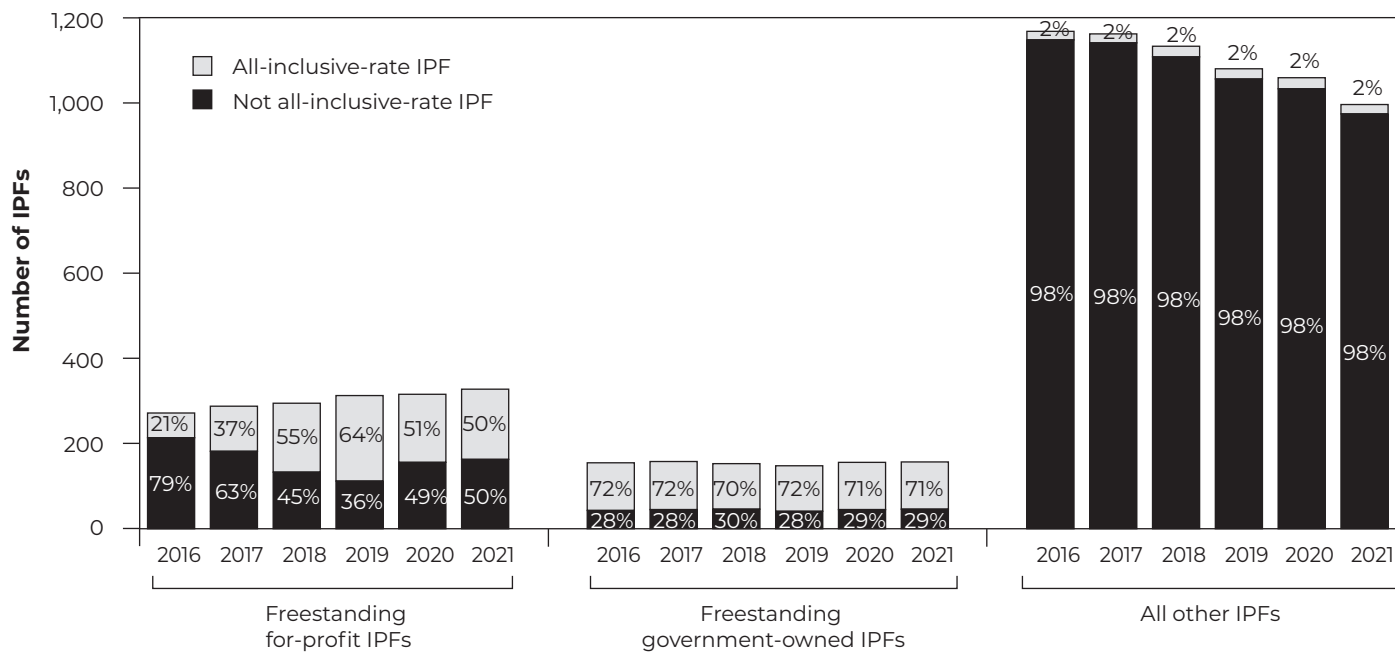
CMS has repeatedly expressed concern over the number of claims that contain no ancillary charges when “most patients requiring hospitalization for active psychiatric treatment will need drugs and laboratory [ancillary] services” (Centers for Medicare & Medicaid

Services 2021b). In 2017 and 2018, CMS issued several transmittals explicitly specifying that cost reports from psychiatric hospitals without ancillary costs would be rejected unless the hospital was an all-inclusive-rate facility (Centers for Medicare & Medicaid Services 2018b, Centers for Medicare & Medicaid Services 2018c, Centers for Medicare & Medicaid Services 2017).

Table 6-29 shows that among IPFs that were not all-inclusive-rate hospitals (and therefore were required to apportion costs to each ancillary department), 83 percent of stays contained ancillary charges for drugs and 80 percent contained ancillary charges for laboratory services. However, reporting of ancillary costs differed across IPF types. Among hospital-based IPFs, nearly all stays had ancillary charges for drugs and laboratory service charges. The percentages were substantially lower among freestanding IPFs, particularly freestanding for-profit IPFs. For these IPFs, only 40 percent and 31 percent of stays, respectively, contained charges for drugs and laboratory services (Table 6-29).

FIGURE 6-17

Many freestanding for-profit IPFs have changed to an all-inclusive-rate status, FY 2016–2021



Note: IPF (inpatient psychiatric facility), FY (fiscal year).

Source: MedPAC analysis of cost report data from CMS.

In our review of charges for ancillary services for drugs at the IPF level, we found that IPFs tended to report charges on the claim for all or almost all of their stays or none of their stays. That is, reporting of ancillary charges for drugs appeared to be an accounting rather than clinical decision. For example, in 2021, among freestanding for-profit IPFs without the all-inclusive rate, 53 percent (86 of 163 IPFs) reported no ancillary drug charges for any stays. However, for the IPFs that reported ancillary drug charges, on average, 90 percent of the IPFs’ stays indicated some ancillary charges for drugs.

Lacking ancillary costs has been further exacerbated by the growing number of facilities designated as all-inclusive-rate providers. Between 2016 and 2021, the number of all-inclusive-rate hospitals, as designated on their cost reports, increased from 190 to 298 (with a high of 332 IPFs in 2019), driven almost exclusively by freestanding for-profit IPFs (Figure 6-17). From

2016 to 2019, the share of freestanding for-profit IPFs designating as all-inclusive-rate providers grew from 21 percent to 64 percent. In 2020 and 2021, this percentage fell to around 50 percent. Over 70 percent of freestanding government IPFs have an all-inclusive-rate status, but this percentage has not changed over time.

One large owner of freestanding for-profit psychiatric hospitals throughout the country has been responsible for much of the shift toward all-inclusive-rate status. In 2016, just 16 percent of this owner’s IPFs were all-inclusive-rate facilities, though 92 percent of its claims had no reported ancillary charges (Table 6-30). Possibly in response to CMS’s 2017 and 2018 transmittals requiring ancillary charges for providers without the all-inclusive rate, this owner’s IPFs began shifting to all-inclusive-rate status; by 2019, 91 percent were all-inclusive-rate providers. The process for converting from a facility for which a cost structure is in place to

**TABLE
6-30**

One large chain converted almost all its IPFs to all-inclusive-rate facilities, FY 2017-2021

	Number of IPFs	Share of IPFs with all-inclusive rates	Share of stays with no ancillary drug charges
2016	115	16%	92%
2017	116	53	93
2018	117	85	94
2019	118	91	94
2020	117	91	94
2021	116	91	92

Note: IPF (inpatient psychiatric facility), FY (fiscal year). Includes IPFs affiliated with one large owner of freestanding for-profit IPFs.

Source: MedPAC analysis of cost report and Medicare Provider Analysis and Review (MedPAR) data from CMS.

charge for individual services to an all-inclusive-rate facility is not clear. Medicare cost report instructions indicate that all-inclusive-rate hospitals can select from alternative methods of apportionment (A, B, C, D, and E, in declining order of sophistication in terms of ability to calculate and apportion costs), but once a method of higher sophistication is selected, a hospital cannot elect to change to a lower method of sophistication in subsequent reporting periods (Centers for Medicare & Medicaid Services 2020b). It is not clear whether a similar requirement applies to changing a facility’s overall designation to an all-inclusive-rate hospital.

Since costs incurred for ancillary services would not be separately reported for each service after converting to an all-inclusive-rate facility, we would expect higher routine costs (which would be aggregated with costs incurred for ancillary services), all else equal. To examine this, we identified 59 IPFs that converted to an all-inclusive-rate structure in 2017 and 2018 and served Medicare FFS IPF beneficiaries for all years between 2016 and 2019. For these IPFs, we compared average routine costs per day and the share of stays for which any drug or laboratory services were reported for each year on the claims or cost reports (Table 6-31, p. 288). We found that even before the hospital converted to an all-inclusive-rate structure, only 12 percent of claims had drug or laboratory ancillary charges (see the 2016

row of Table 6-31). This percentage fell to 5 percent in the year after conversion. In 2017, immediately prior to the conversion to an all-inclusive rate, 42 percent of these IPFs reported some drug or laboratory ancillary costs on their cost reports; this fell to 4 percent in 2018 after conversion. Average routine costs per day increased slightly after 2017, from \$530 to \$590 per day in 2019, but this increase is too small to be explained by changes in the allocation of ancillary costs.

These findings show that, despite CMS’s efforts to encourage accurate reporting of ancillary services, many IPFs continue to report no ancillary services. One reason for the recent growth in conversions to all-inclusive-rate hospitals could be that IPFs wished to avoid rejection of their cost reports due to the lack of documented ancillary service costs.

IPF interviewees confirmed that almost all patients receive some ancillary services, especially drugs and laboratory services, though they noted that ancillary services were generally a small portion of overall costs. While IPF interviewees internally tracked some ancillary services, very few perceived financial benefits to reporting comprehensive ancillary charges, nor any repercussions for failing to provide the information. Interviewees tended to conflate the “all-inclusive” designation with per diem reimbursement from payers,⁴⁹ stating that they were an all-inclusive-rate

**TABLE
6-31**

**IPFs switching to an all-inclusive rate between FY 2017 and 2018
already had low reporting of ancillary services**

	Not all-inclusive IPFs	All-inclusive IPFs	IPF stays	Share of stays with drug or laboratory ancillary charges on claim	Share of IPFs with drug or laboratory costs on cost report	Average routine cost per day from cost report
2016	59	0	27,800	12%	15%	\$520
2017	59	0	26,650	8	42	530
2018	0	59	24,620	5	4	560
2019	0	59	23,220	5	1	590

Note: IPF (inpatient psychiatric facility), FY (fiscal year). Routine costs per day were calculated by obtaining total inpatient routine service costs from Worksheet D-1, Part II, and subtracting pass-through costs from Worksheet E-3, Part II.

Source: MedPAC analysis of cost report data and Medicare Provider Analysis and Review (MedPAR) data from CMS.

hospital despite not being designated as such on their costs reports.

Some freestanding IPF interviewees that were part of proprietary chains indicated that corporate policies determined whether they reported separate ancillary services. One freestanding IPF that was part of a chain reported separate ancillary services and stated that they did so because the state Medicaid program required that level of detail for payment. This interviewee noted that other IPFs in the same chain that were in other parts of the country typically do not report ancillary charges. One IPF interviewee indicated that they would need a new electronic medical record system to capture charges for each ancillary service.

More information is needed to assess payment accuracy and quality of care

More information is needed to assess the accuracy of payments—that is, the ability of the payment system to accurately capture costs and classify patients—and the quality of care that beneficiaries receive in IPFs. As for payment accuracy, we found substantial variation in IPFs’ Medicare margins by facility type. The variation tracked with differences in costs by IPF type, with freestanding for-profit IPFs having lower costs (and higher margins) and hospital-based IPFs having higher costs (and lower margins). This pattern may be due to differences in scale (for-profit IPFs tend to be larger), but also to differences in the mix of patients served

and the quality of care provided. As for quality, data measuring IPFs’ quality of care are scant.

Payment accuracy

As with any payment system, Medicare’s payments for IPF services need to be well calibrated to patients’ costliness so as not to create incentives for providers to admit certain types of patients and avoid others. However, analysis of IPF costs and margins suggests that Medicare payments may not track as closely to costs as they should. The per diem payment structure under the IPF PPS helps to mitigate some of the difficulty in tracking payment to costs. Per diem payment systems do not need to account for costs associated with length of stay (except to appropriately adjust for diminishing per diem costs for longer stays), while a stay- or episode-level payment system needs to account for both length of stay and daily intensity of care. Indeed, CMS selected a per diem payment structure for the IPF PPS because of the difficulty in predicting costs with administrative data (Cotterill and Thomas 2004). However, under the per diem rate payment system, IPFs nevertheless need to track per diem costs appropriately.⁵⁰ To the extent that per diem costs vary and patient characteristics affecting those costs are not adequately captured by the payment system, the IPF PPS pays too much for some patients and too little for others. To properly assess the IPF payment system, policymakers need more information

on patient severity and resource use, including use of ancillary services.

Unmeasured patient severity

Early work conducted during the design of the IPF PPS recognized the limitations of using administrative data to capture variation in IPF patients' costs (Lave 2003). For example, a pre-IPF PPS study found that diagnoses could account for only 2 percent or 3 percent of the variation in daily IPF costs at the time (Lave 2003). Indeed, currently, nearly three-quarters of IPF patients fall within the same psychiatric DRG and over 70 percent of stays have no qualifying comorbidity adjustment (The Bizzell Group 2022).

One of the earlier studies conducted to support IPF PPS design collected data directly from IPFs to measure how daily resource use varied by patient characteristics, including characteristics not present in claims data (RTI International 2005). The study found activity of daily living (ADL) deficits and "serious danger to self or others" to be important cost drivers that were not available on administrative data. They found other factors that had minor effects once more important factors were taken into account; these included cognitive impairment, global assessment of function (GAF) score (a scoring system used to assess the severity of mental illness), and history of falls. Another study using data from a German psychiatric hospital found that GAF, danger to self, involuntary admission, and ADL deficits affected per diem hospital costs when used in conjunction with other elements available on administrative data (Wolff et al. 2016).

IPF interviewees emphasized that diagnoses, age, and ancillary charges alone are not indicative of a patient's costliness. Rather, interviewees said that looking at the resources needed to appropriately care for a patient, given their combination of diagnoses, cognitive and functional capacity, and mental condition, provides a more accurate picture of composite cost. Interviewees generally cited three sources of cost that distinguish high-resource-consuming patients:

- staffing intensity, based on a combination of individual patient variables, to include diagnoses, comorbidities, cognitive and functional impairment, history of aggressive behavior, and whether the patient is in the custody or legal hold of law enforcement;

- semiprivate rooms that must be converted to private rooms for patient safety, thus taking one or more staffed beds offline, as well as other required specialized equipment; and
- long lengths of stay with declining per diem payment rates and patients who exceed the 190-day benefit cap on freestanding IPF stays.

The IPF PPS's current lack of information on the types of services that IPF patients receive and how staff spend their time—such as inpatient assessment, counseling, drug management, nursing care, and behavioral monitoring—is a significant shortcoming. Including other elements that significantly affect routine nursing and staff time in the IPF PPS could improve the accuracy of Medicare's payments, but doing so would require IPFs to submit additional information about their patients.⁵¹ Under the CAA, 2023, CMS can begin to collect additional information to refine payments under the IPF PPS. This includes data on resource use and need for monitoring (e.g., violent behavior, physical restraint), interventions (e.g., detoxification services, respirator), and patient characteristics (e.g., functional status, cognitive function, comorbidities and impairments). Collection of additional data through claims or cost reports is to begin by October 2023, and collection of patient assessment data using a standardized tool is to begin by 2028. We will continue to monitor refinements to the IPF payment system as additional data are available.

Inconsistencies in reporting of ancillary service use

IPFs' provision of ancillary services is collected at the stay level, providing a source of patient-level variation in costs that can be used to improve payment accuracy. In contrast, routine costs (which include nurse and staff time) are aggregated at the facility level. However, data quality on ancillary services is hampered by two concerning issues. First, hospitals that are not designated as all-inclusive-rate facilities are required to report this information, but many do not report any ancillary services, even prescription drugs, which are widely regarded as necessary for almost all IPF patients (and, according to IPF interviewees, can be very costly, depending on the type). This lack of information appears to be an issue of accounting and not related to the clinical needs of patients, since nonreporting IPFs tend to not report ancillary services for any of

their patients. Second, in recent years, the number of freestanding for-profit IPFs converting to an all-inclusive designation has grown. Our analyses of the data show that when some of these IPFs converted to obtain all-inclusive-rate designations, there was no commensurate increase in routine costs (which should have happened once ancillary costs became aggregated with routine costs). In fact, many of the IPFs that newly converted to the all-inclusive designation in recent years had already been failing to report ancillary charges prior to the conversion.

IPF interviewees confirmed that reporting ancillary services does not factor prominently, since they are not reimbursed for them and since these represent a modest portion of overall expenses in comparison with labor costs. This may also explain the recent conversions to all-inclusive-rate designations when CMS announced enforcement of the requirement to report ancillary charges on cost reports for non-all-inclusive-rate hospitals. More transparency is needed in the process of converting to an all-inclusive-rate facility and how approval occurs.

CMS recently commissioned a study to use more recent claims and cost report data to assess and update the IPF PPS adjustments. The authors addressed the lack of ancillary charge data for some facilities by reweighting the data by type of IPF (The Bizzell Group 2022). This reweighting presumes that ancillary charges were “missing” data and gives greater weight to the data from providers who report ancillary charges to counterbalance the missing data. No distinction was made for all-inclusive-rate hospitals, for which, in principle, ancillary costs are aggregated into routine costs and are not missing. Estimates of costs would be biased if data were inappropriately treated as missing (or as zero). Our interview findings show that many facilities aggregate their costs rather than

report them separately by ancillary service and that more information on resource use would be needed to appropriately update IPF PPS adjustments. The forthcoming IPF data collections specified by the CAA, 2023, have the potential to capture the necessary information to improve the accuracy of payments.

Quality of IPF care

Data on the quality of care provided by IPFs are limited. Medicare currently has an IPF pay-for-reporting quality program that mainly includes provider-reported aggregate results. This level of data reporting does not allow for comprehensive data validation, thereby diminishing CMS’s ability to detect any errors in chart-abstracted measures that IPFs report. Beginning in mid-2023, IPFs will be required to submit patient-level data for select chart-abstracted measures. Once the data are available, policymakers will be able to better assess the quality of care provided by IPFs.

The measures currently used by CMS are predominantly process measures. One of the Commission’s principles for measuring quality is that Medicare’s quality payment programs should include a small set of performance measures tied to clinical outcomes, patient experience, and value (Medicare Payment Advisory Commission 2018). Process measures can play a role in provider-level quality improvement programs, and they can be valuable for public reporting of quality to consumers. Broader outcomes and patient experience measures that matter to patients and translate to better health are also needed and are especially crucial given the vulnerability and high risk of IPF patients. CMS is currently developing some new measures tied to clinical outcomes for potential inclusion in the IPFQR program and has noted plans to develop and implement IPF patient experience surveys. ■

Endnotes

- 1 To qualify for partial hospitalization services, beneficiaries must have behavioral health disorders that severely interfere with multiple areas of their daily lives, but they must be able to cognitively participate in a program of therapy. A physician must certify that the beneficiary would otherwise need inpatient treatment or has been recently discharged from inpatient care and needs partial hospitalization to avoid a relapse or rehospitalization and that less-intensive treatment options would be inadequate. In addition, a physician must develop a partial hospitalization treatment plan, including the type, amount, duration, and frequency of services to be received, as well as the goals of treatment. Participating beneficiaries must have a plan of treatment that includes a minimum of 20 hours of services per week for an unlimited length of time. A physician is required to recertify the beneficiary's need for services 18 days after admission and at least every 30 days thereafter.
- 2 A focused effort to crack down on fraud in CMHCs resulted in a substantial decline in the number of CMHC PHPs. The Office of Inspector General of the Department of Health and Human Services reported that Medicare paid \$218.6 million for PHP services in 206 CMHCs in 2010; by 2012, Medicare spending for CMHC PHPs had fallen to \$31 million (Office of Inspector General 2013).
- 3 Parity rules do not apply to Medicare benefits provided by Medicaid MCOs to dual-eligible beneficiaries, nor do they apply to Medicaid FFS enrollees (Musumeci 2015).
- 4 We used geographic categorizations from the Office of Management and Budget and U.S. Department of Agriculture's Urban Influence Codes: urban/metropolitan counties (containing an urban cluster of 50,000 or more people); rural/micropolitan counties (containing a cluster of 10,000 to 50,000 people); rural/adjacent (adjacent to urban areas and do not have a city with at least 10,000 people); rural/nonadjacent (not adjacent to an urban area and do not have a city with at least 10,000 people). A rural county is defined as adjacent to an urban area if it physically adjoins one or more metropolitan areas and has at least 2 percent of its employed labor force commuting to central metropolitan counties. "Frontier" is defined as counties with six or fewer people per square mile (Office of Management and Budget and USDA's Urban Influence Codes).
- 5 HPSAs are designated by the Health Resources and Services Administration. CMS pays a 10 percent quarterly bonus to psychiatrists when they deliver services in mental health HPSAs.
- 6 Behavioral health services in this chapter are defined differently than in the chapter on telehealth in this report.
- 7 In Table 6-7, p. 243, we use only physician fee schedule claims (and not hospital outpatient claims) to avoid double-counting volume. Volume is measured as the number of services received.
- 8 These numbers include volume of services only from physician fee schedule claims (and not outpatient claims).
- 9 Other SUDs include disorders related to cannabis, sedatives, stimulants, hallucinogens, inhalants, and other substances and exclude tobacco-related disorders.
- 10 These numbers include only FFS beneficiaries with an OUD diagnosis indicated on a Part B carrier or outpatient claim. A study by the Office of Inspector General using all claims (and encounter data) found that 1 million Medicare (FFS and MA) beneficiaries had an OUD diagnosis in 2021 (Office of Inspector General 2022).
- 11 We identify SUDs using the diagnosis codes present on claims; to the extent that beneficiaries with multiple SUDs, including OUDs, are coded only with "OUD," we may undercount the presence of other SUDs.
- 12 In addition, MA encounter data contain only claim-level diagnoses, while FFS claims have line-level diagnoses for each procedure/service included on the claim. Thus, if an MA encounter claim had a behavioral health diagnosis listed (in any position), all line items affiliated with that claim were included in our analysis. This likely resulted in the identification of more services for behavioral health conditions among MA enrollees than for FFS enrollees.
- 13 Claims records for SBIRT services were included in our Part B behavioral health services file only if the record also included a behavioral health condition diagnosis code or occurred in a behavioral health location (see text box, pp. 238-239).
- 14 The Substance Abuse and Mental Health Services Administration (SAMHSA) certifies opioid treatment programs.
- 15 SAMHSA maintains a directory of OTP providers: <https://dpt2.samhsa.gov/treatment/directory.aspx>.
- 16 "Gross spending" reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and

- manufacturers that are not already reflected in prices at the pharmacies.
- 17 Psychiatry includes geriatric psychiatry and neuropsychiatry.
 - 18 We excluded clinicians who served very few FFS beneficiaries in the year (fewer than five). Clinician counts were sensitive to the threshold used. For example, 50,850 LCSWs billed for at least one service in the year (56 percent of these LCSWs served at least five beneficiaries). Of the total clinicians counted, 84 percent were psychiatrists, 65 percent were psychologists, and 77 percent were addiction medicine professionals.
 - 19 Figure 6-5 (p. 250) is based on the specialty of the billing clinician, and we cannot determine whether “incident to” billing occurred. Under incident to billing, a practitioner such as a nurse practitioner or physician assistant provides the service to the patient under the supervision of a physician or other practitioner, whose name is on the bill.
 - 20 This requirement does not apply to telehealth services used to treat SUDs or a co-occurring mental health disorder.
 - 21 It is possible that beneficiaries using only in-person behavioral health services used telehealth for other, nonbehavioral health medical care.
 - 22 Psychiatric or substance use-related care may also be delivered in general acute care hospitals, reimbursed by the inpatient PPS or on a cost basis when provided in critical access hospitals. While the focus of this chapter is on care provided under the IPF PPS, the use of these “scatter beds” is not uncommon: In 2021, there were about 159,000 such stays at acute care hospitals.
 - 23 The deductible and coinsurance apply to a benefit period. The benefit period begins the day a beneficiary is admitted as an inpatient to a hospital or skilled nursing facility (SNF) and ends when the beneficiary is not an inpatient of a hospital or SNF for 60 consecutive days. If a beneficiary is admitted as an inpatient after the 60 consecutive days, a new benefit period begins. Thus, a beneficiary may have multiple stays in an IPF within the same benefit period.
 - 24 See 42 CFR §412.23. Also see Centers for Medicare & Medicaid Services (2018a).
 - 25 CMS enacted numerous blanket waivers to increase Medicare beneficiaries’ access to medical services during the public health emergency. For IPFs, these included allowing IPF beds to be used for acute care services and provision of IPF PPS stays in acute care beds; see more at <https://www.cms.gov/files/document/covid-19-emergency-declaration-waivers.pdf>.
 - 26 Patients who are readmitted to the IPF within three days of discharge are considered to have an interrupted stay. In such cases, Medicare treats the readmission as a continuation of the original stay, with length of stay adjustments applied accordingly.
 - 27 We use 2019 data because 2021 Chronic Care Warehouse chronic condition data were not yet available and 2020 information would be affected by the start of the coronavirus pandemic.
 - 28 According to the Bureau of Justice Statistics, 14 percent of state and federal prisoners and 26 percent of jail inmates reported experiences that met the threshold for serious psychological distress in the 30 days prior to incident, according to a survey that was conducted between February 2011 and May 2012. More than one-third of prisoners and 44 percent of jail inmates had been told in the past by a mental health professional that they had a mental disorder (Bronson and Berzofsky 2017).
 - 29 Beneficiaries who had an inpatient stay at an IPF for a nonpsychiatric diagnosis were excluded from this analysis. This exclusion eliminated 1 percent of IPF FFS records and about 5 percent of IPF MA records.
 - 30 Beneficiaries can also be treated for psychiatric or alcohol- and drug-related conditions on an inpatient basis in scatter beds—regular beds in acute care hospitals. Medicare pays for scatter beds on a per discharge basis under the acute care hospital inpatient PPS or, for critical access hospitals, on reported costs. In 2021, there were about 159,000 such stays at acute care hospitals, with over 20 percent of these stays having a substance use-related psychiatric DRG.
 - 31 General acute care hospital stays here refer to stays at a hospital paid under the inpatient PPS.
 - 32 Between 2019 and 2021, scatter bed stays declined by 6 percent annually, conditional on the FFS population size. Between 2017 and 2019, scatter bed stays declined by 1 percent, conditional on the FFS population size.
 - 33 Given data limitations, we were unable to determine the type of coverage the beneficiary had when the 190 days were exhausted.
 - 34 Over 85 percent of beneficiaries who were designated as low income based on the Part D low-income subsidy had full or partial dual eligibility for Medicare and Medicaid.
 - 35 Medicare covers up to 90 days of inpatient hospital and SNF days during a benefit period, with an additional 60 lifetime reserve days available. A benefit period begins on the first day a patient is admitted to an inpatient hospital or SNF and ends 60 days after the patient leaves the inpatient hospital or SNF.

- A beneficiary who has been in an inpatient hospital for 120 days uses 30 lifetime reserve days. The beneficiary can use another 90 days in a subsequent benefit period but has only 30 remaining lifetime reserve days.
- 36 CMS calculates a “follow-up after psychiatric hospitalization” using claims data under the IPF quality reporting program. The measure calculates the percent of IPF patients receiving intensive outpatient services from mental health providers in the 7 days and 30 days following discharge; the rates for this measure in 2019 were 27 percent and 50 percent, respectively. These values differ from those reported in Table 6-22 (p. 274) and Table 6-23 (p. 275) because the CMS measure uses a broader definition (e.g., services by nurse practitioners and certified clinical nurse specialists are included in the numerator).
 - 37 A rural county is defined as adjacent to an urban area if it physically adjoins one or more metropolitan areas and has at least 2 percent of its employed labor force commuting to central metropolitan counties.
 - 38 RHC and FQHC clinician services would (generally) be bundled in an outpatient claim and would not have a separate clinician bill.
 - 39 IPF quality measure results are posted on CMS’s Care Compare website.
 - 40 Eligible IPFs include psychiatric units within acute care or critical access hospitals and freestanding psychiatric hospitals.
 - 41 Providers report results based on their full patient population or a sample of all patients (including non-Medicare FFS patients).
 - 42 We did not update the readmissions analysis because CMS identified an error with its calculations of the 2021 measure rates. The corrected readmissions measure data will be available with the April 2023 Care Compare refresh, and we will update results at that time.
 - 43 We present measures that were in the IPFQR program for each of the five years and did not have significant changes to the measure specifications. We plan to incorporate the *30-day all-cause unplanned readmission following psychiatric hospitalization* measure when we have readmission results for 2021, in April 2023. From 2017 to 2019, the measure rate stayed relatively constant with around 20 percent of patients readmitted.
 - 44 Hospital cost reports do not require hospitals to report an all-payer margin specifically for their IPF or other hospital-based units.
 - 45 UHS annual financial reports for 2019–2021 can be found at <https://ir.uhsinc.com/financial-information/annual-reports>.
 - 46 UHS SEC filing February 27, 2023, annual report can be found at <https://ir.uhs.com/static-files/2c25ee00-c815-4405-aa52-4b1e94bd8a8c>.
 - 47 IPFs’ margin is calculated as aggregate payments minus aggregate allowable costs, divided by aggregate payments. All-payer total margin includes payments from all payers as well as investments.
 - 48 All Medicare-certified institutional providers are required to submit annual reports on each facility’s characteristics, utilization, costs, and charges in total and for Medicare. Data are made available from the Healthcare Cost Report Information System: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Cost-Reports>.
 - 49 IPF interviewees indicated that they generally received per diem reimbursement from all payers (not just under the IPF PPS).
 - 50 The literature is somewhat mixed on the extent of variation in per diem costs among IPFs. On the one hand, a review of literature on cost drivers of inpatient psychiatric care in the U.S., Australia, Canada, Japan, New Zealand, and Spain reported that per diem costs tend to be relatively homogenous even before patient classification (Wolff et al. 2015). On the other hand, the study by Cromwell (which was also reviewed by Wolff et al. (2015)) concluded that there was wide variation in the day-to-day intensity of IPF care (RTI International 2005). Furthermore, the authors estimated that up to 60 percent of the variation could potentially be explained by patient characteristics and therefore it was worth the effort to identify explanatory patient characteristics (RTI International 2005).
 - 51 When the Congress mandated implementation of a per diem PPS for IPFs in 1999, CMS began to pursue the development of an assessment instrument that would yield a richer source of data. However, time limitations led CMS to move forward without an assessment tool (Centers for Medicare & Medicaid Services 2004).

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CHAPTER

7

**Mandated report:
Telehealth in Medicare**

Mandated report: Telehealth in Medicare

Chapter summary

Telehealth includes health care services delivered through a range of online, video, telephone, and other communication methods. Medicare has historically been cautious about covering telehealth services broadly because of uncertainties about the impact of telehealth on quality and spending. However, Medicare temporarily expanded coverage of telehealth to allow beneficiaries to maintain access to care and to help limit community spread of COVID-19 during the public health emergency (PHE), which ended on May 11, 2023. The Congress has extended many of Medicare's telehealth expansions through December 31, 2024. In the Consolidated Appropriations Act, 2022, the Congress also mandated that the Commission submit a report by June 2023 on the use of telehealth services during the PHE and the impact of expanded telehealth coverage on quality and access to care. This chapter, which focuses on telehealth services that Medicare pays for separately under the physician fee schedule (PFS) and other payment systems, is intended to satisfy that mandate. We discuss approaches to paying for telehealth services, recent trends in spending and use of such services, beneficiaries' experiences with telehealth, telehealth and program integrity, and the relationship between expanded telehealth coverage during the PHE and quality, access, and costs.

In this chapter

- Alternative approaches to paying for telehealth services
- Spending and use of telehealth services in Medicare
- Beneficiary and clinician experiences with telehealth
- Relationship between expanded telehealth coverage and quality, access, and cost during the coronavirus pandemic

Alternative approaches to paying for telehealth services

Before the PHE, Medicare coverage of telehealth services was limited by statute under the PFS. Medicare covered a limited set of telehealth services, modalities, and providers, and only in rural locations (with certain exceptions). For most telehealth services, Medicare required the patient to be located at an “originating site”—specified types of health care providers—in a rural area and required the clinician to be located at a “distant site” without any geographic limitations. During the PHE, Medicare coverage of telehealth was expanded to include additional allowable telehealth services and providers, and originating site and geographic restrictions were lifted.

Medicare pays the clinician providing the telehealth visit a PFS payment based on the type of service provided (e.g., an evaluation and management (E&M) office/outpatient visit). Whether provided in person or by telehealth, many PFS services have two payment rates depending on whether they are provided in a facility setting (e.g., a hospital or a skilled nursing facility, which also receives a separate payment for the accompanying nonclinician services) or a nonfacility setting (e.g., a freestanding clinician’s office). Before the PHE, CMS paid clinicians performing the telehealth visit the PFS’s lower, facility-based payment rate instead of the higher, nonfacility rate. However, during the PHE, CMS paid the same rate it would pay if the telehealth service had been provided in person (the PFS’s facility rate or nonfacility rate, depending on the clinician’s location). CMS has said the agency will continue this policy through the end of 2023.

As described in our March 2021 report to the Congress, the Commission asserts that CMS should resume paying the lower, facility rate for telehealth services as soon as practicable after the PHE. CMS should also collect data from practices on the costs they incur to provide telehealth services and adjust future payment rates, if warranted, based on the information gathered.

Federally qualified health centers (FQHCs) and rural health clinics (RHCs) furnish services typically provided in outpatient clinic settings. Medicare pays higher rates for in-person clinician services provided in FQHCs and RHCs than for comparable services provided under the PFS in order to help ensure access to care in medically underserved areas or areas with clinician shortages. During the PHE (and continuing until the end of 2024), the Congress has permitted FQHCs and RHCs to bill for telehealth services as the distant site. Clinicians can furnish distant-site telehealth services from any location, including their home, while they are working for an FQHC or RHC. Until the end of 2024, the

Medicare payment rate for telehealth services provided by FQHCs and RHCs is based on PFS rates for comparable telehealth services billed under the PFS, which essentially establishes payment parity for telehealth services billed under these payment systems.

If policymakers decide to permanently cover distant-site telehealth services delivered by FQHCs and RHCs, a key question is how much Medicare should pay for those services. CMS could decide to pay these providers the same standard FQHC or RHC payment rate for both in-person and telehealth services or a lower rate based on PFS rates for comparable telehealth services. Paying the standard FQHC or RHC payment rates for telehealth services might create a disincentive to furnish in-person care, as telehealth services likely cost less than in-person visits due to lower facility costs. Moreover, standard FQHC or RHC rates are substantially higher than payment rates under the PFS for comparable services, which could lead to telehealth services shifting from one setting to another for financial reasons. The Commission supports paying FQHCs and RHCs for telehealth services after the PHE at rates that are comparable with PFS rates for telehealth services. This approach balances the dual goals of ensuring beneficiary access and prudent fiscal stewardship of the Medicare program. CMS does not believe it currently has the authority to pay FQHCs and RHCs the PFS rate for telehealth services, so the agency would likely need legislative authority to implement this policy.

Spending and use of telehealth services in Medicare

FFS Medicare spending for telehealth services was very low in 2019 (\$130 million) but rose dramatically during the early months of the PHE, peaking at \$1.9 billion in the second quarter of 2020, as providers and beneficiaries shifted rapidly from in-person visits to telehealth. Telehealth spending declined in the latter half of 2020 and in 2021, falling to \$827 million in the fourth quarter of 2021. Similarly, between 2019 and 2020, the number of FFS beneficiaries who received at least one telehealth service paid under the PFS accelerated rapidly from 239,000 to 14.2 million (40 percent of Part B FFS beneficiaries), then declined in 2021 to 9.7 million (29 percent of Part B FFS beneficiaries).

In 2020 and 2021, E&M services accounted for almost all (98 percent) of PFS telehealth spending. Within the category of E&M services, office/outpatient visits (as opposed to other types of E&M services) accounted for 73 percent of spending for telehealth in 2020, declining to 68 percent of spending in 2021. Between 2020 and 2021, behavioral health services (e.g., psychiatric evaluation) rose from 17 percent of telehealth spending for all E&M services to 23 percent,

highlighting the growing significance of telehealth use for behavioral health services. When we grouped clinical categories into body systems, we found that mental, behavioral, and neurodevelopmental disorders accounted for the highest share of spending for telehealth in 2021 (34.4 percent), which was a higher share than in 2020 (25.4 percent).

Beneficiary and clinician experiences with telehealth

In focus groups that we conducted in the summer of 2022, many beneficiaries reported having telehealth visits predominantly with clinicians with whom they had an existing relationship. They were generally satisfied with these visits. Consistent with our analysis of Medicare claims, clinicians in our focus groups reported some continued use of telehealth after initial rapid expansion early in the pandemic. Some clinicians appreciated the convenience and flexibility it allowed in terms of the visit location, while others preferred in-person visits due to perceived better quality of care or preferred to provide specific services better suited to in-person care. Clinicians reported that telehealth visits generally took less time and cost less. Beneficiaries and clinicians reported continued use of audio-only visits. Many beneficiaries and clinicians in our focus groups reported that they would like to continue the option of telehealth visits after the PHE ends. In the Commission's annual survey of Medicare beneficiaries, 40 percent of telehealth users said they were interested in continuing to use telehealth after the pandemic ends.

Telehealth and program integrity

The Consolidated Appropriations Act, 2023, requires the Secretary to conduct a study using medical records to review program integrity related to telehealth services. Our findings support the need for medical records review and other program integrity activities to ensure that clinicians are accurately billing for telehealth services. In our focus groups with beneficiaries and clinicians, we heard that telehealth visits generally took less time than in-person visits. However, our analysis of claims found that the distribution of the levels of office/outpatient visits for established patients was about the same as for in-person and telehealth visits in 2021. If the time clinicians spend with patients is typically shorter during telehealth services than in-person visits, a smaller share of telehealth visits should be coded at higher levels (more time spent) than in-person visits. Another area that could be analyzed in the future is the use of audio-only services since, in 2023, clinicians are required to indicate audio-only services on Medicare claims.

Relationship between expanded telehealth coverage and quality, access, and costs during the coronavirus PHE

We reviewed and summarized the literature on telehealth and quality that has been published during the PHE. We found that the body of literature has grown since the onset of the PHE, but it is still small, and many of the studies have methodological and data issues.

Our ability to assess the impact of telehealth on quality, access, and costs is limited because of the time lag in claims data. The available FFS claims data at the time of our analysis were from 2021, which overlaps with surges in COVID-19 cases that likely influenced the use of telehealth and patient outcomes, making it impossible to disentangle the effects of telehealth from the pandemic itself. As we stated in our March 2021 report to the Congress, decisions about whether to make PHE-related Medicare telehealth expansions permanent should be based on data that do not reflect the acute effects of the COVID-19 pandemic. Also, Medicare lacks comprehensive data sources like laboratory results and patient-reported outcomes, which limits the quality measures, in particular measures tied to clinical outcomes, that we can study.

Acknowledging these limitations, we used population-based measures to describe changes in the association between telehealth use and access and quality when both telehealth and in-person visits are available to FFS Medicare beneficiaries. We used Medicare FFS administrative data to compare population-based outcomes across hospital service areas (HSAs) with different levels of telehealth service use. For each HSA nationwide, we examined four population-based measures: ambulatory care-sensitive (ACS) hospitalizations per 1,000 FFS Medicare beneficiaries, ACS emergency department visits per 1,000 FFS Medicare beneficiaries, total clinician encounters per FFS Medicare beneficiary, and total cost of care for Part A and Part B services per FFS Medicare beneficiary. We compared measures from the second half of 2019 (baseline period) with those from the second half of 2021 (treatment period), a period chosen despite the presence of COVID-19 cases because it was the latest for which complete claims data were available. HSAs were categorized as having low or high telehealth intensity based on the number of telehealth visits per 1,000 beneficiaries in the second half of 2021, with the bottom third of HSAs assigned to the low-telehealth-intensity level and the top third of HSAs assigned to the high level. We then compared outcomes in high-telehealth-intensity HSAs with low-telehealth-intensity HSAs using a difference-in-differences approach.

We found that risk-adjusted rates of ACS hospitalizations were lower in the second half of 2021 for both HSA groups but decreased at a slower rate, on average, among HSAs with a high level of telehealth use. Risk-adjusted rates of ACS emergency department visits were lower during the treatment period than the baseline period for both groups of HSAs, but we did not find evidence of an association between telehealth intensity and emergency department visit rates. We also found that total clinician encounters per beneficiary were lower in the second half of 2021 than in the second half of 2019, though the decline was slower, on average, among high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs. Total cost of care per beneficiary increased in 2021 compared with 2019 across all HSAs but increased more in high-telehealth-intensity HSAs.

In summary, our findings suggest that during the pandemic, greater telehealth use was associated with little change in measured quality, slightly improved access to care for some beneficiaries, and slightly increased costs to the Medicare program. However, these findings should not be interpreted causally because of the confounding effects of COVID-19 and other variables that we could not measure, and which could affect both the use of telehealth and patient outcomes. Further research should be done using more recent data as they become available. As we stated in our March 2021 report to the Congress, policymakers should continue to monitor the impact of telehealth on access, quality, and cost and should use this evidence to inform any additional permanent changes to policy. ■

Telehealth includes health care services delivered through a range of online, video, telephone, and other communication methods. Medicare has historically been cautious about covering telehealth services broadly because of uncertainties about the impact of telehealth on quality and spending. However, during the coronavirus public health emergency (PHE), Medicare temporarily expanded telehealth coverage to allow beneficiaries to maintain access to care and help limit community spread of COVID-19. The PHE ended on May 11, 2023, but the Congress has extended many of Medicare’s telehealth expansions through December 31, 2024.^{1,2} In the Consolidated Appropriations Act (CAA), 2022, the Congress mandated that the Commission submit a report by June 2023 on the use of telehealth services during the PHE and the impact of expanded telehealth coverage on access to care and quality (see text box on the mandate as written in legislation, p. 310). This chapter, which focuses on telehealth services that Medicare pays for separately under the physician fee schedule (PFS) and other payment systems, is intended to meet the CAA mandate.³ We did not include Medicare Advantage in this chapter because those plans have the flexibility to offer additional telehealth benefits not covered by traditional Medicare outside of the PHE (e.g., telehealth provided to enrollees in their own homes and outside of rural areas).

Background

Before the PHE, Medicare paid for a limited number of telehealth services, in a limited number of areas, and in most cases paid them the PFS’s lower, facility-based payment rates, regardless of the setting in which the clinician was located. During the PHE, Medicare coverage for telehealth services expanded substantially and payments were paid at parity with in-person services. After the PHE, some of the expansions will continue, although many for only a limited time.

Payment for telehealth services before the PHE

Before the PHE, CMS was restricted by statute to covering a limited set of telehealth services under the PFS, and only in specified settings in rural locations

(with certain exceptions).⁴ For most telehealth services, Medicare required the patient to be located at an “originating site” in a rural area, defined as a rural health professional shortage area or a county outside of a metropolitan statistical area, and required the clinician to be located at a “distant site” in any location. Originating sites included physicians’ offices, hospitals, critical access hospitals, rural health centers (RHCs), skilled nursing facilities, federally qualified health centers (FQHCs), community mental health centers, and hospital-based dialysis facilities.⁵ Clinicians who were allowed to bill for telehealth services under the PFS included physicians, advanced practice registered nurses, physician assistants, licensed clinical social workers, registered dietitians, nutrition professionals, and clinical psychologists. Physical therapists, occupational therapists, speech–language pathologists, and audiologists were excluded from billing for telehealth.

Many covered telehealth services were defined in statute, and CMS has a regulatory process for adding services (for example, if there is a clinical benefit). Before the PHE, Medicare covered about 100 telehealth services, which included general health care services (e.g., evaluation and management (E&M) visits and annual wellness visits) and services related to kidney disease, behavioral health, substance use disorders, nutrition therapy, pharmacological management, stroke, and cardiovascular disease behavioral therapy.

Prior to the PHE, most telehealth services generated two Medicare payments: (1) a payment to the originating site where the beneficiary was located, and (2) a payment to the clinician at the distant site who provided the telehealth service. CMS annually updates the originating site fee using the Medicare Economic Index; in 2019 (the year preceding the PHE), Medicare’s originating site fee was \$26.15 per service. Medicare also paid the clinician at the distant site a PFS payment based on the type of service provided (e.g., an E&M office/outpatient visit). Medicare always paid clinicians at the distant site the PFS’s lower, facility-based payment rate instead of the PFS’s higher, nonfacility rate (see text box on PFS payment rates, p. 311). The practice of always paying the lower, facility-based payment rate was different from how Medicare pays for in-person services. For those services, Medicare pays the higher, nonfacility rate if the service is furnished

Mandate to study the expansions of telehealth services as a result of the COVID-19 public health emergency

Title III (A), section 308(a) of the Consolidated Appropriations Act, 2022, requires the Commission to submit a report on telehealth. Not later than June 15, 2023, the Medicare Payment Advisory Commission shall submit to Congress a report containing the results of the study conducted under paragraph (1), together with recommendations for legislative and administrative action as the Commission determines appropriate.

(a) MedPAC REPORT—

(1) STUDY—

(A) IN GENERAL—The Medicare Payment Advisory Commission (in this subsection referred to as the “Commission”) shall conduct a study on the expansions of telehealth services (as defined in section 1834(m)(4)(F) of the Social Security Act (42 U.S.C. 1395m(m)(4)(F)) under the Medicare program under title XVIII of such Act as a result of the COVID-19 public health emergency described in section 1135(g)(1)(B) of such Act (42 U.S.C. 1320b-5(g)(1)(B)) and the amendments made by sections 301 through 306.

(B) ANALYSIS—the study under subparagraph (A) shall include at least an analysis of each of the following: (i) the utilization of telehealth services under the Medicare program, which may include analysis by service, provider type, geographic area (including analysis of the provision of telehealth services by clinicians located in different States than the Medicare beneficiary receiving such services to the extent that reliable data are available), and beneficiary type (including reason of entitlement and such beneficiaries who are also enrolled under a State plan under title XIX of the Social Security Act); (ii) Medicare program expenditures on telehealth services; (iii) Medicare payment policy for telehealth services and alternative approaches to such payment policy, including for federally qualified health centers and rural health clinics; (iv) the implications of expanded Medicare coverage of telehealth services on beneficiary access to care and quality; and (v) other areas determined appropriate by the Commission. ■

in a nonfacility setting (e.g., a freestanding clinician’s office) and the lower, facility rate if it is furnished in a facility setting (e.g., a hospital or a skilled nursing facility). Medicare paid the facility rate for distant-site providers because the practice expenses for telehealth services were presumed to be lower than for services provided in person in a clinician’s office.

To receive Medicare payment prior to the PHE, CMS required telehealth services to be furnished using an interactive telecommunications system that included two-way audio and video communication technology (Centers for Medicare & Medicaid Services 2020). Medicare did not typically cover audio-only services.

In 2019, CMS began covering other remote services that, according to the agency, do not meet the statutory definition of “telehealth.” These services include:

- virtual check-ins, in which a patient checks in briefly with a clinician by telephone or other telecommunications device to decide whether an office visit is needed;
- clinicians’ remote evaluation of images or recorded videos sent to them by a patient and follow-up with the patient;
- remote monitoring and interpretation of physiological data (e.g., weight, blood pressure, pulse oximetry, and glucose monitoring) that are digitally stored or transmitted to a clinician;
- interprofessional consultations, in which a consulting clinician provides an opinion or advice to the patient’s treating clinician via telephone, internet, or electronic health record, without the need for face-to-face contact with the patient; and

Physician fee schedule payment rates are usually lower when a service is provided in a facility setting compared with a nonfacility setting

Medicare's physician fee schedule (PFS) usually pays different rates depending on whether a service is provided in a facility setting (e.g., a hospital) or a nonfacility setting (e.g., a freestanding clinician's office). The portions of the PFS payment rate for the clinician's work and professional liability insurance (PLI) are the same in both settings, but the portion for practice expense is usually lower when a service is delivered in a facility setting because Medicare makes a separate payment to the facility (e.g., a hospital outpatient department) to cover the cost of the physical space, medical supplies, medical equipment, and clinical staff time.⁶ For example, the 2023 PFS rate for a Level 3 office/outpatient evaluation and management visit (Current Procedural Terminology code 99213)

includes the following components: the clinician's work (\$44.05), PLI (\$3.39), and practice expense (\$18.64 in a facility setting and \$43.38 in a nonfacility setting) (Table 7-1). The total PFS rate for this service when it is provided in a facility setting is \$66.08, while the total PFS rate for this service when it is provided in a nonfacility setting is \$90.82. When this service is provided in a hospital outpatient department, Medicare pays the PFS rate for a facility setting and makes a separate payment to the hospital under the hospital outpatient prospective payment system (OPPS) (\$120.86 in 2023). Therefore, when a service is furnished in a facility setting, the PFS payment rate is generally lower but the total Medicare payment rate (e.g., PFS rate plus OPPS rate) is generally higher. ■

**TABLE
7-1**

Physician fee schedule payment rate for a Level 3 office/outpatient E&M visit is lower in a facility setting than a nonfacility setting, 2023

	Facility	Nonfacility
Work component	\$44.05	\$44.05
PLI component	3.39	3.39
Practice expense component	<u>18.64</u>	<u>43.38</u>
Total PFS payment rate	66.08	90.82
OPPS payments	<u>120.86</u>	<u>N/A</u>
Total Medicare payment (PFS + OPPS)	186.94	90.82

Note: E&M (evaluation and management), PLI (professional liability insurance), PFS (physician fee schedule), OPPS (outpatient prospective payment system). The Current Procedural Terminology code for this service is 99213. Facility settings include hospitals. Nonfacility settings include freestanding clinician's offices. The total PFS payment rate is the national average rate and includes the program payment and beneficiary cost sharing. For services furnished in a hospital outpatient department (a facility setting), Medicare also makes a separate payment to the hospital under the hospital OPPS (\$120.86 in 2023). This example assumes the facility-based service is performed in an on-campus provider-based department. Numbers may not sum to totals due to rounding.

Source: Analysis of Medicare physician fee schedule payment rates for 2023.

- online digital evaluation services (e-visits), which are non-face-to-face patient-initiated communications with a clinician using an online patient portal (Centers for Medicare & Medicaid Services 2019, Centers for Medicare & Medicaid Services 2018).

Because these services do not meet the statutory definition of telehealth, CMS does not consider them subject to the geographic limits on where patients can be located. Consequently, Medicare has always paid for these services regardless of the patient's location. However, because these services involve the exchange

of medical information from one site to another through electronic communications, we consider them telehealth for the purpose of this chapter.

Payment for telehealth services during and after the PHE

During the PHE, the Congress allowed CMS to waive all restrictions on telehealth under the PFS, including the originating site and geographic location restrictions. Consequently, CMS made the following broad changes:

- Clinicians may bill for telehealth services provided to beneficiaries in any location (including their homes) and in urban as well as rural areas.
- CMS added over 140 PFS services to the list of allowable telehealth services (e.g., emergency department visits, observation and inpatient care, nursing facility care, and home visits).
- CMS allows audio-only interactions to meet the requirements for some telehealth services (e.g., CMS pays for most behavioral health services that are provided through audio-only interaction, but not for audio-only physical therapy or eye exams).
- CMS pays the same rate it would pay if the telehealth service had been provided in person (the PFS's facility rate or nonfacility rate, depending on the clinician's location).
- CMS authorized additional types of clinicians to bill for telehealth services (physical therapists, occupational therapists, speech-language pathologists, and audiologists).

Most of the major expansions implemented during the PHE have been extended through 2024, while others will expire at the end of the PHE, are currently extended only through 2023, or have been made permanent. Table 7-2 details how major PFS telehealth policies will change after the PHE ends on May 11, 2023. (For information on telehealth services furnished by FQHCs and RHCs, see the text box on pp. 314–315.)

Flexibilities extended through 2023 or 2024

In the CAA, 2023, the Congress extended many of the PHE-era telehealth expansions through December 31, 2024. For example, the Congress extended the provisions allowing clinicians to bill for telehealth

services provided to Medicare beneficiaries in both urban and rural areas, allowing beneficiaries' homes to be the originating site, expanding the types of clinicians who can bill for telehealth services, and allowing Medicare to pay for certain audio-only services. Despite being covered through 2024, after the PHE ends, the statute does not require CMS to continue paying the same rate it would pay if the telehealth service had been provided in person. CMS has said the agency will continue the current approach of paying for a telehealth service as if it had been provided in person through the end of 2023 (Centers for Medicare & Medicaid Services 2022).

Prior to the PHE, CMS established a regulatory process and criteria to review whether a telehealth service should be added to or deleted from the Medicare list of allowable telehealth services. The criteria include whether the service is similar to an existing telehealth service in authorizing legislation or whether it demonstrates clinical benefit. In response to the coronavirus pandemic, CMS created a third category of services that are added to the Medicare telehealth services list on a temporary basis through the end of calendar year (CY) 2023. This new category, known as Category 3, includes services that likely have a clinical benefit when furnished via telehealth, but for which there is not yet sufficient evidence available to consider the services as permanent additions to the list. CMS will cover Category 3 telehealth services until the end of 2023 to give stakeholders more time to submit information to CMS about the impact of these telehealth services on quality of care (Centers for Medicare & Medicaid Services 2022). CMS will then evaluate which services should be permanent additions to the Medicare telehealth services list. (The information in this section is current as of March 22, 2023, but is subject to change. CMS anticipates addressing the coverage of Medicare telehealth services as part of the 2024 physician fee schedule proposed and final rules.)

Flexibilities that end with the PHE

During the PHE, clinicians were allowed to reduce or waive Medicare beneficiaries' cost-sharing obligations for telehealth services (Office of Inspector General 2020). However, this flexibility ends with the PHE (which ended on May 11, 2023).

**TABLE
7-2**

Major telehealth expansions to the physician fee schedule during and after the public health emergency

	Pre-PHE	During the PHE	Post-PHE
Who can receive telehealth services?	Clinicians can provide telehealth services to Medicare beneficiaries at certain originating sites in rural areas (e.g., a clinician's office or hospital but not the beneficiaries' homes).	Clinicians may provide telehealth services to Medicare beneficiaries in both urban and rural areas and in the beneficiaries' homes.	Clinicians may provide telehealth services to Medicare beneficiaries in both urban and rural areas and in the beneficiaries' homes through the end of 2024.
Which types of telehealth services does Medicare pay for?	Limited set of services. (~100 services, including general health care services (e.g., E&M visits and annual wellness visits) and services related to kidney disease, behavioral health, substance use disorders, nutrition therapy, pharmacological management, stroke, cardiovascular disease, and behavioral therapy.) Must include audio and video technology.	CMS added over 140 services (e.g., emergency department visits, radiation treatment management). CMS allows audio-only interaction for some of the telehealth services (over 80 services).	Limited set of services will be permanently covered. CMS will temporarily pay for some telehealth services added during the PHE through the end of 2023. CMS will pay for certain telehealth services furnished through audio-only interaction through 2024. CMS will permanently pay for telehealth behavioral services (audio only or audio-video), and beneficiaries' homes can be the originating site.
Which types of providers are eligible to bill for telehealth services?	Physicians and some practitioners (e.g., physician assistants, clinical psychologists). Physical therapists, occupational therapists, speech-language pathologists, and audiologists were not eligible to bill for telehealth.	All eligible Medicare providers.	All eligible Medicare providers through the end of 2024.
How much does Medicare pay for telehealth services?	PFS rate for facility-based services (less than the nonfacility rate).	PFS rate is same as if the service were furnished in person (facility or nonfacility rate, depending on the clinician's location); same for audio-only visits.	PFS rate is same as if the service were furnished in person (facility or nonfacility rate, depending on the clinician's location) through the end of 2023; same for audio-only visits.
What are the costs to beneficiaries?	Standard cost sharing.	Clinicians permitted to reduce or waive cost sharing.	Standard cost sharing.

Note: PHE (public health emergency), E&M (evaluation and management), PFS (physician fee schedule). Medicare coverage of telehealth services under the PFS began in 2001 with the enactment of the Balanced Budget Act of 1997 and has evolved since then. The PHE was effective January 27, 2020, and ended May 11, 2023. Under the PFS, clinicians who provide services in facilities such as hospitals receive a lower payment rate (the facility rate) than clinicians who provide services in offices (the nonfacility rate). The table addresses major flexibilities but does not address the totality of flexibilities CMS enacted. For more information about PHE flexibilities, see CMS's coronavirus waivers and flexibilities website at <https://www.cms.gov/coronavirus-waivers>.

Source: Analysis of federal rules and guidance.

Medicare payment policy for in-person and telehealth visits furnished by federally qualified health centers and rural health clinics

Federally qualified health centers (FQHCs) and rural health clinics (RHCs) furnish services typically provided in outpatient clinic settings. FQHCs can be located in both urban and rural areas and must serve a medically underserved area (MUA) or a medically underserved population, such as migrant farmworkers or homeless individuals. FQHCs must also meet a number of other requirements, including governance as a nonprofit or public agency and free or reduced-cost care to low-income individuals. RHCs must initially be located in a nonurbanized area that qualifies as a primary care health professional shortage area, MUA, or governor-designated shortage area. RHCs are not subject to many of the requirements applicable to FQHCs, such as offering free or reduced-cost care, but must meet other standards (e.g., staffing standards).

Medicare payment for in-person FQHC and RHC services

Medicare pays higher rates than the PFS for clinician services provided by FQHCs and RHCs to help ensure access to care in MUAs, or areas with clinician shortages.

