

**IBM Watson Health**

# 15 Top Health Systems, 2017

## Competitor Report

Prepared for Profiled Health System  
City, ST



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# Contents

- Background and Approach
- Profiled Competitors
- Executive Summary
- 2015 Performance and 5-Year Rate of Improvement Graphs
- Methodology Overview

## Background and Approach

- In this analysis, Sample Health System performance and rate of improvement are compared to that of seven client-selected competitors, using the 100 Top Hospitals<sup>®</sup> measures and methodologies
- Measures included in the analysis\*
  - **Overall Score**
  - Inpatient Mortality
  - Complications
  - Mean 30-Day Mortality Rate
  - Mean 30-Day Readmission Rate
  - Average Length of Stay
  - Mean Emergency Department Throughput
  - Medicare Spend Per Beneficiary
  - HCAHPS (Overall Hospital Rating)
- Results are displayed as the rank percentile of each health system's performance and rate of improvement compared to all U.S. hospitals within each health system's 15 Top peer group
  - Conversion to percentiles allows direct comparison of all selected hospitals, without regard to peer group

*\*Core Measures Mean Percent is included in the calculation of the Overall Score but is not reported because there are insufficient data years to trend*

# Profiled Competitors

- **Profiled Health System**
- Competitor 1
- Competitor 2
- Competitor 3
- Competitor 4
- Competitor 5
- Competitor 6
- Competitor 7

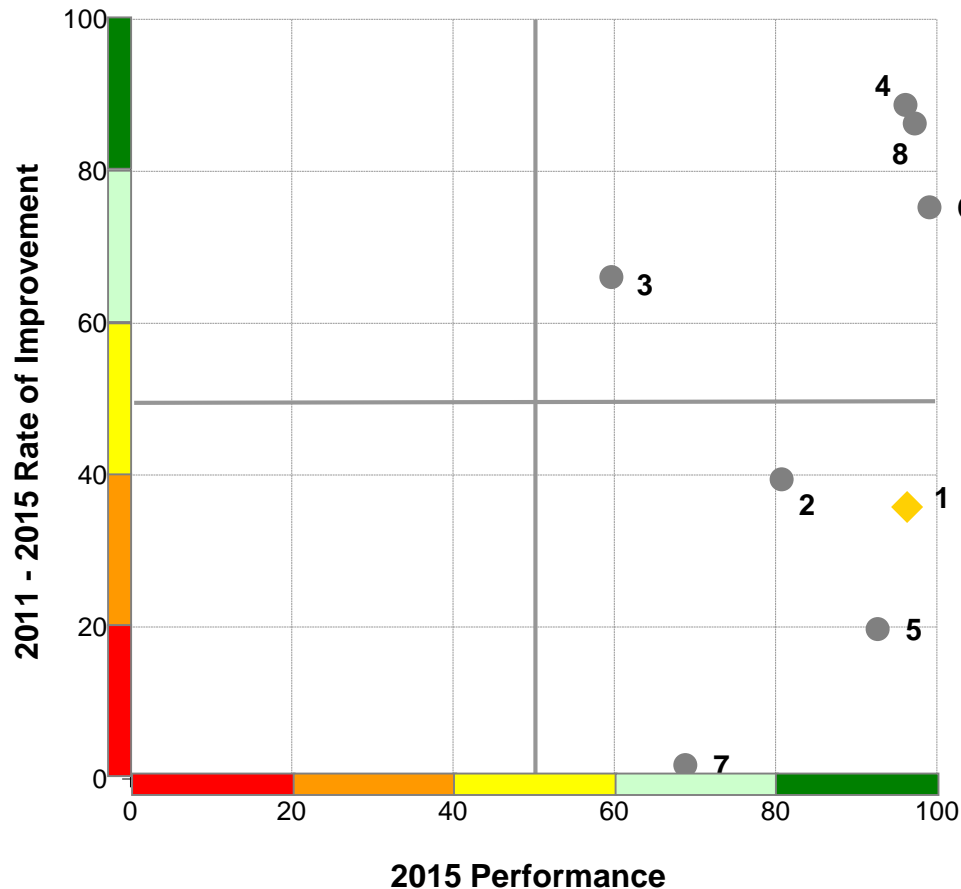
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## Executive Summary

