

Using the “SIR - CDI FacwideIn LabID Data for Hospital IQR” Report

The NHSN Analysis Report, “SIR - CDI LabID Data for Hospital IQR” was created in order to allow acute care facilities to review those *C. difficile* LabID data that would be submitted to CMS on their behalf. It’s important to keep in mind the following as you begin to use this report:

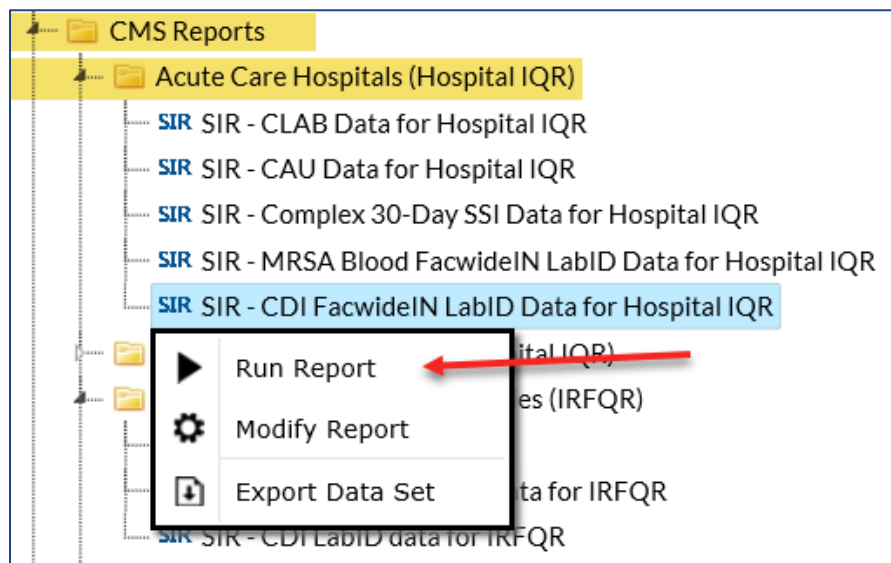
- These data will only be submitted for those facilities that are participating in the CMS Inpatient Prospective Payment System (IPPS) Hospital IQR Program, as indicated by their CCN recorded in NHSN.
- **The SIRs generated in this output will be calculated using the 2015 national baseline data.** To learn more about the standardized infection ratio (SIR) under the 2015 baseline as it pertains to CDI data, please see: <https://www.cdc.gov/nhsn/2015rebaseline/>.
- This report will only include **in-plan FacWideIn (facility-wide inpatient) CDI LabID data beginning with January 2015 data.** Earlier years for which you may have reported these data will not be included in this output. Data that have previously been submitted to CMS for participation in a Quality Reporting Program can be found at the following folders: Baseline Set 1 > CMS Acute Care Hospitals (Hospital IQR) > SIR – CDI FacwideIN LabID Data for CMS IPPS.
- **IMPORTANT!** Facilities must appropriately **Report No Events** for those FacWideIn months for which no CDI LabID events were identified in an inpatient location.
- This output option represents an SIR report for each hospital, not each CCN. If your hospital shares a CCN, this SIR will only represent the data that your hospital has contributed to the overall SIR for all hospitals that share the CCN. You may wish to use the Group feature in NHSN to obtain a single SIR for all the hospitals that share a CCN. More information about the Group feature can be found here: <http://www.cdc.gov/nhsn/group-users/index.html>.
- The data in this report will represent data current as of the last time you generated datasets. **NOTE:** Data in the Provider Participation Report are not updated simultaneously with your data in NHSN. Data changes made in NHSN will be reflected in the next monthly submission to CMS. **EXCEPTION:** Quarterly data are frozen as of the final submission date for that quarter (e.g., first quarter (Q1) data will be frozen as of 3am ET on August 16th); any changes made to these data in NHSN after the final submission deadline will not be reflected in later months on the Provider Participation Report or on Hospital Compare.
- The information in this document should be used in conjunction with the document, “How to Set Up NHSN Reporting for Facility-Wide Inpatient MRSA Bacteremia and *C. difficile* LabID events for the

CMS Inpatient Quality Reporting Program”, available at: <https://www.cdc.gov/nhsn/pdfs/cms/how-to-set-up-and-report-mrsa-cdi.pdf>

Example of the “SIR - CDI FacWideIN LabID Data for Hospital IQR”: Interpretation and Data Checking

Before running this output option, remember to generate your datasets for the most up-to-date data reported to NHSN by your facility! To generate datasets, go to Analysis > Generate Data Sets, then click “Generate New”.

