

100 Top Hospitals[®] Study: 2024 Annual Report

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Introduction

Since 1993, the 100 Top Hospitals[®] program has produced annual quantitative studies designed to recognize the nation's highest performing hospitals. The 100 Top Hospitals[®] study (the "Study") is one of three studies published annually as part of the larger 100 Top Hospitals[®] program.

This year's Study of U.S. hospitals has the same goal that has driven each Study since the beginning of the 100 Top Hospitals[®] program: to identify top performers and report findings that may help all healthcare organizations better focus their improvement initiatives on achieving consistent, balanced, and sustainable high performance.

Hospitals within the 100 Top Hospitals[®] Study are evaluated against a balanced scorecard based on Norton and Kaplan's concept.¹ The Study is comprised of key measures of hospital performance across various facets of care, including inpatient and extended care quality, operational efficiency, financial health, and customer experience.

The top performing hospitals recognized through the Study demonstrate a balance of clinical and operational excellence in a complex healthcare landscape, and their success stories may help guide other healthcare entities in achieving similar successes. In addition to the published list of high-performing hospitals, the Study more broadly serves as a tool for comparing outcomes, with the larger goal of improving quality, efficiency, and patient experience across all hospitals. The Study includes an assessment of current performance for all hospitals, which serves as a reference point of a hospital's performance relative to a meaningful set of peer facilities.

Similar to last year's Study, the 100 Top Hospitals[®] program incorporates a community health measure into its ranking process this year. The community health measure is weighted equally with other ranked measures assessing inpatient outcomes, extended outcomes, processes of care, operational efficiency, financial health, and patient experience.

In addition to identifying top performers based on current profile performance, the 100 Top Hospitals[®] Study also awards two special designations. The first, called the Everest Award, evaluates an institution's rate of improvement relative to a peer group comprised of similar hospitals. The second, the Community Champion Award, recognizes those top performing hospitals that serve a higher proportion of disadvantaged patients.

The names of the recipients of the 100 Top Hospitals[®] Award, as well as the special designations of the Everest Award and the Community Champion Award (collectively, the "Awardees"), are published annually in *Fortune*.²

To maintain integrity within the 100 Top Hospitals[®] Study, only publicly available data sources and measures are included when determining hospital performance. The program and measure methodologies used to rank hospitals are readily available online, and the Study does not utilize self-reported measures or surveys from external organizations, which could potentially influence the data. Participation in the Study is not solicited and there are no fees for Awardees to promote their achievements. In addition, to mitigate potential bias introduced due to structural differences between hospitals, the Study stratifies hospitals into five groups: major teaching, teaching, large community, medium community and small community hospitals. Upon request, hospitals can receive their individual report summarizing current and trended performance at no cost.

In order to maintain the integrity of the Study, a 100 Top Hospitals® award may be revoked at any time if Awardee data is found to be inaccurate or misleading for any of the 100 Top Hospitals® data sources. At the sole discretion of Premier, the circumstances under which a 100 Top Hospitals® award could be revoked include, but are not limited to, inaccurate data, agency investigations, exclusions from government programs, violations of healthcare laws and/or sanctions.

Study Methodology

Datasets and Measures

All data sources used within the 100 Top Hospitals® Study are publicly available. These sources include the Medicare Provider Analysis and Review (MEDPAR) patient claims dataset, Centers for Medicare & Medicaid Services (CMS) Care Compare hospital performance dataset, and Hospital Cost Report Information System (HCRIS) Medicare Cost Report file. Residency program information, used in classifying teaching hospitals, is from the Accreditation Council for Graduate Medical Education (ACGME) which contains information on the American Medical Association (AMA) and American Osteopathic Association (AOA) accredited programs. The Study is limited to short-term, acute care, nonfederal U.S. hospitals that treat a broad spectrum of patients. Current performance is assessed using the two most current years of data, while trended performance, used for the Everest Award, is based on the most recent five years of data.

Table 1 lists all measures included in 2024 100 Top Hospitals® Study by measure domain along with the respective data sources and time periods used to compute the measure results. The five domains of performance include inpatient outcomes, extended outcomes, operational efficiency, financial health and patient experience.

Table 1. Summary of measure data sources and data periods

Measure Domain	Performance Metric (Data Source)	Current Data Sources and Time Periods	Trended Data Sources and Time Periods
Clinical Outcomes	Risk-Adjusted Inpatient Mortality Index (MEDPAR)	Federal Fiscal Year (FFY) 2021 and 2022 ^a	Federal Fiscal Year 2017-2022 ^a
	Risk-Adjusted Complications Index (MEDPAR)	FFY 2021 and 2022 ^a	FFY 2017-2022 ^a
	Mean Healthcare-Associated Infection Index ^b (CMS Care Compare)	Calendar Year (CY) 2022	Calendar Year (CY) 2018, 2019, 2021, 2022; July 1, 2019-Dec 31, 2020
Extended Outcomes	Mean 30-Day Mortality Rate: AMI, Heart Failure, Pneumonia, COPD, Stroke (CMS Care Compare)	Jul 1, 2019-June 30, 2022	Three-year datasets ending Jun 30 in 2018, 2019 ^{c,d} , 2021, 2022
	30-Day Hospital-Wide Readmission Rate (CMS Care Compare)	Jul 1, 2021-June 30, 2022	One-year data sets ending Jun 30 in 2018, 2019 ^{c,e} , 2021, 2022
Operational Efficiency	Severity-Adjusted Average Length of Stay (MEDPAR)	FFY 2022	FFY 2018-2022
	Case Mix- and Wage-Adjusted Inpatient Expense per Discharge (HCRIS Medicare Cost Report)	Reports ending in 2022	Reports ending in 2018-2022
	MSPB Index (CMS Care Compare)	CY 2022	CY 2018, 2019, 2021, 2022; July 1, 2020-Dec 31, 2020 ^e
Extended Efficiency	Adjusted Operating Profit Margin (HCRIS Medicare Cost Report)	Reports ending in 2022	Reports ending in 2018-2022
Patient Experience	HCAHPS Top-Box Percent: Overall Hospital Rating (CMS Care Compare)	CY 2022	CY 2018, 2019, 2021, 2022; July 1, 2020-Dec 31, 2020 ^e

a. Two years of data are combined for each study year data point.

b. The HAI measure is not included in the small community hospital group ranked metrics.

c. Two data points end in 2019 due to CMS removal of Q1 and Q2 2020 data from measure datasets in the 2020 study year.

d. For 2020 study year, measure has 2 ½ years of data instead of 3 due to CMS removal of Q1 and Q2 2020 data from measure data sets.

e. For 2020 study year, measure has 6 months of data instead of 1 year due to CMS removal of Q1 and Q2 2020 data from measure data sets.

Exclusions

After excluding specialty and federally owned hospitals, a total of 3,102 short-term, general, acute care U.S. hospitals were considered using the current MEDPAR data file. Specialty hospitals refer to critical access, children's, women's, psychiatric, substance abuse, rehabilitation, cardiac, orthopedic, heart, cancer, and long-term acute care facilities. Additionally, hospitals meeting any of the following criteria were excluded from the Study:

- Non-U.S. hospitals (such as those in Puerto Rico, Guam, and the US Virgin Islands).
- Hospitals with fewer than 25 acute care beds.
- Hospitals with fewer than 100 Medicare patient discharges in the current data year.
- Hospitals with Medicare average length of stay (LOS) longer than 25 days in the current data year.
- Hospitals with no reported Medicare patient deaths in the current data year.
- Hospitals for which a current year Medicare Cost Report was not available.
- Hospitals with a current year Medicare Cost Report that was not for a 12-month reporting period.
- Hospitals that had fewer than 60% of patient records with valid present on admission (POA) codes.
- Hospitals missing data required to calculate performance measures.