- Overall National Performance
- Performance compared to selected competitors
- Strengths and opportunities

# Overall Comparison

## 2015 Performance and 2011-2015 Rate of Improvement



### HEALTH SYSTEM KEY

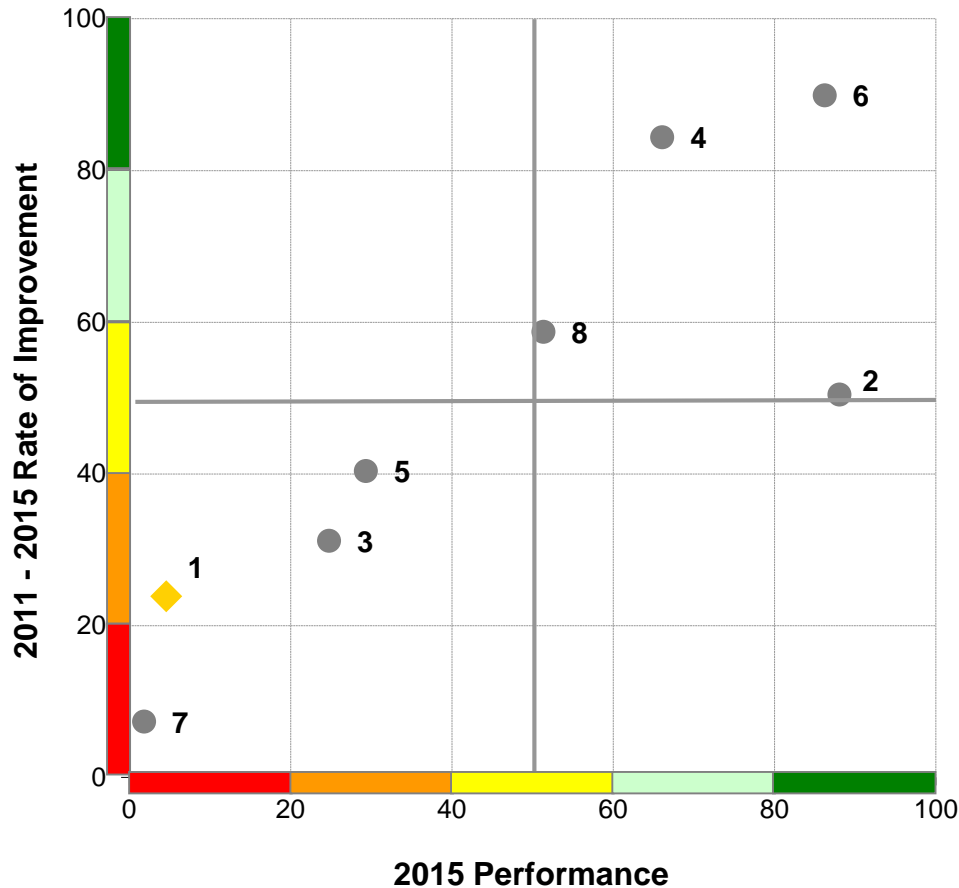
- 1 Profiled Health System
- 2 Competitor 1
- 3 Competitor 2
- 4 Competitor 3
- 5 Competitor 4
- 6 Competitor 5
- 7 Competitor 6
- 8 Competitor 7

