



# Hospital-Acquired Condition Reduction Program Fiscal Year 2020 Fact Sheet

## Overview

The Hospital-Acquired Condition (HAC) Reduction Program is a Medicare pay-for-performance program that supports the Centers for Medicare and Medicaid Services (CMS) effort to link Medicare payments to healthcare quality in the inpatient hospital setting to encourage eligible hospitals to reduce HACs. Section 1886(p) of the Social Security Act established the statutory requirements for the HAC Reduction Program.

Beginning in Fiscal Year (FY) 2015 (i.e., discharges beginning on October 1, 2014), the HAC Reduction Program requires the Secretary of the Department of Health and Human Services (HHS) to adjust payments to hospitals that rank in the worst-performing quartile of all subsection (d) hospitals<sup>1</sup> with respect to risk-adjusted HAC quality measures. Hospitals with Total HAC Scores greater than the 75th percentile of all Total HAC Scores (i.e., the worst-performing quartile) will be subject to a 1 percent payment reduction.

## FY 2020 Results

The cutoff for the 75th percentile of Total HAC Scores is 0.3306. Please refer to the Scoring Methodology Section for more details on how CMS calculates hospitals' Total HAC Scores.

## Public Reporting

CMS will report the following FY 2020 HAC Reduction Program information for each hospital on *Hospital Compare* in January 2020:

- CMS Recalibrated Patient Safety Indicators (PSI) 90 (CMS PSI 90) measure score<sup>2</sup>
- Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network (NHSN) hospital-associated infections (HAI) measure scores:
  - Central Line-Associated Bloodstream Infection (CLABSI)
  - Catheter-Associated Urinary Tract Infection (CAUTI)
  - Surgical Site Infection (Abdominal Hysterectomy and Colon Procedures) (SSI)
  - Methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia
  - *Clostridium difficile* Infection (CDI)

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<sup>1</sup> For a full description of subsection (d) hospitals, refer to the Social Security Act on the Social Security Administration's website: [https://www.ssa.gov/OP\\_Home/ssact/ssact-toc.htm](https://www.ssa.gov/OP_Home/ssact/ssact-toc.htm). The HAC Reduction Program exempts Maryland hospitals from payment reductions. These hospitals operate under a waiver agreement between CMS and the state of Maryland.

<sup>2</sup> The CMS PSIs in CMS' hospital value-based programs focus on the Medicare Fee-for-Service (FFS) population.

- Total HAC Score
- Payment Reduction Indicator

## Measure Selection and Calculation

The FY 2014 Inpatient Prospective Payment System (IPPS)/Long-Term Care Hospital Prospective Payment System (LTCH PPS) Final Rule adopted the CMS PSI 90 and CDC CLABSI, CAUTI, SSI, MRSA bacteremia, and CDI measures. The FY 2017 IPPS/LTCH PPS Final Rule adopted the modified CMS PSI 90, beginning in the FY 2018 HAC Reduction Program.

### CMS PSI 90

The CMS PSI 90 measure includes the following ten CMS PSIs component measures:

- PSI 03 – Pressure Ulcer Rate
- PSI 06 – Iatrogenic Pneumothorax Rate
- PSI 08 – In-Hospital Fall with Hip Fracture Rate
- PSI 09 – Perioperative Hemorrhage or Hematoma Rate
- PSI 10 – Postoperative Acute Kidney Injury Requiring Dialysis Rate
- PSI 11 – Postoperative Respiratory Failure Rate
- PSI 12 – Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate
- PSI 13 – Postoperative Sepsis Rate
- PSI 14 – Postoperative Wound Dehiscence Rate
- PSI 15 – Unrecognized Abdominopelvic Accidental Puncture/Laceration Rate

The CMS v9.0 PSI software uses an updated reference population (i.e., October 2015 through September 2017) of Medicare FFS discharges, which consists entirely of ICD-10 data. The CMS PSI 90 is a weighted average of the risk- and reliability-adjusted versions (i.e., smoothed versions) of these ten CMS PSIs.