After all applicable hospital exclusions were applied, 2,601 hospitals were included in the Study. In addition to hospital-level exclusions, the following individual patient records were also excluded:

- Patients who were discharged to another short-term facility (to avoid double-counting).
- Patients who were not at least 65 years old.
- Rehabilitation, psychiatric and substance abuse patients.
- Patients with stays shorter than one day.

Stratification

Bed size, teaching status and extent of residency/fellowship program involvement can affect the types of patients a hospital treats and the scope of services it provides.³⁻⁷ To better assess the performance of an individual hospital, it is important to evaluate it against other similar hospitals, even when risk-adjusting patient-level results.⁸ To address this, each hospital was assigned to one of five comparison groups, according to its size and teaching status.

The classification methodology draws a distinction between major teaching hospitals and teaching hospitals by reviewing the number and type of teaching programs, and by accounting for level of involvement in physician education and research through evidence of program sponsorship versus simple participation. This methodology de-emphasizes the role of bed size and focuses more on teaching program involvement. This approach is designed to measure the depth and breadth of teaching involvement, as well as recognize teaching hospitals' tendencies to reduce beds and concentrate on tertiary care.

The factors for defining teaching comparison groups includes hospital bed size, residents-to-acute-care-beds ratio, and involvement in graduate medical education (GME) programs accredited by either the AMA or the AOA.^{9,10} The definition includes both the number of programs and type (sponsorship or participation) of GME program involvement. The classification rules for each comparison group are provided on the next page:

Major teaching hospitals: A hospital was grouped to the major teaching hospital comparison group if *any* of the three conditions below were met:

1. 400 or more acute care beds in service, plus a resident-per-bed ratio of at least 0.25, plus:
 - i. Sponsorship of at least 10 GME programs OR
 - ii. Involvement in at least 15 programs overall.
2. Involvement in at least 30 GME programs overall (regardless of bed size or resident- per-bed ratio) and bed size of 250 or greater.
3. A resident-per-bed ratio of at least 0.55 (regardless of number of GME program involvement) and bed size of 250 or greater.

Teaching hospitals: A hospital was grouped to the teaching hospital comparison group if *two* of the three conditions below were met:

1. 200 or more acute care beds in service.
2. Resident-per-bed ratio of at least 0.03 and total GME programs not null or 0.
3. Total GME programs are 3 or greater and a resident-to-bed ratio not null or 0.

Note: If criteria two and three are met, bed size must be between 99 and 199.

Large community hospitals: A hospital was grouped to the teaching hospital comparison group if both of the following two conditions below were met:

- 250 or more acute care beds in service.
- Not classified as a teaching hospital per definitions above.

Medium community hospitals: A hospital was grouped to the medium community hospital comparison group if both of the following two conditions below were met:

- 100 to 249 acute care beds in service.
- Not classified as a teaching hospital per definitions above.

Small community hospitals: A hospital was grouped to the small community hospital comparison group if both of the following two conditions below were met:

- 25 to 99 acute care beds in service.
- Not classified as a teaching hospital per definitions above.

Scoring Method

Measure results were normalized and ranked within each hospital comparison group. The ranked measures were further weighted and summed up at the hospital level to form the hospital level *total score*. The hospitals with the best overall score in each comparison group were selected as the *PINC AI™ 100 Top Hospitals®* Awardees.

The chart below shows the final number of evaluated facilities in the Study after exclusions and the number of top performing (benchmark) hospital Awardees in each comparison groups.

Table 2. Study Population by Comparison Group

Comparison group	In-Study Hospitals	Benchmark Hospitals
Major Teaching Hospitals	213	15
Teaching Hospitals	643	25
Large Community Hospitals	226	20
Medium Community Hospitals	719	20
Small Community Hospitals	800	20
Total	2,601	100

Full details regarding the 100 Top Hospitals® Study methodology can be found in the *100 Top Hospitals® Program Methodology Guide*.²

The 2024 PINC AI™ 100 Top Hospitals®

The 100 Top Hospitals® program is pleased to present the 2024 100 Top Hospitals®. Everest designees are noted in bold, and the Community Champion recipients have an asterisk next to their names in the tables below.

Note: The order of hospitals does not reflect performance rating. Hospitals are ordered alphabetically in each comparison group table.

Major Teaching Hospital Awardees

Hospital	Location	CCN	Total Year(s) Won
HCA Florida Kendall Hospital *	Miami, FL	100209	11
Houston Methodist Hospital	Houston, TX	450358	8
Inova Fairfax Hospital	Falls Church, VA	490063	10
Intermountain Medical Center	Murray, UT	460010	5
Mayo Clinic Hospital - Phoenix	Phoenix, AZ	030103	2
Mayo Clinic in Florida	Jacksonville, FL	100151	3
Mayo Clinic in Rochester	Rochester, MN	240010	6
Morristown Medical Center	Morristown, NJ	310015	2
NYU Langone Hospitals	New York, NY	330214	3
Penn Presbyterian Medical Center	Philadelphia, PA	390223	6
St. Joseph's Hospital and Medical Center	Phoenix, AZ	030024	9
St. Luke's University Hospital - Bethlehem Campus	Bethlehem, PA	390049	12
Temple University Hospital *	Philadelphia, PA	390027	1
UCHealth University of Colorado Hospital	Aurora, CO	060024	10
University of Utah Health	Salt Lake City, UT	460009	7

Teaching Hospital Awardees

Hospital	Location	CCN	Total Year(s) Won
CHI Memorial	Chattanooga, TN	440091	10
Doctors Hospital of Augusta	Augusta, GA	110177	3
Grand Strand Medical Center	Myrtle Beach, SC	420085	4
HCA Florida Brandon Hospital	Brandon, FL	100243	12
HCA Florida North Florida Hospital	Gainesville, FL	100204	11
HCA Florida Trinity Hospital	Trinity, FL	100191	8
Houston Methodist Baytown Hospital	Baytown, TX	450424	1
Houston Methodist Sugar Land Hospital	Sugar Land, TX	450820	6
McKay-Dee Hospital	Ogden, UT	460004	10
Medical City Denton	Denton, TX	450634	2
Methodist Hospital	San Antonio, TX	450388	3
Methodist Stone Oak Hospital	San Antonio, TX	670055	1
MountainView Hospital	Las Vegas, NV	290039	3
Penn Medicine Princeton Medical Center	Plainsboro, NJ	310010	1
Piedmont Athens Regional Medical Center	Athens, GA	110074	1
Rose Medical Center	Denver, CO	060032	17
Sky Ridge Medical Center	Lone Tree, CO	060112	6
Southern Hills Hospital & Medical Center	Las Vegas, NV	290047	3
St. Luke's Anderson Campus	Easton, PA	390326	6
Swedish Medical Center	Englewood, CO	060034	6
The Medical Center of Aurora	Aurora, CO	060100	5
Trident Medical Center	Charleston, SC	420079	3
TriStar Centennial Medical Center	Nashville, TN	440161	7
UNC Health Pardee	Hendersonville, NC	340017	1
Wesley Medical Center	Wichita, KS	170123	5