1. After selecting Analysis > Reports, navigate through the following folders: CMS Reports > Acute Care Hospitals (Hospital IQR) > SIR - CDI FacwideIN LabID Data for Hospital IQR. After clicking the title of the report, click “Run” on the subsequent pop-up menu.



2. By default, the results will appear in an HTML window. If a second window does not pop-up, please be sure to check your pop-up blocker and allow pop-ups from *.cdc.gov.
3. Within the output, there may be multiple tables, each described below. ***Data presented below are fictitious.***

a. SIR Example Report:

“SIR - CDI FacwideIN LabID Data for CMS Hospital IQR (2015 Baseline)”

The table below represents an overall, single SIR for your facility, per calendar quarter. This is the information that will be submitted to CMS for each IPPS-participating facility, as indicated by the facility’s CCN.

**National Healthcare Safety Network
SIR for CDI FacwideIN for CMS Hospital IQR (2015 baseline)**

As of: January 30, 2018 at 1:03 PM
Date Range: BS2_LABID_RATE SCDIF summaryYr After and Including 2015
if (((cdif.LabIDPlan = "Y")))

orgID	location	summaryYQ	months	CDIF_facIncHOCCount	numPred	numpatdays	SIR	SIR_pval	sir95ci
10401	FACWIDEIN	2016Q1	3	2	2.586	3827	0.773	0.7919	0.130, 2.555

1. This report includes facility-wide inpatient data from acute care hospitals for 2015 and forward.
 2. The SIR is only calculated if number predicted (numPred) is >= 1. Lower bound of 95% Confidence Interval only calculated when number of observed events > 0.
 3. The # of predicted events is calculated based on national 2015 NHSN data. It is adjusted for inpatient community-onset CDI prevalence rate, ED/OBS reporting, CDI test type, medical school teaching status, facility type, # beds, and # ICU beds.
 4. Events from rehabilitation wards and behavioral health/psych wards with a unique CCN are excluded. Information on how to determine which events are counted in the SIR can be found here: http://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/mrsacdi_tips.pdf
 5. If any risk factor data are missing, the record is excluded from the SIR.
- Source of aggregate data: 2015 NHSN CDI LabID Data
Data contained in this report were last generated on January 30, 2018 at 11:36 AM.

Using the table above, one can conclude the following:

- During the first quarter of 2016 (2016Q1), three months of CDI LabID data were submitted (*months*).
- The facility reported 2 incident, healthcare facility-onset (HO) CDI LabID events (*CDIF_facIncHoCount*) among 3,827 patient days (*numpatdays*). For more information about which events are counted in the numerator of the SIR, refer to the LabID SIR Troubleshooting document (see Additional Resources below).
- The number of predicted incident HO CDI LabID events (*numPred*) was 2.586.
- The SIR was 0.773, p-value (*SIR_pval*) was 0.7919, and 95% confidence interval (*sir95ci*) was (0.130 – 2.555) for CDI LabID events during this time period.
- The p-value and the 95% confidence interval were not statistically significant. Therefore, the number of events observed by the facility was not significantly different than the number predicted.

NOTE: If the number of predicted events is less than 1, an SIR, p-value, and 95% confidence interval will not be calculated. However, assuming all other reporting requirements are met, the SIR data are considered “complete” and will still be submitted to CMS in order to comply with Quality Reporting Programs.

- Be sure to read the footnotes beneath the SIR report for important information about the SIR calculation.

b. SIR Risk Factors Example Report

“Risk Adjustment Factors for FacwideIN CDI SIR”

The table below presents the SIR-associated risk factors used in the calculation of your facility’s SIR for each calendar quarter. This information is provided to help facility’s understand the SIR calculation and ensure accuracy of each risk adjustment variable. These data are **not** submitted to CMS.

