15 Top Health Systems™ Study
2024 Annual Report

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PINC AI™ 15 Top Health Systems™ Study, 2024; 16th edition

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Contents

Introduction

Welcome to the 16th edition of the 15 Top Health Systems™ study. This year's study from PINC AI™ marks another milestone in the 100 Top Hospitals® program's rich history: 16 years of publishing an annual quantitative study designed to shine a light on the nation's highest-performing health systems.

Our research of U.S. health system performance began with the same goal that has driven each study since the beginning of the 100 Top Hospitals® program: to identify top performers and deliver insights that may help healthcare systems better focus their improvement initiatives on achieving consistent, balanced and sustainable high performance.

Health systems do not apply for the 15 Top Health Systems™ selection process, and winners do not pay to market their honor.

Our national balanced scorecard, based on Norton and Kaplan's concept[1], is the foundation of our research. It is comprised of key measures of hospital performance: inpatient and extended care quality, operational efficiency and patient experience. The composite score derived from these measures reflects excellence in hospital care, management and leadership.

The 15 Top Health Systems™ scorecard results are divided into two separate sections that graphically illustrate:

– A health system's performance and improvement versus peer health systems.
– Cross-system performance alignment of system hospitals.

We have designed this study to provide a view of health system performance across multiple dimensions:

- How they stand compared to peers and high performers (whole-system performance).
- Where they stand in the evolution of their own cultures of performance improvement (relative long-term improvement and rate of improvement).
- The achievement of cross-system performance alignment (system hospital performance).

To maintain the 15 Top Health Systems™ study's integrity and avoid bias, only publicly available data sources and measures are included when determining system performance. This approach supports inclusion of systems across the country and facilitates consistency of definitions and data. The program and measure methodologies used to rank systems 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 systems, the study stratifies health systems into three groups: large health systems, medium health systems and small health systems.

In order to maintain the integrity of the study, a 15 Top Health Systems™ 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 15 Top Health Systems™ 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.

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Study Methodology

Datasets and Measures

Like the 100 Top Hospitals® studies, the 15 Top Health Systems™ study uses only publicly available data. The data for this study primarily came from:

- Medicare Provider Analysis and Review (MEDPAR) data set.
- Centers for Medicare & Medicaid Services (CMS) Care Compare data sets.

We use MEDPAR patient-level demographic, diagnosis and procedure information to calculate inpatient mortality, complications and length of stay (LOS) measures. The MEDPAR data set contains information on the approximately 15 million Medicare patients discharged annually from U.S. acute care hospitals.

Table 1 lists all measures included in 2024 15 Top Health Systems™ study by measure domain along with the respective data sources and time periods used to compute the measure results. The four domains of performance include clinical inpatient outcomes, extended outcomes, operational efficiency and patient experience.

Table 1: Summary of measure data sources and data periods

Measure Domain	Performance Metric (Data Source)	Current Data Time Periods	Trended Data Time Periods
Clinical Outcomes	Risk-Adjusted Inpatient Mortality Index (MEDPAR)	Federal Fiscal Year (FFY) 2021 and 2022[1]	FFY 2017-2022[1]
	Risk-Adjusted Complications Index (MEDPAR)	FFY 2021 and 2022[1]	FFY 2017-2022[1]
	Mean Healthcare-Associated Infection Index (CMS Care Compare)	Calendar Year (CY) 2022	CY 2018, 2019, 2021, 2022; July 1, 2019-Dec 31, 2020
Extended Outcomes	Mean 30-Day Mortality Rate: AMI, HF, Pneumonia, COPD, Stroke (CMS Care Compare)	July 1, 2019-June 30, 2022	Three-year datasets ending June 30 in 2018, 2019[2,3], 2021, 2022
	30-Day Hospital-Wide Readmission Rate (CMS Care Compare)	July 1, 2021-June 30, 2022	One-year data sets ending Jun 30 in 2018, 2019[2,3], 2021, 2022
Operational Efficiency	Severity-Adjusted Average Length of Stay (MEDPAR)	FFY 2022	FFY 2018-2022
	Medicare Spend per Beneficiary Index (CMS Care Compare)	CY 2022	CY 2018, 2019, 2021, 2022; July 1, 2020-Dec 31, 2020[4]
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[4]

[1]Two years of data are combined for each study year data point.

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

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

[4]For the 2020 study year, measure has only 6 months of data instead of 1 year due to CMS removal of Q1 and Q2 2020 data from measure data sets.

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Exclusions

Hospital Exclusions

After building the database, we exclude hospitals that would have skewed study results. Excluded from the study were:

- Specialty hospitals: children's, psychiatric, substance abuse, rehabilitation, cancer and long-term acute care.
- Federally owned hospitals.
- Non-U.S. hospitals (such as those in Puerto Rico, Guam, and the U.S. Virgin Islands).
- Hospitals with Medicare average LOS longer than 25 days in the current data year.
- Hospitals with no reported Medicare patient deaths in the current data year.
- Hospitals that had fewer than 60 percent of patient records with valid present on admission (POA) codes.

Cardiac, orthopedic, women's hospitals and critical access hospitals (CAH) are included in the study, if they are not excluded for any other criteria listed above.

In addition, specific patient records were also excluded:

- Patients who were discharged to another short-term facility (this is done 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.

After all exclusions were applied, 2778 individual hospitals were included in the 2024 study.

Health System Exclusions

Health systems are excluded from the study if:

- One or more required measures are missing.*
- Fewer than 50 percent of system hospitals have valid present on admission (POA) coding.
- Fewer than 50 percent of system hospitals have valid data for any one or more required measures.

A total of 386 systems were initially examined. After all system exclusions were applied, 355 individual health systems were included in the 2024 study.

*NOTE: CMS does not publish Medicare spend per beneficiary (MSPB) measures for Maryland hospitals due to a separate payment agreement. For this reason, we substituted the comparison group median, and winner-excluded Maryland health systems that had no reported MSPB measure to allow Maryland health systems to remain in the study. If a Maryland health system included hospitals in other states, we winner-excluded them when more than 50 percent of their hospitals had no reported MSPB measure.

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Identifying Health Systems

To be included in the study, a health system must have at least two short-term, general, acute care hospitals with separate Medicare provider identification numbers. The minimum of two hospitals must be met after hospital exclusions have been applied. In addition, we also include any cardiac, orthopedic, women's and CAHs that passed the hospital exclusion rules cited on the previous page. We use multiple data sources to identify health systems and their hospitals. The Medicare cost report is the primary data source. Other validation sources include Agency for Healthcare Research and Quality (AHRQ), Definitive Healthcare, American Hospital Association, and American Hospital Directory. We also refer to the health systems' websites and hospitals' websites to verify and validate inclusion in the 15 Top Health System™ study. Hospitals must be a part of the health system as of the 2022 data year or earlier, in order to be included in the system measure aggregation for this study year.

We identify health systems that have subsystems with their own reported home offices or related organization relationships or are clearly identified as a subsystem on their websites. Both the parent system and any identified subsystems are treated as "health systems" for purposes of this study and are independently profiled. Hospitals that belong to a parent health system and a subsystem are included in both for analysis of system performance.

