Hospital Performance

Winners of the Truven Health Analytics™ 100 Top Hospitals® designation demonstrate how effective leaders manage change and achieve excellence in a dynamic environment. Using the measures presented in our National Balanced Scorecard, this year’s 100 Top Hospitals® study revealed significant differences between award winners and their nonwinning peers. The nation’s top-performing hospitals had lower inpatient mortality, considering patient severity; had fewer patient complications; followed accepted care protocols for stroke care and blood clot prevention; had lower 30-day mortality and 30-day readmission rates; sent patients home sooner; provided more timely emergency care; kept expenses lower, both in-hospital and through the aftercare process; and scored 10 points higher on patient ratings of their overall hospital experience.

**BETTER PATIENT OUTCOMES**

Overall, winning facilities had 21.0% fewer deaths than expected (0.79 index), considering patient severity, while their nonwinning peers had 3% more deaths than would be expected (1.03 index). Patients at the winning hospitals had 22% fewer complications than expected (0.78 index), considering patient severity, while their nonwinning peers had only 6% fewer complications than expected (0.94 index).

**LOWER 30-DAY MORTALITY AND READMISSION RATES***

The 30-day mortality extended care composite metric now includes acute myocardial infarction (AMI), heart failure (HF), pneumonia, chronic obstructive pulmonary disease (COPD), and stroke patient groups. The mean 30-day readmission rate includes AMI, HF, pneumonia, hip/knee arthroplasty, COPD, and stroke patient groups. Mean 30-day mortality and readmission rates were lower at the winning hospitals than nonwinning hospitals across all comparison groups.

**30-day rates from CMS Hospital Compare July 1, 2012–June 30, 2015 data set.**

**FACT FILE PARTNER:**

Truven Health Analytics, is part of the IBM Watson Health business www.truvenhealth.com

APRIL 2017

**About the Data**

The annual Truven Health Analytics™ 100 Top Hospitals® study uses independent, quantitative research to identify U.S. hospitals with the best overall performance across multiple organizational metrics. To maintain the study’s high level of integrity and eliminate bias, only objective, public data sources are used for calculating outcome metrics. This supports inclusion of hospitals across the country, and facilitates consistency of definitions and data. Hospitals do not apply for consideration, and winners do not pay for use of the 100 Top Hospitals® title.

The 100 Top Hospitals® National Balanced Scorecard, based on Norton and Kaplan’s concept, is the foundation of the research, and comprises the following key domains of organizational performance:

- Quality inpatient and outpatient care
- Operational efficiency
- Financial health
- Customer perception of care

The overall performance score derived from the measures within these domains reflects the highest levels of excellence in hospital leadership.

As with all of the 100 Top Hospitals® awards, the methodology is objective, and all data come from trusted public sources. Truven Health Analytics™ builds a database of short-term, acute care, nonfederal U.S. hospitals that treat a broad spectrum of patients. The primary data sources are the Medicare Provider Analysis and Review (MEDPAR) patient claims data set, the Centers for Medicare & Medicaid Services (CMS) Hospital Compare hospital performance data set, and the Hospital Cost Report Information System (HCRIS) Medicare cost report file.

The most recent five years of data available is used for trending and the most current year is used for selection of winners. However, hospital inpatient mortality and complications are based on two years of data combined for each study year data point.

For more information, visit 100tophospitals.com or email 100tophospitals@truvenhealth.com.
PERFORMANCE IMPROVEMENT OVER TIME

By studying the results for all hospitals in our study, we can see that U.S. hospitals have not been able to significantly improve performance across all performance measures. However, for the years we studied (2011–2015), many hospitals have been able to raise the performance bar for a number of clinical and operational measures, as seen in the green column. Nearly 52% of hospitals improved their readmission rates, likely a result of the attention these measures are getting in payment systems. Even for complications—which has been a volatile measure over the years—12.3% of hospitals significantly improved while only 1.3% declined in their performance. Nearly 18% of hospitals made strides in reducing average length of stay (ALOS). While 19.2% of the hospitals studied had a significant increase in inpatient expense per discharge (declining performance), it is worth noting that 78.6% of the hospitals held their costs steady. This is a significant achievement, as this measure was not adjusted for inflation.

<table>
<thead>
<tr>
<th>Performance measures</th>
<th>Significantly improving performance</th>
<th>No statistically significant change in performance</th>
<th>Significantly declining performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count of hospitals</td>
<td>Percent of hospitals</td>
<td>Count of hospitals</td>
</tr>
<tr>
<td>Risk-adjusted mortality index</td>
<td>564</td>
<td>20.9%</td>
<td>2,134</td>
</tr>
<tr>
<td>Risk-adjusted complication index</td>
<td>333</td>
<td>12.3%</td>
<td>2,334</td>
</tr>
<tr>
<td>30-day mortality rate (%)</td>
<td>6</td>
<td>0.2%</td>
<td>2,453</td>
</tr>
<tr>
<td>30-day readmission rate (%)</td>
<td>1,394</td>
<td>51.6%</td>
<td>1,204</td>
</tr>
<tr>
<td>Severity-adjusted average length of stay (days)</td>
<td>484</td>
<td>17.9%</td>
<td>2,058</td>
</tr>
<tr>
<td>Emergency department throughput (minutes)</td>
<td>159</td>
<td>5.9%</td>
<td>2,315</td>
</tr>
<tr>
<td>Adjusted inpatient expense per discharge ($)</td>
<td>60</td>
<td>2.2%</td>
<td>2,110</td>
</tr>
<tr>
<td>Medicare spend per beneficiary index</td>
<td>86</td>
<td>3.2%</td>
<td>2,502</td>
</tr>
<tr>
<td>Operating profit margin (%)</td>
<td>229</td>
<td>8.5%</td>
<td>2,315</td>
</tr>
<tr>
<td>HCAHPS score</td>
<td>363</td>
<td>13.4%</td>
<td>2,240</td>
</tr>
</tbody>
</table>

1. Count refers to the number of in-study hospitals whose performance fell into the highlighted category on the measure. Note: Total number of hospitals included in the analysis will vary by measure due to exclusion of IQR outlier data points. Inpatient expense and profit are affected. Some in-study hospitals had too few data points remaining to calculate trend.
2. Percent is of total in-study hospitals across all peer groups.

SOURCE: Truven Health 100 Top Hospitals® 2017.

SHORTER ALOS

Overall, winning hospitals had a median severity-adjusted ALOS that was 0.5 days shorter than peers.

LESS TIME TO SERVICE IN THE ED*

Overall, winning hospitals had shorter median wait times for emergency services** than their peers by 5.5%.

HIGHER OPERATING PROFIT MARGIN*

Overall, winning hospitals had a median operating profit margin that was 9.4 percentage points higher than nonwinning hospitals (13.8% versus 4.4%).

*ED measure in mean minutes from CMS Hospital Compare Jan. 1, 2015–Dec. 31, 2015 data set. **Includes median minutes for discharge from the ED, admission to the hospital, and receipt of pain medications for long bone fracture.

SOURCE: Truven Health 100 Top Hospitals® 2017.

*Operating profit margin data from CMS Hospital Cost Report Information System (HCRIS) data file, 2015.

SOURCE: Truven Health 100 Top Hospitals® 2017.