

Using the “SIR – CLAB Data for LTCHQR” Report

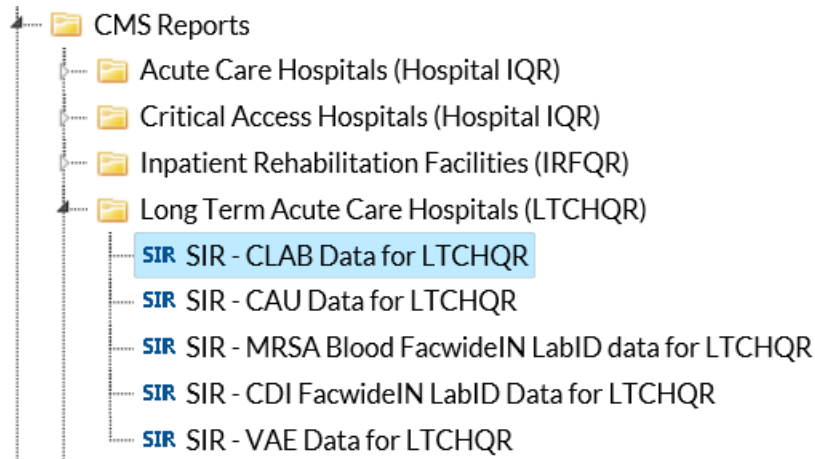
The NHSN Analysis Output Option, “SIR – CLAB Data for LTCHQR” was created in order to allow long term care hospitals (known as long term acute care hospitals, or LTACHs, in NHSN) to review those data that would be submitted to CMS on their behalf if they are participating in the CMS LTCH Quality Reporting Program. 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 Long Term Care Hospital Quality Reporting Program, as indicated by their CCN recorded in NHSN.
- b. This report will only include **in-plan CLABSI data for each LTAC location beginning with January 2015 data**. Earlier time periods for which you may have reported CLABSI data will not be included in this output. Note that rates were used through 2013 for CMS submission.
- c. **IMPORTANT!** Facilities must appropriately **Report No Events** for those locations and months for which no CLABSI events were identified.
- d. This output option provides a SIR for each LTACH, not each CCN. If your LTACH shares a CCN, the SIR will only represent the data that your LTACH has contributed to the overall SIR for all LTACHs that share the CCN. You may wish to use the Group function in NHSN to be able to view the SIR for all LTACHs that share a CCN. More information about the Group function can be found here: <http://www.cdc.gov/nhsn/group-users/index.html>.
- e. The SIR that will be shared with CMS and presented in this output option is calculated at the facility- level. Separate SIRs will be calculated for each LTACH location to allow for data accuracy checks.
- f. The data in this report will represent data current as of the last time you generated datasets. 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., Q1 data will be frozen as of 1am ET on May 16th); any changes made to these data in NHSN after the final submission deadline will not be reflected in data shared with CMS.
- g. The information in this document should be used in conjunction with the document, “Monthly Checklist for the CMS Long Term Care Hospital Quality Reporting Program”, available at <https://www.cdc.gov/nhsn/pdfs/cms/ltch-monthly-checklist-cms-iqr.pdf>.

Example of the “SIR – CLAB Data for LTCHQR” Output Option:

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 > Long Term Acute Care Hospitals (LTCHQR), as shown below. Click on “SIR – CLAB Data for LTCHQR” then click Run Report.



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. There will be four tables within the output, each described below:
 - i. **“SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID”**

The first table presents an SIR for each calendar-year quarter, for the entire facility. This is the information that will be submitted to CMS for your facility.

**National Healthcare Safety Network
SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID**

As of: March 20, 2018 at 9:43 AM
Date Range: All BS2_CLAB_RATESLTAC
if (((bsiPlan = "Y")))

orgID=10546 medType= ' '

orgID	ccn	summaryYQ	infCount	numPred	numCLdays	SIR	SIR_pval	SIR95CI
10546	33312P	2015Q1	1	0.346	190	.	.	.
10546	33312P	2015Q3	0	0.121	100	.	.	.
10546	33T312	2016Q1	0	0.433	286	.	.	.
10546	33T312	2016Q2	0	1.040	650	0.000	0.3536	, 2.881
10546	33T312	2017Q1	0	0.418	286	.	.	.
10546	33T312	2017Q2	0	0.078	75	.	.	.