- Medicare pays FQHCs an all-inclusive rate using a prospective payment system (PPS). In 2023, the FQHC PPS payment rate is \$187.19.⁷ The rate is updated annually based on the FQHC market basket, and individual FQHC rates are adjusted based on geography.
- Medicare generally pays RHCs' costs, subject to a per visit limit. The per visit limit for provider-based RHCs that were enrolled in Medicare as of December 2020 and associated with a hospital with fewer than 50 beds is based on each RHC's cost-based payment rates in 2020, updated annually using the Medicare Economic Index (MEI). Because the per visit limit for these RHCs is based on each facility's costs, payment limits vary: Medicare's payment per visit in 2020 averaged about \$255, and many RHCs' rates far exceeded \$300. For all other RHCs, the per visit limit is set statutorily and was recently increased by 117 percent, from \$87.52 to \$190. The higher limit will be phased in over time and will be fully phased in by 2028, after which the limit will increase annually by the MEI. In 2023, the per visit limit for all other RHCs is \$126.

(continued next page)

Permanent changes made during the PHE

Before 2018, beneficiaries had to receive telehealth for behavioral services at an originating site (e.g., a clinician's office or a hospital) in a rural area, with the clinician at a distant site. In 2018, the Congress permanently removed the geographic restrictions and added the patient's home as an originating site for telehealth treatment of a substance use disorder or a co-occurring mental health disorder. The CAA, 2021, permanently removed the geographic restrictions and added the patient's home as an originating site for telehealth services that are used to diagnose, evaluate,

or treat a mental health disorder (independent of a substance use disorder). The CAA, 2021, requires that a nontelehealth service (i.e., an in-person visit) be provided by the clinician furnishing mental telehealth services within six months prior to the initial telehealth service.⁸ For subsequent mental telehealth services, the Secretary implemented an annual in-person visit requirement; however, the policy does not apply if the practitioner and patient agree that the benefits of an in-person service are outweighed by the risks and burdens associated with an in-person service. (The CAA, 2023, delayed the in-person visit requirements

Medicare payment policy for in-person and telehealth visits furnished by federally qualified health centers and rural health clinics (cont.)

(For more information on Medicare's payment systems for FQHCs and RHCs, see our *Payment Basics* series at <https://www.medpac.gov/document-type/payment-basic/>.)

Medicare payment for telehealth services furnished by FQHCs and RHCs

FQHC and RHC visits generally are face-to-face encounters between a patient and one or more FQHC or RHC practitioners during which one or more qualifying services are furnished. Thus, prior to the PHE, FQHCs and RHCs were not eligible to bill Medicare for telehealth services as a distant-site clinician. (They can serve as originating sites if they are in a qualifying area.)

The Coronavirus Aid, Relief, and Economic Security Act of 2020 (CARES Act) allows FQHCs and RHCs to bill for telehealth services as the distant site during the PHE. Clinicians can furnish distant site telehealth services from any location, including their home, while they are working for the FQHC

or RHC, and they can furnish any telehealth service that is approved as an allowable telehealth service under the PFS. In the Consolidated Appropriations Act, 2023, the Congress extended these flexibilities through December 31, 2024.

The CARES Act directed CMS to establish a payment rate for telehealth services billed by FQHCs and RHCs that is similar to the payment rates for comparable telehealth services billed under the PFS, essentially establishing payment parity for telehealth services billed under the PFS and by FQHCs and RHCs. In 2023, Medicare's payment rate for distant-site telehealth services billed by FQHCs and RHCs is \$98.27.

Starting in 2022, FQHCs and RHCs are permanently allowed to bill for mental health services performed via telehealth.⁹ For these services, they receive the standard payment rates they would receive for furnishing in-person care, which are substantially higher than PFS rates for similar services. ■

until after December 31, 2024.) After the PHE, CMS continues to pay for audio-only telehealth behavioral health services when the originating site is the patient's home and the practitioner has the technical capability to use an interactive telecommunications system that includes video, but the patient is not capable of or does not consent to video use.

Alternative approaches to paying for telehealth services

Under the mandate's requirement that we analyze alternative approaches to pay for telehealth services, we explored (1) paying under the PFS and (2) billing by FQHCs and RHCs.

Alternative approaches to paying for telehealth services under the PFS

In our March 2021 report to the Congress, we described a policy option to temporarily continue fee-for-service (FFS) Medicare's expanded coverage of telehealth services for a limited duration following the end of the PHE (see text box on the Commission's policy option, p. 317) (Medicare Payment Advisory Commission 2021). Our policy option called for Medicare to pay the PFS's facility (lower) rate for telehealth services after the PHE ends, instead of paying either the facility or nonfacility rate, as it did during the PHE (see the text box on p. 311 for more information on facility and nonfacility PFS rates).¹⁰ Before the PHE, CMS always paid the facility rate for telehealth services, and CMS should resume doing so as soon as practicable now that the PHE has ended.

Possible alternative approaches to paying for telehealth services under the PFS raise certain policy issues. For example, telehealth services could be bundled into a larger payment unit under the PFS, which could reduce a clinician's incentive to bill for more services. However, this option raises concerns about the complexity of developing appropriate payment bundles. With regard to a temporary or permanent expansion of telehealth services provided to all beneficiaries regardless of their location, CMS should return to paying a lower rate (i.e., the facility rate) for all telehealth services. As stated earlier, we expect the rates for telehealth services to be lower than rates for in-person services because services delivered via telehealth typically do not require the same practice costs as services provided in a physical office. CMS should also collect data from practices and other entities on the costs they incur to provide telehealth services and adjust future payment rates, if warranted, based on the information gathered.

An additional question for policymakers to consider is how much Medicare should pay, after the PHE, for telehealth services provided through a direct-to-consumer (DTC) telehealth vendor or telehealth-only company. One argument is that services provided by clinicians through a DTC telehealth vendor should be paid less than telehealth services provided by clinicians who also see patients in person because DTC vendors likely have lower costs. Clinicians providing services through a DTC telehealth vendor do not need to acquire office space or equipment (e.g., exam tables, blood pressure cuffs) because they do not see patients in person. While logically these lower practice costs should translate to lower Medicare payments for telehealth services provided by DTC vendors, in practice, such a policy would be difficult to implement. Medicare claims do not contain information on clinicians' employers or corporate affiliations. Nor does Medicare Part B currently make payment distinctions on the basis of ownership, raising the possibility that Medicare would need to define DTC vendors as a new provider type. Nevertheless, during the period of temporary expansion after the PHE, CMS should collect cost information from providers to determine whether services provided through a DTC telehealth vendor should be paid at lower rates than telehealth services provided by clinicians who also treat patients in person, and if so, what those rates should be.¹¹ Before paying lower rates for telehealth services

provided by DTC vendors, CMS would need to explore whether it is feasible to distinguish among types of telehealth providers. Currently, only a small number of large national telehealth vendors are actively billing Medicare FFS.

Alternative approach to paying for FQHC and RHC telehealth services

If policymakers decide that Medicare should permanently pay FQHCs and RHCs for distant-site telehealth services after December 31, 2024, they need to determine the payment rates for these services. Two options for setting payment rates include:

- paying for telehealth services at rates equal to their standard in-person rates (which are substantially above PFS rates), which is how FQHCs and RHCs currently bill for mental health services performed via telehealth, or
- paying them a rate that is similar to the rate for comparable telehealth services billed under the PFS, which is how Medicare pays them for non-mental health telehealth services during the PHE.

Although paying standard FQHC and RHC payment rates could provide an incentive for clinicians to practice in medically underserved areas, there are several disadvantages to this policy. First, paying FQHCs and RHCs their standard rates for all telehealth services would increase costs for the program and beneficiaries. The standard payment rate in 2023 is \$187.19 per visit for FQHCs and an average of more than \$255 per visit for certain provider-based RHCs, compared with a PFS equivalent rate of \$98.27 for telehealth services in 2023. Depending on beneficiaries' supplemental insurance coverage, these high payment rates (especially for RHCs) could discourage access because of high out-of-pocket spending.¹²

Second, practitioners who furnish telehealth services do not need to be physically located in an underserved area, so the higher rates for FQHC- and RHC-provided telehealth services would not be necessary to ensure access. Third, paying standard rates for telehealth visits could also be a disincentive to furnish in-person care since telehealth visits likely cost less than in-person visits due to reduced facility costs. Providers should make decisions about what mode

The Commission's policy option for expanding Medicare coverage of telehealth services after the public health emergency

In our March 2021 report to the Congress, we presented a policy option to temporarily continue fee-for-service Medicare's expanded coverage of telehealth services after the public health emergency (PHE) (Medicare Payment Advisory Commission 2021). In developing this policy option, we maintain our previous recommendation that policymakers use the principles of access, cost, and quality to evaluate individual telehealth services before covering them under Medicare (Medicare Payment Advisory Commission 2018). First, Medicare should temporarily pay for specified telehealth services provided to all beneficiaries regardless of their location. Second, Medicare should temporarily cover selected telehealth services in addition to services covered before the PHE if there is potential for clinical benefit. Third, to improve access for beneficiaries without the capability to engage in a video visit from their home, Medicare should temporarily cover certain telehealth services when they are provided through an audio-only interaction if there is potential for clinical benefit.

However, under the Commission's policy option, other telehealth policies that were adopted during the PHE should end now that the PHE has ended. First, Medicare should return to paying the PFS facility rate for telehealth services instead of paying either the facility or nonfacility rate (depending on where the service would have been provided if it

had been furnished in person), as it did during the PHE. CMS should also collect data from practices and other entities on the costs they incur to provide telehealth services and should consider these reported costs in making any changes to telehealth payment rates in the future. We expect the rates for telehealth services to be lower than the rates for in-person services because services delivered via telehealth likely do not require the same practice costs as services provided in a physical office (Mehrotra et al. 2020). In addition, now that the PHE has ended, Medicare should require the same level of beneficiary cost sharing for telehealth as it does for in-person services. Requiring beneficiaries to pay a portion of the cost of telehealth services would help reduce the possibility of overuse.

CMS should implement other safeguards to protect the Medicare program and its beneficiaries from unnecessary spending and potential fraud related to telehealth, including applying additional scrutiny to outlier clinicians who bill many more telehealth services per beneficiary than other clinicians, requiring clinicians to provide an in-person, face-to-face visit before they order high-cost durable medical equipment or high-cost clinical laboratory tests, and prohibiting "incident to" billing for telehealth services provided by any clinician who can bill Medicare directly. ■

of care is most beneficial to the patient based on clinical considerations, not on what is most financially advantageous. Moreover, paying standard rates for telehealth visits would result in paying substantially more for an FQHC- or RHC-provided telehealth service than if the same service were provided in person by a clinician billing under the PFS. This disparity could also discourage the provision of in-person care.

Fourth, because telehealth services can be delivered to beneficiaries outside FQHCs' or RHCs' local service areas, paying these providers rates far above PFS rates could increase costs for the Medicare program and beneficiaries (without improving access) in areas that are not underserved and could undermine competition (as clinicians compete to bill under the highest-paid facility as opposed to competing for patients based on quality and service).

For these reasons, the Commission supports paying rates that are comparable with PFS rates for telehealth services provided by FQHCs and RHCs. This approach balances the dual goals of ensuring beneficiary access and prudent fiscal stewardship of the Medicare program. CMS does not believe it currently has the authority to pay FQHCs and RHCs the PFS rate for telehealth services on a permanent basis, so the agency would likely need legislative authority to implement this policy.

Spending and use of telehealth services in Medicare

We used Medicare FFS claims data from 2019 to 2021 (the most recent complete year of data available) to examine national and regional trends in spending and use of telehealth services, including the types of services that were delivered by telehealth, the characteristics of beneficiaries who received telehealth, the types of conditions that telehealth was used to treat, the types of clinicians who delivered telehealth, and the share of telehealth services provided to beneficiaries by out-of-state clinicians.

In general, we found that telehealth use and expenditures peaked in the second quarter of 2020 and leveled off in 2021. E&M services accounted for almost all telehealth spending in 2020 and 2021, and a growing share of these services were for behavioral health. Additionally, we found that the distribution of office/outpatient E&M visits for established patients across the five visit-complexity codes was about the same for in-person and telehealth visits in 2021, which implies that telehealth services take about the same amount of time as in-person visits or that the complexity of care provided is about the same, or both. This implication, however, is contrary to reports from some clinicians in our focus groups that telehealth visits take less time than in-person visits.

Use of telehealth varied by beneficiary characteristic: Beneficiaries who are younger, qualify for Medicare because of ESRD or disability, have lower income, and live in urban areas used more telehealth services on average. Use of telehealth services also varied by region in 2020 and 2021, but the general trends were similar across regions and were consistent with overall

trends in use. When we grouped clinical categories into body systems, we found that mental, behavioral, and neurodevelopmental disorders accounted for the highest share of spending for telehealth in 2021 (34.4 percent), which was a higher share than in 2020 (25.4 percent). We found that a small share of telehealth services was provided to beneficiaries in a state different from the clinician's, varying by state and type of service. Lastly, we found that FFS Medicare spending for telehealth services varied by type of clinician.

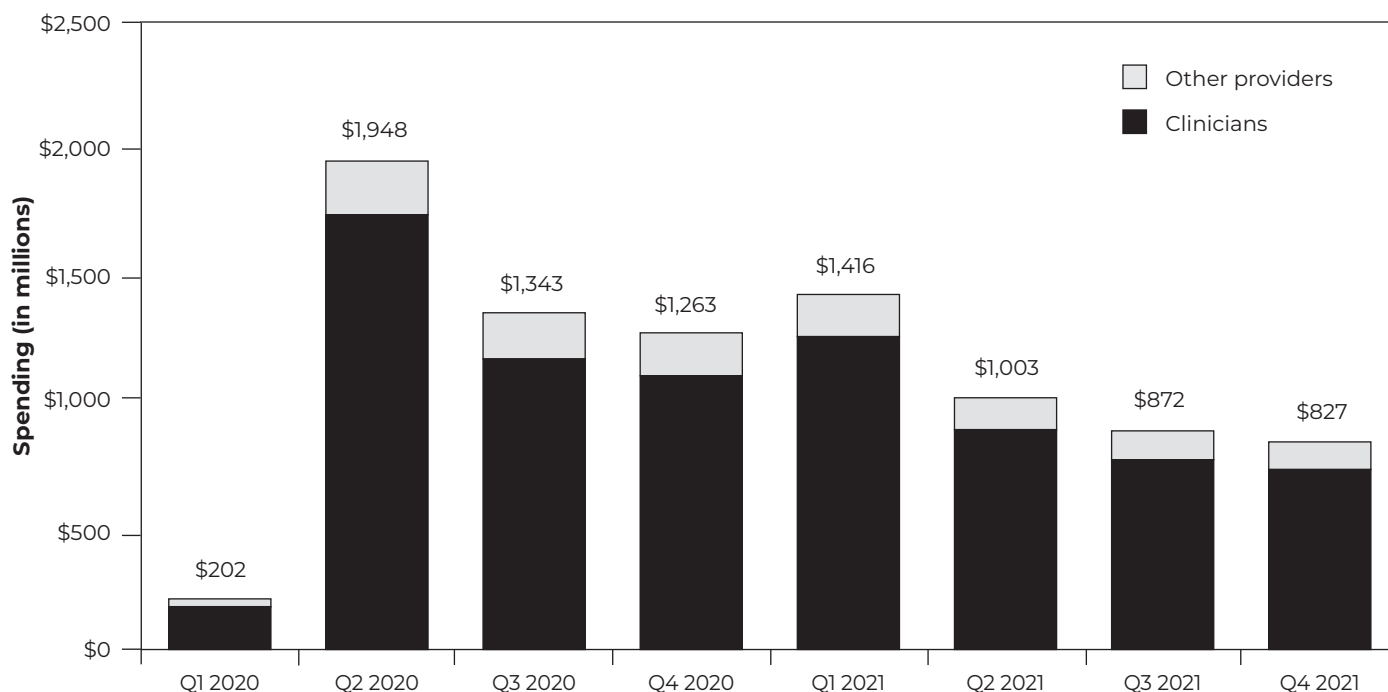
Medicare spending for telehealth services rose rapidly in 2020, then leveled off in 2021

We examined FFS Medicare spending for telehealth services paid under the PFS and the payment systems for FQHCs, RHCs, and critical access hospitals (CAHs). Our analysis also includes originating site fees for telehealth services provided in hospital outpatient departments, skilled nursing facilities (SNFs), outpatient dialysis centers, and other settings.¹³ FFS Medicare spending for telehealth services was very low in 2019 (annual spending of \$130 million) when coverage for telehealth services was restricted. During the early months of the PHE, after the Congress and CMS temporarily expanded coverage of telehealth services, providers and beneficiaries shifted rapidly from in-person to telehealth services. Consequently, FFS Medicare spending for telehealth services grew dramatically in 2020, peaking at \$1.9 billion in the second quarter of the year (Figure 7-1).¹⁴ As the number of in-person services began to rebound after the second quarter of 2020, telehealth spending declined to about \$1.3 billion in each of the third and fourth quarters. Telehealth spending increased to \$1.4 billion in the first quarter of 2021, as the number of COVID-19 cases among individuals over age 65 rose sharply (Centers for Disease Control and Prevention 2022). Telehealth spending then declined during the second quarter of 2021, as the number of COVID-19 cases among this age group fell, and totaled \$827 million in the fourth quarter of 2021. In total, between 2020 and 2021, Medicare telehealth spending declined from \$4.8 billion to \$4.1 billion, which is still more than 30 times greater than spending in 2019 (data not shown).

The majority of FFS Medicare telehealth spending in 2020 and 2021 (87 percent) was for clinician services paid under the PFS. The remaining amount was spent

FIGURE 7-1

FFS Medicare spending for telehealth services peaked in the second quarter of 2020 and leveled off in the last two quarters of 2021



Note: FFS (fee-for-service), Q (quarter). FFS Medicare spending for telehealth services includes services provided by clinicians (which are paid under the physician fee schedule) and services furnished by other providers (rural health clinics, federally qualified health centers, critical access hospitals, hospital outpatient departments, skilled nursing facilities, and outpatient dialysis centers), which are paid under other payment systems. Spending includes Medicare program spending and beneficiary cost sharing.

Source: Analysis of Medicare claims data for 100 percent of FFS beneficiaries.

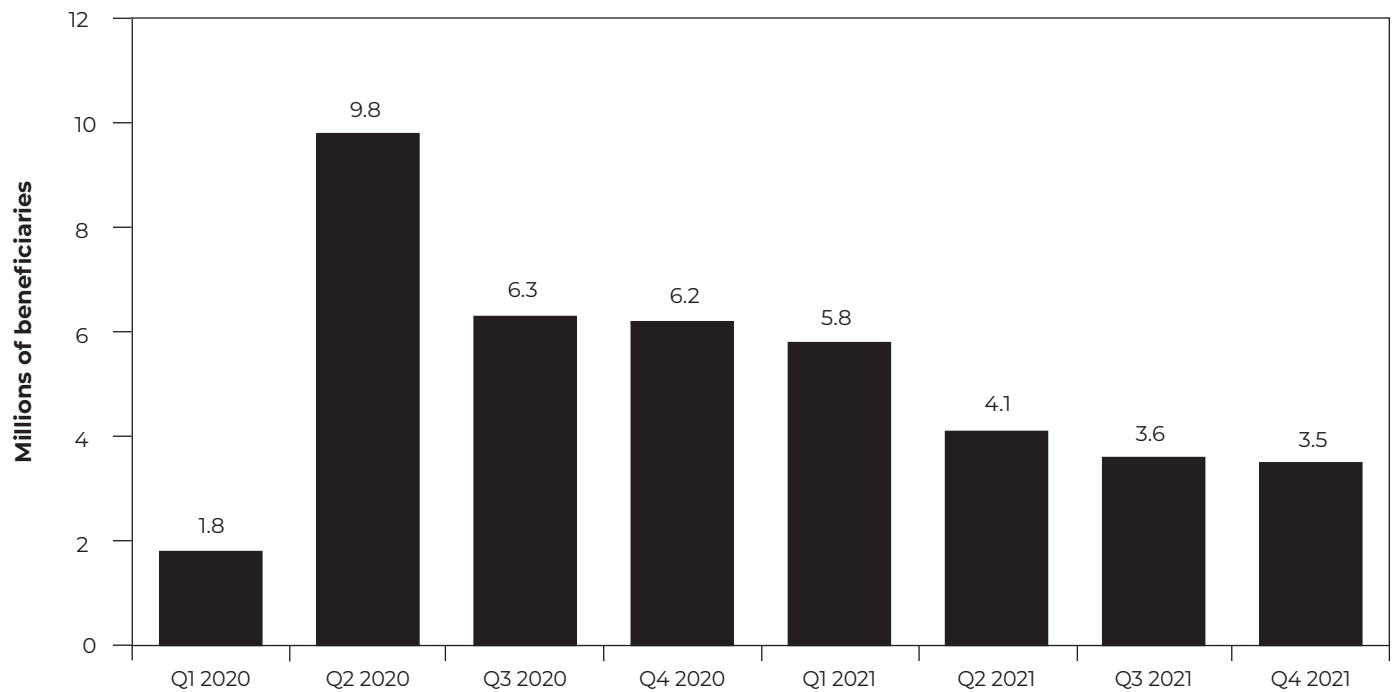
on telehealth services provided by FQHCs, RHCs, CAHs, hospital outpatient departments, SNFs, and outpatient dialysis centers. In 2020, spending for telehealth services under the PFS accounted for 5 percent of total PFS spending, declining to 4 percent in 2021. In 2020, Medicare spending for telehealth services provided by FQHCs made up 7 percent of total Medicare spending for FQHCs, falling to 6 percent in 2021. Medicare spending for telehealth services provided by RHCs made up a smaller share of total Medicare spending for RHCs (3 percent in 2020 and 2 percent in 2021). Our analyses focus only on telehealth services paid under the PFS because the PFS accounted for most of FFS Medicare spending for telehealth services.

The number of FFS beneficiaries who received a telehealth service climbed rapidly in the second quarter of 2020 before leveling off

In 2019, about 239,000 FFS beneficiaries received at least one telehealth service paid under the PFS. This number accelerated rapidly in early 2020, climbing to 9.8 million in the second quarter of 2020 alone, before falling to 6.3 million in the next quarter (Figure 7-2, p. 320). By the fourth quarter of 2021, the number of FFS beneficiaries who received at least one telehealth service paid under the PFS had leveled off to 3.5 million. Overall in 2020, 14.2 million beneficiaries received at least one telehealth service (40 percent of

**FIGURE
7-2**

The number of FFS Medicare beneficiaries who received a telehealth service peaked in the second quarter of 2020 and leveled off in 2021



Note: FFS (fee-for-service), Q (quarter). Figure counts the number of beneficiaries who received at least one telehealth service paid under the physician fee schedule.

Source: Analysis of Medicare claims data for 100 percent of FFS beneficiaries.

Part B FFS beneficiaries); in 2021, a total of 9.7 million received a telehealth service (29 percent of Part B FFS beneficiaries) (data not shown).

Consistent with our findings, a Bipartisan Policy Center analysis of Medicare claims through the third quarter of 2021 found that the share of telehealth users and visits decreased over the first three quarters of 2021 but remained higher than prepandemic levels (Bipartisan Policy Center 2022).

E&M services accounted for almost all telehealth spending in 2020 and 2021

We examined the distribution of PFS telehealth spending in 2020 and 2021 by broad service categories (e.g., E&M, treatments, procedures). E&M accounted for almost all (98 percent) of telehealth spending in 2020

and 2021. Treatments accounted for the remaining 2 percent of telehealth spending (mainly for dialysis services and physical, occupational, and speech therapy). Within the broad E&M service category, office/outpatient visits accounted for almost three-quarters (73 percent) of spending for telehealth in 2020, declining to 68 percent of spending in 2021 (Figure 7-3). Behavioral health services (e.g., psychiatric evaluation) accounted for 17 percent of telehealth spending for E&M services in 2020, rising to 23 percent in 2021. Between 2020 and 2021, spending for behavioral health services delivered by telehealth grew from \$698 million to \$807 million (data not shown), even though total telehealth spending fell during that period, which highlights the growing significance of telehealth for behavioral health services. The spending estimates for these behavioral health services are an undercount

of actual spending on mental health services because some office/outpatient visits are also for mental health conditions.

Office/outpatient visits are divided into visits for established patients and visits for new patients. Visits for established patients comprised 95 percent of the volume of all office/outpatient visits provided by telehealth in 2020 and 2021 (visits for new patients comprised only 5 percent).¹⁵ By comparison, among in-person office/outpatient visits in 2020 and 2021, visits for established patients accounted for 88 percent of the volume (data not shown).

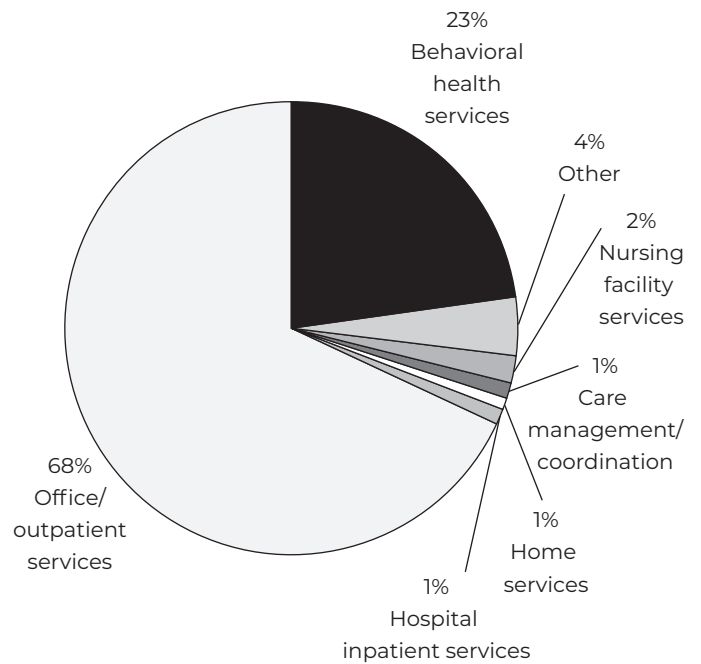
The distribution of E&M service levels for established patients' office/outpatient visits was about the same for telehealth and in-person services

Clinicians code different levels for each service they provide based on the medical complexity of a patient visit or the amount of clinician time spent on the visit. For example, a Level 3 office/outpatient E&M visit for an established patient (Current Procedural Terminology (CPT) code 99213) should represent 20 to 29 minutes of total time spent on the date of the encounter, while a Level 4 office/outpatient E&M visit (CPT code 99214) should represent 30-39 minutes. When these services are provided in a nonfacility setting (e.g., a freestanding clinician's office), the 2023 PFS rate is \$90.82 for a Level 3 visit and \$128.43 for a Level 4 visit.¹⁶

We compared the distribution of office/outpatient E&M visits in 2021 for established patients based on code levels and whether the visit was in person or done through telehealth. The distribution of levels was about the same across in-person and telehealth visits (Figure 7-4, p. 322). Fifty percent of in-person office/outpatient visits for established patients were Level 4, which is comparable with the 48 percent of telehealth office/outpatient visits that were Level 4. Thirty-eight percent of in-person office/outpatient visits for established patients were Level 3, which is comparable with the 41 percent of telehealth office/outpatient visits that were Level 3.

While our claims analysis found that the distribution of levels of E&M office/outpatient visits for established patients was about the same for in-person and telehealth visits, other sources suggest that telehealth visits are often shorter. For example, in our focus

FIGURE 7-3 Office/outpatient services accounted for about two-thirds of physician fee schedule spending for E&M telehealth services, 2021



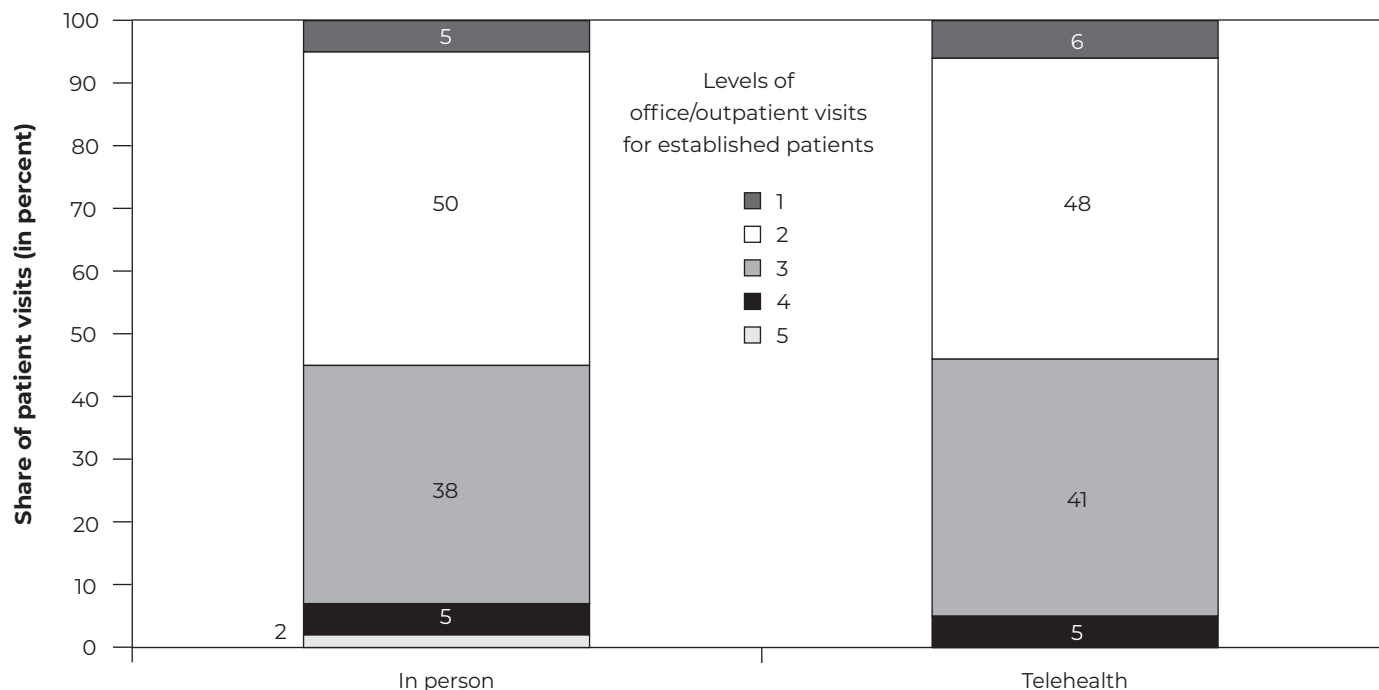
Note: E&M (evaluation and management). Spending includes Medicare program spending and beneficiary cost sharing for telehealth services.

Source: Analysis of Medicare claims data for 100 percent of fee-for-service beneficiaries.

groups with beneficiaries and clinicians, we heard that telehealth visits generally took less time than in-person visits. If clinicians spend less time with patients during telehealth visits compared with in-person visits, a smaller share of telehealth visits should be coded at high levels (more time spent) than in-person visits. Therefore, as part of the agency's upcoming mandated report on telehealth program integrity, the Secretary should examine medical records to verify whether clinicians are spending the amount of time associated with the office/outpatient encounter that was billed. This review could identify the need for additional education to providers on appropriate billing for

FIGURE 7-4

The distribution of E&M service levels for established patients' office/outpatient visits was about the same for in-person and telehealth services, 2021



Note: E&M (evaluation and management). Figure shows the distribution of the share of office/outpatient E&M visit codes for established patients by code level when billed as in-person or as telehealth service. Levels of office/outpatient E&M visits for established patients represent Current Procedural Terminology codes 99211-99215.

Source: Analysis of Medicare claims data for 100 percent of fee-for-service beneficiaries.

telehealth services. (See text box for more information on telehealth and program integrity.)

Spending for audio-only telehealth services

Beginning during the PHE, CMS pays for over 80 Healthcare Common Procedure Coding System (HCPCS) codes when they are provided using an audio-video or an audio-only interaction. However, there are only six codes (for telephone E&M services, for which CMS began paying in March 2020) that indicate whether a service was provided through an audio-only instead of an audio-video interaction. For the years we analyzed (2020 and 2021), claims data do not indicate whether the other 80 or so codes were provided through an audio-only or audio-video interaction. However, consistent with the Commission's

recent recommendation to the Secretary, CMS requires clinicians to include a billing modifier on the claim when they bill for any audio-only telehealth service beginning in 2023 (Medicare Payment Advisory Commission 2022c). Therefore, we are currently able to calculate spending for the six telephone E&M services but not for other services that were provided through an audio-only interaction.

We include telephone E&M services in the category of E&M office/outpatient visits. (Therefore, telephone E&M services do not appear separately in Figure 7-3, p. 321.) Spending for telephone E&M services totaled \$765 million in 2020 (19 percent of total spending for E&M telehealth services) and \$563 million in 2021 (16 percent of spending for E&M telehealth services). Almost 20 percent of telephone E&M services in 2021 were the

Telehealth and program integrity

Historically, policymakers have been cautious about Medicare covering telehealth services because little is known about the effect of telehealth on quality of care or patient outcomes and because telehealth services are considered more susceptible to overuse and fraud. Expanding telehealth services therefore raises program integrity concerns. However, telehealth offers benefits to patients, including convenience, time savings, and not having to leave home if they feel ill. It also has the potential to reduce “no show” rates for scheduled medical appointments. In considering a permanent expansion of telehealth, a key issue is how to achieve the benefits of telehealth while limiting the risks to beneficiaries and the program.

Office of Inspector General report on telehealth services to date

The Health and Human Services Office of Inspector General (OIG) reviewed Medicare data on telehealth use during the first year of the pandemic (March 2020 through February 2021) with a focus on potentially inappropriate billing for telehealth services (Office of Inspector General 2022b). Using several program integrity measures with very high thresholds, such as billing telehealth services at the highest, most expensive level every time, their study identified about 1,700 providers whose billing for telehealth posed a high risk to Medicare.¹⁷ These high-risk providers billed telehealth services for about half a million beneficiaries and received a total of \$127.7 million in Medicare fee-for-service payments during the first year of the pandemic. For example, almost 700 providers inappropriately billed both a facility (originating site) fee and a telehealth service fee for more than 75 percent of their telehealth visits, costing the program \$14.3 million.

The high-risk providers represent a small proportion (about 0.2 percent) of the approximately 742,000

providers who billed for a telehealth service during the first year of the pandemic, and a small proportion (1 percent) of the 140,000 providers that pose a threat to Medicare in general. OIG recommended that CMS take specific actions to improve program integrity for Medicare telehealth services by strengthening monitoring and targeted oversight of telehealth services, providing additional education to providers on appropriate billing for telehealth services, improving the transparency of “incident to” services when clinical staff primarily deliver a telehealth service, identifying telehealth companies that bill Medicare, and following up on the providers identified in their report (Office of Inspector General 2022b). These recommendations are consistent with our March 2021 policy option on expanding coverage of telehealth services after the public health emergency (Medicare Payment Advisory Commission 2021).¹⁸ CMS concurred with the recommendation to follow up on providers identified in the OIG report but did not explicitly indicate whether it concurred with the other four recommendations.

Future program integrity analyses of telehealth

The Consolidated Appropriations Act, 2023, requires the Secretary to conduct a study on Medicare program integrity related to telehealth services. The Secretary is required to use medical records to analyze information on the duration of telehealth services furnished and, to the extent feasible, the impact of telehealth services on future utilization of services. An interim report is due by October 1, 2024, and a final report is due by April 1, 2026.

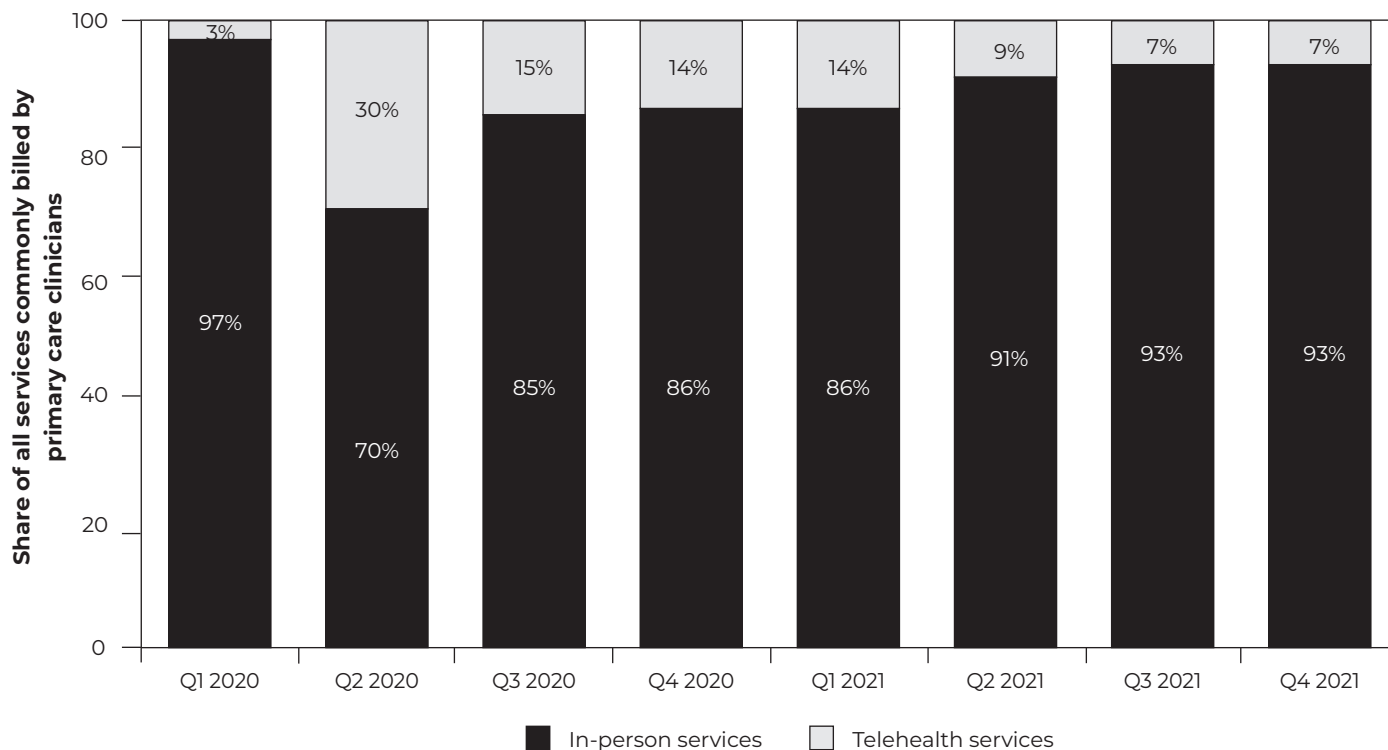
Another area that could be analyzed in the future is the use of audio-only services. Starting in 2023, clinicians are required to indicate on Medicare claims when they provide an audio-only telehealth service. ■

lowest intensity (5 to 10 minutes), 47 percent were middle intensity (11 to 20 minutes), and 34 percent were the highest intensity (21 to 30 minutes).

In general, studies of Medicare beneficiaries and broader populations have found that patients who had higher rates of audio-only telehealth use during

**FIGURE
7-5**

Telehealth accounted for 30 percent of services commonly billed by primary care clinicians in the second quarter of 2020, before declining to 7 percent in the last two quarters of 2021



Note: Services commonly billed by primary care clinicians include the following physician fee schedule services: office/outpatient evaluation and management (E&M) visits, home E&M visits, E&M visits to patients in certain non-inpatient hospital settings (nursing facility, domiciliary, rest home, and custodial care), audio-only E&M visits, chronic care management, transitional care management, Welcome to Medicare visits, annual wellness visits, e-visits, and advance care planning services.

Source: Analysis of Medicare claims data for 100 percent of fee-for-service beneficiaries.

the PHE were more likely to be older, have a chronic condition and multiple comorbidities, be eligible for both Medicare and Medicaid, be low income, and identify as Black or Hispanic (Assistant Secretary for Planning and Evaluation 2022, Bipartisan Policy Center 2022, Office of Inspector General 2022a).

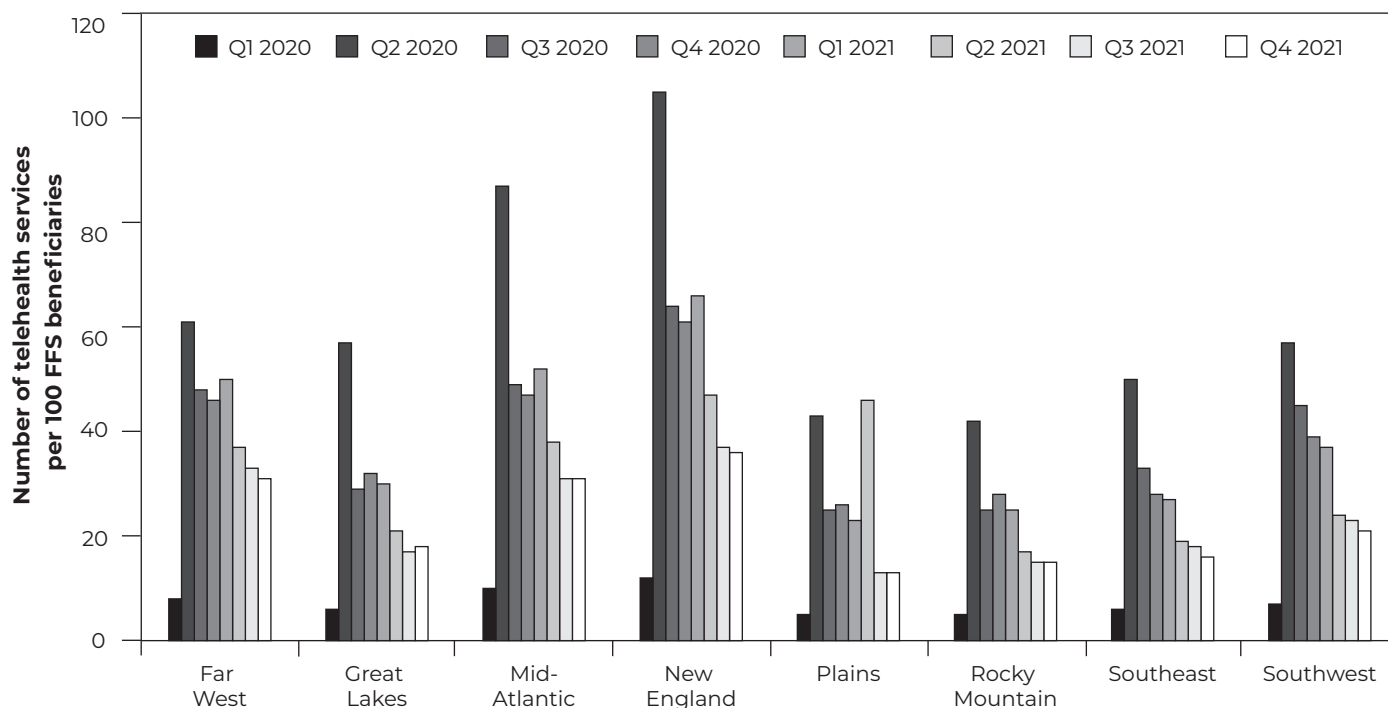
Telehealth accounted for 30 percent of services commonly billed by primary care clinicians in the second quarter of 2020, before declining to 7 percent in the last two quarters of 2021

We examined the use of PFS services commonly billed by primary care clinicians (whether they were delivered in person or by telehealth) to determine the share that was provided by telehealth during 2020 and 2021. Most of these services are E&M office/

outpatient visits.¹⁹ This analysis shows the relative importance of telehealth for primary care clinicians and how it changed over time. The share of services commonly billed by primary care clinicians provided by telehealth rose sharply from 3 percent in the first quarter of 2020 to 30 percent in the second quarter of 2020, partially offsetting the steep drop in the use of in-person primary care services between the first quarter and second quarter (Figure 7-5). As the number of in-person services rebounded in the third quarter of 2020, the share of services commonly billed by primary care clinicians as delivered by telehealth declined to 15 percent. Telehealth's share of these services continued to fall during the remainder of 2020 and 2021, and telehealth accounted for 7 percent of all such services in each of the last two quarters of 2021.

**FIGURE
7-6**

Number of Medicare telehealth services per 100 FFS beneficiaries, by region and quarter, 2020-2021



Note: FFS (fee-for-service), Q (quarter). Figure includes telehealth services paid under the physician fee schedule.

Source: Analysis of Medicare claims data for 100 percent of FFS beneficiaries.

The number of telehealth services varied by region in 2020 and 2021, but changes in the use of telehealth services were similar across regions

We examined the use of telehealth services in 2020 and 2021 in eight geographic regions. Although the number of telehealth services per 100 FFS beneficiaries varied substantially by region, changes in the use of telehealth during this period were generally similar across regions (Figure 7-6). The number of telehealth services peaked in all regions in the second quarter of 2020, declined in the next quarter, and dropped again after the first quarter of 2021. The New England and Mid-Atlantic regions had the highest number of telehealth services per 100 FFS beneficiaries in 2020 (243 and 193, respectively) and 2021 (187 and 152, respectively) (data not shown). The Rocky Mountain

and Plains regions had the lowest number in 2020 (100 and 99, respectively) and 2021 (72 and 65, respectively). The regional patterns we observe for higher and lower telehealth use are consistent with regional variations in the overall number of clinician encounters per beneficiary.

Use of telehealth varied by beneficiary age, reason for Medicare eligibility, income level, and location during 2021

We examined the use of telehealth services by FFS beneficiaries in 2021 based on the following characteristics: age, race/ethnicity, reason for Medicare eligibility, income (using the low-income subsidy as a proxy), and urban/rural location (Table 7-3, p. 326). Overall, beneficiaries who were younger, qualified for Medicare because of ESRD or disability,

**TABLE
7-3**

Use of PFS telehealth services by beneficiary characteristics, 2021

Cohort of beneficiaries	Share of FFS beneficiaries who received at least one telehealth service	Number of telehealth services received by FFS beneficiaries (among those who received at least one telehealth service)			
		Mean	25th percentile	Median	75th percentile
All FFS beneficiaries	28.7%	3.8	1	2	4
By age					
Under 65	29.3	5.4	1	2	6
65-74	27.2	3.6	1	2	3
75-84	30.4	3.3	1	2	3
Age 85 and older	30.0	3.1	1	2	3
By race/ethnicity					
White	28.6	3.8	1	2	4
Black	28.2	4.0	1	2	4
Non-White Hispanic	29.1	4.2	1	2	4
Medicare eligibility status					
Aged	28.4	3.5	1	2	3
Disabled	38.0	5.9	1	3	6
ESRD	44.4	4.0	1	2	5
LIS status					
LIS	34.9	5.0	1	2	5
Non-LIS	27.0	3.4	1	2	3
Beneficiary location					
Urban	29.6	3.9	1	2	4
Rural	18.9	3.1	1	1	3

Note: PFS (physician fee schedule), FFS (fee-for-service), ESRD (end-stage renal disease), LIS (low-income subsidy). LIS beneficiaries include those who received full or partial Medicaid benefits and those who did not qualify for Medicaid benefits but who received the Part D LIS. The number of telehealth services received by FFS beneficiaries is based on the beneficiaries in each cohort who received at least one telehealth service.

Source: Analysis of physician fee schedule claims data for 100 percent of FFS beneficiaries.

had lower income, and lived in urban areas used more telehealth services on average.²⁰ Many of these findings are consistent with trends that we see in overall health care utilization.

A similar share of beneficiaries received at least one telehealth service across different age categories (ranging from 27.2 percent to 30.4 percent), but

beneficiaries under age 65 received a larger number of telehealth services, on average, than other age groups (Table 7-3). For example, beneficiaries under age 65 who received at least 1 telehealth service had a mean of 5.4 telehealth services, compared with a mean of 3.1 telehealth services received by beneficiaries age 85 and older.²¹ Consistent with these results, other

studies have found that younger beneficiaries generally use more telehealth services than older beneficiaries (Bipartisan Policy Center 2022, Bose et al. 2022, Office of Inspector General 2022a).

In our analysis, the share of beneficiaries who received at least one telehealth service did not vary substantially among Black, White, and non-White Hispanic beneficiaries, although non-White Hispanic beneficiaries had a slightly higher mean number of telehealth services than Black and White beneficiaries (among beneficiaries who received at least one telehealth service). Other studies that used Medicare data also showed differences among racial and ethnic groups. For example, Bose and colleagues found that, between March 7, 2020, and March 31, 2021, after adjusting for covariates, Asian and Hispanic beneficiaries were associated with higher levels of telehealth use than other beneficiaries (Bose et al. 2022). According to a report from the Office of Inspector General, Hispanic and Black beneficiaries were more likely to use telehealth services than White beneficiaries in 2020 (Office of Inspector General 2022a). The Bipartisan Policy Center found that the telehealth visit rate for American Indian/Alaska Native, Black, and Hispanic beneficiaries exceeded the overall telehealth visit rate, and the visit rate for non-Hispanic White beneficiaries was below the overall telehealth visit rate (Bipartisan Policy Center 2022).²²

A much higher share of beneficiaries who were eligible for Medicare because they had ESRD or were disabled received at least one telehealth service compared with beneficiaries who were eligible because of age (44.4 percent, 38.0 percent, and 28.4 percent, respectively). In addition, disabled beneficiaries had a higher mean number of telehealth services than aged beneficiaries (5.9 vs. 3.5). Based on overall utilization patterns, we expected to find higher telehealth utilization among beneficiaries who qualified for Medicare because of disability than among beneficiaries who were eligible because of age (Medicare Payment Advisory Commission 2022a). Consistent with our analysis, the Bipartisan Policy Center found that beneficiaries who qualified for Medicare because of disability and/or ESRD used telehealth at higher rates than beneficiaries who qualified because of age (Bipartisan Policy Center 2022).

To evaluate the use of telehealth services by low-income beneficiaries, we assessed telehealth use by

beneficiaries who received full or partial Medicaid benefits or did not qualify for Medicaid benefits but received the Part D low-income subsidy (LIS) because they had limited assets and an income below 150 percent of the federal poverty level. (Collectively, we refer to this population as “LIS beneficiaries” because those who receive full or partial Medicaid benefits are automatically eligible to receive the LIS.) A higher share of LIS beneficiaries than non-LIS beneficiaries received at least one telehealth service (34.9 percent vs. 27.0 percent), and LIS beneficiaries received a higher mean number of telehealth services than non-LIS beneficiaries (5.0 vs. 3.4). This result is consistent with our previous finding that LIS beneficiaries use more Medicare services in general than their non-LIS counterparts (Medicare Payment Advisory Commission 2022b). In addition, a study of Medicare beneficiaries between March 7, 2020, and March 31, 2021, found that telehealth use increased directly with the area deprivation index, suggesting that beneficiaries in the most disadvantaged neighborhoods had the highest rates of telehealth use (Bose et al. 2022).

A much larger share of beneficiaries who lived in urban areas received at least one telehealth service billed under the PFS than beneficiaries in rural areas (29.6 percent vs. 18.9 percent), and urban residents also had a higher mean number of PFS telehealth services than rural residents (3.9 vs. 3.1). These differences could reflect the fact that rural beneficiaries disproportionately rely on FQHCs and RHCs, which were excluded from our analysis, to access telehealth, or could represent a real difference. Other studies have also found higher telehealth use in urban areas than rural areas during the PHE (Bipartisan Policy Center 2022, Bose et al. 2022, Lucas and Villarroel 2022, Office of Inspector General 2022a, Qu et al. 2022).

Telehealth spending varied by clinical category and body system in 2021. To examine the distribution of telehealth services in Medicare by clinical category, we used the Clinical Classifications Software Refined, which aggregates diagnosis codes from claims into over 530 clinically meaningful categories.²³ These categories are organized into 21 body systems, such as mental, behavioral, and neurodevelopmental disorders; diseases of the circulatory system; and diseases of the musculoskeletal system and connective tissue.

**TABLE
7-4****Clinical categories accounting for the highest shares of FFS Medicare spending for telehealth services, 2021**

Clinical category	Spending (in millions)	Share of total spending
Depressive disorders	\$441	12.2%
Anxiety and fear-related disorders	222	6.2
Trauma-related and stressor-related disorders	215	6.0
Essential hypertension	215	6.0
Bipolar and related disorders	138	3.8
Spondylopathies/spondyloarthropathy (including infective)	118	3.3
Schizophrenia spectrum and other psychotic disorders	101	2.8
Diabetes mellitus with complication	87	2.4
Chronic kidney disease	84	2.3
Sleep-wake disorders	74	2.1
All other categories	1,904	52.9

Note: FFS (fee-for-service). Clinical categories are from the Clinical Classifications Software Refined, which was developed by the Agency for Healthcare Research and Quality. Spondylopathies are diseases of the vertebrae. Spondyloarthropathies are diseases of the joints. The table includes physician fee schedule spending (program payments and beneficiary cost sharing) for telehealth services.

Source: Analysis of Medicare claims data for 100 percent of fee-for-service beneficiaries.

The 10 clinical categories with the highest Medicare spending for telehealth services were relatively consistent in 2020 and 2021. Eight of these 10 clinical categories were chronic conditions (e.g., depression, hypertension, diabetes) (Table 7-4). Five of the 10 clinical categories were mental and behavioral health disorders: depressive disorders, anxiety and fear-related disorders, trauma-related and stressor-related disorders, bipolar and related disorders, and schizophrenia spectrum and other psychotic disorders. When we grouped clinical categories into body systems, we found that mental, behavioral, and neurodevelopmental disorders accounted for the highest share of spending for telehealth in 2021 (34.4 percent), which was a higher share than in 2020 (25.4 percent, data not shown) (Table 7-5). These findings indicate that telehealth services continued to play an important role in treating mental and behavioral health conditions during the PHE. Diseases of the circulatory system (e.g., essential hypertension and coronary atherosclerosis and other heart disease) also accounted for a substantial share of spending for telehealth services in 2021 (11.4 percent).

Use of telehealth varied by type of clinician

In 2021, of the almost 1.3 million clinicians who billed for at least one PFS service (of any type), over 500,000 billed for at least 1 telehealth service. Specialist physicians made up the highest share of clinicians who provided telehealth services (37 percent), followed by advanced practice registered nurses (APRNs) and physician assistants (PAs) (24 percent) and primary care physicians (22 percent) (Table 7-6). By comparison, specialist physicians accounted for 40 percent of the clinicians who billed for any PFS service (telehealth or in person), APRNs and PAs accounted for 27 percent, and primary care physicians made up 12 percent (data not shown). The fact that primary care physicians accounted for a far higher share of clinicians who billed for telehealth versus any PFS service (22 percent vs. 12 percent) highlights the importance of telehealth in primary care.

In 2021, clinical psychologists accounted for the highest mean and median spending on telehealth services per clinician (\$14,723 and \$7,083, respectively), followed by licensed clinical social workers (LCSWs) (\$8,195 and \$4,023, respectively) (Table 7-6). By comparison, mean

**TABLE
7-5**

Body systems accounting for the highest shares of FFS Medicare spending for telehealth services, 2021

Clinical category	Spending (in millions)	Share of total spending
Mental, behavioral, and neurodevelopmental disorders	\$1,238	34.4%
Diseases of the circulatory system	412	11.4
Diseases of the musculoskeletal system and connective tissue	318	8.8
Endocrine, nutritional, and metabolic diseases	265	7.4
Symptoms, signs, and abnormal clinical and laboratory findings not elsewhere classified	259	7.2
Diseases of the nervous system	251	7.0
Diseases of the genitourinary system	159	4.4
Factors influencing health status and contact with health services	148	4.1
Neoplasms	132	3.7
Diseases of the respiratory system	132	3.7
All other categories	286	7.9

Note: FFS (fee-for-service). Clinical categories are from the Clinical Classifications Software Refined, which was developed by the Agency for Healthcare Research and Quality. Factors influencing health status and contact with health services include medical examination/evaluation and exposure, encounters, screening or contact with infectious disease. The table includes physician fee schedule spending (program payments and beneficiary cost sharing) for telehealth services.

Source: Analysis of Medicare claims data for 100 percent of fee-for-service beneficiaries.

**TABLE
7-6**

FFS Medicare spending for telehealth services varied by type of clinician, 2021

Clinician type	Number of clinicians providing telehealth	Share of all clinicians providing telehealth	FFS Medicare spending for telehealth services			
			Mean	25th percentile	Median	75th percentile
Specialist physicians	201,500	37%	\$7,215	\$311	\$1,384	\$5,655
APRNs and PAs	131,500	24	3,995	237	946	3,400
Primary care physicians	120,800	22	7,589	601	2,252	6,729
Licensed clinical social workers	41,200	8	8,195	1,099	4,023	10,398
Clinical psychologists	22,500	4	14,723	1,945	7,083	18,196
Other practitioners	21,100	4	1,654	114	315	1,054
Total	538,600	100	6,682	351	1,556	5,843

Note: FFS (fee-for-service), APRN (advanced practice registered nurse), PA (physician assistant). Clinicians included in the analysis billed for at least one physician fee schedule service in the year. "Primary care physicians" includes family medicine, internal medicine, pediatric medicine, and geriatric medicine, with an adjustment to exclude hospitalists. Hospitalists are counted in "specialist physicians." "Other practitioners" includes clinicians such as physical therapists and podiatrists. Table counts telehealth services provided to Medicare FFS beneficiaries and billed under the physician fee schedule. Spending includes Medicare program spending and beneficiary cost sharing. Components may not sum to totals due to rounding. Number of clinicians providing telehealth rounded to the nearest hundred.

