Using the “Rate Table – VAE Data for CMS LTCH PPS” Output Option

Introduction
The NHSN Analysis Output Option, “Rate Table – VAE Data for CMS LTCH PPS” was created in order to allow long term care hospitals (known as long term acute hospitals, or LTACs, in NHSN) 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 Long Term Care Hospital Quality Reporting Program, as indicated by their CCN recorded in NHSN.

b. This report will only include in-plan VAE data for each adult LTAC ICU and ward location beginning with January 2016 data. Earlier time periods for which you may have reported VAE data will not be included in this output.

c. IMPORTANT! Facilities must appropriately Report No Events for those locations and months for which no VAE events were identified.

d. This output option provides rates for each LTAC, not each CCN. If your LTAC shares a CCN, the rates will only represent the data that your LTAC has contributed to the overall rate for all LTACs that share the CCN. You may wish to use the Group function in NHSN to be able to view the rates for all LTACs 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 rates that will be shared with CMS and presented in this output option are calculated at the location type level. Separate rates will be calculated for adult LTAC ICU and adult LTAC ward locations. A single overall VAE rate for the entire LTAC facility will not be calculated.

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., Q4 data will be frozen as of 3am ET on May 16th, 2016); 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 Monthly Checklist for the CMS Long Term Care Hospital Quality Reporting Program. The monthly checklist can be found here: http://www.cdc.gov/nhsn/pdfs/cms/ltch-monthly-checklist-cms-iqr.pdf.
Example of the “Rate Table – VAE Data for CMS LTCH PPS” Output Option:

Before running this output option, remember to generate new 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: CMS Reports > Long Term Acute Care Hospitals (LTCHQR) > CDC-Defined Output. Click “Run” next to “Rate Table – VAE Data for CMS LTCH PPS”, as shown below:

2. This will create an analysis output that automatically opens an HTML window. If the HTML window does not pop-up, please be sure to check your pop-up blocker and allow pop-ups from *.cdc.gov.

3. A single table titled “Rate Table for VAE Data for CMS LTCH PPS” will be presented in the pop-up HTML window. The table contains rates for each calendar quarter, stratified by the eligible location types. This is the information that will be submitted to CMS for your facility.

The rates in the table are stratified by a variable called “loccdc,” which corresponds with a CDC-defined location description. Each value of loccdc is displayed as a code. The codes align with the CDC-defined location descriptions as shown in the table below:

<table>
<thead>
<tr>
<th>“loccdc” Code</th>
<th>CDC Location Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN:ACUTE:CC:LTAC</td>
<td>LTAC ICU</td>
</tr>
<tr>
<td>IN:ACTUE:WARD:LTAC</td>
<td>LTAC Ward</td>
</tr>
</tbody>
</table>

The following rate tables were created using sample data sets. These VAE rate table examples illustrate how VAE data can be reviewed over a selected period of time. For the purposes of this guide, the time period of interest is calendar year 2016.
Sample output for the “Rate Table – VAE Data for CMS LTCH PPS” output option is displayed below:

<table>
<thead>
<tr>
<th>locCDC</th>
<th>summaryYQ</th>
<th>locMonths</th>
<th>VAECount</th>
<th>numVentDays</th>
<th>VAERate</th>
<th>rate95ci</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN:ACUTE.CC:LTAC</td>
<td>2016Q1</td>
<td>2</td>
<td>0</td>
<td>310</td>
<td>0.000</td>
<td>[0.771, 9.664]</td>
</tr>
<tr>
<td>IN:ACUTE.WARD:LTAC</td>
<td>2016Q1</td>
<td>3</td>
<td>2</td>
<td>435</td>
<td>4.598</td>
<td>[0.771, 15.190]</td>
</tr>
</tbody>
</table>

From this output, we can conclude the following:

- For first quarter of 2016, this LTAC reported VAE data from two locations types (locCDC).
- For the LTAC Ward location, the facility reported all three months of data (locMonths) for the first quarter of 2016.
- For the LTAC ICU location, the facility reported only two months of data (locMonths) for the first quarter of 2016.
  - LocMonths should be equal to the number of units of that type, multiplied by 3. Example: An LTAC reporting for two separate LTAC wards should see locMonths = 6 for a quarter if reporting is complete.
  - Based on the information in the table, the first quarter VAE data for this facility is incomplete. The facility would not meet the CMS reporting requirements for this location if the missing month of data isn’t submitted before the CMS deadline.
- During the first quarter of 2016, the facility reported 2 VAEs from the LTAC Ward location (VAECount) and 435 ventilator days (numVentDays), which results in a rate of 4.598 VAEs per 1,000 ventilator days (VAERate).
  - The 95% confidence interval (rate95ci) around the VAE rate for the LTAC Ward location is (0.771, 15.190).
- During the first quarter, the facility reported zero VAE events and 310 ventilator days and from the LTAC ICU location. As noted previously, the LTAC ICU location is missing one month of data for the first quarter.
4. What can be done if data are incomplete, as in the first quarter 2016 LTAC ward example above, or if the number of infections or ventilator 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 > Output Options, navigate through the following folders: CMS Reports > Long Term Acute Care Hospitals (LTCHQR) > CDC-Defined Output. Click “Modify” next to “Rate Table – VAE Data for CMS LTCH PPS.”

ii. On the Analysis Rate Table modification page, scroll down to the Other Options section of the page. Use the drop down menu next to “Group by” to select “Summary YM” to display the rate report by month. Click the “Run” button to run the report.

Sample output for the “Rate Table – VAE Data for CMS LTCH PPS” output option is displayed by month below. By month, the LTAC Ward location has 3 months of data: 2016M01, 2016M02, and 2016M03. The LTAC ICU location has only 2 months of data, 2016M01 and 2016M03. This sample output shows that VAE data are missing for February 2016 in the LTAC ICU (IN:ACUTE:CC:LTAC).
iii. 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 ventilator days and patient days. For example, here is the January 2016 summary data screen for the LTAC Ward location (IN:ACUTE:WARD:LTAC).

   ![Summary Data Screen]

   b. If summary data have been entered and no VAEs have been identified, be sure to check the ‘Report No Events’ box either on the summary record, next to the ventilator days count, or through the “Missing Events” tab on the Alerts page.

c. 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 VAE box checked.

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 VAE events in NHSN.

**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:**