Medicare VBP Estimates for Critical Access Hospitals

Based on Hospital Compare's 2nd quarter 2019 Data Release
-Version 1-

Analysis Description

Per the Affordable Care Act of 2010 (ACA), Critical Access Hospitals (CAHs) are excluded from the mandatory Value-Based Purchasing (VBP) program that began for Inpatient Prospective Payment System (IPPS) hospitals in federal fiscal year (FFY) 2013. However, the Secretary of Health and Human Services (HHS) is required by the ACA to develop a VBP demonstration program for CAHs. The demonstration program likely will lead to the eventual adoption of a mandatory VBP Program for CAHs.

This analysis is intended to provide CAHs with an estimate of their performance potential under a scenario for the CAH VBP program that closely resembles the one currently in place for IPPS hospitals. The reports in this analysis estimate VBP scores and impacts for CAHs, and provide full detail on how the points and scores for each quality measure and quality domain are calculated.

This analysis is generally based on the actual IPPS VBP Program rules and methodologies established by the Centers for Medicare and Medicaid Services (CMS), however, it differs from the IPPS VBP Program in the following ways:

- **Evaluates all the IPPS VBP Program domains that are available for CAHs;**
- **Includes only measures that are reported by CAHs on Hospital Compare. Other measures are included in the analysis but will have no data;**
- **Ignores the minimum case/survey counts required, where CMS provides a score on Hospital Compare (PC-01 and HCAHPS), for individual measure scoring and the minimum measure counts required for domain scoring under the IPPS VBP Program;**
- **Ignores the minimum domain counts required for program eligibility under the IPPS VBP Program;**
- **Calculates CAH-specific national performance standards to evaluate CAH VBP performance; and**
- **Sets the CAH VBP contribution amount at 1.0% of Inpatient payments (the IPPS VBP Program was funded with 1.0% of hospitals' Medicare IPPS operating dollars in FFY 2013, and has since been capped at 2%).**

This analysis is not a representation of the VBP demonstration program that the Secretary will eventually develop for CAHs— as this program has not yet been proposed. **There is no indication that the assumptions made for this analysis will be the methodology that CMS will adopt and the impacts provided in this analysis should not be used for budgeting purposes.** However, the resulting composite VBP scores are intended to provide a good indication of the relative quality performance for CAHs when they are compared to their peers.

Data Sources

This analysis utilizes data provided by CMS on its Hospital Compare website at http://www.hospitalcompare.hhs.gov/.
Historical data from Hospital Compare is used for the CAH VBP baseline periods and the 2Q2019 update of Hospital Compare is used for the CAH VBP performance periods.

The CAH VBP Analysis assesses CAH performance using measures grouped into four domains:

- Person and Community Engagement 25%
- Clinical Outcomes 25%
- Safety 25%
- Efficiency and Cost Reduction 25% (currently there is no CAH data available for this domain).

The table below describes the time periods analyzed by measure and by domain:

CAH VBP Data Source Summary
FFY 2020 Program

Baseline Period Quality Data
Performance Period Quality Data

2010 2011 2012 2013 2014 2015 2016 2017 2018

This Analysis

Person and Community Engagement and Safety
Person and Community Engagement and Safety
Mortality Measures
AMI, and HF Mortality
PN Mortality
(Current Hospital Compare update uses expanded Pneumonia definition)
THA/TKA
THA/TKA

The following lists the Hospital Compare quarterly releases that correspond with the measure collection periods described in the above table.

Baseline Periods:

- 4th quarter 2014 update: Mortality; Total Hip Arthroplasty/Total Knee Arthroplasty (THA/TKA);
- 3rd quarter 2017 update: Patient Experience of Care; PC-01 measure; and Hospital Acquired Infection (HAI) Standardized Infection Ratios (SIRs).

Performance Periods:

- 2nd quarter 2015 update: Mortality (Pneumonia, current update of Hospital Compare uses expanded Pneumonia definition);
- 2nd quarter 2019 update: Mortality (AMI, HF); THA/TKA; Person and Community Engagement; HAI SIRs; and PC-01.

The national performance standards used to evaluate CAH performance are calculated using the baseline period data described above for all CAHs reporting quality data and will differ from the performance standards used under the Medicare IPPS VBP Program. For each measure, the Floor reflects the lowest performance score (HCAHPS measures only), the Threshold reflects median CAH performance score, and the Benchmark reflects the average performance score for the top 10% of CAHs. These are the same calculation methods used to determine the national performance standards under the IPPS VBP Program.

Estimated VBP contributions and payouts for CAHs are based on total Medicare fee-for-service inpatient payments from the most recent Medicare cost report (2016, 2017, or 2018 in most cases). Payments have been inflated to 2020 levels using current estimates of the full Medicare IPPS marketbasket update as provided by CMS.

