FAQs: NHSN LabID Events Rebaseline

This document contains frequently asked questions regarding the 2015 standardized infection ratio (SIR) rebaseline for laboratory-identified events: hospital-onset *Clostridium difficile* (C. *difficile*, CDI) infections and hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia (bloodstream infections). CDC is updating the SIR baseline to continue driving the progress of preventing HAIs. The current risk adjustment methods and original baselines which vary by HAI type and/or healthcare facility type, have been updated using dated entered into NHSN in 2015 as the source of aggregate data. For more information about the rebaseline, please visit: http://www.cdc.gov/nhsn/2015rebaseline.

For LabID Events, what is changing in the SIR and why?

The SIR is a summary measure that compares the number of observed events to the number of predicted events. Historically for LabID Events, the number of predicted events was calculated for acute care and critical access hospitals based on national data reported to NHSN in 2010-2011 (i.e., the original baseline).

Several changes have occurred in NHSN since 2011, including protocol changes, an increase in the number of facilities reporting LabID events, and changes in the demographics of reporting facilities. To account for these changes, CDC is updating the risk adjustment and baseline set of data used to calculate the number of predicted events (i.e., the denominator of the SIR). National data from 2015 will now be used to calculate the number of predicted events for SIRs starting with 2015 data and forward. The SIRs using the 2015 baseline are scheduled to be available in NHSN in January 2017.

Will changes be made to the types of LabID events counted in the numerator of my hospital's SIR?

No; the types of LabID events that are currently counted in the numerator of the SIR (i.e., number of observed events) will continue to be counted under the new SIR baseline. The new SIR baseline is only changing the way that the denominator of the SIR (i.e., number of predicted events) is calculated.

Will the SIR be calculated if the number of predicted events is less than 1?

SIRs in NHSN using the new baseline will only be calculated if the number of predicted events is ≥ 1. This is consistent with the current criteria used in NHSN in order to ensure the SIR is interpreted correctly and that a minimum amount of precision is included in the calculation. CDC will explore the possibility of updating this criteria in the future.

What variables are included in the new risk adjustment for MRSA and CDI?

Variables included in the new risk adjustment vary by type of hospital and organism. CDC analyzed relevant variables from the annual facility surveys, as well as community-onset prevalence rates, to determine significant variables that were associated with the incidence of MRSA and CDI. Look for additional materials and communications from the NHSN team in the coming weeks for more information about the details of the new risk adjustment models.

Why are some variables included in the new MRSA risk adjustment but *not* included in the new CDI risk adjustment?

MRSA bacteremia data were analyzed separately from CDI data. Variables identified for risk-adjustment were statistically significant predictors of the incidence of that organism (i.e., MRSA or C. *difficile*). Upon analyzing all relevant variables, some factors were found to be significant predictors of MRSA bacteremia incidence, but not *C. difficile*. Likewise, some factors were found to be significant predictors of C.*difficile*, but not MRSA bacteremia.

Were special considerations made when CDC analyzed CDI test type?

C. difficile laboratory test type was analyzed in-depth to determine how it could best be used in the new risk adjustment. CDC is aware that many hospitals and laboratories are changing their CDI test type or implementing new testing algorithms. CDC met with internal and external subject matter experts to discuss CDI and the use of CDI test type in risk adjustment.

FAQs: NHSN LabID Events Rebaseline

Will MRSA and CDI SIRs be available for LTACHs and IRFs? What about other healthcare settings?

Yes; in addition to acute care hospitals, CDC analyzed 2015 MRSA and CDI data from long-term acute care hospitals (LTACHs), inpatient rehabilitation facilities (IRFs), and critical access hospitals (CAHs). MRSA and CDI SIRs available for these facility types separately from acute care hospitals. The SIRs for all settings will use 2015 data as the baseline.

How will the new baseline affect my facility/state/group's MRSA and CDI SIRs?

The data included in the 2015 baseline will serve as a new "reference point" for comparing progress. CDC expects that hospital and group SIRs will shift closer to 1, especially for SIRs that will be calculated for 2015.

For LabID Events, will I be able to calculate SIRs under the original baseline (data reported to NHSN in 2010-2011)?

Yes, the SIR reports using the original baseline will still be available in NHSN; acute care and critical access hospitals can generate SIRs using the original baseline through 2016 data. SIRs calculated under the original baseline should not be compared to SIRs calculated under the 2015 baselines.

Questions about the rebaseline may be directed to nhsn@cdc.gov.