Using the "SIR – Complex 30-Day SSI Data for Hospital IQR (2022 Baseline)" Output Option

Introduction

The NHSN Analysis Output Option, "SIR – Complex 30-Day SSI Data for CMS IPPS (2022 Baseline)" was created to allow facilities to review those SSI data that would be submitted to CMS on their behalf. This report replaces the "SIR – Complex 30-Day SSI Data for CMS IPPS (2015 Baseline) and utilizes the updated NHSN 2022 Baseline. **Note**: colon surgery (COLO) and abdominal hysterectomy (HYST) data reported for CMS requirements prior to January 2022 were reported using the 2015 Baseline). 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 IPPS Hospital IQR Program, as indicated by their CCN recorded in NHSN.
b. Facilities performing SSI surveillance for COLO and HYST must report all types of SSIs identified from all COLO and HYST procedures performed to NHSN. This report will only include the following SSI and procedure data performed at the facility beginning on or after January 1, 2025, per CMS requirements:
    o   In-plan, inpatient COLO and HYST procedures in adult patients (i.e., ≥ 18 years of age at the time of the procedure)
    o   Deep incisional primary and organ/space SSIs with an event date (i.e., identified) within 30 days of the operative procedure
c. **IMPORTANT!** Facilities must appropriately **Report No Events** for those procedures and months for which no SSIs were identified. More information about the Report No Events process can be found in the [How to Report Zero Surgical Procedures or SSI Events for a Month](#) guidance document.
d. This output option represents SIRs for each hospital, <u>not</u> each CCN. If your hospital shares a CCN, the SIRs 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](#).
e. The data in this report will represent data current as of the last time you generated datasets. Note that 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. If you have specific questions about the data appearing on your APU dashboard, please contact your Quality Improvement Organization (QIO).
f. To learn more about the standardized infection ratio (SIR), including how it is calculated for SSI data, please see the [SIR Guide](#). The information in this document should be used in conjunction with the document, "**[NHSN MONTHLY CHEKCLIST FOR REPORTING TO CMS HOSPITAL IQR PROGRAM B](#)** (updated September 2021)."
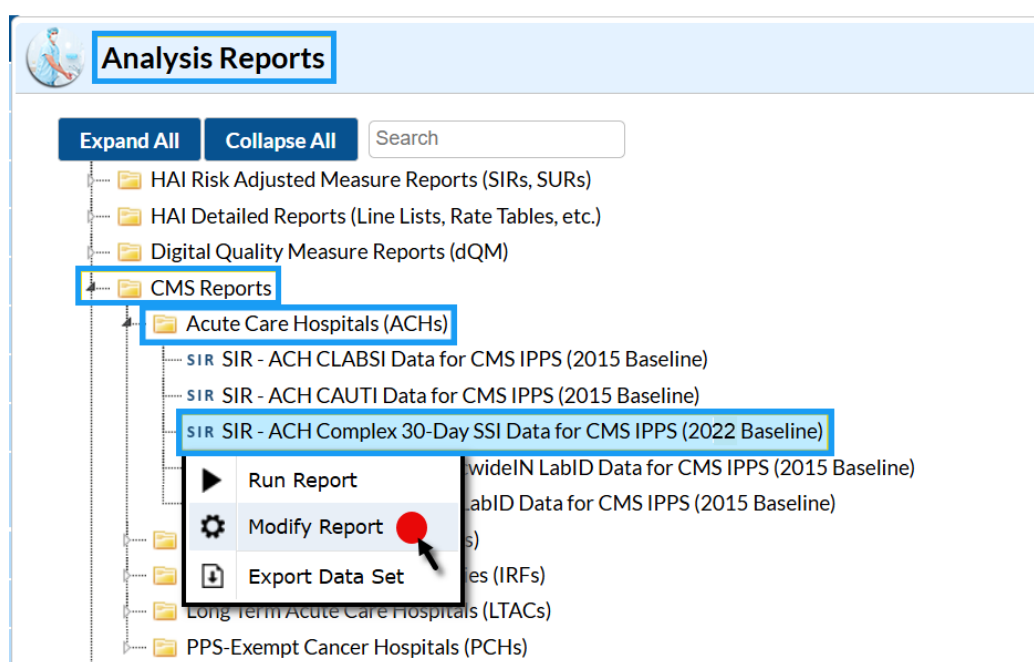

*All NHSN timestamps are displayed in the UTC Time Standard. To convert UTC to Eastern Time:
- *Between second Sunday in March – first Sunday in November: subtract 4 hours from UTC to get Eastern Daylight Time (EDT).*
- *Between first Sunday in November – second Sunday in March: subtract 5 hours from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

Example of how to access, generate, interpret and perform data quality checks on the "SIR – Complex 30-Day SSI Data for CMS IPPS (2022 Baseline)"

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 (Hospital IQR). Click "SIR – ACH Complex 30-Day SSI Data for CMS IPPS (2022 Baseline)" and select **Run Report**, as shown below:

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.

