

Frequently Asked Questions: Analysis

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1	2015 Re-baseline	What can hospitals and other organizations expect to happen with the implementation of the new 2015 baseline?	<p>The data included in the 2015 baseline serves as a new “reference point” for comparing progress. CDC expects that hospital SIRs will increase and shift closer to 1, especially for SIRs that will be calculated for 2015. In addition, hospitals may notice that the rules for inclusion and inclusion of data have changed from the original baseline.</p> <p>For more information, please see “NHSN 2015 Rebaseline SIR Changes Applicable to CMS Quality Reporting Programs”, https://www.cdc.gov/nhsn/pdfs/rebaseline/2015-rebaseline-sir-changes-applicable-to-cms-grp.pdf and the NHSN SIR Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf.</p>
2	Generating Datasets	If I generate datasets, will I be able to analyze the data that were entered by my colleagues? Or can I only analyze the data I've entered?	While each user must generate datasets in order to analyze data, the datasets will be inclusive of all data entered for your hospital.
3	SIRs	I work in a small hospital and therefore, the number of expected infections is most often less than 1. Because of this, our SIR is not calculated. What is the justification for this?	NHSN withholds the calculation of the SIR when the number of expected infections is <1 in order to help enforce precision of the estimate and comparisons to the national data. If the number expected is less than 1, this means that the risk of patients is low enough (according to national baseline data) such that not even 1 infection or event of that type is predicted to occur in that group of patients. When this happens, you may wish to group SIRs into larger time periods - such as six months or a calendar year.
4	SIRs	What is a 95% Confidence Interval and how do I interpret it for my SIRs?	<p>A 95% confidence interval (CI) is an interval for which we have a high degree of confidence that it contains the true SIR. The upper and lower limits are used to determine the significance and accuracy (or precision) of the SIR. If the 95% CI of the SIR includes the value of 1 - meaning, the lower bound is <1 and the upper bound is >1, then the SIR is not statistically significant. Example of a non-significant 95% CI: (0.674, 3.578) - notice that the lower bound, 0.674, is less than 1 and the upper bound, 3.578, is greater than 1. Since these two values are on the opposite side of the nominal value of 1, we say that the 95% CI "includes" 1 and is therefore not statistically significant.</p> <p>For additional details regarding the interpretation of p-values and 95% CIs, please see the NHSN Analysis trainings at: http://www.cdc.gov/nhsn/Training/analysis/index.html</p>



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5	Line Lists	Is there a way to see which records have been changed in NHSN, and when?	<p>Line lists available from the "Advanced" output options folder do provide the date a record was first entered into NHSN (variable name = createDate) and the last date during which a non-deleted record was modified (variable name = modifyDate). When a record has not been changed, the modify date and the create date will be the same. Note that this information will only list the date of the last saved change prior to generating datasets. Additionally, there is no record of exactly what has been changed.</p> <p>For more information about how to view the Create and Modify dates in analysis, please visit: http://www.cdc.gov/nhsn/pdfs/analysis/how2view-create-modify-dates-in-nhsn.pdf</p>
6	SIRs	I am running an SSI SIR and I noticed that there are a few procedures listed at the bottom of the report that are excluded from the SIR calculation. Why are they excluded?	<p>Procedures (and any associated SSIs) can be excluded from the SIRs if they meet one or more of the defined exclusion criteria, as described in the Table 2 of the SSI section of the SIR Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf</p> <p>A specialized line list that can be run in NHSN is the Line Listing-Procedures Excluded from SIR that will include only those procedure records that are excluded from the SIRs for the reasons listed. Please find this troubleshooting document here: https://www.cdc.gov/nhsn/PS-Analysis-resources/reference-guides.html</p> <p>While these records may be technically complete, the data in those records are considered “outliers” or invalid (e.g., extremely high procedure duration) and could indicate an issue with data quality</p> <p>There are some instances when the record can be fixed (i.e., if you notice a data entry error). There are other instances, however, where it may be impossible to include the procedure in the SIR. For example, if a procedure has an extremely long procedure duration (what we call being greater than the IQR5 – as described in the above SIR Guide) – and that duration is accurate – there is nothing that can be fixed on the record and therefore, it will continue to be excluded from the SIRs.</p> <p>Certain procedures may also be excluded from the SIR depending on the SSI SIR model you are using. The inclusion and exclusion criteria for each SSI model is stated in the SSI section of the SIR Guide (https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf) as well as the SSI Protocol Chapter.</p>



