HAC Reduction Program Analysis – FFY 2025

Update Based on Care Compare's 2nd Quarter 2024 Data Release | Version 1

Analysis Description

The Hospital-Acquired Condition (HAC) Reduction Program Analysis is intended to provide hospitals with a preview of the potential impact of the Federal Fiscal Year (FFY) 2025 Medicare Inpatient HAC Reduction Program, based on publicly available data and the program rules established by the Centers for Medicare and Medicaid Services (CMS).

Hospital performance is evaluated under the FFY 2025 program in this analysis. This analysis uses the 2Q2023 and 2Q2024 updates of Care Compare for Healthcare-Associated Infection (HAI) measures and the 4Q2023 update of Care Compare for the Patient Safety Indicators (PSI)-90 measure. The analysis includes estimates and details on how HAC measures and domain scores are calculated as well as how payment penalties are determined and applied under the program.

For FFY 2023 HAC, CMS is not penalizing any hospitals due to the impact of the COVID-19 pandemic. CMS did provide a subset of data for individual measures but did not provide Total HAC scores, and therefore no impacts are calculated.

Actual FFY 2024 HAC Program data are from the 4Q2023 Care Compare update where hospital performance on PSI-90 reflects discharges between January 2021 and June 2022; and performance on HAI measures reflects discharges between January 2022 and December 2022. For FFY 2024 HAC, performance periods are impacted by the extraordinary circumstances exception granted by CMS in response to the COVID-19 public health emergency. As a result, no claims data or chart-abstracted data reflecting services provided in calendar year 2021 for HAI measures or calendar year 2020 for PSI-90 were used in calculations for the HAC Program.

The estimated scores and dollar impacts shown in this analysis may differ from the final CMS calculations and may vary from those provided by other organizations due to differences in source data and analytic methods.

Data Sources

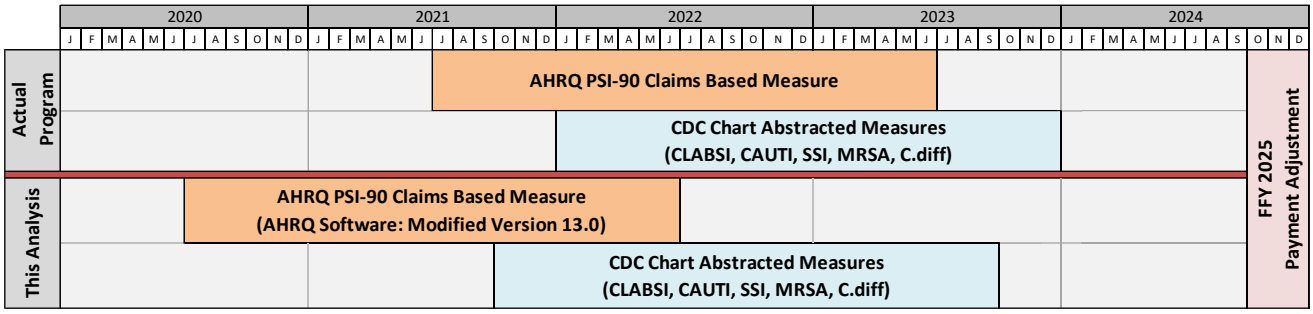
This analysis utilizes data published by CMS on its Care Compare website at https://www.medicare.gov/care-compare.

The HAC Reduction Program for FFY 2025 will assess hospital performance using Medicare claims and Centers for Disease Control (CDC) measures:

- PSI-90: Patient Safety and Adverse Events Composite; the modified PSI-90 measure to be used for the FFY 2025 program is made up of 10 individual PSI measures and constructed using the Agency for Healthcare Research and Quality (AHRQ) Quality Indicators software version 13.0.
- HAI-1: Central Line Associated Blood Stream Infection (CLABSI) (ICU and Select Wards)
- HAI-2: Catheter Associated Urinary Tract Infection (CAUTI) (ICU and Select Wards)
- Pooled Surgical Site Infection (SSI) Standardized Infection Ratio (SIR): this measure combines performance on two individual measures, SSI-Colon (HAI-3) and SSI-Abdominal Hysterectomy (HAI-4). Observed infections for both SSI measures are divided by expected infections for both measures to calculate a pooled SIR.
- HAI-5: Methicillin-resistant Staphylococcus Aureus (MRSA)
- HAI-6: Clostridium difficile (C.diff.)

The table below describes the performance periods analyzed in this analysis compared to the performance periods that will be evaluated for the FFY 2025 HAC program year:

FFY 2025 Program Timeline



Estimated Inpatient Prospective Payment System (IPPS) payments and HAC penalties for FFY 2025 were calculated based on the hospital payment data provided by CMS in its FFY 2025 IPPS final rule impact file. Estimated IPPS payments and HAC penalties for FFYs 2023 and 2024 were calculated by adjusting estimated FFY 2025 IPPS payments by deflation factors.

By law, hospitals determined to be in the top (i.e. worst performing) quartile for total HAC scores will be penalized 1.0% of the following (excluding physician payments):

- Total Medicare IPPS operating and capital;
- Disproportionate Share Hospital (DSH) and uncompensated care;
- Indirect Medical Education (IME);
- Low Volume Hospital (LVH) adjustments;
- Payment adjustment(s) made under the Readmission Reduction Program (RRP) and/or Value-Based Purchasing (VBP) Program; and
- Outlier payments (if applicable).

