



# Hospital-Acquired Condition Reduction Program Fiscal Year 2019 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) long-standing 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) non-Maryland hospitals 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 2019 Results

The cutoff for the 75th percentile of Total HAC Scores is 0.3429. The 75th percentile cutoff was 0.3712 in FY 2018. The Scoring Methodology section includes more information.

## Public Reporting

CMS will report the following FY 2019 HAC Reduction Program information for each hospital on *Hospital Compare* in January 2019<sup>1</sup>:

- 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): Central Line-Associated Bloodstream Infection (CLABSI), Catheter-Associated Urinary Tract Infection (CAUTI), Surgical Site Infection (SSI), Methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, and *Clostridium difficile* Infection (CDI) measure scores

---

<sup>1</sup> CMS will publicly report HAC Reduction Program data on *Hospital Compare* in January instead of December.

<sup>2</sup> The recalibrated CMS PSIs used in CMS hospital value-based programs focus on the Medicare Fee-for-Service (FFS) population. CMS refers to CMS PSIs as “recalibrated” to differentiate from the all-payer population for AHRQ.

- Domain 1 and Domain 2 scores<sup>3</sup>
- 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 (Abdominal Hysterectomy and Colon Procedures), 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:

- 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 recalibrated version 8.0 of the CMS PSI Software uses an updated reference population (i.e., October 2015 to September 2016) of Medicare FFS discharges. The FY 2018 HAC Reduction Program used recalibrated version 6.0.2 of the CMS PSI software and a different reference population (i.e., July 2013 to June 2015) of Medicare FFS claims data. CMS v8.0 PSI software includes several updates from CMS v6.0.2 PSI software (e.g., coding system, measure specifications, recalibration method, number of risk factors, reference population period, and CMS PSI 90 component weights).

For FY 2019, CMS used a shortened 21-month performance period for CMS PSI calculations that includes discharges from October 1, 2015 through June 30, 2017 with only ICD-10 data. For FY 2018, CMS used a shortened 15-month performance period with only ICD-9 data. Absolute and relative performance on CMS PSI 90 in FY 2019 will likely differ from FY 2018.

For more information, reference the CMS Recalibrated PSI 90 Fact Sheet (version 8.0):  
<https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPPage%2FQnetTier4&cid=1228695355425>

---

<sup>3</sup> Domain 1 = CMS PSI 90, Domain 2 = CDC NHSN HAI measures

## 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 risk-adjusted at the hospital level and patient care unit level. For FY 2019, the CDC used chart-abstracted and laboratory surveillance data from NHSN for infections that occurred between January 1, 2016 and December 31, 2017.

## **Scoring Methodology**

The FY 2017 IPPS/LTCH PPS Final Rule finalized the adoption of the Winsorized z-score methodology, beginning with the FY 2018 HAC Reduction Program. The Winsorized z-score methodology replaced the decile-based scoring methodology used in FY 2015 through FY 2017.

## Winsorized z-Score Calculation

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 and maximum, CMS sets the hospital's measure results equal to the 95th percentile. Winsorization does not affect hospitals with measure results between the 5th percentile and 95th percentile. These hospitals' Winsorized measure results equal the hospital's raw measure result.

CMS subtracts the mean Winsorized measure result for all eligible hospitals from a hospital's Winsorized measure result, and divides 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.

## Domain and Total HAC Score Calculation

The Domain 1 score equals a hospital's measure score for CMS PSI 90. A hospital's Domain 2 score equals the average of the hospital's measure scores for Domain 2 measures. CMS applies a weight of 15 percent for Domain 1 and 85 percent for Domain 2 to determine the Total HAC

