

Bar Charts of COVID-19 Vaccination Data

Long Term Care – Facility and Group Users

February 2021

There is an option available in NHSN reports to produce bar charts for COVID-19 Vaccination summary data and COVID-19 Vaccination adverse reaction data for healthcare personnel and residents. A bar chart is a graphical representation of data where the length or height of the bars represents counts of records meeting the criteria.

COVID-19 Reports Available

NHSN has four options for COVID-19 Vaccination bar charts to run, three for healthcare personnel and three for residents.

Healthcare Personnel

LTC HCP COVID-19 Vaccination Coverage

This bar chart graphically shows data based on vaccination coverage for healthcare personnel.

LTC HCP COVID-19 Vaccination-Associated Adverse Events

This bar chart graphically shows manufacturer dependent adverse reaction data for healthcare personnel.

Residents

LTC Resident COVID-19 Vaccination Coverage

This bar chart graphically shows data based on vaccination coverage for residents.

LTC Resident COVID_19 Vaccination-Associated Adverse Events

This bar chart graphically shows manufacturer dependent adverse reaction data for residents.

Example

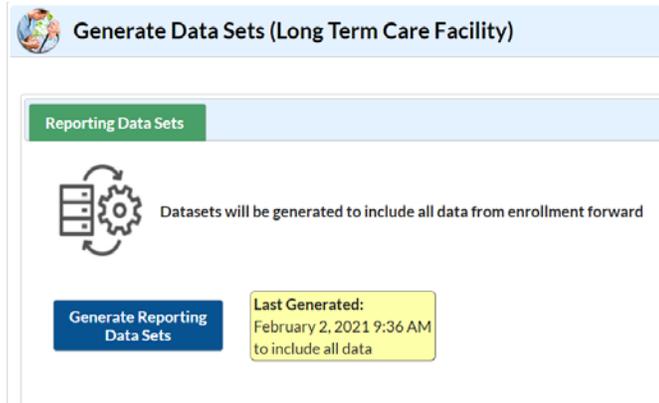
We are interested in seeing a graph of the number of healthcare personnel who received each vaccine from 12/07/2020 – 12/20/2020, stratified by dosing status (complete or partial) and the number of reported adverse reactions, stratified by vaccine manufacturer. We will need to run the bar charts “LTC HCP COVID-19 Vaccination Coverage” and “LTC HCP COVID-19 Vaccination-Associated Adverse Events”.



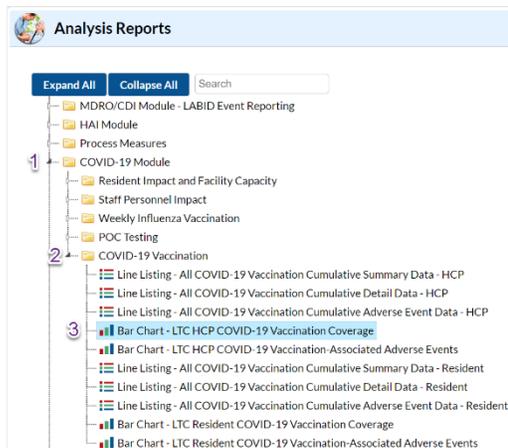
Centers for Disease Control
and Prevention
National Center for Emerging and
Zoonotic Infectious Diseases

Generating Data Sets

Before being able to run any report, you must generate data sets. This process will freeze your NHSN data at a specific point in time and copy those data into defined data sets. To generate datasets in NHSN, navigate to Analysis > Generate Data sets. Then, on the Reporting Data Sets tab, click “Generate Reporting Data Sets”. Your previous datasets will be overwritten.



Creating the Bar Charts



Once you have generated your data sets, you are ready to produce a line list.

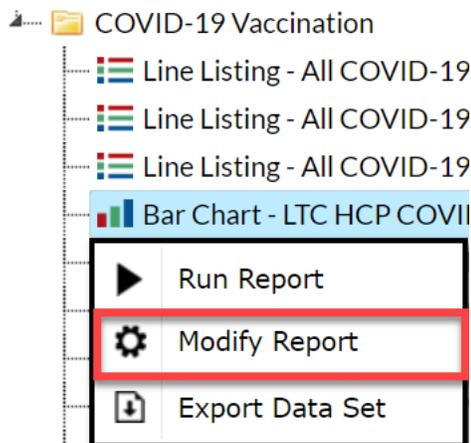
1. On the “Analysis Reports” screen, click on the “COVID-19 Module” folder.
2. Select the “COVID-19 Vaccination” Subfolder.
3. Click on the report that you would like to run.
 - a. If you want to display bar charts to show COVID-19 vaccination coverage over time, click on “Bar Chart – LTC HCP COVID-19 Vaccination Coverage”.
 - b. If you want to display bar charts to show the numbers of COVID-19 vaccination associated adverse events over time, click on “Bar Chart – LTC HCP COVID-19 Vaccination Associated Adverse Events”



Modifying the Report

Modify Report allows you to customize your report. You can add a title to the output, select a time period, add filters, and select display options. Below are modifications for this example. For more detailed information on how to modify a report, please refer to [How to Modify a Report Quick Reference Guide](#).

After, clicking on the report you want to run, choose “Modify Report”.



You can choose to set your time period by week of data collection, end date. If you don't select a time period, your report will include all data from your generated dataset. In this example, we were interested in seeing data from 12/07/2020 – 12/20/2020, so we set 'Week of data collection, end date' to 12/13/2020 (beginning) and 12/20/2020 (ending) to capture that two-week period. If interested in a one-week period, the beginning and ending dates would be the same.