For FY 2020, CMS used a 24-month performance period for CMS PSI calculations that includes discharges from July 1, 2016 through June 30, 2018.

For more information, reference the CMS PSI 90 Fact Sheet (version 9.0):

<https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228695355425>

### CDC NHSN HAI Measures

The CDC calculates standardized infection ratios (SIRs) for the CLABSI, CAUTI, SSI, MRSA bacteremia, and CDI measures. SIRs compare observed-to-predicted numbers of HAIs.

The CLABSI, CAUTI, SSI, MRSA bacteremia, and CDI measures are adjusted at the hospital level and patient care unit level. For FY 2020, the CDC used chart-abstracted and laboratory surveillance data from NHSN for infections that occurred January 1, 2017 through December 31, 2018.

## Scoring Methodology

In previous program years, CMS calculated a Total HAC Score composed of two domains to identify the worst-performing quartile of hospitals. Domain 1 included the CMS PSI 90 measure weighted at 15% of the Total HAC Score, and Domain 2 included the CDC NSHN HAI measures for CLABSI, CAUTI, SSI, MRSA bacteremia, and CDI weighted at 85% of the Total HAC Score. CMS finalized the adoption of the Equal Measure Weights approach in the FY 2019 IPPS/LTCH Final Rule to address the impact of disproportionate weighting at the measure level for the subset of hospitals with relatively few NHSN HAI measures. The Equal Measure Weights approach removes the domains and applies an equal weight to each measure for which a hospital has a measure score. All other aspects of the HAC Reduction Program scoring methodology remain the same, including the calculation of measure scores as Winsorized z-scores, the determination of the 75th percentile Total HAC Score, and the determination of the worst-performing quartile.

The methodology to determine the worst performing quartile includes the following steps:

### Measure Score Calculation (Winsorized z-scores)<sup>3</sup>

1. Calculate Winsorized measure results for each measure.
2. Calculate Winsorized z-scores (i.e., measure scores) based on Winsorized measure results, national mean, and standard deviation of Winsorized measure results for each measure.

### Total HAC Score Calculation

3. Apply an equal weight for each measure for which a hospital has a measure score.
4. Multiply the measure score by the weight for each measure to obtain each measure's contribution to the Total HAC Score.
5. Sum the contributions of the measure scores to obtain the Total HAC Score.

### Worst-Performing Quartile Determination<sup>4</sup>

6. Determine the 75th percentile of Total HAC Scores.
7. Classify hospitals with a Total HAC Score greater than the 75th percentile in the worst-performing quartile.

### Measure Score Calculation (Winsorized z-scores)

The methodology calculates a hospital's measure score as the Winsorized z-score using measure results for the given measure. The two steps to this process are (1) Winsorization and (2) calculation of Winsorized z-scores based on the Winsorized measure results.

For each measure, CMS calculates Winsorized measure results for each hospital based on raw measure results and the 5th and 95th percentile result for all eligible hospitals. If a hospital's measure result falls between the minimum and 5th percentile, CMS sets the hospital's measure result equal to the 5th percentile. If a hospital's measure result falls between the 95th percentile

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<sup>3</sup> CMS includes all eligible subsection (d) and Maryland hospitals with measure results in calculations of measure means and standard deviations.

<sup>4</sup> CMS includes all eligible subsection (d) hospitals with a Total HAC Score in the calculation of the 75th percentile.

and maximum, CMS sets the hospital's measure results equal to the 95th percentile. If a hospital's raw measure result falls between the 5th and 95th percentile, Winsorization does not change their measure result. These hospitals' Winsorized measure results equal the hospital's raw measure result.

Each hospital's measure score is the z-score of their Winsorized measure result. CMS subtracts the mean Winsorized measure result for all eligible hospitals from a hospital's Winsorized measure result and divides the result by the standard deviation of Winsorized measure results for all eligible hospitals.

The Winsorized z-score formula for "Hospital i" is:

$$\frac{X_i - \bar{X}}{SD(x)}$$

- $X_i$  is hospital i's Winsorized measure result.
- $\bar{X}$  is the mean of Winsorized measure results calculated across all Maryland and subsection (d) hospitals.
- $SD(x)$  is the standard deviation of Winsorized measure results calculated across all Maryland and subsection (d) hospitals.