### Quintile Key

- > 80 to 100
- > 60 to 80
- > 40 to 60
- > 20 to 40
- > 0 to 20

# Inpatient Mortality

## 2015 Performance and 2011-2015 Rate of Improvement



### HEALTH SYSTEM KEY

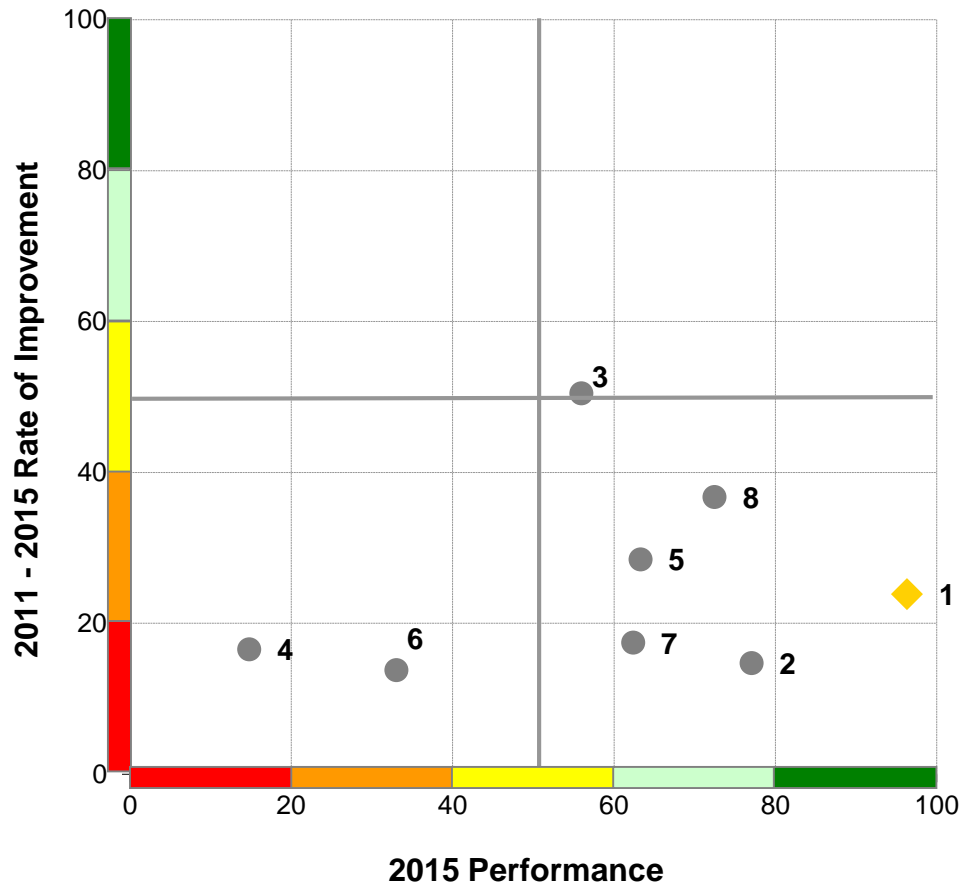
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# Complications

## 2015 Performance and 2011-2015 Rate of Improvement



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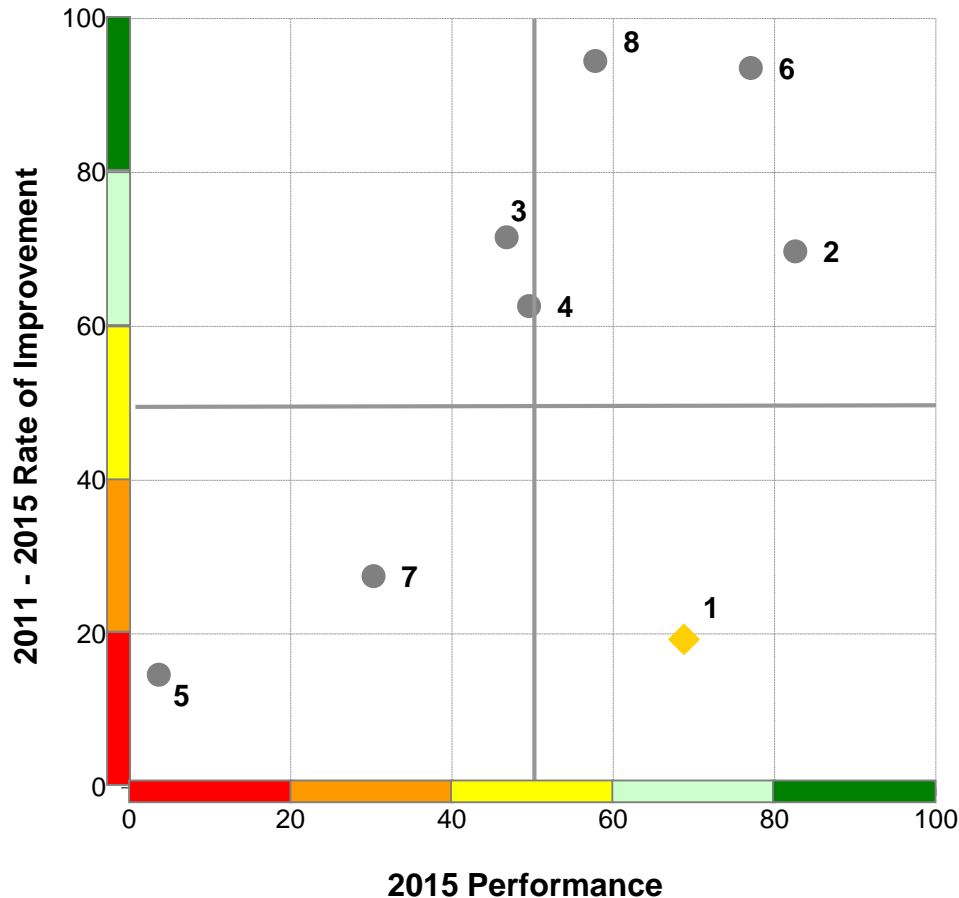
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# 30-Day Mortality

