

## INTELLIGENCE

# Optimizing patient access and flow: strategies to improve capacity

**January 2024 update:** Health systems continue to navigate bottlenecks throughout the system of care. This report highlights some foundational strategies, as well as site-specific strategies, to optimize access and patient flow in the acute care setting.

## Contributing factors to capacity constraints

Patient throughput, access, flow and capacity management continue to be priority optimization efforts for health systems across the country. This report highlights key strategies to address **patient access and flow from 2022**, with some new additions, considerations and innovative member examples.

Bottlenecks in patient access and flow at any point in the care continuum have impacts throughout the system of care. **Vizient® Operational Data Base (ODB)** insights show an increase in emergency department (ED) length of stay and more specifically boarder hours per admission, a steady increase in the inpatient length of stay, and a steady high occupancy rate across academic medical centers and large specialized complex care medical centers.

### Boarder hours per admission



### Inpatient length of stay (days)



### Inpatient equivalent occupancy (%)

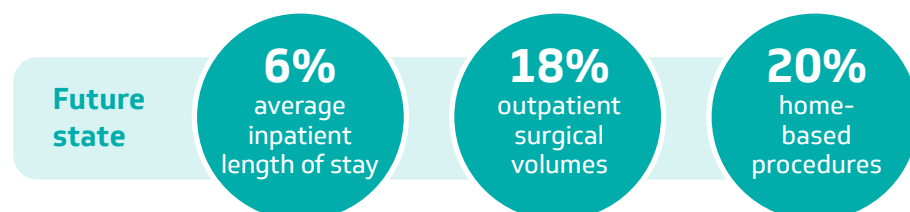


Source: ODB, Median trend 1Q19 – 2Q23, Equivalent occupancy based on total available beds

## Future state

Current capacity constraints, coupled with dynamic service line demands forecasted over the next 10 years, call for both macro and micro levers to be accessed by health systems to remain agile and ensure that patients can receive the care they need, when they need it. Sg2®, a Vizient company, forecasts changes in demand across settings of care including acute care, home and outpatient settings (Figure 1).

**Figure 1: Sg2 10 year forecast**






Note: Analysis excludes 0–17 age group.

Sources: Impact of Change®, 2023; HCUP National Inpatient Sample (NIS). Healthcare Cost and Utilization Project (HCUP) 2019. Agency for Healthcare Research and Quality, Rockville, MD; Proprietary Sg2 All-Payer Claims Data Set, 2021; The following 2021 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2023; Sg2 Analysis, 2023.

Foundational strategies to consider when addressing capacity management include leveraging a system approach, utilization and application of advanced data and analytics, and assessment of space, technology and workflows (Figure 2). Ensuring these foundational strategies have solid footing are essential before addressing optimization opportunities across the system of care.