Source: Analysis of Medicare claims data for 100 percent of FFS beneficiaries.

spending on telehealth services across all clinicians was \$6,682 per clinician (median spending was \$1,556). High spending per clinician on telehealth services by clinical psychologists and LCSWs highlights the newly important role of telehealth in treating behavioral health conditions.

Compared with the other categories of clinicians, the distribution of Medicare spending per clinician was wider for specialist physicians, with a segment of specialist physicians billing relatively few telehealth services while others billed for many more. This difference is likely attributable to the fact that the specialist category in Table 7-6 (p. 329) comprises many different physician specialties that vary in their use of telehealth. For example, in 2021, the mean Medicare spending for telehealth services for endocrinologists was about \$12,300 but was only about \$1,200 for dermatologists (data not shown).²⁴

Provision of telehealth services to beneficiaries by clinicians who are located in a different state

The statutory mandate for this report requires the Commission to analyze the provision of telehealth services by clinicians to beneficiaries who are located in a different state, to the extent that reliable data are available. Before the PHE, clinicians were generally prohibited by state regulations from providing telehealth and in-person services to patients who were located outside of the state in which the clinician was licensed (Andino et al. 2022). During the PHE, however, all 50 states and Washington, DC, enacted temporary licensure waivers that allowed clinicians to provide telehealth services to out-of-state patients (out-of-state telehealth). In addition, CMS temporarily waived its requirement that clinicians be licensed in the state in which they are providing services, as long as the state waived its own licensure requirements. Now that the PHE has ended, CMS regulations will continue to allow for total deferral to state law. As of April 18, 2022, 15 states had licensure waivers, and some states had permanently allowed out-of-state clinicians to practice telehealth in their state (Andino et al. 2022).

We used FFS Medicare claims data to examine the prevalence of out-of-state telehealth services in 2020 and 2021. The share of telehealth services that were out-of-state services was relatively low in both years (5.1 percent in 2020 and 6.0 percent in 2021, data not shown). Other research based on FFS Medicare

claims also found that out-of-state telehealth services accounted for 5 percent of all telehealth services in 2020 (Andino et al. 2022).

The rate of out-of-state telehealth services varied by type of service. In 2021, for example, 21.5 percent of telehealth E&M visits that were provided to beneficiaries in emergency departments and 11.4 percent of telehealth E&M visits that were provided to beneficiaries in inpatient hospital settings were delivered to out-of-state beneficiaries (data not shown). The higher use of out-of-state telehealth for these types of services could be explained by hospitals relying on out-of-state clinicians during periods of staffing shortages. By contrast, only 2.8 percent of telehealth E&M home visits and 4.7 percent of telehealth care management/care coordination services were provided to out-of-state beneficiaries. Geographically, the share of telehealth services received by beneficiaries from out-of-state clinicians varied widely, from 1.4 percent in California to 46.0 percent in Washington, DC, which is part of a metropolitan area that includes Maryland and Virginia. States with high rates of out-of-state telehealth in 2021 included Wyoming (31.0 percent), South Dakota (20.8 percent), North Dakota (20.5 percent), and West Virginia (17.2 percent).

Beneficiary and clinician experiences with telehealth

The Commission's annual beneficiary survey and focus groups with beneficiaries and clinicians provide additional insight about recent experiences with telehealth. Because the most recent survey and focus groups were conducted in the summer of 2022, they allow us to track more recent experiences than the claims analysis and literature review. What we hear also helps us identify emerging trends in access to care and the organization of care that are not yet detectable through claims data.

The beneficiary survey was administered to about 4,000 Medicare beneficiaries ages 65 and over in August 2022 and asked questions about whether the respondent had a video or telephone visit with a health care provider in the past year, their satisfaction with the visit, and their desire to have access to telehealth visits after the pandemic. Additionally, from May 2022

through July of 2022, we conducted in-person focus groups with beneficiaries and clinicians (e.g., primary care physicians, specialists, nurse practitioners/physician assistants) in three cities in different regions of the country. We also conducted virtual focus groups with beneficiaries residing in rural areas.²⁵ In all groups, we asked about experiences with telehealth during the PHE and perspectives on the role telehealth could play after the PHE.

In general, beneficiaries who had had telehealth visits reported being satisfied with them. Many of these visits were with clinicians that the beneficiaries had an existing relationship with. Clinicians reported mixed preferences about telehealth use but generally concurred that telehealth visits took less time and cost less than in-person visits. Telehealth utilization by clinicians varied, but the majority of clinicians reported that telehealth constituted 10 percent or less of their visits. Beneficiaries and clinicians in our focus groups both reported continued use of audio-only telehealth services, and most would like to have access to telehealth services after the PHE.

Beneficiaries reported having telehealth visits mainly with clinicians with whom they had an existing relationship

In the 2022 survey, 35 percent of Medicare beneficiaries said they had a telehealth visit (a video visit and/or an audio-only telephone visit) in the past 12 months, and the majority of them said that it was because of the pandemic as opposed to telehealth visits being a normal source of care.²⁶ More beneficiaries (25 percent) reported having a telephone visit (audio only) than a video visit (19 percent) in the past 12 months.

Over half of beneficiaries in our focus groups had participated in a telehealth visit during the year. Over the past year, the choice for a telehealth appointment was largely based on patient preference—a noticeable shift from the first year of the PHE when beneficiaries reported that telehealth was often the only option for nonurgent visits.

In the focus groups, many beneficiaries received telehealth services from clinicians with whom they had an existing relationship, while slightly fewer saw new clinicians for the first time via telehealth (e.g., urgent care visits, initial appointments with specialists). Multiple beneficiaries with positive telehealth experiences said they were meeting with providers

with whom they had a preexisting relationship, so the conversation was easy and comfortable.

Beneficiaries are generally satisfied with their telehealth visits

In the 2022 survey, over 90 percent of beneficiaries said they were very or somewhat satisfied with their telehealth visits with a health care provider. In the focus groups, generally, beneficiaries appreciated having the option of telehealth visits, citing advantages such as convenience and time. A few beneficiaries shared experiences for which telehealth was particularly beneficial when they had medical needs while traveling, including testing positive for COVID-19, and when they were unable see their regular provider in person. However, there was also a common perception among beneficiaries that telehealth visits are neither thorough nor appropriate for all health issues or types of visits. As one beneficiary explained, “It depends on what the doctor’s specialty is. If it’s something like a therapist, that’s fine. If it’s something like my GI doctor or my urologist, I want to see them in person.” Several beneficiaries noted that the absence of hands-on care—such as checking blood pressure, listening to the patient’s heart, or receiving a physical exam when something is hurting—is a limitation of telehealth.

Clinicians’ descriptions of patients’ reception to telehealth were consistent with the beneficiary focus groups. Clinicians noted that many patients preferred the convenience and appreciated the option of having multiple family members join a telehealth visit and ask questions. However, clinicians also noted that some patients, including those who are older or have difficulty using technology, prefer in-person visits.

Clinicians report some continued use of telehealth after initial rapid expansion

Over three-fourths of the clinicians in our focus groups offered telehealth visits to their Medicare patients. (Many of those clinicians who were not offering telehealth visits were proceduralists who focus on in-person care.) Clinicians described a significant increase in the volume of telehealth visits at the beginning of the PHE in the first half of 2020, which has since leveled off. Clinician reports of their current volume of telehealth visits varied across focus groups, from less than 1 percent of current visits to approximately

50 percent, with the majority of clinicians reporting that telehealth constituted 10 percent or less of their visits.

Clinicians had mixed preferences regarding telehealth versus in-person visits

Clinicians' opinions were divided regarding telehealth. Some appreciated the convenience and flexibility it allows in terms of the visit location, while others preferred in-person visits due to perceived better quality of care or to specific services being better suited for in-person care. Clinicians described advantages of telehealth, including the ease of conducting telehealth visits with established patients and the use of telehealth for follow-up appointments, the impact it has on reducing burden and increasing access for patients, the ability to receive reimbursement equal to in-person visits, and the ability to see more patients in a day. Clinicians also described the limitations of telehealth, such as the inability to provide hands-on care and difficulties with technology issues.

Clinicians report that telehealth visits generally took less time

The majority of clinicians in our focus groups reported less time commitment for telehealth visits compared with in-person visits. A few clinicians noted that video visits took longer than audio visits, due to the time it takes to set up and instances involving technological issues. Some clinicians reported that while most visits were shorter, some ended up taking longer if the patient was more conversational. One primary care physician noted, "Although sometimes they don't know if you're busy or not, they don't see your office. They would like to try to occupy your time. And then you sometimes say, 'Okay, you know what? I have another patient waiting for me.'" Some clinicians noted that telehealth visits took longer in the beginning of the PHE, when beneficiaries were less comfortable with the technology and process.

Most clinicians believe telehealth costs less

Most clinicians said they believed telehealth costs less, while a few who worked for larger employers acknowledged that they were not aware of the cost. Several clinicians noted that it costs less than in-person visits because the visits are shorter and you

can see a higher volume of telehealth patients, which both offsets cost and increases payment. A few other clinicians noted that it costs less because their medical assistant and front office staff are not involved in the process, noting that these staff are happy that it saves them time in their day.

Among the clinicians who were familiar with payment for telehealth visits, several noted that commercial and Medicare Advantage payers generally paid less for telehealth visits than FFS Medicare. Multiple clinicians noted that their organization's leadership was encouraging them to schedule more in-person visits because commercial payers tend to reimburse telehealth—in particular, audio-only visits—at lower rates. However, a few clinicians reported that in some cases commercial payers actually paid higher rates than Medicare.

Beneficiaries and clinicians report continued use of audio-only visits

About 40 percent of clinicians participating in the focus groups were offering audio-only visits (compared with over three-fourths of participants offering telehealth with both audio and video). Clinicians offering audio-only visits reported that these visits sometimes resulted from video visits that were disrupted by technology issues or were offered to patients who lacked the ability or the necessary technology for a video visit. Clinicians often reported using telephone visits for services such as routine check-ups and follow-up consultations. Additionally, clinicians and beneficiaries reported using audio-only visits for medication refills and review of lab results.

Some clinicians reported billing for these audio visits. Several noted that they had previously offered these kinds of phone calls (e.g., delivering lab results) but had never billed for them (including early in the PHE).

Many beneficiaries and clinicians would like to continue the option of telehealth visits

Across focus groups, clinicians agreed that telehealth will likely remain a permanent fixture of the health care landscape. Most participants planned to continue offering audio and video telehealth visits after the PHE. A few clinicians explained that their decision to continue offering telehealth was motivated by the fact that it increases access to care, reduces burden

for certain patients, and is highly favored among their patients. A few clinicians said that they would continue to offer telehealth to a select group of patients, weighing issues such as patient access and whether they could provide high-quality care virtually.

In our 2022 survey, about 40 percent of beneficiaries who had had a telehealth visit in the past year said they would be interested in continuing to use telehealth after the pandemic ends (equivalent to 14 percent of all beneficiaries). Among focus group participants, most beneficiaries said they would like to continue having the option to use telehealth, though many noted that it would depend on the purpose of the visit, with some issues better addressed through an in-person visit.

Relationship between expanded telehealth coverage and quality, access, and cost during the coronavirus pandemic

The Congress mandated that the Commission's report include analysis of the implications of expanded Medicare coverage of telehealth services on beneficiary access to care and quality. As part of this analysis, we reviewed and summarized the literature on telehealth and quality that was published during the PHE. We found that the body of literature has grown since the onset of the PHE but is still small, and many of the studies have methodological and data issues.

We used population-based measures to describe the association between telehealth use and outcomes when both telehealth and in-person visits are available to FFS Medicare beneficiaries. A major limitation of our study is that the time period we used overlaps with surges in COVID-19 cases, which could itself influence the use of telehealth and the outcomes we measure. As a result, we cannot make any causal interpretations of our findings; however, the findings indicate that during the pandemic, telehealth was associated with little change in measured quality, slightly improved access to care for some beneficiaries, and slightly increased costs to the Medicare program.

More work needs to be done using more recent data so that the interruption of care and other effects of the pandemic do not confound results. As we discussed in

our March 2021 report to the Congress, policymakers should continue to monitor the impact of telehealth on access, quality, and cost and should use this evidence to inform any additional permanent changes to policy.

Recent literature related to telehealth and quality of care

Before the PHE, coverage for telehealth in Medicare was limited to certain services and areas, so pre-pandemic literature and data are of limited use in understanding the impact of broad access to telehealth. During the PHE, the body of literature examining the relationship between telehealth and quality of care grew but remains small. One limitation of the literature published during the PHE is that the outcomes were themselves influenced by the coronavirus pandemic. Further, the peer-reviewed literature published recently generally consists of observational studies conducted using data from a single health care system or health plan; these data are limited by potential bias, and the results may not be generalizable to the whole Medicare population. In the paragraphs below, we summarize some of the studies published during the PHE.

One study of primary care practices across Michigan using data from 2019 and 2020 found that high-telehealth-use practices were associated with a higher rate of risk-adjusted ambulatory care-sensitive (ACS) visits (hospitalizations and emergency department (ED) visits) compared with low-telehealth use practices (Li et al. 2022). Another study using data from a large health care system concluded that patients who had a telehealth follow-up visit with a primary care provider after an ED visit were more likely to return to the ED than those who had an in-person follow-up visit, even after controlling for acuity, comorbidities, and sociodemographic factors (Shah et al. 2022). A study using data from over 40 million commercially insured adults found that patients with an initial telehealth encounter for new acute conditions, compared with an in-person encounter, had greater likelihood of any follow-up encounter, an emergency department encounter, and inpatient admission. The opposite was true for patients with an initial telehealth encounter for chronic conditions (Hatef et al. 2022).

A recent study using data from an integrated health system concluded that telehealth exposure was associated with favorable quality of primary care;

Study design: Using population-based measures to assess the relationship between Medicare's telehealth expansion and quality, access, and cost during the coronavirus pandemic

Working with a team of health economists from the American Institutes for Research (AIR), we used population-based measures to determine the association between telehealth use and outcomes when both telehealth and in-person visits are available to FFS Medicare beneficiaries (Saharkhiz et al. 2023). We compared outcomes from the second half of 2021 (during telehealth expansion) with those from the second half of 2019 (before telehealth expansion). The second half of 2021 was selected because it was the most recent data available at the time of our study. We used hospital service areas (HSAs) as defined by the Dartmouth Atlas of Health Care to represent health care markets.²⁷ To measure an HSA's telehealth intensity, we ranked HSAs based on the number of telehealth services per 1,000 beneficiaries used in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level (comparison group) and the top third of HSAs to the high-telehealth-intensity level (intervention group).²⁸

Our analysis examined changes across time and HSA level of telehealth intensity for four population-based measures of quality of care (two measures), access, and cost:

- **Quality:** We measured quality of care using two measures: risk-adjusted ambulatory care-sensitive (ACS) hospitalizations and emergency department (ED) visits per 1,000 fee-for-service (FFS) beneficiaries. Conceptually, an ACS hospitalization or ED visit refers to hospital use that could potentially have been prevented with timely, appropriate, high-quality ambulatory care. For example, if a diabetic patient's primary care

physician and specialists effectively control the condition and they have a system to allow urgent visits, the patient may be able to avoid a visit to the ED for a diabetic crisis. These measures include hospital use for both chronic (e.g., diabetes, asthma, hypertension) and acute (e.g., bacterial pneumonia, cellulitis) conditions. For these measures, lower rates denote better quality of care. But lack of access can make rates lower than they would otherwise be in an equal access environment.

- **Access:** We measured access to care by using the number of clinician encounters per FFS beneficiary. Encounters are a direct measure of entry into the health care system. We define encounters as unique combinations of beneficiary identification numbers, claim identification numbers (for paid claims), and national provider identifiers of the clinicians who billed for the service. We use the number of FFS Medicare beneficiaries enrolled in Part A and Part B to define encounters per beneficiary. Claims for services provided at rural health clinics and federally qualified health centers are not included as encounters in this measure.
- **Cost:** We calculated the total cost of care for Part A and Part B services per FFS beneficiary, which includes Medicare program payments, beneficiary cost sharing, and primary payer payments (Chronic Condition Warehouse 2022). The measure includes the following service types: hospital inpatient, hospital outpatient, skilled nursing facility, home health, hospice, physicians, and durable medical equipment.

(continued next page)

however, limitations of this study hinder our ability to draw any conclusions from the findings (Baughman et al. 2022). The study compared the results of clinical process measures between a group of patients who had at least one telehealth visit from March 2020 to November 2021 and a group of patients who had no telehealth visits (only office visits) during that time.

This study asserted that for testing-based measures (cardiovascular disease with lipid panel, diabetes with hemoglobin A1c, and nephropathy testing) and counseling-based measures (blood pressure control; cervical, breast, and colon cancer screening; tobacco screening; vaccination compliance; and depression screening), the telemedicine-exposed group exhibited

Study design: Using population-based measures to assess the relationship between Medicare's telehealth expansion and quality, access, and cost during the coronavirus pandemic (cont.)

Ideally, we could estimate what effect greater telehealth use in market areas had on quality, access, and cost outcomes. However, assessing a causal relationship between telehealth and outcomes is complicated by the presence of the COVID-19 pandemic and differences across areas in the impact of COVID-19 and non-COVID factors. Simply looking at the differences in outcomes before and after telehealth expansion does not account for changes in other factors that influence the outcomes over time. Likewise, looking at differences in the outcomes between the groups during the intervention period does not account for existing baseline differences. Thus, we apply a difference-in-differences (DID) framework, which measures the difference in an average outcome in the high-telehealth-intensity HSAs (intervention group) between the second half of 2019 and the second half of 2021 (before and after intervention) minus the average change in that outcome for low-telehealth-intensity HSAs (comparison group) during the same period. DID approaches are frequently used to measure associations between interventions and outcomes.

The DID approach already controls for any baseline differences in outcome levels between the two groups and for any factors that remain constant over time that affect outcomes at the HSA level (e.g., HSA urbanicity). However, factors that affect both the outcomes and telehealth use, and that can change between the baseline and intervention period, could confound the association between telehealth and outcomes. Therefore, we also performed DID with several covariates (DID with controls). In general,

we controlled for variables that were found in the literature and descriptive analysis to correlate with both the outcome variables and telehealth intensity and that varied over time between the baseline and treatment periods (see text, pp. 338–339, on differences between low- and high-telehealth-intensity HSAs, which informed some covariate selection). The covariates we used included the share of beneficiaries across age ranges, the share of FFS beneficiaries eligible for Medicaid and Medicare, and FFS beneficiaries' average hierarchical condition category scores, as well as the share of FFS beneficiaries, the share of FFS beneficiaries attributed to alternative payment models, and new and cumulative COVID-19 cases per 10,000 people.²⁹

We checked whether the outcomes for the low- and high-telehealth-intensity HSAs moved in parallel (i.e., had similar patterns) by examining whether there was a statistically significant difference in outcomes between the low- and high-telehealth-intensity groups, incorporating outcome values from 2018 and 2019 (before the 2020 telehealth expansions). For the DID with a set of controls, the formal parallel trends assumption passed for two of the four measures (ACS ED visits per 1,000 beneficiaries and total cost of care per beneficiary). For the other two measures, the team from AIR concluded that the violations of the parallel trends assumption detected by the formal tests are primarily driven by the small magnitude of the differences. Future analysis will allow us to use other time periods, which may improve parallel trends test results. ■

moderately better performance. Defining telehealth exposure as having at least one telehealth visit in a 20-month period is a weak measure of telehealth use since a telehealth visit could have been for any reason and not tied to these preventive or chronic care management services. Additionally, the study did not control the number of visits between office-only and telehealth-exposed groups.

Using population-based measures to assess the relationship between Medicare's telehealth expansion and quality, access, and costs during the coronavirus pandemic

Our ability to assess the impact of telehealth on quality, access, and costs is limited by several factors. Medicare lacks comprehensive data sources like laboratory results and patient-reported outcomes, which limits

the quality measures, in particular measures tied to clinical outcomes, that we can study. We can use administrative claims data to calculate some measures; however, there is a time lag in the availability of that data. The latest complete claims data available during the time period of the mandated report are from calendar year 2021. The second half of 2021 overlapped with the surge in cases due to the Delta variant of COVID-19, which peaked in early September 2021, and the beginning of the surge in cases due to the Omicron variant, which began in December 2021. In addition, the PHE continued to influence patient behavior in 2021 through delayed medical care.

Acknowledging these limitations, we worked with a team of health economists from the American Institutes for Research (AIR) to use population-based measures to determine the association between telehealth use and outcomes when both telehealth and in-person visits are available to FFS Medicare beneficiaries (Saharkhiz et al. 2023). (See text box, pp. 334–345, on the study design.) We compared outcomes from the second half of 2021 (during telehealth expansion) with those from the second half of 2019 (before telehealth expansion) for hospital service areas (HSAs) with low telehealth intensity (comparison group) and for those with high telehealth intensity (intervention group). Our analysis examined changes across time and HSA level of telehealth intensity for four population-based measures: risk-adjusted ACS hospitalizations and ED visits per 1,000 FFS beneficiaries, the number of clinician encounters per FFS beneficiary, and the total cost of care for Part A and Part B services per FFS beneficiary. We applied a difference-in-differences (DID) framework, which measures the difference in an average outcome in the high-telehealth-intensity HSAs (intervention group) between the second half of 2019 and the second half of 2021 (before and after intervention) minus the average change in that outcome for low-telehealth-intensity HSAs (comparison group) during the same period. We applied this approach with and without controlling for several variables that were found in the literature and descriptive analysis to correlate with both the outcome variables and telehealth intensity, including HSAs' share of beneficiaries of different age ranges and share of beneficiaries dually eligible for Medicare and Medicaid, and average beneficiary hierarchical

condition category scores (see text box on differences between low- and high-telehealth-intensity hospital service areas, pp. 338–339).

Changes in outcome measures during the coronavirus pandemic

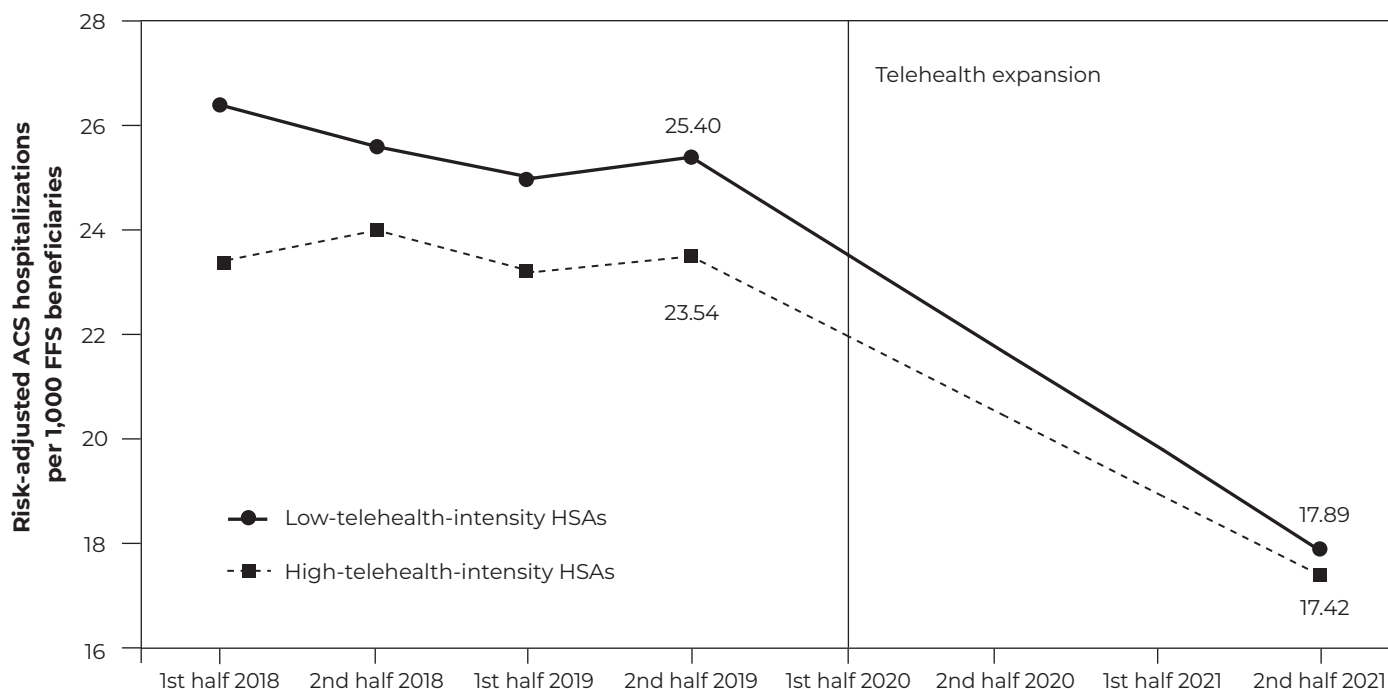
We used a DID framework to examine whether changes in four outcome measures across baseline and treatment periods were associated with high-telehealth-intensity HSAs (compared with low-telehealth-intensity HSAs). We found that risk-adjusted rates of ACS hospitalizations were lower in the second half of 2021 for both HSA groups, but the rate decreased more slowly, on average, among HSAs with a high level of telehealth use compared with HSAs with relatively low telehealth use. Risk-adjusted rates of ACS emergency department visits were lower during the treatment period than the baseline period for both groups of HSAs, with no association between telehealth intensity and ED visit rates. We also found that total clinician encounters per beneficiary were lower in the second half of 2021 than in the second half of 2019, though the rate decreased more slowly, on average, among high-telehealth-intensity HSAs. Total cost of care per beneficiary increased in 2021 compared with 2019 across all HSAs but increased more in high-telehealth-intensity HSAs.

Given the higher urbanicity of the high-telehealth-intensity HSAs, we conducted sensitivity analyses to analyze the extent to which the differences in outcomes we described above were due to differences in urbanicity levels rather than due to differences in telehealth usage. We found that differences for a subsample of only urban HSAs followed the same general pattern in magnitude and statistical significance as the full sample, which could suggest that the association between telehealth intensity and outcomes was not related to different levels of urbanicity between the low- and high-telehealth-intensity HSA groups.

Quality On the one hand, one might posit that the higher telehealth intensity of some HSAs could be associated with improved ACS hospital use (that is, lower rates of both hospitalizations and ED visits) because beneficiaries had more access to timely and appropriate clinician care to treat and manage some acute and chronic conditions. On the other hand,

**FIGURE
7-7**

Rates of risk-adjusted ACS hospitalizations per 1,000 FFS beneficiaries across low- and high-telehealth-intensity HSAs



Note: ACS (ambulatory care-sensitive), FFS (fee-for-service), HSA (hospital service area). We calculated the risk-adjusted rates of hospitalizations tied to a set of acute and chronic conditions per 1,000 FFS Medicare beneficiaries in each HSA. There are about 3,400 Dartmouth-defined HSAs nationally. We created two levels of telehealth intensity by ranking HSAs based on the number of telehealth services per 1,000 FFS beneficiaries in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. The figure shows trends from the second half of 2019 (before telehealth expansion) to the second half of 2021 (during the telehealth expansion). Other 2018 and 2019 time periods are included to show additional data points. Data for 2020 and the first half of 2021 results are omitted.

Source: Analysis of FFS Medicare claims data.

telehealth visits may not be an adequate substitute for in-person care, which can lead to greater downstream demand for acute and chronic care hospital use (higher rates). (ACS hospital use rates are also affected by changes in access that do not pertain to telehealth.)

Risk-adjusted ACS hospitalization rates were higher in low-telehealth-intensity HSAs compared with high-telehealth-intensity HSAs during both the baseline and intervention periods (Figure 7-7). Risk-adjusted rates of ACS hospitalizations were lower for both HSA groups during the intervention period but decreased at a slower rate, on average, among high-telehealth-intensity HSAs. Between the second half

of 2019 and the second half of 2021, the risk-adjusted ACS hospitalization rate for low-telehealth-intensity HSAs fell by 7.51 ACS hospitalizations per 1,000 beneficiaries (25.40 to 17.89). By comparison, the rates for HSAs with high telehealth intensity fell by 6.12 ACS hospitalizations per 1,000 beneficiaries (23.54 to 17.42). The DID estimate (or difference between these two differences) is 1.39 ACS hospitalizations per 1,000 beneficiaries (-6.12 minus -7.51), meaning that ACS hospitalization rates dropped by 1.39 fewer ACS hospitalizations per 1,000 beneficiaries in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs.³⁰ After controlling for factors that may have changed across the

Differences between low- and high-telehealth-intensity hospital service areas

In the second half of 2019, low-telehealth-intensity hospital service areas (HSAs) had an average of 28 telehealth visits per 1,000 beneficiaries (note that telehealth-intensity groups were defined by 2021 use) (Table 7-7).³¹ This figure was slightly higher than that of the high-telehealth-intensity HSAs, with an average of 23 telehealth visits per 1,000 beneficiaries. Telehealth increased dramatically in both groups in the second half of 2021; however, average telehealth intensity in the high-telehealth-intensity HSAs was almost four times the average in the low-telehealth-intensity HSAs. Telehealth visits per 1,000 fee-for-service (FFS) Medicare beneficiaries averaged 174 in low-telehealth-intensity HSAs and 679 in high-telehealth-intensity HSAs.

Our comparison of various characteristics between the low- and high-telehealth-intensity HSAs found a number of differences across the groups (Table 7-8). (These findings are generally consistent with the telehealth use analysis presented earlier in the chapter.) The low- and high-telehealth-intensity HSAs were similar in terms of average age and sex of beneficiaries. The high-telehealth-intensity HSAs were more diverse in regard to the race/ethnicity of beneficiaries and included a larger share of beneficiaries who were eligible for Medicaid. There were substantial differences between the two groups in terms of the share of FFS Medicare beneficiaries living in urban areas (24 percent and 77 percent for the low and high groups, respectively).

(continued next page)

**TABLE
7-7**

In the second half of 2021, high-telehealth-intensity HSAs had an average number of telehealth visits that was almost four times as high as low-telehealth-intensity HSAs

Telehealth-intensity group (based on 2021 use)	Average telehealth visits per 1,000 FFS beneficiaries	
	2nd half of 2019	2nd half of 2021
Low-telehealth-intensity HSAs	28	174
High-telehealth-intensity HSAs	23	679

Note: HSA (hospital service area), FFS (fee-for-service). We created two levels of telehealth intensity by ranking HSAs based on the number of telehealth services per 1,000 beneficiaries in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. There are about 3,400 Dartmouth-defined HSAs nationally.

Source: Analysis of FFS Medicare claims data.

periods or affected ACS hospitalization rates and telehealth use, we estimate the DID to be 1.63.³² That is, risk-adjusted ACS hospitalization rates per 1,000 beneficiaries dropped by 1.63 more hospitalizations in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs. The interpretation is that the rate of ACS hospitalizations fell in both groups

of HSAs but at a slower rate, on average, in high-telehealth-intensity HSAs.

DID estimates can represent a causal relationship if the intervention is the only change that occurs between the baseline and intervention period (or all other

Differences between low- and high-telehealth-intensity hospital service areas (cont.)

The low-telehealth-intensity HSAs had more hospital beds but fewer primary care physicians per 10,000 people than the high-telehealth-intensity HSAs. On average, the low-telehealth-intensity HSAs had

37 hospital beds per 10,000 people, while the high-telehealth-intensity HSAs had 26. On average, the low group had 11 primary care physicians per 10,000 people, compared with 15 in the high group. ■

**TABLE
7-8**

High-telehealth-intensity HSAs had a much larger share of beneficiaries living in urban areas

HSA characteristics	Average telehealth visits per 1,000 FFS beneficiaries	
	Low-telehealth-intensity HSAs	High-telehealth-intensity HSAs
Average beneficiary age	71	71
Share:		
Female	54%	55%
Non-Hispanic White	88	78
Black	5	7
Hispanic	2	8
Asian/Pacific Islander	<1	4
With full Medicaid eligibility for 6 months	11	15
With partial Medicaid eligibility for 6 months	5	4
Attributed to an APM for at least one month	33	37
Living in urban areas	24	77
Average ADI	73	45
Hospital beds per 10,000 persons	37	26
Primary care physicians per 10,000 persons	11	15

Note: HSA (hospital service area), FFS (fee-for-service), APM (alternative payment model), ADI (area deprivation index). We created two levels of telehealth intensity by ranking HSAs based on the number of telehealth services per 1,000 beneficiaries in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. There are about 3,400 Dartmouth-defined HSAs nationally. All statistics are an average of the HSAs in that telehealth-intensity level and pertain to the second half of 2019. The ADI ranks neighborhood socioeconomic disadvantages using U.S. Census data (1 to 100, with 100 being the most deprived).

Source: Analysis of FFS Medicare claims data.

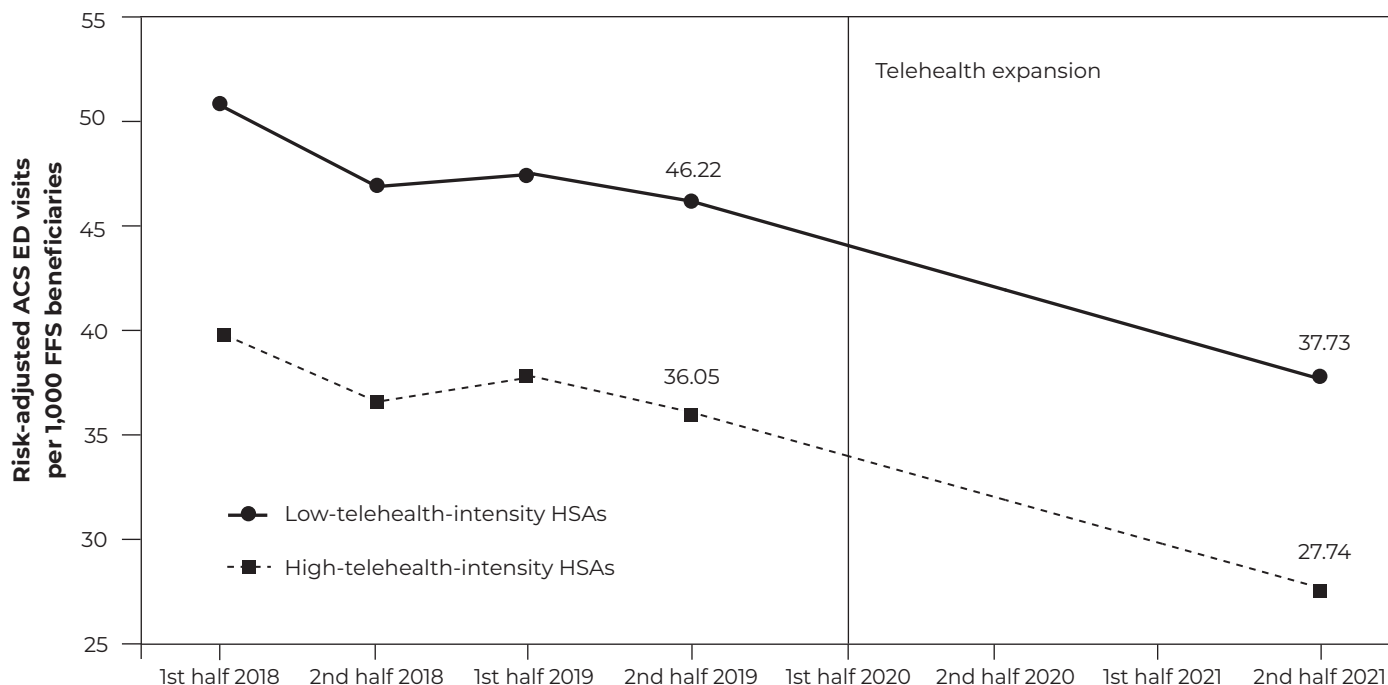
changes are fully accounted for). However, although we controlled for COVID-19 prevalence and incidence, we know that COVID-19 had widespread impacts that could have affected outcomes in ways we have not fully accounted for. There could be other time-varying changes that affect our analysis. We therefore cannot

interpret our findings as causal inferences. More work can be done in the future using more periods of study, along with other refinements, which could improve our ability to interpret any results as causal.

The second population-based measure of quality we analyzed was rate of risk-adjusted ACS ED visits per

**FIGURE
7-8**

Rates of risk-adjusted ACS ED per 1,000 FFS beneficiaries across low- and high-telehealth-intensity HSAs



Note: ACS (ambulatory care-sensitive), ED (emergency department), FFS (fee-for-service), HSA (hospital service area). We calculated the risk-adjusted rates of ED visits tied to a set of acute and chronic conditions per 1,000 FFS Medicare beneficiaries in each HSA. There are about 3,400 Dartmouth-defined HSAs nationally. We created two levels of telehealth use intensity by ranking HSAs based on the number of telehealth services per 1,000 FFS beneficiaries in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. The figure shows trends from the second half of 2019 (before telehealth expansion) to the second half of 2021 (during the telehealth expansion). Other 2018 and 2019 time periods are included to show additional data points. Data from 2020 and the first half of 2021 are omitted.

Source: Analysis of FFS Medicare claims data.

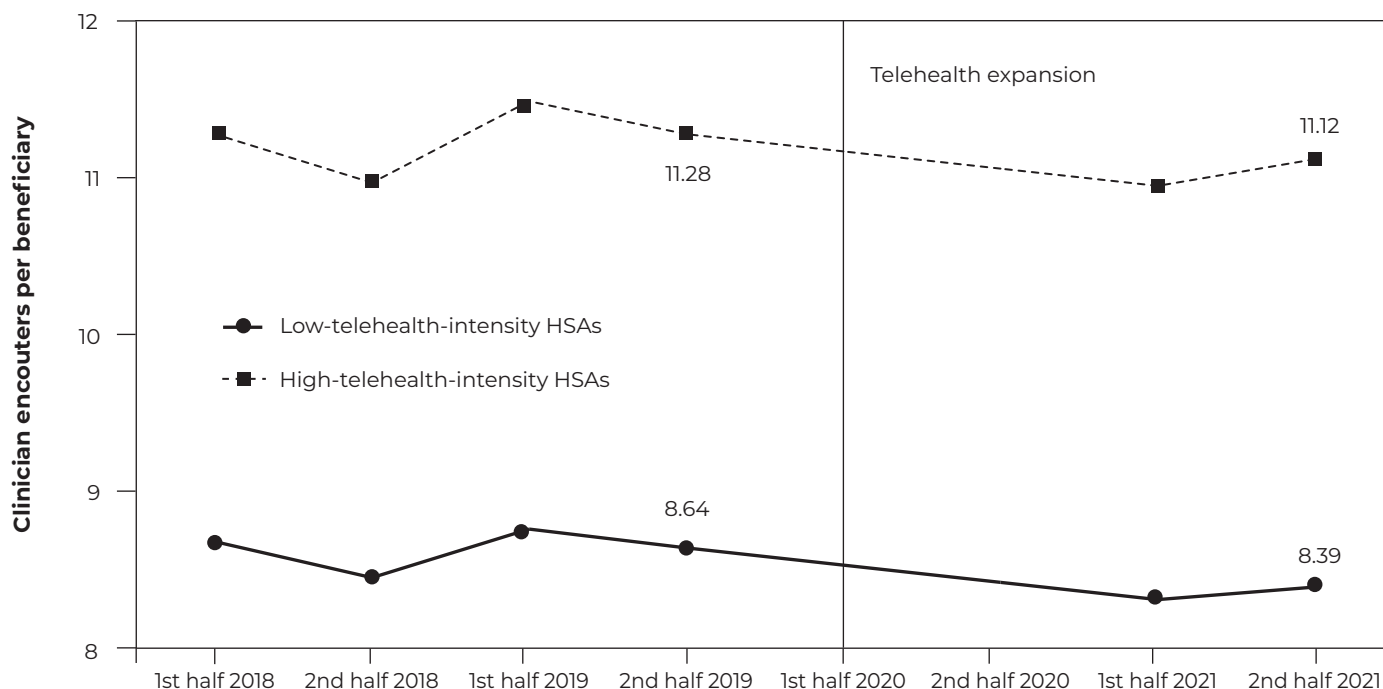
1,000 FFS beneficiaries. Risk-adjusted ACS ED visit rates were higher in low-telehealth-intensity HSAs compared with high-telehealth-intensity HSAs during both the baseline and intervention periods (Figure 7-8). Risk-adjusted rates of ACS ED visits decreased over time for both HSA groups at about the same rate. Between the second half of 2019 and second half of 2021, the risk-adjusted ACS ED visit rate for low-telehealth-intensity HSAs fell by 8.49 visits per 1,000 beneficiaries (46.22 to 37.73). In comparison, the rates for high-telehealth-intensity HSAs dropped by 8.31 visits per 1,000 beneficiaries (36.05 to 27.74). The DID estimate (or difference between these two differences)

is 0.18 ACS ED visit per 1,000 beneficiaries (-8.31 minus -8.49), meaning that ACS ED visit rates fell by 0.18 fewer in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs; however, the DID estimate is not statistically significant. The DID estimate when controlling for other factors decreased to 0.10 ACS ED visits and remained statistically insignificant. Thus, we did not find evidence of a significant association between telehealth intensity and rates of ACS ED visits.

Access The higher telehealth intensity for some HSAs could be associated with increased total clinician encounters per beneficiary since telehealth expansions improved beneficiary access to clinicians for reasons

FIGURE 7-9

Total clinician encounters per beneficiary across low- and high-telehealth-intensity HSAs



Note: HSA (hospital service area). We define “encounters” as unique combinations of beneficiary identification numbers, claim identification numbers (for paid claims), and national provider identifiers of the clinicians who billed for the service. We use the number of fee-for-service (FFS) Medicare beneficiaries enrolled in Part B to define encounters per beneficiary. There are about 3,400 Dartmouth-defined HSAs nationally. We created two levels of telehealth use intensity by ranking HSAs based on the number of telehealth services per 1,000 FFS beneficiaries in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. The figure shows trends from the second half of 2019 (before telehealth expansion) to the second half of 2021 (during the telehealth expansion). Other 2018 and 2019 time periods are included to show additional data points. Data from 2020 and the first half of 2021 are omitted.

Source: Analysis of FFS Medicare claims data.

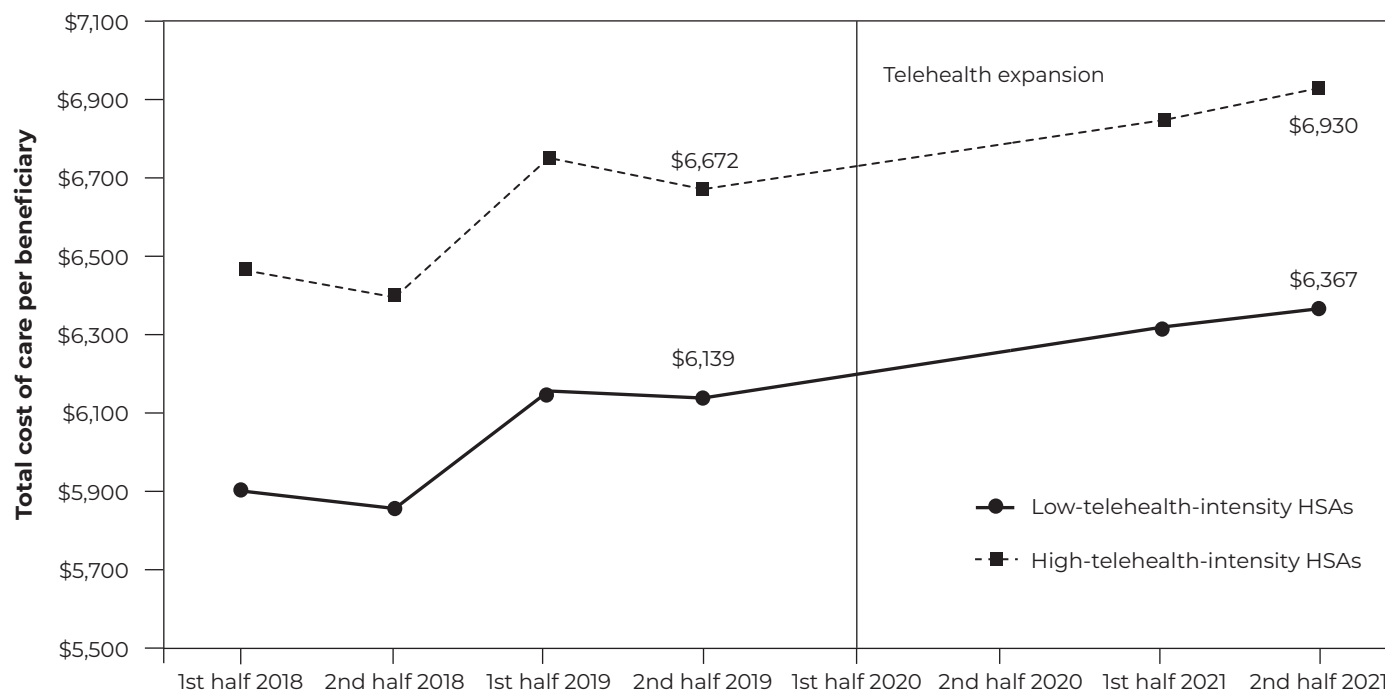
related to increased convenience and not having to leave home if feeling ill. High telehealth intensity may have also decreased “no show” rates for planned clinician visits, resulting in an increase in total clinician encounters per beneficiary.

Total clinician encounters per beneficiary were higher in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs during both the baseline and intervention periods (Figure 7-9). Total clinician encounters per beneficiary were lower in the second half of 2021 than in the second half of 2019 for both HSA groups, though the rate decreased more slowly, on average, among high-telehealth-intensity HSAs.

Between the second half of 2019 and the second half of 2021, the rate of total clinician encounters per beneficiary in low-telehealth-intensity HSAs fell by 0.25 encounters (from 8.64 to 8.39 clinician encounters). However, the rates for high-telehealth-intensity HSAs dropped by 0.16 encounters (11.28 to 11.12). The DID estimate (or difference between these two differences) is 0.10 total encounters per clinician (-0.25 clinician encounters minus -0.16), meaning that rates of total clinician encounters fell by 0.10 encounters fewer in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs.^{33,34} After controlling for factors that may have changed across the periods or affected total clinician encounter rates and telehealth

FIGURE 7-10

Total cost of care per beneficiary across low- and high-telehealth-intensity HSAs



Note: HSA (hospital service area). We define “encounters” as unique combinations of beneficiary identification numbers, claim identification numbers (for paid claims), and national provider identifiers of the clinicians who billed for the service. We use the number of fee-for-service (FFS) Medicare beneficiaries enrolled in Part B to define encounters per beneficiary. There are about 3,400 Dartmouth-defined HSAs nationally. We created two levels of telehealth-use intensity by ranking HSAs based on the number of telehealth services per 1,000 FFS beneficiaries in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. The figure shows trends from the second half of 2019 (before telehealth expansion) to the second half of 2021 (during the telehealth expansion). Other 2018 and 2019 time periods are included to show additional data points. Data from 2020 and the first half of 2021 are omitted.

Source: Analysis of FFS Medicare claims data.

use, we estimate the DID to be 0.30.³⁵ That is, total clinician encounters fell by 0.30 less in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs. Thus the rate of total clinician encounters per beneficiary fell in both HSA groups but decreased more slowly, on average, among high-telehealth-intensity HSAs.

Cost Some have argued that higher-telehealth-intensity HSAs could be associated with higher total costs due to additional spending on telehealth clinician encounters without offsetting reductions in in-person encounters or other health care utilization. Alternatively, some stakeholders assert that higher-telehealth-intensity HSAs could be associated with

lower total costs per beneficiary if the higher costs for telehealth clinician services was offset (or more than offset) by lowering downstream services, such as inpatient hospitalizations.

We found that total cost of care per beneficiary was higher in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs during both the baseline and intervention periods (Figure 7-10). Total cost of care per beneficiary was higher in 2021 than in 2019 across all HSAs, but the difference between the baseline and treatment periods was greater in high-telehealth-intensity HSAs than in low-telehealth-intensity HSAs. Between the second half of 2019 and the second half of 2021, total cost of care per

**TABLE
7-9**

Difference-in-differences estimates were relatively similar when splitting the sample into urban and rural HSAs

DID impact estimates

Outcome	Full sample	Urban subsample	Rural subsample
Risk-adjusted ACS hospitalizations per 1,000 beneficiaries	1.63**	1.30**	0.92
Risk-adjusted ACS ED visits per 1,000 beneficiaries	0.10	-0.08	-1.0
Total clinician encounters per FFS beneficiary	0.30**	0.36**	0.19*
Total cost of care per FFS beneficiary	\$165**	\$212**	\$2

Note: HSA (hospital service area), DID (difference-in-differences), ACS (ambulatory care-sensitive), ED (emergency department), FFS (fee-for-service). The DID model includes controls for factors that could change across the time periods and affect the outcomes and telehealth use (e.g., changes in average hierarchical condition category risk scores). We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. There are about 3,400 Dartmouth-defined HSAs nationally.
 *Denotes significance at the 5 percent level.
 **Denotes statistical significance at the 1 percent level.

Source: Analysis of Medicare claims data for 100 percent of FFS beneficiaries.

beneficiary in low-telehealth-intensity HSAs increased by \$228 (from \$6,139 to \$6,367). However, the total cost of care per beneficiary for high-telehealth-intensity HSAs increased by \$258 (from \$6,672 to \$6,930). The DID estimate (or difference between these two differences) is \$30 (\$258 minus \$228), meaning that rates of total spending per beneficiary increased by \$30 more in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs. However, the DID estimate is not statistically significant. After controlling for factors that may have changed across the periods or affected total spending per beneficiary and telehealth use, the DID estimate rose to \$165 and was statistically significant.³⁶ The covariates capturing average risk scores and the rate of cumulative and new COVID-19 cases explain this difference. The higher costs in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs is consistent with our findings that the high-telehealth-intensity HSAs had slower declines in ACS hospitalization rates and total clinician encounters per beneficiary.³⁷

Sensitivity analysis: Splitting the sample into urban and rural HSAs One of the biggest differences between our low- and high-telehealth-intensity groups was in the level of urbanicity. The average percentage of beneficiaries living in an urban area was 24 percent for

the low-telehealth-intensity HSAs and 77 percent for the high-telehealth-intensity HSAs.

Given the higher urbanicity of the high-telehealth-intensity HSAs, we conducted a sensitivity analysis to test the extent to which the differences in outcomes we describe above were due to differences in urbanicity levels rather than differences in telehealth usage. We separated HSAs into equally sized urban and rural subsamples and repeated the DID analysis for all four outcomes for urban and rural areas separately (i.e., calculating the difference in differences for changes in high-telehealth-intensity HSAs relative to low-telehealth-intensity HSAs for the urban and rural subsamples). Differences in magnitude and statistical significance between the DID estimates for the subsamples and the full sample would be due to differences in urbanicity and not telehealth intensity.

However, we found that the DID estimates for the urban subsample followed the same general pattern in magnitude and statistical significance as the full sample, which suggests that the association between telehealth intensity and outcomes was not caused by different levels of urbanicity between the low- and high-telehealth-intensity HSA groups (Table 7-9). For example, for the risk-adjusted rate of ACS

hospitalizations per 1,000 beneficiaries measure, the estimate of the DID with controls for the urban sample was 1.30 compared with 1.63 for the full sample (both were statistically significant at 1 percent). That is, for the full sample of HSAs, the risk-adjusted ACS hospitalization rate per 1,000 beneficiaries dropped by 1.63 less in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs. This rate is comparable with the urban subsample, in which the risk-adjusted ACS hospitalization rate per 1,000 beneficiaries dropped by 1.30 less in high-telehealth-intensity HSAs compared with low-telehealth-intensity HSAs. The interpretation for both the full sample and urban subsample DID estimates is that the rate of ACS hospitalizations fell across all HSAs but at a slower rate, on average, among high-telehealth-intensity HSAs, meaning that higher telehealth intensity was not associated with improved ACS hospitalizations.

We found notable differences in the DID impact estimates between the full sample of HSAs and the subsample of rural HSAs. For example, under the risk-adjusted rate of ACS hospitalizations per 1,000 beneficiaries measure, the DID with controls estimate for the rural sample was 0.92 (not statistically significant) compared with 1.63 for the full sample (statistically significant at 1 percent). The differences in the impact estimates between the rural HSA subsample and the full sample of HSAs (and urban HSA subsample) is at least partly because the number of rural high-telehealth-intensity HSAs was small. Therefore, the comparison between rural low-telehealth-intensity HSAs and rural high-telehealth-intensity HSAs was likely less precise. More fully exploring the association between telehealth intensity and outcomes in rural areas could be an avenue for future research. The overall associations we report are driven by the association we observe in urban areas.

Discussion

Our findings must be considered in the context of the extensive effects of the coronavirus pandemic. Between the second half of 2019 and the second half of 2021, risk-adjusted ACS hospitalization rates dropped 32 percent and ACS ED visits dropped 26 percent across all HSAs. These declines are directly related to the coronavirus pandemic, which disrupted the health care system and fundamentally altered the behavior of the population, the way individuals

access the health care system, and their likelihood of acquiring ACS conditions. While these trends were observed at the national level, differences in the timing and implementation of local regulations on masking, school closures, screening for illnesses, vaccine uptake, and local transmission of other viruses could all have affected the degree and timing of these phenomena across communities. Further, different geographic areas have health care systems with different degrees of resilience and different abilities to rebound from the pandemic. All these factors suggest that by the second half of 2021, different geographic areas were at very different points in terms of their recovery from the pandemic in ways that directly affected our outcomes.

Our findings are also likely to be correlated with the level of telehealth intensity. For example, health systems that had enhanced telehealth capabilities already in place may also have been more likely to adapt to pandemic restrictions and challenges relatively quickly (Whaley et al. 2022). In addition, the timing of the COVID-19 case surges, implementation of and compliance with mask and social-distancing mandates, and the speed of health care system responses across HSAs, among other things, very likely had an impact on both an area's telehealth intensity and outcomes such as ACS hospitalizations and clinician encounters.

Though the underlying data of our study are confounded by COVID-19, our findings suggest the possibility that during the pandemic, telehealth use was associated with little change in measured quality, slightly improved access to care for some beneficiaries, and slightly increased costs to the Medicare program. More work needs to be done using more recent data so that the interruption of care and other effects of the pandemic do not confound results. As we discussed in our March 2021 report to the Congress, policymakers should continue to monitor the impact of telehealth on access, quality, and cost and should use this evidence to inform any additional permanent changes to policy.

Although our analysis may be affected by unmeasured time-varying factors that were occurring during the period we studied, the associations we report were consistent across multiple sensitivity analyses (more information on the additional sensitivity analyses is included in the AIR report on the Commission's website at <http://www.medpac.gov>). Future work

could include updating the analysis using more recent claims data (i.e., 2022). More measures could also be included in future analysis, such as clinical process and intermediate outcome measures that can be calculated using claims data (e.g., diabetic A1c screening, breast cancer screening, medication adherence).

