Hospital Quality Institute
Leadership in quality and patient safety

Preparing for the NHSN 2022 Rebaseline

The Centers for Disease Control and Prevention's (CDC's) National Healthcare Safety Network (NHSN) has officially rebaselined standardized infection ratios (SIRs) from the 2015 national baseline to a 2022 baseline. **The two baselines are not directly comparable** — each uses different statistical models, risk adjustments, and national reference points. As a result, changes in reported SIRs primarily reflect recalibration to updated benchmarks rather than true shifts in hospital performance.

Infection rates are now compared against more current national performance and risk adjustment models, reflecting changes in patient care, device use, and infection prevention practices since 2015. For California hospitals, it is important to anticipate how this change will affect reported outcomes and future benchmarking.

SUMMARY OF CHANGES

Factors Driving Shifts in SIRs

Most importantly, hospitals should know that apparent improvement or decline may not reflect actual performance. A lower SIR under the 2022 baseline does not necessarily mean a facility improved, just as a higher SIR does not necessarily mean performance worsened; these shifts often represent the recalibration of the national benchmark rather than local changes. Changes are primarily due to:

- **Updated national averages:** The 2022 baseline reflects more recent prevention achievements and clinical practices nationwide.
- **New risk models:** Adjustments in risk factors such as patient population, device utilization, and hospital type bring ratios closer to today's reality.
- **Closer to 1.0:** The CDC has stated that, in general, hospital-level SIRs will "shift closer to 1.0" under the new baseline since the reference point is recalibrated to 2022 performance levels.

Facilities and Infections Covered

The NHSN 2022 rebaseline applies to:

- **Facilities:** Acute care hospitals, critical access hospitals, long-term care hospitals, and inpatient rehabilitation facilities
- **Infections:** Central line-associated bloodstream infections (CLABSI); catheter-associated urinary tract infections (CAUTI); ventilator-associated events, including pediatric; surgical site infections (SSIs), specifically colon and abdominal hysterectomy; Methicillin-resistant *Staphylococcus aureus* (MRSA bacteremia); and *Clostridioides difficile* (CDI).

Changes in the 2022 Reports

- **New reports in NHSN:** A new "**2022 Baseline (Baseline Set 3)**" folder now appears alongside the 2015 baseline reports that show all hospital locations.

- **Official Centers for Medicare & Medicaid Services (CMS) reports for 2022 baseline:** The category now includes the 2022 baselines for the CMS inpatient prospective payment system.
- **Not comparable:** 2015 and 2022 SIRs and standardized utilization ratios cannot be directly compared because they are calculated using different statistical models and risk adjustments.
- **Impact on metrics:** Many facilities will notice shifts in their infection ratios. These reflect recalibration to a new national benchmark, not necessarily changes in prevention performance.

CALIFORNIA HOSPITAL RESULTS: 2015 VS. 2022

The table below summarizes CMS-reported SIRs for California hospitals across six healthcare-associated infection (HAI) measures, comparing 2015 and 2022 values against the national baseline (SIR=1.0). It also includes facility-level ranges.

