

Value-Based Purchasing (VBP) Measure Trends Analysis

Quarterly Update Based on Hospital Compare's June 2016 (2nd quarter 2016) Data Release
-Version 1, September 2016-

Analysis Description

The VBP Measure Trends Analysis (2nd quarter 2016 update) is designed to provide hospitals with a comparative review over time of the quality data collected by the Centers for Medicare and Medicaid Services (CMS) and published on the Hospital Compare Web site at <http://www.medicare.gov/hospitalcompare/>.

The specific measures analyzed (35 in total) represent the Process of Care, Patient Experience, Safety of Care, Patient Outcomes, and Efficiency measures CMS has adopted for use in Federal Fiscal Years (FFYs) 2015-2022 Hospital VBP Programs. Certain measures do not apply to all program years. Text is provided under each data table specifying the applicable program years for each measure. Measures collected by CMS and included in the Hospital Compare database that have not been adopted for use in a VBP Program are not evaluated in this analysis. Measures that have been finalized for use in the VBP program but are lacking complete data on Hospital Compare are not evaluated in this analysis.

Hospital performance levels are shown in both graphical and tabular form with relevant comparisons to national standards (the U.S. average and U.S. top 10%). These standards are similar to the national performance standards used to evaluate hospital performance under the VBP Program and are intended to give a hospital an indication of how it would perform under such program. Rankings within the nation and the state are also provided to show how hospital performance is changing relative to performance across the country (a hospital with performance levels that are not improving at a rate comparable to or better than the nation may have performance levels that are improving but will have a national ranking that is falling).

The graphs in this analysis are set to display hospital performance relative to national performance standards (the U.S. average and U.S. top 10%). As a result, the axis for each chart varies.

Importantly, this analysis evaluates performance for ALL hospitals included in CMS' Hospital Compare database. Critical Access Hospitals are currently exempt from the Hospital VBP Program and some hospitals that do not meet certain minimum measure requirements and/or other qualification standards are also exempt from the Hospital VBP Program.

Please note, that in order to focus on measures relevant to the VBP program going forward, this analysis does not include measures that have met the following two criteria:

- CMS having removed the measure for the previous program year; and
- Has not been included in at least two successive releases on Hospital Compare when data would have been expected based on the measure (Quarterly/Annually).

Also, for measures where data is not available, "No Data" will appear in the analysis for the relevant quarterly release. In cases when a regularly scheduled data update was not released, "No Update" will appear instead.

Sources, Time Periods, and Measures Analyzed

The following describes the sources, time periods, and measures evaluated in this analysis by VBP measure domain:

Process of Care Measures:

Hospital performance, U.S. average, and U.S. top 10% performance are from the quarterly updates to the CMS Hospital Compare quality database from June 2013 (2nd quarter 2013) through June 2016 (2nd quarter 2016)

when available. The measure collection dates related to these database updates are listed directly on the report.

The 11 Process of Care measures analyzed (in the areas of acute myocardial infarction, pneumonia, surgical care, preventive care, and maternity care) include:

Acute myocardial infarction (AMI)

- Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival (AMI-7a)
- Primary PCI Received Within 90 Minutes of Hospital Arrival (AMI-8a)

Pneumonia (PN)

- Initial Antibiotic Selection for CAP in Immunocompetent Patient (PN-6)

Surgical Care Improvement (SCIP)

- Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision (SCIP-INF-1)
- Prophylactic Antibiotic Selection for Surgical Patients (SCIP-INF-2)
- Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time (SCIP-INF-3)
- Postoperative Urinary Catheter Removal on Post Operative Day 1 or 2 (SCIP-INF-9)
- Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta Blocker During the Perioperative Period (SCIP-CARD-2)
- Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery (SCIP-VTE-2)

Preventive Care

- Patients Assessed and Given Influenza Vaccination (IMM-2)
 - Please note that IMM-2 only receives a full update once a year, typically in the 4th quarter, so all other quarters will read as “No Data.”

Maternity Care

- Elective Delivery Prior to 39 Completed Weeks Gestation (PC-01)

For the process measures, rankings are not provided for hospitals with fewer than 10 reported cases during the data collection period (the CMS minimum standard for public display on Hospital Compare). Overall hospital counts shown for the rankings change from quarter to quarter due to the 10 case restriction and changing reporting practices by CMS. This is a change from prior reports, as a 25 case restriction used to be in use. As a result, prior data period rankings in this report will not tie with those from a prior release.

Patient Experience of Care Measures:

Hospital performance and U.S. average performance are from the quarterly updates to the CMS Hospital Compare quality database from June 2013 (2nd quarter 2013) through June 2016 (2nd quarter 2016). U.S. top 10% performance is calculated based on hospital performance. The measure collection dates related to these database updates are listed directly on the report. Also included, are the Hospital Compare “Star Ratings” for the individual measures, beginning with the March 2015 (1st quarter 2015) data release. Hospitals are given between 1 and 5 stars based on their performance on a measure; the technical specifications may be found at <http://www.hcahpsonline.org/StarRatings.aspx>.