Future analysis could also consider the impact of telehealth use on subpopulations of beneficiaries (e.g., beneficiaries residing in rural compared with urban areas, beneficiaries receiving telehealth for behavioral health care). ■

Endnotes

- 1 CMS initially expanded Medicare's telehealth services on a temporary and emergency basis under its Section 1135 waiver authority, as well as additional authority given by the Congress under the Coronavirus Preparedness and Response Supplemental Appropriations Act and the Coronavirus Aid, Relief, and Economic Security Act of 2020 (CARES Act).
- 2 The Consolidated Appropriations Act, 2023, extended the provisions allowing clinicians to provide telehealth services to Medicare beneficiaries outside of rural areas and in the beneficiary's home. The Act expanded the types of clinicians who can bill for telehealth services, allowed federally qualified health centers and rural health clinics to bill for telehealth services as the distant-site provider, and allowed Medicare to pay for certain audio-only services.
- 3 Although many providers across settings may deliver services via telehealth, Medicare does not always pay separately for each discrete service. For example, under the hospital inpatient prospective payment systems, hospitals have the flexibility to use telehealth services as needed, and payment for any telehealth services is included as a part of a fixed payment for each hospital stay.
- 4 Section 1834(m) of the Social Security Act specifies telehealth coverage under the PFS, including the permitted originating sites, authorized practitioners, and geographic restrictions to patients in rural areas. The law gives CMS the authority to make regulatory changes to telehealth policy that include adding, removing, or revising codes under the PFS. Section 1834(m) defines telehealth services as "professional consultations, office visits, and office psychiatry services" plus any other services specified by the Department of Health and Human Services.
- 5 A clinician was not required to be present at the originating site with the beneficiary unless it was medically necessary.
- 6 For example, Medicare pays for the cost of services provided in hospital outpatient departments through the hospital outpatient prospective payment system.
- 7 The FQHC PPS generally bundles all professional services furnished in a single day into one payment, with limited exceptions. The payment bundle covers professional services but excludes other services commonly furnished in conjunction with a visit, such as laboratory tests and technical components of imaging services.
- 8 This requirement does not apply to telehealth services used to treat substance use disorders or a co-occurring mental health disorder.
- 9 As with telehealth for mental health services paid for under the PFS, beginning on January 1, 2025, an in-person mental health service must be furnished within six months prior to furnishing telecommunications service, and in general, an in-person mental health service (without the use of telecommunications technology) must be provided at least every 12 months while the beneficiary is receiving services furnished via telecommunications technology for diagnosis, evaluation, or treatment of mental health disorders. However, exceptions to the in-person visit requirement may be made based on beneficiary circumstances.
- 10 During the PHE, Medicare paid the facility rate for a telehealth service if the service would have been provided in a facility setting in person and pays the nonfacility (office) rate had the service been provided in a nonfacility setting in person.
- 11 The Office of Inspector General (OIG) recommended that CMS collect information on DTC vendors by updating the Medicare provider enrollment application (e.g., CMS-855B) to identify telehealth companies that enroll in Medicare (Office of Inspector General 2022b). OIG also stated that CMS could work with the National Uniform Claim Committee to add a taxonomy code that identifies telehealth companies.
- 12 Beneficiaries' out-of-pocket spending may be particularly high when receiving services at RHCs. In addition to the Part B deductible, beneficiaries who use RHCs must pay coinsurance equal to 20 percent of the RHC's charges. By contrast, beneficiaries who use FQHCs pay no deductible and have coinsurance equal to the lesser of 20 percent of the FQHC's charges or Medicare's payment amount.
- 13 Prior to the PHE, most telehealth services generated two Medicare payments: (1) a payment to the originating site where the beneficiary was located (e.g., a clinician's office or hospital) and (2) a payment to the clinician at the distant site who provided the telehealth service.
- 14 Our measure of spending includes Medicare program spending and beneficiary cost sharing.
- 15 We measured volume as the number of services.
- 16 These payment rates are the national average rates.
- 17 To identify telehealth providers whose billing for telehealth services poses a high risk to Medicare, OIG developed seven measures based on analysis and input from OIG investigators: (1) billing telehealth services at the highest, most expensive

- level every time; (2) billing telehealth services for a high number of days in a year; (3) billing a high average number of hours of telehealth services per visit; (4) billing telehealth services for a high number of beneficiaries; (5) billing for a telehealth service and ordering medical equipment for a high proportion of beneficiaries; (6) billing both FFS Medicare and a Medicare Advantage plan for the same service for a high proportion of services; and (7) billing both a telehealth service and a facility fee for most visits.
- 18 In addition, in our June 2019 report to the Congress, the Commission recommended that the Congress require advanced practice registered nurses and physician assistants to bill the Medicare program directly, eliminating “incident to” billing for services they provide, whether in person or by telehealth.
 - 19 In addition to E&M office/outpatient services, these services include the following: home E&M visits, E&M visits to patients in certain non-inpatient hospital settings (nursing facility, domiciliary, rest home, and custodial care), telephone E&M services, chronic care management services, transitional care management services, Welcome to Medicare visits, annual wellness visits, e-visits, and advance care planning services.
 - 20 This analysis does not include FQHC, RHC, or critical access hospital (Method II) data. Including those data would increase the use of telehealth among rural beneficiaries since rural beneficiaries access more of their care in these settings. The Commission may explore this topic in the future.
 - 21 The denominator in this calculation is beneficiaries in each age group who received at least one telehealth service.
 - 22 This study used data from 2020 and the first three quarters of 2021.
 - 23 The diagnosis codes on claims are based on the International Classification of Diseases, Tenth Revision, Clinical Modification, which consists of more than 70,000 diagnosis codes. The Clinical Classifications Software Refined was developed by the Agency for Healthcare Research and Quality.
 - 24 Like the numbers presented in Table 7-5 (p. 329), these figures are among those clinicians who billed for at least one telehealth service in 2021.
 - 25 The survey and focus groups include beneficiaries enrolled in traditional Medicare and Medicare Advantage.
 - 26 According to our analysis of Medicare claims data from 2021, 29 percent of beneficiaries in traditional Medicare had a telehealth visit. Differences between these estimates are likely related to the type of data source (survey vs. claims data), the time frame (mid-2022 vs. 2021), and whether the estimate includes Medicare Advantage beneficiaries (the survey does but claims data do not).
 - 27 The Dartmouth Atlas of Health Care defines HSAs as local health care markets that satisfy most of the residents’ health care needs, including hospitalizations (Dartmouth Atlas Project 2022). There are about 3,400 HSAs in the country, and most contain only one hospital. Given the purpose behind their definition and the granularity that they allow, the HSA is the geographic level we chose for the calculation of the outcome measures. HSAs may differ in many observable and unobservable ways.
 - 28 The study included a medium-telehealth-intensity level, but for simplicity we present results focusing on differences between the low- and high-telehealth-intensity HSAs.
 - 29 The complete list of covariates used in our DID analyses includes (1) FFS Medicare beneficiaries as a share of the population; (2) shares of FFS beneficiaries under age 65, 65 to 74 years old, 75 to 84 years old, and ages 85 and older; (3) share of FFS beneficiaries who were male, female, or of unknown sex; (4) shares of FFS beneficiaries who were White, Black, Hispanic, Asian, or of other/unknown race; (5) share of FFS beneficiaries who were fully or partially eligible for Medicaid; (6) average hierarchical condition category risk scores and the average of squared risk scores for FFS Medicare beneficiaries; (7) share of FFS beneficiaries attributed to alternative payment models; (8) average area deprivation index for FFS Medicare beneficiaries; (9) population size; and (10) new and cumulative COVID-19 cases per 10,000 people. Certain variables, mainly HSA sex and racial/ethnic composition, showed very little variation between the two time periods, but we opted to control for them anyway; adding such variables does not bias our estimates because variables that are mostly constant over time do not have explanatory power in a DID model.
 - 30 The results were statistically significant at the 1 percent level.
 - 31 The greater telehealth use in 2019 among the low-intensity HSAs could be related to the fact that Medicare allowed greater use of telehealth pre-public health emergency in rural areas and that the low-intensity HSAs are disproportionately rural (Table 7-7, p. 338).
 - 32 The results were statistically significant at the 1 percent level.
 - 33 The DID impact estimate is based on outcome values that are not rounded, so they do not exactly match the differences presented in the prior paragraph.

34 The results were statistically significant at the 1 percent level.

35 The results were statistically significant at the 1 percent level.

36 The results were statistically significant at the 1 percent level.

37 The DID with controls estimates were approximately \$64 for hospital inpatient spending per beneficiary and \$101 for physician spending per beneficiary (both statistically significant at 1 percent). Thus, high-telehealth-intensity HSAs' total spending for hospital inpatient and clinician care per beneficiary grew at a faster rate than that for the low-telehealth-intensity HSAs.

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C H A P T E R

8

**Aligning fee-for-service
payment rates across
ambulatory settings**

R E C O M M E N D A T I O N

- 8** The Congress should more closely align payment rates across ambulatory settings for selected services that are safe and appropriate to provide in all settings and when doing so does not pose a risk to access.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Aligning fee-for-service payment rates across ambulatory settings

Chapter summary

Medicare fee-for-service (FFS) payment rates often differ for the same service across ambulatory settings (hospital outpatient departments (HOPDs), ambulatory surgical centers (ASCs), and freestanding physician offices). These payment differences encourage arrangements among providers, such as consolidation of physician practices with hospitals, that result in care being billed from settings with the highest payment rates, which increases total Medicare spending and beneficiary cost sharing without significant improvements in patient outcomes. From 2015 to 2021, for example, the volume of chemotherapy administration in freestanding clinician offices, the ambulatory setting for which payment rates are usually lowest, fell 14.2 percent, while the volume in HOPDs, the ambulatory setting for which payment rates are usually highest, climbed 21.0 percent.

In general, the Commission maintains that Medicare should base payment rates on the resources needed to treat patients in the most efficient setting. If the same service can be safely and appropriately provided in different settings, a prudent purchaser should not pay more for that service in one setting than in another. This principle suggests that—for services that are safe and appropriate to provide in a lower-cost setting—Medicare should more closely align FFS payment rates across ambulatory

In this chapter

- Billing for many services has shifted from the physician fee schedule to the outpatient prospective payment system
- Identifying ambulatory services for payment rate alignment
- Setting aligned payment rates
- Maintaining access to emergency care and hospitals' standby capacity
- Effect of aligning payment rates across three ambulatory settings
- Aligning payment rates for selected ambulatory services would improve financial incentives

settings. However, Medicare should be selective about which services should have payment rates aligned across settings, as many ambulatory services cannot be safely or appropriately provided in freestanding offices in the majority of circumstances. Such services are typically complex procedures or services related to emergency care. In these instances, discretion should be used and the payment rates in each of the ambulatory settings should be left unchanged to ensure that hospitals are adequately reimbursed to maintain access to those services.

Adjusting rates paid for certain services delivered in higher-cost settings to more closely align with the rates paid in lower-cost settings in which it is safe to provide the service would reduce incentives to shift the billing of Medicare services from low-cost settings to high-cost settings. The result would be lower Medicare program spending, lower beneficiary cost sharing, and an incentive for providers to improve efficiency by caring for patients in the lowest-cost site appropriate for their condition.

In our June 2022 report to the Congress, we discussed a method to identify the services for which it might be appropriate to align payment rates across HOPDs, ASCs, and freestanding offices. To identify such services, we modeled an approach based on the volume for each service in each setting.

If freestanding offices had the highest volume for a service, it would arguably be safe to provide that service in freestanding offices for most beneficiaries. Therefore, our model aligns the payment rates in the outpatient prospective payment system (OPPS) (the payment system for most services provided in HOPDs) and the ASC payment system with the payment rates from the fee schedule for physicians and other health professionals, also known as the physician fee schedule (PFS).

If ASCs had the highest volume for a service, we aligned the OPPS payment rate with the ASC payment rate and left the PFS payment rate unchanged.

If HOPDs had the highest volume for a service, we determined that it likely was not safe to provide that service outside the HOPD setting for a majority of beneficiaries. Moreover, for these services, aligning OPPS payment rates with those from a lower-cost setting could adversely affect beneficiaries' access to those services. Hence, for these services, we left the payment rates unchanged.

In this chapter, we updated our analysis using more recent data. We identified 57 ambulatory payment classifications (APCs) (the payment classifications used

in the OPPS and ASC system) for which freestanding offices had the largest volume. For the services in these APCs, we aligned the OPPS payment rates and ASC payment rates more closely with the PFS payment rates for the services. We also identified nine APCs for which ASCs had the highest volume; for the services in those APCs, we aligned the OPPS payment rates with the ASC payment rates. For the remaining 103 APCs, HOPDs had the highest volume, so we made no changes to the payment rates in each of the three ambulatory settings. Because current law requires changes to OPPS and ASC payment rates to be implemented on a budget-neutral basis, payment alignment would reduce payments for the 66 selected APCs but would increase payment rates for all other APCs for which we determined that payment rate alignment was not appropriate. As a result, aggregate spending in the short term would be unchanged. However, aligning payment rates for select services would reduce incentives for providers to make site-of-care decisions based on financial rather than clinical factors, which could eventually result in lower aggregate spending.

We note that the services we identified for payment rate alignment are not necessarily the specific services that CMS would select for alignment under its own processes since CMS could use a different approach for the initial identification of candidate services, and the selection could be informed by clinicians or other stakeholders through notice-and-comment rulemaking or similar processes.

Further, a well-functioning system of aligning payment rates should ensure that hospitals receive financial support to maintain access to emergency care and standby capacity. Emergency departments that are part of a hospital are subject to the Emergency Medical Treatment and Active Labor Act of 1986, which requires them to screen and stabilize (or transfer) patients who are experiencing a medical emergency, regardless of their ability to pay. Under the OPPS, the payment rates for services provided during emergency care reflect the additional costs that hospitals incur to maintain emergency departments. Sometimes, emergency care includes the services that we deemed appropriate for payment alignment in our model. In these instances, the aligned payment rate may not be high enough to adequately reimburse hospitals for the cost of emergency care. Consequently, when services with aligned payment rates are provided as part of an emergency department visit, hospitals should receive a payment rate that is above the aligned amount.

Based on the recent growth in hospital acquisition of physician practices and our own empirical analysis, the Commission recommends that the Congress more closely align payment rates across ambulatory settings for selected services that are safe and appropriate to provide in all settings and when doing so does not pose a risk to access. In the context of the OPSS's current-law budget-neutrality requirement, this recommendation would have no immediate effect on total Medicare revenue for OPSS hospitals in aggregate. Over time, however, this recommendation could have an indirect effect on program spending because it would reduce incentives for hospitals to acquire physician practices and bill for services under the usually higher-paying OPSS. This recommendation would have differing effects across hospitals, as some would see Medicare revenue gains while others would experience revenue losses. Despite the potential losses for some hospitals, this recommendation would not be expected to affect providers' willingness or ability to furnish the affected services. Any concerns about specific hospital categories being adversely affected should be addressed through targeted assistance to those hospitals rather than maintaining higher-than-warranted OPSS payment rates for some services. ■

Introduction

A persistent problem in fee-for-service (FFS) Medicare is that differences in prices across care settings that provide similar services distort provider incentives. Payment rates for services covered under the outpatient prospective payment system (OPPS)—which is the system of payment for most services provided to Medicare beneficiaries in hospital outpatient departments (HOPDs)—are generally higher than the payment rates for similar services covered under Medicare’s fee schedule for physicians and other health professionals, also known as the physician fee schedule (PFS). For example, in 2023, Medicare pays 194 percent more in an HOPD than in a freestanding office for a transthoracic echocardiogram with image documentation. In FFS Medicare, payment rate differences among similar settings occur among ambulatory settings (clinician offices, HOPDs, and ambulatory surgical centers (ASCs)) and among post-acute care (PAC) settings (skilled nursing facilities, inpatient rehabilitation facilities, long-term care hospitals, and home health care).

To address incentives for providers to shift the billing of services to higher-cost settings, the Commission has published several reports that encourage reducing payment rates in more costly settings so that they more closely align with payment rates in lower-cost settings for similar services. These reports include aligning payments for select services in HOPDs and freestanding physician offices (Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013, Medicare Payment Advisory Commission 2012); aligning payment rates for nonchronically ill patients treated in long-term care hospitals with payment rates for acute care hospitals (Medicare Payment Advisory Commission 2014); aligning payment rates between skilled nursing facilities and inpatient rehabilitation facilities (Medicare Payment Advisory Commission 2015); and implementing a unified prospective payment system for PAC services (Medicare Payment Advisory Commission 2019, Medicare Payment Advisory Commission 2017, Medicare Payment Advisory Commission 2016). In general, the Commission has maintained that Medicare should base payment rates on the resources needed to treat patients in the most efficient, clinically appropriate setting. If the same

service can be safely provided in different settings, a prudent purchaser should not pay more for that service in one setting than in another. In our June 2022 report to the Congress, we discussed a method to more closely align payment rates across HOPDs, ASCs, and freestanding offices (Medicare Payment Advisory Commission 2022). We modeled this payment alignment to examine the impacts on Medicare spending, beneficiary cost sharing, and hospital revenue. In this chapter, we update our model results and recommend that the Congress and the Secretary move forward with a payment alignment policy for the three ambulatory settings.

Billing for many services has shifted from the physician fee schedule to the outpatient prospective payment system

Because of the payment rate differences across clinician offices, HOPDs, and ASCs, hospitals have an incentive to acquire physician practices and then bill for the same services under the OPSS, thereby increasing revenue without a meaningful change in the site of care. Indeed, billing for many ambulatory services has been shifting from the PFS to the OPSS. Analysis of data from the American Medical Association’s Physician Practice Benchmark Surveys indicates that the share of physicians who were either in practices at least partially owned by hospitals or that were employees of hospitals increased from 29.0 percent in 2012 to 39.8 percent in 2020 (Kane 2021).

As hospitals acquire more physician practices and more physicians become employed by hospitals, service billing shifts from the PFS to the OPSS—with its usually higher payment rates—even if there is no actual change to the physical setting in which the service is provided or in the delivery of the service itself. Among evaluation and management (E&M) office visits, echocardiograms, nuclear cardiology, and chemotherapy administration services, for example, the share of total volume of services billed under the OPSS increased from 2012 to 2021 (Table 8-1, p. 358). As billing of services shifts from the PFS to the OPSS, program spending and beneficiary cost sharing increase without significant changes in patient care.

**TABLE
8-1**

Billing of important ambulatory services has shifted from the PFS to the OPSS

Share in OPSS

Service	Share in OPSS	
	2012	2021
Office visits	9.6%	12.8%
Chemotherapy administration	35.2	51.9
Nuclear cardiology	33.9	47.6
Echocardiography	31.6	43.1

Note: PFS (physician fee schedule), OPSS (outpatient prospective payment system).

Source: MedPAC analysis of standard analytic claims files, 2012 and 2021.

The incentive for hospitals to acquire physician practices was mitigated (but not eliminated) by the Bipartisan Budget Act (BBA) of 2015, through which the Congress directed CMS to develop a limited system that more closely aligns payment rates between HOPDs and freestanding offices. CMS satisfied this mandate in 2017 by implementing payment rates that approximate PFS rates for certain services provided in off-campus provider-based departments (PBDs) of hospitals that were not providing services when the Congress enacted the BBA of 2015 on November 2, 2015 (Centers for Medicare & Medicaid Services 2016). However, the off-campus PBDs not subject to the BBA of 2015 site-neutral payments have no restrictions on expanding the range of services they provide. Therefore, when a hospital acquires a physician practice and adds it to an existing off-campus PBD that is excepted from the BBA of 2015, the services furnished by that practice are paid at full OPSS rates (with the exception of office visits).

Some stakeholders have argued that Medicare should pay HOPDs higher rates for all services so that hospitals can use the higher payments to subsidize standby capacity, access to care for low-income patients, efforts to improve care coordination, and community outreach. However, building indirect subsidies for these activities into the payment rates for all services does not directly target resources to these activities and distorts prices, which has the unintended consequence of giving hospitals an incentive to acquire physician practices. For example, paying much more for chemotherapy administration in HOPDs than

freestanding offices encourages hospitals to purchase oncology practices and bill for chemotherapy as a hospital outpatient service without any change in the physical location. Therefore, higher OPSS payment rates that support hospitals' standby capacity should be limited to select services that are directly related to hospitals' standby capacity, such as visits for emergency and trauma care and services provided as part of those visits.

Stakeholders have further argued that Medicare should not align any HOPD rates with physician office rates because hospitals incur higher overhead costs than freestanding physician offices. For example, hospitals must comply with more stringent building codes, life-safety codes, and hospital-level staffing requirements. In addition, hospitals must incur the cost of financially integrating the HOPD into the hospital and billing patients a separate facility fee (in addition to the physician's fee). However, if patient severity is similar and a service can be provided in a lower-cost setting without a reduction in quality or safety, the Commission maintains that Medicare should pay a rate based on the lower-cost setting.

Identifying ambulatory services for payment rate alignment

Among the three ambulatory settings, the PFS has the lowest payment rate for most services

that are furnished in all three settings. The most straightforward approach to aligning payment rates would be to establish rates that are equal to PFS rates in all three ambulatory settings. However, payment rates for all services provided in the three settings should not simply be set to the payment rates for the lowest-price setting for a number of reasons:

- HOPDs differ from freestanding offices and ASCs in ways that can lead to higher costs in HOPDs for certain services. For example, some services have costs associated with maintaining standby emergency capacity. Emergency departments (EDs) that are part of a hospital are subject to the Emergency Medical Treatment and Active Labor Act of 1986, which requires them to screen and stabilize (or transfer) patients who are experiencing a medical emergency, regardless of their ability to pay. Medicare payments for services provided in EDs include these standby costs, and therefore they are not, and should not be, equal to freestanding office rates for similar services.
- Some services can be safely provided only in HOPDs for most beneficiaries, so it is beneficial to protect services in this context from site-neutral payments.
- The payment bundle in the OPSS and the ASC payment system is typically a primary service with related ancillary items, while the PFS generally provides payment for ancillary items that is separate from payment for the primary service. This difference in payment bundles must be considered when aligning payment rates across settings.

In this chapter, we update our June 2022 analysis of the effects of aligning payment rates across ambulatory settings. We identified services for which payment rate alignment could be reasonable using the following steps:

- We sorted services into ambulatory payment classifications (APCs), which are the payment classifications used in the OPSS and (generally) the ASC system. APCs are made up of services represented by codes in the Healthcare Common Procedure Coding System (HCPCS). CMS classifies HCPCS codes that are similar in terms of cost and

clinical attributes in the same APC. All HCPCS codes in the same APC have the same OPSS payment rate. Likewise, all HCPCS codes in the same APC have the same payment rate under the ASC system, but the ASC payment rates are lower than the OPSS payment rates for the same services.

- Some APCs include services that can be reasonably provided only in HOPDs because freestanding offices and ASCs do not have the infrastructure to provide those services. Examples include emergency care and trauma care. It is vital that these services continue to be paid at full OPSS payment rates, so we removed these APCs from consideration of payment rate alignment.
- For the remaining APCs, we sought to align payment rates with the lowest cost setting in which it is safe to provide the services in the APC for most beneficiaries. To do so, we compared the volume of services in each APC that was provided in HOPDs, ASCs, and freestanding offices over the period of 2016 through 2021, but we omitted 2020 because the coronavirus pandemic affected the volume of care in ambulatory settings.
 - If freestanding offices had the highest volume for an APC, we concluded that the services in that APC could be provided safely in freestanding offices for most beneficiaries and that beneficiaries would be able to access the services in that APC. Therefore, for those services, it would be reasonable to align the OPSS and ASC payment rates with the PFS payment rates.
 - Similarly, if ASCs had the highest volume for an APC, that APC's services could arguably be provided safely in ASCs for most beneficiaries. Therefore, OPSS payment rates could be aligned with the ASC payment rates for those services. Freestanding offices would still be paid PFS rates for those services.
 - If HOPDs had the highest volume for an APC, it might not be safe to provide those services outside the HOPD setting for most Medicare beneficiaries. In addition, we would be concerned about beneficiaries' access to those services if HOPD payments were aligned with either PFS or ASC payment rates. We therefore determined that, for these APCs, HOPDs should continue to be paid OPSS payment rates, ASCs

**TABLE
8-2****Program spending, beneficiary cost sharing, and volume for 57 APCs
for which we aligned OPPS payment rates with PFS payment rates, 2021**

APC	APC description	Program spending (in millions)	Beneficiary cost sharing (in millions)	Volume (in thousands)
5012	Clinic visits	\$2,056	\$514	27,835
5693	Level 3 drug administration	879	220	5,459
5694	Level 4 drug administration	680	170	2,819
5524	Level 4 imaging w/o contrast	680	170	1,778
5593	Level 3 nuclear medicine	642	160	619
5522	Level 2 imaging w/o contrast	632	158	7,333
5523	Level 3 imaging w/o contrast	547	137	3,000
5521	Level 1 imaging w/o contrast	453	113	7,072
5052	Level 2 skin procedures	288	72	1,048
5691	Level 1 drug administration	283	71	8,987
5373	Level 3 urology and related services	240	60	169
5443	Level 3 nerve injections	238	59	364
5054	Level 4 skin procedures	230	58	169
5442	Level 2 nerve injections	223	56	443
5724	Level 4 diagnostic tests and related services	191	48	267
5692	Level 2 drug administration	189	47	3,963
5441	Level 1 nerve injections	176	44	873
5722	Level 2 diagnostic tests and related services	141	35	671
5611	Level 1 therapeutic radiation treatment preparation	136	46	1,454
5051	Level 1 skin procedures	102	26	722
5822	Level 2 health and behavior services	95	24	1,596
5053	Level 3 skin procedures	78	20	190
5734	Level 4 minor procedures	77	19	871
5071	Level 1 excision/biopsy/incision and drainage	76	19	154
5372	Level 2 urology and related services	69	17	153
5723	Level 3 diagnostic tests and related services	65	16	169
5733	Level 3 minor procedures	60	15	1,360
5823	Level 3 health and behavior services	58	14	558
5101	Level 1 strapping and cast application	51	13	454
5721	Level 1 diagnostic tests and related services	49	12	447
5153	Level 3 airway endoscopy	46	11	39
5731	Level 1 minor procedures	34	9	1,751
5371	Level 1 urology and related services	34	8	160
5671	Level 1 pathology	31	8	768
5164	Level 4 ENT procedures	29	7	13
5741	Level 1 electronic analysis of devices	28	7	955
5055	Level 5 skin procedures	28	7	10

**TABLE
8-2**

Program spending, beneficiary cost sharing, and volume for 57 APCs for which we aligned OPSS payment rates with PFS payment rates, 2021 (cont.)

APC	APC description	Program spending (in millions)	Beneficiary cost sharing (in millions)	Volume (in thousands)
5481	Laser eye procedures	\$20	\$5	52
5151	Level 1 airway endoscopy	16	4	127
5111	Level 1 musculoskeletal procedures	10	2	58
5163	Level 3 ENT procedures	8	2	8
5732	Level 2 minor procedures	8	2	305
5743	Level 3 electronic analysis of devices	7	2	34
5102	Level 2 strapping and cast application	7	2	36
5161	Level 1 ENT procedures	7	2	41
5152	Level 2 airway endoscopy	6	1	19
5413	Level 3 gynecologic procedures	4	1	8
5411	Level 1 gynecologic procedures	4	1	29
5412	Level 2 gynecologic procedures	4	1	17
5162	Level 2 ENT procedures	3	1	9
5742	Level 2 electronic analysis of devices	3	1	36
5502	Level 2 extraocular, repair, and plastic eye procedures	2	1	4
5501	Level 1 extraocular, repair, and plastic eye procedures	2	1	12
5735	Level 5 minor procedures	1	0.3	7
5821	Level 1 health and behavior services	1	0.3	66
5621	Level 1 radiation therapy	1	0.3	12
5811	Manipulation therapy	0.5	0.1	25

Note: APC (ambulatory payment classification), OPSS (outpatient prospective payment system), PFS (physician fee schedule), ENT (ear, nose, and throat). "Program spending" indicates outlays by the Medicare program and excludes beneficiary cost sharing. For all APCs listed, "beneficiary cost sharing" is 25 percent of program spending except for APC 5611, for which the beneficiary copayment is capped at a historical copayment level.

Source: MedPAC analysis of 100 percent standard analytic claims files from 2021 and MedPAC analysis of payment rates in the 2021 OPSS.

should continue to be paid ASC payment rates, and freestanding offices should continue to be paid PFS rates.

The OPSS has 169 APCs for health care services.¹ We identified 63 APCs for which freestanding offices had the largest volume. However, six of these APCs have a substantial amount of packaging (i.e., bundling of ancillary items provided with the service) under the OPSS, and some of the HCPCS codes within these

APCs have low volume in freestanding offices and high volume in HOPDs. Therefore, we determined that it would be appropriate to maintain differential payment rates for these six APCs.

For the services in the remaining 57 APCs for which freestanding offices had the largest volume, we aligned the OPSS payment rates and ASC payment rates more closely with the PFS payment rates (Table 8-2). We also identified nine APCs for which ASCs had the

**TABLE
8-3**

Program spending, beneficiary cost sharing, and volume for nine APCs for which we aligned OPPS payment rates with ASC payment rates, 2021

APC	APC description	Program spending (in millions)	Beneficiary cost sharing (in millions)	Volume (in thousands)
5312	Level 2 lower GI procedures	\$725	\$181	877
5491	Level 1 intraocular procedures	568	142	343
5431	Level 1 nerve procedures	221	55	159
5311	Level 1 lower GI procedures	215	54	339
5492	Level 2 intraocular procedures	212	53	68
5112	Level 2 musculoskeletal procedures	92	23	83
5462	Level 2 neurostimulator and related procedures	69	17	14
5503	Level 3 extraocular, repair, and plastic eye procedures	40	10	25
5504	Level 4 extraocular, repair, and plastic eye procedures	13	3	5

Note: APC (ambulatory payment classification), OPPS (outpatient prospective payment system), ASC (ambulatory surgical center), GI (gastrointestinal). "Program spending" indicates outlays by the Medicare program and excludes beneficiary cost sharing. For all APCs listed, "beneficiary cost sharing" is 25 percent of program spending.

Source: MedPAC analysis of 100 percent standard analytic claims files from 2021 and MedPAC analysis of payment rates in the 2021 OPPS.

highest volume (Table 8-3, p. 362). For the services in those APCs, we aligned the OPPS payment rates with the ASC payment rates. For the remaining 103 APCs, HOPDs had the highest volume, and we made no changes to the payment rates in each of the three ambulatory settings.

The services that we have identified for payment rate alignment reflect a core Commission principle: If it is safe and appropriate to provide a service in different settings, Medicare should not pay more for that service in one setting than in another. While we have identified services for which payment rates could be aligned across ambulatory settings, the Congress would need to give CMS the authority to independently make decisions about which services to include in a payment rate alignment policy. In the Commission's analysis, we have largely relied on service volume to identify services for payment rate alignment, but CMS could be further informed by clinicians and other stakeholders through notice-and-comment rulemaking, technical advisory panels, or other processes. Based on this clinical information, CMS could define a list of services for payment rate

alignment that may differ somewhat from our example list. CMS also could modify the list of aligned services if the agency concluded that payment rate alignment for any service would result in hospitals reacting in any unintended and undesirable ways.

Though we have chosen to identify services for payment rate alignment based on volume across settings, we caution that the share of a service provided in a particular setting can change over time. For example, as discussed above, the billing of chemotherapy administration has been shifting from freestanding offices to HOPDs in part because of payment policies that encourage hospitals to acquire physician practices (see Table 8-1, p. 358). From 2012 to 2021, the share of chemotherapy administration provided in HOPDs increased from 35 percent to 52 percent, with no apparent change in the types of services provided. Therefore, when using volume as a basis for identifying the setting in which a service is predominantly provided, volume should be evaluated over a number of years and not at a single point in time, and the factors driving changes in volume should be considered carefully.

Setting aligned payment rates

For the 57 APCs for which we aligned payment rates across the three ambulatory settings, we aligned OPPS and ASC system payment rates with PFS payment rates largely on the basis of the differences between nonfacility practice expenses (PEs) and facility PEs from the PFS. Each HCPCS code covered under the PFS has a nonfacility PE and a facility PE. When a service is provided in an office, Medicare makes a single payment to the clinician under the PFS, which includes an amount for PE (the nonfacility PE) intended to cover the cost of the clinical staff, medical equipment, medical supplies, and additional overhead incurred in providing the service. When a service is provided in an HOPD, Medicare makes two payments—one to the clinician under the PFS, which includes an amount for PE (the facility PE) that is lower than the amount for PE in an office, and one to the HOPD under the OPPS to cover the associated costs of the hospital. Though the nonfacility PE paid for an office-based service is higher than the facility PE, in most cases the PFS payment for a service that is provided in a freestanding office is lower than the combined OPPS and PFS payments for a service delivered in an HOPD. To better align these total payment amounts for each of the 57 APCs, we set the OPPS payment for the HOPD equal to the weighted average of the difference between the nonfacility PEs and facility PEs for the HCPCS codes in that APC, where the weights were the total volume of services for each HCPCS code in the APC (see the text box, pp. 364–365, for an example of how we used the nonfacility and facility PEs to align OPPS and ASC payment rates with PFS payment rates). We then added to this weighted average an estimated amount for the additional packaging of ancillary items that are included in the payment rates in the OPPS and ASC payment systems but not the PFS. For a detailed discussion of how we calculated the amount of packaging for each APC, see Chapter 6 in the Commission’s June 2022 report to the Congress.

For the nine APCs for which we aligned OPPS payment rates with ASC payment rates, the process for aligning payment rates was straightforward because ASC payment rates are generally based on OPPS payment rates, with comparable relative weights and packaging of ancillary services. For each APC, the aligned payment rate was a weighted average of the ASC payment rates

for the HCPCS codes in the APC, where the weights were the volume of services represented in each of the APC’s HCPCS codes. Adjustments for packaged ancillary items were not needed because the OPPS and the ASC system have the same method for packaging those items. We made no adjustment to the PFS payment rates for the services in these nine APCs.

Maintaining access to emergency care and hospitals’ standby capacity

Our analysis includes 66 APCs for which payment rates could be aligned across ambulatory settings: 57 APCs for which we aligned OPPS and ASC payment rates with PFS payment rates and 9 APCs for which we aligned OPPS payment rates with ASC payment rates.

The alignment of payment rates across ambulatory settings should achieve two goals. One is that, for services that can be safely and appropriately provided to most beneficiaries in more than one ambulatory setting, payment rates should be set such that there is no financial incentive for providers to favor one setting over another. The other goal is to ensure that HOPDs are adequately supported financially so that patients continue to have access to emergency care and hospitals are able to maintain standby capacity. If payment alignment policies are not implemented appropriately, accomplishing one goal could adversely affect the other.

These two goals can sometimes conflict. For example, the services in the 66 APCs for which we examined payment rate alignment are sometimes provided as part of HOPD visits for emergency or trauma care. In these instances, paying hospitals for the services in the 66 APCs at the aligned payment rates could adversely affect hospitals’ ability to maintain access to emergency care and standby capacity. Therefore, aligned payment rates for the services in the 66 APCs should be modified when these services are provided as part of emergency or trauma care.

An effective method for ensuring that hospitals are adequately supported for their emergency care and standby capacity is to augment the aligned payment rates when one of the services in the 66 APCs is provided as part of a visit for emergency or trauma care. One way to augment the aligned payment rates

Method for aligning payment rates under the outpatient prospective payment system with payment rates from the physician fee schedule

When a physician provides a service in a freestanding office or a hospital outpatient department (HOPD), the physician's payment under the fee schedule for physicians and other health professionals, also known as the physician fee schedule (PFS), has three components: physician work, practice expense (PE), and professional liability insurance (PLI). The work and PLI payments are the same regardless of setting. However, the PE payment for a service provided in an office (the nonfacility PE) is usually higher than the PE payment for a service provided in an HOPD (the facility PE). The higher nonfacility PE payment reflects the cost of the clinical staff, medical equipment, medical supplies, and additional overhead incurred by physicians. Therefore, the PFS payment is higher in a freestanding office than in an HOPD for most services. However, when a service is provided in an HOPD, Medicare makes an additional payment to the hospital under the outpatient

prospective payment system (OPPS). In most cases, the PFS payment for a service that is provided in a freestanding office is lower than the combined OPPS and PFS payments for a service delivered in an HOPD.

For example, in 2023, when an epidural injection into the lumbar or sacral region is provided in a freestanding office, the payment to the physician (the combined physician work, PLI, and nonfacility PE) totals \$255.89 (Table 8-4). If the service is provided in an HOPD, the total payment equals the sum of the work, PLI, facility PE, and OPPS payment for a total of \$740.88.

In our method for aligning payment rates across ambulatory settings, we adjust the OPPS payment rate for a service to create an equal payment rate across sites of care by setting the OPPS rate equal to the difference between the nonfacility PE rate

(continued next page)

would be to multiply the aligned payment rate by the average percentage by which the aligned payment rates were lowered from their standard OPPS payment rates, then add that result to the aligned payment rate. On average, the aligned payment rates in the 66 APCs are 43 percent of the standard OPPS payment rates. To capture these circumstances in billing, CMS could create modifiers that hospitals would record on claims.

Adjusting for differences in health status is not necessary for an effective system of aligning payment rates

We considered whether aligned payments should be adjusted for differences in patient severity. An analysis sponsored by the American Hospital Association suggests that patients receiving care in HOPDs are more medically complex than those receiving care in freestanding offices (American Hospital Association 2021). However, our analyses show that the effects of patient severity on cost of care for the aligned

services is not statistically significant, as the services we selected for alignment were generally of low complexity. In addition, under the OPPS, providers can often bill separately for additional services that a patient might need.

To make this assessment, we evaluated risk scores from the CMS hierarchical condition category (CMS-HCC) risk-adjustment model to compare the medical complexity of HOPD patients with patients in freestanding offices. We found that, on average, HOPD patients have higher risk scores, which suggests that HOPD patients are potentially more medically complex than those in physician offices. However, we also found substantial overlap in the CMS-HCC risk scores of patients in these two settings, which suggests that the difference in patient severity between settings is small. For example, among the 57 APCs for which we aligned OPPS payment rates with PFS payment rates, we combined the risk scores from the 57 APCs for the

Method for aligning payment rates under the outpatient prospective payment system with payment rates from the physician fee schedule (cont.)

**TABLE
8-4**

Differences in payment rates for epidural injection into the lumbar or sacral regions in physician's office or HOPD, 2023

Actual 2023 payment rates		Policy that would align rates across settings	
Service in physician's office		Service in physician's office	
Physician work	\$59.51	Physician work	\$59.51
Nonfacility PE	\$190.43	Nonfacility PE	\$190.43
Professional liability insurance	+ \$5.95	Professional liability insurance	+ \$5.95
Total payment	\$255.89	Total payment	\$255.89
Service in HOPD		Service in HOPD	
Physician work	\$59.51	Physician work	\$59.51
Facility PE	\$31.08	Facility PE	\$31.08
Professional liability insurance	+ \$5.95	Professional liability insurance	+ \$5.95
Payment to physician	\$96.54	Payment to physician	\$96.54
Payment to HOPD (OPPS rate)	+ \$644.34	Payment to HOPD (nonfacility PE – facility PE)	+ \$159.35
Total payment	\$740.88	Total payment	\$255.89

Note: HOPD (hospital outpatient department), PE (practice expense), OPPS (outpatient prospective payment system). Payments include both program spending and beneficiary cost sharing. The payment rates in this table are those for Current Procedural Terminology code 62323.

Source: MedPAC analysis of physician fee schedule and OPPS payment rates for 2023.

and facility PE rate. For this epidural procedure, the nonfacility PE is \$190.43 and the facility PE is \$31.08. The difference between these two amounts produces an adjusted OPPS rate of \$159.35. With this adjustment, the total payment Medicare would make when this procedure is provided in an HOPD would fall to \$255.89, which is the same as if paid in a freestanding office. We made an additional

adjustment to the aligned payment rate of \$255.89 to account for the additional packaging of ancillary items in the OPPS that does not occur in the PFS. We estimated that packaged ancillary items added 23.5 percent to the HOPD cost of providing this service. Therefore, the final aligned payment rate for this service was $\$255.89 \times 1.235 = \316.02 (not shown in Table 8-4). ■

HOPD patients with the risk scores for patients in freestanding offices. We found that just 8 percent of the risk scores for HOPD patients were above the 95th percentile of that combined distribution.

Moreover, a difference in patient severity between settings does not necessarily mean that provision of

the services included in our analysis is more costly for sicker patients since most of these services are low complexity. The uncertainty over whether it would be beneficial to adjust aligned payment rates for differences in patient severity led us to use regression analysis to evaluate the extent to which hospital charges are affected by patient severity in the 66 APCs

for which we aligned payment rates.² Results from this regression analysis indicated that patient health status has an insignificant effect on hospital charges for the services in the 66 APCs (Medicare Payment Advisory Commission 2022). Consequently, we conclude that adjustments for patient severity are not necessary for the services in the 66 APCs in our analysis.

The insignificant effect of patient health status on hospital charges is likely due to a combination of factors, including:

- The services in the 66 APCs are generally low-complexity services that are unlikely to require additional resources if the patient is in poor health. The average OPPS relative weight (a measure of the resources needed to furnish a service in HOPDs) for the services in the 66 APCs is 1.9, while the average relative weight for all services covered under the OPPS is 5.0.
- If a patient requires additional resources because of health status, the structure of the OPPS often allows the provider to bill separately for any additional services that are needed. This structure of the OPPS contrasts with the inpatient prospective payment systems, under which providers generally are not allowed to bill separately for additional services.

Effect of aligning payment rates across three ambulatory settings

We estimate that aligning payment rates across the ambulatory settings would have reduced Medicare OPPS outlays for the 66 APCs in 2021 by \$6.0 billion and beneficiary cost sharing by \$1.5 billion. But because current law would require the payment rate changes to be implemented on a budget-neutral basis, payment alignment would have been accompanied by an increase in the payment rates for the remaining 103 APCs for which we determined that payment rate alignment was not appropriate. This budget-neutrality adjustment would have left aggregate OPPS spending unchanged in 2021. Over time, however, aligning payment rates for select services would improve financial incentives under the OPPS, making it less financially advantageous for hospitals to acquire

physician practices and bill for their services under the usually higher-paying OPPS. Such a result would produce budgetary savings.

The impacts of payment alignment would differ across hospitals, with some seeing overall losses in OPPS revenue because they provide a disproportionately high share of the low-complexity site-neutral services relative to other hospitals. In contrast, other hospitals would see a rise in revenue because they provide a disproportionately high share of the more complex services for which payment rates would increase under the budget-neutrality adjustment. The Commission asserts that concerns about specific types of hospitals being adversely affected due to payment alignment should be addressed through targeted assistance to those hospitals rather than paying all hospitals higher-than-warranted rates for certain services.

Effects of aligning OPPS and ASC payment rates for specified services with PFS payment rates

For the 57 APCs for which we aligned payment rates across the three ambulatory settings, we modeled the pecuniary effects of payment rate alignment for a single year, 2021, and did not model a transition or behavioral changes on the part of providers.

In aggregate, in a scenario in which lower payments for site-neutral services would be retained as Medicare savings, aligning the OPPS payment rates with PFS payment rates for the 57 APCs would have reduced Medicare OPPS outlays on the included services in 2021 by \$4.9 billion and beneficiary cost-sharing obligations by \$1.2 billion, for a total impact of \$6.2 billion. For all OPPS hospitals (the OPPS excludes critical access hospitals and Maryland hospitals), the reduced payments for these services represents 3.2 percent of hospitals' total Medicare revenue (Medicare revenue for all service lines, which includes inpatient, outpatient, and post-acute care).

However, as noted above, under current law, CMS would apply an upward pro rata adjustment to the payment rates for the 103 APCs for which we have determined that payment rate alignment is not appropriate. This adjustment would fully offset the lower hospital revenue from the payment rate alignment, producing a budget-neutral result under the assumption that the volume of services billed under the

OPPS does not change from the most recent year for which CMS has OPPS volume data, which is usually two years prior to the current year. In practice, payment rate alignment would likely produce lower beneficiary cost sharing and program outlays immediately because of the trend to shift the billing of services from the PFS to the OPPS.³

In addition, aligning the ASC payment rates with the PFS payment rates for the 57 APCs in 2021 would have reduced Medicare outlays on these services under the ASC payment system by \$200 million and beneficiary cost-sharing liability by \$50 million. This reduction in Medicare payments and cost sharing on these services represents 4.3 percent of aggregate ASC Medicare revenue. CMS would apply a budget-neutral adjustment to the other services in the ASC payment system to offset the effects of the payment rate alignment.

Effects of aligning OPPS payment rates for specified services with ASC payment rates

We also modeled the effects of aligning payment rates for the nine APCs for which OPPS payment rates could be based on ASC payment rates. We estimated that combined Medicare payments and beneficiary cost sharing on the services in these APCs would have fallen by \$1.3 billion in 2021 (a decrease of \$1.0 billion in program payments and \$0.3 billion in beneficiary cost-sharing liability), assuming no budget-neutrality adjustment and no change in HOPD volume. For all OPPS hospitals, the reduced spending on these services of \$1.3 billion represents 0.6 percent of hospitals' total Medicare revenue.

A potential problem with aligning OPPS payment rates with ASC payments is that the number of ASCs per capita varies considerably by geographic region. Some states have far more ASCs per capita than others. For example, Maryland has about 38 ASCs per 100,000 Part B Medicare beneficiaries, while Vermont has 1.5. Also, ASCs are much more heavily concentrated in urban areas than in rural areas (Medicare Payment Advisory Commission 2023). In contrast to ASCs, hospitals are more evenly distributed across geographic areas. If hospitals reduce the provision of the services in these nine APCs in response to payment rate alignment, access to these services could become difficult in areas that lack ASC presence. Therefore, CMS might consider an upward adjustment to OPPS payment rates that

are aligned with ASC payment rates if the hospital is located in an area that lacks the presence of ASCs.

Financial effects on providers of aligning OPPS payment rates

We estimate that aligning payment rates across the ambulatory settings for the 66 APCs would have reduced Medicare OPPS outlays in 2021 by \$6.0 billion and beneficiary cost sharing by \$1.5 billion, for a total reduction of \$7.5 billion (assuming lower payment rates were retained by Medicare as program savings), or 3.8 percent of aggregate Medicare revenue for OPPS hospitals. However, as noted earlier, under current law (Section 1833(t)(9)(B) of the Social Security Act), the reduced program spending and beneficiary cost sharing would not be taken as savings, but instead would be fully offset through higher payment rates in the OPPS for the 103 APCs for which we would not align payment rates.⁴

Although under budgetary accounting rules the budget-neutral adjustment would leave no immediate savings, per se, in program spending and beneficiary cost sharing, program spending and beneficiary cost sharing would eventually decline because incentives for providers in higher-cost settings to acquire providers in lower-cost settings would be diminished. By contrast, payment rates for emergency and trauma care visits would be increased as part of the budget-neutrality adjustment, which would help maintain hospitals' emergency departments and standby capacity.

Even though the payment rate alignment policy combined with the current-law budget-neutrality adjustment would have no immediate effect on total Medicare revenue for OPPS hospitals in aggregate, some types of hospitals would see an immediate increase in total Medicare revenue while others would face a decline. Some hospitals would see a decline in revenue because they provide a disproportionately high share of the low-complexity site-neutral services relative to other hospitals. In contrast, other hospitals would see a rise in revenue because they provide a disproportionately high share of the more complex services that would have their payment rates increase under the budget-neutrality adjustment.

Rural hospitals would face the greatest loss in total Medicare revenue under a budget-neutral,

redistributive site-neutral payment policy—a 2.5 percent loss (Table 8-5). Some stakeholders could be concerned that this loss in revenue for rural hospitals would adversely affect access to care for rural beneficiaries. For the following reasons, we do not believe that this drop in Medicare revenue would have a substantial adverse effect on rural beneficiaries:

- Rural hospitals have better financial performance than urban hospitals under Medicare FFS payment systems (Medicare Payment Advisory Commission 2023).
- Rural hospitals benefit more than other hospital categories from the Commission’s policy on safety-net hospitals (Medicare Payment Advisory Commission 2023).
- Critical access hospitals are not paid under the OPPS, so they would be unaffected by payment rate alignment.
- OPPS payment rates for services provided in rural sole community hospitals are 7.1 percent higher than standard OPPS payment rates. This adjustment would apply to the aligned payment rates for the 66 APCs.

Some have cautioned that lower OPPS payment rates for services in aligned APCs could adversely affect access in the HOPD setting for complex, high-cost patients. This access would be somewhat mitigated by the OPPS outlier policy, which provides additional OPPS payments when hospitals incur costs for providing a service that substantially exceed the OPPS payment rate for that service.

Aligning payment rates for selected ambulatory services would improve financial incentives

The payment rate alignment policy presented in this chapter reflects the principle that if the same service can be safely provided in different settings, Medicare should not pay more for that service in one setting than in another. The Commission supports a payment alignment policy based on clinical input and examination of existing utilization patterns. Irrespective of the services included in a payment rate

alignment policy, such a policy would reduce incentives for hospitals to consolidate with providers in lower-cost settings, which would eventually result in lower Medicare program spending and beneficiary cost-sharing obligations.

RECOMMENDATION 8

The Congress should more closely align payment rates across ambulatory settings for selected services that are safe and appropriate to provide in all settings and when doing so does not pose a risk to access.

We emphasize that CMS should make the final decision concerning the services for which it is appropriate to align OPPS payment rates with either PFS rates or ASC rates. In aligning payments across settings, CMS should determine that the service is safe and appropriate to provide in ambulatory settings outside of HOPDs in the majority of circumstances. In addition, CMS should include only services that would not result in hospitals reducing beneficiaries’ access to care or acting in other unintended and undesirable ways.

CMS should also ensure that payment rate alignment does not adversely affect hospitals’ ability to maintain emergency care and standby capacity. The budget-neutral adjustment that CMS would make to the nonaligned services would support emergency care and standby capacity by raising OPPS payment rates for ED visits. To provide further support, CMS could augment the aligned payment rates when one of the aligned services is provided as part of a visit for emergency care. Finally, CMS should closely monitor the effect that payment rate alignment has on beneficiary access to the services that have aligned payment rates.

RATIONALE 8

The current FFS payment rates in ambulatory settings are generally higher for services provided in HOPDs than for services provided in ASCs and freestanding offices, even for services that can be safely provided to most beneficiaries in all three settings. These payment rate differences give hospitals an incentive to acquire physician practices and start billing for the same services as outpatient services. This change in billing leads to higher Medicare program spending and beneficiary cost-sharing obligations without significant changes to patient care.

**TABLE
8-5**

Changes in Medicare revenue from aligning OPPS payment rates with PFS payment rates for select ambulatory services, assuming budget-neutral adjustment for other OPPS services

Category	Percent change in total Medicare revenue
All hospitals	0.0%
Urban	0.2
Rural (excludes critical access hospitals)	-2.5
Nonprofit	0.0
For profit	1.0
Government	-0.8
Major teaching	-0.6
Other teaching	0.5
Nonteaching	0.1
DSH patient percentage	
Below median	0.3
Above median	-0.3
Number of beds	
Less than 50	-2.3
50-100	-1.7
101-250	0.1
251-500	0.4
More than 500	0.1

Note: OPPS (outpatient prospective payment system), PFS (physician fee schedule), DSH (disproportionate share hospital).

Source: MedPAC analysis of data from hospital cost reports and standard analytic claims files, 2021.

IMPLICATIONS 8

Spending

- This recommendation would have no direct effect on Medicare program spending because CMS would apply budget-neutral increases to the OPPS payment rates of the nonaligned services to offset the effects of the lower aligned payment rates. However, this recommendation could have an indirect effect on program spending, as it would reduce incentives for hospitals to acquire physician practices, which would lower the extent to which the billing of the services with aligned payment rates shifts from the PFS to the OPPS. We cannot

be certain of the magnitude of the program savings because we are not certain of the extent to which this policy would mitigate hospital acquisition of physician practices. However, the magnitude of the program savings would rise over time if provider consolidation slowed as a result of the changes to Medicare payments to hospital outpatient departments and ambulatory surgical centers, should this recommendation be adopted.

Beneficiary and provider

- *Beneficiaries:* Beneficiaries would incur lower cost-sharing liability for site-neutral services, and we expect that they would continue to have access to

the services included in the aligned payment rates. In the short term, aggregate beneficiary cost-sharing liability would be unchanged.

- *Providers:* In aggregate, we do not expect this recommendation to have an adverse effect on providers' willingness or ability to furnish ambulatory services. However, the recommendation would raise total Medicare

revenue for some hospital categories and lower it for others. Concerns about specific types of hospitals being adversely affected by payment rate alignment should be addressed with targeted assistance to those hospitals rather than inefficiently supporting them by maintaining higher payment rates for site-neutral services for all hospitals. ■

Endnotes

- 1 The OPPS also has 579 APCs for drugs, devices, blood products, and brachytherapy sources.
- 2 It would have been preferable to use hospital costs rather than hospital charges, as the extent to which hospitals mark up charges above costs varies by hospital. However, we adjusted for variation in hospital markup by including a fixed-effects indicator for each hospital in our regression analysis.
- 3 When CMS sets OPPS payment rates, the agency uses the most recent data on service volume to make any required budget-neutrality adjustments. Typically, these data are from two years prior to the year for which the agency is setting payment rates. For example, when CMS set OPPS payment rates for 2023, the agency used volume data from 2021 to make the required budget-neutrality adjustments for 2023. For the services in the 66 APCs that we have identified for payment rate alignment, there is a general trend of these services shifting from the PFS to the OPPS. Since these services have been an increasingly larger share of OPPS volume each year, the volume for these services that CMS would use to make budget-neutrality adjustments in response to payment rate alignment likely would be lower than the volume of services when the aligned payment rates were actually implemented. Therefore, aggregate OPPS spending likely would be lower than what would have been spent without the payment rate alignment.
- 4 Payment rates for separately payable drugs, pass-through devices, and new-technology APCs would not be affected by the budget-neutral adjustment.

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CHAPTER

9

**Reforming Medicare's
wage index systems**

R E C O M M E N D A T I O N

- 9** The Congress should repeal the existing Medicare wage index statutes, including current exceptions, and require the Secretary to phase in new Medicare wage index systems for hospitals and other types of providers that:
- use all-employer, occupation-level wage data with different occupation weights for the wage index of each provider type;
 - reflect local area level differences in wages between and within metropolitan statistical areas and statewide rural areas; and
 - smooth wage index differences across adjacent local areas.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Reforming Medicare's wage index systems

Chapter summary

Medicare's prospective payment systems (PPSs) use wage indexes to adjust Medicare base payment rates for geographic differences in labor costs. For the inpatient prospective payment systems (IPPS), the Congress initially specified that the wage index should reflect the labor costs of hospitals in a geographic area relative to the national average hospital level. For other PPSs (such as those for skilled nursing facilities (SNFs)), the Congress granted CMS the authority to determine how to adjust Medicare PPS base rates for geographic differences in labor costs, and CMS has chosen to use a version of the IPPS hospital wage index. However, because of the limited data sources used, the use of broad labor market areas, and the number of wage index exceptions that the Congress and CMS have added over time to the IPPS wage index, Medicare's wage indexes are inaccurate and inequitable.

In 2007, the Commission recommended an alternative wage index method that would more accurately reflect differences in labor costs across geographic areas and be more equitable across providers. However, the Commission's recommendations were not implemented. Since then, the inaccuracies and inequities have grown, in part because the Congress and CMS have made additional exceptions to the already byzantine IPPS wage index. In 2022, about two-thirds of IPPS hospitals' wage index values

In this chapter

- Concerns with Medicare's current wage index systems
- An improved approach for Medicare's wage index systems and resulting impacts
- Moving to better wage index systems
- Appendix: Current IPPS wage index exceptions

were affected by exceptions, and, because most of the exceptions are budget neutral, payments to all hospitals—including those not benefiting from any exceptions—were reduced by 2.2 percent to compensate. This chapter updates the Commission’s 2007 work.

To accurately reflect geographic differences in labor costs among IPPS hospitals and other types of providers and to be more equitable across providers, the Commission recommends that Medicare’s wage index systems:

- use all-payer, occupation-level wage data with different occupation weights for the wage index of each type of provider;
- reflect local area level differences in wages between and within metropolitan statistical areas and statewide rural areas;
- cap wage index differences across adjacent local areas; and
- have no exceptions.

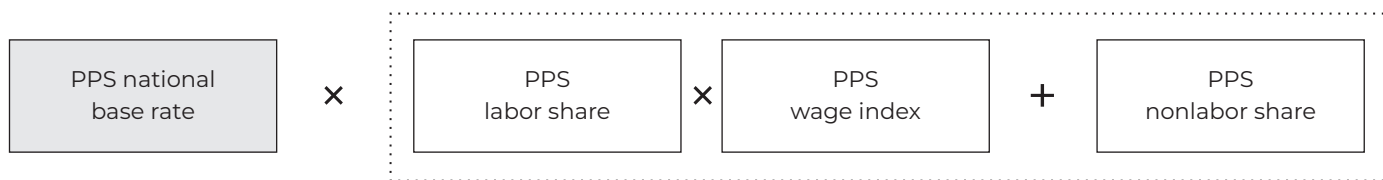
This wage index approach would be applied to all PPSs, including those for IPPS hospitals and post-acute care providers such as SNFs. To illustrate how this approach would improve the accuracy and equity of Medicare payments, we developed illustrative IPPS and SNF PPS wage indexes. Using data from all employers in a labor market area instead of just IPPS hospitals would establish a more robust basis for Medicare’s wage indexes and mitigate circularity issues that result in the current wage indexes reflecting hospitals’ historical advantages and disadvantages, such as relative market power. Incorporating local (e.g., county) wage data would allow the wage indexes to recognize differences in labor costs within a broader labor market area and allow for a smoother and more equitable distribution of wage index values across adjacent local areas. Furthermore, eliminating all wage index exceptions would remove hospitals’ opportunities for wage index manipulation.

Because of the large inaccuracies in the current wage index systems, implementing the Commission’s recommended changes would have a material effect on many providers. Based on our illustrative models, we estimate that, once the changes were fully phased in, IPPS payments would fall by more than 5 percent for about 10 percent of hospitals and rise by more than 5 percent for 18 percent of hospitals. We estimate that SNF PPS payments would decrease by more than 5 percent for 11 percent of SNFs and increase by more than 5 percent for 27 percent of SNFs. (In response to court cases, CMS has proposed wage index policy changes starting in fiscal year 2024 regarding the treatment of data from hospitals that reclassify to rural areas. If implemented,

these changes would alter the specific results in this chapter but not our conclusions.) Because of the significant redistributive effects, implementation of these changes would need to be phased in over multiple years or managed through a stop-loss policy so that no provider experienced increases or decreases in Medicare payments of more than a specified percentage in any one year due to the transition to the new wage index system. Once fully implemented, wage index systems such as the ones we modeled would result in more equitable payments across regions and across types of providers. To the extent that policymakers are concerned about certain providers—in particular, providers that are important for access and vulnerable to closure—any additional support should be targeted specifically to those providers to achieve defined and relevant policy goals and not made inefficiently through unrelated policies such as the wage index. ■

FIGURE 9-1

Medicare's prospective payment systems use a wage index to adjust national base rates for differences in labor costs



Note: PPS (prospective payment system). In several PPSs, the nonlabor share is multiplied by a cost-of-living adjustment for providers in Alaska and Hawaii. The inpatient capital PPS adjusts the base rate by the wage index raised to a fractional power.