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7	Rates	Where can I find the most recent National HAI Rates?	<p>National, stratified rates will no longer be provided annually. This is due to the manner in which the HAI data are risk-adjusted – meaning, we will be using regression models to estimate the predicted number of infections, and using that information to calculate SIRs.</p> <p>In addition, CLABSI and CAUTI now use factors in addition to location in this risk-adjustment. A similar approach is applied for device use, such that facilities will have the ability to run standardized utilization ratios (SURs).</p> <p>Note that, for both SIRs and SURs, these measures will continue to be available at the location-level. The difference is that the location-level rates and DURs will not have a national rate or DUR comparison.</p>
8	Outpatient procedures	Are outpatient procedures included in the new 2015 models?	<p>Under the 2015 baseline, outpatient procedures are excluded from the SIR reports. Under the new baseline, there are no SIR available for outpatient procedures for pediatrics and adults patients. Please see the SSI section of the SIR guide for more information on the new risk-adjusted models, it starts on page 25: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf.</p> <p>However, we plan on starting a new outpatient procedure component (OPC) in 2018 that will handle all the outpatient procedures from ASCs. I hope that you continue to report your outpatient procedures because we intend to migrate them to the new OPC when it is live in 2018.</p>
9	Closure techniques of other than primary	Are procedures with other than primary closures included in the SIR?	<p>All SSI reports will include procedures (and associated SSIs) that are reported with either primary or other than primary closure techniques. This is a change that was made during the 2015 rebaseline process and not related to a change in protocol or definition changes (since there none related to closure techniques).</p> <p>Under the old baseline of 2006-2008, the SSI reports Include only procedures (and associated SSIs) that are reported with primary closure technique.</p>



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10	MRSA or <i>C.difficile</i> SIR	My line list shows 5 healthcare facility-onset (HO) <i>C.difficile</i> LabID events. Why are only 3 events showing in the SIR report?	Not all CDI LabID events are counted in the SIR. Only those infections from an applicable inpatient location that are categorized as incident, healthcare-facility onset events with no positive specimens in the prior 14 days are included in the SIR. When running your CDI line list, look at the variable called “FWCDIF_facIncHoCount”; this variable will = 1 for each event counted in the SIR. Rehab units within a hospital use a different algorithm for determining which events are counted in the Rehab unit’s SIR. More information about the algorithms used for all LabID Event SIRs, as well as general troubleshooting steps, can be found in the new LabID SIR Troubleshooting Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/mrsacdi_tips.pdf
11	MRSA or <i>C.difficile</i> SIR	I am unable to get a <i>C.difficile</i> SIR for a single month. The SIR report shows a second table with months Excluded From the SIR. Why?	The risk adjustment for CDI LabID Event under the 2015 baseline requires that data from all 3 months of the quarter have been entered into NHSN before an SIR can be calculated. Several variables in the risk adjustment models, including the inpatient community-onset prevalence rate and/or CDI test type, are based on data that are entered for the entire quarter, as a whole. If you run the LabID event SIR report before completing data entry for all 3 months of the quarter, you will see a table showing months excluded from the SIR; these months will continue to be excluded from the SIR until data entry is complete for the entire quarter. Once data from all 3 months of the quarter(s) have been entered, SIRs can be calculated for a quarter, half-year, or year. For acute care hospitals, this same rationale and guidance applies to running MRSA bacteremia SIRs. Monthly CDI and MRSA bacteremia data can be reviewed using the Rate Tables.
12	LabID Rates	My facility is a long term acute care (LTAC) or inpatient rehabilitation (IRF) facility. The LabID rate table reports in the “Baseline Set 1” folder are not showing my 2017 data. Where can I run LabID rates for 2017?	The LabID rate table reports found in the “Baseline Set 1” folder will only contain data through 2016. When analyzing LabID event data for 2017, you can view rate tables and standardized infection ratio (SIR) reports in the regular MDRO/CDI LabID Event analysis folder.
13	Fiscal Year SIRs	I would like to obtain a fiscal-year SIR, however when I try to set the time period, I am unable to obtain a single SIR.	If you would like a cumulative SIR for a time period that you’ve defined on the Modify Screen – such as fiscal year, this can be obtained using the “Display Options” tab of the Modify Screen. Set Group by = Cumulative.



