

Using the “SIR – CAUTI Data for CMS IPPS (2015 Baseline)” Output Option

The NHSN Analysis Report, “SIR – CAUTI Data for CMS IPPS (2015 Baseline)” was created in order to allow facilities to review those CAUTI 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 IPPS Hospital IQR Program, as indicated by their CCN recorded in NHSN.
- b. This report will only include: **in-plan CAUTI data for each adult and pediatric ICU beginning with 2015 data and in-plan CAUTI data for each adult and pediatric medical, surgical, and medical/surgical ward beginning with 2015 data.** Other locations/earlier years for which you may have reported CAUTI data will not be included in this output.
- c. **IMPORTANT!** Facilities must appropriately **Report No Events** for those locations and months for which no events of each type under surveillance were identified.
- d. This output option represents an SIR 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>.
- e. The data in this report will represent data current as of the last time you generated datasets. Note that data in the Quality Net 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 Quality Net Provider Participation Report or on Hospital Compare.
- f. To learn more about the standardized infection ratio (SIR), including how it is calculated for device-associated data, please see the SIR Newsletter at <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf>
- g. The information in this document should be used in conjunction with the document, “**Helpful Tips for CAUTI Reporting for the Centers for Medicare and Medicaid Services’ Hospital Inpatient Quality Reporting Program (CMS Reporting Program)**”, available from: <http://www.cdc.gov/nhsn/cms/index.html#cauti>.

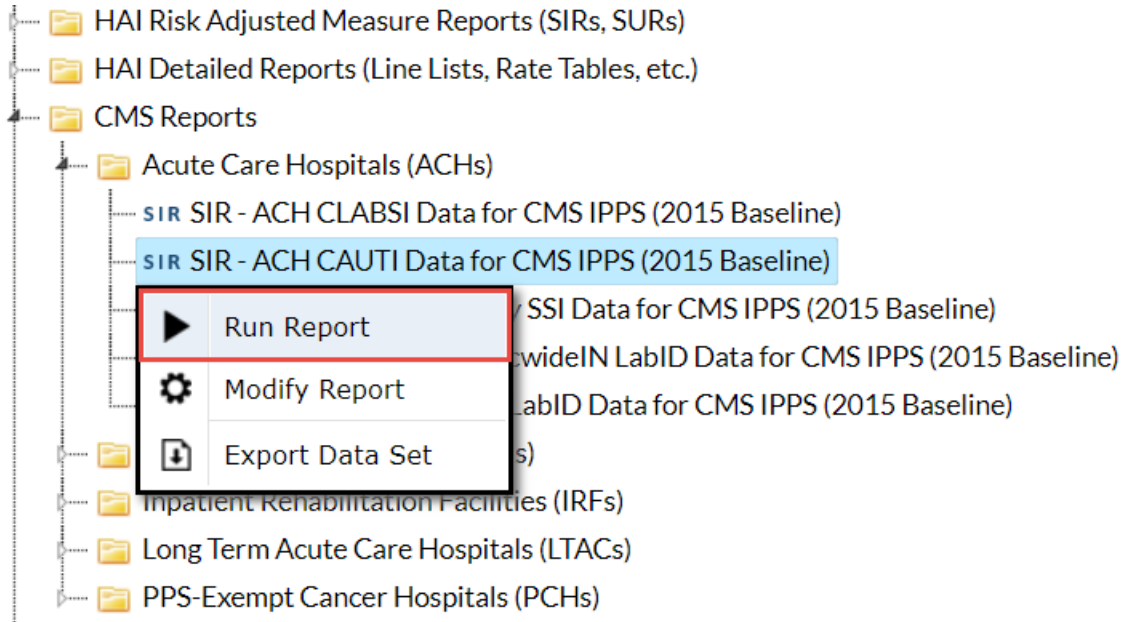
**All NHSN timestamps are displayed in the UTC Time Standard. To convert UTC to Eastern Time:*

- *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 the “SIR – CAUTI Data for CMS IPPS (2015 Baseline)”: 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 (ACHs). Click “Run Report” next to “SIR – CAUTI Data for CMS IPPS (2015 Baseline)”, as shown below:



2. By default, the results will appear in a separate HTML window. If the separate window does not pop-up, please be sure to check your pop-up blocker and allow pop-ups from *.cdc.gov.