CMS grants exceptions for new hospitals for CLABSI, CAUTI, SSI, MRSA, and CDI; hospitals that submit approved HAI measure exception forms for CLABSI, CAUTI, and SSI; or outliers for CDI only. Hospitals that do not submit HAI data without one of the above exceptions automatically receive the maximum Winsorized z-score for that measure.

### Total HAC Score Calculation

With the Equal Measure Weights approach, CMS calculates each hospital's Total HAC Score as the equally weighted average of the hospital's measure scores. CMS calculates each hospital's Total HAC Score as the sum of the contributions of Winsorized z-scores to Total HAC score for each measure. For example, if a hospital has a CMS PSI 90 measure score and only one HAI measure with a measure score, then CMS will apply a weight of 50% to that hospital's CMS PSI 90 measure score and a weight of 50% to the hospital's one HAI measure score. If a hospital has a CMS PSI 90 measure score and two HAI measures with a measure score, then CMS will apply a weight of 33.3% to the hospital's CMS PSI 90 measure score and a weight of 33.3% to each of the hospital's two HAI measure scores.

### Determination of Worst-Performing Quartile

The 75th percentile is calculated across all subsection (d) hospitals with a Total HAC Score. Hospitals with Total HAC Scores greater than the 75th percentile (i.e., those in the worst-

performing quartile) will be subject to payment reduction (see Figure 3).<sup>5</sup> Only hospitals in the worst-performing quartile will be subject to a payment reduction.

For more information, please see the FY 2020 HAC Reduction Program Hospital-Specific Report User Guide, located at <https://qualitynet.org:>Hospitals-Inpatient>HAC Reduction Program>Hospital-Specific-Reports>. For more information on the scoring methodology CMS used for the FY 2020 HAC Reduction Program, reference the Scoring Methodology Infographic at: [www.qualitynet.org:>Hospitals-Inpatient>Hospital-Acquired Condition \(HAC\) Reduction Program>Resources](http://www.qualitynet.org:>Hospitals-Inpatient>Hospital-Acquired Condition (HAC) Reduction Program>Resources).

### Contacts and Additional Resources

For more information, please reference the following resources:

- Send questions about CMS' calculations, issues accessing the HSR, discharge-level data, CMS PSI software, and methodology questions to: [hacrp@lantanagroup.com](mailto:hacrp@lantanagroup.com) or submit a question to the HAC Reduction Program Question and Answer Tool: <https://cms-ip.custhelp.com/app/homehacrp/p/842>
- HAC Reduction Program Methodology and General Information
  - *QualityNet* HAC Reduction Program page: [www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228774189166](http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228774189166)
  - CMS HAC Reduction Program page: <http://cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/HAC-Reduction-Program.html>
- FY 2019 HAC Reduction Program Results  
*Hospital Compare* HAC Reduction Program page: [www.medicare.gov/hospitalcompare/HAC-reduction-program.html](http://www.medicare.gov/hospitalcompare/HAC-reduction-program.html)
- CMS PSI 90  
*QualityNet* CMS Patient Safety Indicators Resources page: <http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228695355425>
- CLABSI, CAUTI, SSI, MRSA bacteremia, and CDI
  - *QualityNet* Healthcare-Associated Infections page: [www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228760487021](http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228760487021)
  - CDC NHSN 2015 Rebaseline page: <https://www.cdc.gov/nhsn/2015rebaseline/index.html>
  - NHSN help desk: [nhsn@cdc.gov](mailto:nhsn@cdc.gov)

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<sup>5</sup> Maryland hospitals have a waiver for the FY 2020 HAC Reduction Program. The distribution of Total HAC Scores CMS used to determine the worst-performing quartile does not include Maryland hospitals. Maryland hospitals will receive HSRs but will not be subject to a payment reduction. The HAC Reduction Program publicly reports Maryland hospitals' data on *Hospital Compare*.