Source: MedPAC analysis of CMS final rules.

Background

Medicare's prospective payment systems (PPSs) use wage indexes to adjust national base payment rates for differences in labor costs across labor market areas (Figure 9-1). The portion of the base payment rate that is adjusted by the wage index is determined by an estimate of the labor portion of that provider type's facility costs. The labor share for inpatient prospective payment systems (IPPS) hospitals is about two-thirds.¹ (For more on how the wage index is used in each PPS, see the Commission's *Payment Basics* series at <https://www.medpac.gov/document-type/payment-basic/>.) Physician and other clinician services paid under the Medicare physician fee schedule—including those provided in hospitals—have a different geographic adjustment to payments, which is beyond the scope of this chapter.

Most Medicare PPSs use a version of the IPPS hospital wage index (Table 9-1, p. 380). For the IPPS, the Congress initially specified that the wage index should reflect the labor-related costs of hospitals in a geographic area relative to the national average. Over time, however, the Congress and CMS have made numerous exceptions to this initial wage index calculation for IPPS hospitals. For other Medicare PPSs, the Congress granted CMS the authority to determine how to adjust national base rates for geographic differences in labor costs, and CMS has chosen to use a version of the IPPS hospital wage index (often with no exceptions).

Hospital wage index for each labor market area is based on hospital-reported data

To construct the hospital wage index, CMS collects labor cost data from IPPS hospitals' cost reports, which includes their reported labor costs—salaries and wage-related costs, such as pension and other deferred compensation costs, collectively referred to as wages—and hours, across all employees.² CMS excludes wages and hours for services not paid under the IPPS (such as services provided by physicians or other clinicians, or in non-acute inpatient components of the hospital) and excludes data for hospitals with missing or aberrant data.³

To define the labor market areas at which the wage index is calculated, CMS uses metropolitan statistical areas (MSAs) (an MSA is defined as a city with a population of at least 50,000 and its surrounding counties that have strong commuting ties to that city) and a residual called the statewide rural area (which includes all counties in the state that are not in MSAs).⁴

CMS calculates the initial hospital wage index (also referred to as the "unadjusted hospital wage index") for each labor market area as the ratio of the area's aggregate average hourly wage to that of the national average:

$$\text{Average hourly wage (AHW) for hospitals in area} = \frac{\sum \text{area wages}}{\sum \text{area hours}}$$

$$\text{Initial hospital wage index value for area} = \frac{\text{Area AHW}}{\text{National AHW}}$$

**TABLE
9-1**

Wage indexes used in Medicare’s prospective payment systems

Prospective payment system	Wage index used
Inpatient	Initial hospital wage index with numerous exceptions
Outpatient*	
Skilled nursing facilities	Initial hospital wage index
Long-term care hospitals	
Inpatient rehabilitation facilities	
Home health	
Inpatient psychiatric facilities	
Ambulatory surgical centers	
End-stage renal disease	Initial hospital wage index + national floor
Hospice	Initial hospital wage index + low-wage adjustment

Note: Starting in 2023, CMS added a permanent policy to cap the maximum annual decrease in a provider’s wage index at 5 percent, regardless of the reason. (In prior years, CMS episodically included other wage index transition policies.)

*For the outpatient prospective payment system, Medicare uses the inpatient prospective payment systems (IPPS) wage index when the services are provided in IPPS hospitals and uses the initial hospital wage index when provided in other facilities.

Source: MedPAC summary of CMS rules and regulations.

By construction, geographic areas with an average hourly wage less than the national average have wage index values of less than 1.0, while those areas with an average hourly wage greater than the national average have wage index values greater than 1.0. By statute, the initial hospital wage index is updated annually and implemented in a budget-neutral manner.⁵

In fiscal year 2022, CMS calculated the initial hospital wage index based on data from 3,182 hospital cost reports that began in 2018.⁶ CMS then aggregated the data across 459 labor market areas—411 urban areas and 47 rural areas—and nationally.⁷ The median wage index value was 0.9 and ranged from 0.3 (30 percent of the national average hourly wage of \$46.52, in Aguadilla, Puerto Rico) to 1.9 (nearly double the national average hourly wage in San Jose, CA) (Figure 9-2).

IPPS hospital wage index adjusted to reflect national average nursing mix

To make the IPPS hospital wage index more accurately reflect relative labor costs and not hospitals’

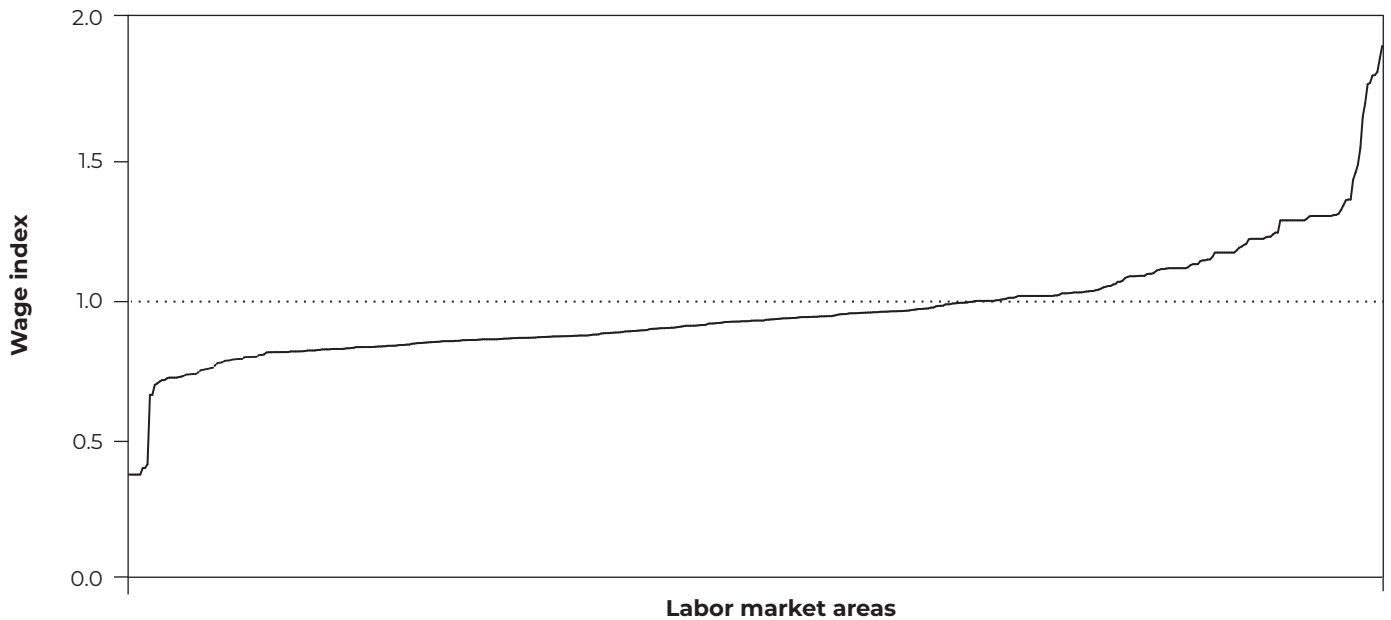
employment decisions, the Congress required CMS to add an occupational-mix adjustment to the initial hospital wage index when used in the IPPS.⁸ Because hospital cost reports do not collect occupation-level data, to make this adjustment, CMS fields a separate survey of IPPS hospitals on their occupation-level wages and hours for selected occupations. The current categories are registered nurses (RNs), licensed practical nurses and surgical technologists, nursing assistants (NAs) and orderlies, medical assistants, and a single category for all other occupations.

Using these survey data, CMS calculates an occupational mix-adjusted wage index for each labor market area based on the estimates of what each hospital’s labor costs would have been if they had employed the four types of nursing occupations proportional to the national average nursing mix, and then CMS applies a budget-neutrality adjustment.⁹

The magnitude of this occupational-mix adjustment is relatively small. In fiscal year 2022, for almost all areas,

**FIGURE
9-2**

Most labor market areas had an initial hospital wage index value slightly below 1, but a minority had much lower or higher values, 2022



Note: Labor market areas are metropolitan statistical areas and statewide rural areas.

Source: MedPAC analysis of fiscal year 2022 wage index files.

the occupational-mix adjustment changed the wage index value by less than 2 percent.

IPPS wage index includes many exceptions

In response to various stakeholder concerns, the Congress and CMS have added four categories of wage index exceptions, some of which are applied at the labor market area level and some to individual hospitals (Figure 9-3, p. 382).¹⁰ (These are summarized below; more details are in the appendix. In response to court cases, CMS has proposed wage index policy changes starting in fiscal year 2024 regarding the treatment of data from hospitals that reclassify to rural areas; this chapter does not reflect those proposals.)

These four categories of exceptions are explained below.

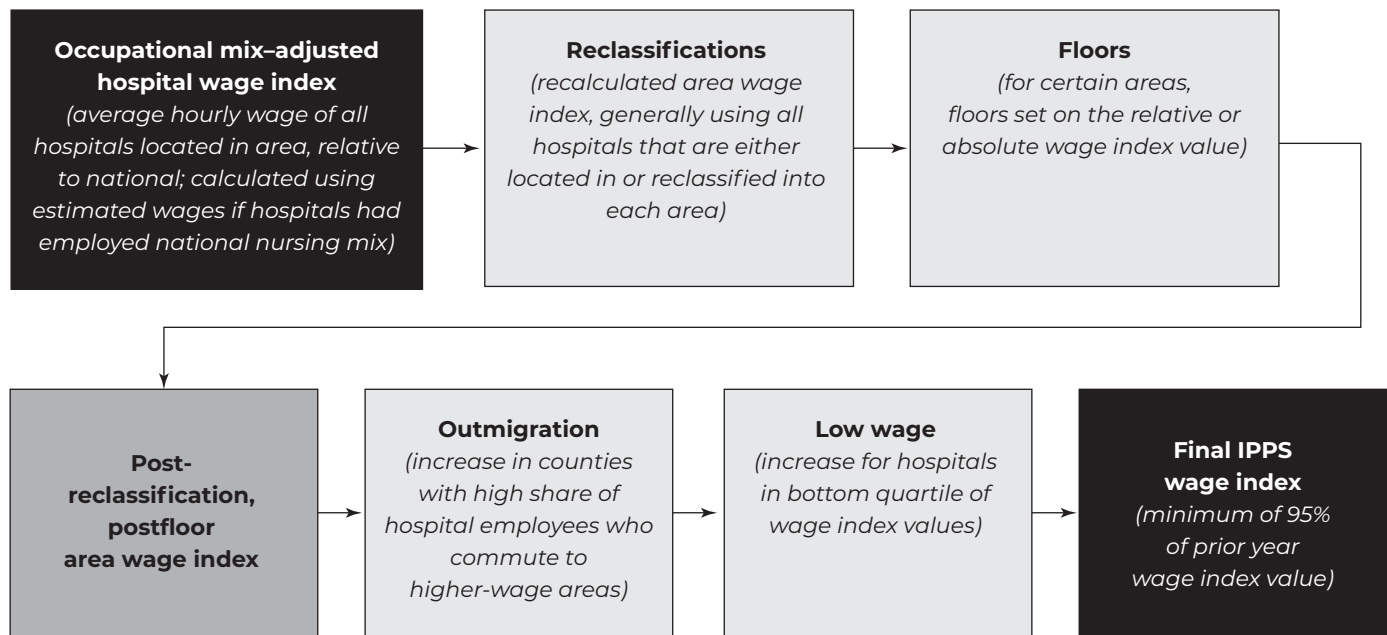
- **Reclassifications.** To address issues with broad definitions of labor market areas that can create

inequities among neighboring hospitals, the Congress created three geographic reclassification pathways that allow hospitals that meet specified criteria to be treated as if they were located in a different geographic area for the purposes of the IPPS wage index. Using these reclassifications, CMS calculates a post-reclassification wage index value for each labor market area using the data of hospitals that are either geographically located in the area or reclassified into the area. By statute and regulation, reclassifications must hold harmless hospitals that did not reclassify; therefore, the reclassification of hospitals can increase (but not decrease) the wage index of other hospitals that did not reclassify.

- **Floors.** To address stakeholder concerns related to perceived anomalies in relative wages, unfair disadvantages, and otherwise increase payments to certain hospitals, the Congress has created

**FIGURE
9-3**

Inpatient prospective payment systems wage index exceptions



Note: IPSS (inpatient prospective payment systems).

Source: MedPAC summary of CMS's fiscal year 2022 and 2023 IPSS final rules.

three wage-index floors, where certain areas are required to have a (post-reclassification) wage index value at least as high as a benchmark.

- **Rural and imputed rural floors.** The rural and imputed rural floors require that urban areas cannot have a lower wage index value than the state's rural area or, in the case of all-urban states, another benchmark (based on either the range of wage index values in all-urban states or the average percentage increase from the rural floor in other states).
- **Frontier floor.** The frontier floor requires that areas in low-population-density states have a wage index value of at least 1.0.
- **Outmigration.** To help hospitals in low-wage areas retain employees who live in that county but may otherwise commute to a higher-wage area, the Congress created an outmigration policy where the

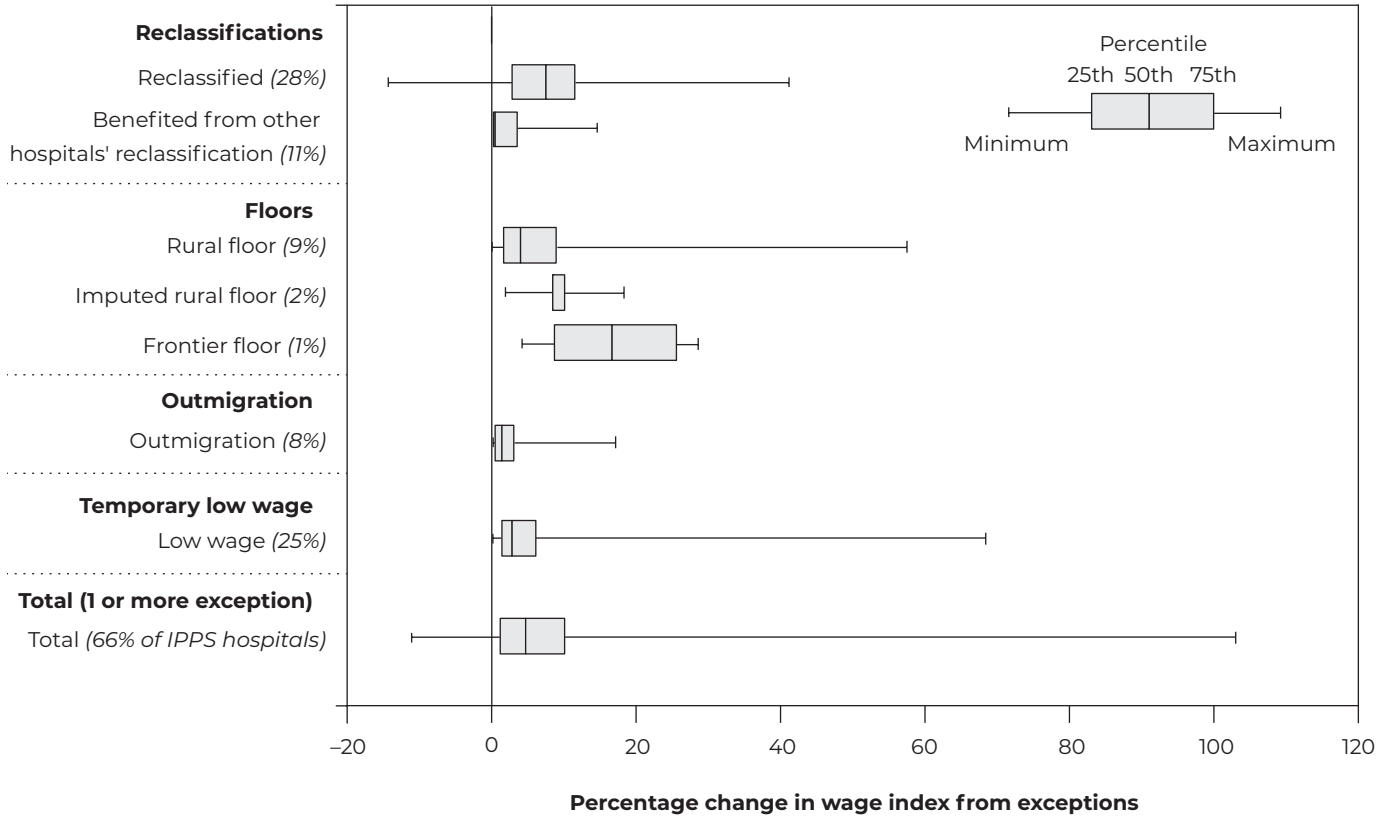
wage index value is increased for (nonreclassified) hospitals in certain counties that have a high share of hospital employees who reside in the county but commute to a higher-wage area.

- **Low wage.** In response to concerns about wage index disparities and circularity, in 2020 CMS created a temporary low-wage index exception, where the wage index value for hospitals in the bottom quartile of wage index values is increased by half the difference between the hospitals' wage index value and the bottom-quartile cut point.

In 2022, most hospitals received at least one wage index exception, and the effects can be substantial. In fiscal year 2022, about two-thirds of IPSS hospitals benefited from at least one IPSS wage index exception. (For comparison, about 40 percent of IPSS hospitals received at least one wage index exception in 2007 (Medicare Payment Advisory Commission 2007).)

FIGURE 9-4

Effect of IPPS wage index exceptions are often substantial, 2022



Note: IPPS (inpatient prospective payment systems). Each bar represents distribution of the percentage change in the wage index value from that exception, including the minimum; 25th, 50th, and 75th percentile; and maximum. The total bar represents the distribution of the cumulative percentage change in the wage index value among hospitals that received one or more exceptions. Figure excludes Indian Health Service hospitals.

Source: MedPAC analysis of fiscal year 2022 IPPS wage index public use files.

The effect of these wage index exceptions can be substantial. Among the two-thirds of IPPS hospitals with a wage index value affected by at least one wage index exception, over a quarter received a more than 10 percent increase in their wage index value, and some received a substantially higher increase (Figure 9-4).

The most common wage index exceptions are budget neutral—reclassifications, rural floor, and temporary low-wage exception—and they are paid for by reducing payments to all hospitals to support the increased wage index and payments to the subset of hospitals receiving

these exceptions. CMS estimated that for fiscal year 2022 these budget-neutral exceptions would increase IPPS payments by about \$2.2 billion dollars, or 2.2 percent, and therefore CMS decreased IPPS base rates to all hospitals by 2.2 percent as an offset.¹¹

The other wage index exceptions—imputed rural floor, frontier floor, and outmigration policy—are required to be implemented in a non-budget-neutral manner. In fiscal year 2022, CMS estimated that these exceptions would increase IPPS payments by about \$314 million, or 0.3 percent of total spending under the IPPS.

Concerns with Medicare's current wage index systems

In response to a mandate in the Tax Relief and Health Care Act of 2006, in 2007, the Commission conducted an analysis of the wage index for IPPS hospitals and other provider types and recommended an alternative wage index method that would more accurately reflect differences in labor costs across geographic areas (Medicare Payment Advisory Commission 2007). The Commission's recommendations were not implemented. Since our 2007 report, the inaccuracies and inequities in the current wage index systems have grown.

Consistent with our 2007 report, the Commission's key concerns with the current IPPS wage index are that it fails to accurately reflect differences in labor costs across geographic areas and creates inequities across hospitals. These inaccuracies and inequities stem from the data sources and definition of labor market areas used, and they are frequently exacerbated by the numerous wage index exceptions. In addition, the Commission remains concerned about the use of the initial hospital wage index by other provider types.

IPPS wage index can deviate from the labor costs faced by all employers of hospital occupations

The current use of lagged hospital cost report data and a limited occupational-mix survey can cause the current IPPS wage index to deviate from the labor costs faced by all employers of hospital occupations. The current wage index embeds individual hospitals' historic advantages and disadvantages (such as market power) and choices about the mix of occupations they employ and how they employ them, instead of just geographic differences in relative wages. This circularity risk can be a particular problem in market areas with few hospitals or hospitals under common ownership.

This use of data from only IPPS hospitals has also contributed to upward and downward wage index spirals: The highest hospital wage index values have increased over time, and the lowest have decreased.

IPPS wage index masks differences in relative labor costs within an area and can create large differences across adjacent areas

The current broad definition of labor market areas—MSAs and statewide rural areas—masks substantial

variation in relative wages within a labor market area such that hospitals with substantially different relative wages receive the same wage-adjusted payment rate. This masking of differences in relative labor costs occurs within both:

- MSAs, where labor costs are often higher at the center of the metropolitan area or high-cost suburbs and lower in outlying counties, which can be over 100 miles apart; and
- statewide rural areas, where all rural counties throughout the state are considered a single area, despite potentially being hundreds of miles apart and different distances to MSAs.

Defining labor market areas broadly can also create large wage index differences across adjacent areas and result in inequities where proximate providers on either side of a labor market area receive substantially different Medicare payment rates, despite facing similar relative wages.

IPPS wage index exceptions can exacerbate inaccuracies and inequities, can be manipulated, and add administrative burden

While there are motivations for each IPPS wage index exception, collectively, they detract from the core goal of the wage index—accurately and equitably reflecting differences in labor costs across geographic areas—because most have either no or a flawed empirical basis, can be manipulated, and add administrative burden. Collectively, they break the link between an area's wage index value and the underlying labor costs faced by employers in that area.

For example, the temporary low-wage index exception was enacted to address concerns that hospitals in areas with low hospital wages may be caught in a downward spiral due to low-wage index values that prevent them from raising their wages; however, there is no empirical basis for the specific magnitude of the increase in any area, and therefore the low-wage exception can overcorrect in some areas and undercorrect in other areas.

Similarly, geographic reclassification pathways partially mitigate a shortcoming of the current wage index—wage index cliffs across adjacent areas, due to the broad definition of labor market areas—but the ability of hospitals to reclassify to a higher-wage area can

create a domino effect. For example, a statewide rural area may have a wage index value significantly lower than that of an adjacent metropolitan area, and a rural hospital proximate to that metropolitan area may be able to reclassify into the metropolitan area and increase the hospital's wage index value. However, that reclassification then shifts the wage index cliff outward, extending to the rural hospital that reclassified and the neighboring rural hospitals that did not reclassify. In addition, geographic reclassification pathways provide opportunities for wage index manipulation, such as through the timing of reclassification requests. Indeed, CMS found that certain hospitals were timing their rural reclassifications, cancellations, and reapplications to obtain higher wage index values (Centers for Medicare & Medicaid Services 2020).¹²

The three wage index floors also create inaccuracies in the current wage index since there is no empirical basis for them. The Commission has long noted that the rural floor is based on an erroneous assumption that the labor costs in a state's urban areas are *always* higher than the labor costs in the state's rural areas (Medicare Payment Advisory Commission 2008, Medicare Payment Advisory Commission 2007).¹³ In addition, these floors further break the link between an area's relative labor costs and the area's wage index value because they can result in a single wage index value being applied across large geographic areas.

CMS has also noted that the rural floor in particular is subject to wage index manipulation, as high-wage urban hospitals in certain states reclassified to their state's rural area to increase the state's rural floor. This higher rural floor was then applied to all of the state's urban hospitals. And since the rural floor is implemented in a budget-neutral manner, these benefits to a minority of states were funded by all states.¹⁴

Last, the multitude of wage index exceptions adds significant administrative burden. The primary burden falls on CMS, through managing the exceptions, implementing policies to decrease hospitals' opportunities for manipulation, and responding to litigation. The IPPS wage index exceptions also are administratively burdensome to hospitals because many spend significant time and expense trying to maximize their ability to benefit from the various wage index exceptions.

IPPS hospitals can gain non-wage index benefits through reclassifications

One wage index exception—reclassification—can also be used to obtain various non-wage index benefits. For example, hospitals that reclassify to be treated as if located in a rural area can gain eligibility for rural hospital designations through which they can receive additional payments (sole community hospitals and Medicare-dependent hospitals), receive a rural hospital designation that has lower eligibility thresholds for the 340B drug program (rural referral centers), and receive increases in Medicare-funded residency slots available to “rural” hospitals.

Furthermore, in response to a court ruling, starting in fiscal year 2018, IPPS hospitals can maintain dual reclassifications, in which they first reclassify as rural through one pathway and then reclassify to a different area (potentially their original geographic area) through a different pathway. As a result, urban IPPS hospitals can reclassify to rural to gain non-wage index benefits without decreasing their wage index. In fiscal year 2022, over 450 hospitals maintained dual reclassifications, and over a quarter of these hospitals reclassified to their original geographic area. Of these, over 350 were urban hospitals that dually reclassified and became rural referral centers, which are subject to lower eligibility thresholds for the 340B drug savings programs.

Use of initial hospital wage index for other provider types is inaccurate and inequitable

The use of the initial hospital wage index for other provider types is inaccurate and inequitable for several reasons.

First, there continue to be concerns about inaccuracies and inequities from the initial hospital wage index data source and from the definition of labor market areas discussed above, regardless of provider type.

Second, because hospitals employ a mix of occupations different from other providers, such as SNFs, and relative wages for occupations can vary within an area, a wage index based solely on hospitals' labor costs does not necessarily accurately reflect geographic differences in labor costs among the types of workers hired by nonhospital providers, such as SNFs. For example, in areas where wages for the top occupation

employed by SNFs (NAs) is higher than the national average but the top occupation employed by hospitals (RNs) is lower than the national average, the SNF PPS wage index should be higher than the IPPS wage index since SNFs in that area face higher relative labor costs. Moreover, the wage index for other providers needs to be imputed for areas where there are no IPPS hospitals.

Third, the numerous wage index exceptions in the IPPS—but not in other PPSs—cause inequities across provider types and contribute to payment differences across settings. The IPPS wage index exceptions can cause wage index values to be substantially higher for IPPS hospitals than for other provider types in the same area, such as SNFs, which compete to a degree with IPPS hospitals for RNs, NAs, and other staff. Similarly, the existence of wage index exceptions for IPPS hospitals but not for other types of providers contributes to differences in Medicare payments for the same service across different settings (such as certain services provided in acute care hospitals and long-term care hospitals, or hospital outpatient departments and ambulatory surgical centers).

An improved approach for Medicare's wage index systems and resulting impacts

To accurately reflect geographic differences in labor costs faced by IPPS hospitals and other types of providers and to be more equitable across providers, the Commission asserts that Medicare's wage index systems should:

- **Use all-employer, occupation-level wage data with different occupation weights for the wage index of each type of provider.** Because all employers participate in the labor market and compete for similar types of workers, the wages and benefits used to construct a wage index should come from all employers of a given occupation. Using all-employer wage data also increases the number of employers with wage data in each area and therefore increases reliability and decreases the circularity that causes deviations between the labor costs reported by hospitals and broader labor market wages.

In addition, because different provider types (such as hospitals and SNFs) employ a different mix of occupations and an area's relative wages can vary by occupation, the calculation of an area's relative wages should use different occupation weights for the wage index of each provider type. (For example, while each wage index would use the same underlying all-employer, occupation-level relative wages, the IPPS wage index should weight these occupation-level relative wages to reflect the national occupational mix for acute care hospitals while the SNF PPS wage index should use occupation weights reflecting the national mix of occupations for SNFs.)

- **Reflect local area differences in wages between and within MSAs and statewide rural areas.** Because relative wages can vary within a large labor market area (i.e., an MSA and statewide rural area), the wage index should use data at a local area level (such as counties) in order to recognize this variation.
- **Smooth wage index differences across adjacent local areas.** Because proximate providers across adjacent local areas (such as county lines) compete for similar employees, the wage index should smooth wage index differences across adjacent local areas.
- **Have no exceptions.** Because exceptions decrease the accuracy of the wage index, increase opportunities for manipulation, and add administrative burden, the wage index method should have no exceptions. To the extent that policymakers want to increase payments to certain hospitals or other types of providers—in particular, to those that are important for access and vulnerable to closure—these payment increases should be targeted specifically to those providers to achieve defined and relevant policy goals, not made inefficiently through unrelated policies such as the wage index.

Based on these principles, we modeled an illustrative IPPS wage index (see text box, p. 388–389) and an illustrative SNF wage index. Our illustrative models used a combination of Bureau of Labor Statistics (BLS) all-employer, occupation-level wage data at the MSA level, combined with Census Bureau occupational-level data at the county level and BLS benefits data (which are available only at the regional level). Relying on a

greater number of data sources could be perceived as increasing complexity and administrative burden, but we maintain that an improved wage index system based on these data sources would result in a lower administrative burden for CMS and hospitals relative to the current approach, which requires CMS to review wage data submitted by hospitals via costs reports, conduct a separate occupational mix survey, and deal with large numbers of requests for reclassification from hospitals and their wage index consultants. In addition, by relying on BLS and Census occupation-level data from substantially more employers, our illustrative wage indexes are more accurate and robust in their measurement of relative wages for a provider type in a given area, as well as less manipulable. Though the underlying wage information in the BLS and Census data may be slightly less transparent than data collected directly from individual hospitals by CMS, the Commission maintains that the reduction in circularity achieved by using BLS and Census data is a worthwhile trade-off, especially as these data are publicly available. Further, as BLS and Census data continue to be updated, such as to include more detailed occupations, those changes would be automatically incorporated into the wage index.

In developing our illustrative model, we acknowledge that opinions differ as to the “correct” definition of labor market areas. Recognizing that the market area definitions used in the current wage indexes (MSAs and statewide rural areas) can be too large and that counties could be too small to accurately represent labor market areas, we created a hybrid that allows variation by county within a market area, but within limits.

We found that our improved IPPS wage index would more accurately reflect geographic differences in labor costs faced by IPPS hospitals and would therefore be more equitable than the current IPPS wage index. We found similar results for SNFs when we modeled an improved SNF PPS wage index (using the same underlying data as the IPPS wage index but using occupation weights specific to SNFs). Implementing these improved wage indexes in a budget-neutral manner would not change aggregate geographic-adjusted IPPS payments or aggregate geographic-adjusted SNF PPS payments but would significantly redistribute Medicare payments across IPPS hospitals and across SNFs. Policymakers would need to phase

in the new wage indexes over multiple years (or apply a stop-loss policy) to limit large changes to providers’ Medicare payments within any given year.

An improved IPPS wage index would be more accurate and equitable

By design, our illustrative IPPS wage index would more accurately reflect geographic differences in labor costs faced by IPPS hospitals than the current IPPS wage index. It would decrease the circularity risk of the wage index reflecting hospitals’ historical advantages and disadvantages, such as market power, that have caused IPPS hospitals’ labor costs to materially differ from the broader labor costs across all employers in a geographic area. Further, because our illustrative IPPS wage index reflects differences in labor costs at the county level and constrains wage index cliffs, it would be more equitable across hospitals by more closely aligning wage index values with each county’s labor costs and reducing differences in the wage indexes of neighboring hospitals in different labor market areas, without the administrative burden for providers and CMS of current reclassification exceptions.

Implementing such changes to the IPPS wage index in a budget-neutral manner would not change aggregate geographic-adjusted IPPS payments but would redistribute Medicare payments across IPPS hospitals.¹⁵ (In response to court cases, CMS has proposed wage index policy changes starting in fiscal year 2024 regarding the treatment of data from hospitals that reclassify to rural areas. If implemented, these would change the specific results in this chapter but not our conclusions.)

MedPAC’s illustrative IPPS wage index decreases circularity risk and more accurately reflects labor market costs

One key design difference between the current IPPS wage index and the Commission’s illustrative wage index is the source of data, including the set of employers included and level at which the data are collected (Table 9-2, p. 390).

Basing our illustrative IPPS wage index on a broader range of employers’ data—all employers in an area—decreases the circularity risk of the wage index reflecting hospitals’ historical advantages and disadvantages, such as market power, that have

Modeling an improved IPPS wage index

To develop an illustrative inpatient prospective payment systems (IPPS) wage index consistent with the Commission's principles for Medicare's wage index systems, we took the following steps:

- **Collected all-employer, occupation-level wage data for the most common occupations employed by general acute care hospitals, by statewide rural areas, by metropolitan statistical area (MSA), and nationally.** We used the 2019 Bureau of Labor Statistics (BLS) Occupational Employment and Wage Survey (OEWS) of about 1.1 million establishments. These data are aggregated to MSAs—or, for New England, to New England City and Town Areas—and nonmetropolitan areas in a state, as well as nationally. We collected this occupation-level data for the 36 occupations that comprised at least 0.5 percent of national institutional wages for general acute care hospitals.¹⁶ Because the BLS data are at the establishment level, they automatically incorporate changes in telework over time.

- **Calculated acute care hospital occupation weights.** Using the OEWS data, we calculated a weight for each occupation that reflected the occupation's share of national institutional wages for acute care hospitals (among the included occupations). The two occupations with the highest weights were registered nurses (47 percent) and medical and health services managers (5 percent).
- **Calculated an initial wage index value for each labor market area as the occupation-weighted average hourly wage (AHW) for the area relative to the national average.** We had BLS calculate initial wage index values, using the identified occupations and weights.¹⁷

$$\text{Wage index value for area} = \sum (\text{AHW for occupation in area} / \text{AHW for occupation nationally}) \times \text{occupation weight}$$

(continued next page)

caused IPPS hospitals' labor costs to materially differ from the broader labor costs across all employers in a geographic area.¹⁸ In other words, in some areas, hospitals pay substantially more or less than the average premium over other employers for the same types of workers (see examples in Table 9-3, p. 390).¹⁹ And because the wage index is budget neutral (apart from certain exceptions), the higher wage index values in areas where hospitals pay more than other employers in the same area come at the expense of all other hospitals. For example, because the hospitals in Santa Rosa, CA, are in a stronger financial position (or under more pressure) to pay wages above the all-employer average in that area, their current wage index is artificially high. That increase comes at the expense of other areas, such as rural Arizona, where hospitals may have less ability to raise their wages.

As a result of these data source improvements, aggregate IPPS payments under the Commission's illustrative IPPS wage index would shift away from hospitals located in areas where IPPS hospitals pay more than other employers in the area and toward hospitals located in areas where IPPS hospitals pay less than the average premium over other employers in the area. For example, we found that 19 percent of hospitals were located in an area where the relative labor costs for RNs using all-employer data was at least 5 percent higher than when using only hospital data. We estimated that under our illustrative wage index, IPPS payments to these hospitals (currently paying relatively low wages) would increase by 1.4 percent when including the temporary low-wage index exception and 2.2 percent when excluding the temporary exception (Table 9-4, p. 391).

Modeling an improved IPPS wage index (cont.)

- **Applied benefits' share of total compensation in that region, relative to the national average.** Because the OEWS data include only wages and not benefits, we applied BLS data from the National Compensation Survey on benefits' share of total compensation to adjust for regional variation in benefits.
- **Applied a county-level intra-area adjustment factor, up to 5 percent.** Because relative wages can vary within a labor market area but BLS data are not available at the county level, we supplemented the BLS data with data from the Census Bureau's American Community Survey. We used the Census data and the same occupational weights to calculate an intra-area adjustment factor that reflected the county's wage index value relative to its broader labor market area (MSA or statewide rural area), up to plus or minus 5 percent.²⁰ For each county, we applied this factor to the BLS-based wage index value of the county's broader labor market area. The 5 percent cap was chosen

for illustrative purposes as a balance between recognizing intra-area variation while limiting the maximum difference across counties in the same parent area (at 10 percent, i.e., from -5 percent to +5 percent of the parent area).

- **Smoothed wage index values across adjacent counties such that the maximum difference was 10 percent.** As a final step, we compared the county-level wage index values across adjacent counties and increased the wage index value of any county that was more than 10 percent below that of an adjacent county. We iteratively repeated this process until all the adjacent counties had a wage index value that was at most 10 percent below that of an adjacent county. The 10 percent cap was chosen as a balance between limiting the difference across adjacent counties and limiting the number of counties that would be subject to smoothing from a geographically distant county, creating a domino effect. ■

Another way to view the circularity risk of basing the IPPS wage index solely on the data of IPPS hospitals is to look at how the lowest and highest wage index values have changed over time (Table 9-5, p. 391). For example, in 2022, the area with the highest current IPPS wage index prior to exceptions was San Jose, CA, with a value of 1.86, a substantial increase from its value of 1.53 in 2007. When hospitals in high-wage index areas, such as San Jose, are able to increase their wages much faster than the national average, those increases come at the expense of other hospitals that receive lower payments due to the budget-neutrality aspect of the wage index. This risk is a particular concern if the hospitals' wages are materially higher than other employers' wages for similar employees in the market. The Commission's illustrative IPPS wage index would remove this circularity risk and bring the wage index

for high-wage index areas, such as San Jose, and for low-wage index areas, such as rural Alabama, closer to their pre-exception values in 2007.

As a result of shifting to wage data from a broader set of employers, aggregate IPPS payments under our illustrative wage index would shift away from hospitals located in areas with the highest current wage index values and toward hospitals in areas with the lowest wage index values that are currently supported by the temporary low-wage exception (Table 9-6, p. 392). For example, among the 37 percent of hospitals with a current wage index between 0.7 and 0.9, we estimated that IPPS payments would increase by 2.0 percent when including the temporary low-wage exception and by 3.1 percent when excluding the temporary low-wage exception. (Among the 2 percent of hospitals with

**TABLE
9-2**

MedPAC’s illustrative IPPS wage index includes data from a broader range of employers and at a more granular occupation level

Current IPPS wage index	Illustrative IPPS wage index
<i>Data from IPPS hospitals only</i>	<i>Data from all employers of hospital occupations</i>
Based on IPPS hospital reported data (cost reports and occupational mix survey)	Based on surveys of all employers of hospital occupations (BLS and Census)
<i>Partially accounts for hiring decisions</i>	<i>Fully accounts for hiring decisions</i>
Hospital cost reports include aggregate wages across all occupations, and the occupational-mix survey can only apply national weights to the collected four categories of nursing occupations, which account for about half of hospitals' wages	All wage data at occupation level, so can apply national weights to all hospital occupations
Note: IPPS (inpatient prospective payment systems), BLS (Bureau of Labor Statistics).	
Source: MedPAC.	

**TABLE
9-3**

Labor costs reported by IPPS hospitals do not necessarily reflect labor costs across all employers in the area

Labor market area	RN labor costs relative to national average		Percentage difference (all employers vs. IPPS hospitals)
	IPPS hospital data (current)	All employer data (illustrative)	
<i>Examples of areas where hospitals pay substantially more than other employers, making current wage index value too high</i>			
Santa Rosa, CA	1.94 (N = 5)	1.34	-31%
Longview, WA	1.20 (N = 22)	0.90	-25
Rural Massachusetts	1.36 (N = 3)	1.04	-24
<i>Examples of areas where hospitals pay substantially less of a premium over other employers, making current wage index value too low</i>			
Valdosta, GA	0.63 (N = 3)	0.82	30%
Rural Arizona	0.88 (N = 7)	1.07	21
Cleveland-Elyria, OH	0.81 (N = 31)	0.93	15

Note: IPPS (inpatient prospective payment systems), RN (registered nurse). The N indicates the number of hospitals contributing to that area’s wage index value, which can include both those geographically located in the area and those that reclassified into the area.

Source: MedPAC analysis of 2022 IPPS final rule wage index files and Bureau of Labor Statistics wage index data.

**TABLE
9-4**

Under MedPAC’s illustrative IPPS wage index, IPPS payments would shift toward hospitals in areas where hospitals pay less than market area wages for RNs

Percent change in IPPS payments if moved to alternative wage index from current wage index

RN relative wages: all employers vs. IPPS hospitals only	Share of hospitals	Including temporary low-wage exception			Excluding temporary low-wage exception		
		Aggregate	25th percentile	75th percentile	Aggregate	25th percentile	75th percentile
Much higher (>5%)	19%	1.4%	0.2%	4.1%	2.2%	0.0%	6.3%
Higher (2% to 5%)	21	1.1	-0.3	2.7	1.5	-0.3	3.8
Similar (+/- 2%)	24	0.0	-0.5	1.9	0.0	-0.6	3.1
Lower (-5% to -2%)	16	-0.7	-1.9	1.4	-0.9	-2.4	2.8
Much lower (<-5%)	17	-2.9	-4.1	0.9	-4.3	-6.1	0.9

Note: IPPS (inpatient prospective payment systems), RN (registered nurse). Analysis includes IPPS hospitals (other than Indian Health Service hospitals) with a published 2022 wage index and that provided IPPS services in 2021. IPPS payments exclude uncompensated care, were estimated under a budget-neutral policy, and assumed no changes in eligibility for enhanced IPPS payments. Components do not sum to 100 percent due to rounding.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 IPPS final rule wage index files, and Bureau of Labor Statistics and Census data.

a current wage index less than 0.7, all of which are in Puerto Rico, we estimated that IPPS payments would increase by 14.1 percent when excluding the low-wage exception but decrease by 6.2 percent when including the temporary low-wage exception, because the over 50 percent increase to the wage index value from the temporary exception is an overcorrection.)

Another benefit of the Commission’s illustrative wage index is that it uses fixed occupational weights, which remove the opportunity for hospitals to manipulate their average wage (and thus their wage index) by adjusting the hospital’s mix of employees. For example, the hospital could choose to contract with a company to provide groundskeeping and exterior maintenance

**TABLE
9-5**

Highest and lowest current IPPS wage index values have grown over time; illustrative wage index has a narrower spread

Areas with highest and lowest current wage index values, as of 2022	Current IPPS wage index (prior to exceptions)				Illustrative
	2007	2012	2017	2022	2022
Highest: San Jose, CA	1.53	1.66	1.74	1.86	1.47 to 1.55
Lowest in continental U.S.: rural Alabama	0.77	0.73	0.69	0.65	0.74 to 0.90
Lowest: Aguadilla, Puerto Rico	0.38	0.35	0.35	0.30	0.42 to 0.49

Note: IPPS (inpatient prospective payment systems). For areas with more than one county, the alternative IPPS wage index can have a range of values because of the county adjustment and potential smoothing to mitigate wage index cliffs.

Source: MedPAC analysis of CMS IPPS final rule wage index files and Bureau of Labor Statistics and Census data.

**TABLE
9-6**

Under MedPAC’s illustrative IPPS wage index, IPPS payments would shift toward hospitals in areas with low current wage index values that are currently supported by temporary low-wage index exception

Percent change in IPPS payments if moved to illustrative wage index from current wage index

Current wage index value	Share of hospitals	Including temporary low-wage exception			Excluding temporary low-wage exception		
		Aggregate	25th percentile	75th percentile	Aggregate	25th percentile	75th percentile
<0.7	2%	-6.2%	—	—	14.1%	—	—
0.7 up to 0.9	37	2.0	0.3	3.2	3.1	1.0	5.7
0.9 up to 1.1	41	0.7	-1.0	1.9	0.8	-2.0	2.7
1.1 up to 1.3	13	-1.0	-2.4	1.2	-1.4	-3.6	1.4
1.3 up to 1.5	5	-3.5	-6.2	-2.6	-4.7	-7.1	-3.6
>1.5	3	-6.8	—	—	-9.9	—	—

Note: IPPS (inpatient prospective payment systems). Analysis includes IPPS hospitals (other than Indian Health Service hospitals) that provided IPPS services in 2021 and had a published 2022 wage index. IPPS payments exclude uncompensated care, were estimated under a budget-neutral policy, and assumed no changes in eligibility for enhanced IPPS payments. Components do not sum to 100 percent due to rounding.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 IPPS final rule wage index files, and Bureau of Labor Statistics and Census data.

for a fixed annual fee rather than employ low-wage workers who would bring down the hospital’s wage index. They could also contract out coding of claims to a firm to reduce relatively low-cost coders. They could also make sure all of their legal work was paid on

an hourly basis in a way that their external counsel’s hourly wage would be included in the hospital’s average hourly wage for wage index purposes. In general, a new fixed-weight wage index would prevent wage index concerns from distorting hospitals’ hiring decisions.

**TABLE
9-7**

MedPAC’s illustrative IPPS wage index reflects differences in labor costs at a more granular level than the current wage index and mitigates wage index cliffs

Current IPPS wage index

Broad labor market areas

Reflects differences in labor costs across broad labor market areas (MSAs and statewide rural areas) with a single wage index value for each (prior to any wage index exceptions)

No limit on wage index cliffs

Adjacent areas can have materially different wage index values, both before and after wage index exceptions

Illustrative IPPS wage index

Smaller labor market areas

Reflects differences in labor costs across counties (including those within the same MSA or statewide rural area, up to +/-5%)

Limit on wage index cliffs

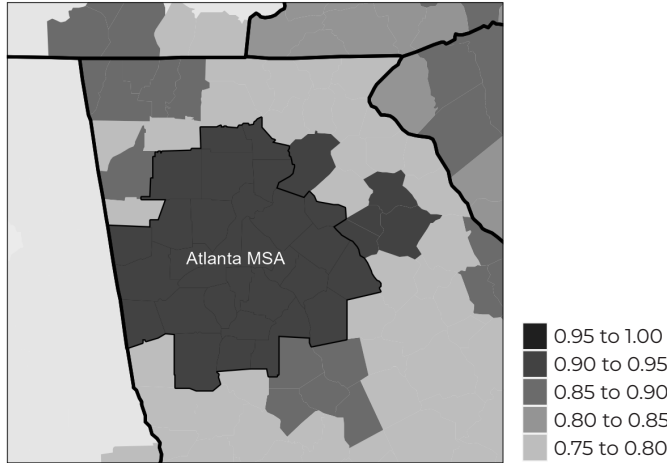
Each county’s wage index value is constrained to be at most 10 percent below wage index value of highest adjacent county (including those in different states)

Note: IPPS (inpatient prospective payment systems), MSA (metropolitan statistical area).

**FIGURE
9-5**

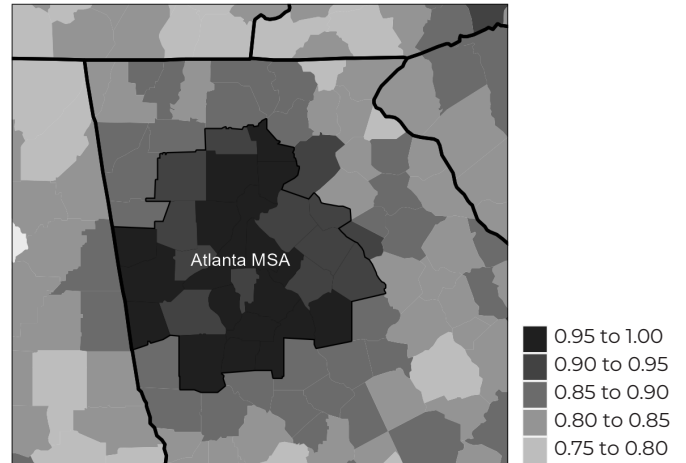
MedPAC’s illustrative IPPS wage index reflects differences in labor costs at the county level and removes large wage index cliffs across adjacent counties: Atlanta

**Current IPPS wage index
(prior to exceptions)**



Each MSA and statewide rural area has a single wage index value, masking any variation in labor costs within each labor market area and creating large wage index cliffs across counties on either side of an MSA or statewide rural area

Illustrative IPPS wage index



Wage index values vary at the county level (including within each MSA and statewide rural area) and there is a smoother transition in wage index values across counties on either side of an MSA or statewide rural area

Note: IPPS (inpatient prospective payment systems), MSA (metropolitan statistical area). IPPS wage index prior to exceptions is the wage index adjusted for occupational mix.

Source: MedPAC analysis of CMS final rules for fiscal year 2022 and Bureau of Labor Statistics and Census data.

In addition to reflecting labor market costs more accurately and reducing the potential for manipulation, our illustrative IPPS wage index’s use of data from all employers in an area would decrease the administrative burden on CMS because the agency would no longer need to audit hospital cost report wage data or field an occupational-mix survey.

MedPAC’s illustrative IPPS wage index varies at the county level and mitigates wage index cliffs

Another key design difference between the current IPPS wage indexes and the Commission’s illustrative wage index is the geographic unit at which variation in labor costs are reflected and constrained (Table 9-7).

Because our illustrative IPPS wage index reflects differences in labor costs at the county level and constrains wage index cliffs, it both recognizes differences in labor costs within a broader labor market area (i.e., MSA or statewide rural area) and allows for a smoother distribution of wage index values across adjacent counties. (For an example, see Figure 9-5.) This design therefore makes our illustrative wage index more equitable across hospitals by more closely aligning wage index values with each county’s labor costs and reducing differences in the wage index values of neighboring hospitals in different labor market areas, without the administrative burden or opportunities for manipulation created by the current reclassification exceptions.

**TABLE
9-8**

Under MedPAC’s illustrative IPPS wage index, IPPS payments would shift toward hospitals in counties with higher labor costs than the average in their broader labor market area

Percent change in IPPS payments if moved to illustrative wage index from current wage index

County labor costs relative to broader labor market area average (MSA or statewide rural area)	Share of hospitals	Including temporary low-wage exception			Excluding temporary low-wage exception		
		Aggregate	25th percentile	75th percentile	Aggregate	25th percentile	75th percentile
Much higher (>5%)	6%	0.9%	-0.5%	3.1%	1.9%	-1.5%	6.1%
Higher (2% to 5%)	20	1.0	0.7	3.5	1.3	0.7	5.5
Similar (+/- 2%)	52	-0.1	-1.1	1.9	-0.2	-1.6	3.0
Lower (>-2% to -5%)	15	-2.4	-3.0	0.7	-2.8	-4.0	1.4
Much lower (<-5%)	7	-0.1	-1.5	1.4	0.6	-1.1	4.9

Note: IPPS (inpatient prospective payment systems), MSA (metropolitan statistical area). Analysis includes IPPS hospitals (other than Indian Health Service hospitals) that provided IPPS services in 2021 and had a published 2022 wage index. IPPS payments exclude uncompensated care, were estimated under a budget-neutral policy, and assumed no changes in eligibility for enhanced IPPS payments.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 IPPS final rule wage index files, and Bureau of Labor Statistics and Census data.

As a result of these improvements, aggregate IPPS payments under the Commission’s illustrative wage index would shift away from hospitals in counties with labor costs lower than their MSA’s (or statewide rural area’s) average and toward those in counties with higher labor costs (Table 9-8). For example, we found that 6 percent of IPPS hospitals were located in a county where labor costs were at least 5 percent higher than the average for their broader labor market area (MSA or statewide rural area). We estimated that, under our illustrative wage index, IPPS payments to these hospitals would increase by 0.9 percent when including the temporary low-wage exception and by 1.9 percent when excluding the temporary exception, reflecting the fact that the current wage index prior to exceptions generally underestimates the labor costs faced by hospitals in counties where labor costs are higher than the MSA or statewide rural average. (The results vary across individual counties because of interactions with other inaccuracies in the current wage index.)

Aggregate IPPS payments would also shift toward the small share of hospitals in counties where the wage index value was increased under the illustrative model

so that it would not be more than 10 percent below that of an adjacent county (data not shown).

MedPAC’s illustrative IPPS wage index removes opportunities for wage index manipulation by having no exceptions

A third key design difference between the current IPPS wage indexes and the Commission’s illustrative model is that our model has no wage index exceptions and instead addresses concerns with the current IPPS wage index by broadening the data sources and using more granular definitions of labor market areas. As a result, it also removes hospitals’ ability to manipulate the wage index and lowers the associated administrative burden on CMS.

Because the current wage index exceptions include a mix of those that address underlying inaccuracies and inequities in the current wage index and those that further break the link between an area’s labor costs and its wage index values, aggregate IPPS payments under the Commission’s illustrative wage index would shift slightly away from hospitals that currently receive a wage index exception and toward those

**TABLE
9-9**

Under MedPAC’s illustrative IPPS wage index, IPPS payments would shift slightly toward hospitals with a wage index currently unaffected by wage index exceptions

Exceptions that affect the current wage index	Share of hospitals	Percentage change in IPPS payments if moved to illustrative wage index from current wage index					
		Including temporary low-wage exception			Excluding temporary low-wage exception		
		Aggregate	25th percentile	75th percentile	Aggregate	25th percentile	75th percentile
None	33% 47%	0.2%	-1.0%	2.3%	0.6%	-0.5%	4.6%
Reclassified	29	-0.5	-2.0	1.4	-0.7	-3.1	2.5
Rural floor	9	0.0	-1.5	2.4	0.4	-0.8	5.3
Imputed rural floor	2	-0.9	—	—	-1.1	—	—
Frontier floor	1	-2.3	—	—	-4.8	—	—
Outmigration	7	-0.6	-2.0	2.8	-0.7	-2.2	4.1
Temporary low-wage	25	1.8	-0.2	3.2	N/A	N/A	N/A

Note: IPPS (inpatient prospective payment systems). Analysis includes IPPS hospitals (other than Indian Health Service hospitals) that provided IPPS services in 2021 and had a published 2022 wage index. IPPS payments exclude uncompensated care, were estimated under a budget-neutral policy, and assumed no changes in eligibility for enhanced IPPS payments. The sum of “share of hospitals” is greater than 100 percent because hospitals can receive more than one wage index exception.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 IPPS final rule wage index files, and Bureau of Labor Statistics and Census data.

that do not (Table 9-9). For example, we found that 33 percent of IPPS hospitals had a 2022 wage index that was unaffected by wage index exceptions when including the temporary low-wage index exception; we estimated that under our illustrative wage index, IPPS payments to these hospitals would increase by 0.2 percent. Excluding the temporary low-wage index exception, we estimated that IPPS payments to the 47 percent of hospitals not receiving a wage index exception would increase by 0.6 percent. The hospitals not receiving a wage index exception were a heterogeneous group (including a mix of those with very low and high current wage index values, geographic locations, and ownership types), a majority of which would see increases under our illustrative wage index (data not shown).

However, the shift in IPPS payments would be much larger among certain hospitals benefiting from wage index exceptions, such as hospitals and areas that currently manipulate their wage index. For example,

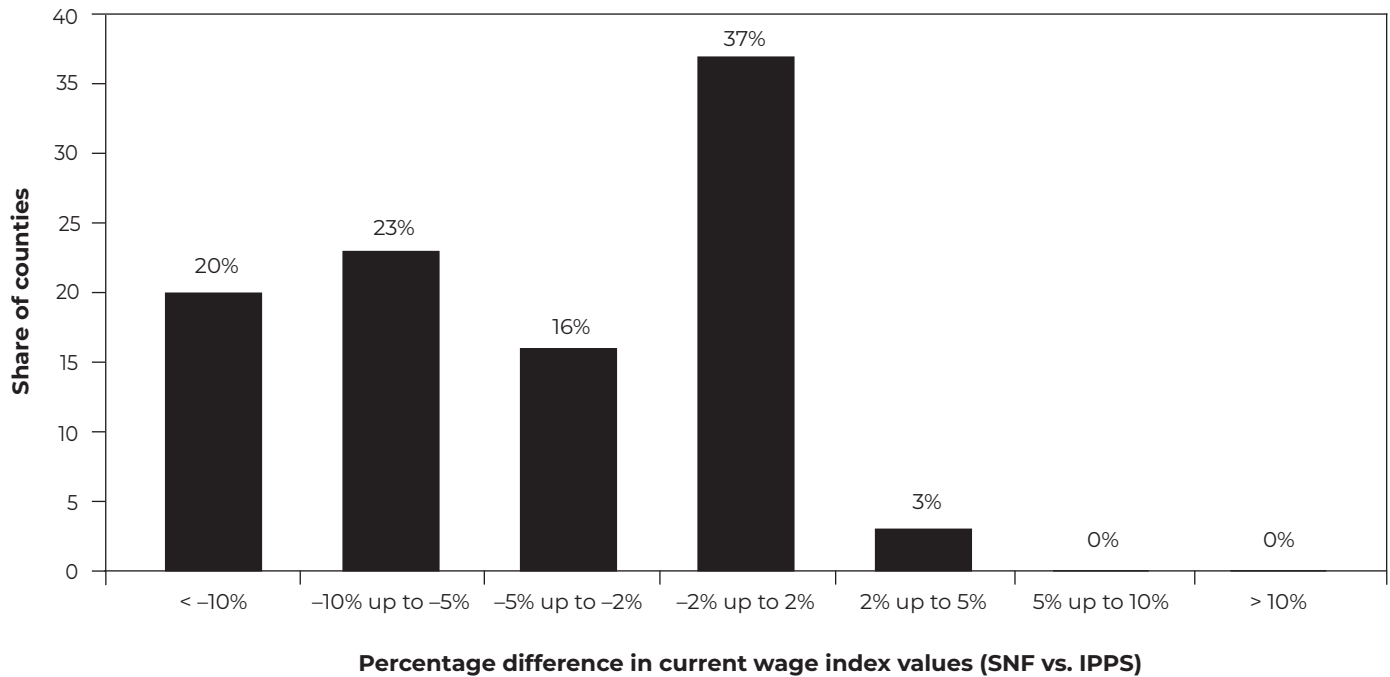
CMS has long noted wage index manipulation in Massachusetts. In 2008, one hospital with high relative wages converted from a critical access hospital (with wages that did not contribute to the IPPS wage index) to an IPPS hospital shortly after it merged with a larger health system. A spokesperson for the system stated that “the change from critical access to rural has the potential to help hospitals across the state of Massachusetts” (Elvin 2016). Indeed, the rural floor—the lowest possible wage index value that all urban areas in Massachusetts receive—for Massachusetts was 1.28 in 2022 and was solely based on this hospital’s data. Nearly all of the hospitals in Massachusetts had their wage index value raised to that floor, an increase in some instances of over 35 percent.²¹

Removing IPPS wage index exceptions would also remove inequities between IPPS hospitals and other types of providers

Under the current wage index policies, there are many areas where the initial hospital wage index value

**FIGURE
9-6**

Current IPPS exceptions result in inequities for SNFs and other types of providers relative to IPPS hospitals



Note: SNF (skilled nursing facility), IPPS (inpatient prospective payment systems). Analysis includes counties with an IPPS hospital (but no Indian Health Service hospitals). For counties with multiple IPPS wage index values due to exceptions, the average was used.