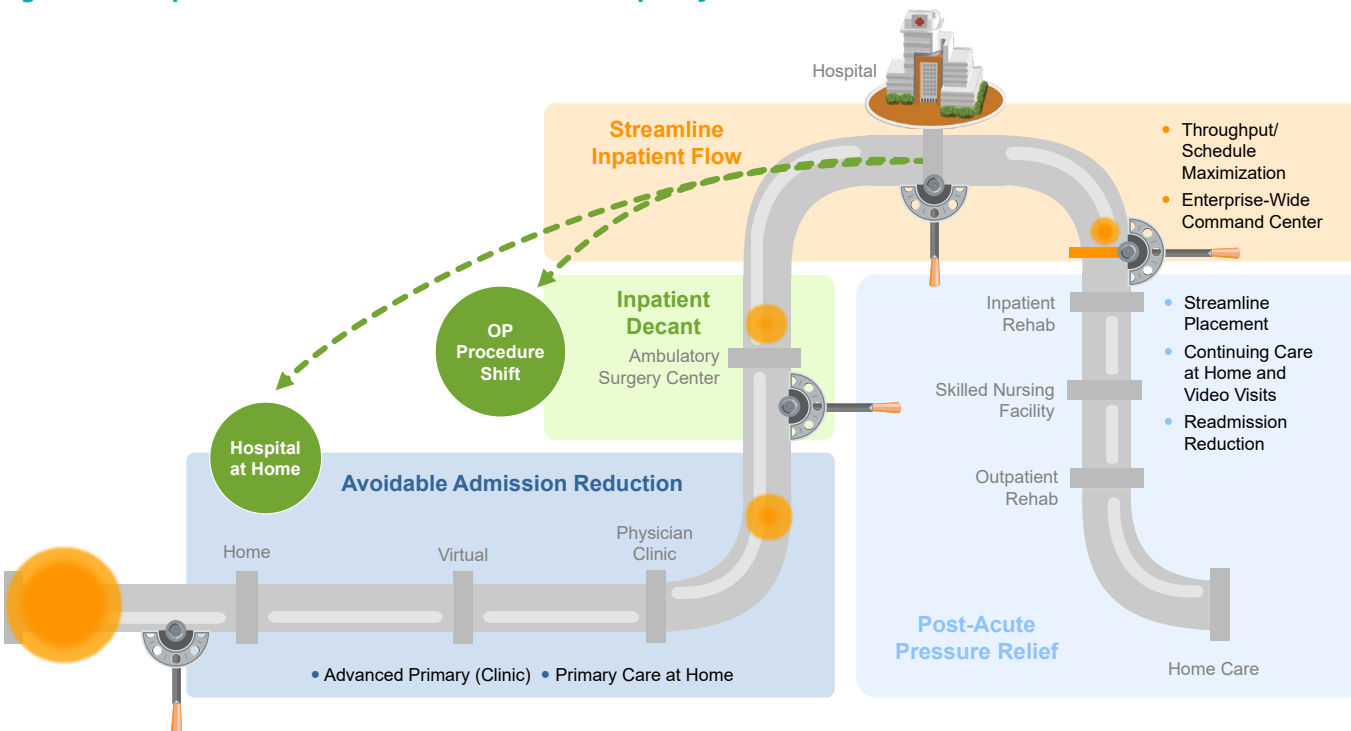
Figure 2: Foundational strategies for addressing capacity management

 System approach	 Utilize advanced data and analytics	 Assess space, technology and workflows
<ul style="list-style-type: none"><li>• Leverage multidisciplinary governance structure, tiered huddles with escalation and Gemba walks.</li><li>• Consider co-location of key capacity players</li></ul>	<ul style="list-style-type: none"><li>• Ensure transparent access to capacity related metrics and key performance indicators</li><li>• Leverage predictive modeling</li></ul>	<ul style="list-style-type: none"><li>• Assessment of facilities should include evaluation of current and forecasted patient volumes</li><li>• Plan for change: a key to agility is standardization; environments should be designed to serve multiple functions</li></ul>

## Strategies and levers to relieve acute care capacity constraints

Outlined here are levers that can be pulled across the care continuum to ensure patients receive the right care, in the right place, at the right time (Figure 3). Strategies shared here are insights generated from Member Networks peer-to-peer discussion and Leadership Series, national subject matter experts, Performance Improvement Collaboratives and the Vizient Connections Summit.

Figure 3: Multiple levers exist to relieve acute care capacity constraints



Source: Vizient Connections Summit Presentation, Chief Operating Officers Meeting, 2022

**Reduce avoidable readmissions:**

- Connect patients with providers before reaching the inpatient setting
- Deployment strategies include hospital at home, chronic care at home, virtual care, on-demand care at home and post-discharge follow up

▶ **Member example:** Remote patient monitoring in hypertensive patients

In an effort to address hypertension, a health system piloted a remote patient monitoring program. Bluetooth-enabled blood pressure cuffs were provided to patients. With a protocol-driven medication titration in tandem with coaching via weekly phone outreach, this organization received a high rating by patient participants, and over 60% of participants enrolled in the program achieved blood pressure control.