## 2015 Performance and 2011-2015 Rate of Improvement



### HEALTH SYSTEM KEY

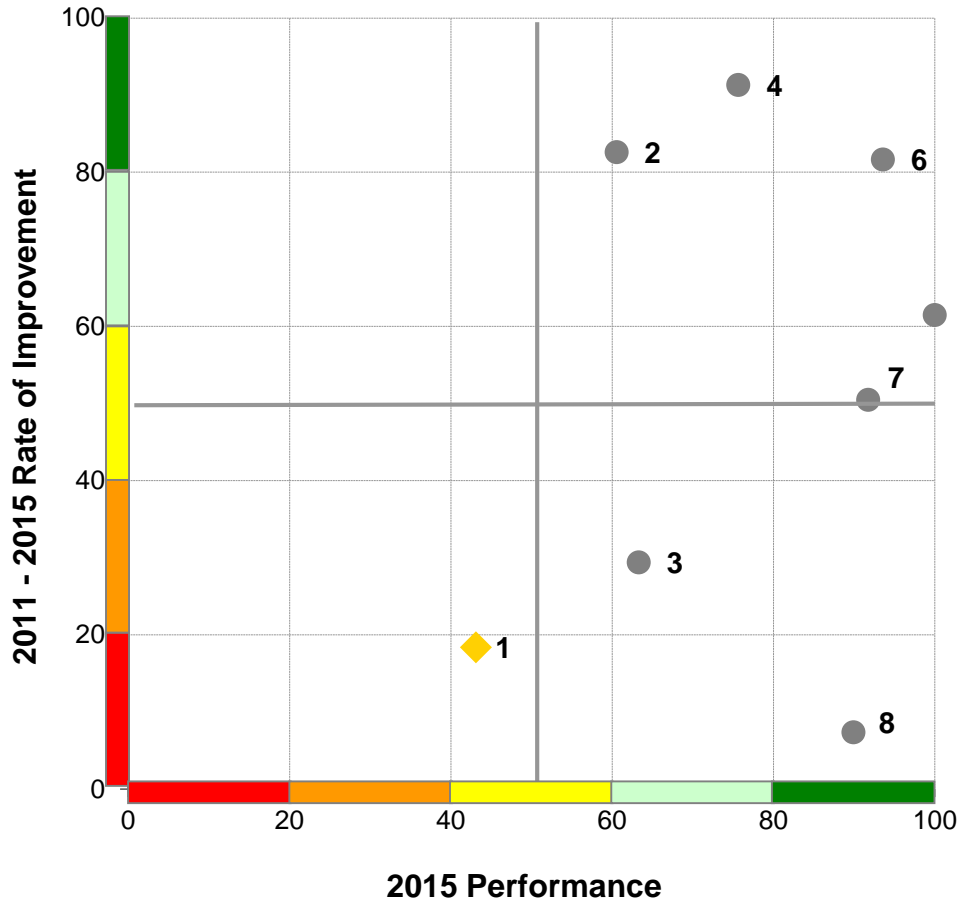
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# 30-Day Readmissions

