

# DATA ON THE EDGE

## EMERGENCY DEPARTMENT PATIENT ACUITY WILL NOT ABATE IN THE FUTURE; KNOW THE NUMBERS TO TARGET PERFORMANCE IMPROVEMENT

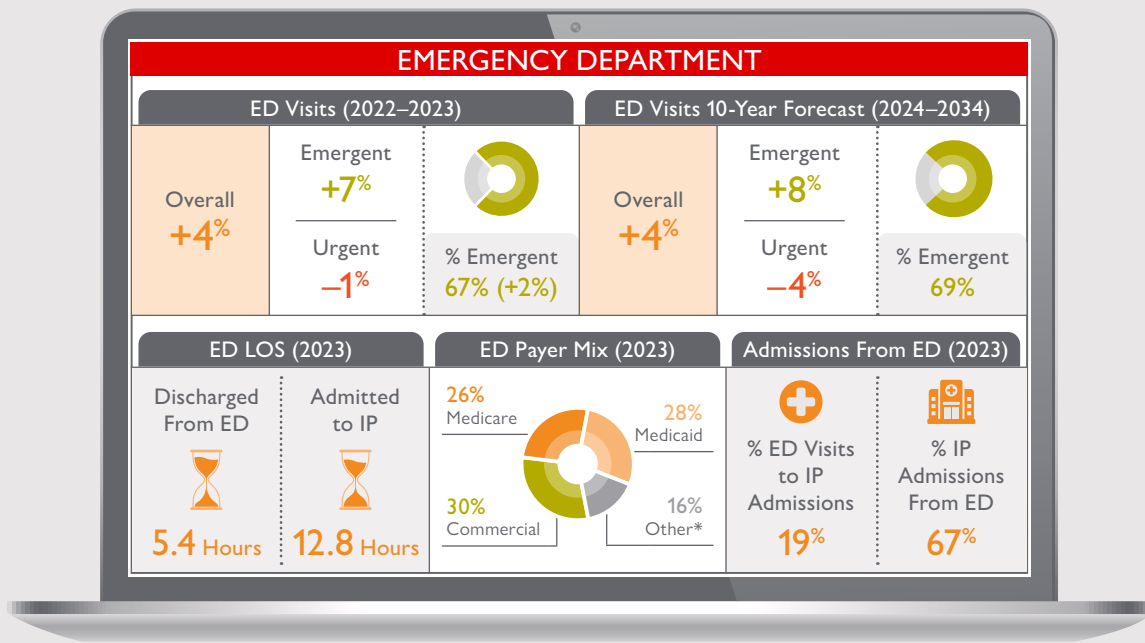
While the interplay of several factors impacts emergency department utilization in different markets and organizations, historical and projected utilization trends indicate operational proficiency and strategic decision-making will be paramount to successfully manage the increasing acuity of ED patients.

Key performance trends to manage toward for future success are elicited through a cross-section analysis of Vizient clinical, operational and future demand projections. The resulting trends have implications for resource utilization, patient care outcomes, market conditions and health system performance. Bringing together benchmarking, historical and future projection metrics in a performance dashboard, such as the one illustrated below, can drive improved performance and management of growth.

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### Emergency Department Performance Management Dashboard



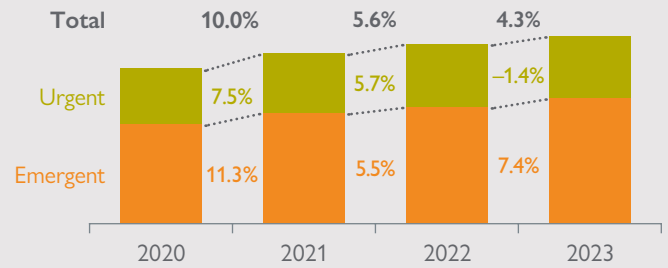
\*Other includes self-pay and uncompensated care. **Note:** Analysis excludes 0–17 age group. Sg2 CARE Grouper definitions are used to define emergent and urgent visits. **Sources:** Data from Vizient Operational Data Base, Q1–Q4 2023, and data from Vizient Clinical Data Base, Q1 2022–Q4 2023, used by permission of Vizient, Inc. All rights reserved; Impact of Change®, 2024; 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, 2022; The following 2022 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2024; Sg2 Analysis, 2024.

## Historical Trend: Emergent Visits Growing and Urgent Visits Slowing

Evaluating four years of benchmarking data illustrates adult ED visits continue to rise, but growth has slowed from 10% between 2020 and 2021 to 4.3% between 2022 and 2023. A closer examination of the two ED visit types, emergent and urgent, reveals different trajectories, with a 7.4% increase and a 1.4% decline, respectively, between 2022 and 2023.