To analyze health system performance, we aggregate data from all of a system's included hospitals. Specific details on measure aggregation and calculations can be found in the **100 Top Hospitals® Program Methodology Guide.**

After all exclusions were applied and systems identified, the final study group included 355 health systems with the profiles outlined in Table 2.

Table 2: Health Systems Study Group

System Category	Systems	System Hospitals	Medicare Patient Discharges	Average Hospitals per System	Average Discharges per System
Benchmark Systems	15	127	358,116	8.5	23,874
Peer Systems	340	3,189	10,489,066	9.4	30,850
TOTAL	355	3,316	10,847,182	9.3	30,555

Stratification

We refine the analysis of health systems by dividing them into three comparison groups based on several elements including: total operating expense of system hospitals, number of states system hospitals reside and number of short-term, general, acute care hospitals that make up the system. This is done to develop more action-driven benchmarks for like systems.

The classification rules for each comparison group are as follows:

Large health systems: A system was grouped into the large comparison group if any of the three conditions below were met:

1. $2.5 billion or more in total operating expenses of system hospitals.

2. $1.5 billion or more in total operating expenses of system hospitals AND system hospitals reside in three or more U.S. states.

3. $1.5 billion or less AND system owns five or more short-term, acute care, general hospitals.

Medium health systems: A system was grouped into the medium comparison group if either of the two conditions below were met:

1. $800 million or more in total operating expenses of system hospitals AND system owns five or more short-term, acute care, general hospitals.

2. $1 billion or more in total operating expenses of system hospitals.

Small health systems: A system was grouped into the small comparison group if it did not meet either of the large or medium health systems comparison group criteria.

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Scoring Method

Measure results were normalized and ranked within each health system comparison group. The ranked measures were further weighted and summed up at the system level to form the health system level *total score*. The systems with the best overall score in each comparison group were selected as the *PINC AI™ 15 Top Health Systems™* awardees.

Table 3 below shows the final number of in-study systems included in the study and the number of top performing (benchmark) health system awardees in each comparison groups.

Table 3: Study Population by Comparison Group

Comparison group	In-Study Systems	Benchmark Systems
Large Health System	173	5
Medium Health System	92	5
Small Health System	90	5
Total	355	15

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The 2024 PINC AI™ 15 Top Health Systems™

The PINC AI™ 100 Top Hospitals® program is pleased to present the 2024 15 Top Health Systems™.

Note: The order of health systems in the following tables does not reflect performance rating. Health systems are ordered alphabetically in each comparison group.

Table 4: Large Health Systems

Health System	Location
HCA Continental Division	Denver, CO
Houston Methodist	Houston, TX
Intermountain Health	Salt Lake City, UT
Mayo Clinic	Rochester, MN
Sutter Health	Sacramento, CA

Table 5: Medium Health Systems

Health System	Location
Ascension Sacred Heart Health System	Pensacola, FL
CHI Saint Joseph Health	Lexington, KY
HCA Mountain Division	Cottonwood Heights, UT
Munson Healthcare	Traverse City, MI
Saint Francis Health System	Tulsa, OK

Table 6: Small Health Systems

Health System	Location
Ascension St. Vincent's HealthCare	Jacksonville, FL
CHI Memorial	Chattanooga, TN
Franciscan Sisters of Christian Charity Sponsored Ministries	Manitowoc, WI
Olathe Health	Olathe, KS
ThedaCare	Appleton, WI

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2024 Study Findings

The PINC AI™ 15 Top Health Systems™ study profiles the top-performing health systems in the country. According to publicly available data and our transparent methodologies, these industry leaders appear to have successfully negotiated the fine line between running highly effective operations and being innovative and forward-thinking in ways that grow their organizations over the short and long term.

For 16 years, the 15 Top Health Systems™ study has followed the results achieved by leading health systems and published numerous examples of the benchmark systems' clinical and operational excellence. The study is more than a list of accomplishments; it is a tool that U.S. health system leaders can use to help guide their own performance improvement initiatives. By highlighting what the highest performing leaders around the country are doing well, we create aspirational benchmarks for the rest of the industry.

Understanding the similarities and differences between high and low performers can help provide benchmarks for the industry. Year after year, the public data we have gathered for the 100 Top Hospitals® studies has provided numerous examples of benchmark clinical and operational excellence and affirmed the validity and stability of this approach to performance measurement.

In this section, we show how the 15 Top Health Systems™ performed within their comparison groups (large, medium and small systems), compared to peers. In addition, we identify some key findings among comparison groups. For performance measure details and definitions of each comparison group, see the **Methodology Guide** document.

Using the measures presented in our national balanced scorecard, this year's 15 Top Health Systems™ study revealed significant differences between awardees and their peers.

Our study's highest performing health systems:

- Had lower inpatient mortality and fewer patient complications, considering patient severity.

- Delivered care that resulted in fewer healthcare-associated infections (HAIs).

- Had lower 30-day readmission rates.

- Sent patients home sooner.

- Kept episode-of-care expenses low, both in-hospital and through the aftercare process.

- Scored higher on patient ratings of their overall hospital experience.

Our study projections also indicate that if the benchmarks of performance established by this year's winners were achieved by all hospitals in the U.S., the following could be true:

- More than 220,00 additional lives could be saved in-hospital.
- Over 196,000 additional patients could be complication-free.
- Over 20 percent fewer infections could be acquired by hospital patients.
- The typical patient could be released from the hospital a half-day sooner and would have 2 percent fewer expenses related to the complete episode of care than the median patient in the U.S.

![PINC AI logo]

This analysis is based on applying the difference between study benchmarks and peers to Medicare patient counts. If the same standards were applied to all inpatients, the impact could be even greater.

Findings specific to each measure domain for all systems in the study are further listed below with Table 7 showing complete results following the key findings:

Inpatient Outcomes
- Benchmark health systems had a significantly lower inpatient mortality index of 0.86 compared to their peers with an index of 1.1, resulting in 21.3 percent fewer deaths than expected.
- When it comes to complications, benchmark health systems had a lower complications index of 0.93 compared to their peers with an index of 1.08, resulting in 13.8 percent fewer complications than expected.
- Benchmark health systems also had a lower HAI index of 0.6 compared to their peers with an index of 0.77, resulting in 21.3 percent fewer infections than expected.

Extended Outcomes
- Benchmark health systems surpassed their peers in both 30-day mortality rate and 30-day hospital-wide readmission rate, with differences of -0.6 and -0.77, respectively. This indicates that benchmark systems had lower mortality rates and fewer readmissions compared to their peer systems.

Operational Efficiency
- Patients at benchmark health systems experienced shorter stays and lower episode costs compared to peer health systems:
  - The average length of stay (ALOS) at benchmark health systems was 0.59 days shorter than at peer health systems.
  - Benchmark health systems had a 2.2 percent lower Medicare spend per beneficiary (MSPB) compared to peer health systems.

Patient Experience
- Benchmark health systems scored 3.19 percentage points higher on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Top-Box measure compared to peer health systems, indicating a better patient experience at these system hospitals.

