

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).
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 |

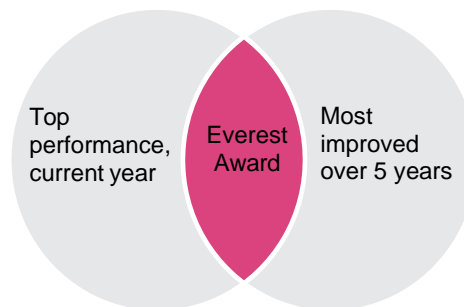
Everest Award

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 Outcome | 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 |

- 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).
 - HAI data from CMS Care Compare CY 2022 data set (excluding small community hospitals).
 - 30-day mortality rates from CMS Care Compare July 1, 2019 – June 30, 2022 data set.
 - 30-day hospital-wide readmission rates from CMS Care Compare July 1, 2021 - June 30, 2022 data set.
 - MSPB data from CMS Care Compare CY 2022 data set.
 - Inpatient expense and operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2022.
 - HCAHPS data from CMS Care Compare CY 2022 data set.
 - 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 Outcome | 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 Outcome | 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 Outcome | 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 Outcome | 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 Outcome | 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 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 two quintiles.

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.

Leading Measures

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 leading measure 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 leading measures 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 leading 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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