

# Modifying and Running NHSN Hospital COVID-19 Data Reports

## Guidance for the Patient Safety Component COVID-19 Module

October 2022

This guide provides instructions for modifying and running NHSN Hospital COVID-19 Data reports within the COVID-19 Module. Any report within NHSN Analysis can be modified to meet many of your analytic needs. This quick reference guide will outline the basics of the report modification page for the Hospital COVID-19 Data reports.

**Note:** Before following the steps below, ensure that you have generated a data set within the NHSN Patient Safety Component. Generating a data set will freeze your NHSN data at a specific point in time and copy those data into defined data sets. When you wish to see updates to the data contained in your NHSN reports, you must regenerate data sets for those updates to be reflected. Data sets are user-specific; therefore, each user in NHSN who wishes to analyze data must generate data sets. Detailed instructions for generating data sets within the Patient Safety Component can be found [here](#).

## Instructions

1. Within NHSN, confirm that a data set has been generated by navigating to Analysis → Generate Data Sets. On the Generate Data Sets (Patient Safety) screen, the “Reporting Data Sets” tab will open.
  - A. A time period can be specified, to apply to all analysis data sets.
  - B. The “Generate Reporting Data Sets” button will start the data set generation process.
  - C. The “Last Generated” information will tell you when your data sets were last generated, and for which time period. This information will also appear in the footnotes on all reports.

**Generate Data Sets (Patient Safety)**

Reporting Data Sets | Participation Alerts Data Set (Optional)

Include data for the following time period:

Beginning: 01/2019 | Ending: 1 mm/yyyy 1 | Clear Time Period

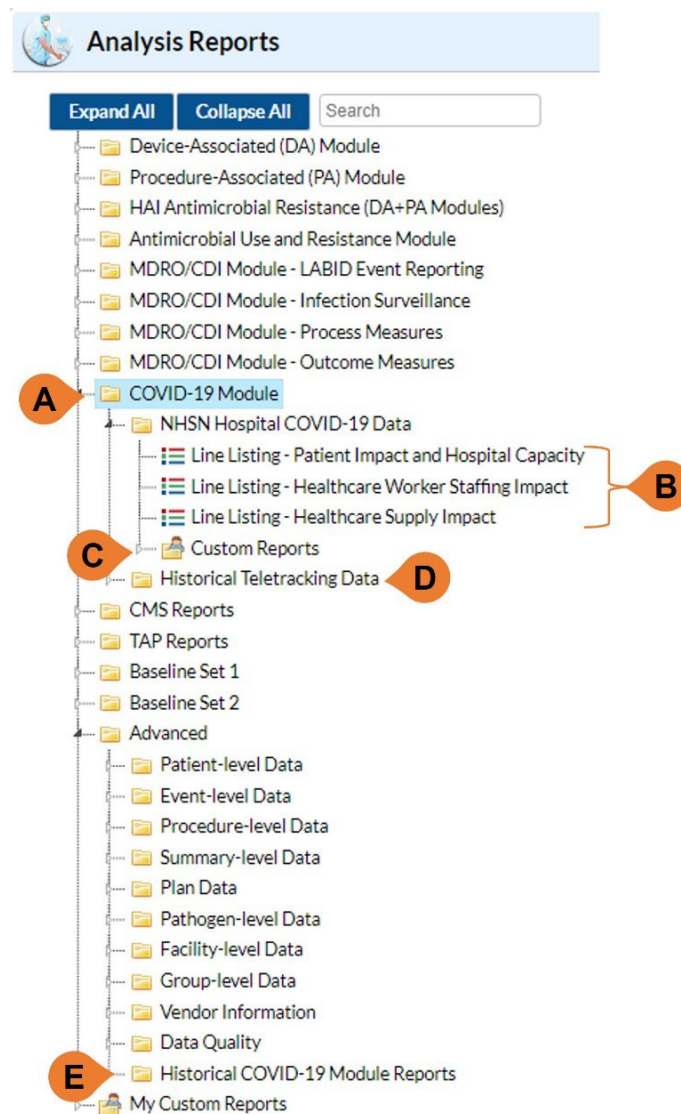
Generate Reporting Data Sets

Last Generated: October 17, 2022 3:32 PM to include data beginning 01/2019



## NHSN Modifying and Running NHSN Hospital COVID-19 Data Reports

2. Once a data set has been generated for the desired time period, navigate to Analysis → Reports from the left navigation menu in NHSN.
  - A. The NHSN COVID-19 Data Reports can be found within the “COVID-19 Module” folder.
  - B. Users can generate three reports of their facilities’ COVID-19 hospital data:
    - 1) Line Listing – Patient Impact and Hospital Capacity
    - 2) Line Listing – Healthcare Worker Staffing Impact
    - 3) Line Listing – Healthcare Supply Impact
  - C. If any custom reports have been generated, these reports will be included in the “NHSN Hospital COVID-19 Data” folder. (see page 6 of this guide for more information)
  - D. Users can also find any historical data submitted through TeleTracking in the “COVID-19 Module” folder once it is available in the NHSN application in early 2023.
  - E. Historical COVID-19 Module Reports can be found archived within the “Advanced” folder. These reports include COVID-19 hospital data submitted to NHSN in early 2020.

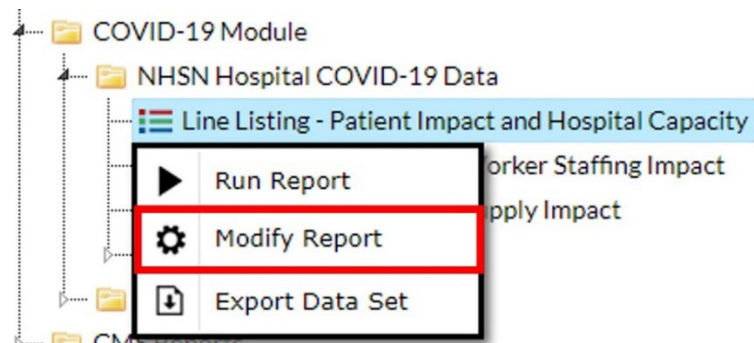


## NHSN Modifying and Running NHSN Hospital COVID-19 Data Reports

- To run a report with default settings, select the desired report and a pop-up box will appear allowing you to “Run Report”, “Modify Report”, or “Export Data Set”. Select “Run Report” to generate the report using the default display settings. This will produce an HTML report displaying all records included in the underlying dataset for the default variables.



- To modify or customize the settings for a specific report, select the desired report and select “Modify Report” from the pop-up box.



- The Modify Report window will display tabs for customizing specific aspects of the report including:
  - Title/Format** – Edit report title and select export format (i.e., HTML, PDF, XLS, RTF)
  - Time Period** – Set a specified time period of data to display
  - Filters** – Apply additional filtering based on available variables
  - Display Variables** – Add/remove variables from report
  - Sort Variables** – Select which variable(s) by which to sort reports
  - Display Options** – Select which variable (known as the “Page By” variable) by which to organize the report

A screenshot of the 'Modify "Line Listing - Healthcare Worker Staffing Impact"' window. The window has a dark blue header with the title. Below the header, there are several tabs: 'Title/Format', 'Time Period', 'Filters', 'Display Variables', 'Sort Variables', and 'Display Options'. The 'Title/Format' tab is active and highlighted in green. Below the tabs, there is a 'Title:' label and a text input field containing 'Line Listing of Healthcare Worker Staffing Impact'. Below the title field, there is a 'Format:' label and four radio button options with corresponding icons: 'html' (blue globe icon), 'pdf' (red document icon), 'xls' (green spreadsheet icon), and 'rtf' (green document icon). The 'html' option is selected. There are red numbered circles (1-6) overlaid on the image: 1 is on the 'Title/Format' tab, 2 is on the 'Time Period' tab, 3 is on the 'Filters' tab, 4 is on the 'Display Variables' tab, 5 is on the 'Sort Variables' tab, and 6 is on the 'Display Options' tab.