![PINC AI logo]

Table 7: National Performance comparison (all in-study systems)

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index[1]	0.86	1.1	-0.23	-21.3%	***	Lower mortality
	Complications Index[1]	0.93	1.08	-0.15	-13.8%	***	Fewer complications
	HAI Index[2]	0.6	0.77	-0.16	-21.3%	***	Fewer infections
Extended Outcomes	30-Day Mortality Rate[3]	12.53	13.13	-0.6	n/a[7]	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate[4]	13.78	14.56	-0.77	n/a[7]	***	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay[1]	4.9	5.4	-0.5	-9.5%	***	Shorter stays
	Medicare Spend per Beneficiary[5]	0.97	0.99	-0.03	-2.7%	***	Lower episode cost
Patient Experience	HCAHPS Top-Box (%)[6]	73	67	6	n/a[7]	***	Better patient experience

[1]Inpatient mortality and complications based on Present on Admission (POA)-enabled risk models applied to data from MEDPAR Federal Fiscal Year (FFY) 2021 and 2022 (ALOS 2022 only).

[2]HAI data from CMS Care Compare Calendar Year (CY) 2022.

[3]30-day mortality rates from CMS Care Compare July 1, 2019-June 30, 2022.

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

[5]MSPB data from CMS Care Compare CY 2022.

[6]HCAHPS data from CMS Care Compare CY 2022.

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

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

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Large Health Systems

Benchmark large health systems outperformed their peers on all measures, most significantly in clinical and extended mortality measures with a lower inpatient mortality index (0.71 vs. 1.05), a 32 percent difference, and 30-day mortality rates being 1.41 percentage points lower (11.4 vs. 12.8).

Table 8: Performance comparison for Large Health Systems

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index[1]	0.71	1.05	-0.34	-32.2%	***	Lower mortality
	Complications Index[1]	0.95	1.08	-0.13	-11.8%	*	Fewer complications
	HAI Index[2]	0.7	0.76	-0.07	-8.8%	*	Fewer infections
Extended Outcomes	30-Day Mortality Rate[3]	11.4	12.8	-1.41	n/a[7]	***	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate[4]	13.6	14.6	-1.02	n/a[7]	***	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay[1]	5.2	5.7	-0.49	-8.5%	***	Shorter stays
	Medicare Spend per Beneficiary[5]	0.96	1.00	-0.03	-3.3%		Lower episode cost
Patient Experience	HCAHPS Top-Box (%)[6]	76.6	67.9	8.72	n/a[7]	***	Better patient experience

[1]Inpatient mortality and complications based on Present on Admission (POA)-enabled risk models applied to data from MEDPAR Federal Fiscal Year (FFY) 2021 and 2022 (ALOS 2022 only).

[2]HAI data from CMS Care Compare Calendar Year (CY) 2022.

[3]30-day mortality rates from CMS Care Compare July 1, 2019-June 30, 2022.

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

[5]MSPB data from CMS Care Compare CY 2022.

[6]HCAHPS data from CMS Care Compare CY 2022.

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

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

Medium Health Systems

Once again, benchmark health systems outperformed their peers in all measures showing significantly better performance in clinical outcomes and operational efficiency. A complications index difference of 18 percent (0.86 vs 1.05) and shorter ALOS, 5.1 vs. 5.7, respectively, suggests that benchmark medium health systems experienced fewer complications and facilitate shorter hospital stays for patients.

Table 9: Performance comparison for Medium Health Systems

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index[1]	0.76	1.00	-0.24	-23.7%	**	Lower mortality
	Complications Index[1]	0.86	1.05	-0.19	-18.0%	***	Fewer complications
	HAI Index[2]	0.66	0.74	-0.08	-10.6%	*	Fewer infections
Extended Outcomes	30-Day Mortality Rate[3]	12.3	13.2	-0.91	n/a[7]	*	Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate[4]	14.3	14.5	-0.29	n/a[7]		Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay[1]	5.1	5.7	-0.55	-9.6%	***	Shorter stays
	Medicare Spend per Beneficiary[5]	0.99	1.00	-0.01	-1.3%	*	Lower episode cost
Patient Experience	HCAHPS Top-Box (%)[6]	70.6	69.0	1.63	n/a[7]		Better patient experience

[1]Inpatient mortality and complications based on Present on Admission (POA)-enabled risk models applied to data from MEDPAR Federal Fiscal Year (FFY) 2021 and 2022 (ALOS 2022 only).

[2]HAI data from CMS Care Compare Calendar Year (CY) 2022.

[3]30-day mortality rates from CMS Care Compare July 1, 2019-June 30, 2022.

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

[5]MSPB data from CMS Care Compare CY 2022.

[6]HCAHPS data from CMS Care Compare CY 2022.

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

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

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Small Health Systems

The benchmark small health systems outperform their peers in all performance measures, but most significant was in operational efficiency, with an ALOS difference of one full day (1.03), suggesting that these benchmark systems are more efficient in managing patient stays and improving overall hospital operations compared to their peer counterparts.

Table 10: Performance comparison for Small Health Systems

Domain	Performance measure	Benchmark median	Peer median	Benchmark compared with peer group			
				Difference	Percent Difference	Statistical Significance	Comments
Clinical Outcomes	Inpatient Mortality Index[1]	0.77	1.02	-0.25	-24.8%	**	Lower mortality
	Complications Index[1]	0.91	1.03	-0.12	-11.2%		Fewer complications
	HAI Index[2]	0.49	0.84	-0.34	-41.0%	**	Fewer infections
Extended Outcomes	30-Day Mortality Rate[3]	13.0	13.6	-0.58	n/a[7]		Lower 30-day mortality
	30-Day Hosp-Wide Readmission Rate[4]	13.2	14.4	-1.17	n/a[7]	**	Fewer 30-day readmissions
Operational Efficiency	Average Length of Stay[1]	4.6	5.6	-1.03	-18.5%	***	Shorter stays
	Medicare Spend per Beneficiary[5]	0.97	1.01	-0.04	-4.1%	**	Lower episode cost
Patient Experience	HCAHPS Top-Box (%)[6]	69.2	65.1	4.04	n/a[7]	**	Better patient experience

[1]Inpatient mortality and complications based on Present on Admission (POA)-enabled risk models applied to data from MEDPAR Federal Fiscal Year (FFY) 2021 and 2022 (ALOS 2022 only).

[2]HAI data from CMS Care Compare Calendar Year (CY) 2022.

[3]30-day mortality rates from CMS Care Compare July 1, 2019-June 30, 2022.

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

[5]MSPB data from CMS Care Compare CY 2022.

[6]HCAHPS data from CMS Care Compare CY 2022.

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

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

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Benchmark Health Systems Results

In Table 11, we provide the 15 Top Health Systems'™ values for each of the study's performance measures. For a list of all hospitals included in each benchmark health system, see Appendix A.