The increase in acuity resulted in emergent cases representing 67% of all ED visits in 2023—a steady increase from 64% in 2020. Within emergent cases, Noncardiac Chest Pain and Abdominal Pain were the two CARE Families with the highest volume; both had an 8% increase in ED visits between 2022 and 2023. The biggest decline in urgent cases during the same period was for infectious diseases, including the CARE Families COVID-19 Infection and Influenza.

Emergency Department Visit Trends, 2020–2023



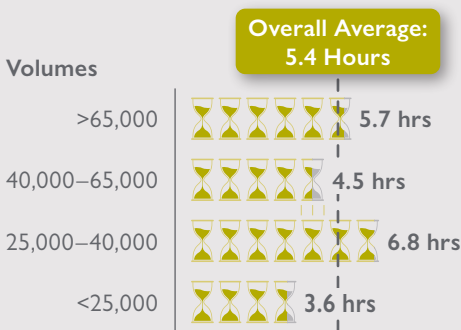
Note: Analysis excludes 0–17 age group. Source: Vizient Clinical Data Base. Irving, TX: Vizient, Inc.; 2024. <https://www.vizientinc.com>.

## Measuring ED Performance and Admission Trends

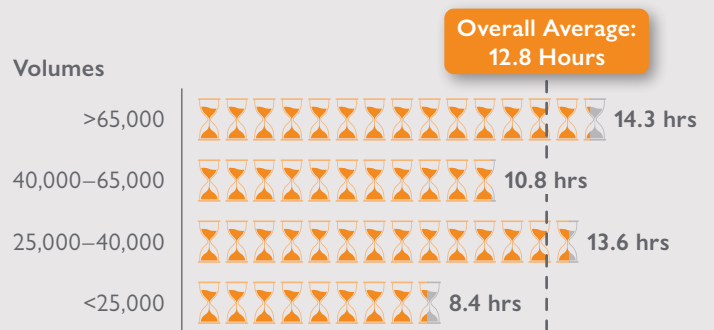
Emergency department length of stay is a core performance indicator; trends can illustrate areas of strength or opportunity in operational efficiency and care delivery. Key data points to stratify in the evaluation of LOS opportunity are admitted vs discharged patients and the size of the ED—annual number of visits. Analysis of Vizient benchmarking data for 2023 highlights an overall 5.4-hour average length of stay for those who are treated and released from the ED and a 12.8-hour average length of stay for those who are admitted to inpatient from the emergency department. Breaking down the data by number of visits shows that midsize EDs with volumes between 25,000 and 40,000 have a higher than overall average length of stay for both discharged and admitted patients.

### ED Average Length of Stay by Volume Cohort, 2023

#### ED PATIENTS DISCHARGED



#### ED PATIENTS ADMITTED TO INPATIENT



Source: Vizient Operational Data Base, Q1–Q4 2023. Irving, TX: Vizient, Inc.; 2024. <https://www.vizientinc.com>.

When evaluating ED performance, it is also important to look at the interplay between ED, inpatient and observation care because performance in one area has direct downstream impact on the others. Considering this, two important trends to know include:

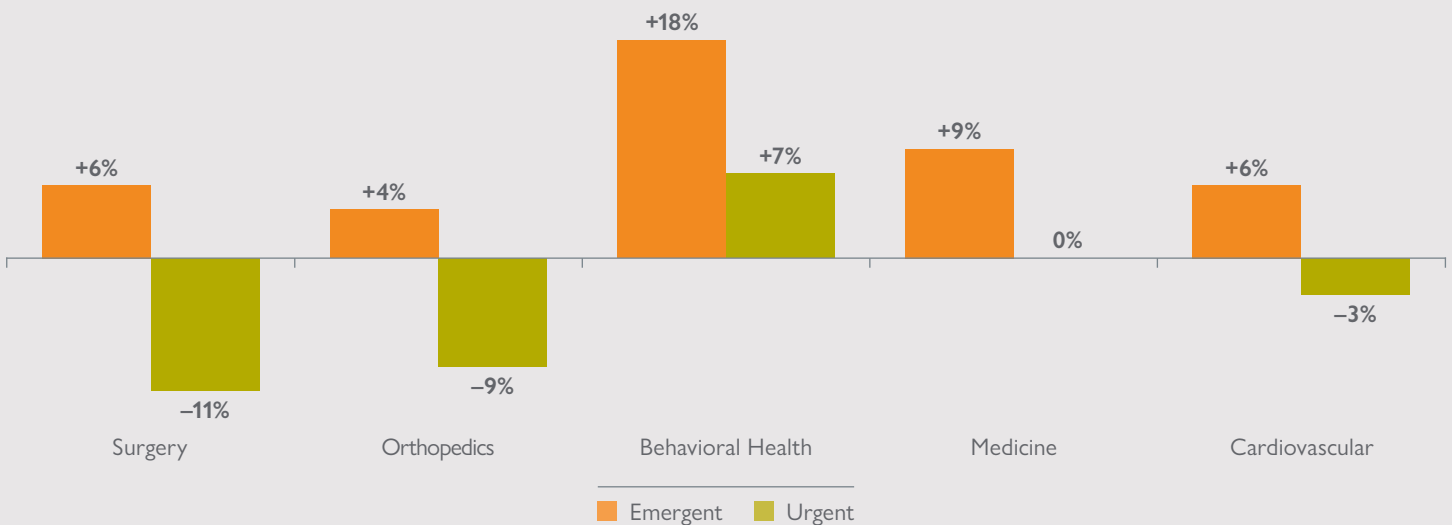
- The percentage of ED patients admitted to inpatient has remained consistent, between 18% and 20%, since 2020. Yet, when considering an increase in the total number of ED visits, the number of inpatient admissions has gone up, resulting in 67% admissions from the ED in 2023.
- The number of patients transferred to observation units from the ED increased by almost 5% between 2022 and 2023, according to the Vizient Clinical Data Base benchmarking data.

