DATA ON THE EDGE

Advancing outcomes and quality of care: Data insights from essential hospitals

Every day, hospitals are being asked to provide a higher level of care for higher-acuity patients with fewer resources. In an era of rising complexity, benchmarking, shared learning and forecasting are essential practices to turn data into actionable insights. Through these efforts, health systems can identify opportunities and improve access, quality and efficiency, as well as anticipate change and mitigate risks across the System of CARE (clinical alignment and resource effectiveness).

America's Essential Hospitals (AEH) members ("essential hospitals") represent nearly 400 organizations delivering high-quality care to all people, including those facing social and financial barriers. AEH makes up approximately 5%

of the nation's hospitals but provides 28% of charity care nationally. These hospitals lead in advancing access and innovation, training the healthcare workforce and driving improvements in outcomes—while sharing a safety net mission to care for all people.

Analysis of 123 essential hospitals in the Vizient Clinical Data Base (CDB) shows that essential hospitals consistently deliver efficient, high-quality care despite treating more complex patients. All analyses include only continuously reporting hospitals for both the AEH cohort and total CDB hospitals, covering the time frame from Q4 2021 to Q2 2025.

Figure 1. Comparative inpatient performance: AEH vs. total CDB hospitals, Q1 2025

	AEH cohort	CDB total
IP discharge volume % change	7.1%	4.1%
CMI	2.85	1.80
ALOS observed/expected	9.67/9.67	5.48/6.03
Mortality observed/expected	3.91%/5.14%	2.33%/3.22%
30-day readmissions observed/expected*	17.4%/13.5%	11.3%/9.3%

Quality outcomes trending (risk-adjusted)

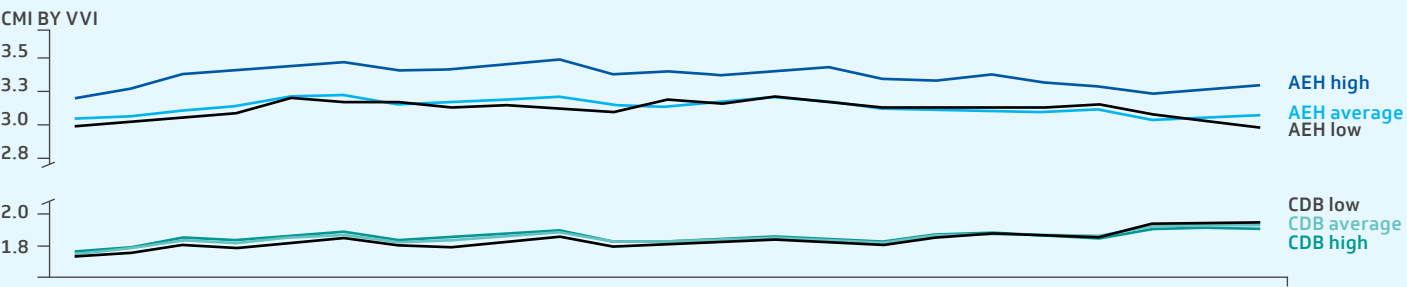|	Index (observed/expected)		% change in index (observed/expected)	
	AEH	CDB	AEH	CDB
ALOS†	1.0	0.9	−4.1%	−5.3%
Mortality†	0.76	0.72	−24.7%	−25.8%
30-day readmission risk‡	1.29	1.21	−3.3%	−2.3%

*Readmission risk models begin in Q4 2020. Data trends for ALOS and mortality (observed/expected) % change are from Q4 2019 to QI 2025. Data trends for 30-day readmissions are from Q4 2020 to QI 2025. Note: Analysis excludes 0-17 age group. Indices are ratios of observed-over-expected values with expected values calculated based on Vizient risk-adjusted models. AEH = America's Essential Hospitals; ALOS = average length of stay; CDB = Clinical Data Base; CMI = case mix index; IP = inpatient. Source: Data from Vizient Clinical Data Base used by permission of Vizient, Inc. All rights reserved.

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- Essential hospitals experienced a 7.1% increase in inpatient discharges since 2019, representing a 42% higher growth than total CDB hospitals. Their case mix index (CMI) (2.85 vs. 1.80) and 60% higher expected average length of stay (ALOS) (9.67 vs. 6.03) underscore the more complex, high-acuity population they serve.

- Essential hospitals' observed and expected ALOS are aligned, indicating effective management of higher-acuity patients consistent with expectations for their case mix. In contrast, overall CDB hospitals have a lower observed ALOS (5.48) compared to the expected ALOS (6.03), demonstrating stronger throughput performance relative to their population's risk level. Both groups have shown continued improvement in their LOS index, reflecting reductions in observed ALOS relative to expected performance.

- Both groups demonstrated lower-than-expected mortality rates and substantial improvement in this index over time, with observed-to-expected mortality decreasing by 24.7% for essential hospitals and 25.8% for all hospitals.