Health System	Inpt Mort Index[1]	Comp Index[1]	HAI Index[2]	30-Day Mort Rate[3]	30-Day H-W Readm Rate[4]	ALOS[5]	MSPB[6]	HCAHPS Top-Box (%)[7]
Large Health Systems								
HCA Continental Division	0.63	0.53	0.59	11.4	13.6	5.5	1.01	69.4
Houston Methodist	0.48	0.92	0.71	10.5	14.6	5.2	1.03	77.5
Intermountain Health	0.92	0.95	0.7	12.5	12.9	4.2	0.95	76.6
Mayo Clinic	0.71	1.2	0.6	10.2	13.5	5.5	0.96	80.9
Sutter Health	0.89	0.98	0.7	12.6	13.8	5.2	0.96	68.9
Medium Health Systems								
Ascension Sacred Heart Health System	0.58	0.81	0.68	13.2	14.7	4.5	1	70.6
CHI Saint Joseph Health	0.74	0.86	0.17	12.3	14.5	5.1	0.98	64.9
HCA Mountain Division	0.76	0.43	0.54	12.9	13.9	4.9	0.99	69.2
Munson Healthcare	1.27	0.92	0.79	12.2	13.3	5.4	0.9	72.2
Saint Francis Health System	0.78	0.92	0.66	12.1	14.3	5.4	1.03	73.7
Small Health System								
Ascension St. Vincent's HealthCare	0.85	0.91	0.64	12.7	15.6	5.1	0.97	68.7
CHI Memorial	0.68	0.77	0.46	13.8	12.6	4.8	0.98	77.7
Franciscan Sisters of Christian Charity Sponsored Ministries	0.77	1.02	0.49	12.4	13.8	4.6	0.91	69.2
Olathe Health	1.08	0.69	0.49	13.0	13.2	4.5	1.01	71.5
ThedaCare	0.74	1.21	0.54	14.1	13.2	4.6	0.91	68.1

[1]Inpatient mortality and complications based on present on admission (POA)-enabled risk models applied to data from MEDPAR Federal Fiscal Year (FFY) 2021 and 2022.

[2]HAI data from CMS Care Compare Calendar Year (CY) 2022.

[3]30-Day mortality rates from CMS Care Compare July 1, 2019-June 30, 2022.

[4]30-Day hospital-wide readmission rates from CMS Care Compare July 1, 2021-June 30, 2022.

[5]ALOS based on present on admission (POA)-enabled risk models applied to data from MEDPAR FFY 2022.

[6]MSPB data from CMS Care Compare CY 2022.

[7]HCAHPS data from CMS Care Compare CY 2022.

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Leading Measures

Every year, we evaluate the 15 Top Health Systems™ study results and explore whether new measures would enhance the value of the analysis we provide.

We continue to test the following performance measures that we believe reflect updated standards of care and expand the balanced scorecard across the continuum of care. These metrics are:

Patient Safety Indicators
Patient safety has become an increasingly 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 in the Care Compare data set ten (10) individual patient safety indicator (PSI) measures and one overall score that represents serious complications that were potentially avoidable.

Unplanned Hospital Revisits
This measures the number of unplanned visits to the hospital after outpatient surgery. It is an outcome measure that CMS defines 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.

30-day Episode-of-Care Payment Measures
We are continuing to publish risk-standardized payments associated with 30-day episode-of-care measures for three patient groups that are now being published by CMS in the Care Compare data set. 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.

Excess Days in Acute Care Measures
Another set of measures available from CMS in the Care Compare data set are the excess days in acute care (EDAC) measures for acute myocardial infarction (AMI), heart failure (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 emergency department (ED), a hospital observation unit or a hospital inpatient unit for 30 days following a hospitalization.

90-day Episode-of-Care Payment Measure
Another measure from the Care Compare data set is the 90-day episode-of-care payment metric for primary, elective total hip arthroplasty and total knee arthroplasty (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.

90-day Complication Measure

We continue to publish the THA/TKA 90-day complication measure from CMS. This measure calculates a risk-standardized complication rate for THA/TKA procedures using the occurrence of one or more of the subsequent 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.

Tables 12 and 13 show the national performance of benchmark and peer health systems on the test metrics.

Table 3: Information only Measures National Performance Comparison (All Classes)

Performance Measure	Benchmark median	Peer median	Difference	Percent difference	Comments
AMI 30-Day Episode Payment[1]	$26,819	$27,652	-$833	-3.0%	Lower episode cost
Heart Failure 30-Day Episode Payment[1]	$18,796	$18,896	-$101	-0.5%	Lower episode cost
Pneumonia 30-Day Episode Payment[1]	$20,232	$20,493	-$261	-1.3%	Lower episode cost
AMI 30-Day Excess Days in Acute Care[1]	-9.1	6.6	-15.7	-238.6%	Fewer excess days
Heart Failure 30-Day Excess Days in Acute Care[1]	-8.6	8.9	-17.4	-197.0%	Fewer excess days
Pneumonia 30-Day Excess Days in Acute Care[1]	4.1	12.9	-8.76	-68.2%	Fewer excess days
THA/TKA 90-Day Episode Payment[2]	$20,567	$20,657	-$89	-0.4%	Lower episode cost
THA/TKA 90-Day Complications Rate[2]	3.0	3.1	-0.1	n/a[3]	Fewer complications
Ratio of Unplanned Hospital Visits after Outpatient Surgery[4]	0.9	1.0	-0.1	-8.4%	Fewer visits

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

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

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

[4]OP_36 measure from CMS Care Compare CY 2022.

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Table 4: PSI National Performance Comparison (All Classes)

Performance Measure	Benchmark median	Peer median	Difference	Percent difference	Comments
PSI-03 Pressure ulcer rate[1,2]	0.38	0.53	-0.16	n/a[4]	Fewer patient safety incidents
PSI-06 Iatrogenic pneumothorax rate[1,2]	0.25	0.24	0.01	n/a[4]	More patient safety incidents
PSI-08 In-hospital fall with hip fracture rate[1,2]	0.09	0.09	0	n/a[4]	Same patient safety incidents
PSI-09 Postoperative hemorrhage or hematoma rate[1,2]	2.39	2.53	-0.14	n/a[4]	Fewer patient safety incidents
PSI-10 Postoperative acute kidney injury requiring dialysis rate[1,2]	1.42	1.57	-0.15	n/a[4]	Fewer patient safety incidents
PSI-11 Postoperative respiratory failure rate[1,2]	8.03	9.14	-1.11	n/a[4]	Fewer patient safety incidents
PSI-12 Perioperative pulmonary embolism or deep vein thrombosis rate[1,2]	3.08	3.61	-0.53	n/a[4]	Fewer patient safety incidents
PSI-13 Postoperative sepsis rate[1,2]	4.78	5.27	-0.5	n/a[4]	Fewer patient safety incidents
PSI-14 Postoperative wound dehiscence rate[1,2]	1.81	2	-0.19	n/a[4]	Fewer patient safety incidents
PSI-15 Abdominopelvic accidental puncture or laceration rate[1,2]	1.03	1.06	-0.04	n/a[4]	Fewer patient safety incidents
PSI-90 Patient safety and adverse events composite[1,3]	0.91	1.01	-0.1	-9.90%	Fewer patient safety incidents

[1]PSI measures are rate values per 1000 discharges.

[2]PSI measures from CMS Care Compare July 1, 2020 – June 30, 2022.

[3]PSI measure in an index value.

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

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Health System Consistency

Overview

New this year, we are introducing the Health System Consistency metric for informational purposes. The consistency measure is defined within this study as the intersection of system hospital-level performance and within-system hospital variation.

