100 Top Hospitals, 2020
National Benchmarks

Prepared for:
Sample Hospital
City, ST
Medicare ID: 999999
Report Methodology Notes

COMPARISON GROUPS
So that we can compare your hospital with others most like it, we assign each hospital to one of five comparison groups according to operating bed size, teaching status, and residency/fellowship program involvement. Classification details are in the Study Overview.

<table>
<thead>
<tr>
<th>Comparison Group</th>
<th>Number of Winners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Teaching Hospital</td>
<td>15</td>
</tr>
<tr>
<td>Teaching Hospital</td>
<td>25</td>
</tr>
<tr>
<td>Large Community Hospital</td>
<td>20</td>
</tr>
<tr>
<td>Medium Community Hospital</td>
<td>20</td>
</tr>
<tr>
<td>Small Community Hospital</td>
<td>20</td>
</tr>
</tbody>
</table>

BENCHMARK AND PEER GROUPS
In the Watson Health™ 100 Top study, we select 100 Benchmark hospitals (winners) based on overall performance in the most recent year of data available. Winners are selected by comparison group, as indicated in the table above.

Peer group hospitals include all U.S. hospitals in our study database, excluding benchmark hospitals.

In this custom report, we provide two types of comparisons for current performance and for multi-year trend performance:
- Profiled hospital versus comparison group Benchmark hospitals
- Profiled hospital versus comparison group Peer hospitals

METHODOLOGY NOTES
Present on Admission (POA) coding was used in the risk models for mortality, complications and average length of stay. Due to consistent, high numbers of diagnoses with the invalid POA code ‘0’ between FFY 2013-2018, we continue to make the following adjustments to the MEDPAR data:

1) Original, valid (Y,N,U,W or 1) POA codes assigned to diagnoses were retained
2) Where a POA code of ‘0’ appeared, we took the next four steps:
   a) We treated all principal diagnoses (dx) as ‘present on admission’
   b) We treated all secondary dx on the CMS exempt list as ‘exempt’
   c) We treated secondary dx for which the POA code ‘Y’ or ‘W’ appeared more than 50 percent of the time in Watson Health’s all-payer database as ‘present on admission’
   d) All others were treated as ‘not present’

RANK WEIGHTS AND PUBLIC DATA SOURCES

<table>
<thead>
<tr>
<th>Measures</th>
<th>Rank</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-Adjusted Inpatient Mortality</td>
<td>1^2</td>
<td>MEDPAR FFY</td>
</tr>
<tr>
<td>Risk-Adjusted Complications</td>
<td>1^2</td>
<td>MEDPAR FFY</td>
</tr>
<tr>
<td>Healthcare-Associated Infections</td>
<td>1</td>
<td>CMS Hospital Compare CY</td>
</tr>
<tr>
<td>Influenza Immunization</td>
<td>1</td>
<td>CMS Hospital Compare 6-month data sets ending March 31 in 2014, 2015, 2016, 2017, 2018</td>
</tr>
<tr>
<td>30-Day Mortality (AMI, Heart Failure, Pneumonia, COPD, Stroke)</td>
<td>1^2</td>
<td>CMS Hospital Compare 3-yr data sets ending June 30 in 2014, 2015, 2016, 2017, 2018</td>
</tr>
<tr>
<td>30-Day Hospital-Wide Readmissions</td>
<td>1^2</td>
<td>CMS Hospital Compare 1-yr data sets ending June 30 in 2014, 2015, 2016, 2017, 2018</td>
</tr>
<tr>
<td>Severity-Adjusted Average Length of Stay</td>
<td>1</td>
<td>MEDPAR FFY</td>
</tr>
<tr>
<td>Emergency Department Throughput</td>
<td>1</td>
<td>CMS Hospital Compare CY</td>
</tr>
<tr>
<td>Adjusted Inpatient Expense per Discharge</td>
<td>1</td>
<td>HCRIS 2019 Q3 2014-2018 cost reports</td>
</tr>
<tr>
<td>Adjusted Operating Profit Margin</td>
<td>1</td>
<td>HCRIS 2019 Q3 2014-2018 cost reports</td>
</tr>
<tr>
<td>HCAHPS</td>
<td>1</td>
<td>CMS Hospital Compare CY</td>
</tr>
</tbody>
</table>

1 Federal Fiscal year is Oct 1 through Sep 30.
2 Small community hospitals’ rank weights for these measures are increased to 1.25 to balance quality and operational domain weights, due to exclusion of the HAI measure from this comparison group.

FOR MORE INFORMATION
For a Study Overview, with full details on performance measures, methods used, and winner list, visit www.100tophospitals.com
100 Top Hospitals Performance Matrix

INTEGRATED HOSPITAL PERFORMANCE COMPARISON
The 100 Top Hospitals® Performance Matrix, in a single view, compares your hospital’s current level of achievement and 5-year rate of improvement in percentiles. These percentiles are based on your hospital’s rank, overall and by measure, within your comparison group. This integrated performance comparison provides insight into the success of hospital performance improvement strategies relative to other similar hospitals.

INTERPRETING HOSPITAL PERFORMANCE
Overall hospital performance is a composite score based on the sum of the ranks of individual measures. This sum is used to rank your hospital within your comparison group. The matrix “Overall” dot integrates your national rank percentile for current overall performance with your national rank percentile for multi-year overall rate of improvement. Rank percentiles for each individual measure are also graphed. Measures may fall into any one of four quadrants: Declining (lower left), Improving (upper left), Leading (upper right), or At Risk (lower right).