Due to year-to-year variability, impacts shown in this analysis do not take into account penalty adjustments to outlier payments.

Program Scoring and Impact Estimates

Z-scores, mean performance, and standard deviation are calculated after nationwide hospital performance has been winsorized. Winsorization is intended to remove the effects of extreme outliers from a dataset by selecting a specific interval of data and assigning outliers to the minimum or maximum of that interval. The winsorization method adopted by CMS sets all values below the 5th percentile to the 5th percentile value. Likewise, all values above the 95th percentile are set to the 95th percentile value.

For all program-eligible hospitals, winsorized z-scores are assigned to each individual measure. A z-score represents how different a hospital performed relative to the national average, in terms of standard deviations from the mean, and is represented by the formula:

$$Z\text{-}Score = \frac{(Hospital's\ Measure\ Performance - Mean\ Performance\ for\ All\ Hospitals)}{Standard\ Deviation\ for\ All\ Hospitals}$$

CMS' z-score calculations for the program may differ from those provided in this analysis for several reasons, including differences in methodological approach in assigning standard deviations, differing lists of excluded hospitals, and differing performance periods.

Lower scores are better, with negative values representing performance below (better than) the national average, while positive values are assigned to scores that are above (worse than) the national average.

The program requires that hospitals meet certain minimum standards for inclusion of HAC measures. The following describes the minimum requirements for measure scoring in each domain:

- PSI 90 AHRQ claims-based measure: Hospitals are required to have a minimum of 3.0 predicted (i.e. expected) infections for at least one of the individual PSI measures during the shortened 12-month performance period.

- CDC chart-abstracted measures: Hospitals are required to have a minimum of 1.0 predicted (i.e. expected) infection during the shortened 12-month performance period in order to be scored on a measure. To receive a score for the pooled SSI measure, the combined predicted infections for both SSI-Colon and SSI-Abdominal Hysterectomy must be greater than 1.0 instead. Hospitals not submitting data for an individual HAI measure, unless provided with a waiver, will receive the maximum points for that measure. This analysis assumes that hospitals are provided with a waiver for measures without data.

All measures are weighted equally to determine a total HAC score. If a hospital does not have data for a measure, the total HAC score is based solely on the remaining useable measure(s). Hospitals without a valid score on any measures are not eligible for the program.

Once total HAC scores for all program-eligible hospitals are determined, CMS will calculate the 75th percentile score to determine the top quartile (worst performing) of program-eligible hospitals. Hospitals with a total HAC score falling above the 75th percentile will receive the payment penalty of 1.0%.

When CMS determines the 75th percentile score, several hospitals may be tied at that score, causing the number of penalized hospitals to exceed 25% of the total. If/when this occurs, CMS will adjust the penalty threshold to ensure that no more than 25% of program eligible hospitals are penalized. In order to be conservative, and to alert hospitals that are very close to the penalty score, this analysis does not adjust for ties. It is estimated that approximately 25.04% of hospitals nationally receive the penalty in this analysis.

Data Dictionary

$$\text{Estimated Total Revenue} = \text{Most recent estimated total revenue adjusted by an update factor as needed}$$

$$\text{Standardized Infection Ratio} = \frac{\text{Number of Observed Infections}_{\text{Year 1}} + \text{Number of Observed Infections}_{\text{Year 2}}}{\text{Number of Expected Infections}_{\text{Year 1}} + \text{Number of Expected Infections}_{\text{Year 2}}}$$

$$\text{Pooled SSI Standardized Infection Ratio} = \frac{\text{Number of Observed Infections}_{\text{SSI: Colon Year 1+2}} + \text{Number of Observed Infections}_{\text{SSI: Abd. Year 1+2}}}{\text{Number of Expected Infections}_{\text{SSI: Colon Year 1+2}} + \text{Number of Expected Infections}_{\text{SSI: Abd. Year 1+2}}}$$

$$\text{Winsorized Score} = \begin{array}{c}\text{If measure base score is less than the national 5th percentile, set to the 5th percentile score;} \\ \text{If measure base score is greater than the national 95th percentile, set to the 95th percentile score}\end{array}$$

$$\text{Z} - \text{Score} = \frac{(\text{Hospital's Measure Performance} - \text{Mean Performance for All Hospitals})}{\text{Standard Deviation for All Hospitals}}$$

$$\text{Total HAC Score} = \frac{\text{Z} - \text{Score}_{\text{PSI}-90} + \text{Z} - \text{Score}_{\text{HAI}-1} + \text{Z} - \text{Score}_{\text{HAI}-2} + \text{Z} - \text{Score}_{\text{SSI}} + \text{Z} - \text{Score}_{\text{HAI}-5} + \text{Z} - \text{Score}_{\text{HAI}-6}}{\text{Count of Measures with Scores}}$$

$$\text{Lowest Total HAC Score Receiving Penalty} = \text{75th percentile of all Hospitals' Total HAC Scores}$$

$$\text{Hospital Penalty (if applicable)} = 1\% \text{ x Estimated Total Revenue}$$