Large Community Hospital Awardees

Hospital	Location	CCN	Total Year(s) Won
AdventHealth Daytona Beach	Daytona Beach, FL	100068	7
AdventHealth Fish Memorial	Orange City, FL	100072	1
AdventHealth Shawnee Mission	Shawnee Mission,	170104	8
AdventHealth Waterman	Tavares, FL	100057	1
Chippenham Hospital	Richmond, VA	490112	4
Elmhurst Hospital	Elmhurst, IL	140200	4
Genesis HealthCare System	Zanesville, OH	360039	4
HCA Houston Healthcare Clear Lake	Webster, TX	450617	5
Henderson Hospital	Henderson, NV	290057	1
Henrico Doctors' Hospital	Richmond, VA	490118	4
Houston Methodist The Woodlands Hospital	The Woodlands, TX	670122	2
Houston Methodist West Hospital	Houston, TX	670077	2
Medical City Plano	Plano, TX	450651	3
Parkridge Medical Center	Chattanooga, TN	440156	6
Penn Medicine Chester County Hospital	West Chester, PA	390179	3
Rockledge Regional Medical Center	Rockledge, FL	100092	1
St. David's Medical Center	Austin, TX	450431	15
St. David's North Austin Medical Center	Austin, TX	450809	6
St. David's South Austin Medical Center	Austin, TX	450713	2
St. George Regional Hospital	St George, UT	460021	2

Medium Community Hospital Awardees

Hospital	Location	CCN	Total Year(s) Won
Adventist Health Castle	Kailua, HI	120006	1
CHI Saint Joseph Health - Saint Joseph East	Lexington, KY	180143	5
East Liverpool City Hospital	East Liverpool, OH	360096	7
Fairview Park Hospital	Dublin, GA	110125	8
IU Health North Hospital	Carmel, IN	150161	5
Logan Regional Hospital	Logan, UT	460015	13
Memorial Hermann Sugar Land Hospital	Sugar Land, TX	450848	4
Mercy Health - Clermont Hospital *	Batavia, OH	360236	11
Mercy Health - Fairfield Hospital	Fairfield, OH	360056	5
Mercy Health - West Hospital	Cincinnati, OH	360234	1
Ogden Regional Medical Center	Ogden, UT	460005	4
Saint Francis Hospital South	Tulsa, OK	370218	3
Scripps Memorial Hospital Encinitas	Encinitas, CA	050503	1
Sequoia Hospital	Redwood City, CA	050197	1
Timpanogos Regional Hospital	Orem, UT	460052	5
TriStar Hendersonville Medical Center	Hendersonville, TN	440194	7
TriStar Summit Medical Center	Hermitage, TN	440150	3
West Valley Medical Center	Caldwell, ID	130014	9
Woodland Heights Medical Center	Lufkin, TX	450484	1
Wooster Community Hospital	Wooster, OH	360036	10

Small Community Hospital Awardees

Hospital	Location	CCN	Total Year(s) Won
Alta View Hospital	Sandy, UT	460044	10
American Fork Hospital	American Fork, UT	460023	11
Ascension St. Vincent Fishers	Fishers, IN	150181	2
Ashley Regional Medical Center	Vernal, UT	460030	4
Brigham City Community Hospital	Brigham City, UT	460017	8
Cedar City Hospital	Cedar City, UT	460007	13
Chambers Memorial Hospital *	Danville, AR	040011	7
Clark Regional Medical Center *	Winchester, KY	180092	3
Health First Viera Hospital	Melbourne, FL	100315	1
HSHS St. Joseph's Hospital Breese	Breese, IL	140145	4
Lakeview Hospital	Bountiful, UT	460042	13
Layton Hospital	Layton, UT	460061	2
Lone Peak Hospital	Draper, UT	460060	6
Mercy Health - Tiffin Hospital	Tiffin, OH	360089	3
Mission Hospital McDowell *	Marion, NC	340087	1
Park City Hospital	Park City, UT	460057	2
Riverton Hospital	Riverton, UT	460058	5
St. Luke's Hospital-Miners Campus	Coaldale, PA	390183	2
Sutter Davis Hospital	Davis, CA	050537	7
Wake Forest Baptist Health-Davie Medical Center	Bermuda Run, NC	340187	1

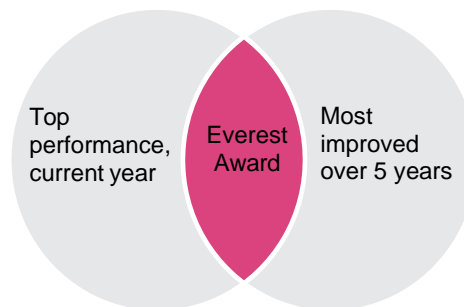
Everest Award

Recipients of the 100 Top Hospitals® Everest Award set national benchmarks for both fastest rate of improvement and highest current performance on the Study's balanced scorecard. In 2024, only 26 organizations achieved this level of performance. This award recognizes the boards, executives and medical staff leaders who developed and executed the strategies that drove the highest rates of improvement, resulting in the highest performance in the U.S. at the end of five years.

The methodology for determining the Everest Award recipients can be summarized in three main steps:

1. Identify the annual 100 Top Hospitals® award benchmark hospitals using a balanced scorecard of performance measures from the most current data period available (2022 at the time of this Study).
2. Identify hospitals that have shown the fastest, most consistent improvement rates on the same balanced scorecard of performance measures across a five-year period (2018 -2022).
3. Hospitals that ranked in the top 100 on both lists are recognized with the Everest Award.

Combining these two methodologies yields a select group of Everest Award recipients. The number of Everest Award recipients can vary each year based solely on performance in the two categories.



Jean Chenoweth, the founder of the 100 Top Hospitals® program, regarded the Everest Award as the highest achievement for any hospital. She devoted her professional life to improving healthcare in the United States. Prior to her passing in 2020, Jean was the leader of the 100 Top Hospitals® program for nearly three decades; her legacy is her commitment to high quality standards and performance improvement.

The 100 Top Hospitals® program is pleased to present the 2024 100 Top Hospitals® Everest Award to the following recipients:

2024 Everest Award Recipients

Hospital ⁱ	Location	CCN	Total Year(s) Won
Chippenham Hospital	Richmond, VA	490112	3
HCA Florida North Florida Hospital	Gainesville, FL	100204	1
HCA Florida Trinity Hospital	Trinity, FL	100191	2
HCA Houston Healthcare Clear Lake	Webster, TX	450617	1
Henrico Doctors' Hospital	Richmond, VA	490118	2
Houston Methodist Baytown Hospital	Baytown, TX	450424	1
Houston Methodist Hospital	Houston, TX	450358	1
Houston Methodist The Woodlands Hospital	The Woodlands, TX	670122	1
Lakeview Hospital	Bountiful, UT	460042	2
Medical City Denton	Denton, TX	450634	2
Medical City Plano	Plano, TX	450651	2
Methodist Hospital	San Antonio, TX	450388	1
Methodist Stone Oak Hospital	San Antonio, TX	670055	1
NYU Langone Hospitals	New York, NY	330214	2
Ogden Regional Medical Center	Ogden, UT	460005	1
Parkridge Medical Center	Chattanooga, TN	440156	3
Penn Medicine Princeton Medical Center	Plainsboro, NJ	310010	1
Rockledge Regional Medical Center	Rockledge, FL	100092	1
St. David's Medical Center	Austin, TX	450431	3
St. David's South Austin Medical Center	Austin, TX	450713	1
St. George Regional Hospital	St George, UT	460021	2
Temple University Hospital	Philadelphia, PA	390027	1
Timpanogos Regional Hospital	Orem, UT	460052	2
Trident Medical Center	Charleston, SC	420079	1
Wesley Medical Center	Wichita, KS	170123	2
Woodland Heights Medical Center	Lufkin, TX	450484	1

ⁱ Order of hospitals does not reflect performance rating. Hospitals are ordered alphabetically.