100 Top Hospitals award winners are selected based on highest overall current performance. Winners fall into either the “Leading” or “At Risk” quadrants, depending on their multi-year rate of improvement performance. Those with a high rate of improvement will be “Leading” performers, and those who have fallen behind their comparison group median may be “At Risk” for falling behind peers in the future, if low rates of improvement continue.

Everest award winners fall into the right upper-most corner of the “Leading” performance quadrant. Everest winners are both a 100 Top Hospitals current performance winner and one of the 100 most improved hospitals on their multi-year trended performance in the same study year.

PERFORMANCE MATRIX NOTES

Missing Matrix Graph
The matrix graph will be missing if your hospital was excluded from the study or did not have enough years of data to be trended. If trend analysis could not be done, there also will be no trend graphs in this report. Exclusion notes are found at the end of the graphs section of this report.

Missing Measure Dots
A measure dot will be missing from the matrix if your hospital had too few useable data points (after outlier exclusions) to calculate a multi-year trend t-statistic, which is the ranked variable. In this case, the overall performance dot will also be missing. We cannot rank the hospital overall if one or more measures are missing. Notes on excluded data points are in the Appendix following the Performance Matrix graph.
100 Top Hospitals Performance Comparison Group

Profiled hospital compared to major teaching hospitals
2018 Performance and Five-Year Rate of Improvement Matrix

DATA POINT KEY
1  OVERALL
2  Inpatient Mortality
3  Complications
4  HAI
5  IMM
6  30-Day Mortality
7  30-Day H-W Readmit
8  ALOS
9  ED Measures
10 IP Expense/Disch
11 Oper Profit Margin
12 HCAHPS

PROFILED HOSPITAL compared to:
2018 major teaching hospitals: n = 207
2014-2018 major teaching hospitals: n = 203
Performance and Improvement – Rank Percentiles Graphs

UNDERSTANDING THE GRAPHS

2018 Performance Rank Percentiles

This bar graph shows your hospital’s performance on each measure, in the most current year of data we analyzed, reported as rank percentiles. Individual measure percentiles are calculated by dividing your measure rank within your comparison group by the number of hospitals in the group and multiplying by 100.

The 2020 100 Top Hospitals benchmark hospitals (winners) were selected based only on 2018 performance.

2014-2018 Rate of Improvement Rank Percentiles

This bar graph shows your hospital’s rate of improvement on each measure, and overall, reported as rank percentiles. Individual measure percentiles are calculated by dividing your measure rank within your comparison group by the number of hospitals in the group and multiplying by 100. The overall rank percentile is based on the sum of your individual measure ranks, re-ranked by comparison group. The overall rank sum is then converted into a percentile. The overall rank percentile is not the average of the individual measure percentiles.

Measures with rank percentiles above the median are likely to move ahead of peers on performance in the future, if those rates of improvement have continued.

Hospitals with overall and measure-specific rank percentiles below the median are likely to fall behind peers on performance in the future, if those low rates of improvement have continued. And winners with a low overall rate of improvement are at risk for dropping out of the winner circle entirely.
2018 Performance Rank Percentiles

Profiled hospital compared to major teaching hospitals: n = 207

2014-2018 Rate of Improvement Rank Percentiles

Profiled hospital compared to major teaching hospitals: n = 203
100 Top Hospitals Current Profile Notes

CURRENT PROFILE

The 100 Top Hospitals® Current Profile analyzes your hospital’s performance in the most recent year available, using a national balanced scorecard of critical performance metrics:

- Risk-Adjusted Inpatient Mortality Index
- Risk-Adjusted Complications Index
- Mean Healthcare-Associated Infection Index
- Influenza Immunization Percent*
- Mean 30-Day Mortality Rate (AMI, heart failure, pneumonia, COPD, stroke)
- 30-Day Hospital-Wide Readmission Rate*
- Severity-Adjusted Average Length of Stay
- Mean Emergency Department Throughput
- Inpatient Expense per Discharge (casemix- and wage-adjusted)
- Adjusted Operating Profit Margin
- HCAHPS Top Box Percent (Overall Hospital Rating)*

Using this Profile, you can identify your hospital’s level of performance achievement by individual measure and overall, and target higher performance. In addition, the Profile shows the level of achievement of national award-winning (benchmark) hospitals and the median performance of non-winning (peer) hospitals in your comparison group.

*Indicates a change in ranked measures for the 2020 study edition.

UNDERSTANDING THE GRAPHS

Profiled Hospital Compared with Benchmark and Peer

The hospital’s current performance is represented by individual bar graphs for each of the performance measures included in the 100 Top Hospitals national balanced scorecard. Each bar graph shows performance achievement levels for three groups: your hospital, the benchmark group median, and the peer group median.

Binomial Measures

The graphs for the binomial measures – in-hospital mortality and complications – also have a statistical significance note that indicates whether your hospital’s performance is better than expected, as expected, or worse than expected (99% confidence).

For binomial measures, we rank your hospital on the z-score calculated from your observed and normalized expected values. Z-scores take statistical significance into account. If your graph note indicates your performance is “as expected,” your performance is average regardless of how high or low the index value.

Healthcare-Associated Infections, 30-Day Rates, Emergency Department Measures and HCAHPS Detail

This section contains bar graphs for the individual measures that make up the composite ranked measures: healthcare-associated infections, 30-day mortality, and emergency department throughput. Performance on each HCAHPS question is included for information. Only the Overall Hospital Rating question (an outcome metric) is ranked.
100 Top Hospitals Current Profile Notes

USE OF MEDIAN VALUES
When 30-day individual measures are missing, we substitute class median values so your hospital can be ranked. This was done for the following measures:

• 30-day mortality rates (AMI, HF, pneumonia, COPD, stroke)

Note: If all individual measures are missing for the 30-day mortality measure, class medians are not used and the hospital is excluded from the study.