## 2015 Performance and 2011-2015 Rate of Improvement



### HEALTH SYSTEM KEY

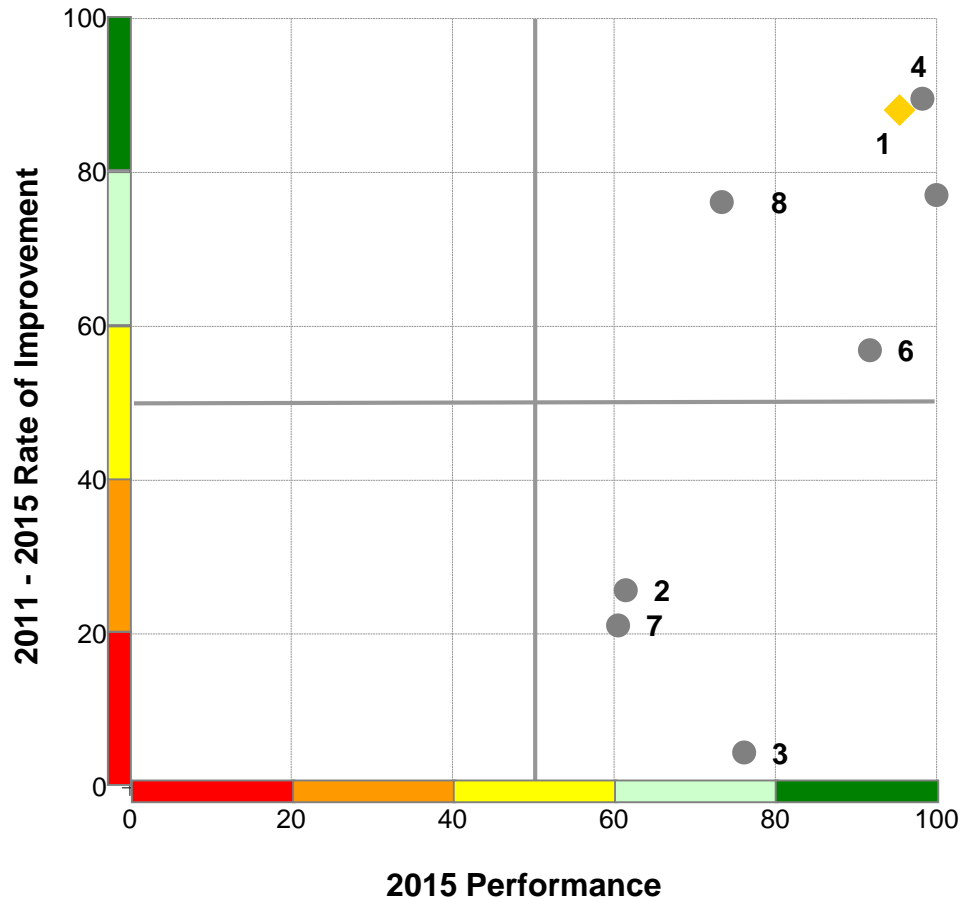
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# Average Length of Stay

