

**From:** NHSN (CDC)  
**Sent:** Monday, July 25, 2011 11:49 AM  
**To:** ALL NHSN Users  
**Subject:** NHSN version 6.4.2 and a Reminder of Helpful Information Online

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THIS EMAIL HAS BEEN SENT TO ALL NHSN USERS

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Dear NHSN User,

This past weekend, we released NHSN version 6.4.2. This version fixed minor bugs in the reporting application, as well as implemented some enhancements to the infrastructure and the analysis features.

Of note:

1. Additional stratification features on bar charts: this will allow users to create "stacked" bar charts within NHSN.
2. Analysis Output Option for the CMS IPPS CLABSI SIR: if your hospital is participating in the CMS IPPS Hospital Inpatient Quality Reporting (IQR) Program and you have been reporting these data (specifically, CLABSI) to NHSN, you can now obtain a quarterly SIR for your hospital that represents the data submitted to CMS on your behalf. For more information about this specialized report, please see the attached "Newsletter".

Additionally, based on questions received by the NHSN Helpdesk, we wanted to take this opportunity to remind everyone of some important documents we've posted on the NHSN webpage.

1. For those interested in the items discussed at the NHSN Members' Meeting at this year's APIC Conference, the slides are now available online at: <http://www.cdc.gov/nhsn/PDFs/commup/NHSN-Users-Meeting-APIC-Baltimore-6-24.pdf>

2. Last month we released NHSN version 6.4 which included a number of important updates to the application and the NHSN protocols. A list of these updates is available at: [http://www.cdc.gov/nhsn/PDFs/commup/Updates-NHSNversion6\\_4\\_web.pdf](http://www.cdc.gov/nhsn/PDFs/commup/Updates-NHSNversion6_4_web.pdf)

3. Many users have requested a list of common skin contaminants/common commensals for the purposes of CLABSI reporting. This list is now available as an Excel spreadsheet at: <http://www.cdc.gov/nhsn/library.html#cv>

4. The SIR is a fairly new measure that became available in NHSN last fall. The SIR will be used for the purposes of CLABSI reporting for the CMS Hospital IQR Program. Additionally, SSI rates will no longer be published and instead, facilities are encouraged to use the SSI SIRs. For more information about the SIRs, please see: [http://www.cdc.gov/nhsn/PDFs/Newsletters/NHSN\\_NL\\_OCT\\_2010SE\\_final.pdf](http://www.cdc.gov/nhsn/PDFs/Newsletters/NHSN_NL_OCT_2010SE_final.pdf)

5. In preparation for the CMS Hospital IQR SSI reporting, many facilities have asked for information about importing their procedure data using a .csv file. We have provided a file specifications document for this import feature, as well as a "How To" document and a sample import file. These documents are available at: <http://www.cdc.gov/nhsn/library.html#psc>

If you have any questions about the above, please email us at [nhsn@cdc.gov](mailto:nhsn@cdc.gov)  
Thank you,  
The NHSN Team



## Using the “SIR - CLAB Data for CMS IPPS” Output Option

The NHSN Analysis Output Option, “SIR - CLAB Data for CMS IPPS” was created in order to allow facilities to review those 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:

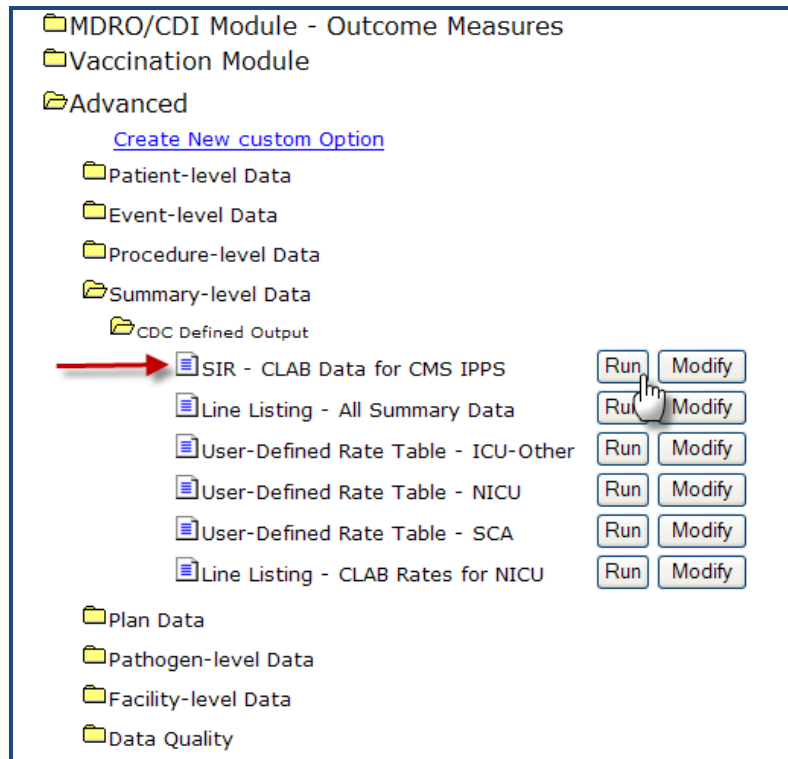
- a. These data will only be submitted for those facilities that are participating in the CMS IPPS Hospital IQR Program, as indicated by their CCN recorded in NHSN.
- b. This report will only include **in-plan CLABSI data for each adult, pediatric, and neonatal ICU beginning with 2011 data**. Other locations/earlier years for which you may have reported CLABSI data will not be included in this output.
- c. 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/library.html#group> .
- d. The data in this report will represent data current as of the last time you generated datasets. Note that data for the CMS Hospital IQR program are frozen after the 15<sup>th</sup> of each month – therefore, if you have modified your data in NHSN after that point, the data in your report may differ from what was submitted to CMS and displayed on the APU Dashboard. If you have specific questions about the data appearing on your APU dashboard, please contact your QIO or the QIOSC at [hrpqiosc@iaqio.sdps.org](mailto:hrpqiosc@iaqio.sdps.org).
- e. To learn more about the standardized infection ratio (SIR), including how it is calculated for CLABSI data, please see the SIR Newsletter at: [http://www.cdc.gov/nhsn/PDFs/Newsletters/NHSN\\_NL\\_OCT\\_2010SE\\_final.pdf](http://www.cdc.gov/nhsn/PDFs/Newsletters/NHSN_NL_OCT_2010SE_final.pdf) .
- f. The information in this document should be used in conjunction with the document, “Helpful Tips for CLABSI Reporting for the Centers for Medicare and Medicaid Services’ Hospital Inpatient Quality Reporting Program (CMS Reporting Program)”, available at: [http://www.cdc.gov/nhsn/PDFs/HelpfulTips\\_CLABSI\\_Reporting.pdf](http://www.cdc.gov/nhsn/PDFs/HelpfulTips_CLABSI_Reporting.pdf) .



## **Example of the “SIR – CLAB Data for CMS IPPS”: 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 > Output Options, navigate through the following folders: Advanced > Summary-level Data > CDC-Defined Output. Click “Run” next to “SIR – CLAB Data for CMS IPPS”, 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.

Within the output, there will be 4 tables, each described below:

- i. **SIR CLAB Data for CMS IPPS – 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.

**National Healthcare Safety Network  
SIR for CLAB Data for CMS IPPS - By OrgID**

As of: July 25, 2011 at 8:13 AM

Date Range: CLAB\_RATESALL summaryYr After and Including 2011  
if (((bsiPlan = "Y" ) AND (locationType IN ("CC", "CC\_N" ) ) ) )

orgid=10000

orgid	summaryYQ	infCount	numExp	numCLDays	SIR	SIR_pval	SIR95CI
10000	2011Q1	3	3.535	2057	0.849	0.5291	0.175, 2.480
10000	2011Q2	0	0.260	124	.	.	.

If infCount in this table is less than you reported, aggregate data are not available to calculate numExp.

Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp >= 1.

Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805

Data contained in this report were last generated on July 25, 2011 at 8:10 AM.