Community Champion Award

New to the 100 Top Hospitals® program this year, is an award designed to recognize hospitals providing exceptional care despite serving a higher proportion of patients with social drivers of health (SDOH) related risk factors.

The methodology for these designations can be summarized in three main steps:

1. Identify the annual 100 Top Hospitals® Benchmark Awardees using a balanced scorecard of performance measures from the most current data period available (2022 at the time of this Study).
2. Calculate a hospital-level SDOH index based on a wide range of social factors generally associated with adverse outcomes and higher cost of care. This index is comprised of dual eligibility, low-income subsidy, disability and end-stage renal failure status with Medicare and Medicaid, urban rural status, and ICD-10 coding indicating the presence of behavioral health and SDOH factors. Mean SDOH indices are calculated for each in-study facility.
3. 100 Top Hospitals® Benchmark Awardees with a mean SDOH index in the top quintile of highest risk patients are presented recognized for providing exceptional care among a largely disadvantaged patient population.



In 2024, only six organizations achieved this level of performance:

Hospital	Location	CCN
Chambers Memorial Hospital	Danville, AR	040011
Clark Regional Medical Center	Winchester, KY	180092
HCA Florida Kendall Hospital	Miami, FL	100209
Mercy Health - Clermont Hospital	Batavia, OH	360236
Mission Hospital McDowell	Marion, NC	340087
Temple University Hospital	Philadelphia, PA	390027

2024 Study Findings

The 100 Top Hospitals® Study recognizes hospitals providing exceptional care across balanced set of measures across five facets, or domains, of care. These domains include inpatient outcomes, extended outcomes, operational efficiency, financial health and patient experience.

Findings from the 100 Top Hospitals® Study are reported for each comparison group, providing numerous examples of Awardee’s clinical, financial and operational excellence. While recognizing high-performing hospitals is a key aspect of the Study, it is additionally a method that U.S. hospital and health system leaders can use to help guide their own performance improvement initiatives. Publishing results from the highest-performing leaders around the country further creates aspirational benchmarks for the rest of the industry.

Note that 100 Top Hospitals® Awardees are referred to as “Benchmark” in the below sections and in their corresponding tables.

If all hospitals performed at the level of the 100 Top Hospitals® Awardees (i.e., Benchmark facilities) within their respective hospital groupings, the following results could potentially be achieved:

- Over 350,000 additional lives could be saved in-hospital.
- Over 607,000 additional patients could be complication-free.
- Over \$17.6 billion in inpatient costs could be saved.
- The typical patient could be released from the hospital a half day sooner.
- Over 16,600 fewer discharged patients would be readmitted within 30 days.

While this analysis is based on the Medicare patient population evaluated in this Study, the impact could potentially be even greater if the same standards were applied to all inpatients. The methodology for determining the performance statistics above can be found in the 100 Top Hospitals® Program Methodology Guide.²

Findings specific to each measure domain for all hospitals in the Study are further listed below with Table 3 showing complete results following the key findings:

Inpatient Outcomes

- Benchmark facilities had significantly higher inpatient survival rates with 39 percent fewer deaths than expected (0.65 index), considering patient severity, while their peers had slightly more than the number of deaths that would be expected (1.07 index).
- Fewer patients had complications than expected at Benchmark facilities compared to their peers, with a difference of 26.6 percent, considering patient severity (0.72 vs 0.99 index values, respectively).
- The same significant difference between Benchmark and peer hospitals is found with the occurrence of healthcare-associated infections (HAI). Overall, nationally, there were 30.6 percent fewer infections at Benchmark hospitals compared to their peers with standardized infection ratio [SIR] medians of 0.49 versus 0.71, respectively.

Extended Outcomes

- Benchmark hospitals outperformed their peers in the extended outcomes domain with 30-day mortality rates that were lower by 0.9 percentage points and 30-day hospital-wide readmission rates 0.4 lower.

Operational Efficiency

- The median severity-adjusted average length of stay (ALOS) was 0.5 day shorter at Benchmark hospitals than peers.
- Inpatient expense per discharge (case mix- and wage-adjusted) was lower at Benchmark hospitals with a median difference of \$1864 (\$6969 vs \$8833, respectively).
- Medicare spend per beneficiary (MSPB), a measure of the total Medicare-paid claim amounts associated with an inpatient episode, including three days prior through 30 days post discharge, Benchmark hospitals had a lower median index than peer hospitals by 2.7 percent, overall.

Financial Health

- The median operating profit margin was significantly better at Benchmark hospitals with a 17.1 percent rate, compared to 1.4 percent at peer hospitals.

Patient Experience

- Benchmark hospitals had a Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) overall top-box percent median value of 6.0 percentage points higher compared to peers.

Table 3. National Performance comparison (all in-study hospitals)

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index ¹	0.65	1.07	-0.42	-39.0%	***	Lower mortality
	Complications Index ¹	0.72	0.99	-0.26	-26.6%	***	Fewer complications
	HAI Index ²	0.49	0.71	-0.22	-30.6%	***	Fewer infections
Extended Outcomes	30-Day Mortality Rate ³	12.3	13.2	-0.9	n/a ⁸	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate ⁴	14.1	14.5	-0.4	n/a ⁸	***	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay ¹	4.9	5.4	-0.5	-9.5%	***	Shorter stays
	Inpatient Expense per Discharge ⁶	\$6,969	\$8,833	-\$1,864	-21.1%	***	Lower inpatient cost
	Medicare Spend per Beneficiary ⁵	0.97	0.99	-0.03	-2.7%	***	Lower episode cost
Financial Health	Operating Profit Margin ⁶	17.1	1.4	15.7	n/a ⁸		Higher profitability
Patient Experience	HCAHPS Top-Box (%) ⁷	73.0	67.0	6.0	n/a ⁸	***	Better patient experience

1. Inpatient mortality, complications and average length of stay based on Present on Admission (POA)-enabled risk models applied to MEDPAR 2021 and 2022 data (ALOS 2022 only).

2. HAI data from CMS Care Compare CY 2022 data set (excluding small community hospitals).

3. 30-day mortality rates from CMS Care Compare July 1, 2019 – June 30, 2022 data set.

4. 30-day hospital-wide readmission rates from CMS Care Compare July 1, 2021 - June 30, 2022 data set.

5. MSPB data from CMS Care Compare CY 2022 data set.

6. Inpatient expense and operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.

7. HCAHPS data from CMS Care Compare CY 2022 data set.

8. A percentage difference is not calculated for these measures as they are already a percent value.

Statistical significance * = 75%, ** = 95%, *** = 99%

Major Teaching Hospitals

Major teaching hospitals are generally believed to treat more complex patients, have a more complex staffing mix and incur higher costs than smaller teaching and community hospitals. Benchmark facilities in this comparison group outperformed their peers in every measure (Table 4).