MISSING OR INCALCULABLE DATA POINTS
• No bar is displayed for your hospital if values were not reported or are incalculable.
• If a hospital was excluded from the study for missing or incalculable performance measures, the details are noted at the end of the graphs section.
• If a hospital was not eligible to be a winner due to statistically poor performance on inpatient mortality or complications (99% confidence), the details are noted at the end of the graphs section.
• If a hospital was not eligible to be a winner because it had one or more outliers (interquartile range methodology) for expense or profit, the details are noted at the end of the graphs section.
• If a hospital, assigned to the medium community hospital comparison group was not eligible to be a winner because it did not have at least two (2) of the three (3) individual healthcare-associated infection measures required for this comparison group, the details are noted at the end of the graphs section.

EXCLUDED MEASURES
Due to low patient counts for some measures, the below comparison groups exclude the listed measures from analysis.

Small Community Hospitals
• Healthcare-associated infections for all measures (HAI-1 – HAI-6)
• 30-day mortality rate for AMI patients

Medium Community Hospitals
• Surgical site infection from colon surgery (HAI-3)
• Surgical site infection from abdominal hysterectomy (HAI-4)
• Methicillin-resistant Staphylococcus aureus blood laboratory-identified events (HAI-5)

Large Community Hospitals
• Surgical site infection from abdominal hysterectomy (HAI-4)

Teaching Hospitals
• Surgical site infection from abdominal hysterectomy (HAI-4)

Note: See Study Overview for a full list of included HAI measures.

MEASURES FOR INFORMATION ONLY
These measures, whose graphs with peer and benchmark group comparisons are presented in a separate section at the end of the report, are not included in your hospital’s overall performance rating and are not used to select the 100 Top award-winning hospitals.

MORE INFORMATION ON METHODOLOGIES
The methodology section of the 100 Top Hospitals Study Overview provides more details on the calculation of each performance measure and an indication of whether higher or lower values are favorable. It also describes the methodologies for calculating confidence limits and outliers, and for determining statistically poor performance on the mortality and complications measures.

See Study Overview for more details. Visit www.100tophospitals.com
100 Top Hospitals Trend Profile Notes

TREND PROFILE OVERVIEW
The 100 Top Hospitals® Trend Profile analyzes your hospital’s rate of improvement over five years, using a balanced scorecard of critical performance metrics:

- Risk-Adjusted Inpatient Mortality Index
- Risk-Adjusted Complications Index
- Mean Healthcare-Associated Infection Index
- Influenza Immunization Percent
- Mean 30-Day Mortality Rate (AMI, heart failure, pneumonia, COPD, stroke)
- 30-Day Hospital-Wide Readmission Rate
- Severity-Adjusted Average Length of Stay
- Mean Emergency Department Throughput
- Inpatient Expense per Discharge (casemix- and wage-adjusted)
- Adjusted Operating Profit Margin
- HCAHPS Top Box Percent (Overall Hospital Rating)

Minimum Data Requirements for Ranking
We require a minimum of four (4) valid data points for each measure (including the most current year) to include a hospital in the Trend Profile ranking.

UNDERSTANDING THE GRAPHS
Improvement Trends Versus Comparison Group Quintiles (Color Quintile Graphs)
Your hospital’s rate of improvement for each of the individual performance measures is represented by graphs showing your hospital’s actual data points for each year as a set of black dots connected by line segments. These data points are displayed against a background of quintile ranges for the data points of all hospitals in your comparison group. Each range is color-coded to indicate rate of improvement level, from dark green (best quintile) to red (worst quintile). You can use these graphs to see whether your organization’s trajectory over time is mostly flat, moving ahead of or falling behind other similar hospitals.

A statistical significance note is displayed for each graph, indicating whether your performance is *improving, not changing, or worsening* over the five years we analyzed (99% confidence for mortality and complications; 95%, all other measures). We rank each measure using the t-statistic of the regression line through the data points (slope/S.E.).

Usage of Median Values and Composite Measures
For each data year, when individual 30-day mortality measures are missing, the median value of your comparison group is substituted in order to calculate and display the composite mean 30-day value. However, if ALL individual 30-day mortality measures are missing for that data year, then median values are not used to calculate the composite mean and the data point will not be displayed on the color quintile graphs.

To determine whether your hospital had a valid data point for the mean healthcare-associated infection index measure, we applied the same minimum eligibility requirements and individual HAI measure exclusions by comparison group as the current profile, to each historical year of data.

*Note: The CDC’s National Healthcare Safety Network updated its baseline HAI risk adjustment data to a standard based upon data from 2015, with new SIR values reported starting in January 2017.*

Missing Data Points
Individual data points are missing on the color quintile graphs when values are not reported, or if your comparison group’s median value has been substituted in a specific year.

Data Point Time Periods
**Risk-adjusted inpatient mortality index**

**2018 IP MORTALITY PERFORMANCE**

- **Profiled Hospital**: 1.12
- **Benchmark Median**: 0.82
- **Peer Median**: 1.02

Profiled hospital is statistically AS expected

▼ Desired Direction

Benchmark hospitals are the winners in the comparison group: \( n = 15 \)

Peer hospitals are the non-winners in the comparison group: \( n = 192 \)

Note: 2018 values on the current and trend graphs will not match due to different norm factors used to normalize the expected values.