The 10 Patient Experience of Care (Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey) measures analyzed include:

- Communication with Nurses
- Communication with Doctors
- Responsiveness of Hospital Staff

- Pain Management
- Communication about Medicines
- Patients' Rooms and Bathrooms Were Always Kept Clean
- Area Around Patients' Rooms was Always Kept Quiet at Night
- Discharge Information
- Overall Rating of Hospital
- 3-Item Care Transitions Measure (CTM-3)

Please note that the VBP Program technically evaluates 9 measures—the “clean and quiet” measures are combined for the purposes of VBP. This analysis shows the measures independently to provide hospitals with performance levels and rankings for each individual measure.

Safety of Care Measures:

For the 6 hospital-acquired infection (HAI) measures, hospital performance levels are from the quarterly updates to the CMS Hospital Compare quality database from June 2013 (2nd quarter 2013) through June 2016 (2nd quarter 2016) when complete data are available. U.S. average and top 10% performance is calculated based on hospital performance.

CMS changed the measure ID for two of the six HAI measures. HAI_1 is now HAI_1a and HAI_2 is now HAI_2a. These measures are both ICU only. CMS has also created an additional two measures which are now HAI_1 and HAI_2 to represent each respective measure including ICU and select wards. CMS does not yet provide a full year of reported data for either measure. As a result, neither are included in this analysis.

For the 1 patient safety indicator (PSI) composite measure, PSI-90, hospital performance and U.S. average performance are from the annual updates to the CMS Hospital Compare database from September 2013 (3rd quarter 2013) through June 2016 (2nd quarter 2016). The annual update in June 2016 PSI-90 uses version 5.0.1 of the AHRQ Quality Indicators Software, while the December 2014 and June 2015 annual updates utilized version 4.5a, and the September 2013 annual update utilized version 4.4. As a result of the software changes, results under the updated software version are significantly different and should not be compared directly against each other, thus there is no trend line connecting these periods. U.S. top 10% performance levels are calculated based on hospital performance.

The measure collection dates for each measure are listed directly on the report.

The 7 Safety of Care measures analyzed include:

- Central Line-Associated Blood Stream Infection (ICU Only) (HAI-1a)
- Catheter Associated Urinary Tract Infection (ICU Only) (HAI-2a)
- Surgical Site Infection – Colon (HAI-3)
- Surgical Site Infection – Abdominal Hysterectomy (HAI-4)
- Methicillin Resistant Staph Infection (MRSA) (HAI-5)
- Clostridium Difficile (C.Diff) (HAI-6)
- Patient Safety Indicator Composite (PSI-90)

Also note that the FFY 2017 VBP Program takes a weighted average of the final scores for the two SSI measures when determining the Patient Outcomes domain score. This analysis shows the measures independently to provide hospitals with performance levels and rankings for each individual measure.

Patient Outcomes Measures:

For the 5 mortality and 1 complication rate measures, hospital performance and U.S. average performance are from the annual updates to the CMS Hospital Compare quality database from June 2011 (2nd quarter 2012) through June 2016 (2nd quarter 2016) where complete data are available. U.S. Top 10% performance levels are

calculated based on hospital performance. Mortality rates are converted and shown as survival rates. This is how CMS evaluates these measures under the VBP Program.

The measure collection dates for each measure are listed directly on the report.

The 6 Patient Outcomes measures analyzed include:

- AMI 30-Day Mortality Rate (MORT-30-AMI)
- HF 30-Day Mortality Rate (MORT-30-HF)
- PN 30-Day Mortality Rate (MORT-30-PN)
- COPD 30-Day Mortality Rate (MORT-30-COPD)
- CABG 30-Day Mortality Rate (MORT-30-CABG)
- Risk Standardized Complication Rate (RSCR) Following Elective Primary Total Hip Arthroplasty (THA) and Total Knee Arthroplasty (TKA) (COMP-HIP-KNEE)

In the June 2016 update of Hospital Compare the Pneumonia 30-Day Mortality Rate measure was expanded to include patients with aspiration pneumonia and patients with sepsis and a secondary diagnosis of pneumonia. Therefore results are significantly different for some hospitals on this measure from previous periods and should not be compared directly against each other, thus there is no trend line connecting these periods.

Efficiency Measure:

Hospital performance and U.S. average performance for the Medicare hospital spending per patient (Medicare spending per beneficiary) measure are from five specific updates to the CMS Hospital Compare quality database: March 2012 (1st quarter 2012), December 2012 (4th quarter 2012), December 2013 (4th quarter 2013), September 2014 (3rd quarter 2014), and September 2015 (4th quarter 2015). The U.S. average is not available in the March 2012 dataset. The U.S. top 10% performance levels are calculated based on hospital performance. The measure collection dates related to this measure are listed directly on the report.

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