Source: MedPAC analysis of 2022 SNF PPS and IPPS final rule wage index files.

used by other providers, such as SNFs, is substantially lower than the IPPS wage index value because IPPS hospitals are eligible for wage index exceptions that other providers are not (Figure 9-6). This difference can create inequities between SNFs and IPPS hospitals as they compete, to some degree, to hire RNs and other staff. For example, SNFs and other providers located in areas with a very low initial hospital wage index (such as Puerto Rico and rural Alabama) are at a hiring disadvantage relative to neighboring IPPS hospitals since only IPPS hospitals can benefit from the temporary low-wage exception, which increases the wage index for hospitals in some areas by over 35 percent. Similarly, only IPPS hospitals (and their outpatient departments) are eligible for other wage index exceptions, such as reclassifications, wage index floors, and outmigration, each of which can substantially increase the IPPS wage index.

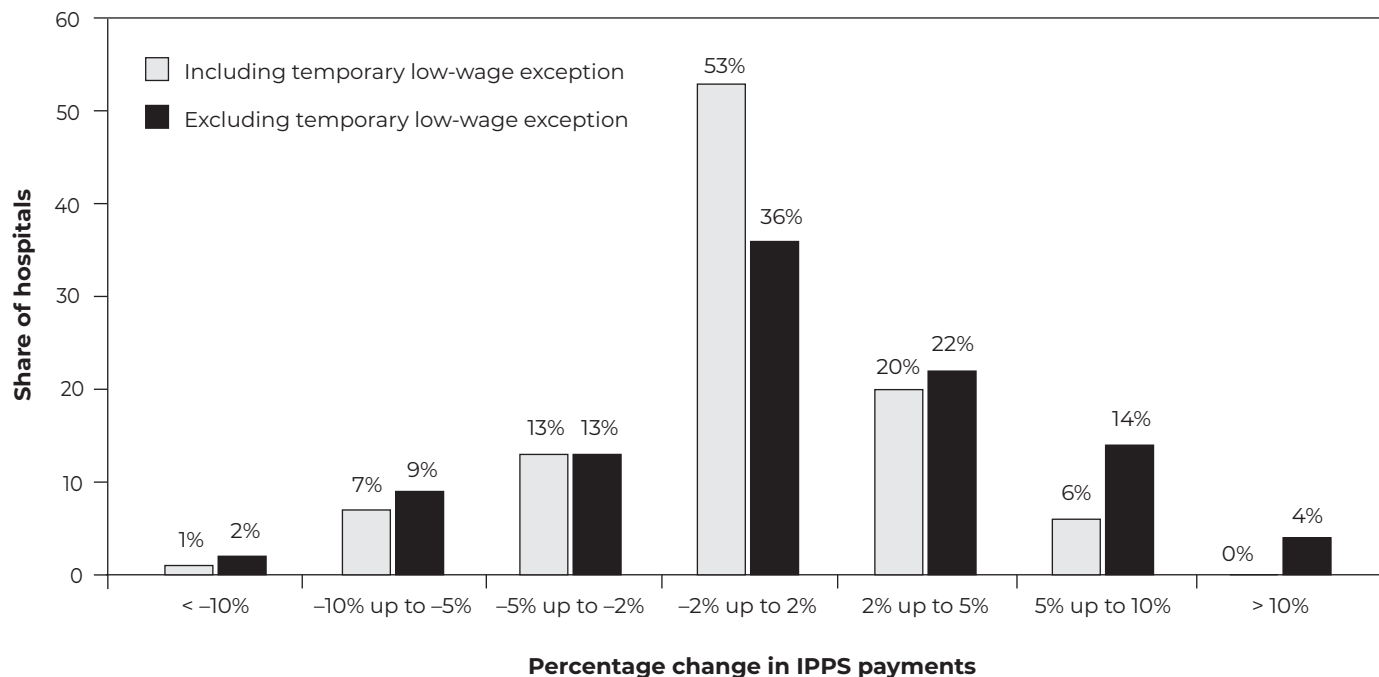
Redistributional effects of MedPAC’s illustrative IPPS wage index on many hospitals would be material

Because of the large inaccuracies in the current IPPS wage index, moving to the Commission’s illustrative IPPS wage index would have a material effect on many IPPS hospitals (Figure 9-7). We estimated that IPPS payments, once fully phased in, would fall by more than 5 percent for about 10 percent of hospitals, and payments would rise by more than 5 percent for 6 percent of hospitals when compared with the current wage index inclusive of the temporary low-wage index exception and for 18 percent of hospitals when excluding the temporary low-wage exception.

Because hospitals with various wage index characteristics are distributed across different types of hospitals, at least a quarter of hospitals across

FIGURE 9-7

MedPAC’s illustrative IPPS wage index would materially affect many hospitals’ IPPS payments



Note: IPPS (inpatient prospective payment systems). Analysis includes IPPS hospitals (other than Indian Health Service hospitals) that provided IPPS services in 2021 and had a published 2022 wage index. IPPS payments exclude uncompensated care, were estimated under a budget-neutral policy, and assumed no changes in eligibility for enhanced IPPS payments.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 IPPS final rule wage index files, and Bureau of Labor Statistics and Census data.

different locations, ownership category, and teaching status would see higher payments, and over a quarter of hospitals would see lower payments (Table 9-10, p. 398). Within these hospital groups, the largest positive shift in aggregate payments (+2.2 percent when excluding the temporary low-wage policy) would be toward hospitals in rural, nonmicropolitan areas. This difference is in part because they would no longer need to pay for the rural floor budget-neutrality adjustment from which only urban hospitals can benefit and in part because they tend to be in areas where all-employer relative wages are higher than IPPS hospitals’ reported relative wages.

The hospitals that would experience the largest changes in IPPS payments under the Commission’s illustrative IPPS wage index share one or more wage

index characteristics (Table 9-11, p. 399). For example, about three-quarters of the hospitals that would experience a more than 10 percent decrease in IPPS payments (when excluding the temporary low-wage exception) were located in areas where the hospital-specific labor costs for RNs are much higher than for competing employers in the same area—that is, areas where all-employer relative costs for RNs are more than 10 percent below that of hospital-specific labor costs. The vast majority of these hospitals had an extremely high current wage index value (>1.5). Most of the remaining hospitals that would experience a more than 10 percent decrease in IPPS payments are those that currently receive a more than 35 percent increase in their wage index from a current wage index exception. In both of these cases, these hospitals

**TABLE
9-10**

Effect of MedPAC’s illustrative wage index on IPPS payments would vary across and within categories of hospitals

Percent change in IPPS payments if moved to illustrative wage index from current wage index

Characteristic	Share of hospitals	Including temporary low-wage exception			Excluding temporary low-wage exception		
		Aggregate	25th percentile	75th percentile	Aggregate	25th percentile	75th percentile
Location							
Metropolitan	77%	-0.1%	-1.7%	2.4%	-0.1%	-1.7%	3.4%
Rural micropolitan	16	0.3	-0.8	1.6	0.3	-2.1	4.7
Other rural	7	0.9	-0.6	2.1	2.2	0.1	6.1
Ownership							
Nonprofit	61	-0.2	-1.7	2.1	-0.3	-2.3	3.4
For profit	25	0.6	-0.9	2.3	1.1	-0.5	4.2
Government	14	0.2	-1.0	2.0	0.4	-1.8	4.9
Teaching status							
Teaching	40	0.0	-2.0	2.4	0.0	-2.3	3.3
Nonteaching	60	-0.1	-1.1	2.0	0.0	-1.4	4.3

Note: IPPS (inpatient prospective payment systems). Analysis includes IPPS hospitals (other than Indian Health Service hospitals) that provided IPPS services in 2021 and had a published 2022 wage index. IPPS payments exclude uncompensated care, were estimated under a budget-neutral policy, and assumed no changes in eligibility for enhanced IPPS payments. Weighted average may not be 0 due to missing data and rounding.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 IPPS final rule wage index files, Census geographic files, and alternative MedPAC wage index data.

receive substantially higher wage indexes at the expense of all other hospitals. In contrast, hospitals that would experience large increases in payments include hospitals that currently have very low wage index values and pay less than the average premium over other employers.

Transition policy

Since many providers would be materially affected by a move to an improved wage index system such as the one we modeled, the transition would need to be phased in over time. As examples, the transition could be phased in over multiple years or managed through a stop-loss policy so that no provider experiences changes (positive or negative) in Medicare payments of more than a specified percent in any one year due to the transition to the improved wage index.

An improved SNF PPS wage index would be more accurate and equitable

All of the inaccuracies and inequities with the current initial hospital wage index for IPPS hospitals also apply to SNFs. As noted, the initial hospital wage index’s use of hospital-reported data can be circular and diverge from an area’s more general labor market costs, including those faced by SNFs. In addition, the broader definition of geographic labor market areas masks variation in labor costs among counties within an MSA or statewide rural area and can lead to large wage index cliffs. These geographic inaccuracies and inequities are exacerbated for SNFs and other providers, which are not eligible for wage index reclassifications.

Therefore, using the Commission’s wage index approach, which uses BLS and Census data, for a SNF PPS wage index would be an improvement because

**TABLE
9-11**

Hospitals that would experience more than a 10 percent decrease or increase in IPPS payments under the alternative IPPS wage index shared several characteristics

Common characteristics of IPPS hospitals for which the illustrative IPPS wage index would . . .

Decrease IPPS payments by 10% or more	Increase IPPS payments by 10% or more
<ul style="list-style-type: none"> Hospitals located in areas where hospitals pay wages for registered nurses that are much higher than those paid by competing employers in the same area These are typically areas with extremely high current wage index values (>1.5) 	<ul style="list-style-type: none"> Hospitals located in areas where hospitals pay registered nurses less than the average premium over competing employers in the same area These are typically areas with extremely low wage index values (<0.7 when excluding temporary low-wage exception)
<ul style="list-style-type: none"> Hospitals that receive a substantial increase (>35%) in their wage index values from current wage index exceptions 	

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 IPPS final rule wage index files, and Bureau of Labor Statistics and Census data.

our illustrative wage index is based on broader labor market data, reflects variation at the county level, and mitigates wage index cliffs. In addition, using an illustrative SNF wage index—developed using the same method and underlying data as for IPPS hospitals but with occupation weights specific to SNFs—would further improve accuracy (over the illustrative IPPS wage index) by more closely reflecting differences in labor costs faced specifically by SNFs.

Applying SNF-specific occupation weights is important for two reasons. First, SNFs employ a different mix of occupations than IPPS hospitals, with NAs making up a much greater share of SNFs’ institutional wages (28 percent vs. 4 percent for IPPS hospitals) and RNs making up a much smaller share (17 percent vs. 47 percent for IPPS hospitals).²² Second, relative wages in an area vary across occupations (Table 9-12, p. 400). For example, in some parts of the country, such as certain areas in California, wages for both NAs and RNs are higher than the national average, but the gap between the areas’ wages and the national average is smaller for NAs than for RNs. Since SNFs employ many more NAs than RNs, and vice versa for IPPS hospitals, the SNF PPS wage index value in these areas should be lower than the IPPS wage index value as SNFs face lower relative labor costs. Conversely, in areas such as North Dakota, where the labor costs for NAs are above the

national average but the labor costs for RNs are below the national average, the SNF PPS wage index value should be higher than the IPPS wage index value.

We modeled an illustrative SNF PPS wage index using the methodology outlined in the text box on pp. 388–389 but using SNF-specific occupation weights. Because of the differences in relative labor costs across occupations in the same area, our illustrative SNF PPS wage index has wage index values that are materially lower than those of our illustrative IPPS wage index in some counties and materially higher in others (Figure 9-8, p. 401). (By contrast, under current policy, the wage index values of the hospital wage index used in the SNF PPS are almost always lower than those of the IPPS wage index.)

Implementing the Commission’s illustrative SNF PPS wage index in a budget-neutral manner would not change aggregate SNF PPS payments but would redistribute payments more equitably across SNFs. As with IPPS hospitals, SNF payments would be redistributed:

- away from SNFs located in areas where IPPS hospital-specific labor costs are higher than those of competing employers and toward those in areas where competing employers’ labor costs are higher;

**TABLE
9-12**

Relative hourly labor costs for an area can vary across occupations

Labor market area	Hourly area labor costs		Percent difference (NA vs. RN)
	Top SNF occupation: NA	Top IPPS occupation: RN	
National average	\$15	\$37	0
Areas where illustrative SNF wage index value should be lower than IPPS wage index value			
San Jose–Sunnyvale–Santa Clara, CA	19 (1.3 times national average)	68 (1.8 times national average)	-29%
Rural California	17 (1.1 times national average)	47 (1.3 times national average)	-9
Areas where illustrative SNF wage index value should be higher than IPPS wage index value			
Bismarck, North Dakota	17 (1.1 times national average)	30 (0.8 times national average)	41%
Rural North Dakota	17 (1.1 times national average)	32 (0.9 times national average)	34

Note: SNF (skilled nursing facility), NA (nursing assistant), IPPS (inpatient prospective payment systems), RN (registered nurse). Labor market areas include metropolitan statistical areas and statewide rural areas. Results calculated on unrounded values.

Source: MedPAC analysis of 2019 Bureau of Labor Statistics data.

- away from SNFs located in areas with the highest current wage index values and toward those in areas with the lowest wage index values; and
- away from SNFs located in counties with labor costs lower than their broader labor market area average (i.e., MSA or statewide rural area) and toward those in counties with labor costs higher than their broader labor market area average (data not shown).

In addition, our illustrative SNF PPS wage index would shift PPS payments away from SNFs located in areas where the labor costs of NAs relative to the national average is unusually low (or the relative labor costs of RNs are unusually high) and toward SNFs in areas where relative labor costs of NAs are unusually high (or the relative labor costs of RNs are unusually low). This contrast is due to the illustrative SNF PPS wage index weighting the relative labor costs of the most common

SNF occupation (NAs) more highly, while the current wage index is driven by the relative wages of the most common IPPS occupation (RNs).

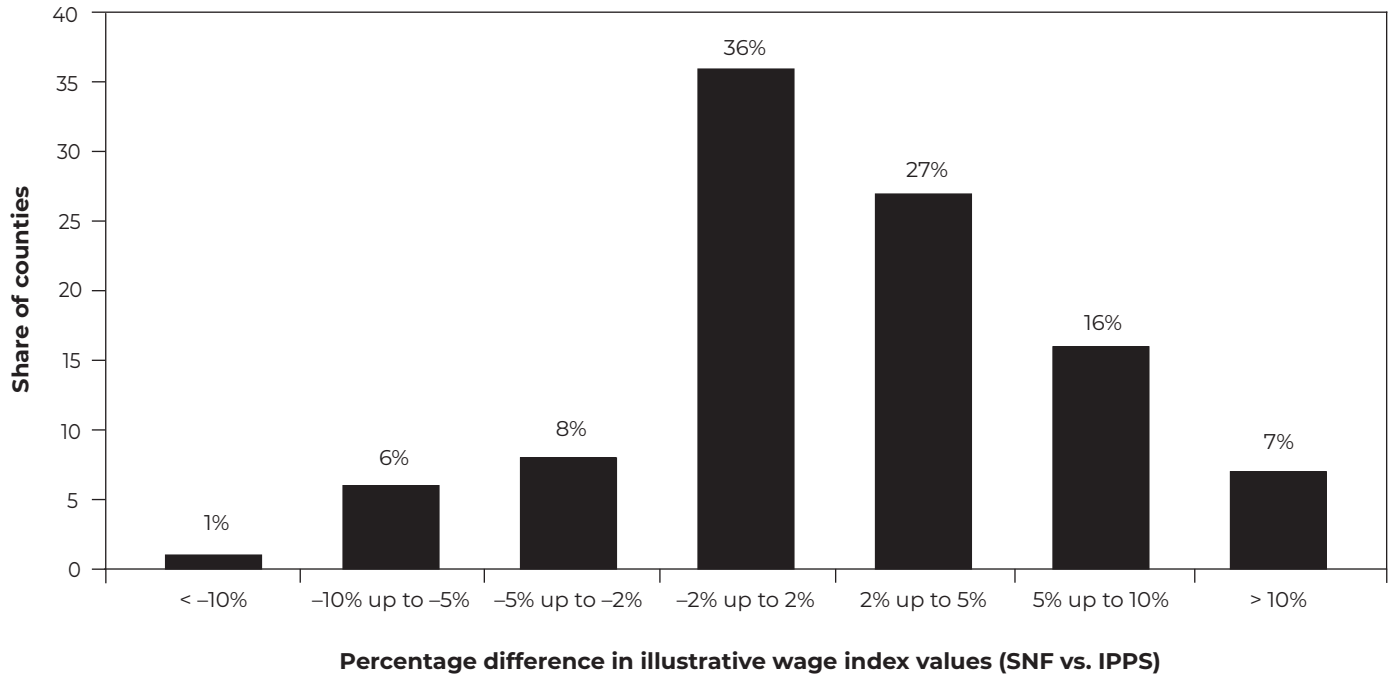
Redistributional effects of MedPAC’s illustrative wage index on many SNFs would be material

Because of the large inaccuracies in the current hospital wage index used by SNFs, moving to the Commission’s illustrative SNF PPS wage index would have a material effect on many SNFs (Figure 9-9, p. 402). We estimated that SNF PPS payments would fall by more than 5 percent for 12 percent of SNFs and rise by more than 5 percent for 27 percent of SNFs.

Because SNFs with various wage index characteristics are distributed across different types of SNFs, we estimated that at least a quarter of metropolitan SNFs, SNFs with different ownership, and freestanding and

**FIGURE
9-8**

MedPAC's illustrative SNF PPS wage index has wage index values that are higher than those in our illustrative IPPS wage index in some counties and lower in others, reflecting SNFs' relative labor costs



Note: SNF (skilled nursing facility), IPPS (inpatient prospective payment systems).

Source: MedPAC analysis of Bureau of Labor Statistics and Census data.

hospital-based SNFs would see increases in payments and over a quarter of SNFs would see decreases. However, we estimated that the majority of SNFs in rural areas would see increases in payments, including an aggregate increase of 4 percent (Table 9-13, p. 403). The shift in payments to rural areas would be larger than for IPPS hospitals, in part because SNFs, unlike IPPS hospitals, cannot currently reclassify to higher-wage areas.

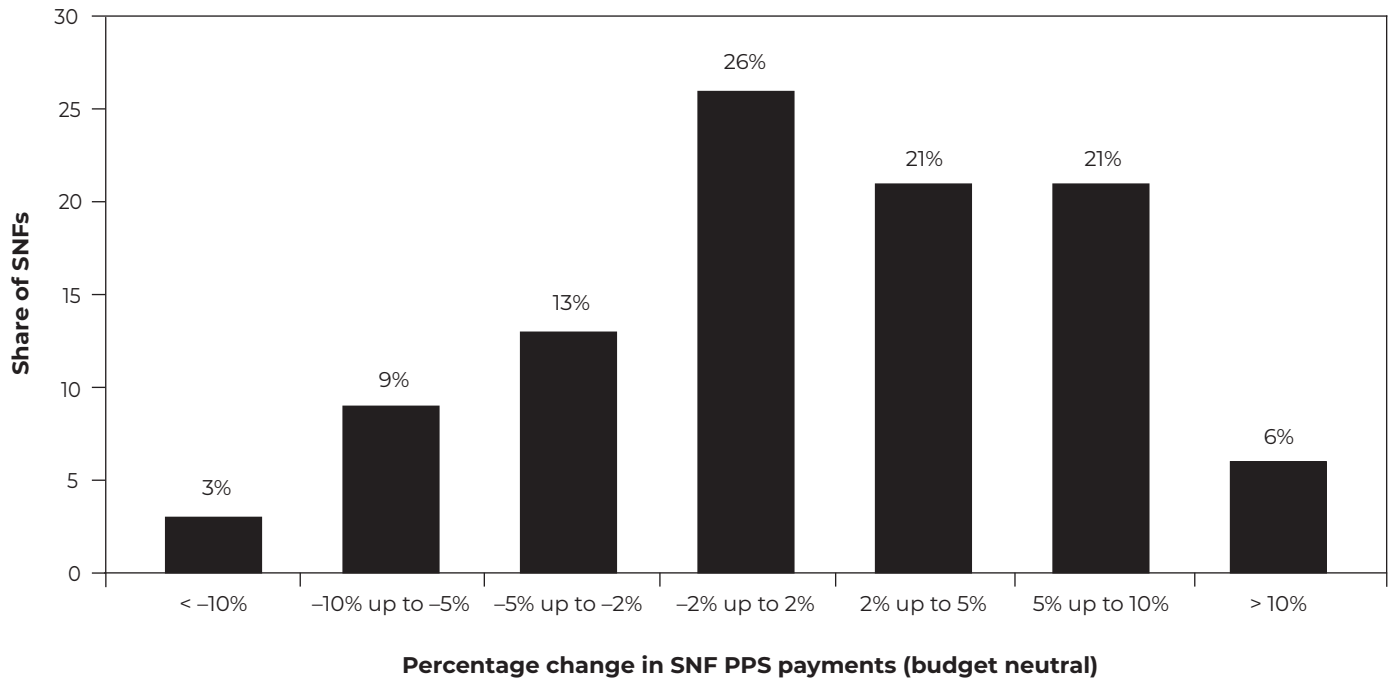
The SNFs that would experience the largest changes in IPPS payments under the Commission's illustrative IPPS wage index share one or more wage index characteristics. SNFs most adversely affected would be those located in areas where the current hospital wage index value is artificially high because of circularity or where SNFs' relative labor costs are materially lower than those of IPPS hospitals. More

specifically, of the 3 percent of SNFs that we estimated would experience a more than 10 percent decrease in SNF PPS payments, the vast majority were located in areas with an extremely high current wage index value (>1.5) or in areas where the labor costs of NAs relative to the national average were materially (>10%) below the relative labor costs of RNs. Conversely, SNFs most positively affected would be those located in areas where the current hospital wage index value is artificially low because of circularity or where SNFs' relative labor costs are materially higher than those of IPPS hospitals.

As with IPPS hospitals, because some SNFs would be substantially affected by implementation of an improved wage index such as the one we modeled, policymakers would need to take steps to phase in the new wage index over time.

**FIGURE
9-9**

MedPAC's illustrative SNF PPS wage index would materially affect many SNFs' PPS payments



Note: SNF (skilled nursing facility), PPS (prospective payment system). SNF PPS payments estimated under a budget-neutral policy.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, CMS's 2022 SNF final rule wage index files, and Bureau of Labor Statistics and Census data.

Moving to better wage index systems

The Commission's key concerns with the current wage index systems are that they fail to accurately reflect differences in labor costs across geographic areas and create inequities across providers. In particular, the IPPS wage index can deviate from the labor costs faced by all employers of hospital occupations, and it masks differences in relative labor costs within areas and creates large differences across adjacent areas. These inaccuracies and inequities stem from the data sources and definition of labor market areas used, and they are frequently exacerbated by numerous wage index exceptions that are easily manipulated and add administrative burden for CMS and hospitals. In addition, we are concerned about the use of the initial hospital wage index by other provider types. A better wage index system is therefore needed.

RECOMMENDATION 9

The Congress should repeal the existing Medicare wage index statutes, including current exceptions, and require the Secretary to phase in new Medicare wage index systems for hospitals and other types of providers that:

- **use all-employer, occupation-level wage data with different occupation weights for the wage index of each provider type;**
- **reflect local area level differences in wages between and within metropolitan statistical areas and statewide rural areas; and**
- **smooth wage index differences across adjacent local areas.**

RATIONALE 9

The current wage indexes are broken and have become more distorted since the Commission last

**TABLE
9-13**

MedPAC’s illustrative SNF wage index would shift aggregate SNF PPS payments toward SNFs in rural areas

Percent change in SNF PPS payments if moved to illustrative wage index from current wage index

Characteristic	Share of SNFs	Aggregate	25th percentile	75th percentile
Location				
Metropolitan	72%	-0.8%	-3.4%	4.3%
Rural micropolitan	14	4.1	1.5	7.3
Other rural	14	4.0	1.1	6.8
Ownership				
Nonprofit	23	1.3	-1.0	6.2
For profit	71	-0.3	-2.4	5.1
Government	6	0.5	-1.9	4.6
Facility type				
Freestanding	95	0.0	-2.0	5.4
Hospital based	3	0.2	-2.7	7.0

Note: SNF (skilled nursing facility), PPS (prospective payment system). Analysis includes SNFs with a published 2022 wage index that provided SNF services in 2021. SNF PPS payments estimated under a budget-neutral policy. Components may not sum to 100 percent due to missing data and/or rounding.

Source: MedPAC analysis of 2021 Medicare Provider Analysis and Review data, 2022 SNF final rule wage index files, Census geographic files, and Bureau of Labor Statistics and Census data.

systematically analyzed them in 2007. To improve the accuracy and equity of Medicare’s wage index systems for IPPS hospitals and other providers (such as, but not limited to, SNFs), Medicare needs wage indexes that are less manipulable, accurately reflect geographic differences in market-wide labor costs at the local area (e.g., county) level, and limit how much wage index values can differ among providers that are competing with each other for patients and employees. Therefore, we are recommending wage indexes based on a broader set of labor cost data that are smoothed across local areas to limit differences. The change in wage indexes would be material and therefore would need to be adopted over time. But eventually the Medicare program would have wage indexes that are more equitable across regions, more equitable across provider types, and not in need of the current array of exceptions, which compound over time and lead to additional exceptions.

IMPLICATIONS 9

Spending

- Because these improvements would be implemented on a budget-neutral basis, this recommendation would have no direct effect on federal program spending relative to current law.

Beneficiary and provider

- This recommendation would cause a material redistribution of Medicare payments across providers; however, we do not expect it to materially impact beneficiaries’ access to services or providers’ willingness to treat Medicare beneficiaries.
- Transitioning to wage indexes that better reflect geographic differences in labor costs would make Medicare payments more accurate and equitable. ■

9 — APPENDIX A

Current IPPS wage index exceptions

Based on requirements in statute and through regulation, CMS applies multiple exceptions to the initial hospital wage index to generate a final inpatient prospective payment systems (IPPS) wage index for each hospital. The modifications in fiscal year 2023 are:

- allowing hospitals to reclassify and then using those reclassifications (and hold-harmless policies) to create a post-reclassification wage index for each area;
- applying the highest of three wage index floors to create a post-reclassification, postfloor wage index for each area and state combination;
- applying an outmigration adjustment to the wage index value for hospitals in eligible counties (that did not reclassify); and
- applying a low-wage index policy that increases the wage index value for hospitals in the bottom quartile of the distribution.

Post-reclassification wage index

To address issues with broad definitions of labor market areas, the Congress created three geographic reclassification pathways that allow hospitals that meet specified criteria to be treated as if they were located in a different geographic area for the purposes of the IPPS wage index (Table 9A-1, p. 406).

Starting in fiscal year 2016, in response to legal rulings, CMS published guidance allowing IPPS hospitals to have simultaneous Section 412.103 and Medicare Geographic Classification Review Board (MGCRB) reclassifications.²³ For purposes of wage index calculation, the MGCRB reclassification is the determining factor: A dually reclassified hospital's wage index value is reflective of its MGCRB reclassified area; however, it will retain its rural status from Section 412.103 for the purposes of certain wage index policies (such as the wider average hourly wage thresholds for rural hospitals seeking MGCRB reclassifications) and other non-wage index payment policies (such as eligibility for rural hospital designations and additional residency slots). Similarly, a hospital can hold dual Section 412.103 and Lugar reclassifications (Table 9A-1).

To calculate a post-reclassification wage index value for each area, CMS aggregates the occupational-

mix-adjusted wage data of hospitals that are either geographically located in the area or reclassified into the area. As a result, a hospital's wage data can contribute to the area wage index of both its geographic and its reclassified location.

By statute and regulation, reclassifications must hold harmless hospitals that did not reclassify.²⁴ Therefore, the reclassification of hospitals can increase (but not decrease) the wage index of hospitals that did not reclassify.

Postfloor wage index

The Congress has created three wage index floors to address stakeholder concerns related to perceived anomalies in relative wages and unfair disadvantages and to otherwise increase payments to certain hospitals (Table 9A-2, p. 407).

To calculate the postfloor wage index value for each area and state combination, CMS applies the highest relevant floor to each post-reclassification wage index value. (Because the floors apply based on the hospital's geographic location and not the area to which it reclassified, any area with hospitals from multiple states will have a separate wage index value for each area and state combination. In addition, because the post-reclassification wage index value for an area can be lower for reclassified hospitals than for those that did not reclassify, it is possible for a floor to apply to reclassified hospitals but not hospitals geographically located in that area.)

Outmigration policy

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) established a county-level outmigration wage index policy for hospitals located in counties that have a relatively high percentage of hospital employees who reside in the county but work in a different county (or counties) with a higher wage index. The MMA specified that the outmigration policy would apply to counties that have (1) a higher average hourly wage than the area in which the county is located and (2) a relatively high share of hospital employees who reside in that county but

**TABLE
9A-1**

IPPS hospital geographic reclassification pathways

Reclassification pathway	Eligibility	Process
Lugar counties (rural to urban)	Hospitals in rural counties that, per OMB standards, would have been deemed outlying counties of an MSA if the commuting rates had included all contiguous MSAs (instead of a single MSA). These hospitals are treated as being located in the MSA to which the greatest number of workers in the county commute.	Automatic reclassification (but IPPS hospitals may waive their Lugar status to become eligible to receive the outmigration exception).
§412.103 (urban to rural)	Hospitals that meet any of the following criteria: <ol style="list-style-type: none"> located in a rural census tract of an MSA; or located in an area designated as rural by any state law or regulation (or the hospital is designated as rural); or would qualify as a rural referral center or as a sole community hospital if the hospital were located in a rural area. 	Hospitals must request to reclassify and submit documentation that meet criteria. The reclassification then remains in effect without need for reapproval unless the hospital cancels its reclassification or there is a change in the circumstances under which the classification was approved.
Medicare Geographic Classification Review Board	Hospitals must generally meet two types of criteria: <ol style="list-style-type: none"> proximity to the requested area wages above current areas and comparable with the requested area* 	Hospitals must request to reclassify and submit documentation that meet criteria. If board agrees the eligibility criteria are met, the reclassification remains in effect for 3 years.

Note: IPPS (inpatient prospective payment systems), OMB (Office of Management and Budget), MSA (metropolitan statistical area).
 *Proximity can be demonstrated by distance from the hospital to the requested geographic area (no more than 15 miles for an urban hospital or 35 miles for a rural hospital) or by at least 50 percent of the hospital's employees residing in the requested area; no proximity requirement is needed for sole community hospitals or rural referral centers. The hospital's three-year average occupational-mix-adjusted average hourly wage must be (1) higher than that of the area in which it is located (since 2006, at least 106 percent for an urban hospital or at least 108 percent for a rural hospital) and (2) at least a certain percentage of the average hourly wage of the requested area (since 2011, at least 84 percent for urban hospitals and 82 percent for rural hospitals). Hospitals that were ever classified as a rural referral center or that are the predominant or only hospital in the urban area are exempt from wage requirements. In addition to requests from individual hospitals, all hospitals in a county or a state may collectively request a redesignation; separate criteria apply.

Source: Omnibus Budget Reconciliation Act of 1987, Balanced Budget Refinement Act of 1999, Omnibus Budget Reconciliation Act of 1989, and CMS IPPS rules and regulations.

commute to work in a labor market area with a higher wage index value.²⁵ In addition, the MMA required that a hospital in an eligible outmigration county can receive the outmigration adjustment only if the hospital has not reclassified to another area.²⁶

The outmigration policy calculates each eligible county's wage index value increase as the percentage of hospital employees residing in the county who are employed in any higher wage index area, multiplied by

the sum of the products of (1) the amount by which the wage index value of the higher area exceeds the wage index value of the qualifying county and (2) that area's share of the hospital employees in the county who commute to any higher wage index area.

The MMA required the outmigration policy to not be implemented in a budget-neutral manner.

**TABLE
9A-2**

IPPS wage index floors

Floor	History	Implementation
Rural floor (for urban areas)	The Balanced Budget Act of 1997 established a rural floor policy that ensures that the wage index value of a hospital located in the state’s urban area is no less than the wage index of hospitals located in the state’s rural area.	CMS calculates the rural floor for a state using the wage data of all hospitals located in the state’s rural area (including those that reclassified). ^a For each urban area and state combination, CMS applies the rural floor for the state where the hospital is geographically located. The floor is required to be budget neutral and applied directly to the wage index value. ^b
Imputed rural floor (for urban areas in all-urban states)	Starting in fiscal year 2005, CMS adopted an imputed rural floor policy for hospitals in all-urban states in response to stakeholder comments that they were disadvantaged relative to states that benefited from a rural floor. CMS extended this policy through fiscal year 2018, after which it lapsed. The American Rescue Plan Act of 2021 required the reestablishment of the imputed rural floor policy starting in fiscal year 2022.	CMS calculates the imputed rural floor for each all-urban state using the highest of two methods: <ul style="list-style-type: none"> the highest wage index value in the all-urban state, multiplied by the higher of (1) the ratio of the state’s lowest-to-highest wage index value; or (2) the average of such ratios across all all-urban states; and the lowest wage index value in the all-urban state, multiplied by the average percentage increase in the wage index from the rural floor among all urban areas that received their state’s rural floor (prior to the rural floor budget-neutrality factor). For each urban area in an all-urban state, CMS applies the imputed rural floor for the state where the hospital is geographically located. The floor is required to be non-budget neutral. ^c
Frontier floor (for low-density states)	The Affordable Care Act of 2010 established a frontier floor that, beginning in fiscal year 2011, set a wage index floor of 1.0 in low-density states.	CMS has determined the qualifying frontier states with a population density of fewer than 6 people per square mile to be Montana, Nevada, North Dakota, South Dakota, and Wyoming. The floor is required to be budget neutral.

Note: IPPS (inpatient prospective payment systems).
^a For fiscal years 2020 through 2022, CMS excluded the data of hospitals that reclassified from the rural floor; this change was the subject of a legal challenge and a court found CMS did not have the authority to make the change.
^b Prior to fiscal year 2011, CMS applied the rural floor budget-neutrality adjustment at a state level.
^c From 2005 through 2018, CMS implemented the imputed rural floor in a budget-neutral manner. The American Rescue Plan Act of 2021 required the reinstated policy to not be implemented in a budget-neutral manner.

Source: Balanced Budget Act of 1997, Affordable Care Act of 2010, American Rescue Plan Act of 2021, and CMS IPPS rules and regulations.

Low-wage index policy

In response to concerns about wage index disparities and circularity, CMS issued a request for information

to engage stakeholders during the fiscal year 2019 rulemaking (Centers for Medicare & Medicaid Services 2018). CMS summarized these comments in subsequent IPPS rules, stating that “many stakeholders expressed

that circularity, where low-wage hospitals remain locked in a downward spiral due to low-wage index values that prevent them from raising their wages, was the most important wage index issue facing the system and it needed to be addressed quickly” (Centers for Medicare & Medicaid Services 2021).

Based on these comments, for fiscal year 2020, CMS implemented a temporary low-wage index policy to provide an opportunity for low-wage index hospitals to increase employee compensation (Centers for Medicare & Medicaid Services 2019). The policy is set to last at least through fiscal year 2023 (and proposed to continue through 2024).

CMS designed the low-wage index policy to increase the wage index values of hospitals in the lowest quartile by half the difference between the hospital’s wage index value (postfloors and outmigration, as applicable) and the 25th percentile among all IPPS hospitals. Therefore, the low-wage index policy provides a substantial increase to hospitals with the lowest wage index values and a smaller increase to hospitals with wages close to the 25th percentile.

CMS has implemented the low-wage index adjustment in a budget-neutral manner.

This policy is the subject of pending legal challenges (Centers for Medicare & Medicaid Services 2022).²⁷ ■

Endnotes

- 1 The Congress required the labor share to be 62 percent for IPPS hospitals with a wage index value of less than 1. For other hospitals, CMS applies its annual estimate of the labor share, which in fiscal years 2022 and 2023 was 67.6 percent.
- 2 Starting in fiscal year 1991, the Congress required the IPPS adjustment for area wage levels to be based on the wages and wage-related costs of “subsection (d)” hospitals, which includes hospitals paid under the IPPS as well as certain other IPPS-eligible hospitals paid according to a different methodology, such as hospitals in Maryland that are paid through a state waiver.
- 3 In determining whether to include a hospital’s wage data, CMS evaluates the data for accuracy and reasonableness, including relativity to each area’s average hourly wage. CMS provides hospitals with an opportunity to correct their data and publishes a list of hospitals with the wage data it plans to exclude in the proposed rule.
- 4 CMS refers to the areas it uses in the hospital wage index as core-based statistical areas (CBSAs). “CBSA” is a broader term for types of areas defined by the Office of Management and Budget (OMB). One type of CBSA is an MSA. In defining urban areas, CMS uses OMB’s metropolitan divisions, defined as a county or group of counties within an MSA that has a population core of at least 2.5 million. CMS considers a smaller type of CBSA—micropolitan statistical areas—as rural. OMB generally issues major revisions to MSAs and other areas every 10 years (most recently in 2015) and issues more minor revisions episodically.
- 5 Statute requires that the budget-neutrality adjustment be calculated without taking into account the requirement that the labor share for hospitals with a wage index value of less than 1.0 be set at 62 percent.
- 6 CMS allocated the data of 23 multicampus hospitals that report under a single provider number. CMS excluded data for an additional 61 hospitals with data that CMS determined were aberrant or missing.
- 7 The count of urban areas includes 31 metropolitan divisions across 11 MSAs and includes imputed data for one area with no included providers. There are 47 rural areas (including Puerto Rico), as four states (Connecticut, Delaware, New Jersey, Rhode Island) and the District of Columbia do not have a statewide rural area area.
- 8 In the Consolidated Appropriations Act, 2001, the Congress required CMS to collect data on the occupational mix of IPPS-eligible hospitals at least every three years and to use these data to construct an occupational-mix adjustment to the IPPS wage index.
- 9 The Congress required the occupational-mix adjustment to be implemented in a budget-neutral manner. Concerning the budget-neutrality factors, CMS publishes a single factor that accounts for updated wage data both from cost reports and from the occupational-mix survey.
- 10 In addition, CMS uses fixed wage index values for Indian Health Service (IHS) hospitals that is not based on any wage data. CMS sets the wage index value of IHS hospitals at 1.4448 (or 1.9343 for hospitals in Alaska). IHS hospitals file a modified (Method E) cost report, which does not use certain worksheets in the regular hospital cost report form, including the wage and hours data from Worksheet S-3. As the wage index approach for IHS hospitals is different from all other IPPS hospitals, the rest of the discussion in this chapter excludes IHS hospitals.
- 11 As required by law, CMS applies the rural floor budget-neutrality adjustment directly to the wage index values. CMS applies the other wage budget-neutrality adjustments to the national IPPS base rate.
- 12 To decrease opportunities for manipulation, starting in fiscal year 2022, CMS finalized requirements that would require a rural reclassification be in effect for at least one year before cancellation can be requested (Centers for Medicare & Medicaid Services 2021).
- 13 Similarly, the Commission supported CMS’s discontinuation of the imputed rural floor in 2019 (Medicare Payment Advisory Commission 2018); however, effective fiscal year 2022, the Congress required the reestablishment of the imputed rural floor.
- 14 To limit this opportunity for manipulation, in the fiscal year 2020 rule, CMS finalized a policy change to exclude urban-to-rural reclassified hospitals from the calculation of the rural floor (Centers for Medicare & Medicaid Services 2019). However, this action was the subject of a legal challenge, and therefore, starting in fiscal year 2023, CMS reverted to its prior policy of including the data of urban-to-rural

- reclassified hospitals in the calculation of the rural floor (Centers for Medicare & Medicaid Services 2022).
- 15 In all of our modeling of effects, we estimated the direct effect of changing the wage index value. We did not attempt to project the indirect effects of eliminating wage index exceptions, such as whether some hospitals would lose rural hospital designations that make them eligible for additional payments since these designations and payments would depend on whether exceptions were maintained for these non-wage index purposes.
 - 16 “Institutional wages” refers to wages of staff providing IPPS-covered services, and therefore excludes wages for physician and other clinician services paid under the physician fee schedule. To identify the most common occupations employed by IPPS hospitals, we used the general medical and surgical hospitals category (North American Industry Classification System 62210). (We also collected and included data for another 26 occupations that were more common for other sectors, as described later.)
 - 17 We asked BLS to construct this wage index for us so that it could use data that need to be suppressed when reported publicly. As a data check, we also reconstructed the wage index from publicly available data, and we set to “missing” any individual index values for which this calculation differed from the BLS-constructed wage index by more than 10 percent, or if the aggregate weight of the occupations with wage data in that area was less than 33 percent.
 - 18 Using all-employer data decreases but does not eliminate the circularity risk. For example, about 30 percent of RNs were employed by general acute care hospitals.
 - 19 While IPPS hospitals often pay more than competing employers for a given clinical occupation (such as RNs), what drives inaccuracies in the current wage index is that the premium that hospitals pay over other employers varies substantially across labor market areas.
 - 20 To increase the reliability of this adjustment, we included only occupations with at least 30 employees (or, for the RN occupation, at least 50 employees) and only calculated a wage index adjustment if the aggregate weight of the occupations with wage data in that county was at least 50 percent.
 - 21 The two urban hospitals that had an even higher wage index value than the rural floor were two high-wage hospitals located in the Boston area that reclassified to rural Massachusetts, thereby raising the wage index value to 1.32 for hospitals in the “rural Massachusetts” area (i.e., the one in Nantucket and two in Boston). While CMS’s policy in effect from 2020 to 2022 prevented urban hospitals that reclassified to rural from increasing the state’s rural floor, the inclusion of these hospitals could still increase the wage index value for the statewide rural area. Starting in 2023, as the result of litigation, urban hospitals that reclassified to be treated as if located in a rural area (and that did not dually reclassify) were allowed back into the calculation of the rural floor.
 - 22 To identify the most common occupations employed by SNFs—which often have a colocated nursing facility—we used the North American Industry Classification System category for nursing care facilities (623100) since there was not a category specific for SNFs. While the occupation weights for the SNF component may differ some from nursing facilities as a whole, we believe that these nursing facility weights are a better approximation than the current approach of using aggregate wage data from hospital cost reports. In rulemaking, CMS could explore options for further improving occupational weights.
 - 23 In 2015, the Court of Appeals for the Third Circuit issued a decision in *Geisinger Community Medical Center v. Secretary, United States Department of Health and Human Services*. The hospital first successfully reclassified with a §412.103 designation. The hospital then sought to reclassify, based on its newly acquired rural status, to a nearby urban area using an MGCRB reclassification. CMS denied the reclassification because the hospital would not qualify under existing regulations (Geisinger would have had to first cancel its §412.103 reclassification and use the proximity requirements for an urban hospital rather than use the more relaxed proximity requirements for rural hospitals). The court ruled in favor of the hospital and stated that the reclassification rule was unlawful since the statutory text of Section 401 unambiguously requires the Department of Health and Human Services to treat §412.103 hospitals like hospitals that are actually located in rural areas, inclusive of MGCRB reclassification purposes.
 - 24 Statute requires that urban hospitals that did not reclassify must be held harmless from reclassifications into their urban areas. To achieve this result, if the inclusion of data from hospitals that reclassified reduces the wage index value for an urban area, CMS maintains the (prefloor) wage index value for non-reclassified hospitals at their pre-reclassification value. Rural hospitals are held harmless from reclassifications both into and out of the rural area. Also, reclassifications cannot reduce a hospital’s wage index value below the rural wage index value in the same state.
 - 25 To determine a county’s eligibility for the outmigration adjustment, CMS established the following two qualifying criteria: (1) the three-year average hourly wage of the county’s hospitals equals or exceeds that of the labor market area in which the county is located and (2) at least 10 percent of the county’s hospital employees commute to one or more metropolitan statistical areas with higher wage index values.

- 26 CMS clarified that hospitals can waive their automatic Lugar reclassification in order to receive the outmigration adjustment.
- 27 For example, a group of hospitals challenged CMS's finalization of the low-wage policy in fiscal year 2020, in particular that the policy is contrary to the statutory requirement to reflect hospitals' labor costs relative to the national level and that it was implemented in a budget-neutral manner by reducing the base payment rate for all

hospitals. The District Court of the District of Columbia made a summary judgment in favor of the plaintiffs and stated that an additional briefing on the appropriate remedy is required (*Bridgeport Hospital, et al. v. Becerra*, No. 1:20-cv-01574). On March 2, 2022, the court found that CMS did not have the authority to adopt the low-wage policy in 2020 and ordered additional briefing on the appropriate remedy; however, CMS is continuing this policy in 2023 while it evaluates the court's decision, which is subject to potential appeal.

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CHAPTER 10

**Mandated report:
Evaluation of a prototype
design for a post-acute care
prospective payment system**

R E C O M M E N D A T I O N

- 10** The Commission forwards to the Congress the report on a unified post-acute care payment system mandated by the Improving Medicare Post-Acute Care Transformation Act of 2014.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Mandated report: Evaluation of a prototype design for a post-acute care prospective payment system

Chapter summary

The Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 mandated three reports on the design of a uniform prospective payment system (PPS) for post-acute care (PAC) providers—skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). The first report, completed by the Commission, was submitted to the Congress in 2016. The second report, prepared by the Secretary of Health and Human Services (referred to here as the Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation (CMS/ASPE) report), was issued in July 2022. The Commission is required to submit the third report by June 30, 2023. This chapter meets this final requirement.

Two features of payments for PAC triggered interest in a uniform PPS. Despite the overlap in some of the patients treated in the four settings, Medicare uses separate payment systems that can result in different payments for clinically similar patients. Further, when the IMPACT Act was enacted, the payment systems used to pay SNFs and HHAs included incentives for providers to furnish low-value care (such as unnecessary therapy), while the LTCH PPS allowed LTCHs to admit low-acuity patients who might have received appropriate care in other, less costly settings. Since then, CMS has overhauled the SNF and HHA PPSs and implemented

In this chapter

- A PAC PPS is feasible using existing data and would establish reasonably accurate payments
- CMS/ASPE prototype would establish accurate payments for broad clinical groups but would not align payments across settings for clinically similar cases
- A PAC PPS would redistribute payments across providers
- Necessary companion policies to accompany the implementation of a PAC PPS
- Key takeaways
- Appendix: Methodologies used to model a PAC PPS

a dual-rate structure for LTCHs that reduces payments for patients who do not meet specific criteria.

Our previous reports confirmed that a PAC PPS was feasible and identified the basic design features that would help keep payments under a PAC PPS aligned with the cost of care. These include the PAC stay—not an episode of PAC—as the unit of service, a common risk adjustment across provider types, and short-stay and high-cost outlier policies. In addition, because HHAs have considerably lower costs than institutional PAC providers, an adjuster for home health stays would be needed to guard against overpayments for HHA stays and underpayments for institutional PAC stays. Our analyses indicated that there would be no need for a payment adjustment based on the rural location of the provider, nor would adjustments be needed for beneficiaries who had a preceding hospital stay or for those who have low incomes.

In our earlier work evaluating features of a PAC PPS, we excluded functional status as a risk adjuster because providers have an incentive to record this information in ways that raise payments rather than capture patients' actual clinical care needs. However, for this report, we compared the results of models predicting the cost of stay that included and excluded functional status information in the risk adjustment. Our findings raised concerns about the accuracy of payments for the highest- and lowest-functioning patients under a PAC PPS model that excluded functional status. Therefore, a PAC PPS would likely need to include some measure of functional status. CMS would need to pursue strategies to address the inevitable bias in the recording of this information, such as monitoring and auditing the data, revising the recording of functional ability for “activities not attempted,” collecting the information at discharge from an immediately preceding hospital stay (if any), and gathering patient-reported outcomes. In addition, CMS would need to make regular across-the-board adjustments to payments to address the effects of upcoding, as the agency does when setting payments for acute care hospitals and Medicare Advantage plans.

While the development of a case-mix system was beyond the resources of the Commission, we evaluated key features of a PAC PPS design. The prototype developed by CMS/ASPE is consistent with most of the design features identified by the Commission and would provide a good foundation for a PAC PPS. However, the CMS/ASPE prototype includes adjusters that account for cost differences across the four settings. Though an adjuster for HHA stays would be needed to account for their very low costs (as noted

above), including other setting adjusters would incorporate into the PAC PPS potentially unwarranted existing cost differences among the PAC settings, such as practice patterns that reflect the underlying incentives of the current PPSs rather than the care needs of the beneficiary. Including other setting adjusters would therefore undermine the goal of payment alignment across settings for clinically similar cases. That said, including setting adjusters in an initial design may be a reasonable transition policy to give providers time to adjust to a unified PPS. The Commission maintains that each adjuster in a payment system should have a conceptual relationship to the cost of care that is supported by evidence. Deviations from uniform design elements should be limited to those that counter systematic over- and underpayment that could threaten beneficiary access.

The impacts of a PAC PPS on providers' payments would depend on the details of the design but would likely redistribute payments across providers. For example, if payments were set at the average predicted cost across all settings and stays, as in the Commission's PAC PPS design, payments would shift from high-cost to low-cost settings and providers (although the shift from institutional PAC providers to HHAs would be curtailed by the home health setting adjuster). The impacts of the CMS/ASPE prototype are different for LTCHs because under that design, the dual-rate payment policy would no longer lower payments for the low-acuity cases.

A transition to a PAC PPS would give providers time to adjust their costs to anticipated changes in their payments and regulatory requirements. However, managing multiple payment systems would be costly for CMS and could be confusing for providers. And while it is not the purpose of a PAC PPS, policymakers should consider lowering the level of aggregate payments to align them with the cost of care (assuming the Congress has not already done so). Reductions would be consistent with standing Commission recommendations to lower the base payment rates for HHAs, SNFs, and IRFs.

CMS would need the authority to undertake routine maintenance of the PAC PPS, if it is implemented, to reflect changes in costs and practice patterns. This upkeep should include regular revisions to the case-mix classification system (the groupings and their relative weights), rebasing payments so that payments remain aligned with the cost of care, and, as noted above, adjustments to address upcoding. Monitoring provider responses to the new payment system would help CMS identify potential refinements to the design that would help ensure quality of care and beneficiary access.

While designing a payment system is relatively straightforward, developing and implementing the companion policies that would need to accompany a PAC PPS would not be. Medicare's benefit and coverage rules and cost-sharing requirements would need to be aligned across settings so that beneficiaries do not make treatment decisions based on financial considerations. Conditions (or requirements) of participation for providers would need to be aligned so that providers face the same costs associated with meeting them. (Given the noninstitutional nature of home health care, HHAs would likely need somewhat different regulatory requirements.) A new PAC value incentive program also would be necessary to help counter the incentives inherent in any PPS for providers to stint on needed care or generate unnecessary volume. Developing these companion policies could take many years; implementing them would be complex and possibly controversial.

The changes that CMS has implemented to the SNF, HHA, and LTCH PPSs in recent years have helped to reduce the incentives these providers had to furnish low-value care (including unnecessary rehabilitation therapy and paying LTCH rates to cases that do not require that level of service). Given the considerable resources that would be required to develop and implement a PAC PPS, policymakers may wish to look for opportunities to adopt smaller-scale site-neutral policies that could address some of the overlap of similar patients in different settings. ■

Despite the overlap in patients treated in different post-acute care (PAC) settings, Medicare fee-for-service (FFS) uses separate prospective payment systems (PPSs) for each setting, which can result in considerably different payments for similar patients. Section 2(b)(1) of the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 mandated a series of reports on the feasibility of a unified PAC payment system that sets payments for all PAC stays based on characteristics rather than on the setting (see text box on the mandate, pp. 420–421). First, the Commission was required to submit a report that identified the basic design features that would help keep payments under a PAC PPS aligned with the cost of care and consider the effects of moving to such a system; the Commission submitted this report to the Congress in June 2016. Next, the Secretary of Health and Human Services (HHS) was required to develop a prototype design; the Centers for Medicare & Medicaid Services and the Assistant Secretary for Planning and Evaluation (CMS/ASPE) in the Department of HHS submitted this report in July 2022. Finally, the Commission is required to submit by June 30, 2023, a third report, with recommendations, reacting to CMS/ASPE's prototype design. This chapter meets the IMPACT Act's requirement for the third report.

Background

PAC providers—skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs)—offer Medicare beneficiaries a wide array of services, ranging from recuperation and rehabilitation services to hospital-level services. The Commission and others have documented the degree of overlap in where beneficiaries receive their PAC, which varies by clinical condition (Gage 2012, Medicare Payment Advisory Commission 2017a, Wissoker and Garrett 2019). Several factors contribute to the overlap in treatment settings: The supply and use of PAC vary across the country; there are no clear criteria identifying which patients need PAC (and how much); and there is a lack of evidence-based guidelines to direct beneficiaries to the setting with the best outcomes.¹ However, some of the overlap could be due to unobserved patient characteristics that result in patients appearing

to be more similar than they are. Reflecting these ambiguities, Medicare per capita spending for PAC varies geographically more than for any other type of service (Institute of Medicine 2013, Medicare Payment Advisory Commission 2017b).

Why was there interest in a PAC PPS?

Two concerns about PAC payment policies sparked interest in a unified PPS. First, despite the overlap in patients across the four settings, Medicare uses separate PPSs, which can result in considerably different payments for clinically similar patients. Establishing payments that are based on patient clinical characteristics (and not the setting where they were treated) would be consistent with other site-neutral policies that the Commission has supported.

Second, when the IMPACT Act was enacted, the payment systems that were used to pay SNFs and HHAs included incentives for providers to furnish low-value care (such as unnecessary rehabilitation therapy), and the LTCH PPS encouraged LTCHs to admit low-acuity patients who might have received appropriate care in other, less costly settings. Furthermore, the PPSs for HHAs and SNFs resulted in inequitable payments across different types of patients within these settings. SNFs and HHAs had an incentive to admit beneficiaries who would predominantly receive rehabilitation services because such cases were more profitable than medically complex cases.² Several years earlier, the Commission had recommended that both systems be revised (Medicare Payment Advisory Commission 2011, Medicare Payment Advisory Commission 2008).

To begin to address these concerns, the IMPACT Act required that the Commission and HHS Secretary develop prototype designs that would establish payments based on patient characteristics—not the setting where beneficiaries received their care. Under such a payment system, providers treating similar patients would be paid similar rates (with the home health care caveat).

Changes in the PAC landscape since the IMPACT Act

The PAC landscape has changed considerably since the IMPACT Act was enacted. First, the payment systems for three settings (HHA, SNF, and LTCH) have been revised to correct distortions.^{3,4,5} These changes

Mandate to study a unified payment system for post-acute care

Section 2(b) of the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 requires three reports on a unified payment system for post-acute care (defined as care provided by SNFs, HHAs, IRFs, and LTCHs).

(b) STUDIES OF ALTERNATIVE PAC PAYMENT MODELS

(1) MEDPAC.—Using data from the Post-Acute Payment Reform Demonstration authorized under section 5008 of the Deficit Reduction Act of 2005 (Public Law 109-171) or other data, as available, not later than June 30, 2016, the Medicare Payment Advisory Commission shall submit to Congress a report that evaluates and recommends features of PAC payment systems (as defined in section 1899B(a)(2)(D) of the Social Security Act, as added by subsection (a)) that establish, or a unified post-acute care payment system under title XVIII of the Social Security Act that establishes, payment rates according to characteristics of individuals (such as cognitive ability, functional status, and impairments) instead of according to the post-acute care setting where the Medicare beneficiary involved is treated. To the extent feasible, such report shall consider the impacts of moving from PAC payment systems (as defined in subsection (a)(2)(D) of such section 1899B) in existence as of the

date of the enactment of this Act to new post-acute care payment systems under title XVIII of the Social Security Act.