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14	MBI-LCBI CLABSI SIR	Are MBI-LCBI still included in the CLABSI SIR?	CLABSI events reported to NHSN as MBI-LCBI will be excluded from the numerator when performing risk-adjustment of 2015 CLABSI data. MBI-LCBIs will continue to be included in the CLABSI numerator for CLABSI SIRs that use the original baselines (2006-2008 for acute care hospitals, 2013 for long-term acute care hospitals). For more information about MBI-LCBI, please see: https://www.cdc.gov/nhsn/pdfs/rebaseline/faq-clabsi-rebaseline.pdf
15	Rehab Unit Data	I am no longer able to run an overall CAUTI SIR in one report with my Acute Care Facility data and Rehab unit data after the re-baseline. Why is that?	With the re-baseline, Inpatient Rehabilitation Facilities (IRF) reports will contain Rehab unit data. Acute Care Hospital (ACH) Reports will no longer contain Rehab unit data. This is due to varying risk that have been applied to the ACH and IRF CAUTI models.
16	Previously Excluded Locations	With the re-baseline, we were told that Telemetry units and Mixed Acuity Units will be included in the SIR reports, however, I still don't see these units in my CMS SIR reports. Why?	The CMS SIR reports were created in order to allow facilities to review those data that would be submitted to CMS on their behalf. These reports will only include the locations that meet the CMS reporting requirements. Telemetry Units and Mixed Acuity Units will not be included in the CMS reports. However, these units will be included in the non-CMS SIR reports. Please see the link below on more information regarding reportable locations and deadlines: https://www.cdc.gov/nhsn/pdfs/cms/cms-reporting-requirements-deadlines.pdf
17	CAUTI rates and SIRs	Why have the CAUTI rates and SIRs for 2015 dropped significantly compared to previous years?	In January 2015, the reporting of Urinary Tract Infections (UTI) changed due to an updated definition that excludes urine cultures that are positive only for yeast and other non-bacterial pathogens, as well as urine cultures with colony counts less than 100,000 CFU/ml. Due to these changes, some facilities might notice a decrease in the number of CAUTIs identified and reported to NHSN in 2015 and forward, as well as a decrease in the SIR. This is because the new numerator will not include the non-bacterial cultures and the



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			urine cultures with lower colony counts removed, while the denominator uses the pre-2015 definition which includes these events.
18	SIRs	How can my hospital run SIRs on the original baseline for data that extends beyond 2016?	When running the baseline set 1 reports in the NHSN application, only data through 2016 will be included. If your hospital wishes to use the same national baseline for later data time periods, this will need to be calculated external to NHSN. Your hospital may wish to consider other options for moving to the new 2015 baseline, as the new baseline and risk adjustment is available for calculation of SIRs for 2015 and forward. In other words, there are 2 “overlapping” years in which a hospital can choose to run either BS1 and/or BS2 SIRs. While the SIRs under different baselines are not directly comparable, the use of using both for a single time period could allow you to see similarity in trends during this shift to improved risk adjustment and measurement of these data.
19	TAP Reports	Why would a location not be ranked in the TAP Report?	The Cumulative Attributable Difference (CAD) is the metric used to rank facilities or facility locations within the TAP Report. The CAD is based on the same rules and exclusions that influence the SIR calculation. Therefore data that is not included in the calculation of the SIR, will not be included in the calculation of CAD. Locations that are not included in the SIR calculation for a particular HAI will also be excluded from TAP Reports. For example, outpatient locations are excluded from the SIR. Outpatient locations may show up in the TAP Report as unranked locations with the location CAD, Location DUR, and location SIR all remaining blank.
20	TAP Reports	Is it possible to create a CAD for multiple locations combined together?	No. The TAP Report was designed to identify and prioritize healthcare facilities and/or locations where prevention efforts can yield the largest impact. This is accomplished by using the location’s SIR in the calculation of the CAD to take into account the risk adjustments associated with each location individually. Combining locations would affect the risk adjustments used in the calculation of the SIR, and therefore the CAD as well.

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21	PS Annual Survey	Does NHSN use the most recent PS annual survey for SIR calculations?	SIRs use the most recent survey on file for the current SIRs. Under the new baseline, SIRs will be risk adjusted using the corresponding annual survey from that year. If the annual survey from that year hasn't been completed, SIRs will be risk adjusted using the most recent available survey.