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- B. For general instructions and tips for using the Modify Report functions outlined above, please review the “How to Modify a Report” guide which can be accessed [here](#).
- 5. For the NHSN Hospital COVID-19 Data Reports, the following default settings will be applied unless modifications are made using the “Modify Report” window:
  - A. **Title:** Name of Report (e.g., “Line Listing of Patient Impact and Hospital Capacity”)
  - B. **Format:** HTML
  - C. **Time Period:** All dates included in the underlying analysis data set
  - D. **Display Variables:** A subset of all available variables will be pre-selected to display
  - E. **Sort Variables:** Four variables will be preselected as sort variables in the following order: *orgID*, *collectionDate*, *censusID*, *context*
  - F. **Display Options:** The default “Page By” variable is *orgID*
- 6. Customizing which variables are displayed can help users to validate their facilities’ data using the calculated Patient Impact and Hospital Capacity metrics. These variables can be added to the reports using the **Display Variables** tab.
  - A. For example, in the screenshot below, the selected variables have been modified to include the calculated metric, “Proportion of inpatient beds occupied by COVID-19 patients” (*propInPtBedsOccC19Pat*), as well as the variables used to calculate this metric.

B. The resulting report will display data for each of these variables:

**National Healthcare Safety Network  
Line Listing of Patient Impact and Hospital Capacity**

As of: October 20, 2022 at 11:27 AM  
Date Range: All COVID19\_HHSV2\_PIHC

Raw data results not inclusive of data validation or cleaning steps that occur outside of NHSN (e.g., within HHS Protect).

orgID=10018

orgID	context	collectionDate	censusID	propInPtBedsOccC19Pat	numConfC19HospPatsAdult	numConfC19HospPatsPed	numInPtBeds
10018	HOSP	10/03/2022	1170	.	.	.	.
10018	HOSP	10/03/2022	1171	.	.	.	.
10018	HOSP	10/04/2022	1506	0.000	.	.	10
10018	HOSP	10/05/2022	1191	0.000	.	.	20
10018	HOSP	10/05/2022	1192	0.000	.	.	20
10018	HOSP	10/05/2022	1193	0.000	.	.	20
10018	HOSP	10/07/2022	1495	0.000	.	.	100
10018	HOSP	10/10/2022	1501	0.120	10	2	100



- C. **Note for Group Users:** The Line Listing reports display all records reported by facilities within the Group. If multiple records are submitted for a particular facility within a single day, each record will be displayed with a unique Census ID "censusID".

orgID=10018

orgID	context	collectionDate	censusID	propInPtBedsOccC19Pat	numConfC19HospPats
10018	HOSP	10/03/2022	1170	.	.
10018	HOSP	10/03/2022	1171	.	.
10018	HOSP	10/04/2022	1506	0.000	.
10018	HOSP	10/05/2022	1191	0.000	.
10018	HOSP	10/05/2022	1192	0.000	.
10018	HOSP	10/05/2022	1193	0.000	.

- D. **Note:** A value of zero ("0.000") in the table indicates that the facility reported zero for that field (e.g., a value of 0 in the numConfC19HospPatsAdult means the facility reported zero hospitalized adult COVID-19 patients) while a value of "." indicates that the facility did not report any data for that field.

- 7. Another helpful display modification for users is the "Show descriptive variable names" option (A) at the top of the report modification window. Selecting this option will update all variable names to use long label names rather than field names (e.g., "Facility Org ID" rather than "orgID") in both the modification window (B) and the column names in generated reports (C).