**2014-2018 IP MORTALITY RATE OF IMPROVEMENT**

Profiled hospital is NOT CHANGING (99% confidence)

Hospital performance compared to peer hospitals quintiles: \( n = 203 \)

<table>
<thead>
<tr>
<th>YEARS</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0.79</td>
<td>0.83</td>
<td>0.87</td>
<td>0.91</td>
<td>0.93</td>
</tr>
<tr>
<td>2015</td>
<td>0.90</td>
<td>0.90</td>
<td>0.94</td>
<td>1.02</td>
<td>1.03</td>
</tr>
<tr>
<td>2016</td>
<td>0.99</td>
<td>0.99</td>
<td>1.04</td>
<td>1.10</td>
<td>1.13</td>
</tr>
<tr>
<td>2017</td>
<td>1.10</td>
<td>1.09</td>
<td>1.14</td>
<td>1.23</td>
<td>1.27</td>
</tr>
<tr>
<td>2018</td>
<td>1.12</td>
<td>1.15</td>
<td>1.24</td>
<td>1.29</td>
<td>1.20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEARS</th>
<th>Upper C.I.</th>
<th>Lower C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1.12</td>
<td>1.02</td>
</tr>
<tr>
<td>2015</td>
<td>1.21</td>
<td>1.05</td>
</tr>
<tr>
<td>2016</td>
<td>1.24</td>
<td>1.14</td>
</tr>
<tr>
<td>2017</td>
<td>1.34</td>
<td>1.14</td>
</tr>
<tr>
<td>2018</td>
<td>1.30</td>
<td>1.10</td>
</tr>
</tbody>
</table>
Risk-adjusted complications index

2018 COMPLICATIONS PERFORMANCE

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192

Note: 2018 values on the current and trend graphs will not match due to different norm factors used to normalize the expected values.

Profiled hospital is statistically AS expected (99% confidence)

↓ Desired Direction

Hospital performance compared to peer hospitals quintiles: n = 203

<table>
<thead>
<tr>
<th>YEARS</th>
<th>HOSPITAL COMPARISON GROUP</th>
<th>PROFILED HOSPITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20th</td>
<td>40th</td>
</tr>
<tr>
<td>2014</td>
<td>0.87</td>
<td>0.98</td>
</tr>
<tr>
<td>2015</td>
<td>0.87</td>
<td>0.97</td>
</tr>
<tr>
<td>2016</td>
<td>0.81</td>
<td>0.92</td>
</tr>
<tr>
<td>2017</td>
<td>0.79</td>
<td>0.92</td>
</tr>
<tr>
<td>2018</td>
<td>0.87</td>
<td>0.97</td>
</tr>
</tbody>
</table>
Mean HAI standardized infection ratio

**2018 HAI PERFORMANCE**

<table>
<thead>
<tr>
<th>INDEX</th>
<th>Profiled Hospital</th>
<th>Benchmark Median</th>
<th>Peer Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.68</td>
<td>0.83</td>
<td>0.88</td>
<td></td>
</tr>
</tbody>
</table>

- Desired Direction

*Benchmark hospitals are the winners in the comparison group: n = 15*
*Peer hospitals are the non-winners in the comparison group: n = 192*

**2014-2018 HAI RATE OF IMPROVEMENT**

- Profiled hospital is NOT CHANGING (95% confidence)
- Red: > 80 to Max
- Orange: > 60 to 80
- Yellow: > 40 to 60
- Green: > 20 to 40
- Light Green: Min to 20

*Hospital performance compared to peer hospitals quintiles: n = 203*

<table>
<thead>
<tr>
<th>YEARS</th>
<th>PERCENTILE POINTS</th>
<th>HOSPITAL COMPARISON GROUP</th>
<th>PROFILED HOSPITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20th</td>
<td>40th</td>
<td>60th</td>
</tr>
<tr>
<td>2014</td>
<td>0.74</td>
<td>0.90</td>
<td>1.05</td>
</tr>
<tr>
<td>2015</td>
<td>0.76</td>
<td>0.87</td>
<td>1.00</td>
</tr>
<tr>
<td>2016</td>
<td>0.78</td>
<td>0.93</td>
<td>1.07</td>
</tr>
<tr>
<td>2017</td>
<td>0.77</td>
<td>0.86</td>
<td>1.00</td>
</tr>
<tr>
<td>2018</td>
<td>0.72</td>
<td>0.83</td>
<td>0.95</td>
</tr>
</tbody>
</table>
Influenza immunization protocol percent (IMM-2)

2018 IMM-2 PERFORMANCE

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192

2014-2018 IMM-2 RATE OF IMPROVEMENT

Hospital performance compared to peer hospitals quintiles: n = 203
Mean 30-day mortality rate

2018 30D MORTALITY PERFORMANCE

Profiled Hospital: 11.0%
Benchmark Median: 11.6%
Peer Median: 12.1%

 Desired Direction

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192

2014-2018 30D MORTALITY RATE OF IMPROVEMENT

Profiled hospital is NOT CHANGING (95% confidence)