1. This report includes non-MBI CLABSI data from long term acute care hospitals for 2015 and forward.
2. The SIR is only calculated if the number predicted (numPred) is >= 1. Lower bound of 95% Confidence Interval only calculated when number of observed events > 0.
3. The number of predicted events is calculated based on national aggregate NHSN data from 2015. It is risk adjusted for CDC location, hospital beds, proportion of ventilator and hemodialysis admissions, and length of stay.
4. If the risk factor data are missing, the record will be excluded from the SIR.

From this output, we can conclude the following:

- During the first quarter of 2015 (*summaryYQ*), the facility reported 1 CLABSI (*infCount*) and 190 central line days (*numCLdays*).
- Based on the National baseline data, 0.346 CLABSIs were predicted (*numExp*). Because the number of predicted CLABSIs is less than 1, the SIR, p-value (*SIR_pval*), and 95% Confidence Interval (*SIR95CI*) are not calculated.
- Although the SIR is not calculated, these data will still be submitted to CMS.

ii. **“SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID/Location Type”**

The second table provides an SIR for each quarter and location type. The LTAC Locations are categorized as follows:

Location Type	CDC Location Description	CDC Location Code (<i>locCDC</i>)
CC_LTAC	LTAC ICU	IN:ACUTE:CC:LTAC
CC_LTAC	Pediatric LTAC ICU	IN:ACUTE:CC:LTAC_PED
WARD_LTAC	LTAC Ward	IN:ACUTE:WARD:LTAC
WARD_LTAC	Pediatric LTAC Ward	IN:ACUTE:WARD:LTAC_PED

For example, if your LTAC has both an LTAC Ward and a Pediatric Ward, the data for both of these locations would be combined into the SIR for the WARD_LTAC location type.



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SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID/Location Type**

As of: March 20, 2018 at 9:43 AM
Date Range: All BS2_CLAB_RATESLTAC
if (((bsiPlan = "Y")))

orgID=10546 medType=' '

orgID	ccn	locationType	summaryYQ	infCount	numPred	numcldays	SIR	SIR_pval	sir95ci
10546	33312P	CC_LTAC	2015Q1	0	0.237	100	.	.	.
10546	33T312	CC_LTAC	2016Q1	0	0.252	119	.	.	.
10546	33T312	CC_LTAC	2016Q2	0	0.688	325	.	.	.
10546	33T312	CC_LTAC	2017Q1	0	0.243	119	.	.	.
10546	33312P	WARD_LTAC	2015Q1	1	0.109	90	.	.	.
10546	33312P	WARD_LTAC	2015Q3	0	0.121	100	.	.	.
10546	33T312	WARD_LTAC	2016Q1	0	0.181	167	.	.	.
10546	33T312	WARD_LTAC	2016Q2	0	0.352	325	.	.	.
10546	33T312	WARD_LTAC	2017Q1	0	0.175	167	.	.	.
10546	33T312	WARD_LTAC	2017Q2	0	0.078	75	.	.	.

1. This report includes non-MBI CLABSI data from long term acute care hospitals for 2015 and forward.
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3. The number of predicted events is calculated based on national aggregate NHSN data from 2015. It is risk adjusted for CDC location, hospital beds, proportion of ventilator and hemodialysis admissions, and length of stay.
4. If the risk factor data are missing, the record will be excluded from the SIR.

ii. **“SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID/CDC Location Code”**

The third table provides an SIR for each quarter and CDC location (e.g., pediatric LTAC ward). Note that if your facility reports data for more than one location of the same CDC location code (for example, 2 LTAC Wards), these locations will be grouped into one SIR in this table.