VBP Scoring and Impact Estimates

This analysis uses CMS-defined formulas for calculating VBP points for each measure under each domain. CMS has established the following formulas to calculate VBP points:

$$\textbf{Achievement Points (all program measures)} = \left[9 \times \left[\frac{\text{Performance Period Score - Achievement Threshold}}{\text{Benchmark - Achievement Threshold}}\right] + 0.5\right.$$

$$\textbf{Improvement Points (all program measures)} = \left[10 \times \left[\frac{\text{Performance Period Score - Baseline Period Score}}{\text{Benchmark - Baseline Period Score}}\right] - 0.5\right.$$

Final Points (all program measures) = Higher of Achievement or Improvement

$$\textbf{Final Points (SSI Measure)} = \left[\frac{\text{Final Points}_{HAI3} \times \text{Predicted Infections}_{HAI3} + \text{Final Points}_{HAI4} \times \text{Predicted Infections}_{HAI4}}{\text{Predicted Infections}_{HAI3} + \text{Predicted Infections}_{HAI4}}\right]$$

Consistency Points (person and comm. engagement) = [20 x Lowest Measure Consistency Points Multiplier] - 0.50

$$\textbf{Consistency Points Multiplier (person and comm. engagement)} = \left[\frac{\text{Performance Period Score - Floor}}{\text{Achievement Threshold - Floor}}\right]$$

The minimum requirements for case counts and number of useable measures established for the IPPS VBP Program have been ignored for this analysis. This allows the inclusion of more CAHs in the analysis.

If a CAH has no data in the performance period, the measure is not scored. If a CAH has no data in the baseline period, but useable data for the performance period, only a CAH's achievement points may be scored (no improvement points). The various reports in this analysis describe when the necessary data to calculate VBP points are lacking.

For all measures, the report indicates "-" for the achievement/improvement/final points when there is no data as described above. "-" is also indicated for the improvement points calculation when the full 10 achievement points are attained for a measure. Under the IPPS VBP Program and in this analysis, when there are both achievement and improvement points for a measure, the higher of those two is taken as the final points for that measure.

The ACA requires the IPPS VBP Program to be budget neutral, meaning that all monies contributed to the VBP Program by hospitals must be paid out during the same period. The IPPS VBP Program was funded with 1.0% of hospitals' Medicare IPPS operating dollars in FFY 2013, with the program contribution increasing by 0.25% each year until the program contribution capped at 2.0% for 2017 and thereafter. In this CAH analysis, the program contribution is estimated at 1.0% of CAH Medicare inpatient payment.

Under the rules established by CMS for the IPPS VBP Program, for each hospital, once the final VBP points are calculated for each individual measure, overall domain scores are calculated for each of the program's domains (person and community engagement, clinical outcomes, safety, and efficiency and cost reduction). The overall domain scores are then combined to calculate a Total Performance Score (TPS) for each hospital. The TPS serves as the basis for estimating a hospital's VBP payments or gain/loss under the program. CMS is required by the ACA to assign weights to each domain when calculating the TPS.

The following describes how overall domain scores are calculated in this analysis and how domains are weighted to calculate each CAH's TPS. The methods used in this analysis generally follow the methods established for the IPPS VBP Program.

- Calculating Overall Domain Scores (all domains): For each domain, the overall domain score is the sum of the final points earned for the domain divided by the maximum possible points for all useable measures in the domain.

- <u>Domain Weighting and Calculating a TPS</u>: This analysis starts with weights for the four estimated CAH VBP domains: Person and Community Engagement, Clinical Outcomes, Safety, and Efficiency and Cost Reduction.

  Following the general methods of the current IPPS VBP Program, if a CAH does not have a domain score for all domains, the TPS is calculated by reweighting the remaining domains proportionately.

  $$\textbf{Reweighted Domain Weight} = Original\ Domain\ Weight \times \frac{1}{Sum\ of\ Remaining\ Domain\ Weights}$$

Following the methods used under the IPPS VBP Program, once a TPS is calculated, this analysis uses a linear payment exchange function to redistribute VBP pool payments based on quality performance. The linear exchange function is the formula for a line that will start at 0% payment for a VBP TPS of 0 and will end at some percentage (*x%*) for a VBP TPS of 100. The *x%* is the slope of the line and will be determined based on the national distribution of CAH VBP scores, such that the sum of all CAH's VBP payments will exactly equal the amount of dollars contributed to the program.

This analysis includes two payment functions:

- <u>Current Estimate</u>: Using the most currently available data, the VBP payment percentage estimated for each CAH equals its TPS multiplied by 2.32 (under the linear payment function, 2.32 is the calculated slope of the line using the most currently available data that will redistribute all VBP contributions based on CAH performance). The estimated slope is expected to flatten out over time as CAH quality performance improves. Traditionally, CAH performance improves as more recent data become available and more time elapses between the data used for the baseline period and the performance period.

- <u>Conservative Estimate</u>: Under the conservative estimate the slope of the payment function is reduced and set to 2.0 to reflect anticipated improvement in VBP scores nationwide as data closer to the actual performance period become available.