This metric is designed to identify systems that not only perform well overall, but also exhibit consistent performance across facilities within their health system. With consistency taken into consideration, a health system whereby favorable performance is achieved through a set of high-performing facilities, offsetting suboptimal performance of one or more smaller hospitals, is distinguished from a system having equivalent overall performance, but with minimal variation in hospital performance.

Methodology

System hospital performance and variation are normalized using z-scores and plotted as x and y axes on a coordinate plane. As shown in Figure 1, the consistency score is calculated as the Euclidean distance between the profiled system point and the theoretical perfect point, whereby a system has a perfect overall score and zero variation across facilities.

Figure 1: Consistency Score Plot Showing the Intersection Between System Performance and Variation
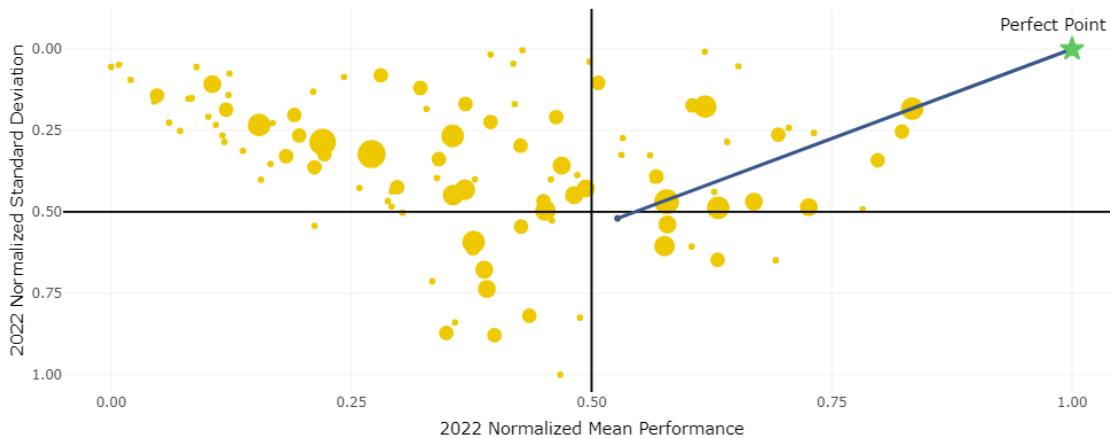
The system consistency scores are based on the normalized variation and performance of the profiled system hospitals as compared to their system peer group in the current data year only, 2022. Higher consistency scores identify systems that have favorable overall measure performance, illustrated by the normalized mean performance (x-axis), while the y-axis represents the variation between the facilities, with lower variation identifying systems with the best consistency between their hospitals. The size of yellow points on the graph represents the size of the system (number of facilities) within that comparison group. The profiled system is in blue, with no correlation to the size of the system.

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Appendix A: Health System Benchmarks and Their Hospitals

Health System / Hospital Name	Location	Hosp CCN
Ascension Sacred Heart Health System - Pensacola, FL		
Ascension Sacred Heart Emerald Coast	Miramar Beach, FL	100292
Ascension Sacred Heart Gulf	Port St Joe, FL	100313
Ascension Sacred Heart Pensacola	Pensacola, FL	100025
Ascension St. Vincent's HealthCare - Jacksonville, FL		
Ascension St. Vincent's Clay County	Middleburg, FL	100321
Ascension St. Vincent's Riverside	Jacksonville, FL	100040
Ascension St. Vincent's Southside	Jacksonville, FL	100307
CHI Memorial - Chattanooga, TN		
CHI Memorial	Chattanooga, TN	440091
CHI Memorial Hospital - Georgia	Fort Oglethorpe, GA	110236
CHI Saint Joseph Health - Lexington, KY		
CHI Saint Joseph Health	Lexington, KY	180010
CHI Saint Joseph Health - Flaget Memorial Hospital	Bardstown, KY	180025
CHI Saint Joseph Health - Saint Joseph Berea	Berea, KY	181329
CHI Saint Joseph Health - Saint Joseph East	Lexington, KY	180143
CHI Saint Joseph Health - Saint Joseph London	London, KY	180011
CHI Saint Joseph Health - Saint Joseph Mount Sterling	Mount Sterling, KY	180064
Franciscan Sisters of Christian Charity Sponsored Ministries - Manitowoc, WI		
Franciscan Healthcare	West Point, NE	281322
Genesis Hospital	Zanesville, OH	360039
Holy Family Memorial	Manitowoc, WI	520107
HCA Continental Division - Denver, CO		
North Suburban Medical Center	Thornton, CO	60065
Presbyterian/St. Luke's Medical Center	Denver, CO	60014
Rose Medical Center	Denver, CO	60032
Sky Ridge Medical Center	Lone Tree, CO	60112
Swedish Medical Center	Englewood, CO	60034
The Medical Center of Aurora	Aurora, CO	60100
Wesley Medical Center	Wichita, KS	170123
HCA Mountain Division - Cottonwood Heights, UT		
Alaska Regional Hospital	Anchorage, AK	20017
Brigham City Community Hospital	Brigham City, UT	460017
Cache Valley Hospital	North Logan, UT	460054

Health System / Hospital Name	Location	Hosp CCN
Eastern Idaho Regional Medical Center	Idaho Falls, ID	130018
Lakeview Hospital	Bountiful, UT	460042
Lone Peak Hospital	Draper, UT	460060
Mountain View Hospital	Payson, UT	460013
Ogden Regional Medical Center	Ogden, UT	460005
St. Mark's Hospital	Salt Lake City, UT	460047
Timpanogos Regional Hospital	Orem, UT	460052
West Valley Medical Center	Caldwell, ID	130014
Houston Methodist - Houston, TX		
Houston Methodist Baytown Hospital	Baytown, TX	450424
Houston Methodist Clear Lake Hospital	Nassau Bay, TX	450709
Houston Methodist Hospital	Houston, TX	450358
Houston Methodist Sugar Land Hospital	Sugar Land, TX	450820
Houston Methodist The Woodlands Hospital	The Woodlands, TX	670122
Houston Methodist West Hospital	Houston, TX	670077
Houston Methodist Willowbrook Hospital	Houston, TX	450844
Intermountain Health - Salt Lake City, UT		
Alta View Hospital	Sandy, UT	460044
American Fork Hospital	American Fork, UT	460023
Bear River Valley Hospital	Tremonton, UT	460039
Cassia Regional Hospital	Burley, ID	131326
Cedar City Hospital	Cedar City, UT	460007
Delta Community Medical Center	Delta, UT	461300
Fillmore Community Hospital	Fillmore, UT	461301
Heber Valley Hospital	Heber City, UT	461307
Intermountain Medical Center	Murray, UT	460010
Intermountain Spanish Fork Hospital	Spanish Fork, UT	460062
LDS Hospital	Salt Lake City, UT	460006
Layton Hospital	Layton, UT	460061
Logan Regional Hospital	Logan, UT	460015
McKay-Dee Hospital	Ogden, UT	460004
Park City Hospital	Park City, UT	460057
Riverton Hospital	Riverton, UT	460058
Sanpete Valley Hospital	Mount Pleasant, UT	461303
Sevier Valley Hospital	Richfield, UT	460026
St. George Regional Hospital	St George, UT	460021
The Orthopedic Specialty Hospital	Murray, UT	460049

