

# Rate Tables for LOS/MEN Events

August 2023

## Overview

This quick reference guide demonstrates how to access, run, and interpret analysis rate reports for LOS and MEN events. Rate tables display a facility's calculated rates. Currently, Crude Monthly Risk (CMR) and Cumulative Admission Risk (CAR) are the two types of rate reports for Late Onset Sepsis/Meningitis (LOS/MEN) Events in NHSN. Description of these measures can be found in the LOS/MEN Events Protocol (<https://www.cdc.gov/nhsn/pdfs/neonatal/losmen/los-men-protocol-508.pdf>).

## How to Access and Generate an LOS/MEN Rate Report



**Step 1: Generate Datasets:** First step in the analysis of LOS/MEN data is generation of datasets as described below.

- i. After data entry is completed, the data must be first compiled into your user specific NHSN datasets
- ii. Generate datasets after any changes are made in NHSN so that the changes will be reflected in Analysis Reports

*Example: In the example below, datasets in Neonatal component were generated from January 2021 and forward through the dataset generation date i.e. February 25, 2022*



**Generate Data Sets (Neonatal)**

Reporting Data Sets

Include data for the following time period:

Beginning Ending

01/2021 1 mm/yyyy 1

Clear Time Period

Generate Reporting Data Sets

**Last Generated:**  
February 25, 2022 3:25 PM  
to include data beginning 01/2021

## Existing analysis metrics for LOS/MEN:

Currently, there are two analysis metrics for LOS/MEN events. They are,

- i. [Crude Monthly Risk \(CMR\)](#)
- ii. [Cumulative Admission Risk \(CAR\)](#)

**Step 2: Generate the Rate Reports:** Rate reports could be ran as default or modified rate reports as described below

**Run the Default Rate Report:** NHSN users can run a default rate report using *'Run Report'* option as described below.

- i. [Crude Monthly Risk:](#)
  - a. If an NHSN user is interested in viewing the default rate table without any modification to the report, then select **'Run Report'** under **'Rate Table – LOS Crude Monthly Risk'** in the report as described below.
  - b. Run Report will run a report for LOS Crude CMR rate table for data from 2021 and forward
  - c. Crude Monthly Risk CMR rate tables are generated and organized by summary year month



Expand All Collapse All Search

- Preterm/VLBW (PVLBW)-associated module
  - Late Onset Sepsis (LOS)
    - Line Listing - All LOS Events
    - Frequency Table - All LOS Events
    - Bar Chart - All LOS Events
    - Pie Chart - All LOS Events
    - Rate Table - LOS Crude Monthly Risk
    - Frequency Table - All LOSMEN Denominators
    - Bar Chart - All LOSMEN Denominators

Run Report Modify Report Export Data Set

**National Healthcare Safety Network**  
**Rate Table - LOS Crude Monthly Risk**

As of: April 7, 2022 at 4:48 PM  
 Date Range: NEO\_LOS\_CRUDERISK\_RATES summaryYM After and Including 2021M01

summaryYM=2021M01

orgID	location	summaryYM	numEvent	numCMRDenom	LOSCMRRate
14596	NICU II	2021M01	1	3	33.333
14596	NICU III	2021M01	1	3	33.333
14596	NICU IV	2021M01	1	3	33.333

This report includes LOS data for 2021 and forward.

Crude Monthly Risk (CMR) rate is calculated by dividing the number of LOS or MEN events by the number of eligible neonates within an eligible location each month, multiplied by 100. Data contained in this report were last generated on April 7, 2022 at 1:57 PM to include data beginning January 2018.



## Calculation of Crude Monthly Risk:

$$CMR = \frac{\text{\# of LOS/MEN events}}{\text{\# of eligible neonates within an eligible location each month}} \times 100$$

**Example:** In January 2021, NICU II location reported 1 LOS event and 3 eligible neonates. Therefore, CMR for NICU II location in January 2021 is,

$$= 1/3 * 100$$

$$CMR = 33.33$$

**Interpretation:** CMR rate for LOS event is 33.3 per 100 neonates in January 2021, in NICU II location

### ii. Cumulative Admission Risk (CAR):

- a. If an NHSN user is interested in viewing the default rate table without any modification to the report, then select **'Run Report'** under **'Rate Table – LOS Cumulative Admission Risk'** in the report as shown below.
- b. Run Report will run a report for LOS Crude CAR rate table for data from 2021 and forward
- c. By default, LOS CAR rate tables are generated and organized by summary year month. However, CAR can also be calculated quarterly, half-yearly, annually, or cumulatively.