(2) RECOMMENDATIONS FOR PAC PROSPECTIVE PAYMENT

(A) REPORT BY SECRETARY.—Not later than 2 years after the date by which the Secretary of Health and Human Services has collected 2 years of data on quality measures under subsection (c) of section 1899B, as added by subsection (a), the Secretary shall, in consultation with the Medicare Payment Advisory Commission and appropriate stakeholders, submit to Congress a report, including—

(i) recommendations and a technical prototype, on a post-acute care prospective payment system under title XVIII of the Social Security Act that would—

(l) in lieu of the rates that would otherwise apply under PAC payment systems (as defined in subsection (a)(2)(D) of such section 1899B), base payments under such title, with respect to items and services furnished to an individual by a PAC provider (as defined in subsection (a)(2)(A) of such section), according to individual characteristics (such as cognitive ability,

(continued next page)

altered payments for 95 percent of PAC stays. New payment models for the SNF PPS (the Patient-Driven Payment Model) and the HHA PPS (the Patient-Driven Groupings Model) base payments on patient characteristics, not the amount of therapy, and have reduced the selection biases of the previous designs. The LTCH PPS was revised to pay the higher LTCH PPS rates only for cases that meet certain qualifying

criteria, while paying lower acute care hospital rates for cases that do not, which has resulted in fewer lower-acuity cases in LTCHs (Medicare Payment Advisory Commission 2022). Because these changes are consistent with a unified payment system, they have dampened the impetus for such a system.

A second change resulted from the devastating impact of COVID-19 on beneficiaries and providers;

Mandate to study a unified payment system for post-acute care (cont.)

functional status, and impairments) of such individual instead of the post-acute care setting in which the individual is furnished such items and services;

(II) account for the clinical appropriateness of items and services so furnished and Medicare beneficiary outcomes;

(III) be designed to incorporate (or otherwise account for) standardized patient assessment data under section 1899B; and

(IV) further clinical integration, such as by motivating greater coordination around a single condition or procedure to integrate hospital systems with PAC providers (as so defined).

(ii) recommendations on which Medicare fee-for-service regulations for post-acute care payment systems under title XVIII of the Social Security Act should be altered (such as the skilled nursing facility 3-day stay and inpatient rehabilitation facility 60 percent rule);

(iii) an analysis of the impact of the recommended payment system described in clause (i) on Medicare beneficiary cost-sharing, access to care, and choice of setting;

(iv) a projection of any potential reduction in expenditures under title XVIII of the Social

Security Act that may be attributable to the application of the recommended payment system described in clause (i); and

(v) a review of the value of subsection (d) hospitals (as defined in section 1886(d)(1)(B) of the Social Security Act (42 U.S.C. 1395ww(d)(1)(B)), hospitals described in section 1886(d)(1)(B)(v) of such Act (42 U.S.C. 1395ww(d)(1)(B)(v)), and critical access hospitals described in section 1820(c)(2)(B) of such Act (42 U.S.C. 1395i-4(c)(2)(B)) collecting and reporting to the Secretary standardized patient assessment data with respect to inpatient hospital services furnished by such a hospital or critical access hospital to individuals who are entitled to benefits under part A of title XVIII of such Act or, as appropriate, enrolled for benefits under part B of such title.

(B) REPORT BY MEDPAC.—Not later than the first June 30th following the date on which the report is required under subparagraph (A), the Medicare Payment Advisory Commission shall submit to Congress a report, including recommendations and a technical prototype, on a post-acute care prospective payment system under title XVIII of the Social Security Act that would satisfy the criteria described in subparagraph (A). ■

beneficiaries residing in nursing homes were among the most affected. Given the well-established link between staffing levels and quality in nursing homes (and the industry's poor performance during the early months of the pandemic), the White House issued a statement in February 2022 about the pressing need to improve the safety and quality of care in nursing homes (White House 2022). As part of this effort, CMS plans to propose minimum staffing standards in 2023

(Centers for Medicare & Medicaid Services 2022). Any new requirements would need to be considered in the design of a PAC PPS because they could raise the cost of SNF care and influence the alignment of regulatory requirements.

The coronavirus pandemic also affected whether and where beneficiaries sought PAC, the severity of cases treated, and providers' costs—though some

cost increases are likely to be temporary. The overall share of acute care hospital discharges referred to PAC was unchanged between 2019 and 2020, but for the top conditions for which beneficiaries were referred to PAC, the shares treated in SNFs dropped (as beneficiaries avoided this setting) and the shares going to HHAs rose (as beneficiaries opted to receive care at home instead). Whether some of the apparent substitution will be permanent remains to be seen. The waiving of certain program requirements during the COVID-19 public health emergency (PHE) (such as the “three-hour rule” to qualify for admission to an IRF) also affected where beneficiaries received PAC, though we expect these shifts to be temporary.

A third change is the continued expansion of alternative payment models (APMs), such as accountable care organizations and episode-based bundled payment models. APMs have pursued cost savings in part by encouraging participating entities to shift patients to lower-cost PAC settings (or to eliminate PAC stays altogether) and, in the case of SNF use, to shorten lengths of stay (Agarwal and Werner 2018, Agarwal et al. 2020, Marrufo et al. 2021, McWilliams et al. 2017, Navathe et al. 2020).

A PAC PPS is feasible using existing data and would establish reasonably accurate payments

In a PAC PPS, payments would be based on the predicted cost of a stay. Predicted costs would be accurate if they equaled the actual costs of a stay (see text box on challenges in defining accurate payments). We confirmed that it is possible to establish reasonably accurate payments using patient and stay characteristics with existing data. While the development of a case-mix system was beyond the Commission’s resources, our modeling results indicated key design features of a PAC PPS that would be needed to accurately predict the cost of a stay. These features include using the PAC stay as the unit of service, a common risk adjustment across provider types, and short-stay and high-cost outlier policies. In addition, because HHAs have considerably lower costs than institutional PAC providers, an adjuster for home health stays would be needed to guard against overpayments

for HHA stays and underpayments for institutional PAC stays. Our analyses indicated that there would be no need for a payment adjustment based on the rural location of the provider, nor would adjustments be needed for beneficiaries who had a preceding hospital stay or for beneficiaries who have low incomes.

Basic design features of a PAC PPS

Our previous reports identified many basic features of a PPS design that would help keep payments aligned with the cost of care (Medicare Payment Advisory Commission 2019, Medicare Payment Advisory Commission 2018, Medicare Payment Advisory Commission 2016). We did not reevaluate the need for the following features:

- a stay (or a 30-day period for home health care) as the unit of service;
- an adjuster for home health stays;⁶
- no setting adjusters for SNF, IRF, and LTCH (although adjusters would improve the accuracy of payments, they would undermine the intent of a uniform design);
- a common risk adjustment;
- short-stay and high-cost outlier policies (see Appendix 10-A, p. 445, for a description of the illustrative outlier policies we modeled);
- discounted payments for follow-on HHA stays; and
- no adjuster for the presence of a teaching program.

In our prior reports, we excluded functional status as a risk adjuster because when payments are tied to it, providers have incentive to record this information in ways that raise payments rather than capture patients’ actual clinical care needs (Medicare Payment Advisory Commission 2016). Based on subsequent analyses, we concluded that reporting of this information was biased and needed to be improved (Medicare Payment Advisory Commission 2019). Yet functional status is an important predictor of patient needs (Urban Institute 2021). This year, we compared the results of models predicting the cost of stays that included and excluded functional status information in the risk adjustment. The model excluding functional status resulted in ratios of predicted to actual costs that were below the actual

Challenges in defining accurate payments

Ideally, a post-acute care (PAC) prospective payment system (PPS) would base payments on the cost of furnishing appropriate care by efficient providers. Payments based on providers' current costs are unlikely to be efficient or appropriate because the current payment systems do not reward either. (These costs also reflect current coverage rules and program requirements for participating in the program that differ by setting (see p. 443).) Further, beneficiaries base their decisions on where to receive their PAC on a variety of factors, many of which have little to do with efficiency or appropriateness of care. These factors include patient and family preferences, location, whether the beneficiary has supplemental insurance coverage, presence of a caregiver at home, and bed availability. The lack of evidence-based guidelines means that clinicians and beneficiaries may have relatively little information about where and how much care would result in the best outcomes. In addition, the current cost of care may reflect inequitable service delivery because beneficiaries at high social risk may disproportionately use lower-cost (and lower-quality) providers. So, while we know that current practice patterns do not necessarily reflect the cost of efficient and

appropriate PAC, we do not know what the patterns of care (and providers' costs) should be.

While PAC PPS payments could be based on the costs of the lowest-cost setting treating a certain type of patient, we decided against this approach. Because home health care is provided intermittently in a beneficiary's home, home health care is the lowest-cost PAC setting, but it is not appropriate for beneficiaries who are too sick or frail to be managed at home. Other beneficiaries who otherwise could go home do not have the necessary support to do so. Still other beneficiaries require specialized services, such as ventilator care, that in some markets are provided only in certain settings.

Given the lack of clarity about the appropriate mix of PAC services, we based PAC PPS payments on the current mix of settings, services, and costs. This approach implicitly accepts the existing mix of settings and differences in service provision in the initial establishment of PAC PPS payments. Over time, we expect differences in practice patterns and costs to narrow and sites of care to shift. Regular updating and recalibration of the PAC PPS would keep payments aligned with the cost of care. ■

costs for the lowest-functioning patients' stays (the ratio of predicted to actual costs was 0.92) and well above actual costs for the highest-functioning patients' stays (the ratio was 1.18).⁷ Such differences would create incentives for providers to avoid low-functioning patients (since they would be less profitable) and to admit high-functioning ones (since they would be more profitable). When functional status was included in the risk adjustment, the predictions were comparable for high- and low-functioning patients and very close to actual costs (the ratios were 0.99 and 1.01, respectively). Based on these findings, we included functional status as a risk adjuster in the model results reported below. CMS could pursue multiple strategies to address the

inevitable bias in the recording of this information (see text box on strategies to dampen incentives to inaccurately record patients' functional status, p. 424).

The MedPAC model estimated PAC PPS payments using two models (with identical risk adjusters in each): one for routine and therapy services and another for nontherapy ancillary (NTA) services. Two models were constructed because NTA services are not included in the home health care benefit. Estimated PAC PPS payments equaled the sum of the two predicted payments. Our estimates of costs per stay, current payments, and payments under a PAC PPS assume current coverage and cost-sharing rules.

Strategies to dampen providers' incentive to inaccurately record patients' functional status

Functional assessment data are important for establishing accurate payments. Ideally, we would have accurate, unbiased information about beneficiaries' function to predict their resource needs. However, the recording of functional status includes an element of judgment. When this information affects payments or the calculation of certain quality metrics, providers have an incentive to report the information in ways that raise payments and appear to improve performance.⁸ We have documented the strong and systematic bias in the reporting of this information (Medicare Payment Advisory Commission 2023, Medicare Payment Advisory Commission 2019).

Strategies to improve this information include monitoring and auditing of these data, collecting this information at discharge from a preceding hospital stay (for beneficiaries with a prior hospital stay), and gathering patient-reported outcomes (Medicare Payment Advisory Commission 2019). CMS should also make regular across-the-board adjustments to payments, as is done for hospital and Medicare Advantage payments, to address the effects of upcoding. Although these adjustments would not improve the quality of the information, they would

reduce the unnecessary payments made by the program.

In addition, CMS should adopt a strategy to dampen providers' incentives to record patients' functional status at admission as lower than their actual clinical care needs. One option is to change the way "activities not attempted" (or ANA) are assigned to a level of functioning.⁹ CMS currently reassigns most ANA codes to the most dependent level (which would contribute to assigning the stay to a higher case-mix group).¹⁰ In its report on a post-acute care prospective payment system, CMS and the Assistant Secretary for Planning and Evaluation analyzed patient assessment items that were recorded as ANA in relation to other items that were not recorded as ANA in order to more appropriately recode ANA codes (RTI International 2022). Of the nine items examined, ANA codes for seven items were recoded to a higher level of functioning rather than as "most dependent." While ANA codes are clinically appropriate for some cases, the Commission is concerned that the codes can be used to boost payments. Revising the assignment of ANA codes to more suitable (and higher) levels of function could dampen the incentive to use them. ■

MedPAC modeling confirmed that a PAC PPS would establish accurate payments using currently available data

The objective of a PAC PPS is to pay the same rate for the same case type and care needs regardless of setting. A design that perfectly matches the new payments to current stay costs by setting would simply replicate the large differences in current payments across settings and undermine the purpose of a PAC PPS. Therefore, the goal of our modeling was to predict costs by patient and stay categories rather than to account for the variation in costs by setting.

Using claims, cost reports, and patient assessment data from payment year 2019, we predicted the cost of a PAC stay—a discharge for institutional settings and

a 30-day period for home health care—using patient and stay characteristics. (The Commission's approach is summarized in the appendix on methodology at the end of the chapter.) We included the following characteristics in our risk adjustment: the primary reason for treatment, comorbidities, functional status, cognitive status, measures of frailty, patient age, incontinence, difficulty swallowing, presence of severe wounds, disability status, severity of illness, risk score, vision impairment, the length of stay in an intensive care unit or coronary care unit during a prior hospital stay (if there was one), and an indicator for stays treated in an HHA.

Our modeling confirmed that a PAC PPS would establish accurate payments using existing data. (Table 10-1 shows high-volume clinical groups and patient

**TABLE
10-1**

Updated MedPAC modeling confirms that a PAC PPS would establish accurate payments across patient groups using currently available data

Group	Ratio of predicted to actual cost	Share of stays
All stays	1.00	100%
Orthopedic medical (MDC 8)	1.00	14
Cardiovascular medical (MDC 5)	1.00	13
Serious mental illness	1.00	10
Orthopedic surgical (MDC 8)	1.00	10
Other neurology medical (MDC 1)	1.00	9
Respiratory medical (MDC 4)	1.01	8
Kidney and urinary medical (MDC 11)	1.00	7
GI and hepatobiliary	1.00	6
Infection medical (MDC 18)	1.00	5
Trauma	0.95	4
Severe wound	0.98	4
Digestive medical (MDC 6)	1.00	3
Cardiovascular surgical (MDC 5)	1.01	3
Endocrine medical (MDC 10)	0.99	3
Skin medical (MDC 9)	0.99	3
Stroke	1.00	2
Ventilator care during PAC stay	1.00	<1
Other patient characteristics		
Least frail	1.01	16
Most frail	1.00	34
Low function	0.99	23
High function	1.01	26
Cognitively impaired (coma or dementia)	1.00	20
Severely ill (severity of illness level 4)	1.00	6
5+ body-system diagnoses	1.00	10
Chronically critically ill	0.99	4
Highest acuity (severely ill and CCI)	0.98	2
ESRD	0.99	5
Disabled	1.00	24
Dual eligible/LIS	0.99	34
Not dual eligible/LIS	1.00	66
Very old (85+)	1.00	31

Note: PAC (post-acute care), PPS (prospective payment system), MDC (major diagnostic category), GI (gastrointestinal), CCI (chronically critically ill), ESRD (end-stage renal disease), LIS (low-income subsidy). Stays without a prior hospitalization were assigned to an MDC based on diagnoses from the PAC claim. "Serious mental illness" includes beneficiaries with schizophrenia, bipolar disorder, or severe depression. "Least frail" and "most frail" include patients in approximately the bottom and top quartile, respectively, of the distribution of scores assigned using the JEN frailty index. "Low function" and "high function" include patients in the bottom and top quartile, respectively, of the distribution of function scores (see Appendix 10-A for more on methodology). "Severely ill" includes those with a level 4 severity of illness (the sickest), calculated using the all-patient refined-diagnosis related groups, and excludes patients treated in home health agencies. "Chronically critically ill" includes patients who spent eight or more days in the intensive care or coronary care unit during the preceding hospital stay or were on a ventilator during the PAC stay. "Highest acuity" includes patients who were severely ill and CCI. The shares sum to more than 100 percent because a stay can have multiple characteristics. For example, a stay for a very old, most frail beneficiary recovering from a stroke is included in the "stroke," "most frail," and "very old" groups. The "dual eligible/LIS" group includes beneficiaries who were fully or partially dually eligible for Medicare and Medicaid or who received the LIS under Part D. The analysis included 3,692,064 stays in 2019.

Source: The Urban Institute under contract to MedPAC (Wissoker and Garrett 2023).

groups of particular interest. A ratio of 1.0 indicates that the model correctly predicted the average costs of stays.) Estimates of predicted costs (which would form the basis of PAC PPS payments) accurately reflected the actual costs for most patient groups. Many of the ratios are close to 1.0 because the model predicting the costs includes many of the same patient characteristics (or proxies for them) that are used to define the reporting groups. Of the 50 patient groups we examined, predicted costs were within 2 percent of actual stay costs for all but three groups (patients recovering from trauma, HIV medical, and rehabilitation medical—the latter two groups not shown).¹¹ These results indicate that the final design should include an extensive set of case-mix groups similar to those we modeled. For groups with less accurate predictions, special care should be taken in designing a case-mix system so that payments for them are accurate: Either there should be separate case-mix groups or certain characteristics could be included as comorbidity adjustments.

We paid particular attention to whether the model could predict the costs of the most vulnerable patients. We assessed the model's accuracy for beneficiaries who had low incomes or were frail, cognitively impaired, medically complex, disabled, or very old. We found that a PAC PPS design can be accurate for these special patient populations. Except for beneficiaries with low incomes, measures of these characteristics were included in the risk adjustment and illustrate that including these patient characteristics would establish accurate payments. The results underscore the importance of including these factors (or proxies for them) in a final design.

Given that many types of patients treated in higher-cost settings (IRFs and LTCHs) are also treated in lower-cost settings, we expected the predicted costs (and thus payments) for IRF and LTCH stays to be considerably lower than the actual costs of these stays. Our modeling confirmed these expectations (Table 10-2). The stays in high-cost settings (IRFs and LTCHs) had average predicted costs below their average actual costs, with ratios of 0.85 and 0.70, respectively. The low ratios may also reflect the costs associated with meeting different regulatory and statutory requirements and unmeasured differences in the mixes of patients that IRFs and LTCHs treat (including more complex cases within the patient groups). The average predicted costs for SNF stays were higher

than the average actual costs (the ratio was 1.09), most likely because the model uses a broad array of patient characteristics to predict costs and the average cost includes stays treated in higher-cost settings. The ratio for HHA stays was 1.00 because we included an HHA indicator to account for the substantially lower costs for this noninstitutional care.

Decreasing payments for stays in IRFs and LTCHs for clinically similar patients who are also treated in lower-cost settings would be a desirable outcome of moving from setting-specific PPSs to the site-neutral payments of a PAC PPS.¹² Assuming aligned Medicare conditions of participation (see discussion of uniform Medicare conditions of participation, p. 443), such results would not warrant an adjustment. A PPS should not compensate providers for having high costs that are unrelated to their mix of patients or the costs associated with meeting regulatory requirements.

The model underpredicted the costs for nonprofit and government and hospital-based providers, in aggregate and within each setting. These providers have higher average actual costs than their for-profit and freestanding counterparts. Because the higher costs were not explained by patient characteristics, Medicare policy should not correct such underpredictions.

One metric of the robustness of the model is how well it explains the variation in costs across all stays, using a statistical measure known as R-squared (R^2). Our model explains a relatively high share of the cost variation across stays—an R^2 of 0.54, indicating that the model explains 54 percent of the variability in costs. However, our model achieves much of its accuracy from the inclusion of a home health adjuster. We therefore have highlighted the ratios of predicted-to-actual costs as a gauge of model accuracy.

Some adjusters in the current payment systems would not be needed to keep PAC PPS payments aligned with the cost of care

Design features should help to correctly predict the actual cost of stays because the predicted costs will form the basis of payments. To evaluate what features would align PAC PPS payments with predicted costs, we estimated predicted costs of a stay and then compared them with the actual costs. The model results would tell us which features are needed to align payments with the cost of care. For example, if the

**TABLE
10-2**

MedPAC modeling results of a PAC PPS, by provider and stay characteristics

Group	Actual cost	Predicted cost	Ratio of predicted to actual cost	Share of stays
All	\$5,496	\$5,496	1.00	100%
HHA	1,685	1,685	1.00	71
SNF	13,179	14,301	1.09	23
IRF	18,393	15,621	0.85	5
LTCH	42,647	29,838	0.70	1
For profit	5,160	5,294	1.03	72
Nonprofit	6,036	5,734	0.95	25
Government	8,811	8,118	0.92	3
Urban	5,441	5,494	1.01	87
Rural	5,847	5,503	0.94	13
Frontier	5,700	4,958	0.87	<1
Hospital based	7,507	5,890	0.78	10
Freestanding	5,270	5,451	1.03	90
Low share of low-income patients	5,645	5,702	1.01	26
High share of low-income patients	8,478	7,735	0.91	8
HHA stays admitted from the community	1,535	1,676	1.09	48
HHA stays with prior hospital stay	1,988	1,705	0.86	24
I-PAC stays admitted from the community	15,467	14,078	0.91	2
I-PAC stays with prior hospital stay	15,006	15,130	1.01	26

Note: PAC (post-acute care), PPS (prospective payment system) HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital), I-PAC (institutional PAC (i.e., SNFs, IRFs, and LTCHs) providers). Low-income share is the share of a provider’s stays for patients who were fully or partially dual eligible for Medicare and Medicaid or who were eligible for the low-income subsidy (LIS) in Part D. Low and high shares are defined as the lowest and highest within setting quintiles of the provider’s shares of dual-eligible/LIS patients. The analysis included 3,692,064 stays in 2019.

Source: The Urban Institute under contract to MedPAC (Wissoker and Garrett 2023).

risk adjustment included a measure of severe wounds and the predicted costs were equal to actual costs, we would know that the design should include a measure of severe wounds in the risk adjustment. Similarly, if a measure of low-income status was not included in the risk adjustment, yet predicted costs were accurate for beneficiaries with low incomes, we would conclude that the design would not need a separate adjuster for low-income status. Our results indicated that there would be no need for adjustments based on the rural location of the provider, the provider’s share of patients with low incomes, or the source of admission.

No need for a broad rural adjuster

We explored the need for an adjustment for rural providers. Current rural policies differ by PAC setting but are premised on the principle of protecting access for beneficiaries living in rural areas.¹³ However, the Commission has determined that rural “add-on” payments generally are distributed too broadly, providing additional payments to providers in rural areas even if those areas have adequate provider supply (Medicare Payment Advisory Commission 2012). The program should not subsidize providers located near each other, even in a remote area, because doing so

would discourage improvements in economies of scale achieved by consolidation. Instead, the Commission has posited that a rural policy should target low-volume isolated providers.

Our analyses found that the average actual cost of rural stays and frontier stays were higher (7 percent and 5 percent, respectively) than urban stays (after adjusting for differences in wage rates). These higher costs partly reflect the much larger shares of rural and frontier stays that were furnished by hospital-based providers (14 percent and 29 percent, respectively, compared with 8 percent of urban stays). Hospital-based providers have considerably higher costs than their freestanding counterparts (42 percent higher) that are not due to differences in the patients they treat and therefore are not predicted by a model based solely on patient characteristics (hospital-based PAC providers' predicted costs are only 8 percent higher than those of freestanding providers). The predicted costs for both rural groups were essentially the same or lower than the costs for urban stays. The large cost differential between hospital-based and freestanding providers also reflects hospital-based providers' different setting mix. IRFs, which have higher costs than SNFs and HHAs, make up a higher share of hospital-based providers.

Another factor that raises unit costs for rural and frontier providers is that they are more likely to have low patient volumes. In our analysis, stays in rural and frontier areas were much more likely to have been furnished by low-volume providers (defined as being in the lowest quartile of volume for each setting). On average, 2 percent of urban stays were furnished by low-volume providers, compared with 4 percent of rural stays. In frontier areas, the share treated by low-volume providers rose to 19 percent.

In the absence of other extenuating circumstances, the Medicare program should not correct for the inefficiencies of low-volume providers or the higher costs of hospital-based providers. If the PAC PPS includes a rural policy, it should tailor an adjustment for providers that are isolated and are necessary to ensure beneficiary access to care in addition to having consistently low volume. The Commission has recommended such an adjustment for the end-stage renal disease PPS (Medicare Payment Advisory Commission 2020). The adjustment could vary by

volume so that isolated providers with especially low volume could receive a larger boost to payments than other isolated low-volume providers.

No need for an adjustment based on care provided to beneficiaries with low incomes

We looked at the accuracy of predicted costs for all PAC providers by their share of Medicare patients who were beneficiaries with low incomes (defined as beneficiaries who were fully or partially dually eligible for Medicare and Medicaid or who received the low-income subsidy (LIS) under Part D). Currently, only the IRF PPS includes a payment adjustment based on a provider's share of low-income patients. Across all providers, the model was accurate for providers with low shares (the bottom 20 percentile of shares) of low-income beneficiaries, but it underpredicted costs for providers with high shares (the top 20th percentile of shares) of low-income patients, with a ratio of predicted to actual cost of 0.91. However, the relationship between shares of low-income patients and ratios of predicted to actual costs was not consistent across individual settings, and the accuracy did not steadily worsen with greater shares of low-income beneficiaries. At the stay level, our results do not support a separate adjuster for high shares of low-income patients, as predicted costs for them were within 1 percent of actual costs (see Table 10-1, p. 425). Taking these facts together, we conclude that an adjuster for dual-eligible/LIS status would not be needed.

No need to adjust for source of admission

We explored the need for an adjuster to capture the cost differences between PAC stays admitted from the community and those that follow a hospital stay.¹⁴ We found that HHA stays that follow a hospitalization had higher actual costs (30 percent higher) than those admitted from the community. Two factors contributed to the difference in actual costs. First, compared with community-admitted stays, posthospital stays included more visits (including unnecessary therapy visits that are not considered when predicting costs using patient characteristics). Second, a higher share of posthospital home health care was provided by hospital-based providers that had, on average, higher per stay costs (31 percent higher) compared with freestanding HHAs. However, differences in the predicted costs of posthospital and community-admitted home health stays were minimal (posthospital stays had per stay

costs that were 2 percent higher than community-admitted stays). The relatively small differences in predicted costs suggest that a payment adjustment for source of admission would not be needed.

The predicted costs for institutional PAC (I-PAC) stays, which include SNF, IRF, and LTCH stays, admitted from the community and those that followed a hospital stay differed by 7 percent. These differences are driven largely by the mix of settings of the stays that, as discussed above, do not warrant correction.

CMS/ASPE prototype would establish accurate payments for broad clinical groups but would not align payments across settings for clinically similar cases

The prototype design outlined by CMS/ASPE would establish a payment for each PAC stay using a set of case-mix groups and payment adjusters (Figure 10-1, p. 430). Payment for a stay would be calculated by multiplying a base rate by the relative weight for the applicable case-mix group and three adjusters: rural location of the provider, PAC setting, and comorbidity tier (see text box, p. 431, and Figure 10-2, p. 431, for an example of how the prototype would set the payment for a stay). The sizes of the adjustments were based on regression analyses (see Appendix 10-A, p. 445, for a summary of the methodology). A full description of the methods can be found in the Secretary's report to the Congress (RTI International 2022).

The CMS/ASPE prototype includes most of the design features identified by the Commission and would provide a good foundation for a PAC PPS design, establishing accurate payments and uniform profitability across broad clinical groups. However, the CMS/ASPE prototype includes adjusters that account for cost differences across the four PAC settings. An adjuster would be needed for HHA stays in order to account for their very low costs (as noted above). However, including other setting adjusters would undermine payment alignment across settings. It could incorporate existing, unwarranted setting-specific cost differences into the proposed PAC PPS. The Commission maintains that each adjuster in a payment

system should have a conceptual relationship to the cost of care that is supported by evidence. Deviations from uniform design elements should be limited to those that counter systematic over- and underpayment that could threaten beneficiary access.

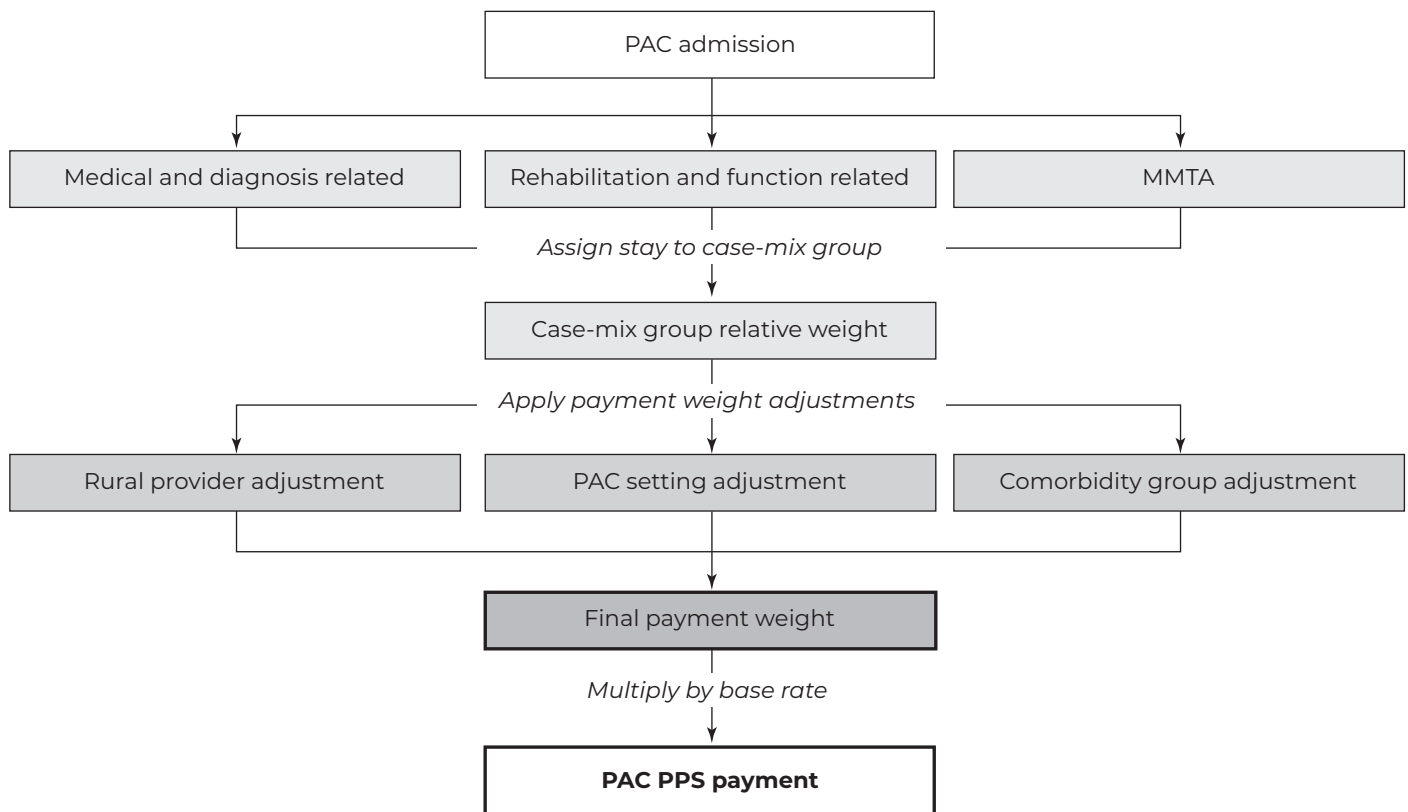
The CMS/ASPE prototype is consistent with many of the Commission's preferred design features but would maintain differences in payments across settings for clinically similar cases

The components of the CMS/ASPE prototype PPS are:

- *A stay as the unit of service:* A stay was defined as an individual stay for IRF, SNF, and LTCHs. For HHAs, 60-day episodes within 60 days of another episode treated by the same provider were consolidated into a stay.
- *Case-mix groups:* Each PAC stay would be assigned first to a broad clinical grouping in one of three domains—medical and diagnosis related, rehabilitation and function related, or medication management, teaching, and assessment (MMTA)—and then subdivided into a case-mix group. The case-mix groups were developed based on classification and regression tree analyses that identified groups of clinically similar patients with comparable costs. Case-mix groups for the medical and diagnosis-related grouping are differentiated by clinical diagnoses, while the case-mix groups for the rehabilitation and function-related grouping and the MMTA grouping are differentiated by functional status.¹⁵ The behavioral health group and the MMTA groups are specific to HHA stays.
- *Comorbidity adjuster:* Each stay would be assigned to a comorbidity tier based on the patient's secondary diagnoses and their relative costliness. A patient with more and/or costlier comorbidities would be assigned to a higher tier that has a larger payment adjustment. The size of the adjusters would vary by broad clinical group to capture their differing effects on patient costs.
- *Setting adjuster:* CMS/ASPE states that it included an adjuster for each setting (except for IRFs, which is the reference group) because of variation in the cost of care attributed to different statutory and

FIGURE 10-1

CMS/ASPE PAC PPS prototype design



Note: PAC (post-acute care), PPS (prospective payment system), CMS/ASPE (Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation), MMTA (medication management, teaching, and assessment).

Source: Adapted from Figure ES-1 in a report by RTI International, 2022.

regulatory requirements. Relative to IRFs, LTCHs would receive higher payments and SNFs and HHAs would receive lower payments after the application of setting adjusters. The adjustment varies by broad clinical group. CMS/ASPE notes that this adjuster could be modified in the future, should regulations change.

- *Rural adjuster:* CMS/ASPE included a rural adjuster to reflect the higher costs associated with stays in rural providers. The size of the adjustment would vary by broad clinical group.

- *Outlier cases:* Short stays and decedents would be assigned to separate case-mix groups. High-cost outlier stays would be paid separately with an outlier policy.

The CMS/ASPE prototype includes no adjustments for providers with teaching programs or for providers that treat high shares of low-income patients. The design did not align the services included in the definition of a stay across settings (such as the exclusion of drugs in home health stays).

Example of establishing a payment for a stay under the CMS/ASPE prototype

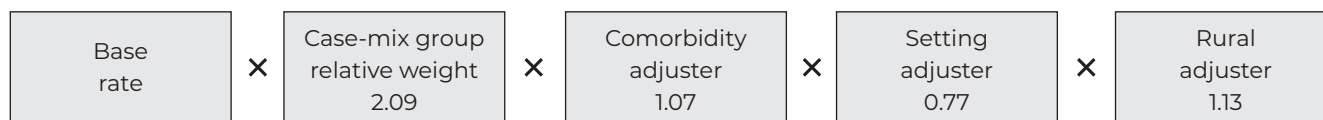
To illustrate how the prototype designed by the Centers for Medicare & Medicaid Services and the Assistant Secretary for Planning and Evaluation would establish payments for a stay, we selected a patient with moderate comorbidities who is recovering from a stroke (the rehabilitation and function-related group) and had a motor score of 10 at admission. She was treated in a skilled nursing facility (SNF) in a rural location.

Payment for this beneficiary's stay would be calculated as follows: The stay would be assigned to a case-mix group for patients recovering from a

stroke with motor scores equal to or greater than 8 but less than 11. The relative weight for the case-mix group is 2.09 (Figure 10-2). With moderate comorbidities, the stay would be assigned to comorbidity tier 3 with a payment adjustment of 1.07. The SNF setting adjustment for the stroke medical and diagnosis group is 0.77, and the rural location adjuster is 1.13. The final payment adjustment ($2.09 \times 1.07 \times 0.77 \times 1.13 = 1.9458$) would be applied to a base rate to establish the payment for the stay. All payments would be adjusted for the area wage index to account for differences in labor costs across markets (not shown). ■

FIGURE 10-2

Example of establishing a payment for a stay under the CMS/ASPE prototype



Note: CMS/ASPE (Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation).

Source: MedPAC illustrative analysis based on RTI International, Department of Health and Human Services, 2022.

The CMS/ASPE prototype is consistent with many of MedPAC's preferred design features (Table 10-3, p. 432). Payments would be made for a stay; there are separate adjustments for home health stays and unusually high-cost and very short stays.¹⁶ There are no adjustments for stays furnished by a provider with a teaching program, for source of admission, or for the share of a provider's beneficiaries who are low income. The CMS/ASPE prototype also includes a relatively common risk adjustment, though some case-mix groups are specific to HHAs (the MMTA and the behavioral health groups). If design work proceeds, efforts should limit the setting-specific groups and consider expanding the number of case-mix groups so that the residual "other" groups are small. Some of the risk adjusters were based on setting-specific assessment items that vary across settings. Where possible, the adjusters should be claims based because they may be less susceptible to

biases in coding. The prototype includes a comorbidity adjustment that considers a comprehensive set of comorbidities.

However, the CMS/ASPE prototype differs from MedPAC's preferred features in that it includes setting adjusters for SNF, IRF, and LTCH stays (IRF stays were used as the reference group, so their "setting-specific adjustment" is embedded in the base rate). While the Commission has underscored the necessity of an HHA adjuster, adjusting payments for the other settings would implicitly accept all cost differences across settings, including those associated with regulatory requirements, practice patterns (such as length of stay), and unmeasured differences in case mix. Because the prototype does not assume regulatory alignment, its setting adjusters account for differences in costs that are not attributable to case mix. In its report, CMS/

**TABLE
10-3**

Comparison of MedPAC's preferred design features for a PAC PPS and the CMS/ASPE PAC PPS prototype

MedPAC's preferred design feature	CMS/ASPE prototype	
	Consistent with MedPAC's preferred features	Comment
Stay-based unit of service	Partially	Home health stays include consecutive episodes
Adjustment for home health stays	Yes	
No adjustment for SNF, IRF, or LTCH stays	No	Making adjustments for each setting undermines alignment of payment across settings for clinically similar cases but may be reasonable during a transition
Common risk adjustment based on patient characteristics	Yes	Mostly. Some case-mix groups are setting specific. Some risk adjusters rely on setting-specific patient assessment data, so the definitions vary slightly.
High-cost and short-stay outlier policies	Yes	
Targeted rural adjuster	No	Adjustment made for stays furnished by a rural provider
No adjustment for providers treating high shares of low-income patients	Yes	
No adjustment for source of admission	Yes	
Adjustment for follow-on HHA stays	No	No adjustment; however, the stay includes consecutive home health episodes.
No teaching adjustment	Yes	

Note: PAC (post-acute care), PPS (prospective payment system), CMS/ASPE (Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital), HHA (home health agency).

Source: MedPAC analysis of a prototype PAC PPS design as published by RTI International, 2022.

ASPE noted that these adjusters could be modified over time if regulations are changed to unify PAC policies. The size of the setting adjustments varies by broad clinical group, indicating that the relationship between PAC setting and per stay cost differs depending on whether the patient is receiving care for a case that falls into a medical and diagnosis-related group, a rehabilitation and function-related group, or an MMTA group. The varying adjustment reflects the associated costs of differing practice patterns, compliance with regulatory requirements, and unmeasured case-mix that are incorporated into the prototype design.

A PAC PPS with setting-specific adjusters would not achieve a unified, site-neutral payment system for post-acute care (see text box on the trade-offs between uniform design and accurate payments). Including adjusters for setting in the PAC PPS design would result in some level of unwarranted payments and would do little to encourage provision of care in the most efficient and appropriate setting. That said, including such adjusters in an initial design may be a reasonable transition policy that would give providers time to adjust their cost structures to a unified PPS and aligned Medicare conditions of participation (see section on establishing uniform Medicare conditions of

A PAC PPS: Trade-offs between a uniform design and accurate payments

The primary objective of a post-acute care (PAC) prospective payment system (PPS) is to establish a common payment system to pay for PAC based on patient characteristics rather than the setting in which care is provided. Because the Commission prioritized aligning payments across settings for clinically similar cases, we did not include adjusters in our model that would vary payments based on setting (except for home health care). In contrast, the Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation prototype prioritized accuracy over uniform payments and includes adjusters that vary by setting.

A design that adjusts payments by PAC setting (except for home health care) has important implications. While some of the cost differences across settings are warranted (such as the costs associated with meeting regulatory requirements),

others are not (such as practice patterns that may reflect the incentives of the individual PPSs, not the care needs of the beneficiary). Continuing to pay providers for unwarranted costs would do little to encourage the provision of efficient care. For example, including an adjustment for the skilled nursing facility setting would incorporate the costs associated with lengths of stay that likely reflect the day-based payment incentive to extend stays.

If policymakers opt to pursue a PAC PPS, they will need to consider the trade-off between accuracy and the uniformity of a design. Uniform elements that would result in systematic over- and underpayment for certain types of cases or groups of beneficiaries are to be avoided. Designers should accept modest erosions in accuracy and limit the deviations from uniform design elements to those necessary to ensure access for beneficiaries. ■

participation for PAC providers, p. 443). If CMS moves forward with a PAC PPS design, it should evaluate transitions of varying duration and propose a timetable for phasing out the adjusters for SNF, IRF, and LTCH stays.

The CMS/ASPE prototype also includes a rural adjuster that varies by broad clinical group. Given that all payments would be adjusted for geographic differences in wage levels, it is not clear why a rural adjustment should vary by broad clinical group. As noted above, the Commission found that some of the cost differences between rural and urban stays are likely due to factors that do not, by themselves, warrant adjustment (such as whether the stay was furnished by a hospital-based provider). The Commission's view is that any rural policy should target low-volume isolated providers needed to ensure beneficiary access.

Finally, the CMS/ASPE prototype does not include an adjuster for stays that follow a hospitalization, consistent with MedPAC's preferred features. The

CMS/ASPE prototype does not include an adjuster for subsequent HHA stays, but this could be because the "stay" includes consecutive home health care use. An adjuster for follow-on HHA stays may be needed if, in a revised design, the definition of a stay does not include consecutive home health episodes.

The CMS/ASPE prototype established accurate payments for broad clinical groups

CMS/ASPE reported that the prototype would establish accurate payments by broad clinical group. Estimated payments would be within 2 percent of actual stay costs for almost all patient groups (Table 10-4, p. 434). The ratios for trauma cases (a group we were concerned about, given our modeling results) were close to 1.0, indicating that having separate case-mix groups for them would establish accurate payments. The model was equally accurate for low- and high-cost stays (data not shown), though some of

**TABLE
10-4****CMS/ASPE PAC PPS prototype would establish reasonably accurate payments for most broad clinical groups and providers**

Category	Ratio of predicted to actual cost
All	1.00
Broad clinical group	
MMTA: Cardiac	0.98
MMTA: Endocrine	0.98
MMTA: GI/GU	0.99
MMTA: Infections	0.99
MMTA: Respiratory	0.98
MMTA: Surgical aftercare	0.99
MMTA: Other	0.98
Lower extremity fracture including joint replacement	0.99
Joint replacement without lower extremity fracture	0.98
Other orthopedic surgery	0.99
Trauma	0.98
Limb loss	1.01
Orthopedic other	0.98
Stroke	0.99
Nontraumatic brain dysfunction	1.01
Spinal dysfunction	1.01
Traumatic brain injury	1.00
Neurological (other)	0.99
Respiratory	1.02
Cardiovascular	1.01
Behavioral health	0.98
Coma	0.98
Invasive ventilator	1.04
GI and hepatobiliary	1.02
Infections	1.02
Kidney and urinary	1.02
Skin	0.98
Cancer	1.02
Transplant	1.01
Hematological	1.03
Other	1.00
Setting	
HHA	1.00
SNF	0.99
IRF	1.02
LTCH	1.02

Note: CMS/ASPE (Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation), PAC (post-acute care), PPS (prospective payment system), MMTA (medical management, teaching, and assessment), GI (gastrointestinal), GU (genitourinary), HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital).

Source: RTI International 2022.

this would be explained by the exclusion of short stays, decedents, and high-cost outliers from the analyses. If the ASPE/CMS prototype is refined, it will be important to reevaluate the accuracy of the model when these stays are included in the analysis because some of these patients could be easily identified prior to admission and avoided (or preferred).

CMS/ASPE also examined the accuracy of the model for stays in 2020, a year of considerable changes. These changes include revised practices (and the associated costs) in response to the new case-mix systems (notably, fewer therapy services provided in HHAs and SNFs); the temporary waivers granted during the public health emergency (that waived patient and facility criteria, allowing patients to be admitted to the institutional providers when they otherwise would not qualify and paying full LTCH PPS rates for nonqualifying cases); and costs associated with COVID-19. Not surprisingly, the 2020 payment-to-cost ratios varied more than those for the 2017 to 2019 period. However, even with the many changes in 2020, the model still explained a high share of costs across stays (R^2 was 0.48).

The CMS/ASPE report does not evaluate the accuracy of payments by case-mix group. Yet, payments could be accurate for broad clinical groups but not for specific case-mix groups, which could affect beneficiary access to care. Any future evaluation should be conducted for individual case-mix groups.

Across providers, the CMS/ASPE design would establish fairly accurate payments. The ratios of payments to costs for providers in each of the four settings were close to 1.0. These results are not surprising because the design included setting-specific adjustments and payments were accurate for the broad clinical groups. The contrast between these results and our modeling results for providers in each setting (Table 10-2, p. 427) illustrates the trade-off between a uniform design and accuracy. Setting-specific adjustments help improve the accuracy of payments but do not meet the goal of establishing unified payments across settings.

CMS/ASPE prototype resulted in fairly uniform profitability across broad clinical groups

When some types of cases are likely to be more profitable than others, providers have an incentive

to selectively admit them and avoid others that are likely to be less profitable. Although CMS/ASPE did not examine this aspect of its design, the Commission examined the variation in the reported profitability of different types of cases (the ratios of CMS/ASPE's PAC PPS payments to stay costs). The results from the CMS/ASPE report indicate that, at least for broad clinical groups, profitability would be fairly uniform (Table 10-4). The ratios of predicted to actual costs (the measure of profitability) varied from 0.98 to 1.02 for all but two categories (invasive ventilator and hematological). For these two, the ratios are higher than 1.0 (1.04 and 1.03, respectively), indicating that providers would have more financial incentive to admit these cases compared with other cases. There was much less uniformity in the profitability for the broad clinical groups in 2020 (data not shown).

An examination of profitability should be conducted for individual case-mix groups (at least for those with sufficient counts for analysis). What may appear to be fairly uniform profitability for a broad clinical group may mask larger differences for individual case-mix groups. Some case-mix groups may be highly profitable while others may be unprofitable, creating incentives to selectively admit some types of patients and avoid others.

A PAC PPS would redistribute payments across providers

Differences in the estimated impacts of the CMS/ASPE prototype and the Commission's model on providers' payments reflect, in part, differing design choices—specifically, the decision to include setting adjusters other than an HHA adjuster. CMS/ASPE estimated that their prototype would, on average, increase payments to LTCHs and decrease payments to IRFs and HHAs. By contrast, we estimate that our model would reduce payments to IRFs and LTCHs and increase payments to SNFs. Both our model and the CMS/ASPE prototype would generally increase payments to nonprofit providers and rural providers and lower payments to for-profit providers. Estimates of the impacts of the CMS/ASPE prototype and our model do not assume changes in cost sharing, coverage rules, or PAC setting. Any of these changes would affect the estimates.

**TABLE
10-5**

A PAC PPS would redistribute payments across providers relative to current payment levels

CMS/ASPE prototype		MedPAC model	
Provider group	Percent change in payments	Provider group	Percent change in payments
All stays	0%	All stays	0%
HHA	-4	HHA	-3
SNF	1	SNF	7
IRF	-6	IRF	-17
LTCH	17	LTCH	-6
For profit		For profit	-3
HHA	-9		
SNF	-4		
IRF	-7		
LTCH	18		
Nonprofit		Nonprofit	7
HHA	5		
SNF	17		
IRF	-4		
LTCH	15		
Government		Government	3
HHA	7		
SNF	4		
IRF	-6		
LTCH	13*		
Urban	0	Urban	-1
Rural	3	Rural	4
		Frontier	-1
		Hospital based	-3
		Freestanding	0

Note: PAC (post-acute care), PPS (prospective payment system), CMS/ASPE (Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation), HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). The impacts for the CMS/ASPE prototype are for stays admitted between 2017 and 2019. The impacts for MedPAC's model are for stays admitted in 2019. The impacts for the CMS/ASPE prototype are for a sample of stays from calendar year 2017 through 2019. See Appendix 10-A for the methodology used to estimate payments.

*This result should be interpreted with caution because the group only includes 28 providers.

Source: The CMS/ASPE results were included in the report prepared by RTI International (2022). Results of the MedPAC unified design were prepared by the Urban Institute under contract to MedPAC (Wissoker and Garrett 2023).

Estimated impacts of the CMS/ASPE prototype on providers' payments

The impacts of the CMS/ASPE prototype on providers' payments reflect differences between current payments and PAC PPS payments. CMS/

ASPE estimated that the prototype would, on average, increase payments to LTCHs (by 17 percent) and decrease payments to IRFs and HHAs by 6 percent and 4 percent, respectively (Table 10-5). Payments to LTCHs would increase because the prototype's payments

would be based on the predicted cost of stays, whereas current LTCH payments include the policies to pay less for cases that do not meet qualifying criteria (to discourage placement of these cases in this high-cost setting). A final design should maintain payment differences for lower-acuity stays, even in LTCHs.

Payments to IRFs and HHAs would decrease because current Medicare payments are well above the cost of care. In contrast, payments made under a PAC PPS would be based on the cost of care, so payments to them would be reduced (but would still cover the cost of care). This is an example of where payment accuracy would correct the overpayments inherent in current policy. The Commission has recommended payment reductions to both settings for years, and the design of a PAC PPS represents a vehicle to achieve better alignment of payments with costs.

Payments to SNFs would increase slightly because the SNF PPS in place at the time (stays admitted in 2017 through 2019) did not fully consider the medical conditions and complexity of patients. Even though the prototype design would reduce the substantial overpayments to SNFs during this period (Medicare margins during this period were more than 10 percent), they would be offset by the increases in payments that result from a design that better accounts for the medical conditions of patients.

Estimated impacts of MedPAC's model on providers' payments

Because our model does not include setting adjusters (except for HHAs), the estimated impacts on IRFs and LTCHs (the high-cost settings) are quite different from those of the CMS/ASPE prototype. Changes in payments relative to current setting-specific PPSs would be largely explained by the averaging of costs of stays across all settings. Where there is overlap in case types with lower-cost settings, payments to IRFs and LTCHs are likely to decline because the PAC PPS payments would be based on an average predicted cost that includes providers in lower-cost settings.

Payments to SNFs are likely to increase due to the averaging of relatively lower-cost SNF cases with the relatively higher costs of IRF and LTCH cases and because the PAC PPS does a better job of capturing patient complexity, which would raise payments for SNF patients. HHA payments would decline because

a PAC PPS would be based on predicted cost of care and exclude the sizable overpayments under current policy (the aggregate Medicare margin of freestanding HHAs in 2021 was 24.9 percent). Payments to hospital-based providers are likely to decrease for two reasons: They have higher costs per stay that are not explained by patient characteristics, and the group includes a disproportionate share of IRF stays, whose payments on average would decline because many of the types of patients they treat are also treated in lower-cost settings. Both our unified design and the CMS/ASPE prototype would generally increase payments to nonprofit providers and rural providers and lower payments to for-profit providers.

A transition would phase in the impacts of a PAC PPS but would be costly to administer

A transition to a PAC PPS would give providers time to adjust their costs to anticipated changes in their payments and regulatory requirements. During a transition, providers would be paid a blend of current setting-specific payments and PAC PPS payments. The Commission previously recommended a phase-in period of three years, during which providers would be paid a blend of current (setting-specific) rates and a PAC PPS rate (Medicare Payment Advisory Commission 2017a). To reevaluate the need for and the duration of a transition, we estimated distribution of impacts across providers under the Commission's illustrative model.

In addition to the large (and expected) impacts on certain types of providers, as discussed above, there would be a wide range of impacts on providers' payments within in each provider group. We found that if the level of payments were implemented to be budget neutral overall, payments under our model would decrease by more than 25 percent for 5 percent of providers and increase by more than 25 percent for 18 percent of providers (Table 10-6, p. 438). Within each provider group, the variation in payment change would be wide. For example, payments to nonprofit providers would increase on average but would decrease for 39 percent of these providers. There are even wider distributions by case type (data not shown) that are averaged across all of a provider's stays. The wide range in impacts supports implementing a PAC PPS with a transition.

**TABLE
10-6**

Estimated distribution of the changes in payments under MedPAC's PAC PPS model

Provider group	Decrease in payments			About the same	Increase in payments		
	>25%	10% to 25%	1% to 10%	-1% to 1%	1% to 10%	10% to 25%	>25%
All providers	5%	16%	24%	5%	17%	15%	18%
HHA	0	12	42	9	25	10	2
SNF	9	13	12	3	13	20	31
IRF	10	68	18	1	2	0	0
LTCH	4	30	30	7	20	7	2
Nonprofit	2	17	20	3	11	15	31
For profit	6	15	26	6	19	15	14
Government	5	19	19	3	18	16	20
Hospital based	5	30	23	4	12	8	18
Freestanding	5	14	24	5	18	16	18
Urban	6	16	24	5	17	14	17
Rural	3	15	24	4	17	17	19
Frontier	3	22	27	5	18	14	11

Note: PAC (post-acute care), PPS (prospective payment system), HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). Each row shows the distribution of changes in payments for that group of providers. There were 19,979 providers with at least 20 stays included in the analysis. The impacts for MedPAC's model are for stays in 2019. See Appendix 10-A for the methodology used to estimate payments.

Source: The Urban Institute under contract to MedPAC (Wissoker and Garrett 2023).

The relationship between the expected changes in payments under a PAC PPS and a provider's current profitability also informs the decision to include a transition and how long it should be. If the providers that are projected to experience the largest payment reductions are currently highly profitable, then they would be able to absorb some of the payment reductions. If average payments are expected to increase for the least profitable providers, it would be desirable to have a short transition so they could begin to benefit from the higher payments.

To explore the relationship between estimated changes in payments under a PAC PPS and current profitability, we first measured current relative profitability using the ratio of the provider's average current payment to its average per stay costs. We compared each provider's payment-to-cost ratio (PCR) with the average PCR for all providers in a setting to control for different levels of profitability across settings. For example, we

compared each IRF's PCR with the average PCR for all IRFs. Then we examined the distribution of changes in payments under a PAC PPS by level of relative profitability.

In general, we found that expected changes in payments under a PAC PPS were inversely related to providers' relative profitability (Table 10-7). On average, providers that would see the largest increases in payments tended to have the lowest profitability under the current payment systems, and, conversely, those that would experience decreases in payments tended to have the highest profitability. Of the 4,171 providers whose payments would decrease by at least 10 percent, 58 percent were relatively profitable (they had PCRs greater than 1.1). Of the 6,515 providers whose payments would increase by at least 10 percent, 57 percent were relatively unprofitable (they had PCRs less than 0.90).

**TABLE
10-7**

For many providers, changes in payments under a PAC PPS would be inversely related to current Medicare profitability relative to other providers in the same sector

	Provider count	Decrease in payments under a PAC PPS			Increase in payments under a PAC PPS			
		<25%	10% to 25%	1% to 10%	About the same	1% to 10%	10% to 25%	>25%
Current relative profitability								
Below average								
<0.75	2,846	0	47	223	82	611	702	1,181
0.75–0.9	4,519	8	376	1,025	309	949	811	1,041
About average								
0.9–1.1	6,906	137	1,191	2,083	396	1,135	985	979
Above average								
1.1–1.25	2,876	208	762	857	130	400	283	236
>1.25	2,832	694	748	652	111	330	196	101
Provider count	19,979	1,047	3,124	4,840	1,028	3,425	2,977	3,538

Note: Relative profitability is a ratio of the provider's profitability (the ratio of the provider's average payment under current policy to the average stay cost) to the setting's average profitability. Ratios below 1.0 indicate below-average profitability; ratios above 1.0 indicate above-average profitability. Only providers with at least 20 stays were included in the analysis (19,979 providers). The impacts for MedPAC's model are for stays in 2019. See Appendix 10-A for the methodology used to estimate payments.

Source: The Urban Institute under contract to MedPAC (Wissoker and Garrett 2023).

Given the redistribution of payments across providers, we concluded that if there were a transition, it could be relatively short. That way, providers whose payments would increase could reap the benefits of the PAC PPS sooner, while payments would be more quickly aligned with costs for providers with the highest profitability. Yet, including a transition that blends PAC PPS and setting-specific PPS payments would be complicated and costly for CMS to implement because it would require the agency to maintain five payment systems (the four setting-specific ones and the new PAC PPS). In addition, a transition could be confusing for providers because estimating payments for a stay would be more difficult than with a single payment system. One alternative could be to implement a PAC PPS with setting adjusters that would be phased out over time. This way, CMS would manage payments under a single PPS—the PAC PPS. Under either approach, policymakers would need to evaluate the impacts of transitions of varying duration and specify a phase-in schedule.