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Health System / Hospital Name	Location	Hosp CCN
Utah Valley Hospital	Provo, UT	460001
Mayo Clinic - Rochester, MN		
Mayo Clinic Health System - Albert Lea and Austin	Albert Lea, MN	240043
Mayo Clinic Health System - Chippewa Valley in Bloomer	Bloomer, WI	521314
Mayo Clinic Health System - Franciscan Healthcare La Crosse	La Crosse, WI	520004
Mayo Clinic Health System - Franciscan Healthcare in Sparta	Sparta, WI	521305
Mayo Clinic Health System - Northland in Barron	Barron, WI	521315
Mayo Clinic Health System - Oakridge in Osseo	Osseo, WI	521302
Mayo Clinic Health System - Red Cedar in Menomonie	Menomonie, WI	521340
Mayo Clinic Health System in Cannon Falls	Cannon Falls, MN	241346
Mayo Clinic Health System in Eau Claire	Eau Claire, WI	520070
Mayo Clinic Health System in Fairmont	Fairmont, MN	240166
Mayo Clinic Health System in Lake City	Lake City, MN	241338
Mayo Clinic Health System in Mankato	Mankato, MN	240093
Mayo Clinic Health System in New Prague	New Prague, MN	241361
Mayo Clinic Health System in Red Wing	Red Wing, MN	240018
Mayo Clinic Health System in Saint James	Saint James, MN	241333
Mayo Clinic Health System in Waseca	Waseca, MN	241345
Mayo Clinic Hospital - Phoenix	Phoenix, AZ	030103
Mayo Clinic in Florida	Jacksonville, FL	100151
Mayo Clinic in Rochester	Rochester, MN	240010
Munson Healthcare - Traverse City, MI		
Kalkaska Memorial Health Center	Kalkaska, MI	231301
Munson Healthcare Cadillac Hospital	Cadillac, MI	230081
Munson Healthcare Charlevoix Hospital	Charlevoix, MI	231322
Munson Healthcare Grayling Hospital	Grayling, MI	230058
Munson Healthcare Manistee Hospital	Manistee, MI	230303
Munson Healthcare Otsego Memorial Hospital	Gaylord, MI	230133
Munson Healthcare Paul Oliver Memorial Hospital	Frankfort, MI	231300
Munson Medical Center	Traverse City, MI	230097
Olathe Health - Olathe, KS		
Miami County Medical Center	Paola, KS	170109
Olathe Medical Center	Olathe, KS	170049
Saint Francis Health System - Tulsa, OK		
Saint Francis Hospital	Tulsa, OK	370091
Saint Francis Hospital Muskogee	Muskogee, OK	370025
Saint Francis Hospital South	Tulsa, OK	370218

Health System / Hospital Name	Location	Hosp CCN
Saint Francis Hospital Vinita	Vinita, OK	370237
Sutter Health - Sacramento, CA		
Alta Bates Summit Medical Center - Summit Campus	Oakland, CA	50043
Alta Bates Summit Medical Center-Alta Bates Campus	Berkeley, CA	50305
California Pacific Medical Center	San Francisco, CA	50047
California Pacific Medical Center-Davies Campus	San Francisco, CA	50008
California Pacific Medical Center-Mission Bernal Campus	San Francisco, CA	50055
Eden Medical Center	Castro Valley, CA	50488
Memorial Hospital Los Banos	Los Banos, CA	50528
Memorial Medical Center	Modesto, CA	50557
Mills-Peninsula Health Services	Burlingame, CA	50007
Novato Community Hospital	Novato, CA	50131
Stanislaus Surgical Hospital	Modesto, CA	50726
Sutter Amador Hospital	Jackson, CA	50014
Sutter Auburn Faith Hospital	Auburn, CA	50498
Sutter Coast Hospital	Crescent City, CA	50417
Sutter Davis Hospital	Davis, CA	50537
Sutter Delta Medical Center	Antioch, CA	50523
Sutter Lakeside Hospital	Lakeport, CA	51329
Sutter Maternity and Surgery Center of Santa Cruz	Santa Cruz, CA	50714
Sutter Medical Center, Sacramento	Sacramento, CA	50108
Sutter Roseville Medical Center	Roseville, CA	50309
Sutter Santa Rosa Regional Hospital	Santa Rosa, CA	50291
Sutter Solano Medical Center	Vallejo, CA	50101
Sutter Surgical Hospital - North Valley	Yuba City, CA	50766
Sutter Tracy Community Hospital	Tracy, CA	50313
ThedaCare - Appleton, WI		
Theda Care Medical Center - Wild Rose	Wild Rose, WI	521303
ThedaCare Medical Center-Berlin	Berlin, WI	521355
ThedaCare Medical Center-New London	New London, WI	521326
ThedaCare Medical Center-Shawano	Shawano, WI	521346
ThedaCare Medical Center-Waupaca	Waupaca, WI	521334
ThedaCare Regional Medical Center-Appleton	Appleton, WI	520160
ThedaCare Regional Medical Center-Neenah	Neenah, WI	520045

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Appendix B: All Health Systems in Study

Health System Name	Location
Abrazo Health	Phoenix, AZ
AdventHealth	Altamonte Springs, FL
Adventist Health	Roseville, CA
Adventist HealthCare	Gaithersburg, MD
Adventist Health Central Valley Network	Hanford, CA
Advocate Aurora Health	Milwaukee, WI
Advocate Health	Charlotte, NC
AHMC Healthcare	Alhambra, CA
Alameda Health System	Alameda, CA
Albany Med Health System	Albany, NY
Allegheny Health Network	Pittsburgh, PA
AllianceHealth	Clinton, OK
Allina Health	Minneapolis, MN
Alta Hospitals System	Los Angeles, CA
Appalachian Regional Healthcare (ARH)	Lexington, KY
Ardent Health Services	Nashville, TN
Asante	Medford, OR
Ascension Health	St. Louis, MO
Ascension Illinois	Chicago, IL
Ascension Michigan	Warren, MI
Ascension Sacred Heart Health System	**Pensacola, FL**
Ascension St. Vincent's HealthCare	**Jacksonville, FL**
Ascension Wisconsin	Glendale, WI
Aspirus Health	Wausau, WI
Atlantic Health System	Morristown, NJ
Atrium Health	Charlotte, NC
Aultman Health Foundation	Canton, OH
Avera Health	Sioux Falls, SD
Ballad Health	Johnson City, TN
Banner Health	Phoenix, AZ
Baptist Health	Montgomery, AL
Baptist Health (AR)	Little Rock, AR
Baptist Health Care (FL)	Pensacola, FL
Baptist Health (KY)	Louisville, KY
Baptist Health of Northeast Florida	Jacksonville, FL
Baptist Health South Florida	Coral Gables, FL

