How to Create a Frequency Table

Description

A frequency table is an organized display of counts and percentages. The data are organized by a row variable and a column variable, and the frequency table provides a count of the number of observations in the data set that meet the specifications of both the row and column variables.
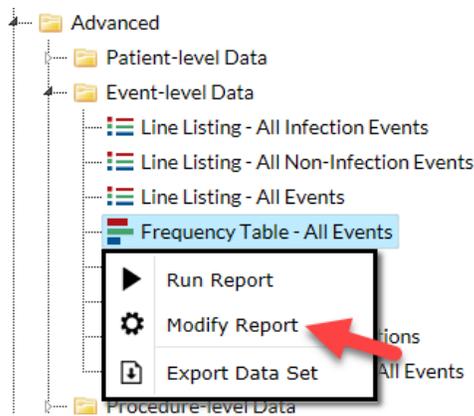
Example

Suppose you are interested in looking at the distribution of all device-associated (DA) events across the different cardiac center locations in your facility, for all events that were identified in 2014 and 2015.

Modification Page

For further information, please visit the Modification Guidelines page: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/howtomodifyreport.pdf

In the "Advanced" folder, click "Summary-level Data" to display the available reports. Click "Frequency Table- All Events" and select "Modify Report" to limit the time period and show only desired variables.

To modify the time period, navigate to the "Time Period" tab of the modifications page. Select "evntDateYr" as the date variable and enter the date range 2014 to 2015.

To modify the filters, navigate to the "Filters" tab on the Modification screen and select "eventType" from the third dropdown box for the first filter. Set the second dropdown box to "in" and the following dropdown boxes to "BSI-Bloodstream Infection", "UTI- Urinary Tract Infection", and "VAE- Ventilator-Associated Event". In the second filter, select "locationType" from the first dropdown box, "equal" from the second dropdown box, and "CC-CC" from the third dropdown box.

To modify the display options, select the "Display Options" tab on the Modifications page. For the Frequency Table Options, select "location" for the Row, "eventType" for the column, and leave the Page by selection black. Next, select "Table percent- Display cell frequency divided by table total" for Frequency Table Options and "Row Percent-Display cell frequency divided by row total" for Two-Way Table Options.

Output/Results and Interpretation

This example frequency table is the result of the modifications shown on page 1. For each row/column combination, there are four cells of data. Let's look at the 5G location/BSI event type combination (boxed in red):

- NOTE: In the top left corner of the table, there is a "legend" explaining what each cell in the frequency table represents (boxed in green).

- The top cell of each combination provides a simple count of the number of events (frequency) that have occurred meeting both the row and column criteria. In this example, there were 6 bloodstream infections (BSI) in the 5G between 2014 and 2015.

- The second cell for the 5G is the percent of all events in the dataset that meet both the row and column variables (percent of table total). For example, 8.57% of all device-associated events in 2014 and 2015 were BSIs in the 5G (6/70).

- The third cell is the percent of events of a given type per total of a given row (row percent). In this example, 18.75% of all device-associated (DA) events in the 5G were bloodstream infections (BSI) (6/32).

- The fourth cell is the percent of events of a given type across all <u>columns</u> (Column Percent), and in this case shows the percent of each DA event type that occurred in a certain location. For example, 30% of all BSI events occurred in the 5G (6/20).

- The margins of the column and row variables (boxed in purple) contain the total counts (top cells) and total percentages (bottom cells) of data for each location (or strata). For example, in 5G, there were 32 DA events accounting for 45.71% (32/70) of all DA events reported from these locations during 2014-2015. Similarly, there were 20 BSIs accounting for 28.57% (20/70) of all DA events reported from these locations during 2014-2015.

National Healthcare Safety Network
Frequency Table for All Events
As of: November 9, 2016 at 10:55 AM
Date Range: EVENTS evntDateYr 2014 to 2015

Table of location by eventType

Legend: Frequency / Percent / Row Pct / Col Pct

location	BSI	UTI	VAE	Total
22ICU	1	0	0	1
	1.43	0.00	0.00	1.43
	100.00	0.00	0.00	
	5.00	0.00	0.00	
5G	6	0	26	32
	8.57	0.00	37.14	45.71
	18.75	0.00	81.25	
	30.00	0.00	66.67	
71ICU	0	0	4	4
	0.00	0.00	5.71	5.71
	0.00	0.00	100.00	
	0.00	0.00	10.26	
CARDCRIT	2	0	0	2
	2.86	0.00	0.00	2.86
	100.00	0.00	0.00	
	10.00	0.00	0.00	
ICU	6	7	4	17
	8.57	10.00	5.71	24.29
	35.29	41.18	23.53	
	30.00	63.64	10.26	
ICU-A	5	1	3	9
	7.14	1.43	4.29	12.86
	55.56	11.11	33.33	
	25.00	9.09	7.69	
ICU/CCU	0	0	2	2
	0.00	0.00	2.86	2.86
	0.00	0.00	100.00	
	0.00	0.00	5.13	
JE_ICU	0	1	0	1
	0.00	1.43	0.00	1.43
	0.00	100.00	0.00	
	0.00	9.09	0.00	
MICU	0	1	0	1
	0.00	1.43	0.00	1.43
	0.00	100.00	0.00	
	0.00	9.09	0.00	
PEDSURG_CC	0	1	0	1
	0.00	1.43	0.00	1.43
	0.00	100.00	0.00	
	0.00	9.09	0.00	
Total	20	11	39	70
	28.57	15.71	55.71	100.00

Data contained in this report were last generated on October 18, 2016 at 10:11 AM.

<u>Additional Resources:</u>
Introduction to NHSN Analysis:
http://www.cdc.gov/nhsn/PDFs/training/intro-AnalysisBasics-PSC.pdf
How to filter your data by time period *(URL to be determined)*

3