Hospital performance compared to peer hospitals quintiles: n = 203

<table>
<thead>
<tr>
<th>YEARS</th>
<th>20th</th>
<th>40th</th>
<th>60th</th>
<th>80th</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>10.6</td>
<td>11.2</td>
<td>11.8</td>
<td>12.4</td>
<td>12.0</td>
</tr>
<tr>
<td>2015</td>
<td>11.5</td>
<td>12.2</td>
<td>12.9</td>
<td>13.6</td>
<td>12.8</td>
</tr>
<tr>
<td>2016</td>
<td>11.3</td>
<td>12.0</td>
<td>12.6</td>
<td>13.3</td>
<td>11.8</td>
</tr>
<tr>
<td>2017</td>
<td>11.0</td>
<td>11.9</td>
<td>12.5</td>
<td>13.1</td>
<td>11.1</td>
</tr>
<tr>
<td>2018</td>
<td>11.0</td>
<td>11.7</td>
<td>12.3</td>
<td>12.9</td>
<td>11.0</td>
</tr>
</tbody>
</table>
30-day hospital-wide readmission rate

**2018 30D HOSP-WIDE READMIT PERFORMANCE**

No different than CMS national rate (95% confidence)

![Bar chart showing performance comparison]

Benchmark hospitals are the winners in the comparison group: n = 15

Peer hospitals are the non-winners in the comparison group: n = 192

**2014-2018 30D HOSP-WIDE READMIT RATE OF IMPROVEMENT**

Profiled hospital is NOT CHANGING (95% confidence)

> 80 to Max
> 60 to 80
> 40 to 60
> 20 to 40
Min to 20

![Line graph showing rate of improvement]

Hospital performance compared to peer hospitals quintiles: n = 203

<table>
<thead>
<tr>
<th>YEARS</th>
<th>20th</th>
<th>40th</th>
<th>60th</th>
<th>80th</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>15.3</td>
<td>15.8</td>
<td>16.4</td>
<td>17.1</td>
<td>16.4</td>
</tr>
<tr>
<td>2015</td>
<td>15.5</td>
<td>16.1</td>
<td>16.7</td>
<td>17.2</td>
<td>16.5</td>
</tr>
<tr>
<td>2016</td>
<td>15.3</td>
<td>15.7</td>
<td>16.2</td>
<td>16.8</td>
<td>16.8</td>
</tr>
<tr>
<td>2017</td>
<td>15.2</td>
<td>15.7</td>
<td>16.1</td>
<td>16.7</td>
<td>16.6</td>
</tr>
<tr>
<td>2018</td>
<td>15.1</td>
<td>15.5</td>
<td>16.0</td>
<td>16.6</td>
<td>16.2</td>
</tr>
</tbody>
</table>
Severity-adjusted average length of stay

**2018 ALOS PERFORMANCE**

Benchmark hospitals are the winners in the comparison group: n = 15

Peer hospitals are the non-winners in the comparison group: n = 192

Note: 2018 values on the current and trend graphs will not match due to different norm factors used to normalize the expected values.

**2014-2018 ALOS RATE OF IMPROVEMENT**

Hospital performance compared to peer hospitals quintiles: n = 203

Benchmark hospitals are the winners in the comparison group: n = 15

Peer hospitals are the non-winners in the comparison group: n = 192

Note: 2018 values on the current and trend graphs will not match due to different norm factors used to normalize the expected values.
Mean emergency department throughput

2018 ED PERFORMANCE

Benchmark hospitals are the winners in the comparison group: \( n = 15 \)

Peer hospitals are the non-winners in the comparison group: \( n = 192 \)

2014-2018 ED RATE OF IMPROVEMENT

Profiled hospital is NOT CHANGING (95% confidence)

Hospital performance compared to peer hospitals quintiles: \( n = 203 \)

<table>
<thead>
<tr>
<th>YEARS</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20th</td>
<td>40th</td>
<td>60th</td>
<td>80th</td>
<td>Value</td>
</tr>
<tr>
<td>2014</td>
<td>248</td>
<td>280</td>
<td>314</td>
<td>360</td>
<td>308</td>
</tr>
<tr>
<td>2015</td>
<td>259</td>
<td>288</td>
<td>326</td>
<td>366</td>
<td>334</td>
</tr>
<tr>
<td>2016</td>
<td>253</td>
<td>291</td>
<td>320</td>
<td>376</td>
<td>309</td>
</tr>
<tr>
<td>2017</td>
<td>251</td>
<td>289</td>
<td>325</td>
<td>374</td>
<td>323</td>
</tr>
<tr>
<td>2018</td>
<td>254</td>
<td>296</td>
<td>328</td>
<td>376</td>
<td>324</td>
</tr>
</tbody>
</table>
Adjusted inpatient expense per discharge

2018 INPT EXPENSE PERFORMANCE

- Desired Direction

Benchmark hospitals are the winners in the comparison group: n = 15

Peer hospitals are the non-winners in the comparison group: n = 192

2014-2018 INPT EXPENSE RATE OF IMPROVEMENT

Hospital performance compared to peer hospitals quintiles: n = 203

<table>
<thead>
<tr>
<th>YEARS</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>6,331</td>
<td>6,431</td>
<td>6,769</td>
<td>6,805</td>
<td>6,645</td>
</tr>
<tr>
<td>2015</td>
<td>7,128</td>
<td>7,281</td>
<td>7,505</td>
<td>7,654</td>
<td>7,474</td>
</tr>
<tr>
<td>2016</td>
<td>7,769</td>
<td>8,147</td>
<td>8,302</td>
<td>8,251</td>
<td>8,475</td>
</tr>
<tr>
<td>2017</td>
<td>8,935</td>
<td>9,016</td>
<td>9,277</td>
<td>9,298</td>
<td>9,456</td>
</tr>
<tr>
<td>2018</td>
<td>9,574</td>
<td>9,013</td>
<td>8,730</td>
<td>9,110</td>
<td>9,343</td>
</tr>
</tbody>
</table>