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Health System Name	Location
Baptist Health System - San Antonio TX	San Antonio, TX
Baptist Memorial Health Care Corp	Memphis, TN
Bassett Healthcare	Cooperstown, NY
BayCare Health System	Clearwater, FL
Bayhealth	Dover, DE
Baylor Scott & White Health	Dallas, TX
Baystate Health	Springfield, MA
Beacon Health System	South Bend, IN
Beth Israel Deaconess Lahey Health	Cambridge, MA
BJC HealthCare	St. Louis, MO
Bon Secours	Marriottsville, MD
Bon Secours Mercy Health	Cincinnati, OH
Bronson Healthcare	Kalamazoo, MI
Brookwood Baptist Health	Birmingham, AL
Broward Health	Fort Lauderdale, FL
Bryan Health	Lincoln, NE
Butler Health System	Butler, PA
Cape Cod Healthcare	Hyannis, MA
Cape Fear Valley Health System	Fayetteville, NC
Capital Health System	Trenton, NJ
Capital Region Health Care	Concord, NH
CarePoint Health	Bayonne, NJ
Carilion Clinic	Roanoke, VA
Carle Health System	Urbana, IL
Carondelet Health Network	Tucson, AZ
Catholic Health	Buffalo, NY
Catholic Health Services of Long Island	Rockville Centre, NY
CentraCare	St. Cloud, MN
Centra Health	Lynchburg, VA
Centura Health	Englewood, CO
CHI Health	Omaha, NE
CHI Memorial	**Chattanooga, TN**
CHI Saint Joseph Health	**Lexington, KY**
CHI St Luke's Health	Houston, TX
CHI St. Vincent	Little Rock, AR
ChristianaCare	Wilmington, DE
CHRISTUS Health	Irving, TX

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Health System Name	Location
CHRISTUS Spohn Health System	Corpus Christi, TX
CHRISTUS Trinity Mother Frances Health System	Tyler, TX
Cleveland Clinic	Cleveland, OH
CommonSpirit Health	Chicago, IL
Commonwealth Health	Wilkes Barre, PA
Community Healthcare System	Munster, IN
Community Health Network	Indianapolis, IN
Community Health Systems	Franklin, TN
Community Hospital Corporation	Plano, TX
Community Medical Centers	Fresno, CA
Cone Health	Greensboro, NC
Conemaugh Health System	Johnstown, PA
Corewell Health	Grand Rapids, MI
Covenant Health	Knoxville, TN
Covenant Health (MA)	Tewksbury, MA
Covenant Health (TX)	Lubbock, TX
CoxHealth	Springfield, MO
Crozer-Keystone Health System	Springfield, PA
Dartmouth Hitchcock Health	Lebanon, NH
DCH Health System	Tuscaloosa, AL
Deaconess Health System	Evansville, IN
Detroit Medical Center	Detroit, MI
Dignity Health	San Francisco, CA
Duke Health	Durham, NC
Duke LifePoint Healthcare	Brentwood, TN
ECU Health	Greenville, NC
Emanate Health	Covina, CA
Emory Healthcare	Atlanta, GA
Endeavor Health	Evanston, IL
Essentia Health	Duluth, MN
Excela Health	Greensburg, PA
Forrest Health	Hattiesburg, MS
Franciscan Health	Mishawaka, IN
Franciscan Missionaries of Our Lady Health System	Baton Rouge, LA
Franciscan Sisters of Christian Charity Sponsored Ministries	**Manitowoc, WI**
Froedtert & the Medical College of Wisconsin	Milwaukee, WI
Garnet Health	Middletown, NY

Health System Name	Location
Geisinger Health System	Danville, PA
Genesis Health System	Davenport, IA
Guthrie Healthcare System	Sayre, PA
Hackensack Meridian Health	Neptune, NJ
Hartford HealthCare	Hartford, CT
Hawaii Pacific Health	Honolulu, HI
HCA Capital Division	Richmond, VA
HCA Central and West Texas Division	Austin, TX
HCA Continental Division	**Denver, CO**
HCA East Florida Division	Ft. Lauderdale, FL
HCA Far West Division	Las Vegas, NV
HCA Gulf Coast Division	Houston, TX
HCA Healthcare	Nashville, TN
HCA Medical City Healthcare	Dallas, TX
HCA MidAmerica	Kansas City, MO
HCA Mountain Division	**Cottonwood Heights, UT**
HCA North Florida Division	Tallahassee, FL
HCA San Antonio Division	San Antonio, TX
HCA South Atlantic Division	Charleston, SC
HCA Tristar Division	Nashville, TN
HCA West Florida Division	Tampa, FL
Health First	Rockledge, FL
HealthPartners	Bloomington, MN
Hendrick Health	Abilene, TX
Henry Ford Health System	Detroit, MI
Heritage Valley Health System	Beaver, PA
Hillcrest HealthCare System	Tulsa, OK
Holy Cross Health	Silver Spring, MD
HonorHealth	Scottsdale, AZ
Hospital Sisters Health System	Springfield, IL
Houston Healthcare	Warner Robins, GA
Houston Methodist	**Houston, TX**
Huntsville Hospital Health System	Huntsville, AL
Indiana University Health	Indianapolis, IN
Infirmary Health Systems	Mobile, AL
Inova Health System	Falls Church, VA
Inspira Health Network	Vineland, NJ

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Health System Name	Location
Integris Health	Oklahoma City, OK
Intermountain Health	**Salt Lake City, UT**
Jefferson Health	Philadelphia, PA
John Muir Health	Walnut Creek, CA
Johns Hopkins Health System	Baltimore, MD
Kaleida Health	Buffalo, NY
Keck Medicine of USC	Los Angeles, CA
Kettering Health Network	Dayton, OH
KPC Healthcare, Inc.	Santa Ana, CA
LCMC Health	New Orleans, LA
Lee Memorial Health System	Fort Myers, FL
Legacy Health	Portland, OR
Lehigh Valley Health Network	Allentown, PA
LifeBridge Health	Baltimore, MD
LifePoint Health	Brentwood, TN
Lifespan	Providence, RI
Loma Linda University Health	Loma Linda, CA
Los Angeles County-Department of Health Services	Los Angeles, CA
Lovelace Health System	Albuquerque, NM
Loyola Medicine	Maywood, IL
Luminis Health	Annapolis, MD
Lutheran Health Network	Fort Wayne, IN
MaineHealth	Portland, ME
Main Line Health	Bryn Mawr, PA
Manatee Healthcare Services	Bradenton, FL
Marshfield Clinic Health System	Marshfield, WI
Mary Washington Healthcare	Fredericksburg, VA
Mass General Brigham	Boston, MA
Maury Regional Health	Columbia, TN
Mayo Clinic	**Rochester, MN**
McLaren Health Care Corp	Grand Blanc, MI
McLeod Health	Florence, SC
Med Center Health	Bowling Green, KY
MediSys Health Network	Jamaica, NY
MedStar Health	Columbia, MD
MemorialCare Health System	Fountain Valley, CA
Memorial Health	Springfield, IL