National Healthcare Safety Network									
Risk Adjustment Factors for FacwideIN CDI SIR									
As of: February 1, 2018 at 7:42 AM									
Date Range: BS2_LABID_RATE SCDIF summaryYr After and Including 2015									
if(((cdif.LabIDPlan - "Y")))									
orgID	summaryYQ	CDI_COprevRate	cdiTestType	numICUBeds	facType	numBeds	CDIF_EDOBSindicator	medType	numpatdays
10401	2016Q1	6.667	OTH	15	HOSP-GEN	50	0		3827

The table above displays the values that are included in the calculation of your acute care hospital's CDI LabID Event SIR.

Additional details regarding the SIR risk factors can be found here:

<https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf>

c. Outlier Prevalence Rate

“CDI Quarters with Outlier Prevalence Rate”

The data presented in the “Outlier Prevalence Rate” table should be used by the facility to verify the reported number of CO events and total admissions; these data are **not** submitted to CMS.

National Healthcare Safety Network					
CDI Quarters with Outlier Prevalence Rate					
As of: March 8, 2018 at 2:12 PM					
Date Range: BS2_LABID_RATE SCDIF summaryYr After and Including 2015					
orgID	location	summaryYQ	cdif_adm prevcocount	numAdms	CDI_COprevRate
10018	FACWIDEIN	2016Q2	1	10	10.000

An additional table may appear if there are any quarters in which the inpatient community-onset (CO) prevalence rate is considered an outlier (greater than 2.6 CO events per 100 admissions). The number of predicted infections, and thus the SIR, cannot be calculated in such instances. However, in order to signify compliance with the reporting requirements that quarter will appear in the first SIR table (SIR - CDI FacwideIN LabID Data for CMS Hospital IQR) with the number of months indicated. In this situation, the number of observed CDI events and the total number of patient days will also be “missing” from the SIR report.

d. **Incomplete Quarters**

“CDI Data - Incomplete Months Excluded for SIR”

The data presented in “Incomplete Months” table should be used by the facility to help verify that data entry for the month has been completed. These data are **not** submitted to CMS.

National Healthcare Safety Network CDI Data - Incomplete Months Excluded for SIR								
orgID	location	summaryYM	CDIF_LabIDCount	numPatDays	numAdms	cdiTestType	numBeds	medAff
10401	FACWIDEIN	2016M07	0	1450	1350		50	N

SIR excludes those months where CDIF patient days and/or admissions are missing, required survey-level data are missing, or verification of 'report no events' has not been completed when 0 events have been reported.
 For 2015 and forward, FACWIDEIN excludes LabID events reported for rehabilitation wards and behavioral health/psych wards that have a CCN that is different from the acute care hospital.
 Data contained in this report were last generated on January 31, 2018 at 10:08 AM.

An additional table may appear if there are any incomplete quarters in which at least 1 month of data has not been entered. For the SIR calculation, some risk factors are calculated at the quarter level requiring that all three months of a single quarter have been reported to NHSN. If a quarter-level variable, such as CDI test type, has not yet been entered into NHSN for that quarter, any associated months for that quarter will be identified in the table above.

4. What can be done if a quarter does not appear in the table or if the data are inaccurate?
 - a. Check that the summary data for the FACWIDEIN location have been entered for each month in the quarter and double-check the accuracy of these data, which includes patient days and admissions.
 - b. If summary data have been entered, double-check your monthly reporting plan for each month in the quarter. Check to make sure that CDI LabID surveillance is included in your monthly reporting plan for the location FACWIDEIN.
 - c. If summary data have been entered and no CDI LabID events have been identified, be sure to check the ‘Report No Events’ box on the summary record or through the “Missing Events” alerts tab.
 - d. If the number of events is less than you reported *and* you’ve confirmed that the summary data have been entered in-plan, double check the CDI LabID events in NHSN using the CDI LabID events line list.

REMEMBER: If you have made any changes to your data, regenerate your datasets in order to review your output options with the most up-to-date data in NHSN.

April 2018

Additional Resources:

Troubleshooting MRSA and CDI LabID Event SIR:

https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/mrsacdi_tips.pdf

CMS Resources for NHSN Users:

<http://www.cdc.gov/nhsn/cms/index.html>

Operational Guidance for ACHs to report CDI:

<https://www.cdc.gov/nhsn/pdfs/cms/final-ach-cdi-guidance.pdf>

Analysis Quick Reference Guides:

<http://www.cdc.gov/nhsn/PS-Analysis-resources/reference-guides.html>