#### National Healthcare Safety Network Rate Table - LOS Cumulative Admission Risk

As of: April 7, 2022 at 4:50 PM

Date Range: NEO\_LOS\_CUMADM\_RATES summaryYM After and Including 2021M01

summaryYM=2021M01

orgID	location	summaryYM	numEvent	numCARDenom	LOSCARRate
14596	NICU II	2021M01	1	6	16.667
14596	NICU III	2021M01	1	3	33.333
14596	NICU IV	2021M01	1	5	20

This report includes LOS data for 2021 and forward.

Cumulative Admission Risk (CAR) rate is calculated by dividing the number of LOS or MEN events by the number of eligible neonatal admissions to an eligible location, multiplied by 100.

Data contained in this report were last generated on April 7, 2022 at 1:57 PM to include data beginning January 2018.



## Calculation of Cumulative Admission Risk:

$$CAR = \frac{\text{\# of LOS/MEN events}}{\text{\# of eligible neonatal admissions to an eligible location month}} \times 100$$

**Example:** In January 2021, NICU II location reported 1 LOS event and 6 eligible neonatal submissions. CAR for this location is,

$$= 1/6 * 100$$

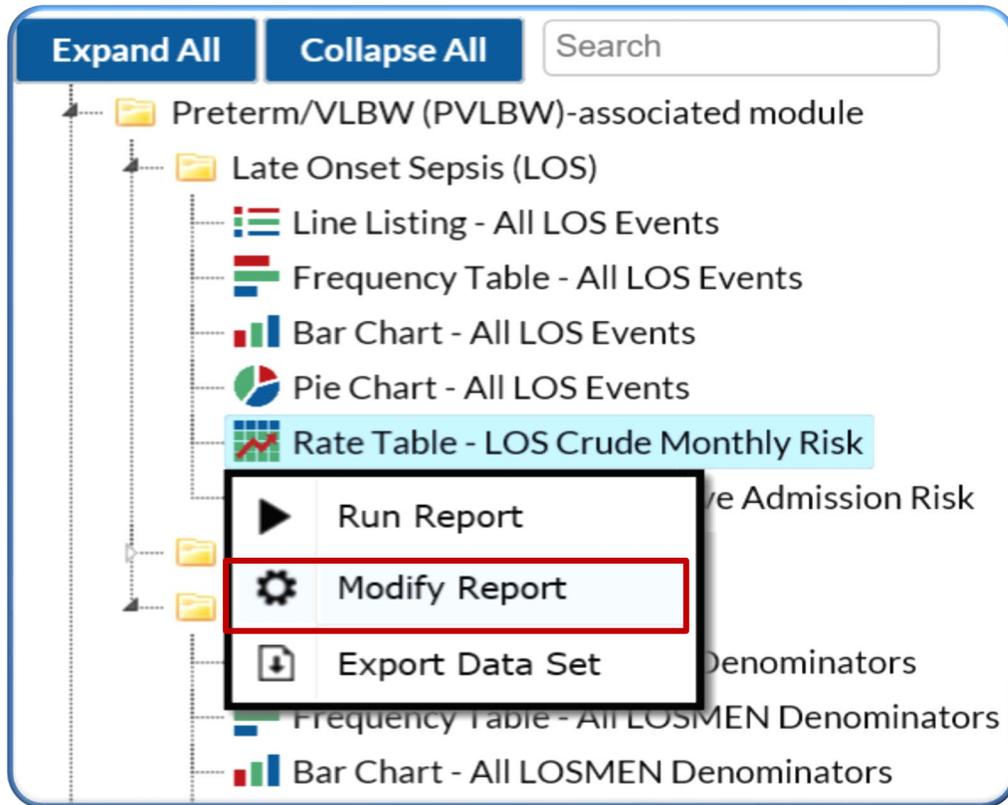
$$CMR = 16.67$$

**Interpretation:** CAR rate for LOS event is 16.7 per 100 neonatal admissions in January 2021, in NICU II location

**Run the Modified Rate Report:** NHSN users can customize rate reports by using ‘Modify Report’ option as described below with LOS Crude Monthly Risk rate report.

- i. If an NHSN user prefers to run modified LOS rate reports (CMS or CAR rate reports), then select ‘Modify Report’ under ‘Rate Table – LOS Crude Monthly Risk’ as described below.





- ii. Make changes as needed in the sections of **Modify 'Rate Table – LOS Crude Monthly Risk'** report – Title/Format, Time Period, Filters, Display Options.
- iii. To modify the time period, navigate to the **'Time Period'** tab of the modifications page. For example, select **'summaryYM'** as the date variable and enter the date range between 01/2021 – 03/2021.