SIR Example Report:

Within the report output, there will be up to 2 different types of tables, each described below:

1. **SIR for Complex 30-Day SSI Data for Hospital IQR by Procedure (2022 Baseline) – By OrgID/ProcCode**

The first table represents 2 SIRs for your facility (one for COLO and one for HYST), per calendar-year quarter, as shown below. 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 Complex 30-Day SSI Data in Acute Care Hospitals for CMS IPPS by Procedure (2022 Baseline) - By OrgID/ProcCode
As of: June 25, 2025 at 5:20 PM UTC
Date Range: BS3_SIR_CMPX30DSSIPROC summaryYQ 2025Q1 to 2025Q1

orgid	ccn	proccode	procCount	summaryYQ	infCountComplex30d	numPredComplex30d	SIRComplex30d	SIRComplex30d_pval	SIRComplex30d95CI
15731	012521	COLO	100	2025Q1	6	2.53	2.372	0.059	0.961, 4.933
15731	012521	HYST	66	2025Q1	5	0.522	.	.	.

Source of aggregate data: 2022 National NHSN Aggregate Data

Using the above example table, one can conclude the following:

    a. This facility identified 6 SSI (infCountComplex30d) among 100 COLO procedures (procCount) during the 1st quarter of 2025 (2025Q1).

    b. The number of SSIs expected (numPredComplex30d), based on national data, is 2.53.

    c. The SIR for COLO procedures during this time period is 2.372, indicating that this facility reported approximately 81.4% more SSIs than predicted.

    d. Based on the p-value (SIRComplex30d_pval) and the 95% confidence interval (SIRComplex30d95CI), the SIR for COLO procedures in this facility was not statistically different from 1 (SIRComplex30d_pval = 0.059), indicating that even though there were more SSI events reported by the facility than the predicted number, this was not statistically significant (the SIRComplex30d95CI is 0.961 to 4.933 and includes 1).

2. **Procedures Excluded from SIR Due to Data Quality Items or Outlier Values Table**

    The second table provides a count of the number of procedures and SSIs that were excluded from the SIR calculations above due to procedures meeting at least one of the universal exclusion criteria or having data quality issues or meeting defined data outlier values.

National Healthcare Safety Network
Procedures Excluded from SIR Due to Data Quality Items or Outlier Values
As of: July 23, 2025 at 7:10 PM UTC
Date Range: BS3_SIR_CMPX30DSSIPROC summaryYQ 2025Q1 to 2025Q1

orgID	ccn	procCode	summaryYQ	procCount	infCountComplex30d
15731	012521	COLO	2025Q1	2	0
15731	012521	HYST	2025Q1	21	0

What can be done if data meet a data quality issue, outlier value, missing or if the number of infections or procedures is incorrect?

1. Check that all procedure records for the operative procedure category have been entered for each month in the quarter.

2. If all procedures have been entered, double-check your monthly reporting plan for each month in the quarter. Check to make sure that each procedure category (COLO and HYST) is included in your monthly reporting plan for INPATIENT SSI surveillance.

3. If all procedures have been entered <u>and</u> no SSIs have been identified, make sure that you have checked "Report No Events" for SSIs for that month and procedure category on the 'Missing Procedure-associated Events' tab of the Alerts screen.

4. To get a list of the procedures excluded from the SSI SIR and the reason for exclusion, run the Line Listing – Procedures Excluded from the SSI SIR (2022 Baseline) report located in the baseline specific SSI subfolder of the HAI Risk Adjusted Measure Reports (SIRS, SURs) folder. For instructions on how to generate and interpret the results from this report please see the [Line List: Procedures Excluded from the SIRs (2015 Baseline) guidance document](#).

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:

[CMS Resources for NHSN Users](#)

[Operational Guidance](#)

[Analysis Quick Reference Guides](#)