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
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
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,

\[ = \frac{1}{3} \times 100 \]

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.

### 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 3 eligible neonates. CAR for this location is,

\[
= \frac{1}{6} \times 100
\]

\[
CMR = 16.67
\]

**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.
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’.
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.

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.
<table>
<thead>
<tr>
<th>orgID</th>
<th>location</th>
<th>summaryYM</th>
<th>numEvent</th>
<th>numCMRIDesom</th>
<th>LOSCMRRate</th>
</tr>
</thead>
<tbody>
<tr>
<td>14596</td>
<td>NICU II</td>
<td>2021M01</td>
<td>1</td>
<td>3</td>
<td>33.333</td>
</tr>
</tbody>
</table>

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.

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<th>location</th>
<th>summaryYM</th>
<th>numEvent</th>
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</tr>
</thead>
<tbody>
<tr>
<td>14596</td>
<td>NICU II</td>
<td>2021M02</td>
<td>1</td>
<td>3</td>
<td>33.333</td>
</tr>
</tbody>
</table>

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<td>2021M03</td>
<td>0</td>
<td>3</td>
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**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/
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:
4. Frequency table for LOS/MEN events and LOS/MEN denominators:
5. Introduction to NHSN Analysis: http://www.cdc.gov/nhsn/PDFs/training/intro-AnalysisBasics-PSC.pdf
9. How to filter your data on additional criteria: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/selectioncriteria.pdf