How to Run Reports for Healthcare Personnel Safety (HPS) Component

Introduction

Line listing reports for COVID-19 vaccination summary data can be produced in NHSN for healthcare personnel, (HCP), long-term care facility (LTC) residents, and dialysis patients. The line listing report is an organized, detailed list of each record entered into NHSN, available to both facilities and groups. The purpose of this resource is to provide step-by-step instructions for using the "**All COVID-19 Vaccination Cumulative Summary Data**" line listing report in the Healthcare Personnel Safety (HPS) component to view weekly COVID-19 vaccination data.

Example

Suppose you would like to find out the number of HCP who:
  a) received an initial completed primary COVID-19 vaccine serries
  b) received any additional or booster dose(s)
  c) are up to date with COVID-19 vaccines

In order to view this information, you can modify a line listing report to include the variables of interest. The steps below show how to do this.

Generating Data Sets

Generating datasets is the first step to performing analysis in NHSN. This process will freeze your NHSN data at the current date and time by copying those data into defined datasets. When you wish to view updates to the data contained in your NHSN reports or to include data entered since the datasets were last generated, you must regenerate datasets for those updates to be reflected. Datasets are user-specific; therefore, each user in NHSN who wishes to analyze data must generate datasets.

To generate datasets in NHSN, navigate to Analysis > Generate Data Sets. Then, on the Reporting Data Sets tab, click "Generate Reporting Data Sets". A pop-up alert will appear, asking the user if it is ok for datasets previously generated to be overwritten.

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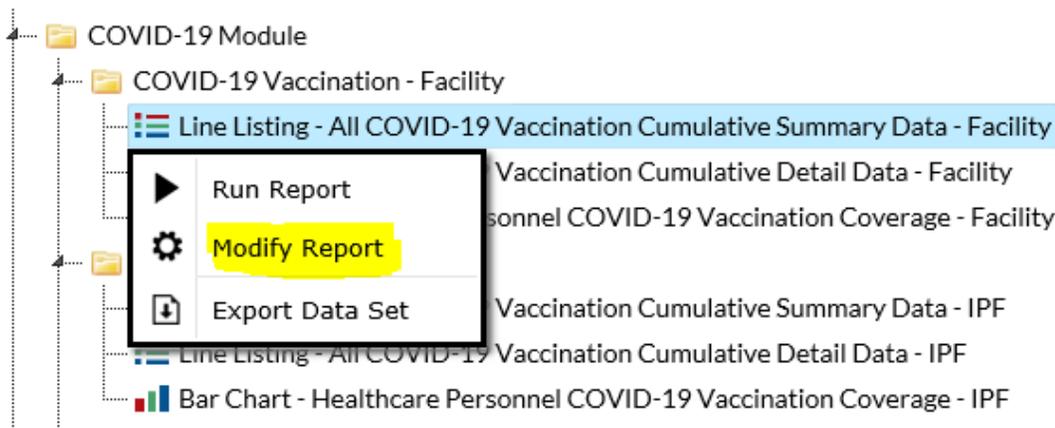
Creating the Line Listing

Once you have generated your datasets, you are ready to produce a line listing report.

1. On the "Analysis Reports" screen, click on the "COVID-19 Module" folder.
2. Select the "COVID-19 Vaccination" subfolder (A). *

   a. *Note that the folder "COVID-19 Vaccination" includes default output variables for reporting weeks beginning and after the surveillance week of 9/27/2021-10/3/2021 for healthcare personnel data, while the folder "COVID-19 Vaccination (Pre-10.0)" includes default output variables for weeks prior to the surveillance week of 9/27/2021-10/3/2021 for healthcare personnel data. This is because many variables and variable nameschanged for healthcare personnel data following an NHSN application update on September 27, 2021.*

3. Click on the report that you would like to run based on the facility type or location of interest. In our example, we are interested in a report containing the hospital's data so we would select "Line Listing – All COVID-19 Vaccination Cumulative Summary Data –Facility" (B). Remember that in the HPS component, data from any inpatient psychiatric or inpatient rehabilitation locations within the facility but with a unique CCN are reported separately. The subfolders for inpatient psychiatric and inpatient rehabilitation units or facility types are also shown in the screenshot below.