**A** Modify "Line Listing - Patient Impact and Hospital Capacity"

Show descriptive variable names (Print List) Analysis Data Set: covid19\_HHSv2\_pihc Type: Line

Title/Format Time Period Filters Display Variables Sort Variables Display Options

Title: Line Listing of Patient Impact and Hospital Capacity

Format:  html  pdf  xls  rtf

Display Variables:

**B** Available Variables:

- 10a. Total hospitalized pediatric suspected or laboratc
- 12a. Total ICU adult suspected or laboratory-confirme
- 12b. Hospitalized ICU adult laboratory-confirmed CO
- 12c. Hospitalized ICU pediatric laboratory-confirmed
- 14. ED/overflow
- 15. ED/overflow and ventilated
- 16. Previous Day's COVID-19 Deaths
- 17a. Previous Day's adult admissions with laboratory-
- 17a. Previous Day's adult admissions with laboratory-
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Selected Variables:

- Facility Org ID
- Date of data collection
- Census ID
- Context for which the record applies
- Flag record if prioritized?
- 19. Previous day's Emergency Department (ED) Visits
- 20. Previous day's total COVID-19-related ED Visits
- 3a. All hospital inpatient beds
- 4a. All hospital inpatient bed occupancy
- 5a. ICU beds
- 6a. ICU bed occupancy
- 9b. Hospitalized adult laboratory-confirmed COVID-1
- 10b. Hospitalized pediatric laboratory-confirmed COV
- 11. Hospitalized and ventilated COVID-19 patients
- 18a. Previous Day's pediatric admissions with laboratc

Facility Org ID=10018

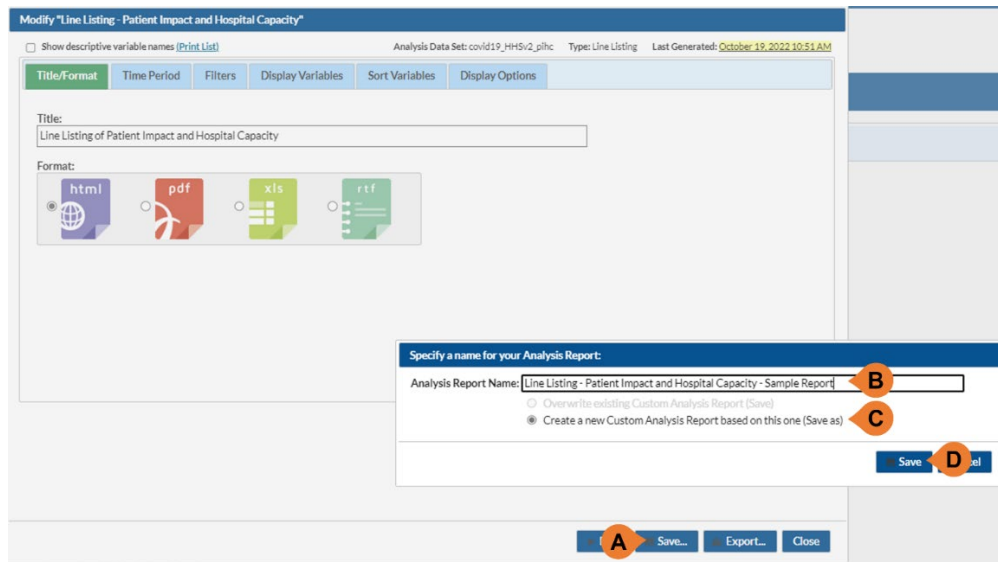
**C**

Facility Org ID	Date of data collection	Census ID	Context for which the record applies	Flag record if prioritized?	19. Previous day's Emergency Department (ED) Visits	20. Previous day's total COVID-19-related ED Visits	3a. All hospital inpatient beds	4a. All hospital inpatient bed occupancy	5a. ICU beds	6a. ICU bed occupancy
10018	10/03/2022	1170	HOSP							
10018	10/03/2022	1171	HOSP							
10018	10/04/2022	1506	HOSP				10	6	4	2
10018	10/05/2022	1191	HOSP				20			
10018	10/05/2022	1192	HOSP				20			
10018	10/05/2022	1193	HOSP				20			
10018	10/07/2022	1495	HOSP				100	80	20	10
10018	10/10/2022	1501	HOSP		20	3	100	50	20	10