Source: 2023 Vizient Connections Summit

**Alleviate pressure in the inpatient setting:**

- Shift procedures, where appropriate, to the outpatient setting or ambulatory surgery centers. According to Sg2, outpatient surgical volumes are forecasted to grow 18% over the next 10 years.
  - Decrease length of stay to improve capacity. Specific strategies include implementation of algorithms and checklists to engage palliative care early for appropriately triaged ICU patients.

▶ **Member example:** Virtual support of ICU boarders in the ED

A health system opted to utilize existing virtual ICU resources to provide an appropriate level of care for patients that were being boarded in the ED. A multi-disciplinary team aimed to provide comprehensive consults and monitoring services to management patients while waiting for transfer to ICU, maximize external ICU patient transfer volumes and to safely care for critically ill patients being boarded in any of the three free-standing emergency care centers. Outcomes reported include earlier ICU intervention, downgrading of admitting level of care as appropriate, shorter severity adjusted length of stay and incremental new patient volume from ICU length of stay reduction and ICU level of care downgrades.

Source: 2023 Vizient Connections Summit

**Streamline inpatient flow:**

Ensure throughput and schedule maximization with enterprise-wide command centers and routine meetings with front-line representatives across disciplines.

- Manage interhospital transfer optimally with algorithms and checklists to engage palliative care early for appropriately triaged ICU patients. Develop collaboration between receiving and transferring hospitals to improve strategies for identifying those patients who will benefit most from an interhospital transfer.
- Improve efficiencies across the acute care setting. **Workforce strategies** include deploying virtual discharge RNs or implementing hospital-based transportation or a discharge lounge. Rely on data to improve efficiencies throughout the OR by monitoring first case on-time starts and cancellation rates.

▶ **Member example:** Streamlining first case on-time starts in OR

Two health systems shared their experiences around efforts to improve first case on-time starts. Both sites began this work with a deep dive into data and processes to understand where improvements could be made. With executive leadership support, a firm understanding of data and clearly defined benchmarks and aligned incentives and simplification of complicated processes, organizations were able to set their perioperative teams up for success. One organization was able to identify that 10% of delays were due to equipment problems. With an understanding of reasons for delay by service, provider and procedure, one organization was able to double the number of first case on-time starts.

Source: 2023 Vizient Connections Summit

**Focus efforts on post-acute pressure relief:**

- Streamline placement and address bottlenecks
- Review post-acute care strategy: Facilitate a culture of mobility starting with understanding of available and functional mobility equipment, while understanding the relationship of mobility status of patients and how that impacts their discharge disposition.
- Continue care at home

**Member example: Hospital-based transportation to facilitate patient flow**

A healthcare organization identified lack of patient transport upon discharge as a major driver of discharge delays. In order to address post-acute pressure relief, the organization began providing hospital-based transportation to patients. This program is offered at no cost to patients, and a patient transport coordinator has been deployed to coordinate all non-emergent transportation arrangements for patients without transportation, which has optimized processes for capacity management and patient flow.

Source: Performance Improvement Leadership Series, 2023

**Related resources**

- Vizient Performance Improvement Collaboratives featured six improvement collaboratives addressing optimization of patient access and flow. [Learn more about resources available and upcoming opportunities for participation.](#)
- The 2023 Vizient Connections Summit featured member organizations and national subject matter experts sharing insights and resources on optimization of patient access and flow. There were over 20 presentations, posters and peer-to-peer discussions focusing on capacity management strategies. [Resources and recordings from the 2023 Vizient Connections Summit can be accessed here.](#)
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- Providing quality care while maximizing efficiencies and transforming cultures is challenging, especially in today's healthcare climate. Vizient experts help members improve their care delivery and advance clinical operations and quality across their organizations by leveraging industry-leading data and analytics. [Click here for more information.](#)
- Unrelenting cost pressure has many U.S. health systems running on empty. Operating revenue rebounded in 2021 from the darkest days of the COVID-19 pandemic when stoppages of elective surgery caused significant financial fallout. Yet expenses, led by soaring labor costs and supply chain challenges, still outpace top-line gains. Up-to-date data and seamlessly connected systems will be more important than ever for your organization's success. Vizient is here to help your organization be ready for what's coming. [Click here for more information.](#)



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