Modify "Rate Table - LOS Crude Monthly Risk"

Show descriptive variable names ([Print List](#)) Analysis Data Set: NI

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

Time Period:

Beginning
Ending
✖ Clear Time Period

Enter Date variable/Time period at the time you click the Run button

- iv. To modify the filters, navigate to the **'Filters'** tab and select the variable to modify. In this example, **'location'** variable was selected to **'NICU II – Level 2 NICU'**.

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

Additional Filters:

Add group

location
equal
NICU II - LEVEL 2 NICU
Delete

- v. Navigate to the **'Display Options'** tab to modify the display group by variable. In this example, **'summaryYM'** was selected as **'Group by'** variable. Then run these selections.



The image shows a software interface with four tabs: 'Title/Format', 'Time Period', 'Filters', and 'Display Options'. The 'Display Options' tab is highlighted with a red border. Below the tabs, the text 'Rate Table Options:' is visible. A dropdown menu is open for 'Group by:', showing two options: 'Cumulative' and 'summaryYM'. The 'summaryYM' option is selected and highlighted in blue.

- vi. CMR rate tables are generated and organized by summary months for NICU II location between 01/2021 – 03/2021 as shown below. CMR rates are calculated as described above.

**National Healthcare Safety Network  
Rate Table - LOS Crude Monthly Risk**

As of: April 14, 2022 at 3:58 PM  
Date Range: NEO\_LOS\_CRUDERISK\_RATES summaryYM 2021M01 to 2021M03  
if (((location = "NICU II" ) ) )

summaryYM=2021M01

orgID	location	summaryYM	numEvent	numCMRDenom	LOSCMRRate
14596	NICU II	2021M01	1	3	33.333

This report includes LOS data for 2021 and forward.

Crude Monthly Risk (CMR) rate is calculated by dividing the number of LOS or MEN events by the number of eligible neonates within an eligible location each month, multiplied by 100.  
Data contained in this report were last generated on April 7, 2022 at 1:57 PM to include data beginning January 2018.

**National Healthcare Safety Network  
Rate Table - LOS Crude Monthly Risk**

As of: April 14, 2022 at 3:58 PM  
Date Range: NEO\_LOS\_CRUDERISK\_RATES summaryYM 2021M01 to 2021M03  
if (((location = "NICU II" ) ) )

summaryYM=2021M02

orgID	location	summaryYM	numEvent	numCMRDenom	LOSCMRRate
14596	NICU II	2021M02	1	3	33.333

This report includes LOS data for 2021 and forward.

Crude Monthly Risk (CMR) rate is calculated by dividing the number of LOS or MEN events by the number of eligible neonates within an eligible location each month, multiplied by 100.  
Data contained in this report were last generated on April 7, 2022 at 1:57 PM to include data beginning January 2018.

**National Healthcare Safety Network  
Rate Table - LOS Crude Monthly Risk**

As of: April 14, 2022 at 3:58 PM  
Date Range: NEO\_LOS\_CRUDERISK\_RATES summaryYM 2021M01 to 2021M03  
if (((location = "NICU II" ) ) )

summaryYM=2021M03

orgID	location	summaryYM	numEvent	numCMRDenom	LOSCMRRate
14596	NICU II	2021M03	0	3	0

This report includes LOS data for 2021 and forward.

Crude Monthly Risk (CMR) rate is calculated by dividing the number of LOS or MEN events by the number of eligible neonates within an eligible location each month, multiplied by 100.  
Data contained in this report were last generated on April 7, 2022 at 1:57 PM to include data beginning January 2018.

**Note:** CAR rate reports could be modified in the same manner as CMR rate reports described above.



## Additional Resources from Neonatal and non-Neonatal components

1. LOS/MEN Event Overview: [https://nhsn.cdc.gov/LOS\\_MEN/](https://nhsn.cdc.gov/LOS_MEN/)
2. LOS/MEN Module Overview: <https://www.cdc.gov/nhsn/pdfs/training/2021/losmen-508.pdf>
3. Line list for LOS/MEN events and LOS/MEN denominators:  
<https://www.cdc.gov/nhsn/pdfs/neonatal/analysis/linelist-losmen-508.pdf>
4. Frequency table for LOS/MEN events and LOS/MEN denominators:  
<https://www.cdc.gov/nhsn/pdfs/neonatal/analysis/freq-tables-losmen-508.pdf>
5. Introduction to NHSN Analysis: <http://www.cdc.gov/nhsn/PDFs/training/intro-AnalysisBasics-PSC.pdf>
6. General tips for NHSN Analysis: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/General-Tips-NHSN-Analysis.pdf>
7. How to modify a report: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/howtomodifyreport.pdf>
8. How to filter your data by time period: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/filtertimeperiod.pdf>
9. How to filter your data on additional criteria: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/selectioncriteria.pdf>