Table 4. Performance comparison for Major Teaching Hospitals

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index ¹	0.78	1.00	-0.22	-21.9%	***	Lower mortality
	Complications Index ¹	0.92	0.99	-0.07	-6.8%	*	Fewer complications
	HAI Index ²	0.59	0.86	-0.28	-31.9%	***	Fewer infections
Extended Outcomes	30-Day Mortality Rate ³	11.0	12.3	-1.3	n/a ⁸	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate ⁴	14.2	15	-0.8	n/a ⁸	***	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay ¹	5	5.7	-0.6	-11.1%	***	Shorter stays
	Inpatient Expense per Discharge ⁶	\$8,837	\$10,313	-\$1,477	-14.3%	*	Lower inpatient cost
	Medicare Spend per Beneficiary ⁵	0.98	1.01	-0.03	-3.3%	*	Lower episode cost
Financial Health	Operating Profit Margin ⁶	8.2	2.4	5.8	n/a ⁸	**	Higher profitability
Patient Experience	HCAHPS Top-Box (%) ⁷	77.0	67.0	10.0	n/a ⁸	***	Better patient experience

1. Inpatient mortality, complications and average length of stay based on Present on Admission (POA)-enabled risk models applied to MEDPAR 2021 and 2022 data (ALOS 2022 only).
 2. HAI data from CMS Care Compare CY 2022 data set (excluding small community hospitals).
 3. 30-day mortality rates from CMS Care Compare July 1, 2019 – June 30, 2022 data set.
 4. 30-day hospital-wide readmission rates from CMS Care Compare July 1, 2021 - June 30, 2022 data set.
 5. MSPB data from CMS Care Compare CY 2022 data set.
 6. Inpatient expense and operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.
 7. HCAHPS data from CMS Care Compare CY 2022 data set.
 8. A percentage difference is not calculated for these measures as they are already a percent value.
- Statistical significance * = 75%, ** = 95%, *** = 99%

Teaching Hospitals

As with the major teaching Benchmark hospitals, the teaching group outperformed their peers in every measure, most notably in all three clinical outcome measures. Percent differences in inpatient mortality, complications and HAI measures between the Benchmark and peer groups were significant, with values of 39.6 percent, 49.2 percent and 34.1 percent, respectively.

Table 5. Performance comparisons for Teaching Hospitals

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index ¹	0.61	1.02	-0.4	-39.6%	***	Lower mortality
	Complications Index ¹	0.52	1.02	-0.5	-49.2%	***	Fewer complications
	HAI Index ²	0.46	0.7	-0.24	-34.1%	***	Fewer infections
Extended Outcomes	30-Day Mortality Rate ³	12.2	13.1	-0.9	n/a ⁸	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate ⁴	14.8	14.6	0.2	n/a ⁸	*	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay ¹	5.2	5.6	-0.5	-8.1%	***	Shorter stays
	Inpatient Expense per Discharge ⁶	\$6,908	\$8,550	-\$1,642	-19.2%	***	Lower inpatient cost
	Medicare Spend per Beneficiary ⁵	0.99	1.01	-0.02	-1.5%	*	Lower episode cost
Financial Health	Operating Profit Margin ⁶	21	1.5	19.5	n/a ⁸		Higher profitability
Patient Experience	HCAHPS Top-Box (%) ⁷	70.0	65.0	5.0	n/a ⁸	***	Better patient experience

1. Inpatient mortality, complications and average length of stay based on Present on Admission (POA)-enabled risk models applied to MEDPAR 2021 and 2022 data (ALOS 2022 only).

2. HAI data from CMS Care Compare CY 2022 data set (excluding small community hospitals).

3. 30-day mortality rates from CMS Care Compare July 1, 2019 – June 30, 2022 data set.

4. 30-day hospital-wide readmission rates from CMS Care Compare July 1, 2021 - June 30, 2022 data set.

5. MSPB data from CMS Care Compare CY 2022 data set.

6. Inpatient expense and operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.

7. HCAHPS data from CMS Care Compare CY 2022 data set.

8. A percentage difference is not calculated for these measures as they are already a percent value.

Statistical significance * = 75%, ** = 95%, *** = 99%

Large Community Hospitals

Large Community Benchmark hospitals outperformed their peers in all measures, especially in the clinical outcome measures, as with the other comparison groups. Inpatient mortality, complications and HAI percent differences ranged from 40.4 to 34.6 percent, respectively.

Table 6. Performance comparisons for Large Community Hospitals

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index ¹	0.61	1.03	-0.42	-40.4%	***	Lower mortality
	Complications Index ¹	0.75	1.01	-0.26	-25.6%	***	Fewer complications
	HAI Index ²	0.45	0.69	-0.24	-34.6%	***	Fewer infections
Extended Outcomes	30-Day Mortality Rate ³	12.2	13	-0.9	n/a ⁸	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate ⁴	14.2	14.5	-0.3	n/a ⁸	**	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay ¹	5.4	5.7	-0.3	-4.8%	***	Shorter stays
	Inpatient Expense per Discharge ⁶	\$7,126	\$8,377	-\$1,251	-14.9%	***	Lower inpatient cost
	Medicare Spend per Beneficiary ⁵	1.01	1.00	0.01	0.6%		Higher episode cost
Financial Health	Operating Profit Margin ⁶	15.9	0.4	15.5	n/a ⁸	***	Higher profitability
Patient Experience	HCAHPS Top-Box (%) ⁷	70.5	67	3.5	n/a ⁸	***	Better patient experience

1. Inpatient mortality, complications and average length of stay based on Present on Admission (POA)-enabled risk models applied to MEDPAR 2021 and 2022 data (ALOS 2022 only).

2. HAI data from CMS Care Compare CY 2022 data set (excluding small community hospitals).

3. 30-day mortality rates from CMS Care Compare July 1, 2019 – June 30, 2022 data set.

4. 30-day hospital-wide readmission rates from CMS Care Compare July 1, 2021 - June 30, 2022 data set.

5. MSPB data from CMS Care Compare CY 2022 data set.

6. Inpatient expense and operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.

7. HCAHPS data from CMS Care Compare CY 2022 data set.

8. A percentage difference is not calculated for these measures as they are already a percent value.

Statistical significance * = 75%, ** = 95%, *** = 99%

Medium Community Hospitals

Once again, in the community hospitals comparison group, large differences are found between the Benchmark and peer hospital categories. Medium community Benchmark hospitals showed a 56 percent difference in HAI from their peer group and a 22.4 percent difference in expense per discharge per patient, larger than any other comparison group.

Table 7. Performance comparison for Medium Community Hospitals

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index ¹	0.68	1.02	-0.34	-33.1%	***	Lower mortality
	Complications Index ¹	0.72	1.01	-0.29	-28.7%	***	Fewer complications
	HAI Index ²	0.28	0.63	-0.35	-56.1%	***	Fewer infections
Extended Outcomes	30-Day Mortality Rate ³	12.6	13.2	-0.5	n/a ⁸	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate ⁴	14.1	14.5	-0.4	n/a ⁸	***	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay ¹	5	5.6	-0.7	-11.7%	***	Shorter stays
	Inpatient Expense per Discharge ⁶	\$6,585	\$8,490	-\$1,905	-22.4%	***	Lower inpatient cost
	Medicare Spend per Beneficiary ⁵	0.95	0.99	-0.04	-4.0%	**	Lower episode cost
Financial Health	Operating Profit Margin ⁶	14	1.1	12.8	n/a ⁸	**	Higher profitability
Patient Experience	HCAHPS Top-Box (%) ⁷	70.5	65	5.5	n/a ⁸	***	Better patient experience

1. Inpatient mortality, complications and average length of stay based on Present on Admission (POA)-enabled risk models applied to MEDPAR 2021 and 2022 data (ALOS 2022 only).