## 2015 Performance and 2011-2015 Rate of Improvement



### HEALTH SYSTEM KEY

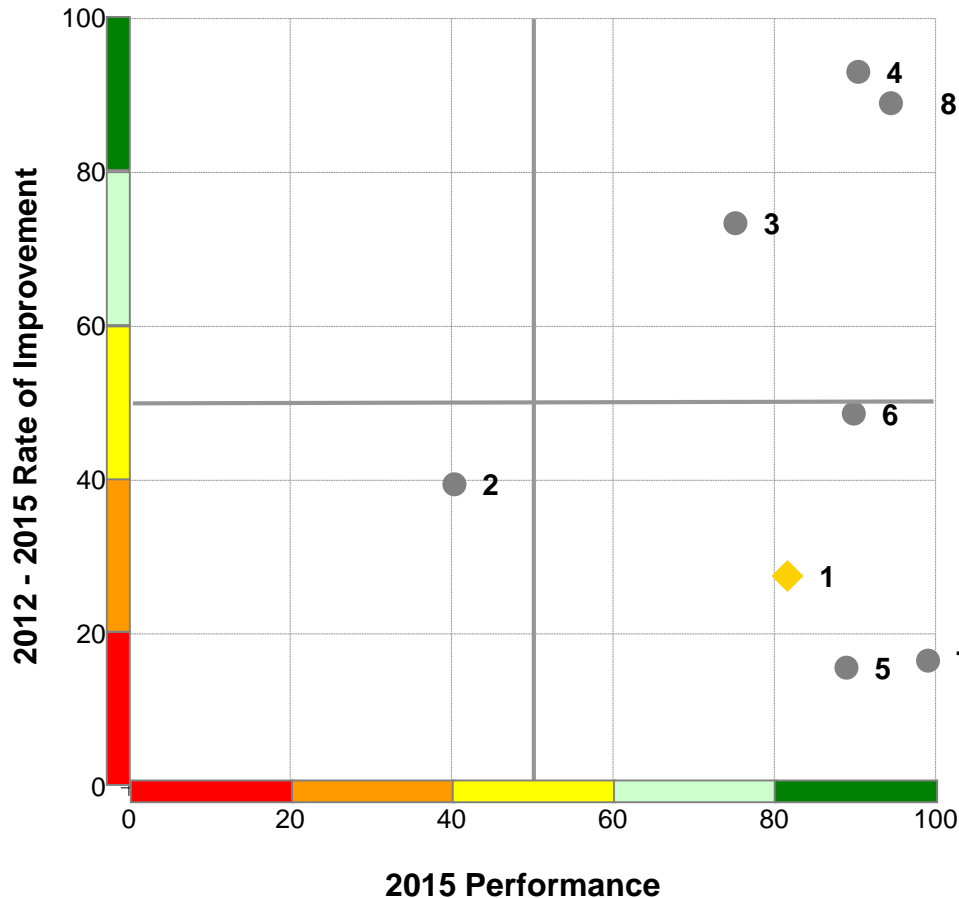
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# Mean Emergency Department Throughput

2015 Performance and 2012-2015 Rate of Improvement



### HEALTH SYSTEM KEY

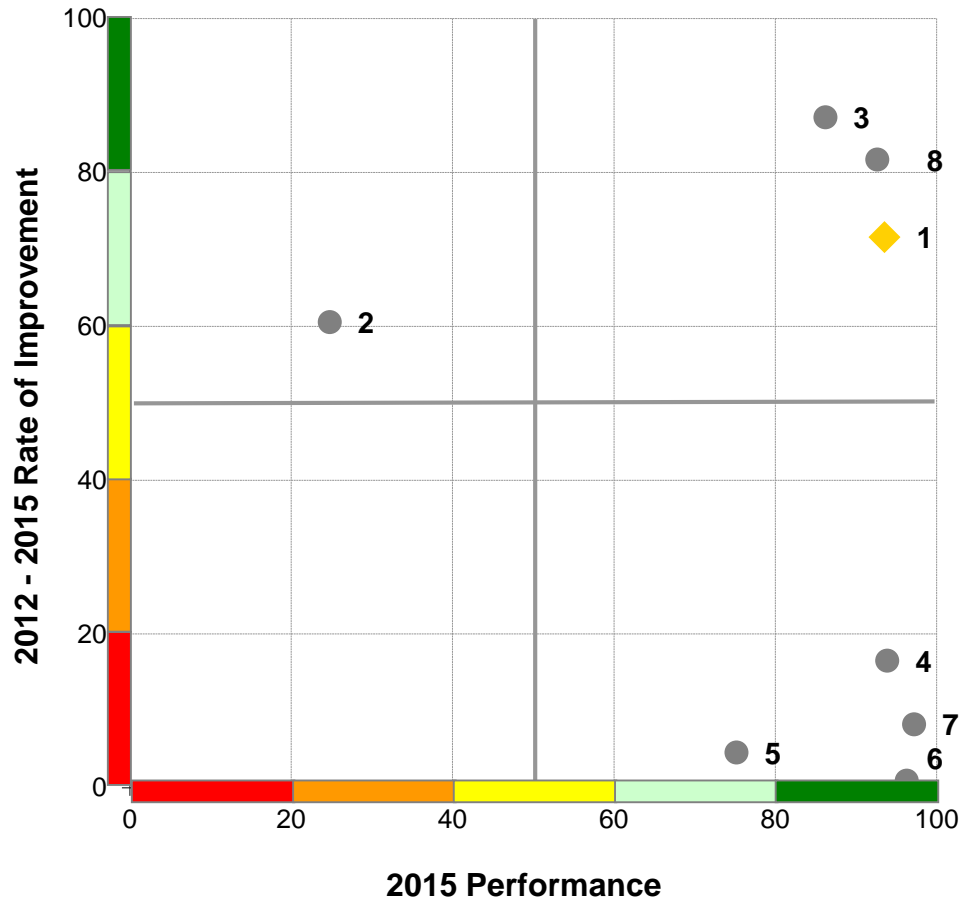
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# Medicare Spend per Beneficiary

