

2022 HAI Rebaseline Talking Points: Organizations & Private Payors

These talking points summarize NHSN's 2022 HAI Rebaseline and highlight implications for organizations that may use or publish SIR and/or SUR data from NHSN.

Bottom Line: The Centers for Disease Control and Prevention (CDC) is updating the national baseline used to calculate the denominators of healthcare-associated infection (HAI) standardized infection ratios (SIRs) and standardized utilization ratios (SURs) to 2022 data. This Rebaseline effort is important to continually improve patient safety and to drive efforts to reduce HAI rates. At the same time, this Rebaseline will impact the way facilities and organizations interpret HAI incidence and device utilization metrics.



The Situation:

The National Healthcare Safety Network (NHSN) 2022 HAI Rebaseline refers to the process of updating the risk adjustment models used to calculate the denominators of all healthcare-associated infection (HAI) standardized infection ratios (SIRs) and standardized utilization ratios (SURs) in the [Patient Safety Component](#) of NHSN using data reported from 2022. CDC will use 2022 data to update the source of aggregate data and the risk adjustment models used to create the denominators for the SIRs and SURs and will serve as the new baseline to measure HAI prevention progress at the local, state, and national levels.

The prior NHSN baseline used data reported from 2015. Since then, there have been changes in surveillance definitions, diagnostic testing, healthcare facility prevention practices, science, technology, and hospital operations that warrant CDC establishing a new national baseline.

The Rebaseline will ensure that the risk adjustment models are better able to capture relevant changes in the risk of HAIs since 2015 and will allow hospitals to compare their incidence of HAIs to more recent national data.

New reports are being built in the NHSN application for NHSN facility and Group users that will provide calculated SIRs and SURs under the 2022 baseline. Reports using the 2015 national baseline will remain available in the NHSN application.

No timeline has been established for the adoption of the 2022 baseline SIRs into the Centers for Medicare and Medicaid (CMS) programs.

i What Does This Mean for our Organization?

When interpreting the SIRs and SURs under the 2022 baseline, our organization must take into account several key considerations:

The SIRs and SURs may shift closer to 1 when HAI data are analyzed using the new baseline compared to those calculated using the 2015 baseline. This may change a facility's perceived performance over a given time period.

It is essential that SIRs and SURs are interpreted correctly, in the context of the national baseline that was used for the calculations.

SIRs and SURs calculated under the 2022 baseline are not comparable to those calculated under the 2015 baseline. SIRs and SURs under either baseline should be analyzed and assessed independently of one another.

Organizations that use the SIR or SUR to measure facility progress or HAI incidence need to be aware of the availability of a new national baseline in NHSN.

If organizations wish to adopt the 2022 baseline SIR or SUR for their programs, note that any existing targets, interpretation, and/or scoring methodology that was previously used for the 2015 baseline SIR or SUR will need to be updated.

i CDC's Recommendations for Organizations that Transition to the 2022 Baseline:

- In any publication, website, document, or report that contains SIRs or SURs, ensure clear labeling and documentation about which national baseline year was used.
- Consider a "transition period", where any final analyses and conclusions based on the 2015 baseline are finalized/closed-out for the organization, and metrics on the new national baseline are introduced. SIRs under two different baselines should not be displayed together, visually, in a single graph or plot.
- After the transition period, any publication, website, document, or report should contain SIRs and SURs based on the 2022 national baseline.
- Consider providing member facilities with advanced notice of your organization's plans and timelines for adopting the 2022 national baseline.

i How Should SIRs Under the 2022 Baseline be Interpreted?

- The numerator of the SIR, number of observed HAIs, has not changed between the 2015 and 2022 baseline.
- The denominator of the SIR, number of predicted HAIs, can be interpreted as:
 - » The number of HAIs predicted to occur in a facility, based on the national incidence of HAIs in 2022 as reflected by the appropriate SIR regression model and according to the pattern of exposure and relevant risk factors in that facility.
- The number of predicted HAIs is risk adjusted using factors found to be statistically significant predictors of HAI incidence in the national 2022 data. More information is available in [NHSN's Guide to the 2022 Baseline SIRs](#).
 - » Note: The SIR is only calculated when the number of predicted events is at least 1. This is NHSN's minimum precision criterion and is applied to all SIRs regardless of the baseline year.
- SIRs provide a comparison between a facility's HAI incidence and the national 2022 data.

Presenting the Standard Infection Ratio (SIR)!

$$SIR = \frac{\text{Observed (O) HAIs}}{\text{Predicted (P) HAIs}}$$

- SIRs > 1: Facility observed more HAIs than predicted, based on national 2022 baseline
- SIRs < 1: Facility observed fewer HAIs than predicted, based on national 2022 baseline
- P-values and 95% confidence intervals can be used to determine statistical significance of an SIR. Interpretation of these statistical measures has not changed between the 2015 and 2022 baseline (e.g., NHSN considers $p \leq 0.05$ as statistically significant).

i Additional Points

- The image below provides information about the years of data that can be analyzed in the NHSN application under each national baseline. The blue squares represent HAI data entered into NHSN by participating healthcare facilities, and the arrows represent the options for calculating SIRs and SURs.
- More information on the Rebaseline can be found on CDC's [2022 HAI Rebaseline webpage](#).
- CDC remains committed to protecting patients and promoting safety and quality in healthcare.