Profiled hospital is NOT CHANGING (95% confidence)
**Adjusted operating profit margin**

**2018 PROFIT PERFORMANCE**

- **Profiled Hospital:** 11.0%
- **Benchmark Median:** 11.8%
- **Peer Median:** 2.8%

*Desired Direction*

**2014-2018 PROFIT RATE OF IMPROVEMENT**

- **Profiled hospital is NOT CHANGING** (95% confidence)

<table>
<thead>
<tr>
<th>YEARS</th>
<th>20th</th>
<th>40th</th>
<th>60th</th>
<th>80th</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>-1.1</td>
<td>3.1</td>
<td>5.2</td>
<td>8.6</td>
<td>8.0</td>
</tr>
<tr>
<td>2015</td>
<td>-0.4</td>
<td>3.6</td>
<td>6.5</td>
<td>10.5</td>
<td>12.3</td>
</tr>
<tr>
<td>2016</td>
<td>-1.1</td>
<td>2.5</td>
<td>5.3</td>
<td>9.8</td>
<td>13.4</td>
</tr>
<tr>
<td>2017</td>
<td>-1.5</td>
<td>2.1</td>
<td>5.4</td>
<td>10.2</td>
<td>9.4</td>
</tr>
<tr>
<td>2018</td>
<td>-2.9</td>
<td>1.8</td>
<td>5.0</td>
<td>9.8</td>
<td>11.0</td>
</tr>
</tbody>
</table>

*Hospital performance compared to peer hospitals quintiles: n = 203*

*Benchmark hospitals are the winners in the comparison group: n = 15*

*Peer hospitals are the non-winners in the comparison group: n = 192*
HCAHPS: overall rating question

**2018 HCAHPS TOP BOX PERFORMANCE**

- **Profiled Hospital**: 78.0%
- **Benchmark Median**: 76.0%
- **Peer Median**: 71.0%

**QUESTION KEY:**
Overall rating: How do patients rate the hospital overall?

*Benchmark hospitals are the winners in the comparison group: n = 15*
*Peer hospitals are the non-winners in the comparison group: n = 192*

**2014-2018 HCAHPS TOP BOX RATE OF IMPROVEMENT**

- **Profiled hospital is NOT CHANGING (95% confidence)**
- **Desired Direction**

Hospital performance compared to peer hospitals quintiles: n = 203

<table>
<thead>
<tr>
<th>YEARS</th>
<th>HOSPITAL COMPARISON GROUP</th>
<th>PROFILED HOSPITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20th</td>
<td>40th</td>
</tr>
<tr>
<td>2014</td>
<td>62.0</td>
<td>68.0</td>
</tr>
<tr>
<td>2015</td>
<td>64.0</td>
<td>69.0</td>
</tr>
<tr>
<td>2016</td>
<td>65.0</td>
<td>70.0</td>
</tr>
<tr>
<td>2017</td>
<td>65.0</td>
<td>70.0</td>
</tr>
<tr>
<td>2018</td>
<td>65.0</td>
<td>70.0</td>
</tr>
</tbody>
</table>
2018 Hospital performance – detail graphs

This section of your report contains the detail graphs of those measures that are ranked based on a composite of individual measures. These include:

- Healthcare-associated infections
- 30-day mortality (AMI, HF, pneumonia, COPD and stroke)
- Emergency department throughput (avg min to adm; avg min to ED d/c)
- HCAHPS – Note: We do not rank on the composite of the individual measures; the ranked measure is for the overall rating question. The individual detailed survey questions are displayed for information only.
Healthcare-associated infections SIR measure detail

2018 HAI PERFORMANCE

HEALTHCARE-ASSOCIATED INFECTIONS ABBREVIATION KEY:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLABSI</td>
<td>Central line-associated blood stream infections</td>
</tr>
<tr>
<td>CAUTI</td>
<td>Catheter-associated urinary tract infections</td>
</tr>
<tr>
<td>SSI:COLON</td>
<td>Surgical site infection from colon surgery</td>
</tr>
<tr>
<td>SSI:HYSTER</td>
<td>Surgical site infection from abdominal hysterectomy</td>
</tr>
<tr>
<td>MRSA</td>
<td>Methicillin-resistant staphylococcus aureus blood laboratory-identified events</td>
</tr>
<tr>
<td>C.DIFF</td>
<td>Clostridium difficile laboratory-identified events</td>
</tr>
</tbody>
</table>

Benchmark hospitals are the winners in the comparison group: n = 15
30-day mortality rates by patient condition

2018 PERFORMANCE FOR 30D MORTALITY

Benchmark hospitals are the winners in the comparison group: n = 15

Peer hospitals are the non-winners in the comparison group: n = 192

© Watson Health © IBM Corporation 2020
Emergency department throughput measure detail

2018 ED PERFORMANCE

EMERGENCY DEPARTMENT ABBREVIATION KEY:

Avg Min Inp Adm  Average time patients spent in the ED, before they were admitted to the hospital as an inpatient
Avg Min Disch  Average time patients spent in the ED before being sent home

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192
HCAHPS questions – only overall rating used in ranking