2. HAI data from CMS Care Compare CY 2022 data set (excluding small community hospitals).

3. 30-day mortality rates from CMS Care Compare July 1, 2019 – June 30, 2022 data set.

4. 30-day hospital-wide readmission rates from CMS Care Compare July 1, 2021 - June 30, 2022 data set.

5. MSPB data from CMS Care Compare CY 2022 data set.

6. Inpatient expense and operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.

7. HCAHPS data from CMS Care Compare CY 2022 data set.

8. A percentage difference is not calculated for these measures as they are already a percent value.

Statistical significance * = 75%, ** = 95%, *** = 99%

Small Community Hospitals

Small community hospital Benchmarks outperformed their peers by large margins in the critical outcome measures, but also in average length of stay (ALOS). The difference between both groups was greater than in any other class, with a 25.2 percent gap (4.2 versus 5.6, respectively).

Table 8. Performance comparison for Small Community Hospitals

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index ¹	0.65	1.07	-0.41	-38.7%	***	Lower mortality
	Complications Index ¹	0.74	0.97	-0.22	-22.9%	***	Fewer complications
Extended Outcomes	30-Day Mortality Rate ³	12.7	13.6	-0.9	n/a ⁸	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate ⁴	13.8	14.4	-0.7	n/a ⁸	***	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay ¹	4.2	5.6	-1.4	-25.2%	***	Shorter stays
	Inpatient Expense per Discharge ⁶	\$6,718	\$9,428	-\$2,710	-28.7%	***	Lower inpatient cost
	Medicare Spend per Beneficiary ⁵	0.9	0.97	-0.06	-6.7%	***	Lower episode cost
Financial Health	Operating Profit Margin ⁶	20.8	1.5	19.2	n/a ⁸	***	Higher profitability
Patient Experience	HCAHPS Top-Box (%) ⁷	77.5	69	8.5	n/a ⁸	***	Better patient experience

1. Inpatient mortality, complications and average length of stay based on Present on Admission (POA)-enabled risk models applied to MEDPAR 2021 and 2022 data (ALOS 2022 only).

2. HAI data from CMS Care Compare CY 2022 data set (excluding small community hospitals).

3. 30-day mortality rates from CMS Care Compare July 1, 2019 – June 30, 2022 data set.

4. 30-day hospital-wide readmission rates from CMS Care Compare July 1, 2021 - June 30, 2022 data set.

5. MSPB data from CMS Care Compare CY 2022 data set.

6. Inpatient expense and operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.

7. HCAHPS data from CMS Care Compare CY 2022 data set.

8. A percentage difference is not calculated for these measures as they are already a percent value.

Statistical significance * = 75%, ** = 95%, *** = 99%

Critical Access Hospitals

Six years ago, the 100 Top Hospitals® Study was expanded to include critical access hospitals (CAH). The CAH grouping is published for information only, as the reliability of publicly available CAH data remains unclear. As such, CAH facilities are currently not eligible as award recipients in the 100 Top Hospitals® Study.

This information is presented for information only; 20 CAH Benchmark hospitals are selected that had the highest performance for all six measures listed below. After excluding critical access hospitals that did not have the required measure data, a total of 645 of 1,357 CAHs in MEDPAR were included in this analysis. Standard 100 Top Hospitals® methodologies were applied in developing the metrics and in analyzing CAH performance.

- Risk-adjusted inpatient mortality.
- Risk-adjusted complications.
- 30-day hospital-wide readmission.
- Severity-adjusted average LOS.
- Adjusted operating profit margin.
- HCAHPS top-box.

Table 9 shows Benchmark CAHs outperformed their peers in all six measures evaluated, most notably in the clinical outcomes domain with a 46.6 percent and 40.7 percent difference in inpatient mortality and complications, respectively.

Table 9. Performance comparison for Critical Access Hospitals

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group		
				Difference	Percent difference	Comments
Clinical Outcomes	Inpatient Mortality Index ¹	0.58	1.09	-0.51	-46.6%	Lower mortality
	Complications Index ¹	0.52	0.88	-0.36	-40.7%	Fewer complications
Extended Outcomes	30-Day Hosp-Wide Readmission Rate ²	14.0	14.4	-0.4	n/a ⁵	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay ¹	3.3	4.0	-0.7	-16.9%	Shorter stays
Financial Health	Operating Profit Margin ³	11.9	3.3	8.5	n/a ⁵	Higher profitability
Patient Experience	HCAHPS Top-Box (%) ⁴	83.0	76.0	7.0	n/a ⁵	Better patient experience

1. Inpatient mortality, complications and average length of stay based on Present on Admission (POA)-enabled risk models applied to MEDPAR 2021 and 2022 data (ALOS 2022 only).
2. 30-day rate from CMS Care Compare July 1, 2021-June 30, 2022 data set.
3. Adjusted operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.
4. HCAHPS measure data from CMS Care Compare CY 2022 data set.
5. A percentage difference is not calculated for these measures as they are already a percent value.

U.S. State and Region Performance

The U.S. maps featured in Figures 1 and 2 provide a visual representation of the variability in performance across the country for the current and previous year studies. Additionally, Table 10 shows each state's rank quintile performance, grouped by geographic region, for the current and previous year studies.

To produce this data, we calculated the 100 Top Hospitals® measures at the state level, ranked each measure, then weighted and summed the ranks to produce an overall state performance score. States were ranked from best to worst on the overall score, and the results are reported as rank quintiles.

This analysis allows us to observe geographic patterns in performance. Key findings comparing both study years show:

- The Midwest moved from being the frontrunner in percentage of states in the top two performance quintiles in 2023 (75 percent) compared to the other regions, with a drop to 50 percent of states in 2024.
- With the Midwest dropping down in percentage of states in the top two quintiles of performance, the West region had over 69 percent of their states in the top level of quintile performance.
- The Northeast continues to show the poorest performance overall, in both years, with 66.7 percent of its states in the bottom two quintiles in 2024 and 77.8 percent in 2023.
- The South's performance slightly improved in 2024 compared to 2023 with three states moving into the top two quintiles for a total of 6 in 2024 versus 3 in 2023. This equates to 35.3 percent of the Southern states in the two quintiles.

Figure 1 State-level Performance Comparisons, 2024 Study:

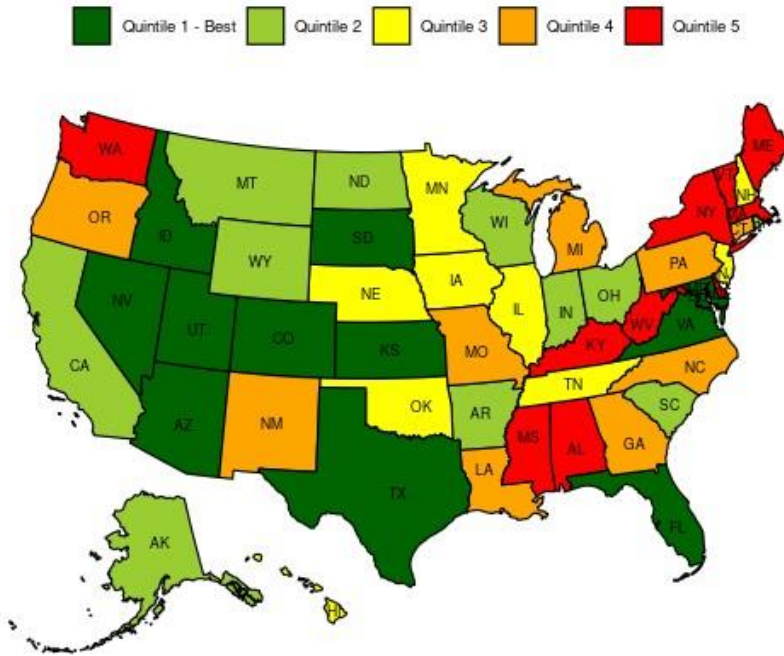
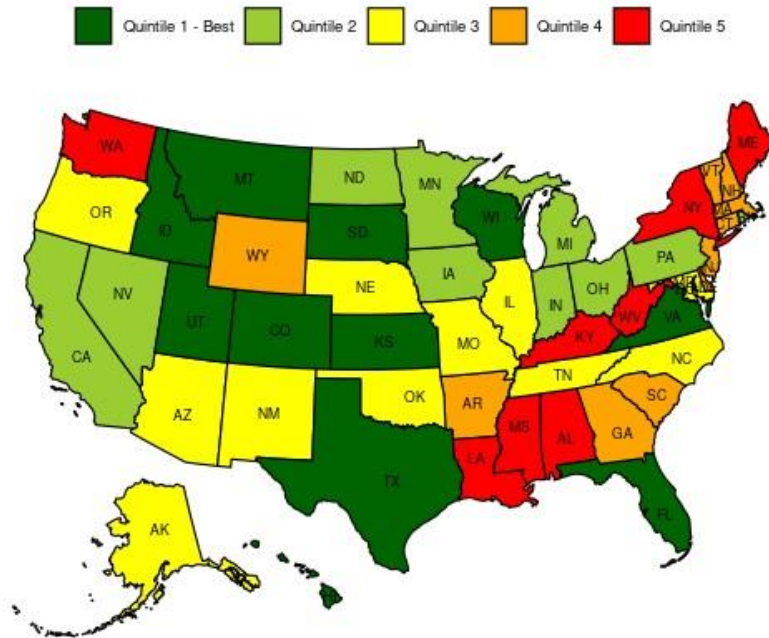


Figure 2 State-level Performance Comparisons, 2023 Study:



100 Top Hospitals® Two-year State-level Performance Comparisons

Table 10. Rank quintile performance comparisons for U.S. States by Region

Northeast		Midwest		South		West	
Current Study	Previous Study	Current Study	Previous Study	Current Study	Previous Study	Current Study	Previous Study
CT	CT	IL	IL	AL	AL	AK	AK
ME	ME	IN	IN	AR	AR	AZ	AZ
MA	MA	IA	IA	DE	DE	CA	CA
NH	NH	KS	KS	DC	DC	CO	CO
NJ	NJ	MI	MI	FL	FL	HI	HI
NY	NY	MN	MN	GA	GA	ID	ID
PA	PA	MO	MO	KY	KY	MT	MT
RI	RI	NE	NE	LA	LA	NV	NV
VT	VT	ND	ND	MD	MD	NM	NM
		OH	OH	MS	MS	OR	OR
		SD	SD	NC	NC	UT	UT
		WI	WI	OK	OK	WA	WA
				SC	SC	WY	WY
				TN	TN		
				TX	TX		
				VA	VA		
				WV	WV		



Performance Trends

In-study hospitals, regardless of award status, have only marginally improved across the entire balanced scorecard of performance measures.

- Notably, only three metrics – risk-adjusted severity-adjusted length of stay, adjusted inpatient expense per discharge, and HCAHPS – had fewer than 80 percent of in-study hospitals in the category of “no statistically significant change in performance.”

Table 11. Direction of Performance Change for All Hospitals in Study, 2018-2022

Performance measure	Significantly improving performance (95% CI)		No statistically significant change in performance (95% CI)		Significantly declining performance (95% CI)	
	Count of hospitals ¹	Percent of hospitals ²	Count of hospitals ¹	Percent of hospitals ²	Count of hospitals ¹	Percent of hospitals ²
Risk-Adjusted Inpatient Mortality Index	107	4.3%	2,183	87.3%	211	8.4%
Risk-Adjusted Complication Index	95	3.8%	2,106	84.2%	300	12.0%
Mean Healthcare-Associated Infection Index	96	5.5%	1,564	90.0%	78	4.5%
Mean 30-Day Mortality Rate	81	3.2%	2,055	82.2%	365	14.6%
30-Day Hospital-Wide Readmission Rate	253	10.1%	2,239	89.5%	9	0.4%
Severity-Adjusted Average Length of Stay	188	7.5%	1,894	75.7%	419	16.8%
Adjusted Inpatient Expense per Discharge	15	0.6%	1,417	56.9%	1057	42.5%
Medicare Spend Per Beneficiary	90	3.6%	2,286	91.4%	125	5.0%
Adjusted Operating Profit Margin	97	3.9%	2,246	89.9%	154	6.2%
HCAHPS Top-Box Percent	20	0.8%	1,938	77.5%	543	21.7%

1. Count refers to the number of in-study hospitals whose performance fell into the highlighted category on the measure. (Note: Total number of hospitals included in the analysis will vary by measure due to exclusion of IQR outlier data points. Inpatient Expense and Profit are affected. Some in-study hospitals had too few data points remaining to calculate trend.)

2. Percent is of total in-study hospitals across all peer groups.

Test Metrics: Reported for Information Only

Every year, the 100 Top Hospitals® Study is evaluated to determine if new measures would enhance the value of the analysis. For this Study, several performance measures were tested to update basic standards of inpatient care and expand the balanced scorecard across the continuum of care, including the 11 AHRQ patient safety indicator (PSI) measures from the CMS Care Compare data set, as well as an outpatient surgical unplanned revisit measure.

Patient Safety Indicators

Patient safety is an important measure of hospital quality. Patient safety measures are reflective of both clinical quality and the effectiveness of systems within the hospital setting. CMS publishes 10 individual potentially avoidable PSI measures as well as overall patient safety composite measure (PSI-90).¹¹

Unplanned Hospital Visits

The unplanned hospital readmission measure assesses the percent of unplanned visits to the hospital after outpatient surgery. CMS define this measure as ‘unplanned hospital visits within seven days of a same-day surgery at a hospital outpatient department.’ Unplanned visits can include inpatient admission directly after surgery, or emergency department, observation stay or inpatient admission within seven days of the surgical procedure. The population included in this measure is Medicare-fee-for-service patients aged 65 years and older.¹²

30-day Episode-of-Care Payment Measures

Risk-standardized payments associated with 30-day episode-of-care measures are included as leading measures within the study. These measures capture differences in services and supplies provided to patients who have been diagnosed with AMI, HF or pneumonia. According to the CMS definition of these measures, they are the sum of payments made for care and supplies starting the day the patient enters the hospital and for the next 30 days.¹³

Excess Days in Acute Care Measures

One of the more recent measure-sets available from CMS is the EDAC measures for AMI, HF and pneumonia. CMS defines “excess days” as the difference between a hospital’s average days in acute care and expected days, based on an average hospital nationally. Days in acute care include days spent in an ED, a hospital observation unit or a hospital inpatient unit for 30 days following a hospitalization.¹⁴

90-day Episode-of-Care Payment Measure

Another CMS measure reported in the 100 Top Hospitals® Study as a test metric is the 90-day episode-of-care payment metric for primary, elective THA/TKA. Like the other 30-day episode-of-care payment measures, CMS calculates risk-standardized payments associated with a 90-day episode of care, compared to an “average” hospital nationally. The measure summarizes payments for patients across multiple care settings, services and supplies during the 90-day period, which starts on the day of admission.¹³

90-day Complication Measure

Along with the THA/TKA 90-day payment, CMS publishes a THA/TKA 90-day complication measure.¹⁵ This measure calculates a risk-standardized complication rate for elective, primary THA/TKA procedures using the occurrence of one or more of the below complications within the specified timeframes:

- AMI, pneumonia, or sepsis / septicemia / shock during or within seven days of index admission.
- Surgical site bleeding, pulmonary embolism or death during or within 30 days of index admission.