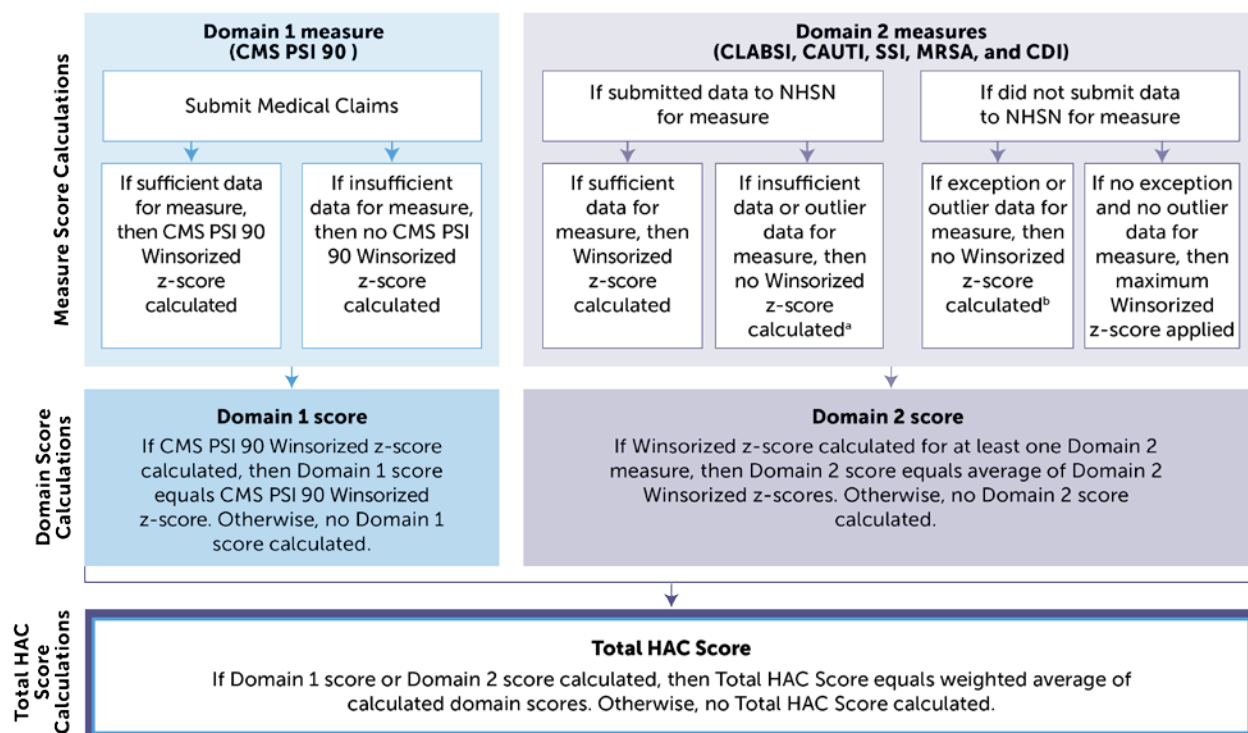
Score for hospitals that receive a Domain 1 score and a Domain 2 score. If a hospital has only one domain score, then CMS applies a weight of 100 percent to the domain for which the hospital has a score. Hospitals with a Total HAC Score above the 75th percentile of the Total HAC Score distribution receive a payment reduction.

Negative domain scores indicate better performance, reflecting measure values below (better than) the national mean. Positive domain scores indicate worse performance, reflecting measure values above (worse than) the national mean.

For more information, please see the FY 2019 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 2019 HAC Reduction Program, reference the Winsorized z-scores 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)

Figure 1 illustrates the scoring methodology.

**FIGURE 1 – OVERVIEW OF SCORING METHODOLOGY**



**a:** The CDC will not calculate an SIR for CDI if the community-onset prevalence rates are within outlier bounds.

**b:** If an exception applies, CMS will not calculate a Winsorized z-score if the hospital submits an HAI Measure Exception Form for the CLABSI, CAUTI, and/or SSI measures, or if the No Mapped Locations (NML) applies (CLABSI or CAUTI only).

**Note:** Hospitals will not receive CMS PSI 90 measure results or Domain 1 scores if the hospitals were not open for 12 months during the CMS PSI 90 performance period (October 1, 2015 to June 30, 2016). Hospitals will not receive measure results or Domain 2 scores if the hospitals did not submit data to NHSN under the Inpatient Quality Reporting Program prior to the end of the Domain 2 performance period (December 31, 2017).

## Contacts and Additional Resources

For more information, please reference the following resources:

- Please 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>
- 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>
  - *QualityNet* Help Desk at [qnetsupport@hcqis.org](mailto:qnetsupport@hcqis.org)
- 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)