2018 HCAHPS PERFORMANCE

<table>
<thead>
<tr>
<th>TOP BOX PERCENT</th>
<th>Overall rating</th>
<th>Drs comm well</th>
<th>Nurses comm well</th>
<th>Quick help</th>
<th>Meds explained</th>
<th>Room area quiet</th>
<th>Room/bath clean</th>
<th>Info for home</th>
<th>Understood Care</th>
<th>Would recommend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>78</td>
<td>76</td>
<td>71</td>
<td>64</td>
<td>64</td>
<td>62</td>
<td>64</td>
<td>88</td>
<td>55</td>
<td>83</td>
</tr>
<tr>
<td>Drs comm well</td>
<td>83</td>
<td>80</td>
<td>79</td>
<td>64</td>
<td>64</td>
<td>62</td>
<td>64</td>
<td>87</td>
<td>55</td>
<td>79</td>
</tr>
<tr>
<td>Nurses comm well</td>
<td>81</td>
<td>80</td>
<td>78</td>
<td>64</td>
<td>64</td>
<td>62</td>
<td>64</td>
<td>87</td>
<td>55</td>
<td>73</td>
</tr>
<tr>
<td>Quick help</td>
<td>64</td>
<td>64</td>
<td>62</td>
<td>65</td>
<td>61</td>
<td>54</td>
<td>65</td>
<td>67</td>
<td>52</td>
<td>73</td>
</tr>
<tr>
<td>Meds explained</td>
<td>88</td>
<td>87</td>
<td>87</td>
<td>65</td>
<td>73</td>
<td>67</td>
<td>88</td>
<td>55</td>
<td>55</td>
<td>83</td>
</tr>
<tr>
<td>Room area quiet</td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>65</td>
<td>73</td>
<td>67</td>
<td>88</td>
<td>55</td>
<td>55</td>
<td>79</td>
</tr>
<tr>
<td>Room/bath clean</td>
<td>83</td>
<td>79</td>
<td>73</td>
<td>65</td>
<td>73</td>
<td>67</td>
<td>88</td>
<td>55</td>
<td>52</td>
<td>73</td>
</tr>
<tr>
<td>Info for home</td>
<td>55</td>
<td>55</td>
<td>52</td>
<td>55</td>
<td>55</td>
<td>52</td>
<td>55</td>
<td>52</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Understood Care</td>
<td>83</td>
<td>79</td>
<td>73</td>
<td>65</td>
<td>73</td>
<td>67</td>
<td>88</td>
<td>55</td>
<td>55</td>
<td>73</td>
</tr>
<tr>
<td>Would recommend</td>
<td>79</td>
<td>73</td>
<td>73</td>
<td>65</td>
<td>73</td>
<td>67</td>
<td>88</td>
<td>55</td>
<td>55</td>
<td>73</td>
</tr>
</tbody>
</table>

**QUESTION KEY:**

- **Overall rating**: How do patients rate the hospital overall?
- **Drs comm well**: How often did doctors communicate well with patients?
- **Nurses comm well**: How often did nurses communicate well with patients?
- **Quick help**: How often did patients receive help quickly from hospital staff?
- **Meds explained**: How often did staff explain about medicines before giving them to patients?
- **Room area quiet**: How often was the area around patients rooms kept quiet at night?
- **Room/bath clean**: How often were the patients rooms and bathrooms kept clean?
- **Info for home**: Were patients given information about what to do during their recovery at home?
- **Understood care**: How often did patients understand their care at discharge?
- **Would recommend**: Would patients recommend the hospital to friends and family?

**DESIRED DIRECTION**

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192
HCAHPS questions, con’t

2018 HCAHPS PERFORMANCE

QUESTION KEY:
- Bathroom help: How often did patients receive bathroom help as soon as they wanted?
- Call button help: How often did patients receive help after using the call button as soon as they wanted?
- Med understanding: How often did patients understand the purpose of their medications when leaving the hospital?
- Prefer acknowledged: How often did the staff take patients' preferences into account when determining health care needs?
- Manage health: How often did patients understand their responsibilities in managing their health?
- Help after discharge: How often did patients discuss whether they would need help after discharge?
- Drs explained well: How often did doctors explain things in a way patients could understand?
- Drs listened well: How often did doctors listen carefully to patients?
- Drs treated well: How often did doctors treat patients with courtesy and respect?

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192
HCAHPS questions, con’t

2018 HCAHPS PERFORMANCE

<table>
<thead>
<tr>
<th>TOP BOX PERCENT</th>
<th>New med explained</th>
<th>Nurses explained well</th>
<th>Nurses listened well</th>
<th>Nurses treated well</th>
<th>Side effects discussed</th>
<th>Written info on symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78</td>
<td>79</td>
<td>76</td>
<td>77</td>
<td>76</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>78</td>
<td>79</td>
<td>77</td>
<td>77</td>
<td>77</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>87</td>
<td>87</td>
<td>85</td>
<td>87</td>
<td>87</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>91</td>
<td>90</td>
<td>89</td>
<td>90</td>
<td>89</td>
<td>90</td>
</tr>
</tbody>
</table>

**QUESTION KEY:**

- **New med explained:** How often did staff communicate what the new medication was for?
- **Nurses explained well:** How often did nurses explain things in a way patients could understand?
- **Nurses listened well:** How often did nurses listen carefully to patients?
- **Nurses treated well:** How often did nurses treat patients with courtesy and respect?
- **Side effects discussed:** How often did staff discuss possible side effects when receiving a new medication?
- **Written info on symptoms:** Did patients receive written information about possible symptoms to look out for after discharge?

_Benchmark hospitals are the winners in the comparison group: n = 15_  
_Peer hospitals are the non-winners in the comparison group: n = 192_
Supplemental information-only measures

This section of your report contains measures that we are profiling only for informational purposes; they were not included in ranking or determination of winners. We welcome your comments and feedback on the usefulness and relevance of these measures in assessing leadership’s ability to drive high-level, balanced performance.