## 2015 Performance and 2012-2015 Rate of Improvement



### HEALTH SYSTEM KEY

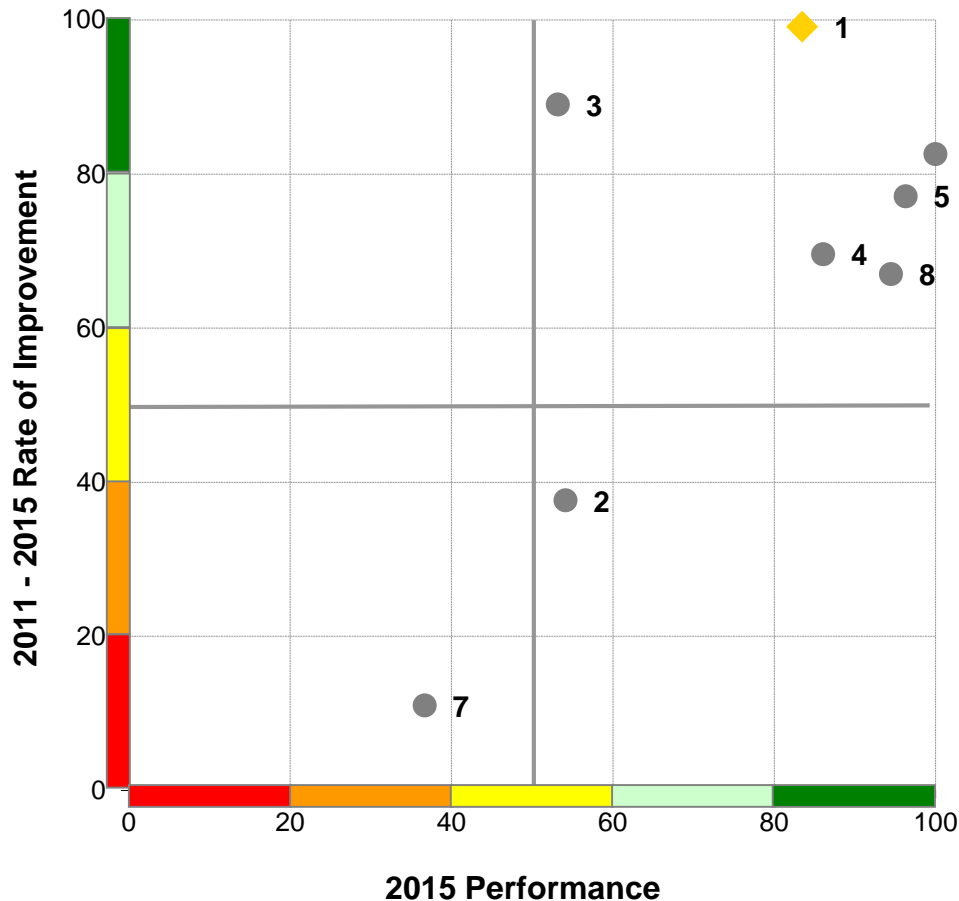
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# HCAHPS Score

## 2015 Performance and 2011-2015 Rate of Improvement



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# Methodology Overview

# 15 Top Health Systems, 2017

## Overview

- Definition of health system
  - Minimum of two acute care general hospitals
  - Corporate office or related organization identified on 2015 Cost Report
  - Cardiac, Orthopedic, Women's, and Critical Access Hospitals also included if they had valid data for all required measures
- All systems included, regardless of size, ownership, control, religious affiliation, geographic distribution of hospitals
- 100 Top Hospitals<sup>®</sup> methodologies applied to all data
- System measures based on aggregated member hospital data