### ED Acuity Projected to Trend Upward for All Service Lines

Looking ahead, the overall ED growth rate will be 4% between 2024 and 2034. This forecasted growth is an aggregate of an 8% increase in emergent visits and a 4% decline in urgent visits. ED growth, however, is influenced by overall enterprise growth goals, and clinical programs that are growth priorities for health systems can influence the clinical mix of patients presenting to the ED. Understanding the future growth trends at the service line level is a key planning input.

Across all service lines, the growth trend of emergent visits outpacing urgent visits persists. The five service lines with greatest volume—surgery, orthopedics, behavioral health, medicine and cardiovascular—illustrate the variation in patient acuity that health systems can expect to see, especially with the aging population. Growth across the board in emergent visits underscores the urgency to address operational challenges within ED, inpatient and observation care now to prepare for the higher-acuity patient in the future.

ED Volume % Change by Service Line, 2024–2034



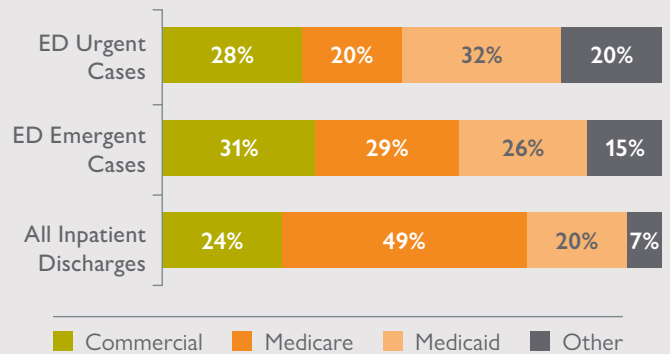
**Note:** Analysis excludes 0–17 age group. 0% indicates the forecast is flat (less than ±1%). **Sources:** Impact of Change®, 2024; Proprietary Sg2 All-Payer Claims Data Set, 2022; The following 2022 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2024; Sg2 Analysis, 2024.

## Trends in ED Payer Mix

Overall payer mix for ED visits, both emergent and urgent, was consistent between 2020 and 2023, with payers for over 40% of visits classified as Medicaid and other, which includes self-pay and uncompensated care. The payer mix difference between ED and all inpatient discharges is noticeable, specifically for Medicare, where Medicare patients represent 20% to 29% of ED visits but almost half of IP admissions. Commercial and Medicaid patients demonstrate a reverse utilization trend and represent a higher proportion of utilization in ED care (urgent and emergent) and a lower proportion in the inpatient setting.

While state-specific Medicaid payment and authorization rules vary across the country, the proportion of ED encounters with Medicaid coverage decreased after states began terminating Medicaid coverage for patients who no longer met the requirements after the COVID-19 pandemic, suggesting some of these patients [transitioned to self-pay](#).

Payer Mix: Inpatient Discharges vs ED Visits, 2023



**Note:** Analysis excludes 0–17 age group. Percentages may not add to 100% due to rounding. **Source:** Vizient Clinical Data Base. Irving, TX: Vizient, Inc.; 2024. <https://www.vizientinc.com>.

## Why It Matters

The ED has always been and will continue to be a front door to the health system and a critical cornerstone of patient care. As patient mix changes and acuity continues to increase, the clinical care and operational models required to support these changes should be based on a thorough evaluation of utilization and performance metrics as well as future growth.