- 30-day readmission rate by patient condition
  - AMI, HF, pneumonia, THA/TKA, COPD

- Medicare spend per beneficiary

- Medicare episode of payment measures
  - 30-day payment for AMI / HF / PN patients
  - 90-day payment for THA/TKA patients

- Excess days in acute care (EDAC) measures
  - 30-day excess days in acute care for AMI / HF / pneumonia patients

- Complication measure
  - 90-day complication rate for THA/TKA patients

- Process of care measure
  - Rate of appropriate care given for patients with severe sepsis or septic shock (SEP-1)
30-day readmission rates by patient condition

2018 PERFORMANCE FOR 30D READMISSIONS

Benchmark hospitals are the winners in the comparison group: n = 15

Peer hospitals are the non-winners in the comparison group: n = 192
**Medicare spend per beneficiary index**

### 2018 MSPB PERFORMANCE

- **Profiled Hospital**: 0.98
- **Benchmark Median**: 1.01
- **Peer Median**: 1.01

**Profiled hospital is NOT CHANGING** (95% confidence)

- > 80 to Max
- > 60 to 80
- > 40 to 60
- > 20 to 40
- Min to 20

**Desired Direction**

Benchmark hospitals are the winners in the comparison group: n = 15

Peer hospitals are the non-winners in the comparison group: n = 192

### 2014-2018 MSPB RATE OF IMPROVEMENT

**Hospital performance compared to peer hospitals quintiles: n = 203**

<table>
<thead>
<tr>
<th>PERCENTILE POINTS</th>
<th>20th</th>
<th>40th</th>
<th>60th</th>
<th>80th</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEARS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>0.97</td>
<td>0.99</td>
<td>1.01</td>
<td>1.04</td>
<td>0.97</td>
</tr>
<tr>
<td>2015</td>
<td>0.97</td>
<td>0.99</td>
<td>1.01</td>
<td>1.03</td>
<td>0.96</td>
</tr>
<tr>
<td>2016</td>
<td>0.97</td>
<td>1.00</td>
<td>1.01</td>
<td>1.03</td>
<td>0.97</td>
</tr>
<tr>
<td>2017</td>
<td>0.98</td>
<td>1.00</td>
<td>1.01</td>
<td>1.03</td>
<td>0.99</td>
</tr>
<tr>
<td>2018</td>
<td>0.98</td>
<td>1.00</td>
<td>1.02</td>
<td>1.03</td>
<td>0.98</td>
</tr>
</tbody>
</table>
30-day episode of payment measures by patient condition

2018 30D PAYMENT PERFORMANCE FOR AMI

Profiled Hospital: $22,444
Benchmark Median: $24,154
Peer Median: $24,859

2018 30D PAYMENT PERFORMANCE FOR PNEUMONIA

Profiled Hospital: $17,961
Benchmark Median: $18,005
Peer Median: $18,395

2018 30D PAYMENT PERFORMANCE FOR HF

Profiled Hospital: $16,097
Benchmark Median: $17,099
Peer Median: $17,492

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192

Watson Health © IBM Corporation 2020
30-day excess days in acute care measures by patient condition

**2018 30D EDAC PERFORMANCE FOR AMI**

<table>
<thead>
<tr>
<th></th>
<th>Profiled Hospital</th>
<th>Benchmark Median</th>
<th>Peer Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYS</td>
<td>15.20</td>
<td>2.85</td>
<td>16.35</td>
</tr>
</tbody>
</table>

**2018 30D EDAC PERFORMANCE FOR PNEUMONIA**

<table>
<thead>
<tr>
<th></th>
<th>Profiled Hospital</th>
<th>Benchmark Median</th>
<th>Peer Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYS</td>
<td>32.90</td>
<td>0.60</td>
<td>27.55</td>
</tr>
</tbody>
</table>

**2018 30D EDAC PERFORMANCE FOR HF**

<table>
<thead>
<tr>
<th></th>
<th>Profiled Hospital</th>
<th>Benchmark Median</th>
<th>Peer Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYS</td>
<td>20.50</td>
<td>12.00</td>
<td>19.20</td>
</tr>
</tbody>
</table>

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192
90-day episode payment and complication rate for THA/TKA

**2018 90D PAYMENT PERFORMANCE FOR THA/TKA**

<table>
<thead>
<tr>
<th></th>
<th>Profiled Hospital</th>
<th>Benchmark Median</th>
<th>Peer Median</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOLLARS</strong></td>
<td>$24,311</td>
<td>$20,995</td>
<td>$21,308</td>
</tr>
</tbody>
</table>

**Desired Direction**

**2018 90D COMPLICATIONS PERFORMANCE FOR THA/TKA**

<table>
<thead>
<tr>
<th></th>
<th>Profiled Hospital</th>
<th>Benchmark Median</th>
<th>Peer Median</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERCENT</strong></td>
<td>2.7%</td>
<td>2.7%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

**Desired Direction**

*Benchmark hospitals are the winners in the comparison group: n = 15*

*Peer hospitals are the non-winners in the comparison group: n = 192*
SEP-1: Appropriate care for severe sepsis and septic shock

2018 SEPSIS PROCESS OF CARE PERFORMANCE

Benchmark hospitals are the winners in the comparison group: n = 15
Peer hospitals are the non-winners in the comparison group: n = 192
IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

Statement of Good Security Practices: IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed or misappropriated or can result in damage to or misuse of your systems, including to attack others.

No IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM does not warrant that systems and products are immune from the malicious or illegal conduct of any party.