Within the output, there will be four tables, each described below:

- i. SIR – CAUTI Data for CMS IPPS (2015 Baseline) – **By OrgID**

The first table represents an overall, single SIR for your facility, 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. NOTE: This table will include data from all ICUs and the six selected ward locations listed in the ‘IF’ statement on the screenshot below. Included location list can be found here:

<https://www.cdc.gov/nhsn/pdfs/cms/Location-Mapping-Checklist.pdf>



**National Healthcare Safety Network
SIR for Urinary Catheter-associated UTI Data in Acute Care Hospitals for CMS
IPPS (2015 Baseline) - By OrgID**

As of: November 17, 2023 at 7:50 AM

Date Range: All BS2 CAU RATES CMS

if (((utiPlan = "Y") AND (locationType IN ("CC", "CC_ONC"))) OR ((utiPlan = "Y") AND (locCDC IN ("IN:ACUTE:WARD:M", "IN:ACUTE:WARD:MS", "IN:ACUTE:WARD:S", "IN:ACUTE:WARD:M_PED", "IN:ACUTE:WARD:MS_PED", "IN:ACUTE:WARD:S_PED"))))

orgID=10000 medType=G

orgID	ccn	summaryYQ	infCount	numPred	numcathdays	SIR	SIR_pval	sir95ci
10000	31C0001043	2021Q1	2	1.013	546	1.974	0.351	0.331, 6.523

Using the above table, one can conclude the following:

- a. This facility identified 2 CAUTI (infCount) among 546 urinary catheter days (numcathDays) during the 1st quarter of 2021 (summaryYQ).
- b. The number of CAUTIs predicted (numPred), based on 2015 national data, was 1.013.
- c. The overall SIR for this facility during this time period is 1.974, indicating that this facility observed approximately 97% more infections than expected.
- d. Based on the p-value (SIR_pval) and the 95% confidence interval (SIR95CI), the SIR for this facility is not statistically different from 1, indicating that there were not significantly fewer infections identified than were predicted.

ii. SIR – CAUTI Data for CMS IPPS (2015 Baseline) – **By OrgID/Location Type**

The second table provides an SIR for each quarter and location type (e.g., ICU) with reported in-plan CAUTI data during each time period. “CC” in this table will represent all adult and pediatric ICUs; “WARD” in this table will represent all adult and pediatric medical, surgical, and medical/surgical wards. “CC_ONC” in this table will represent all Oncology ICU units.

**National Healthcare Safety Network
SIR for Urinary Catheter-associated UTI Data in Acute Care Hospitals for CMS
IPPS (2015 Baseline) - By OrgID/Location Type**

As of: November 17, 2023 at 8:00 AM

Date Range: All BS2 CAU RATES CMS

if (((utiPlan = "Y") AND (locationType IN ("CC", "CC_ONC"))) OR ((utiPlan = "Y") AND (locCDC IN ("IN:ACUTE:WARD:M", "IN:ACUTE:WARD:MS", "IN:ACUTE:WARD:S", "IN:ACUTE:WARD:M_PED", "IN:ACUTE:WARD:MS_PED", "IN:ACUTE:WARD:S_PED"))))

orgID=10000 medType=G

orgID	ccn	locationType	summaryYQ	infCount	numPred	numcathdays	SIR	SIR_pval	sir95ci
10000	31C0001	CC	2021Q1	3	0.045	36	.	.	
10000	31C0001	CC	2021Q2	0	0.019	15	.	.	
10000	31C0001	CC_ONC	2021Q4	0	0.009	10	.	.	



The data in this table can be interpreted similar to the first SIR table, described above. Note that this table will allow you to see the how many CAUTIs and device days were reported in each location type, as defined by CDC.

iii. SIR – CAUTI Data for CMS IPPS (2015 Baseline) – **By OrgID/CDC Location Code**

The third table provides an SIR for each quarter and CDC location (e.g., adult medical ICU, pediatric medical/surgical ICU). Note that if your facility reports data for more than one location of the same CDC type (for example, 2 medical ICUs), these locations will be grouped into one SIR in this table.