- Widen planning for operations and resource investment to look at the interplay between IP and ED. Assessing the capacity equation for both will help balance the impact of rising acuity and changes in patient mix to ensure the ED is adaptable and reliable and to mitigate emergency department boarding issues caused by lack of inpatient bed capacity.
- Reposition the ED within the broader ambulatory portfolio to improve lower-acuity access, such as extending operating hours for urgent care centers, primary care clinics and virtual care services. Systems with a robust portfolio might have already seen an accelerated decline of urgent ED volumes and a reduction of boarding in the emergency department. Others may need to strategize on the impact of market- and competitor-based freestanding EDs and microhospitals.
- Collaborate with community resources to address local behavioral health needs and gaps and manage access to decrease patient visits to the ED for behavioral health care.
- Improve coordination within the hospital walls, including inpatient and observation units, to alleviate upstream and downstream capacity constraints, accelerate speed to care, reduce ED length of stay and manage the increase in acuity of these units.
- Evaluate state-specific policies, including Medicaid redetermination, Certificate of Need legislation and the competitive landscape, to determine the local impact and influence on growth projections.
- Assess local market and access dynamics to determine how to appropriately manage patients and reduce unnecessary ED utilization, including using the ED for workups due to a lack of access for follow-up appointments.
- Understand the impact of social determinants of health for patients who use the ED as a primary access point, connect patients with the appropriate resources to advance health equity and proactively manage utilization.

**Sources:** Alban C et al. Self-pay encounters increase following start of Medicaid coverage terminations. Epic Research. November 17, 2023; Data from Vizient Operational Data Base, Q1–Q4 2023, and data from Vizient Clinical Data Base, Q1 2022–Q4 2023, used with permission of Vizient, Inc. All rights reserved; Impact of Change®, 2024; 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, 2022; The following 2022 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2024; Sg2 Analysis, 2024.

**Contributors:** Brianna Motley; Tori Richie; Manuel Hernandez, MD, MS, MBA, CPE; and David Levine, MD, FACEP

To speak with one of our experts about emergency department strategies, email [membercenter@sg2.com](mailto:membercenter@sg2.com).

## POWERED BY VIZIENT DATA AND DIGITAL ANALYTICS

This report's analysis leverages the following proprietary data and analytics assets.

The **Vizient Clinical Data Base** is the definitive health care analytics platform for performance improvement. The CDB provides high-quality, accurate and transparent data on patient outcomes—such as mortality, length of stay, complication and readmission rates, and hospital-acquired conditions—that enable hospitals to benchmark against peers; identify, accelerate and sustain improvements; reduce variation; and expedite data collection to fulfill agency reporting requirements. Clinical benchmarking tools such as dashboards, simulation calculators, and templated and customizable reports enable you to quickly identify improvement opportunities and their potential impact.

The **Vizient Operational Data Base** provides hospitals with transparent, comparative insights on the operational characteristics of hospital departments to support performance improvement, budgeting and cost reduction initiatives. It includes reliable financial and operational data that help organizations make informed decisions about employee productivity, supply usage and other areas that directly impact the bottom line.

The **Sg2 CARE Grouper** is Sg2's proprietary methodology that organizes data across all sites into standardized, clinically relevant categories. It amalgamates ICD-10 diagnosis codes into clinically pertinent disease categories, which are then organized into broader service lines and service line groups. It also groups ICD-10 codes and CPT/HCPCS procedure codes into inpatient and outpatient procedure categories, respectively. These categories facilitate a standardized approach to tracking patient volumes and service utilization seamlessly across inpatient and outpatient settings. The Sg2 CARE Grouper is foundational for our analytics offerings and also serves as a stand-alone product that health systems rely on to manage their organizational data.

The **Sg2 Impact of Change**<sup>®</sup> model forecasts demand for health care services over the next decade, examining the cumulative effects and interdependencies of key impact factors driving change in utilization. Using both disease-based and DRG-based analyses, the forecast provides a comprehensive picture of how patients will access inpatient and outpatient services along the continuum of care.

**Sg2 Intelligence** is a diverse team of subject matter experts and thought leaders who represent specialties ranging from clinical service lines to enterprise strategy. The team develops strategy-specific content in the form of editorial reports, including the Data on the Edge series, and perspective-based analytics, such as the Impact of Change forecast.

The Vizient Data on the Edge series team includes Brianna Motley; Catherine Majji; Eric Lam; Alyssa Harris; Madeleine McDowell, MD, FAAP; Jen Goff; Kerstin Liebner; and Sg2 Creative Services.