If a PAC PPS is implemented, the Congress should consider the level of aggregate payments

If a PAC PPS is implemented, policymakers would need to decide whether (1) aggregate payments under the new system should be set equal to those under the current PPSs (i.e., implemented to be budget neutral) or (2) current payments are too high. While it is not the objective of a PAC PPS, policymakers could use the opportunity to better align payments with the cost of care and lower Medicare spending. The Commission previously recommended lowering the aggregate level of spending by 5 percent under a unified PAC PPS (when payments were 14 percent higher than costs (Medicare Payment Advisory Commission 2017a)) and has continued to recommend reductions in payments each year for the individual PAC sectors (Medicare Payment Advisory Commission 2023).

Our updated analysis using 2019 PAC stays again found that aggregate PAC payments were 14 percent

**TABLE
10-8**

Comparison of PAC PPS payment-to-cost ratios under three illustrative implementation scenarios

Provider group	100% PAC PPS rates, no transition, no reduction to payments	100% PAC PPS rates, no transition, 5% reduction to payments	First year of a three-year transition, 5% reduction to payments
All providers	1.14	1.08	1.12
HHA	1.15	1.09	1.16
SNF	1.22	1.15	1.14
IRF	0.96	0.91	1.08
LTCH	0.93	0.90	0.96
Nonprofit	1.09	1.03	1.02
For profit	1.17	1.11	1.17
Government	1.06	1.01	1.03
Hospital-based facility	0.92	0.87	0.92
Freestanding facility	1.17	1.12	1.15
Urban	1.15	1.09	1.13
Rural	1.09	1.03	1.04
Frontier	1.04	0.99	1.04

Note: PAC (post-acute care), PPS (prospective payment system), HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). The first year of a three-year transition includes a blend of current payments (two-thirds) and PAC PPS payments (one-third). There were 19,979 providers with at least 20 stays included in the analysis. The payment-to-cost ratios were estimated using stays in 2019.

Source: The Urban Institute under contract to MedPAC (Wissoker and Garrett 2023).

higher than costs (Table 10-8). A 5 percent reduction to the aggregate level of spending would be consistent with the Commission’s recommendations on the payment updates for HHAs, SNFs, and IRFs (Medicare Payment Advisory Commission 2023). Even with such a reduction, we estimate that payments would remain 8 percent higher than the cost of care (a PCR of 1.08). The ratios for hospital-based and frontier providers reflect their higher costs and lower volume, costs that the program should not necessarily pay for (see discussion of the high costs of hospital-based or low-volume rural providers, p. 428).

To consider the impact of a transition on a reduction to payments, we modeled an illustrative three-year transition of a 5 percent reduction to payments. In the first year, payments were modeled as a blend of two-thirds current payments and one-third PAC PPS payments. (The second year would be a blend

of one-third current payments and two-thirds PAC PPS payments.) In this scenario, aggregate payments would be 12 percent higher than costs in the first year, compared with 8 percent higher without a transition. For every group of providers, average reductions in payments would be tempered by the three-year transition, though (as shown earlier) the impacts across providers within any group would vary.

Monitor changes in provider responses and, if needed, make revisions to the PAC PPS

If a PAC PPS is implemented, we expect practice patterns to change as providers adjust to the new payment system. Some changes in PAC use may be desirable, while others could compromise the quality of care furnished or beneficiaries’ access to care. CMS should monitor indicators of quality of care, unnecessary PAC use, patient selection, and the adequacy of payments (Table 10-9). For

**TABLE
10-9**

Measures to monitor quality of care and provider behavior under a PAC PPS

Dimension	Measure
Quality of care	<ul style="list-style-type: none"> • Hospitalization within the PAC stay and after discharge • Emergency department visits during the PAC stay and after discharge • Successful discharge to the community • Changes in patient function (e.g., self-care and mobility) • Complication rates (e.g., health care–associated infections, falls) • Medicare spending per beneficiary • Patient experience
Under- and overprovision of PAC	<ul style="list-style-type: none"> • PAC use following a hospital stay • Length of PAC stay • Subsequent PAC use following an initial PAC stay
Patient selection	<ul style="list-style-type: none"> • PAC use by condition and by vulnerable beneficiaries • Mix of patients across settings and providers • Length of stay of preceding hospital stay
Adequacy of payments	<ul style="list-style-type: none"> • Medicare margins • Cost growth

Note: PAC (post-acute care), PPS (prospective payment system). “Vulnerable patients” include (but are not limited to) medically complex, very old, disabled, and dual-eligible beneficiaries.

Source: MedPAC.

example, increases in undesirable outcomes (such as hospitalizations and emergency department visits) could flag potential problems in the design that warrant correction.

Under- and overprovision of PAC will be difficult to assess, given the lack of evidence-based guidelines about when PAC is beneficial or what kind of PAC would yield the best outcomes. Moreover, current practice patterns may be more heavily influenced by the incentives and coverage restrictions inherent in the current payment systems than by evidence-based clinical protocols. That said, large increases in the share of PAC stays followed by additional PAC care (subsequent stays) could indicate that providers are unbundling care and shifting costs to a subsequent provider, thereby raising Medicare spending, exposing beneficiaries to unnecessary care transitions, and potentially increasing beneficiaries’ cost sharing. Large declines in PAC use or reductions in lengths of PAC stays could signal stinting on care.

Meanwhile, changes in the frequency and distribution of admissions across case types could reflect differences in profitability that create incentives for providers to admit certain types of cases (or beneficiaries with specific characteristics) and to avoid others. Increases in the lengths of stay of preceding hospitalizations could indicate difficulty in placing less profitable patients.

Medicare margins and cost growth are good barometers of the adequacy of Medicare’s payments. When payments are more than adequate, providers have less incentive to control their costs, and cost growth may be high. However, high levels of cost growth could also reflect providers making investments in staffing and equipment to treat a more complex mix of patients.

To keep payments under a PAC PPS aligned with the cost of care, the Commission previously recommended that the Secretary periodically revise and rebase payments as needed (Medicare Payment Advisory

Commission 2017a). Ongoing maintenance of the case-mix system includes revisions to the case-mix groups (e.g., adding or collapsing of case-mix groups) and the relative weights associated with each. For example, changes in admitting practices and standards of care could affect the relative costs of different types of stays.

Because coding practices are likely to change (as they typically do when new payment systems are implemented), payments are likely to increase, even when patients' resource needs remain the same. If so, changes in payments would outpace cost changes (cost could remain the same since the patients did not change). Regular rebasing of payments (as is done for payments to hospitals and MA plans) would help keep them aligned with the cost of stays.

Necessary companion policies to accompany the implementation of a PAC PPS

Several companion policies would need to be implemented concurrently with a PAC PPS. This is to ensure that beneficiaries have the same benefits and cost sharing regardless of where they seek their PAC and that providers incur the same costs to comply with Medicare's regulations when treating the same types of patients. In addition, a value incentive program would create incentives for providers to furnish efficient (high-quality, low-cost) care. CMS/ASPE also discussed these policies in its report to the Congress.

Align benefits and cost sharing

When payments are aligned for PAC providers, beneficiaries should face the same cost sharing and have the same PAC benefits regardless of where they are treated. Current coverage and cost-sharing rules vary depending on the PAC setting where beneficiaries receive their care.¹⁷ For example, a three-day prior hospital stay is required for Medicare coverage in SNFs but not for other PAC settings.¹⁸ IRF and LTCH users must pay the inpatient hospital deductible per spell of illness (most will meet this with a prior inpatient hospital stay) and face coverage limits and copayments on long stays in those settings.¹⁹ SNF users incur daily cost sharing starting on day 21 of their stay, and

coverage per spell of illness ends on day 100. There is no cost sharing or benefit limit on services for HHA users.

In addition, when payments are aligned for PAC providers, services included in the PAC "bundle" also need to be aligned so that providers produce the same product (with the associated costs) and beneficiaries have no incentive to select one setting over another to avoid out-of-pocket spending for services not included in the bundle. There are differences in the services included in the current bundle paid for in each setting-specific PPS. For example, drugs are not included in the payment for home health services, while the costs of drugs are included in the payment rates for SNF, IRF, and LTCH services. Renal dialysis treatments are covered by the IRF and LTCH PPSs but not the home health care and SNF PPSs (the services are billed separately under Part B).

If policymakers wanted to encourage the use of home health care, copayments could be lower for home health stays and higher for institutional PAC stays. A two-tiered approach would scale cost sharing to the large differences in payments made for HHA and I-PAC stays but would result in uneven cost sharing (with possibly higher cost sharing for beneficiaries who cannot be cared for at home).

Changes to cost-sharing requirements would raise issues that could have significant implications for some PAC users and for program spending. Ideally, policymakers would set a cost-sharing amount that discourages the initiation and continuation of unnecessary PAC yet is neutral to where PAC is furnished.²⁰ But requiring cost sharing would be a significant change for home health care users. If cost sharing were imposed, beneficiaries could become more sensitive to the value of the home health care they receive and could reduce their use of home health care. While this choice could result in program savings, it could restrict services for some beneficiaries. The Commission notes that home health care is a valuable service when used properly but has historically been subject to misuse under the Medicare benefit. Therefore, the imposition of cost sharing on home health care would need to strike a balance between making beneficiaries sensitive to the cost and value of the home health care they receive without discouraging appropriate care.

Changes to coverage could also have significant implications. The three-day requirement for SNF coverage, though perhaps outdated in its form, is an important guardrail on SNF use and program spending.²¹ During the PHE, the three-day requirement was waived, allowing nursing homes to provide skilled services without a prior hospital stay and to accept admissions directly from the community (if beneficiaries met the other coverage requirements). In fiscal year 2021, 27 percent of stays were admitted with a PHE-related waiver, which effectively shifted some Medicaid spending onto Medicare. On the other hand, requiring a prior hospital stay for all PAC use would eliminate the coverage for two-thirds of home health users.

Establish uniform Medicare conditions of participation for PAC providers

CMS currently promulgates and enforces setting-specific regulatory requirements that SNFs, IRFs, LTCHs, and HHAs must meet to participate in the Medicare program. SNFs must meet Medicare's requirements of participation that are different from the conditions of participation for IRFs and LTCHs, which are licensed as hospitals. HHAs face a different set of requirements. Under a PAC PPS, Medicare's existing setting-specific regulations (e.g., for services and staffing, care planning, administration, quality and safety, and patients' rights) would need to become more similar. Otherwise, PAC providers would face setting-specific requirements—with differing associated compliance costs—yet be paid unified payment rates. The requirements for some dimensions are similar and would be relatively straightforward to align (e.g., emergency preparedness and patients' rights), while others are not (e.g., the presence of registered nurses and physicians). Given the noninstitutional nature of the home health care setting, HHAs are likely to always have somewhat different regulatory requirements.

In prior reports, the Commission proposed a two-tiered approach to Medicare's requirements (Medicare Payment Advisory Commission 2019, Medicare Payment Advisory Commission 2016). All PAC providers would have to comply with a common (tier 1) set of requirements that would establish the essential competencies to treat any beneficiary using PAC, essentially creating new provider category (a PAC provider). Providers opting to treat patients with

specialized care needs—such as patients who require ventilator support or complex wound care—would need to meet additional requirements (tier 2) that spell out the competencies and specialized services required to treat the specific population. Providers who treat multiple specialized patient populations would be required to meet the requirements for each group. This policy would be akin to licensing by service line.

Ideally, the requirements and staff competencies would be based on evidence-informed guidelines. For example, as a starting point, CMS could consider the clinical guidelines for stroke patients developed by the American Stroke Association and the American Heart Association (Winstein et al. 2016). Any PAC provider that met the guidelines would be approved to treat stroke patients. The Canadian spinal cord injury guidelines are another example of evidence-based recommendations for care (Praxis Spinal Cord Institute 2021). Some states may have requirements for specialized care that could serve as models for this approach. For example, the District of Columbia has requirements for providers treating ventilator patients (District of Columbia 2019).

Shifting to requirements and skill-based competencies that are specific to the types of patients a provider treats would be a substantial departure from current regulations that are defined by setting. A common set of regulations for institutional providers (with a modified set for home health care) may raise requirements and costs for some providers. Developing and implementing them would likely take years.

Implement a value incentive program

To improve value, a value incentive program (VIP) would need to accompany the implementation of a PAC PPS. Otherwise, as with any FFS payment system, providers may increase revenues (by generating unnecessary volume) or lower their costs in ways that could harm patient care (such as stinting on services within the PAC stay). Currently, there are value-based purchasing programs for HHAs and SNFs but not for IRFs and LTCHs.

The Commission has done extensive work on the design features of a VIP for PAC. In a congressionally mandated report, the Commission evaluated the current SNF value-based purchasing program and recommended eliminating it and replacing it with a

new program (Medicare Payment Advisory Commission 2021). In a separate mandated report, the Commission identified key decisions that policymakers would need to make to develop and implement a PAC VIP (Medicare Payment Advisory Commission 2022).

Based on its principles for quality measurement, the Commission has identified the following design elements of a VIP: a small set of performance measures; strategies to ensure reliable measure results; a system of rewards with minimal “cliff” effects; an approach to account for differences in patients’ social risk factors using a peer-grouping mechanism (if needed); and a method to distribute the entire provider-funded pool of dollars. The Commission identified a starter set of quality and resource use measures (readmissions, successful discharge to the community, and Medicare spending per beneficiary) but underscored that CMS needs to develop a measure of patient experience and ensure that a measure of functional status is accurate. More work also needs to be done to define and measure the social risk of a provider’s patient population.

Key takeaways

Two separate bodies of work—ours and the work completed by CMS/ASPE—found that designing a PAC PPS is feasible and could establish accurate payments. Our work identified the preferred features of a design, and the CMS/ASPE prototype includes many of them. We identified modifications to the prototype that would make it more consistent with the intent of a

unified payment system. If CMS moves forward with the development of a PAC PPS, the setting adjusters should be temporary and phased out.

While designing a payment system is relatively straightforward, implementing the companion policies is not. They would require substantial changes to Medicare’s benefit and coverage rules and its conditions of participation for providers (requirements for SNFs). These changes would be controversial, require considerable resources to develop, and take many years to implement.

The changes that CMS has already implemented to the SNF, HHA, and LTCH PPSs are substantial and addressed at least one of the original reasons for a unified payment system: to correct shortcomings in the then-current PPSs. While the redesigned PPSs do not address the overlap of cases treated in different settings, they corrected the incentives that these providers had to furnish low-value care (including unnecessary rehabilitation therapy and paying LTCH rates to cases that did not require that level of service). Given the considerable agency resources that would be required to implement a unified payment system, CMS may consider smaller-scale site-neutral policies that would address some of the overlap in the patients treated in different settings.

Over the coming years, the Commission will look for opportunities for site-neutral policies that would be far simpler to implement. In the meantime, the Congress should implement the Commission’s standing recommendations to lower the level of payments to HHAs, SNFs, and IRFs. ■

10-APPENDIX A

Methodologies used to model a PAC PPS

The approaches taken by the Commission and the Centers for Medicare & Medicaid Services/Assistant Secretary for Planning and Evaluation (CMS/ASPE) were broadly similar but differ in important ways. Each is described below.

MedPAC modeling

To evaluate features of a post-acute care (PAC) prospective payment system (PPS), we used data from 2019 cost reports, claims filed during payment year 2019, and patient assessments that matched the claims based on admission dates (Wissoker and Garrett 2023). Although these data do not capture the coronavirus pandemic's effects on providers, they allow us to draw conclusions about design features of a PAC PPS.

We modeled costs and payments for each PAC stay. For inpatient rehabilitation facility (IRF) and long-term care hospital (LTCH) use, a stay was defined using claims data, with one stay per admission. Multiple claims for a skilled nursing facility (SNF) stay were consolidated into one stay using dates of claims, and they incorporated the revised interrupted stay policy.²²

PAC providers were required to collect uniformly defined information about a patient's functional status (the "GG" items) beginning on October 1, 2018, for institutional PAC providers and January 1, 2019, for home health agencies (HHAs). There are considerable missing data in the early months of collection by HHAs. Therefore, the Commission's analyses included stays admitted between April 1, 2019, and September 30, 2019, a period with more complete data. Given the continued uneven completeness of the data submitted by HHAs (and that some stays could not be matched to claims), the sample of stays with function data included different mixes of settings compared with all stays during the same six-month period.²³ Further, the home health stays with assessment data had higher average costs (13 percent higher) compared with stays that did not have assessment data; the average costs for stays in the other settings were essentially the same. The accuracy of predicted costs and the profitability across the patient groups for the two samples (all stays during the six months and only those with function data) were very similar. The ratios of predicted to actual costs and the ratios of PAC PPS payments to actual costs differed

by 2 percent or less for almost all reporting groups (for example, they differed for the low- and high-function patient groups). The results for categories with larger differences are explained by the mix of settings in the reporting group or the absence of the function data (the low- and high-functioning groups).

Actual cost of stays—For institutional PAC stays, routine costs per day were estimated from cost reports and multiplied by the number of days in the stay. Ancillary costs were estimated by multiplying ancillary charges reported in the claims for a stay by department-specific cost-to-charge ratios. The costs of home health stays were estimated by multiplying the average cost per visit (by visit type, calculated from the cost report) by the number of visits in an episode, as reported on the claim. Because we modeled payment policies in place in 2022, we estimated costs for home health care stays in 30-day periods, not 60-day episodes. Costs were standardized for differences in area wages and labor share.

"Current" payments—We modeled "current" payments in 2019 to reflect payment policy rules in 2022. This modeling helps compare the impacts of a PAC PPS on providers after considering the key policy changes in HHAs, SNFs, and LTCHs. For SNFs, we estimated payments for 2019 under 2022 payment rules by running the claims through the new case-mix classification system. SNF payments also incorporate the revised policy for interrupted stays (those with an intervening hospital stay) and the variable per diem payment for physical therapy, occupational therapy, and nonancillary therapy components of the SNF PPS. For HHA payments, the 60-day home health episodes were divided into 30-day periods based on dates of service and each "piece" was run through the new HHA case-mix classification system. LTCH payments reflected what would have been paid under a fully implemented dual-rate structure—LTCH rates for qualifying stays and the lower of the inpatient hospital PPS rate or 100 percent of the cost of the case.²⁴ The estimates of payments are reasonable approximations of what payments would have been in 2019 under 2022 policies. Payments to IRFs were gathered from IRF claims (there were no major changes to the IRF payment policy). Payments were standardized for differences in area wages and labor share.

PAC PPS payments—PAC PPS payments were based on the predicted costs of stays using patient and stay characteristics. The risk-adjustment factors included the primary reason for treatment, comorbidities, functional status, cognitive status, measures of frailty, patient age, incontinence, difficulty swallowing, presence of severe wounds, disability status, severity of illness, risk score, vision impairment, the length of stay in an intensive care unit or coronary care unit during a prior hospital stay (if there was one), and an indicator for stays treated in a HHA.²⁵ Except for functional status, the factors were based on information from PAC and hospital claims. Patient assessment information was used to create the measure of functional status (see description of function score used in MedPAC analyses below).

PAC PPS payments were estimated using two models (with identical risk adjusters in each): one for routine and therapy services and another for nontherapy ancillary (NTA) services because NTA services are not included in the home health care benefit. Estimated PAC PPS payments equaled the sum of the two predicted payments.

PAC PPS payments for unusually short stays and high-cost stays were modeled using illustrative outlier policies. The high-cost outlier policy established separate outlier pools for HHA and institutional PAC stays. The pool was set at 5 percent of spending and paid 80 percent of the difference between net loss from the stay (PAC PPS payment minus predicted cost) and the outlier threshold amount. The illustrative short-stay outlier policy paid a per day rate (or per visit for HHA stays) set at the average cost per day (or per visit) plus 20 percent to reflect that costs are generally higher at the beginning of a stay. “Short stay” was defined as the bottom decile of length of stays for institutional PAC stays and, for HHA stays, having received a low-utilization payment adjustment.

Function score used in MedPAC analyses—Function scores were created using uniformly defined and validated information about a patient’s ability to perform activities of daily living at admission. We created a composite function score of six items that we weighted equally—a patient’s ability to perform toileting hygiene, bathe/wash, roll left/right, walk 10 feet, transfer from sitting to lying, and transfer from sitting to standing. Assessments with missing data

or with items recorded as “activity not attempted” (ANA) for three or more items were dropped from the analysis due to concerns about the accuracy of this information.²⁶ For assessments with one or two items recorded as ANA, we calculated a reweighted composite based on the four or five items without the ANA items.

CMS/ASPE modeling

A full description of the CMS/ASPE methodology can be found in their report to the Congress (RTI International 2022).

CMS/ASPE used claims and patient assessments from 2017 through 2020 and cost reports from 2017 to develop its design. The study samples were a random sample of 50 percent of FFS beneficiaries who used PAC services and included all PAC stays associated with them. Analyses of the design were conducted using stays from 2017 through 2019, and separately for 2020 stays. Extending the analyses to 2020 allowed CMS/ASPE to test the model’s accuracy for a year of considerable change (new PPSs, the effects of the coronavirus pandemic, and the policies enacted during the public health emergency).

Stays were based on claims. CMS/ASPE consolidated consecutive HHA 60-day periods into a single stay.

Actual cost of stays—For institutional PAC stays, routine costs per day were estimated from cost reports and multiplied by the number of days in the stay. Ancillary costs were estimated by multiplying ancillary charges reported in the claims for a stay by cost-to-charge ratios (using facility-level averages). The costs of home health stays were estimated by multiplying the average cost per visit (by visit type, calculated from the cost report) by the number of visits in an episode, as reported on the claim. The costs of an HHA stay aggregated the costs for consecutive 60-day episodes. Costs were standardized for differences in area wages, labor share, and inflation.

“Current” payments—Current payments were gathered from claims and reflect the policies in place between 2017 and 2020. SNF and HHA payments reflect the payments under the prior PPSs for 2017 and 2018

and under the current revised PPSs for 2019 and 2020. Payments for consecutive HHA episodes were aggregated to a stay. LTCH payments include the blended rates for cases that did not meet qualifying criteria. Payments were standardized for differences in wages.

PAC PPS payments—In the CMS/ASPE prototype, a PAC PPS payment would be based on four components: a case-mix group, comorbidity tier, PAC setting, and whether location of the provider is rural. Payment for case-mix group would be based on the predicted costs of stays using patient and stay characteristics, including the primary reason for treatment, functional status, cognitive status, incontinence, patient age, prior hospital use, and prior PAC use. After a stay was assigned to a broad clinical group based on the primary reason for treatment, the stay was assigned to a case-mix group based on diagnoses or, in the case of some HHA stays, their assignment to a medication management, teaching, and assessment case-mix group under the current HHA PPS. The case-mix group structure was developed using classification and regression tree analyses. The relative weight for each case-mix group was estimated using regression analyses.

The comorbidity adjustment is based on 148 factors that capture secondary diagnoses, including difficulty swallowing and presence of severe wounds. Each stay was assigned to one of five comorbidity tiers based on the number and costliness of the comorbidities. The size of the adjustment associated with each tier varies by broad clinical group to capture their differing effects on patient costs.

Separate adjusters for rural location and PAC setting were based on regression analyses and are specific to each broad clinical group.

The final payment adjustment (that would be applied to a base payment) was estimated by multiplying the relative weight for the case-mix group by the comorbidity tier, the rural adjuster, and the setting adjuster.

Function score—CMS/ASPE created a function score for each PAC stay. Because uniform functional assessment data were not available for stays in 2017 and 2018, CMS/ASPE developed a crosswalk between the setting-specific patient assessments to create a composite score. Uniform (“GG”) items were used once they were available for 2019 and 2020 stays. The composite included a patient’s ability to perform the following nine activities of daily living: eating, oral hygiene, toileting hygiene, sitting to lying, lying to sitting on the side of a bed, sitting to standing, chair/bed-to-chair transfer, toilet transfer, and walking 50 feet. The smaller set of items used for HHA stays in 2017 and 2018 included lying to sitting on the side of a bed, dressing upper and lower body (separate items), and transferring.

Some items may be recorded as ANA because the patient could not perform an activity—either for safety reasons, because the activity was not applicable due to an environmental limitation, or because the patient refused to perform the activity. In the prototype design, CMS/ASPE examined a patient’s ability to perform other items and, based on these analyses, recoded the ANA items to what it referred to as a more appropriate (and higher) level of function. ■

Endnotes

- 1 The guidelines for stroke care from the American Heart Association/American Stroke Association are an important exception to the general lack of guidelines (Winstein et al. 2016).
- 2 Work on SNF payments conducted for the Commission by the Urban Institute found that as the provision of therapy increased, the costs of patients increased but payments increased even more, and that the differences had grown larger over time (Medicare Payment Advisory Commission and The Urban Institute 2015). Similarly, for the average HHA, the relative weights (and associated payments) assigned to cases receiving increasing levels of therapy grew faster than treatment costs (Medicare Payment Advisory Commission 2011).
- 3 CMS implemented the SNF Patient-Driven Payment Model on October 1, 2019. Therapy minutes per SNF stay decreased 27 percent between August 2019 and February 2020 and have continued to slowly decline since then (Medicare Payment Advisory Commission 2023). The HHA Patient-Driven Groupings Model was implemented on January 1, 2020. Between 2019 and 2021, the number of home health visits per 30-day period declined 4.7 percent, with therapy visits accounting for about two-thirds of the reduction (Medicare Payment Advisory Commission 2023).
- 4 The LTCH dual-rate structure was phased in between 2016 and 2019. A qualifying LTCH stay either (1) is immediately preceded by an acute hospital stay that included at least three days in an intensive care unit or (2) is one in which the patient received mechanical ventilation services in the LTCH for at least 96 hours. Cases that do not qualify for LTCH rates are paid (lower) inpatient acute hospital rates.
- 5 CMS also revised the patient functional assessment items used to categorize IRF stays into case-mix groups, but the structure of the IRF PPS was not changed.
- 6 Without this adjustment, predicted costs would be too high for HHA stays (and would result in overpayment) and too low for institutional PAC (I-PAC) stays (and would result in underpayment). HHAs have considerably lower infrastructure costs compared with I-PAC stays, and the stays do not include the costs of nontherapy ancillary services because the services are not covered in the home health care benefit. In 2019, the average cost of a home health 30-day period was \$1,685, the average cost of a SNF stay was \$13,179, the average cost of an IRF stay was \$18,393, and the average cost of an LTCH stay was \$42,647.
- 7 “Lowest functioning” includes stays in the bottom quartile of the distribution of function scores; “highest function” includes stays in the top quartile. The function score is a composite of a patient’s ability to perform toileting hygiene, bathe/wash, roll left/right, walk 10 feet, transfer from sitting to lying, and transfer from sitting to standing. See Appendix 10-A for a description of the calculation of the function score.
- 8 A patient’s functional status is used to assign the stay to a case-mix group in the HHA, SNF, and IRF PPSs. Payments are higher for patients with lower functioning because they generally require more resources.
- 9 The clinician assessing the patient may select an ANA code if a functional ability item cannot be assessed because the patient refused, the patient did not perform this activity prior to the current illness or injury, or the activity was not attempted due to environmental limitations (e.g., lack of equipment, weather constraints) or medical conditions or safety concerns.
- 10 In the IRF PPS, CMS recodes the ANA codes for “toilet transfer” to “patient requires substantial/maximal assistance” rather than “most dependent.”
- 11 The HIV medical and rehabilitation groups are not shown because they are small, with fewer than 1 percent of stays.
- 12 For a patient group that is treated essentially in one setting (such as ventilator cases in LTCHs), payments would be based on the predicted costs of cases in that setting, with almost no averaging across settings.
- 13 Payments to rural IRFs are raised by 14.9 percent. SNFs have separate rural and urban base rates for their six components (the rural base rates are higher for the therapy and non-case-mix components and base rates are lower for the nursing and nontherapy ancillary components). Payments to HHAs in frontier counties are raised by a 1 percent add-on during 2023; otherwise, there has been no differential for rural HHAs. The LTCH PPS does not include rural adjustments.
- 14 The HHA PPS includes an adjustment for HHA stays that follow a hospitalization. Rates for posthospital stays are raised by the adjustment.
- 15 Examples of medical and diagnosis-related groups include invasive ventilator, infections, and certain types of cancer. Examples of the rehabilitation and function-related clinical groups include stroke and lower extremity fracture with joint

- replacement. The medication management, teaching, and assessment clinical groups are specific to home health stays and include respiratory and cardiac groups, among others.
- 16 An HHA stay would include consecutive episodes. Because consecutive home health episodes can span many months (indeed, some use can be essentially continuous for a year), we previously found that paying for consecutive home health care would overpay for short stays and underpay for long ones (Medicare Payment Advisory Commission 2019). If development of a PAC PPS proceeds, CMS should assess whether this definition of a stay would result in systematic over- and underpayment and, if warranted, modify this feature.
 - 17 Our estimates of costs per stay, current payments, and payments under a PAC PPS assume current coverage and cost-sharing rules.
 - 18 The three-day hospitalization requirement was waived during the COVID-19 PHE.
 - 19 A spell of illness, sometimes referred to as a benefit period, begins with the first day of a hospital or SNF stay and ends 60 days after the beneficiary has not been in either a hospital or SNF. For IRF and LTCH stays that exceed 60 days (which includes the days in a prior hospital stay), the beneficiary is responsible for a \$341 daily copayment (in 2019) for days 61 through 90 of hospital care. For stays that exceed 90 days, in 2019 the daily copayment is \$682, and Medicare coverage is limited to a lifetime reserve of 60 additional days.
 - 20 Many beneficiaries have some form of supplemental coverage, so they may not incur the cost sharing associated with PAC use. A uniform benefit could change beneficiaries' decisions about whether to purchase supplemental insurance, switch plans, or enroll in Medicare Advantage.
 - 21 Because hospital stays are much shorter than when the requirement was implemented with the enactment of Medicare in 1965, in 2015, the Commission recommended that the three-day SNF policy be revised to allow for up to two outpatient observation days to count toward meeting the criterion. That way, beneficiaries who spend three days in a hospital but much of it in observation status would qualify for coverage.
 - 22 CMS defines an "interrupted" SNF stay as one in which a patient is discharged from Part A-covered SNF care and subsequently readmitted to Part A-covered SNF care in the same SNF (not a different SNF) within three days or less after the discharge (the "interruption window"). If both conditions (duration of the interruption and same SNF) are met, the subsequent stay is considered a continuation of the previous "interrupted" stay. If the patient is readmitted to the same SNF more than three consecutive calendar days after discharge, or in any instance when the patient was admitted to a different SNF (regardless of the length of time between stays), then the interrupted stay policy does not apply and the subsequent stay is considered a new stay.
 - 23 The sample with function data included 71 percent HHA stays (compared with 80 percent in the full six-month sample); 23 percent SNF stays (compared with 16 percent in the full six-month sample); 5 percent IRF stays (compared with 4 percent in the full six-month sample); and 1 percent LTCH stays.
 - 24 Although the transition to a fully phased-in site-neutral policy was suspended during the public health emergency, we modeled it because it would give a better indication of the impacts of a PAC PPS than if we had not considered it.
 - 25 The HHA indicator was included to reflect this setting's substantially lower costs compared with stays treated in the institutional settings. Without this adjustment, the predicted costs (used to set PAC PPS payments) would be too high for HHA stays and too low for institutional PAC stays.
 - 26 We were concerned that the items recorded as ANA may not accurately capture a patient's condition. Some providers may use ANA codes to boost payments because CMS recodes the items as "most dependent," which will contribute to a lower score and would result in a higher payment. In addition, some providers may have been confused about how to code ANA given the changes CMS made to the items and coding used to determine function scores.

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A P P E N D I X

A

**Commissioners' voting
on recommendations**

A

Commissioners' voting on recommendations

In the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, the Congress required MedPAC to call for individual Commissioner votes on each recommendation and to document the voting record in its report. The information below satisfies that mandate.

Chapter 1: Addressing high prices of drugs covered under Medicare Part B

- 1-1** The Congress should require the Secretary to cap the Medicare payment rate for Part B drugs and biologics that are approved under the accelerated approval program (with limited circumstances for the Secretary to waive the payment cap) if:
- postmarketing confirmatory trials for the product are not completed within the deadline established by the manufacturer and the Food and Drug Administration,
 - the product's clinical benefit is not confirmed in postmarketing confirmatory trials, or
 - the product is covered under a “coverage with evidence development” policy.

In addition, the Congress should give the Secretary the authority to cap the Medicare payment rate of Part B drugs and biologics that are approved under the accelerated approval program if their price is excessive relative to the upper-bound estimates of value.

Yes: Barr, Casalino, Chernew, Cherry, Damberg, Dusetzina, Ginsburg, Grabowski, Jaffery, Kan, Navathe, Poulsen, Rambur, Riley, Ryu, Safran, Sarran

- 1-2** The Congress should give the Secretary the authority to establish a single average sales price–based payment rate for drugs and biologics with similar health effects.

Yes: Barr, Casalino, Chernew, Cherry, Damberg, Dusetzina, Ginsburg, Grabowski, Jaffery, Kan, Navathe, Poulsen, Rambur, Riley, Ryu, Safran, Sarran

1-3 The Congress should require the Secretary to:

- reduce add-on payments for costly Part B drugs and biologics paid based on average sales price in order to minimize the relationship between average sales price and add-on payments, and
- eliminate add-on payments for Part B drugs and biologics paid based on wholesale acquisition cost.

Yes: Barr, Casalino, Chernew, Cherry, Damberg, Dusetzina, Ginsburg, Grabowski, Jaffery, Kan, Navathe, Poulsen, Rambur, Riley, Ryu, Safran, Sarran

Chapter 2: Assessing postsale rebates for prescription drugs in Medicare Part D

No recommendations

Chapter 3: Standardized benefits in Medicare Advantage plans

No recommendations

Chapter 4: Favorable selection and future directions for Medicare Advantage payment policy

No recommendations

Chapter 5: Disparities in outcomes for Medicare beneficiaries with different social risks

No recommendations

Chapter 6: Congressional request: Behavioral health services in the Medicare program

No recommendations

Chapter 7: Mandated report: Telehealth in Medicare

No recommendations

Chapter 8: Aligning fee-for-service payment rates across ambulatory settings

8 The Congress should more closely align payment rates across ambulatory settings for selected services that are safe and appropriate to provide in all settings and when doing so does not pose a risk to access.

Yes: Barr, Casalino, Chernew, Cherry, Damberg, Dusetzina, Ginsburg, Grabowski, Jaffery, Kan, Navathe, Poulsen, Rambur, Riley, Ryu, Safran, Sarran

Chapter 9: Reforming Medicare's wage index systems

9 The Congress should repeal the existing Medicare wage index statutes, including current exceptions, and require the Secretary to phase in new Medicare wage index systems for hospitals and other types of providers that:

- use all-employer, occupation-level wage data with different occupation weights for the wage index of each provider type;
- reflect local area level differences in wages between and within metropolitan statistical areas and statewide rural areas; and
- smooth wage index differences across adjacent local areas.

Yes: *Barr, Casalino, Chernew, Cherry, Damberg, Dusetzina, Ginsburg, Grabowski, Jaffery, Kan, Navathe, Poulsen, Rambur, Riley, Ryu, Safran, Sarran*

Chapter 10: Mandated report: Evaluation of a prototype design for a post-acute care prospective payment system

The Commission forwards to the Congress the report on a unified post-acute care payment system mandated by the Improving Medicare Post-Acute Care Transformation Act of 2014.

Yes: *Barr, Casalino, Chernew, Cherry, Damberg, Dusetzina, Ginsburg, Grabowski, Jaffery, Kan, Navathe, Poulsen, Rambur, Riley, Ryu, Safran, Sarran*

Acronyms

Acronyms

AAGR	average annual growth rate	CDC NHSN	Centers for Disease Control and Prevention's National Healthcare Safety Network
ACA	Affordable Care Act of 2010	CEA	cost-effectiveness analysis
ACO	accountable care organization	CED	coverage with evidence development
ACS	ambulatory care sensitive	CMHC	community mental health center
ADI	area deprivation index	CMMI	Center for Medicare & Medicaid Innovation
ADL	activity of daily living	CMS	Centers for Medicare & Medicaid Services
AGA	average geographic adjustment	CMS-HCC	CMS hierarchical condition category
AHRQ	Agency for Healthcare Research and Quality	COPD	chronic obstructive pulmonary disease
AHW	average hourly wage	COVID-19	coronavirus disease 2019
AI	autoimmune	CPT	Current Procedural Terminology
AIR	American Institutes for Research	C-SNP	chronic condition special needs plan
AIDS	acquired immune deficiency syndrome	CT	computed tomography
AMP	average manufacturer price	CY	calendar year
ANA	activity not attempted	DID	difference-in-differences
APC	ambulatory payment classification	DIR	direct and indirect remuneration
APM	alternative payment model	DMARD	disease-modifying anti-rheumatoid drugs
APRN	advanced practice registered nurse	DME	durable medical equipment
AR	arthritis	DRG	diagnosis related group
ARV	antiretroviral	DSH	disproportionate share
ASC	ambulatory surgical center	D-SNP	dual-eligible special needs plan
ASP	average sales price	DTC	direct-to-consumer
ASP +		DVP	Drug Value Program
6 percent	106 percent of average sales price	E&M	evaluation and management
ASPE	Assistant Secretary for Planning and Evaluation	ECT	electroconvulsive therapy
AST	androgen suppression therapy	ED	emergency department
AWP	average wholesale price	EGWP	employer group waiver plan
BBA	Bipartisan Budget Act	EHR	electronic health record
BLS	Bureau of Labor Statistics	EMTALA	Emergency Medical Treatment and Active Labor Act
CA	cancer	ENT	ear, nose, and throat
CAA	Consolidated Appropriations Act	ESA	erythropoiesis-stimulating agent
CAH	critical access hospital	ESRD	end-stage renal disease
CARES Act	Coronavirus Aid, Relief, and Economic Security Act of 2020	FDA	Food and Drug Administration
CART	classification and regression tree analysis	FEDVIP	Federal Employees Dental and Vision Insurance Program
CAR-T	chimeric antigen receptor T-cell	FFS	fee-for-service
CBSA	core-based statistical area	FQHC	federally qualified health center
CBO	community-based organization	GAF	global assessment of function
CBO	Congressional Budget Office	GAO	Government Accountability Office
CCBHC	Certified Community Behavioral Health Clinic	GDP	gross domestic product
CCSF	Clinical Classifications Software Refined	GI	gastrointestinal
CDC	Centers for Disease Control and Prevention		

HCC	hierarchical condition category	MBISG	Medicare Bayesian Improved Surname Geocoding
HCPCS	Healthcare Common Procedure Coding System	MCC	major complication or comorbidity
HCUP	Healthcare Cost and Utilization Project	MCO	managed care organization
HEI	health equity index	MD	macular degeneration
HESS	health equity summary score	MDC	major diagnostic category
HHA	home health agency	MDI	metered dose inhaler
HHS	Health and Human Services	MedPAC	Medicare Payment Advisory Commission
HIV	human immunodeficiency virus	MedPAR	Medicare Provider Analysis and Review
HMO	health maintenance organization	MEI	Medicare Economic Index
HOPD	hospital outpatient department	MGCRB	Medicare Geographic Classification Review Board
HPSA	health professional shortage area	MLR	medical loss ratio
HRSA	Health Resources and Services Administration	MMA	Medicare Prescription Drug, Improvement, and Modernization Act of 2003
HSA	hospital service area	MMTA	medication management, teaching, and assessment
HWI	hospital wage index	MOOP	maximum out-of-pocket
ICD	International Classification of Diseases	MRI	magnetic resonance imaging
ICER	Institute for Clinical and Economic Review	MS	multiple sclerosis
ICS	inhaled corticosteroid	MSA	metropolitan statistical area
ID	inflammatory disorders	MS-DRG	Medicare severity–diagnosis related group
IHS	Indian Health Service	MUA	medically underserved area
IMD	immune deficiency	N/A	not applicable
I-PAC	institutional post-acute care	N/A	not available
IMPACT	Improving Medicare Post-Acute Care Transformation Act of 2014	NA	nursing assistant
IPF	inpatient psychiatric facility	NCAD	no charge after deductible is met
IPPS	inpatient prospective payment systems	NCD	national coverage determination
IPFQR	IPF quality reporting	NDA	new drug application
IRA	Inflation Reduction Act of 2022	NDC	national drug code
IRF	inpatient rehabilitation facility	NE	neuropathy
I-SNP	institutional special needs plan	NHSN	National Healthcare Safety Network
LABA	long-acting beta agonist	NPP	nonphysician practitioner
LCA	least costly alternative	NTA	nontherapy ancillary
LCD	local coverage determination	OACT	Office of the Actuary
LCSW	licensed clinical social worker	OEWS	Occupational Employment and Wage Survey
LDN	limited distribution network	OIG	Office of Inspector General
LDO	large dialysis organization	OMB	Office of Management and Budget
LIS	low-income [drug] subsidy	OOP	out-of-pocket
LMFT	licensed marriage and family therapist	OPPS	outpatient prospective payment system
LPC	licensed professional counselor	OS	osteoporosis
LTCH	long-term care hospital	OTC	over-the-counter
LTI	long-term institutionalized	OTP	opioid treatment program
LUPA	low-utilization payment adjustment	ODU	opioid use disorder
MA	Medicare Advantage	P	percentile
MAC	Medicare administrative contractor		
MA-PD	Medicare Advantage–Prescription Drug [plan]		
MBD	mental, behavioral, and neurodevelopmental		

PA	physician assistant	RTI	Research Triangle Institute
PAC	post-acute care	SAMHSA	Substance Abuse and Mental Health Services Administration
PACE	Program of All-Inclusive Care for the Elderly	SBIRT	screening, brief intervention, and referral to treatment
PBD	provider-based department	SDOH	social determinants of health
PBM	pharmacy benefit manager	SE	side effect
PCR	payment-to-cost ratio	SEP	socioeconomic position
PDE	prescription drug event	SMART	single maintenance and reliever [therapy]
PDP	prescription drug plan	SNF	skilled nursing facility
PE	practice expense	SNP	special needs plan
PET	positron emission tomography	SSA	Social Security Administration
PFFS	private fee-for-service	SSBCI	special supplemental benefits for the chronically ill
PFS	physician fee schedule	SUD	substance use disorders
PHE	public health emergency	TNF	tumor necrosis factor
PHP	partial hospitalization program	UHS	Universal Health Services
PLI	professional liability insurance	UM	utilization management
POS	point of sale	URA	unit rebate amount
PPO	preferred provider organization	USPCC	U.S. per capita cost
PPS	prospective payment system	VBID	value-based insurance design
PrEP	pre-exposure prophylaxis	VI	vertically integrated
Q	quarter	VI-VI	vertically integrated plan to vertically integrated pharmacy
R&D	research and development	VIP	value incentive program
REMS	Risk Evaluation and Mitigation Strategy	WAC	wholesale acquisition cost
RFD	Reference Listed Drug		
RHC	rural health clinic		
RLD	Reference Listed Drug		
RN	registered nurse		

More about MedPAC

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Commissioners' biographies

Lynn Barr, M.P.H. Lynn Barr, M.P.H., is a leader in the movement to transform and improve our nation's health care systems for the underserved. After serving 8 years in the Army as a laboratory scientist and a 30-year career developing innovative drug, device, and IT systems in four start-ups, she earned her master of public health degree to pursue delivery system reform for the safety net. Employed at a rural hospital as a chief information officer, Ms. Barr organized a National Rural Accountable Care Consortium to overcome barriers for rural health systems so they could benefit from Medicare's advanced payment models. In 2014, she formed Caravan Health to provide technical support to providers interested in population health programs through Practice Transformation Networks, Medicare and commercial accountable care organizations, Comprehensive Primary Care Plus, and other advanced payment models. Ms. Barr is currently director of the Barr-Campbell Family Foundation.

Lawrence Casalino, M.D., Ph.D. Lawrence Casalino, M.D., Ph.D., is the Livingston Farrand Professor of Public Health and former chief (2008 to 2021) of the Division of Health Policy and Economics in the Weill Cornell Medical School Department of Population Health Sciences. His research focuses on the intended and unintended effects of public and private policies on the types of provider organizations that exist, the processes they use to provide care, the quality and cost of care, and the impact of policies and organizational processes on socioeconomic and racial/ethnic disparities. Dr. Casalino has served as senior advisor to the director of the U.S. Agency for Healthcare Research and Quality, as chair of the Academy Health Annual Research Meeting, as a member of the Panel of Health Advisors for the Congressional Budget Office, on the Fair Health board of directors, and on many other national committees, technical advisory panels, and nonprofit boards. Before academia, Dr. Casalino worked full time as a primary care physician for 20 years and, before that, as a community organizer.

Michael E. Chernew, Ph.D. Michael E. Chernew, Ph.D., is the Leonard D. Schaeffer Professor of Health Care Policy and the director of the Healthcare Markets and Regulation Lab in the Department of Health Care Policy at Harvard Medical School. Dr. Chernew's research

examines several areas related to improving the health care system, including studies of novel benefit designs, Medicare Advantage, alternative payment models, low-value care, and the causes and consequences of rising health care spending. He is also a member of the Congressional Budget Office's Panel of Health Advisors and vice chair of the Massachusetts Health Connector Board. Dr. Chernew is a member of the National Academy of Sciences, a research associate at the National Bureau of Economic Research, and a MITRE fellow. He is currently a coeditor of the *American Journal of Managed Care*. He has served on a number of CMS technical advisory panels reviewing the assumptions used by Medicare actuaries to assess the financial status of the Medicare trust funds. He was awarded the John D. Thompson Prize for Young Investigators by the Association of University Programs in Public Health in 1998 and received the Alice S. Hersh Young Investigator Award from the Association of Health Services Research in 1999. Dr. Chernew previously served on the Commission from 2008 to 2014 and was vice chair from 2012 to 2014. He earned his undergraduate degree from the University of Pennsylvania and his Ph.D. in economics from Stanford University.

Robert A. Cherry, M.D., M.S. Robert A. Cherry, M.D., M.S., is chief medical and quality officer at UCLA Health in Los Angeles, CA. Dr. Cherry has extensive experience in quality and safety improvements and value-based care in health systems across the U.S. He has coordinated innovative analytical methods to increase clinical quality of care, improve patient experience, and provide value to patients. He also has served on the board of many organizations, including the California Community Foundation, and was appointed to the California Health Facilities Financing Authority, which assists nonprofit organizations with financing, construction, and remodeling of health facilities. A trauma and critical care surgeon, Dr. Cherry earned his medical degree from Columbia University and a master in health care management from Harvard University.

Cheryl L. Damberg, Ph.D. Cheryl L. Damberg, Ph.D., is director of the RAND Center of Excellence on Health System Performance, distinguished chair in health care payment policy, and a principal senior economist

at the RAND Corporation in Santa Monica, CA. Her research explores the impact of strategies to drive cost and quality improvements in health care. She also studies how providers are redesigning health care delivery in response to new payment models and increased accountability and the effects of health care consolidation on health care spending and quality performance. Her work has focused on improving the design of value-based payment systems to address disparities and improve health equity. Dr. Damberg is an international expert in pay-for-performance and value-based payment reforms and has advised Congress and federal agencies on these and other issues. She earned her Ph.D. in public policy from the Pardee RAND Graduate School of Public Policy Studies.

Stacie B. Dusetzina, Ph.D. Stacie B. Dusetzina, Ph.D., is an associate professor of health policy and an Ingram Associate Professor of Cancer Research at Vanderbilt University Medical Center in Nashville, TN. She has conducted extensive research on topics related to Medicare coverage for prescription drugs, including studies focusing on drug pricing, Medicare Part D benefit design, and Medicare formulary coverage policies. Dr. Dusetzina has served as a committee member for the National Academies of Sciences, Engineering, and Medicine on the topic “Ensuring Patient Access to Affordable Drug Therapies” and as an expert witness for the Senate Special Committee on Aging. She received her Ph.D. in pharmaceutical sciences from the Eshelman School of Pharmacy at the University of North Carolina at Chapel Hill and postdoctoral training in the Department of Health Care Policy at Harvard Medical School.

Marjorie Ginsburg, B.S.N., M.P.H. Marjorie Ginsburg, B.S.N., M.P.H., is the founding executive director of the nonprofit Center for Healthcare Decisions Inc., which she ran from 1994 to 2016. In that role, she was responsible for the design, implementation, and evaluation of projects and programs that foster civic engagement on complex health policy issues affecting individuals and society at large. Among the policy issues Ms. Ginsburg studied were end-of-life care, health plan benefits design, and strategies to reduce overuse of unnecessary medical care. Since 2017, Ms. Ginsburg has been an active volunteer Medicare counselor in Sacramento with California’s SHIP and is a consultant for others working on civic deliberation to advance responsible health policy. She received her

A.A. in nursing at De Anza College, her B.S.N. at the University of Maryland, and her M.P.H. at UC Berkeley.

David Grabowski, Ph.D. David Grabowski, Ph.D., is a professor in the Department of Health Care Policy at Harvard Medical School in Boston, MA. His research primarily focuses on the economics of aging, with an emphasis on post-acute and long-term care financing, organization, and delivery of services. He has published over 200 peer-reviewed papers related to these issues. Dr. Grabowski has served as a member of multiple CMS technical expert panels related to post-acute care payment and quality reporting. He also was a member of the CMS Coronavirus Commission for Safety and Quality in Nursing Homes. He serves on the editorial board of several journals, including the *American Journal of Health Economics*. Dr. Grabowski received his Ph.D. in public policy from the Irving B. Harris School of Public Policy at the University of Chicago.

Jonathan Jaffery, M.D., M.S., M.M.M. Jonathan Jaffery, M.D., M.S., M.M.M., is chief health care officer at the American Association of Medical Colleges (AAMC), where he leads efforts to improve health care access, quality, equity, and affordability and to advance clinical leadership and effectiveness. Throughout his career, he has worked to align innovative care models that improve the health of populations with payment models that support that work. Previously, Dr. Jaffery was on the faculty in the Division of Nephrology in the Department of Medicine at the University of Wisconsin–Madison (UW). Dr. Jaffery’s prior roles include chief population health officer at UW Health and president of the UW Health ACO, where he provided strategic leadership for UW Health’s transformation to value-based care. From 2008 to 2010, he served as the chief medical officer for the state of Wisconsin’s Medicaid program. As a 2010–2011 Robert Wood Johnson Foundation Health Policy Fellow, Dr. Jaffery worked for the Senate Committee on Finance on a variety of issues relating to delivery-system and payment reform. A board-certified nephrologist, Dr. Jaffery is a member of numerous professional organizations, including the American Association for Physician Leadership and the American Society of Nephrology, and he is a fellow of the American College of Physicians. A graduate of the University of Michigan and the Ohio State University College of Medicine, Dr. Jaffery has graduate degrees from the University of Wisconsin School of Medicine and Public Health and

the University of Southern California Marshall School of Business.

Kenny Kan, F.S.A., C.P.A., C.F.A., M.A.A.A. Kenny Kan, F.S.A., C.P.A., C.F.A., M.A.A.A., is vice president and chief actuary of Horizon Blue Cross Blue Shield (BCBS) of New Jersey in Newark, NJ, where he recently helped launch a Medicare Advantage plan. Before joining Horizon BCBS, Mr. Kan was chief actuary for two other large health plans, where he oversaw efforts to assess payment and delivery innovations designed to improve quality and reduce cost. He also served for six years on the Maryland Health Care Commission. He is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. Mr. Kan earned his master in professional accounting from the University of Texas.

Amol Navathe, M.D., Ph.D. Amol Navathe, M.D., Ph.D., is director of the Payment Insights Team, codirector of the Healthcare Transformation Institute, and associate director of the Center for Health Incentives and Behavioral Economics in the Department of Medical Ethics and Health Policy at the University of Pennsylvania's Perelman School of Medicine. He is also an associate professor at Penn and staff physician at the Corporal Michael J. Crescenz VA Medical Center in Philadelphia, PA. Dr. Navathe's research group designs, tests, and evaluates payment models for public and private payers, including national insurers and state Blue Cross Blue Shield plans. His work led to the founding of Embedded Healthcare, a health care technology company that accelerates high-value practice using behavioral economics. Dr. Navathe received his M.D. from the University of Pennsylvania and his Ph.D. in health care management and economics from the Wharton School at the University of Pennsylvania.

Gregory P. Poulsen, M.B.A. Gregory P. Poulsen, M.B.A., is senior vice president at Intermountain Healthcare, an integrated health system based in Salt Lake City, UT. He has vast experience in strategy and policy for providing higher-quality health care while reducing health care costs. In addition, Mr. Poulsen was a key architect of many innovations at Intermountain Healthcare, including offering a Medicare Advantage plan and assisting with the transition to a value-based integrated health care delivery system. Mr. Poulsen was a founding member of the Commonwealth Fund Commission on a High Performance Health System as

well as a member of several other value-focused boards and task forces. He earned his master of business administration from Brigham Young University.

Betty Rambur, Ph.D., R.N., F.A.A.N. Betty Rambur, Ph.D., R.N., F.A.A.N., is the Routhier Endowed Chair for Practice and professor of nursing in the College of Nursing at the University of Rhode Island, where she has conducted research on such topics as alternative payment models, telehealth nursing, and value-based workforce redesigns. Before joining the University of Rhode Island, Dr. Rambur served on the Green Mountain Care Board—a five-member regulatory, innovation, and evaluation board that has broad responsibility for cost containment and oversight of Vermont's transition to post-fee-for-service provider reimbursement. Previously, Dr. Rambur served as dean of the College of Nursing and Health Sciences at the University of Vermont and was chairperson for the North Dakota Health Task Force, a statewide health care financing reform initiative. Dr. Rambur received her Ph.D. in nursing from Rush University.

Wayne J. Riley, M.D., M.P.H., M.B.A. Wayne J. Riley, M.D., M.P.H., M.B.A., is president of the State University of New York (SUNY) Downstate Health Sciences University, tenured professor of internal medicine and of health policy and management, and the chair of the Board of the New York Academy of Medicine. Immediately prior to joining Downstate, Dr. Riley served as clinical professor of medicine and adjunct professor of health care management at Vanderbilt University and as the 10th president and chief executive officer of Meharry Medical College. He began his career at Baylor College of Medicine, where he completed residency training in internal medicine and held several key administrative posts, including vice president and vice dean for health affairs and governmental relations, assistant dean for education, and assistant chief of medicine at Ben Taub Hospital—a leading public safety-net teaching hospital. Dr. Riley is a member of the National Academy of Medicine (NAM) of the National Academy of Sciences, where he served as vice chair and chair of the NAM Section on the Administration of Health Services, Education and Research. He is also president emeritus of the American College of Physicians, the nation's largest medical specialty society representing internal medicine, and the president of the Society of Medical Administrators, an organization of 50 of the nation's leading physician-

executives. He is an independent director of HCA Healthcare Inc., Compass Pathways PLC, and HeartFlow Group Inc. Dr. Riley earned a B.A. in anthropology from Yale University, an M.P.H. in health systems management from the Tulane University School of Public Health and Tropical Medicine, an M.D. from Morehouse School of Medicine, and an M.B.A. from Rice University's Jesse H. Jones Graduate School of Business.

Jaewon Ryu, M.D., J.D. Jaewon Ryu, M.D., J.D., is the president and CEO for Geisinger, an integrated health care system headquartered in Danville, PA, that comprises hospitals, employed providers, a health plan, a medical school, and research and innovation centers. He previously served as president of integrated care delivery at Humana and held leadership roles at the University of Illinois Hospital & Health Sciences System and at Kaiser Permanente. Dr. Ryu received his undergraduate education at Yale University and his medical and law degrees from the University of Chicago, after which he completed his residency training in emergency medicine at Harbor-UCLA Medical Center.

Dana Gelb Safran, Sc.D. Dana Gelb Safran, Sc.D., is president and CEO of the National Quality Forum. A central feature of her work throughout her career has been combining the science of quality measurement with the art of its use to drive significant change in the quality, outcomes, and affordability of care. Dr. Safran's prior roles include serving for more than a decade as a senior executive at Blue Cross Blue Shield of Massachusetts (BCBSMA), where she was a lead

architect of the BCBSMA Alternative Quality Contract (AQC), which is widely credited with having catalyzed the value-based payment movement among public and private payers nationally. She was also a founding member of the executive team at Haven, a joint venture of Amazon, Berkshire Hathaway, and JPMorgan Chase to achieve better health outcomes, care experiences, and costs of care through innovation in care delivery, benefit design, and purchasing. Most recently, she was an executive team member at WELL Health Inc., a health care technology company. Dr. Safran is on the faculty of Tufts University School of Medicine and has held a broad range of advisory roles in the public sector and internationally, supporting efforts to improve health and health care through effective uses of performance measurement. She holds a B.A. in biology and government from Wesleyan University and completed her postgraduate studies at the Harvard School of Public Health to earn an Sc.M. and Sc.D. in health policy and management.

Scott Sarran, M.D., M.B.A. Scott Sarran, M.D., M.B.A., is the principal at Triple Aim Geriatrics, where he provides consultative services focused on improving systems of care for at-risk Medicare beneficiaries. His experience includes chief medical officer roles at large (Blue Cross Blue Shield IL and HealthCare Service Corporation) and small (MoreCare IL and Fidelis Senior Care) commercial, Medicaid, Medicare Advantage, and special needs plans (institutional, institutional equivalent, and chronic disease). He has also held chief medical officer roles with provider organizations (including Advocate HealthCare, Cook County Health, and University of Chicago), managing delegated risk.

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