- Thirty-day unplanned readmissions are 17.4% at essential hospitals versus 11.3% across CDB hospitals, both exceeding expected rates. Data trends underscore this as a key opportunity for performance improvement through strengthened post-acute care coordination to improve quality outcomes and capacity.

Essential hospitals manage high-vulnerability populations

Figure 2. Inpatient utilization trends by Vizient Vulnerability Index (VVI)

CMI BY VVI

AEH high
AEH average
AEH low

CDB low
CDB average
CDB high

Mortality Index (Observed/Experted), Q2 2025

AEH	CDB
0.70	0.71
0.73	0.66
0.70	0.64

Los Index (Observed/Experted), Q2 2025

AEH	CDB
0.97	091
0.99	0.89
1.01	0.89

Note: Analysis excludes 0-17 age group. AMC 2023 risk model used. High VVI>I; average VV-I to I; low VM-IV calculated based on patient origin five-digit ZIP code.
Sources: Data from Vizient Clinical Data Base used by permission of Vizient, Inc. All rights reserved, Vizient Vulnerability IndexTM Patent Pending. Copyright Vizient Inc. 2022. All rights reserved.

The communities AEH hospitals serve were analyzed using the Vizient Vulnerability Index (VVI). The VVI assesses nine social drivers of health and the overall vulnerability index for each census tract and ZIP code across the U.S., which are calculated as standard deviations from the national mean. The nine drivers of health are economics, housing, education, social environment, neighborhood resources, public safety, healthcare access, transportation and clean environment. Any score greater than1 is considered an area of "high vulnerability."

- Across the three VVI categories, essential hospitals maintain a consistently higher CMI than the CDB hospitals, with the highest CMI among CDB hospitals remaining below the lowest for the essential hospitals. This underscores essential hospitals' role in caring for higher-acuity, more complex patients.

- Despite this complexity, mortality indices for essential hospitals remain below expected levels across all VVI categories, reflecting strong clinical performance despite serving patients with significantly higher social needs.

- LOS indices also are in line with expected levels across all VVI categories, suggesting efficient patient management regardless of vulnerability categorization.

Deeper dive: Utilization across service lines

Table 1. AEH inpatient discharge trends by service line

Service line	AEH			CDB			National forecast, all hospitals
	% of all discharges	ALOS	% volume change (Q4 2019–Q2 2025)	% of all discharges	ALOS	% volume change (Q4 2019–Q2 2025)	% change (2025–2035)
General medicine	33.1%	5.3	+12.0%	35.9%	4.9	+10.2%	+6.6%
Obstetrics	11.8%	2.9	+5.1%	11.6%	2.7	−0.7%	−8.9%
Cardiology	9.8%	4.9	+8.0%	11.0%	4.5	+9.8%	+12.0%
Trauma*	6.8%	7.1	+12.8%	5.3%	6.1	+8.4%	+13.8%
Oncology	5.9%	7.3	+6.1%	4.8%	6.8	−0.1%	+0.0%
General surgery	5.8%	8.7	+5.6%	6.1%	7.7	+6.5%	+1.9%
Neurology	5.5%	6.5	+11.5%	5.5%	5.5	+3.7%	+11.2%
Behavioral health	4.5%	9.5	−1.5%	4.4%	7.7	−2.8%	+6.5%
Orthopedics	2.4%	6.7	−37.2%	2.3%	5.8	−51.5%	−8.4%
Spinal surgery	1.7%	5.7	+6.1%	1.7%	4.8	+1.0%	−5.3%

"ICU forecast is used as a proxy for trauma. **Note:** Analysis excludes 0-17 age group. AMC 2023 risk model used. 0% indicates the forecast is flat (less than ±1%).
Sources: Data from Vizient Clinical Data Base used by permission of Vizient, Inc. All rights reserved; Impact of Change", 2025; Proprietary Sg2 All-Payer Claims Data Set, 2023: The following 2023 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts, 2025; Sg2 Analysis, 2025.

- Volume growth was experienced across most service lines for essential hospitals with double-digit increases in general medicine, trauma and neurology. Despite rising acuity and sustained utilization, shifts toward outpatient and community-based care have tempered growth in orthopedics and behavioral health volumes.

- Across every service line, essential hospitals report a longer ALOS than CDB hospitals, reflecting higher patient complexity and case severity.

- Behavioral health shows the largest percentage gap in ALOS between essential hospitals and CDB hospitals. Despite treating higher-complexity patients, essential hospitals have seen a decline in behavioral health volume since 2019, highlighting persistent capacity and access constraints and a continued effort to shift toward outpatient and community-based models. Sustained focus is essential, as the Impact of Change® forecast projects a 6.5% increase in demand nationally by 2035.