- Mechanical complication or periprosthetic joint infection/wound infection during or within 90 days of index admission.

Findings for the test metrics listed above are provided in the following paragraphs.

Table 12 provides the median PSI values for Benchmark and peer hospitals across all comparison groups. Notable findings are:

- Benchmark hospitals outperformed peer hospitals on the majority of individual PSI measures as well as the composite measure for serious complications; PSI-08, the benchmark and peer hospitals performed at the same rate.

Table 12. PSI National Performance Comparisons (All Classes)

Performance measure	Benchmark median	Peer median	Benchmark compared with peer group		
			Difference	Percent difference	Comments
PSI-03 Pressure ulcer rate ^{1,2}	0.32	0.45	-0.1	n/a ⁴	Fewer patient safety incidents
PSI-06 Iatrogenic pneumothorax rate ^{1,2}	0.23	0.24	0.0	n/a ⁴	Fewer patient safety incidents
PSI-08 In-hospital fall with hip fracture rate ^{1,2}	0.09	0.09	0.0	n/a ⁴	Same patient safety incidents
PSI-09 Postoperative hemorrhage or hematoma rate ^{1,2}	2.31	2.46	-0.2	n/a ⁴	Fewer patient safety incidents
PSI-10 Postoperative acute kidney injury requiring dialysis rate ^{1,2}	1.49	1.53	0.0	n/a ⁴	Fewer patient safety incidents
PSI-11 Postoperative respiratory failure rate ^{1,2}	8.35	8.49	-0.1	n/a ⁴	Fewer patient safety incidents
PSI-12 Perioperative pulmonary embolism or deep vein thrombosis rate ^{1,2}	3.21	3.51	-0.3	n/a ⁴	Fewer patient safety incidents
PSI-13 Postoperative sepsis rate ^{1,2}	5.08	5.16	-0.1	n/a ⁴	Fewer patient safety incidents
PSI-14 Postoperative wound dehiscence rate ^{1,2}	1.88	1.93	-0.1	n/a ⁴	Fewer patient safety incidents
PSI-15 Abdominopelvic accidental puncture or laceration rate ^{1,2}	0.99	1.04	-0.1	n/a ⁴	Fewer patient safety incidents
PSI-90 Patient safety and adverse events composite ^{1,3}	0.90	0.97	-0.1	-7.2%	Fewer patient safety incidents

1. PSI measures from CMS Care Compare July 1, 2020 – June 30, 2022 data set.

2. PSI measures are rate values per 1000 discharges.

3. PSI measure is an index value.

4. A percentage difference is not calculated for these measures as they are already a percent value.

Table 13 shows the national performance of benchmark and peer hospitals on the additional test metrics. Key findings include:

- Benchmark hospitals performed better on all non-payment measures, however the peer group showed slightly better performance in all four episode of payment measures.

Table 13. Information only Measures National Performance Comparisons (All Classes)

Performance measure	Benchmark median	Peer median	Benchmark compared with peer group		
			Difference	Percent difference	Comments
AMI 30-Day Episode Payment ¹	\$27,671	\$27,411	\$260	0.9%	Higher episode cost
Heart Failure 30-Day Episode Payment ¹	\$18,810	\$18,687	\$123	0.7%	Higher episode cost
Pneumonia 30-Day Episode Payment ¹	\$20,619	\$20,260	\$359	1.8%	Higher episode cost
AMI 30-Day Excess Days in Acute Care ¹	2.20	5.20	-3.0	-57.7%	Fewer excess days
Heart Failure 30-Day Excess Days in Acute Care ¹	-3.15	6.00	-9.2	-152.5%	Fewer excess days
Pneumonia 30-Day Excess Days in Acute Care ¹	0.85	9.10	-8.3	-90.7%	Fewer excess days
THA/TKA 90-Day Episode Payment ²	\$21,089	\$20,956	\$132	0.6%	Higher episode cost
THA/TKA 90-Day Complications Rate ²	3.0	3.1	-0.1	n/a ⁴	Fewer complications
Ratio of Unplanned Hospital Visits after Outpatient Surgery ³	1.0	1.0	0.0	0.0%	Same visits

1. 30-day measures from CMS Care Compare July 1, 2019 – June 30, 2022 data set.

2. 90-day measures from CMS Care Compare April 1, 2019 – March 31, 2022 data set.

3. OP_36 measure from CMS Care Compare CY 2022.

4. A percentage difference is not calculated for these measures as they are already a percent value.

More About the 100 Top Hospitals® Program

The 100 Top Hospitals® Study is one of several studies of the PINC AI™ 100 Top Hospitals® program. Additional information regarding these studies, including lists of award recipients, can be found by visiting www.100tophospitals.com.

We Welcome Your Input

The 100 Top Hospitals® program is designed to evaluate hospitals across various facets in a way that is objective, transparent, and meaningful. The validity of the performance measures, program methods, and data sources is regularly assessed. Comments about our Study from health systems, hospitals, and physicians are welcomed. To submit comments, visit the Contact Us section of 100tophospitals.com.

About Premier, Inc.

Premier, Inc. (NASDAQ: PINC) is a leading healthcare improvement company, uniting an alliance of more than 4,350 U.S. hospitals and health systems and approximately 300,000 other providers and organizations to transform healthcare. With integrated data and analytics, collaboratives, supply chain solutions, and consulting and other services, Premier enables better care and outcomes at a lower cost. Premier plays a critical role in the rapidly evolving healthcare industry, collaborating with members to co-develop long-term innovations that reinvent and improve the way care is delivered to patients nationwide. Headquartered in Charlotte, N.C., Premier is passionate about transforming American healthcare. Please visit Premier's news and investor sites on www.premierinc.com; as well as [Twitter](#), [Facebook](#), [LinkedIn](#), [YouTube](#), [Instagram](#), and [Premier's blog](#) for more information about the company.

About the PINC AI™ Platform

[PINC AI™](#) is the technology and services platform of [Premier, Inc.](#) (NASDAQ: PINC). With more than 20 years' worth of cost, quality and operational data gleaned from 45 percent of U.S. hospital discharges, 2.7 billion hospital outpatient and clinic encounters and 177 million physician office visits, the PINC AI™ platform provides actionable intelligence to help improve outcomes, support improved financial performance and enable success in new, alternative payment models. PINC AI™ incorporates the 100 Top Hospitals® Program that inspires hospital and health system leaders to pursue higher performance and deliver added value to their patients and communities. PINC AI™ offerings rely on advanced analytics to identify improvement opportunities; support award-winning Strategic Collaboratives for value-based care, maternal and infant health, workforce innovation, and health equity; and consulting services for clinical and operational design, and workflow solutions to hardwire sustainable change. The PINC AI™ platform is also the data engine powering Premier's newest brands – Remitra® and Contigo Health®. With a leading network of provider organizations, the PINC AI™ platform accelerates ingenuity and serves as a large-scale innovation catalyst in healthcare. PINC AI™ offerings and capabilities can be followed on [Twitter](#) and [LinkedIn](#).

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