# Ranking Methodology

- Current Performance (2015)
  - We use the most current public data available for each measure (various data sets ending in 2015).
  - Systems are ranked on each measure, independently, by comparison group.
  - Ranks are weighted, summed and the sum is re-ranked by comparison group to determine each system's overall performance score.
  - **Winners** are the top overall performers in each comparison group.
- 5-Year Rate of Improvement (2011-2015)
  - 5 data points are trended for each measure (*ED throughput, MSPB have 4*)
  - Systems are ranked on the regression line t-statistic for each included measure, by comparison group.
  - Ranks are weighted, summed and the sum is re-ranked by comparison group to determine each system's overall rate of improvement score.
  - Trended results are presented to guide leadership decision-making. They are not used in the selection of winners.

# 15 Top Health Systems, 2017

## Health System Comparison Groups

Health System Comparison Group	Total Operating Expense	Number of Systems in Study	Number of Winners
Large	Greater than \$1.75 billion	109	5
Medium	\$750 million – \$1.75 billion	115	5
Small	Less than \$750 million	113	5
<b>Total Systems</b>		<b>337</b>	<b>15</b>

# 15 Top Health Systems, 2017

## Performance Domains, Measures, and Rank Weights

Domain	Measure	Current Weights	Trend Weights
Inpatient Outcomes	Risk-Adjusted Inpatient Mortality	1	1
	Risk-Adjusted Complications	1	1
Process of Care	Core Measures Mean Percent (Stroke and Blood Clot)	1	NA
Extended Outcomes	Mean 30-Day Mortality Rate (AMI, HF, PN, COPD, STK)	1	1
	Mean 30-Day Readmission Rate (AMI, HF, PN, HipKnee, COPD, STK)	1	1
Process Efficiency	Severity-Adjusted Average Length of Stay	1	1
	Mean Emergency Department Throughput (wait time minutes)	1	1
Cost Efficiency	Medicare Spend Per Beneficiary Index	1	1
Patient Experience	HCAHPS Score (Overall Rating Question)	1	1

## 15 Top Health Systems, 2017 – Data Sources

Performance Measure	2015 Profile <i>(Used to select 15 Top)</i>	2011-2015 Trend Profile
Risk-Adjusted Mortality Index (Inpatient)*	MEDPAR Federal Fiscal Year (FFY) 2014 and 2015, combined	MEDPAR Federal Fiscal Year (FFY) 2010-2015
Risk-Adjusted Complications Index*	MEDPAR FFY 2014 and 2015, combined	MEDPAR FFY 2010-2015
Core Measures Mean Percent (Stroke, Blood Clot)	CMS Hospital Compare Jan 1, 2015-Dec 31, 2015	Trend not available
Mean 30-Day Mortality Rate (AMI, Heart Failure, Pneumonia, COPD, Stroke)**	CMS Hospital Compare Jul 1, 2012-Jun 30, 2015	CMS Hospital Compare: 3-yr datasets ending Jun 30 in 2011, 2012, 2013, 2014, 2015
Mean 30-Day Readmission Rate (AMI, Heart Failure, Pneumonia, Hip/Knee, COPD, Stroke)***	CMS Hospital Compare Jul 1, 2012-Jun 30, 2015	Same as for 30-day mortality
Severity-Adjusted Average Length of Stay	MEDPAR FFY 2015	MEDPAR FFY 2011-2015
Mean Emergency Department Throughput	CMS Hospital Compare Calendar Year (CY) 2015	CMS Hospital Compare CY 2012, FFY 2013, CY 2014, CY 2015 (CY2013 not published)
Medicare Spend Per Beneficiary Index	CMS Hospital Compare CY 2015	CMS Hospital Compare 2012-2015
HCAHPS Score (Overall Hospital Rating)	CMS Hospital Compare CY 2015	CMS Hospital Compare 2011-2015

\*Two years of data are combined for each study year data point

\*\*Trend data for 30-day mortality does not include COPD or Stroke

\*\*\*Trend data for 30-day readmissions does not include Hip/Knee, COPD or Stroke