National Healthcare Safety Network

SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID/CDC Location Code

As of: March 20, 2018 at 9:43 AM
 Date Range: All BS2_CLAB_RATESLTAC
 if (((bsiPlan = "Y")))

orgid=10546 medType=' '

orgid	ccn	loccdc	summaryYQ	infCount	numPred	numCLDays	SIR	SIR_pval	SIR95CI
10546	33312P	IN:ACUTE:CC:LTAC	2015Q1	0	0.237	100	.	.	.
10546	33T312	IN:ACUTE:CC:LTAC	2016Q1	0	0.252	119	.	.	.
10546	33T312	IN:ACUTE:CC:LTAC	2016Q2	0	0.688	325	.	.	.
10546	33T312	IN:ACUTE:CC:LTAC	2017Q1	0	0.243	119	.	.	.
10546	33312P	IN:ACUTE:WARD:LTAC	2015Q1	1	0.109	90	.	.	.
10546	33312P	IN:ACUTE:WARD:LTAC	2015Q3	0	0.121	100	.	.	.
10546	33T312	IN:ACUTE:WARD:LTAC	2016Q1	0	0.181	167	.	.	.
10546	33T312	IN:ACUTE:WARD:LTAC	2016Q2	0	0.352	325	.	.	.
10546	33T312	IN:ACUTE:WARD:LTAC	2017Q1	0	0.175	167	.	.	.
10546	33T312	IN:ACUTE:WARD:LTAC	2017Q2	0	0.078	75	.	.	.

1. This report includes non-MBI CLABSI data from long term acute care hospitals for 2015 and forward.
2. The SIR is only calculated if the number predicted (numPred) is ≥ 1 . Lower bound of 95% Confidence Interval only calculated when number of observed events > 0 .
3. The number of predicted events is calculated based on national aggregate NHSN data from 2015. It is risk adjusted for CDC location, hospital beds, proportion of ventilator and hemodialysis admissions, and length of stay.
4. If the risk factor data are missing, the record will be excluded from the SIR.

iv. **“SIR for Central Line-associated BSI Data for LTCHQR (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 LTAC Ward location below for 2016Q1, we can see that the “months” column shows a value of 3, indicating that three months of data have contributed to the quarterly SIR for this location (as one would expect). However, notice that only one month is indicated for 2015Q1. **If less than three months contribute to a quarterly SIR, then this indicates that the SIR for that quarter is incomplete and additional data checking is needed.**

**National Healthcare Safety Network
SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID/Location**

As of: March 20, 2018 at 9:43 AM
Date Range: All BS2_CLAB_RATESLTAC
if (((bsiPlan = "Y"))

orgid=10546 medType=' '

orgid	ccn	location	summaryYQ	months	infcount	numPred	numclays	SIR	SIR_pval	SIR95CI
10546	33312P	LTAC CC	2015Q1	1	0	0.237	100	.	.	.
10546	33T312	LTAC CC	2016Q1	3	0	0.252	119	.	.	.
10546	33T312	LTAC CC	2016Q2	3	0	0.688	325	.	.	.
10546	33T312	LTAC CC	2017Q1	3	0	0.243	119	.	.	.
10546	33312P	LTAC WARD	2015Q1	1	1	0.109	90	.	.	.
10546	33312P	LTAC WARD	2015Q3	1	0	0.121	100	.	.	.
10546	33T312	LTAC WARD	2016Q1	3	0	0.181	167	.	.	.
10546	33T312	LTAC WARD	2016Q2	3	0	0.352	325	.	.	.
10546	33T312	LTAC WARD	2017Q1	3	0	0.175	167	.	.	.
10546	33T312	LTAC WARD	2017Q2	1	0	0.078	75	.	.	.

1. This report includes non-MBI CLABSI data from long term acute care hospitals for 2015 and forward.
2. The SIR is only calculated if the number predicted (numPred) is >= 1. Lower bound of 95% Confidence Interval only calculated when number of observed events > 0.
3. The number of predicted events is calculated based on national aggregate NHSN data from 2015. It is risk adjusted for CDC location, hospital beds, proportion of ventilator and hemodialysis admissions, and length of stay.
4. If the risk factor data are missing, the record will be excluded from the SIR.