Title/Format	Time Period	Filters	Display Options
Time Period:			
Date Variable	Beginning	Ending	<input type="button" value="Clear Time Period"/>
Week of data collection, end date ▾	12/13/2020	12/20/2020	
<input type="checkbox"/> Enter Date variable/Time period at the time you click the Run button			

On the “Filters” tab, you can enter “Partial” or “Complete” for “Vaccine Dosing Status” to display only the number of persons received partial or complete COVID-19 vaccinations. **Note: No filters were applied to the output in the example.**



Title/Format Time Period Filters Display Options

Additional Filters: Show Clear

AND OR Add group

AND OR Add rule

Delete

Vaccine Dosing Status
 equal

On the “Display Options” tab, you can select your chart variable and stratification variable. In the example of vaccination coverage bar charts, our chart variable is “Week of data collection, end date” and our stratification variable is “Vaccine Dosing Status”.

Title/Format Time Period Filters Display Options

Bar Chart Options

Chart Variable
 Week of data collection, end date

Orientation of Bars:

Placement of the Percent:

Placement of the Value:

Stratification Variable
 Vaccine Dosing Status

In the example of vaccination associated adverse event bar charts, our chart variable is “Week of data collection, end date” and our stratification variable is “Vaccine Name”. On the “Filters” tab, you can enter a vaccine manufacturer from the drop-down list to display only the number of adverse events associated with the vaccine of the manufacturer selected. **Note: No filters were applied to the output in the example.**

Title/Format Time Period Filters Display Options

Additional Filters: Show Clear

AND OR Add group

AND OR Add rule

Delete

Vaccine Name
 PFIZBION - Pfizer-BioNTech COVID-19 vaccine

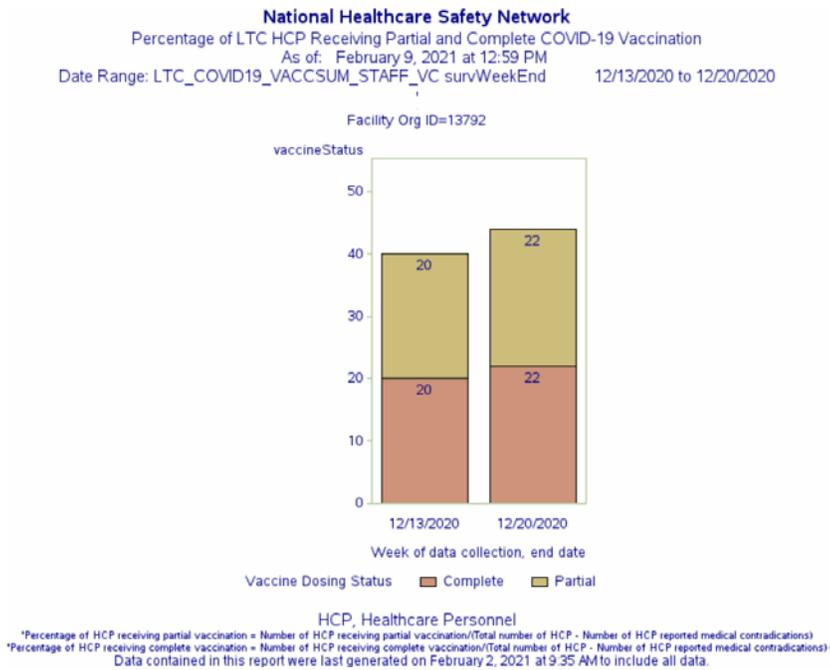
equal



Output

After modifying the report, you are now ready to see the output. The example bar charts shown below are the result of the example modifications. **Note: The screen can only accommodate up to 8 weeks of data.**

For healthcare personnel vaccination coverage, there is one bar for each week of data collection end date and each bar is stratified by vaccine status (Complete or Partial).



Note: The data in this example output are fictitious and intended for illustrative purposes only.

For vaccination-associated adverse reactions, there is one bar for each week of data collection end date and each bar is stratified by vaccine manufacturer. Since no adverse reactions were reported during 12/14/2020 – 12/20/2020, there is no bar for that week.

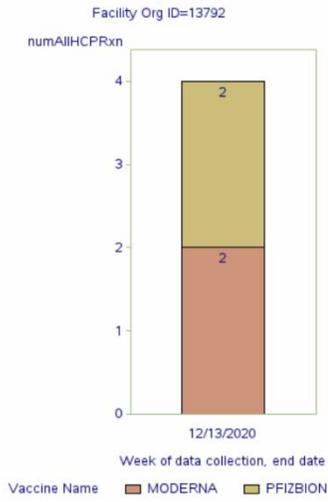


National Healthcare Safety Network

Number of Adverse Events Associated With COVID-19 Vaccination Among LTCF HCP

As of: February 11, 2021 at 4:25 PM

Date Range: LTC_COVID19_VACCADV_STAFF survWeekEnd 12/13/2020 to 12/20/2020



Data contained in this report were last generated on February 2, 2021 at 9:35 AM to include all data.

Note: The data in this example output are fictitious and intended for illustrative purposes only.



Centers for Disease Control and Prevention
National Center for Emerging and Zoonotic Infectious Diseases

Additional Resources

How to Export Data from NHSN: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/exportdata.pdf>

How to Generate Data Sets Quick Reference Guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/generatedatasets-psc-508.pdf>

How to Modify A Report Quick Reference Guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/howtomodifyreport.pdf>

How to Save Custom Reports for Future Use Quick Reference Guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/customoutputoptions.pdf>



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