Health System Name	Location
Memorial Healthcare System	Hollywood, FL
Memorial Hermann Health System	Houston, TX
Mercy	Chesterfield, MO
Mercyhealth	Janesville, WI
Mercy Health	Youngstown, OH
MercyOne	Des Moines, IA
Merit Health	Franklin, TN
Methodist Healthcare	Memphis, TN
Methodist Health System (TX)	Dallas, TX
M Health Fairview	Minneapolis, MN
Michigan Medicine	Ann Arbor, MI
Mission Health	Asheville, NC
Mohawk Valley Health System	Utica, NY
Mon Health	Morgantown, WV
Montefiore Health System	Bronx, NY
Monument Health	Rapid City, SD
Mosaic Life Care	St. Joseph, MO
Mountain Health Network	Huntington, WV
Mount Carmel Health System	Columbus, OH
Mount Sinai Health System	New York, NY
MultiCare Health System	Tacoma, WA
Munson Healthcare	**Traverse City, MI**
MUSC Health	Charleston, SC
MyMichigan Health	Midland, MI
Nebraska Medicine	Omaha, NE
Nebraska Methodist Health System	Omaha, NE
New York-Presbyterian Healthcare System	New York, NY
Northeast Georgia Health System	Gainesville, GA
Northern Arizona Healthcare	Flagstaff, AZ
Northern Light Health	Brewer, ME
North Memorial Health	Robbinsdale, MN
North Mississippi Health Services	Tupelo, MS
Northside Hospital System	Atlanta, GA
Northwell Health	New Hyde Park, NY
Northwestern Medicine	Chicago, IL
Northwest Health	Valparaiso, IN
Norton Healthcare	Louisville, KY

Health System Name	Location
Novant Health	Winston Salem, NC
Nuvance Health	Danbury, CT
NYC Health and Hospitals	New York, NY
Ochsner Health System	New Orleans, LA
Ochsner LSU Health	Shreveport, LA
OhioHealth	Columbus, OH
Olathe Health	**Olathe, KS**
Orlando Health	Orlando, FL
OSF HealthCare	Peoria, IL
Owensboro Health	Owensboro, KY
Palomar Health	Escondido, CA
Parkview Health	Fort Wayne, IN
PeaceHealth	Vancouver, WA
Penn Highlands Healthcare	DuBois, PA
Penn Medicine	Philadelphia, PA
Penn State Health	Hershey, PA
Phoebe Putney Health System	Albany, GA
Physicians for Healthy Hospitals	Hemet, CA
Piedmont Healthcare	Atlanta, GA
PIH Health	Whittier, CA
Pipeline Health	El Segundo, CA
Premier Health	Dayton, OH
Presbyterian Healthcare Services	Albuquerque, NM
Prime Healthcare Services	Ontario, CA
Prisma Health	Greenville, SC
ProHealth Care	Waukesha, WI
ProMedica Health System	Toledo, OH
Providence St. Joseph Health	Renton, WA
Quorum Health Corporation	Brentwood, TN
Renown Health	Reno, NV
Resilience Healthcare	Chicago, IL
Riverside Heath System	Newport News, VA
Rochester Regional Health	Rochester, NY
Roper St. Francis Healthcare	Charleston, SC
Rush University System for Health	Chicago, IL
RWJBarnabas Health	West Orange, NJ
Saint Alphonsus Health System	Boise, ID

Health System Name	Location
Saint Francis Health System	**Tulsa, OK**
Saint Joseph Health System	Mishawaka, IN
Saint Luke's Health System	Kansas City, MO
Saint Thomas Health	Nashville, TN
Samaritan Health Services	Corvallis, OR
Sanford Health	Sioux Falls, SD
ScionHealth	Louisville, KY
SCL Health	Denver, CO
Scripps Health	San Diego, CA
Sentara Healthcare	Norfolk, VA
Seton Healthcare Family	Austin, TX
Sharp HealthCare	San Diego, CA
Sinai Health System	Chicago, IL
Singing River Health System	Pascagoula, MS
Skagit Regional Health	Mount Vernon, WA
SolutionHealth	Bedford, NH
Southeast Georgia Health System	Brunswick, GA
SoutheastHEALTH	Cape Girardeau, MO
Southern Illinois Healthcare	Carbondale, IL
Sparrow Health System	Lansing, MI
Spartanburg Regional Healthcare System	Spartanburg, SC
SSM Health	St. Louis, MO
Stanford Health Care	Stanford, CA
St Bernards Healthcare	Jonesboro, AR
St. Elizabeth Healthcare	Edgewood, KY
Steward Health Care System	Boston, MA
St. John Health System	Tulsa, OK
St. Joseph/Candler Health System	Savannah, GA
St Lawrence Health System	Potsdam, NY
St. Luke's Health System	Boise, ID
St. Luke's University Health Network	Bethlehem, PA
St. Mary's Health Care System	Athens, GA
St. Peters Health Partners	Albany, NY
St. Vincent's Health System (AL)	Birmingham, AL
Sutter Health	**Sacramento, CA**
Sutter Health Bay Area	Sacramento, CA
Sutter Health Valley Area	Sacramento, CA

Health System Name	Location
Swedish	Seattle, WA
Tanner Health System	Carrollton, GA
Tenet Healthcare Corporation	Dallas, TX
Texas Health Resources	Arlington, TX
ThedaCare	**Appleton, WI**
The Queen's Health System	Honolulu, HI
The University of Vermont Health Network	Burlington, VT
The Valley Health System	Las Vegas, NV
Tidelands Health	Murrells Inlet, SC
T.J. Regional Health	Glasgow, KY
Tower Health	Reading, PA
TriHealth	Cincinnati, OH
Trinity Health	Livonia, MI
Trinity Health Michigan	Muskegon, MI
Trinity Health Mid-Atlantic	Philadelphia, PA
Trinity Health Of New England	Hartford, CT
Tufts Medicine	Burlington, MA
UAB Health System	Birmingham, AL
UC Health	Cincinnati, OH
UCHealth	Aurora, CO
UChicago Medicine	Chicago, IL
UMass Memorial Health Care	Worcester, MA
UM Upper Chesapeake Health	Bel Air, MD
UNC Health Care System	Chapel Hill, NC
United Health Services	Binghamton, NY
UnityPoint Health	Des Moines, IA
Universal Health Services Inc	King of Prussia, PA
University Health	Kansas City, MO
University Hospitals	Cleveland, OH
University of California Health	Oakland, CA
University of Florida Health	Gainesville, FL
University of Maryland Medical System	Baltimore, MD
University of Mississippi Medical Center	Jackson, MS
University of Missouri Health Care	Columbia, MO
University of Rochester Medical Center	Rochester, NY
University of Texas System	Austin, TX
UNM Health	Albuquerque, NM

Health System Name	Location
UofL Health	Louisville, KY
UPMC Health System	Pittsburgh, PA
UPMC Pinnacle	Harrisburg, PA
UPMC Susquehanna	Williamsport, PA
UT Health East Texas	Tyler, TX
UVA Health	Charlottesville, VA
UW Health	Madison, WI
UW Medicine	Seattle, WA
Valley Baptist Health System	Harlingen, TX
Valley Health	Winchester, VA
Vandalia Health	Morgantown, WV
Vanderbilt Health	Nashville, TN
VCU Health	Richmond, VA
Via Christi Health	Wichita, KS
Virginia Mason Franciscan Health	Tacoma, WA
Virtua Health	Marlton, NJ
WakeMed	Raleigh, NC
WellSpan Health	York, PA
WellStar Health System	Marietta, GA
Westchester Medical Center Health Network	Valhalla, NY
West Tennessee Healthcare	Jackson, TN
WVU Medicine	Morgantown, WV
Yale New Haven Health Services	New Haven, CT

Note: Benchmarks Health Systems are in Bold.

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