4. What can be done if data are incomplete or if the number of infections or central line days is incorrect?
 - i. To pinpoint which month(s) is missing from the quarter, the report can be modified to display by month. To make this modification, after selecting Analysis > Reports, navigate through the following folders: CMS Reports > Long Term Acute Care Hospitals (LTCHQR). Click on the "SIR – CLAB Data for LTCHQR" then click Modify Report.
 - a. On the Modify report screen, click on the Display Options tab. Use the drop down menu next to "Group by" to select "Summary YM" to display the SIR report by month. Click the blue "Run" button to run the report.



Modify "SIR - CLAB Data for LTCHQR"

Show descriptive variable names (Print List) Analysis Data Set: bs2_CLAB_RatesLTAC Type: SIR Data Set Generated On: 01/22/2018 15:28:00

Title/Format Time Period Filters **Display Options**

SIR Options:

Group by: **summaryYM**

Run Save... Export... Close

Sample output for the fourth table, "SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID/Location" is displayed by month below; this sample output shows that CLABSI data are missing for February through December in 2015 in the LTAC CC location:

**National Healthcare Safety Network
SIR for Central Line-associated BSI Data for LTCHQR (2015 Baseline) - By OrgID/Location**

As of: March 20, 2018 at 9:54 AM
Date Range: All BS2_CLAB_RATESLTAC
if (((bsiPlan = "Y"))

orgid=10546 medType=' '

orgid	ccn	location	summaryYM	infcoun	numPred	numcldays	SIR	SIR_pval	SIR95CI
10546	33312P	LTAC CC	2015M01	0	0.237	100	.	.	.
10546	33T312	LTAC CC	2016M01	0	0.102	48	.	.	.
10546	33T312	LTAC CC	2016M02	0	0.076	36	.	.	.
10546	33T312	LTAC CC	2016M03	0	0.074	35	.	.	.
10546	33T312	LTAC CC	2016M04	0	0.318	150	.	.	.
10546	33T312	LTAC CC	2016M05	0	0.212	100	.	.	.
10546	33T312	LTAC CC	2016M06	0	0.159	75	.	.	.
10546	33T312	LTAC CC	2017M01	0	0.098	48	.	.	.
10546	33T312	LTAC CC	2017M02	0	0.074	36	.	.	.
10546	33T312	LTAC CC	2017M03	0	0.072	35	.	.	.
10546	33312P	LTAC WARD	2015M01	1	0.109	90	.	.	.
10546	33312P	LTAC WARD	2015M09	0	0.121	100	.	.	.
10546	33T312	LTAC WARD	2016M01	0	0.108	100	.	.	.
10546	33T312	LTAC WARD	2016M02	0	0.029	27	.	.	.
10546	33T312	LTAC WARD	2016M03	0	0.043	40	.	.	.
10546	33T312	LTAC WARD	2016M04	0	0.081	75	.	.	.
10546	33T312	LTAC WARD	2016M05	0	0.108	100	.	.	.
10546	33T312	LTAC WARD	2016M06	0	0.162	150	.	.	.
10546	33T312	LTAC WARD	2017M01	0	0.105	100	.	.	.
10546	33T312	LTAC WARD	2017M02	0	0.028	27	.	.	.
10546	33T312	LTAC WARD	2017M03	0	0.042	40	.	.	.
10546	33T312	LTAC WARD	2017M04	0	0.078	75	.	.	.

- ii. Once the missing month(s) has been identified, double check the below data elements:
 - a. Check that the summary data for this location have been entered for the month. This includes central line days and patient days.
 - b. If summary data have been entered, double-check your monthly reporting plan for that month. Check to make sure that each location is included in your monthly reporting plan, with the CLABSI box checked.
 - c. If summary data have been entered and no CLABSIs have been identified, be sure to check the 'Report No Events' box either on the summary record, next to the Central Line days count, or through the "Missing Events" tab on the Alerts page.
 - d. 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. If the CLABSI is an MBI-LCBI, then it will be excluded from all CLABSI SIR reports.

November 2018

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/CMS/LTCH-CLABSI-Guidance_2015.pdf

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