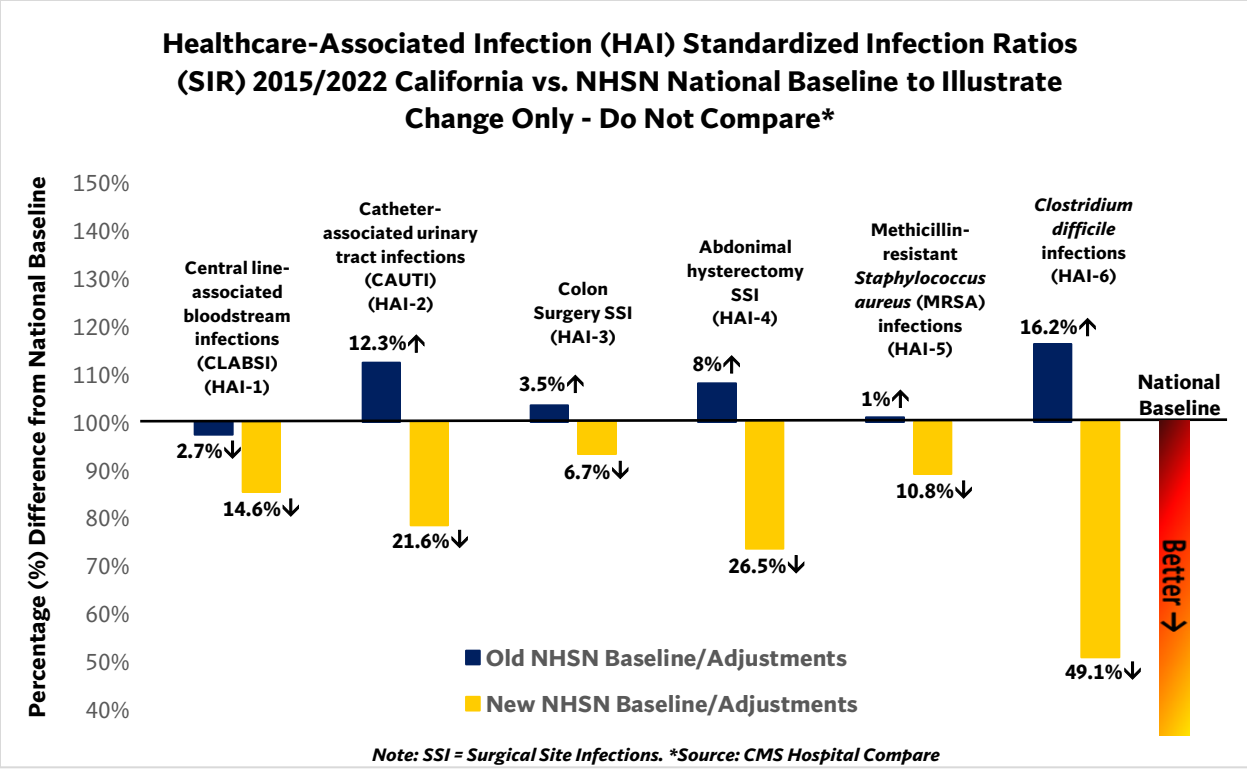
HAI Measure	California				National Baseline	
	Old Baseline (2015)	New Baseline (2022)	% Change	Hospital Range	New Baseline	% Difference CA vs. US
CLABSI in ICUs and select wards (HAI-1)	0.97	0.85	-12.2%	0.00 – 7.83	1.0	-14.6%
CAUTI in ICUs and select wards (HAI-2)	1.12	0.78	-30.2%	0.00 – 3.81	1.0	-21.6%
Colon Surgery SSI (HAI-3)	1.04	0.93	-9.9%	0.00 – 3.25	1.0	-6.7%
Abdominal Hysterectomy SSI (HAI-4)	1.08	0.74	-31.9%	0.00 – 3.20	1.0	-26.5%
MRSA Bloodstream Infections (HAI-5)	1.01	0.89	-11.7%	0.00 – 5.40	1.0	-10.8%
Clostridium difficile Infections (HAI-6)	1.16	0.51	-56.2%	0.00 – 2.34	1.0	-49.1%

Rate decreased or is lower than comparison ↓ **No clear change in rate –** **Rate increased or is higher than comparison↑**

Data were retrieved from the CMS Hospital Compare website, which is updated quarterly with data representing the previous four quarters. The file used for the 2022 baseline came from the file dated November 2023 and represents one year of data starting 1Q2022 and ending 4Q2022. Estimates are released quarterly (April, July, October, December).

Highlights include:

- **Significant downward shifts:** CAUTI dropped 30% (1.12 → 0.78) and CDI decreased by more than half (1.16 → 0.51).
- **Modest decreases:** CLABSI, SSI-Colon, and MRSA each fell by approximately 10%.
- **Notable improvement:** Abdominal hysterectomy SSIs declined by nearly one-third.
- **Variation remains:** Even as statewide averages declined, hospital-level ranges show some facilities with very high SIRs.



The blue bar represents the 2015 baseline, while the yellow bar represents the 2022 baseline against the national standards. This is not a comparison between the two baselines, but rather the comparison of the two baselines against the national baseline to see the differences in improvement of SIRs across the baseline. Lower scores are better.

NEXT STEPS FOR HOSPITALS

1. **Expect inconsistencies during the transition.**
   Because CDC and CMS update at different times, hospitals may see parallel reports (2015 vs. 2022 baseline) or notice a sudden change in how SIRs appear once CMS adopts the 2022 baseline. Leadership should anticipate these inconsistencies and remind stakeholders that the differences reflect **timeline changes in baseline adoption**, not immediate swings in performance.
2. **Update dashboards and reports.**
   Quality teams should reset internal benchmarks and board reporting to reflect the 2022 baseline. Comparing old SIRs (2015) against new ones (2022) may lead to confusion and misinterpretation.
3. **Communicate clearly to stakeholders.**
   Infection prevention teams and executives should proactively explain the shifts in SIRs, including that they do not reflect shifts in performance.