Innovating to address inpatient psychiatric capacity challenges

While inpatient psychiatric capacity within short-term acute care hospitals has declined over the past decade, several essential hospitals are taking proactive steps to strengthen behavioral health access. National analyses show that although the number of psychiatric beds in freestanding psychiatric hospitals—many now privately owned—have grown, inpatient units within short-term hospitals have steadily decreased, shifting where and how care is delivered. AEH members are expanding crisis response and stabilization models, integrating care through mobile crisis teams, jail-based treatment programs and new emergency psychiatry assessment, treatment and healing (EmPATH) or inpatient units. These efforts demonstrate how behavioral health capacity can be rebuilt through community partnerships and innovative service design.

Sources: Lindenfeld Z, et al. JAMA Network Open. 2025;8(6):e2518881; Shields M, et al. JAMA Psychiatry. 2025;82(7):701-708.

Managing post-acute transitions: LOS patterns by discharge status

Table 2. Length of stay index by discharge status, AEH vs. CDB

Discharge status (Highest to lowest volume)	AEH		CDB	
	Q2 2025	% change (Q4 2019–Q2 2025)	Q2 2025	% change (Q4 2019–Q2 2025)
Home	0.97	−2.4%	0.81	−9.6%
Home health	1.11	−3.2%	0.93	−11.2%
SNF/LTC	1.20	+6.0%	0.94	−5.6%
Other	1.08	−6.8%	0.87	−14.1%
Rehab	1.36	−1.7%	1.14	−9.6%
Expired	1.00	−0.4%	0.83	−8.0%
Hospice	1.13	−1.3%	0.94	−9.9%
Transfer out	1.09	+4.3%	0.81	−9.9%

Note: Analysis excludes 0-17 age group. AMC 2023 risk model used. LTC = long-term care; SNF = skilled nursing facility. Source: Data from Vizient Clinical Data Base used by permission of Vizient, Inc. All rights reserved.

- Essential hospitals have higher LOS indices across every discharge location compared with CDB hospitals.
- Patients discharged to skilled nursing and long-term care facilities show the largest increase in LOS over the more than five-year period. This suggests more exacerbated delays in post-acute placement for the patient populations essential hospitals serve and the opportunity for expanded post-acute care capacity through cross-continuum partnerships.
- Hospice discharges remain above expected LOS levels but have declined slightly since 2019, aligning with essential hospitals' stable mortality rates. This trend suggests extended stays reflect more complex end-of-life care needs rather than inefficiency.
- Reductions in LOS for home, rehab and home health discharges indicate greater efficiency in managing lower-acuity transitions, balancing throughput gains against the continuing constraints in post-acute care access.

Why it matters

As patient acuity and resource needs continue to rise, essential hospitals demonstrate that improved outcomes for vulnerable populations can advance through data-driven planning, coordinated care and community partnerships. Sustaining this progress will require stronger post-acute access, behavioral health integration and workforce alignment to ensure all patient populations receive high-quality care across the System of CARE. Key lessons include:

- Rising acuity and vulnerability are reshaping inpatient demand. Essential hospitals show that hospitals can sustain quality outcomes even as patient complexity intensifies.
- Behavioral health and post-acute resources are pivotal to meeting higher-acuity needs. Continued investment and innovative care coordination models will be crucial to close access gaps and improve patient transitions.

- Benchmarking drives continuous improvement. Comparing essential hospitals' performance with national peers supports the development of actionable insights that help all hospitals strengthen readiness for higher-acuity, resource-limited futures.

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To speak with one of our experts about performance improvement, service line strategy and System of CARE strategy, email membercenter@sg2.com.

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

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 Clinical Data Base** is the definitive healthcare 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. The data enables 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 patent pending **Vizient Vulnerability Index™** identifies social needs and obstacles to care in neighborhoods that may influence a person's overall health. The data allow users to support social drivers of health at the neighborhood level, providing nine domains of social needs and the overall vulnerability index for each census tract and ZIP code across the U.S. Any score greater than 1.0 is considered an area of "high vulnerability." These are neighborhoods that experience specific obstacles to care greater than one standard deviation above the national mean.

Unlike other indices, the Vizient Vulnerability Index flexes to ensure the index values are location appropriate. Other indices have a single index algorithm for the whole country, while the Vizient Vulnerability Index adapts to the local relevance of each domain as it correlates to life expectancy. This allows for variation in the weighting of the domains across different geographic areas depending on what's important. For example, the most relevant factors affecting health in Lincoln, Nebraska, might not be the most relevant in New York City.

Vizient Vulnerability Index domains

ECONOMICS	HOUSING	EDUCATION
SOCIAL ENVIRONMENT	PUBLIC SAFETY	HEALTH CARE ACCESS
NEIGHBORHOOD RESOURCES	TRANSPORTATION	CLEAN ENVIRONMENT

The **Sg2 Impact of Change®** model forecasts demand for healthcare 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.

The Vizient Data on the Edge series team includes Brianna Motley, Catherine Maji, Eric Lam, Alyssa Harris and Sg2 Creative Services.

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