National Healthcare Safety Network

SIR for Urinary Catheter-associated UTI Data in Acute Care Hospitals for CMS IPPS (2015 Baseline) - By OrgID/CDC Location Code

As of: November 17, 2023 at 8:00 AM

Date Range: All BS2 CAU RATES CMS

if (((utiPlan = "Y") AND (locationType IN ("CC", "CC ONC"))) OR ((utiPlan = "Y") AND (locCDC IN ("IN:ACUTE:WARD:M", "IN:ACUTE:WARD:MS", "IN:ACUTE:WARD:S", "IN:ACUTE:WARD:M PED", "IN:ACUTE:WARD:MS PED", "IN:ACUTE:WARD:S PED"))))

orgID=10000 medType=G

orgID	ccn	loccdc	summaryYQ	infCount	numPred	numcathdays	SIR	SIR_pval	sir95ci
10000	31C0001043	IN:ACUTE:CC:C	2021Q1	3	0.045	136	.	.	.
10000	31C0001043	IN:ACUTE:CC:MS	2021Q1	0	0.000	0	.	.	.
10000	31C0001043	IN:ACUTE:CC:ONC_MS	2021Q3	1	0.118	434	.	.	.
10000	31C0001043	IN:ACUTE:CC:ONC_S	2021Q4	0	0.009	10	.	.	.

iv. SIR – CAUTI Data for CMS IPPS (2015 Baseline) – **By OrgID/Location**

The fourth table provides an SIR for each quarter and individual location within your facility. This is also the only table that will allow you to see how many months of data are included in each location’s quarterly SIR.

For example, looking at the Med_surg location below, we can see that the “months” column shows a value of 1, indicating that 1 month of data have contributed to the quarterly SIR for this location (as one would expect). If less than 3 months contribute to a quarterly SIR, than this will indicate that the SIRs in this output option are incomplete and additional data checking is needed.

**National Healthcare Safety Network
SIR for Urinary Catheter-associated UTI Data in Acute Care Hospitals for CMS IPPS (2015 Baseline) - By OrgID/Location**

As of: November 17, 2023 at 8:00 AM

Date Range: All BS2 CAU RATES CMS

if (((utiPlan = "Y") AND (locationType IN ("CC", "CC_ONC"))) OR ((utiPlan = "Y") AND (locCDC IN ("IN:ACUTE:WARD:M", "IN:ACUTE:WARD:MS", "IN:ACUTE:WARD:S", "IN:ACUTE:WARD:M PED", "IN:ACUTE:WARD:MS PED", "IN:ACUTE:WARD:S PED"))))

orgid=10000 medType=G

orgid	ccn	location	summaryYQ	months	infcoun	numPred	numcathdays	SIR	SIR_pval	SIR95CI
10000	31C0001043	23	2021Q1	1	0	0.000	0	.	.	
10000	31C0001043	CARDCRIT	2021Q1	2	3	0.045	36	.	.	
10000	31C0001043	CC_ONC	2021Q1	2	1	0.118	134	.	.	
10000	31C0001043	ON_S	2021Q4	1	0	0.009	10	.	.	

3. What can be done if data are incomplete or if the number of infections or urinary catheter days is incorrect?
 - i. Check that the summary data for this location have been entered for each month in the quarter. This includes urinary catheter days and patient days.
 - ii. If summary data have been entered, double-check your monthly reporting plan for each month in the quarter. Check to make sure that each location is included in your monthly reporting plan, with the CAUTI box checked.
 - iii. If summary data have been entered and no CAUTIs have been identified, be sure to check the 'Report No Events' box on the summary record, next to the Urinary Catheter days count.
 - iv. If the number of infections is less than you reported *and* you've confirmed that the summary data have been entered in-plan, double check the UTI events in NHSN: if urinary catheter is entered as "NEITHER", the event is *not* considered a CAUTI and will not appear in this report. Note that you can edit the event with the correct information, if necessary.

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.

Additional Resources

CMS Resources for NHSN Users: <http://www.cdc.gov/nhsn/cms/index.html>

Operational Guidance: <http://www.cdc.gov/nhsn/PDFs/FINAL-ACH-CAUTI-Guidance.pdf>

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