Notice that the SIR will not be calculated if the number of expected infection (numExp) is <1. Using the above table, one can conclude the following:

- a. This facility identified 3 CLABSIs (infCount) among 2057 central line days (numCLDays) during the 1<sup>st</sup> quarter of 2011 (2011Q1).
  - b. The number of CLABSIs expected (numExp), based on national data, was 3.535.
  - c. The overall SIR for this facility during this time period is 0.849, indicating that this facility observed approximately 15% fewer 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 expected.
- ii. **SIR CLAB Data for CMS IPPS – By OrgID/Location Type**  
The second table provides an SIR for each quarter and location type (e.g., ICU, NICU). “ICU-OTHER” in this table will represent all adult and pediatric ICUs with reported in-plan CLABSI data during each time period; NICU will include all level 2/3 and level 3 neonatal ICUs with reported in-plan CLABSI data during each time period.

**National Healthcare Safety Network  
SIR for CLAB Data for CMS IPPS - By OrgID/Location Type**

As of: July 25, 2011 at 8:13 AM  
Date Range: CLAB\_RATESALL summaryYr After and Including 2011  
if (((bsiPlan = "Y" ) AND (locationType IN ("CC", "CC\_N" ) ) ) )

orgid=10000

orgid	locationtype	summaryYQ	infCount	numExp	numCLDays	SIR	SIR_pval	SIR95CI
10000	ICU-OTHER	2011Q1	2	2.600	1686	0.769	0.5183	0.093, 2.778
10000	ICU-OTHER	2011Q2	0	0.260	124	-	-	-
10000	NICU	2011Q1	1	0.935	371	-	-	-

If infCount in this table is less than you reported, aggregate data are not available to calculate numExp.  
Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp >= 1.  
Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805  
Data contained in this report were last generated on July 25, 2011 at 8:10 AM.

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 CLABSIs and device days were reported in each location type, as defined by CDC.

iii. **SIR for CLAB Data for CMS IPPS – 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 CLAB Data for CMS IPPS - By OrgID/CDC Location Code**

As of: July 25, 2011 at 8:13 AM  
Date Range: CLAB\_RATESALL summaryYr After and Including 2011  
if (((bsiPlan = "Y" ) AND (locationType IN ("CC", "CC\_N" ) ) ) )

orgid=10000

orgid	loccdc	summaryYQ	infCount	numExp	numCLDays	SIR	SIR_pval	SIR95CI
10000	IN:ACUTE:CC:C	2011Q1	2	0.800	400	-	-	-
10000	IN:ACUTE:CC:CT	2011Q1	0	1.800	1286	0.000	0.1652	2.049
10000	IN:ACUTE:CC:MS	2011Q2	0	0.260	124	-	-	-
10000	IN:ACUTE:CC:NURS	2011Q1	1	0.935	371	-	-	-

If infCount in this table is less than you reported, aggregate data are not available to calculate numExp.  
Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp >= 1.  
Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805  
Data contained in this report were last generated on July 25, 2011 at 8:10 AM.

iv. **SIR for CLAB Data for CMS IPPS – 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 CMICU location below, we can see that the "months" column shows a value of 2, indicating that only 2 months of data have contributed to the quarterly SIR for this location. This will indicate that the SIRs in this output option are incomplete and additional data checking is needed.

**National Healthcare Safety Network**  
**SIR for CLAB Data for CMS IPPS - By OrgID/Location**  
 As of: July 25, 2011 at 8:13 AM  
 Date Range: CLAB\_RATE\$ALL summaryYr After and Including 2011  
 if (((bsiPlan = "Y" ) AND (locationType IN ("CC", "CC\_N" ) ) ) )

orgid=10000

orgid	location	summaryYQ	months	infcount	numExp	numcldays	SIR	SIR_pval	SIR95CI
10000	3 MS	2011Q2	1	0	0.260	124	-	-	-
10000	CMICU	2011Q1	2	2	0.800	400	-	-	-
10000	CTICU	2011Q1	3	0	1.800	1286	0.000	0.1652	2.049
10000	NICU 3	2011Q1	3	1	0.935	371	-	-	-

If infCount in this table is less than you reported, aggregate data are not available to calculate numExp.  
 Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp >= 1.  
 Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805  
 Data contained in this report were last generated on July 25, 2011 at 8:10 AM.

3. What can be done if data are incomplete, as in the CMICU example above, or if the number of infections or central line days is incorrect?
  - i. Check that the summary data for this location have been entered for each month in the quarter. This includes central line 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 CLABSI box checked.
  - iii. 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 BSI events in NHSN: if central line is entered as "No", the event is *not* considered a CLABSI and will not appear in this report. Note that you can edit the event with the correct information.

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.