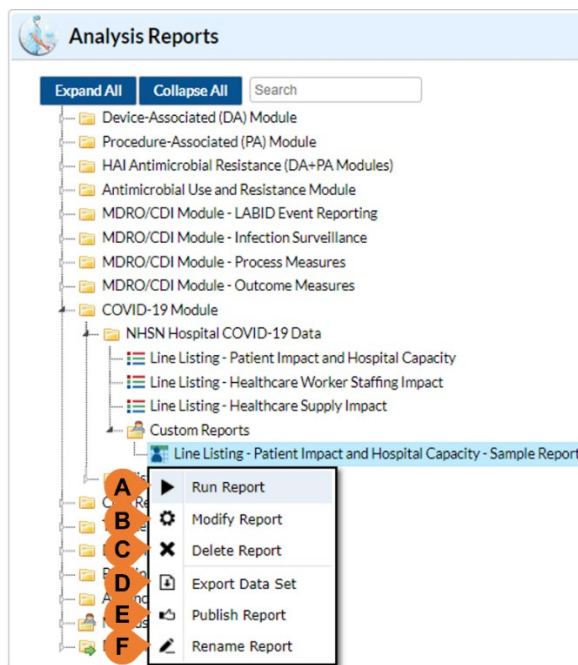


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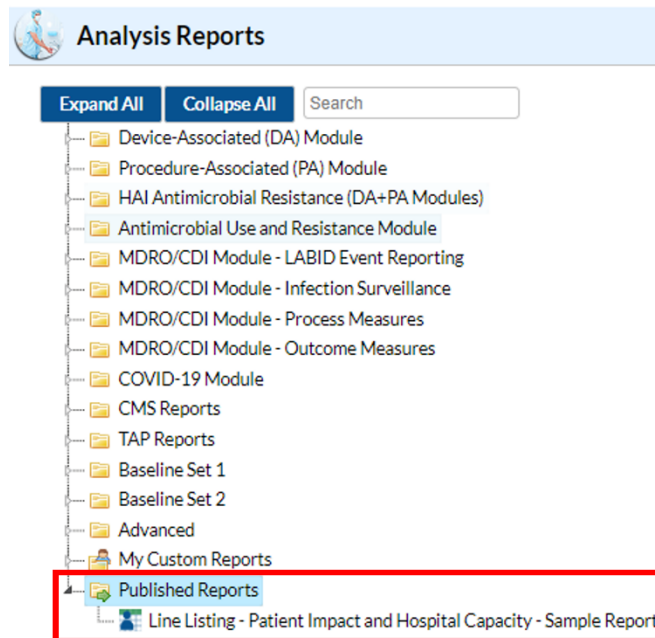
8. Once you have finished customizing a report, you can save the report using the **“Save...”** button on the Modify Report window (A). This will cause a pop-up to appear where you can rename the report (B) and choose to either overwrite an existing report or create a new Custom Analysis Report (C) before clicking **“Save”** (D).



9. Custom reports will be saved to COVID-19 Module > NHSN Hospital COVID-19 Data > Custom Reports. Users can select a previously saved custom report to to:
- Rerun the report
  - Modify the display settings of the report
  - Delete the custom report
  - Export the report’s underlying analysis data set
  - Publish the report (publishing the report will allow all users within the facility/Group to access the report in the Custom Reports folder after logging in to the Patient Safety Component)
  - Rename the title of the report



10. Users can find reports published by other users within their facility/Group in the “Published Reports” folder



## Additional Resources

Patient Safety Analysis Quick Reference Guides: <https://www.cdc.gov/nhsn/ps-analysis-resources/reference-guides.html>

General Tips and Tools for NHSN Analysis: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/General-Tips-NHSN-Analysis.pdf>

Generating Data Sets – Guidance for PSC: <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>

CDC's Coronavirus (COVID-19) website: <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

NHSN COVID-19 website: <https://www.cdc.gov/nhsn/acute-care-hospital/covid19/index.html> COVID-19 Guidance for Hospital Reporting and FAQs: <https://www.hhs.gov/sites/default/files/covid-19-faqs-hospitals-hospital-laboratory-acute-care-facility-data-reporting.pdf>