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Modifying the Report

Using the "Modify Report" option allows you to customize your report. You can add a title to the output, select a time period, add filters, select additional variables, or remove variables from the default list, choose how to sort variables, and select display options. Below are modifications for this example. For more detailed information on how to modify a report, please refer to the How to Modify a Report Quick Reference Guide.

Time Period
To filter the data by time period, choose the "Time Period" tab at the top of the page. For our example, we will not need to modify the time period. If you do not select a time period, your report will include all data from your previously generated dataset.

Filters
The "Filters" tab allows you to further filter the data that display in the report. The default filter will restrict output data to facility type as "VACCHOSP-Hospital". You can add other filters to create reports that include those filters, or simply click "Delete" to exclude filters you don't need. For our example, we do not need to filter the data.

Display and Sort Variables
The "Display Variables" and "Sort Variables" tabs are specific to line listing reports and allow you to display and sort specific variables in your report. Both tabs allow you to move variables from the available list in the left column to the selected list in the right column by using the directional arrows in the center. You can also re-order the selected variables using the "Up" and "Down" buttons, found to the right of the selected variables list. For our example, the

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variables we want to see are already in the selected variables column. The variables were moved up from their initial position so that they were grouped together for ease of viewing in the report.

Recommendation for Group-level Users: If you are analyzing data as a NHSN Group User, it is recommended to also select a "Page By" OrgID – this will result in one table per NHSN facility. To select a "Page By" variable, select the "Display Options" tab on the modification screen, and select "orgID" as the Page by variable.

Final Report

After modifying the report, you are now ready to see the output. Select "run" to see an HTML output, as shown below.

National Healthcare Safety Network
Line Listing - All COVID-19 Vaccination Cumulative Summary Data - Healthcare Personnel
As of: July 28, 2022 at 4:50 PM
Date Range: HCW_COVID19_VACCSUM_HCP survWeekEnd After and Including 09/26/2021
if (((vaccLoc = "VACCHOSP")))

orgID= **n.**

orgID	vacctype	survWeekStart	survWeekEnd	sumAllHCP	totSumAllVacc	totSumVaccPartial	sumAllMed	sumAllDec	sumAllUnk	totSumAllUpToDate	totSumAllVaccAddtlDose
1	COVID19	10/25/2021	10/31/2021	6297	4518	358	86	0	1335	.	41
9	COVID19	11/22/2021	11/28/2021	6654	5177	124	101	0	1252	.	69
9	COVID19	12/20/2021	12/26/2021	6644	5325	125	95	0	1099	.	71
9	COVID19	12/27/2021	01/02/2022	6644	5325	125	95	0	1099	.	71
10	COVID19	01/24/2022	01/30/2022	6473	5285	132	88	0	968	.	893
10	COVID19	02/21/2022	02/27/2022	6506	5366	111	70	0	959	.	957
10	COVID19	03/21/2022	03/27/2022	6551	5573	111	54	0	813	.	1028
10	COVID19	04/18/2022	04/24/2022	6586	5603	85	48	0	850	.	1061
10	COVID19	05/09/2022	05/15/2022	6573	5600	83	48	0	842	.	1075
10	COVID19	06/20/2022	06/26/2022	6596	5571	34	87	0	904	1099	1079
10	COVID19	07/25/2022	07/31/2022	6575	5366	32	85	0	1092	724	1064

Sorted by orgID survWeekStart
Data contained in this report were last generated on July 28, 2022 at 4:49 PM to include data beginning January 2016.

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If we look at the time period between week ending 10/31/2021 and 06/26/2022, we can see the changes in variables over time. At the beginning of the time period, there were 4,518 healthcare personnel had a complete vaccination series and 41 had received a booster. Please note that additional doses and boosters did not become available until August 2021. Additionally, the second additional dose or booster and up to date vaccination questions were not added to the data collection form until May 29, 2022. This accounts for why these fields have a dot in the time period before the effective date.

By the end of the report time period on week ending 6/26/2022, we can see that the healthcare personnel reported complete primary vaccination series has risen to 5,571, 1,079 have had an additional dose or booster, and 1,099 of the total healthcare personnel are up to date with their vaccinations.

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

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