Using the "SIR – ACH MRSA Blood FacWideIN LabID Data for CMS IPPS (2022 Baseline)" Report

Introduction

The NHSN Analysis Report, "SIR – ACH MRSA Blood FacWideIN LabID Data for CMS IPPS (2022 Baseline)" was created to allow acute care facilities to review those MRSA Blood 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:

a. These data will only be submitted for those facilities that are participating in the CMS Inpatient Prospective Payment System (IPPS) Hospital Inpatient Quality Reporting (IQR) Program, as indicated by their CCN recorded in NHSN.

b. **The SIRs generated in this output will be calculated using the 2022 national baseline data**. To learn more about the standardized infection ratio (SIR) under the 2022 baseline as it pertains to MRSA data, please see the [Risk Adjustment Factors Included in the SIR Calculation: Inpatient Rehabilitation Facilities (IRFs)](#) document.

c. This report will only include **in-plan FacWideIN (facility-wide inpatient) MRSA blood LabID data beginning with January 2022 data. However, the default time period of the report begins with 2025Q1**. Earlier years for which you may have reported these data will <u>not</u> be included in this output.

d. **IMPORTANT!** Facilities must appropriately **Report No Events** for those FacWideIN months for which no MRSA LabID events were identified in an inpatient location.

e. This output option represents an SIR report for each hospital, <u>not</u> 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 on the [Group Users page](#).

f. 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. For example, Q1 data will be frozen as of 7am UTC* (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.

   All NHSN timestamps are displayed in the UTC Time Standard. To convert UTC to Eastern Time:
   - *Between second Sunday in March – first Sunday in November: subtract 4 hours from UTC to get Eastern Daylight Time (EDT).*
   - *Between first Sunday in November – second Sunday in March: subtract 5 hours from UTC to get Eastern Standard Time (EST).*

g. 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](#).

Example of how to access, generate, interpret and perform data quality checks on the "SIR – ACH MRSA Blood FacWideIN LabID Data for CMS IPPS (2022 Baseline)" report

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 Reporting Data Sets".

1. After selecting Analysis > Reports, navigate through the following folders: CMS Reports > Acute Care Hospitals (ACHs) > SIR – ACH MRSA Blood FacWideIN LabID Data for CMS IPPS (2022 Baseline). 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.***

Table 1: SIR Table Example:

"SIR – ACH MRSA Blood FacWideIN LabID Data for CMS IPPS (2022 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.

orgID	ccn	location	summaryYQ	months	MRSA_bldIncCount	numPred	numpatdays	SIR	SIR_pval	sir95ci
16446		FACWIDEIN	2025Q1	3	1	2.520	37625	0.397	0.3638	0.020, 1.957

1. 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.
2. The number of predicted events is calculated based on national 2022 NHSN data. Please see the SIR Guide for details on the HAI-specific risk adjustment and inclusion/exclusion criteria: https://www.cdc.gov/nhsn/2022rebaseline/analysis-resources.html
3. This report includes in-plan facility-wide inpatient data from acute care hospitals for 2022 and forward.
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: https://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.

Using the above table, one can conclude the following:

a. During the first quarter of 2025 (2025Q1), the facility reported 3 months of MRSA blood LabID data (*months*).
   o In those months for Q1, the facility reported 1 healthcare facility-onset (HO) MRSA blood LabID event (*MRSA_bldIncCount)* among 37,625 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).
b. The number of predicted incident HO MRSA blood LabID events (*numPred*) was 2.520.

c. The SIR was 0.397, p-value (*SIR_pval*) was 0.3638, and 95% confidence interval (*sir95ci*) was (0.020, 1.957) for MRSA blood LabID events during this time period.

d. Based on the p-value and the 95% confidence interval, the SIR for MRSA blood LabID events is not statistically significantly different than the nominal value of 1.

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 to comply with Quality Reporting Programs. **Be sure to read the footnotes beneath the SIR report for important information about the SIR calculation.**

Table 2: SIR Risk Factors Example

"Risk Adjustment Factors for FacWideIN MRSA Blood 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 your facility 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 MRSA Blood SIR
As of: July 31, 2025 at 5:55 PM UTC
Date Range: BS3_LABID_RATESMRSA_CMS summaryYQ 2025Q1 to 2025Q1
if (((mrsaLabIDBldPlan = "Y")))

orgID=16446

orgID	ccn	summaryYQ	MRSA_admPrevBldRate	MRSA_EDObsPrevRate	factype	medType	numBeds	ICUBedprop	LOS	numpatdays
16446		2025Q1	0.071	0.084	HOSP-GEN	G	67	0.060	5.2	37625

1. The table above displays the values that are included in the calculation of the hospital's MRSA Blood LabID Event SIR.
2. These data are not submitted to CMS.

Additional details regarding the SIR risk factors can be found in [NHSN's Guide to the 2022 Baseline Standardized Infection Ratios](#).

Table 3: Months Excluded Example

"MRSA Data - Months Excluded from SIR Due to Missing Risk Factors"

An additional table may appear if there are any missing risk factors. The number of predicted events, and thus the SIR, cannot be calculated in such instances. If there are any missing risk factors or if the inpatient community-onset prevalence rate cannot be calculated for the quarter, any months for which data have been entered in that quarter will be identified in the table below. The data presented in this table should be used by the facility to identify which data need to be entered for the SIR to be calculated. These data are **not** submitted to CMS.

National Healthcare Safety Network
MRSA Data - Months Excluded from SIR Due to Missing Risk Factors
As of: July 14, 2025 at 5:33 PM UTC
Date Range: BS3_LABID_RATESMRSA_CMS summaryYr After and Including 2022
if (((mrsaLabIDBIdPlan = "Y")))

orgID=10315

orgID	ccn	summaryYM	MRSA_bldIncCount	medType	numBeds	numICUBeds	numPatDaysSurv	numAdmitsSurv	numAdms	numPatDays
10315		2025M01	0	G	975	90	15005	2831	0	0
10315		2025M02	0	G	975	90	15005	2831	0	0
10315		2025M03	0	G	975	90	15005	2831	0	0

1. This table displays months that are excluded from the SIR report. These months will be included in the SIR once all required variables have been submitted.
2. These data are not submitted to CMS.

From this table we can conclude:

a. The facility has entered data for January, February, and March 2025. These months will be excluded from the SIR until the required variables are submitted or if the information fits the exclusion criteria will not be included in the SIR calculation.

What can be done if a quarter does not appear in the table or if the data are inaccurate?

1. 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.
2. If summary data have been entered, double-check your monthly reporting plan for each month in the quarter. Check to make sure that MRSA LabID surveillance is included in your monthly reporting plan for the location FACWIDEIN.
3. If summary data have been entered and no MRSA 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.
4. 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 MRSA LabID events in NHSN using the MRSA LabID events line list.

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

Additional Resources:

Troubleshooting MRSA and CDI LabID Event SIR
CMS Resources for NHSN Users
Operational Guidance for ACHs to report MRSA bacteremia LabID Event data
Analysis Quick Reference Guides
NHSN's Guide to the SIR (2022 Baseline)