

# Modifying and Running NHSN Hospital Respiratory Data (HRD) Reports - Guidance for the Patient Safety Component HRD Module

Version 1

Updated: November 21, 2024

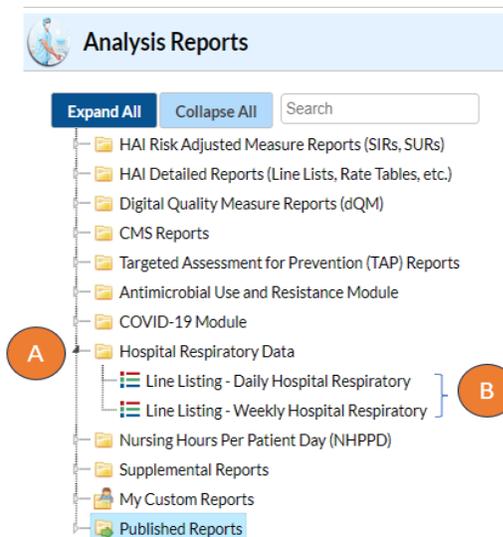
This guide provides instructions for modifying and running NHSN Hospital Respiratory Data (HRD) Reports (Line Listing of Daily & Weekly Hospital Respiratory) within the HRD Module. Any report within NHSN Analysis can be modified to meet many of your analytic needs. This quick reference guide will outline the basics of the report modification page for the HRD Reports. This guide also includes additional details on how the HRD reports can be leveraged to display reporting completeness status for CMS requirements, with supplementary information included regarding the features in the NHSN User Interface that also provide details on reporting completeness status.

**Note:** Before following the steps below, **ensure that you have generated data sets within the NHSN Patient Safety Component for your facility or group at least one time.** This is required for accessing the NHSN Analysis Reports window. Data sets are user-specific; therefore, each user in NHSN who wishes to analyze data must generate data sets. Please note that you **do not need to regenerate data sets** in order to see updated Hospital Respiratory Data in your analysis reports. You do, however, need to regenerate data sets to see updated data for any other Patient Safety Component modules in corresponding reports for those data. Detailed instructions for generating data sets within the Patient Safety Component can be found [here](#).

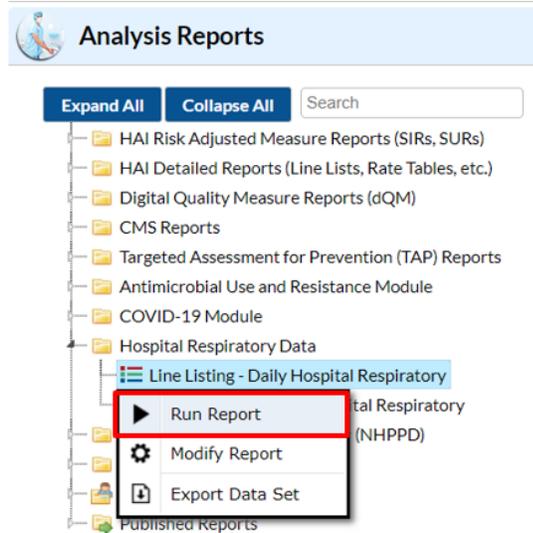
## Instructions

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.

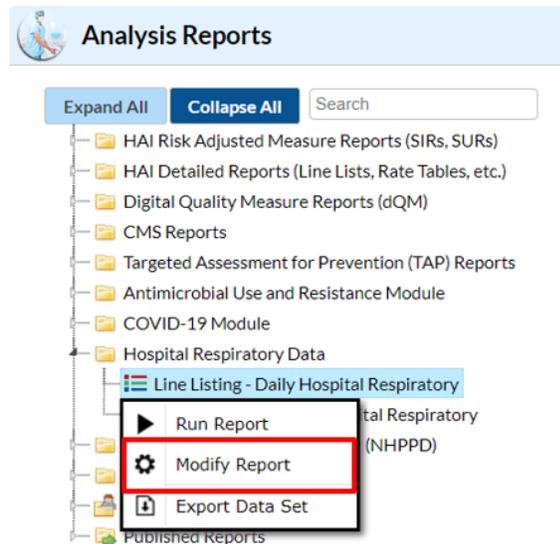
2. Once a data set has been generated at least once, navigate to Analysis → Reports from the left navigation menu in NHSN.
  - A. The HRD Reports can be found within the “Hospital Respiratory Data” folder.
  - B. Users can generate the following report of their facilities’ HRD data:
    - 1) Line Listing – Daily Hospital Respiratory
    - 2) Line Listing – Weekly Hospital Respiratory
  - C. If any custom reports have been generated, these reports will be included in a subfolder within the “Hospital Respiratory Data” folder. (see page 7 of this guide for more information)



3. 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.

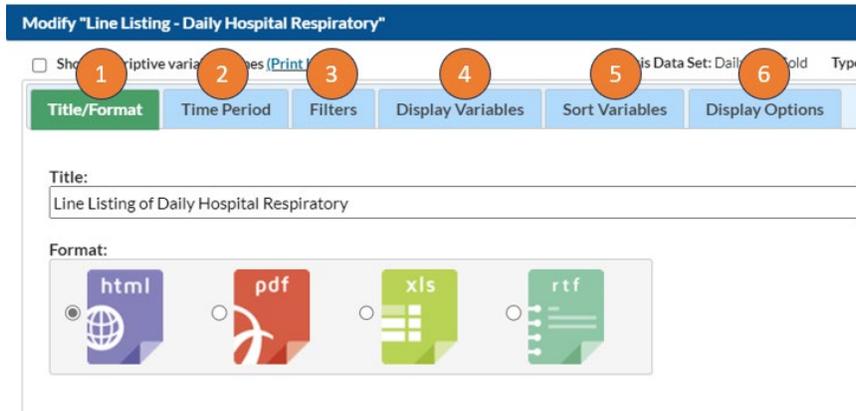


4. To modify or customize the settings for a specific report, select the desired report and select “Modify Report” from the pop-up box.



- A. The Modify Report window will display tabs for customizing specific aspects of the report including:
  - 1) **Title/Format** – Edit report title and select export format (i.e., HTML, PDF, XLS, RTF)
  - 2) **Time Period** – Set a specified time period of data to display
  - 3) **Filters** – Apply additional filtering based on available variables
  - 4) **Display Variables** – Add/remove variables from report

- 5) **Sort Variables** – Select which variable(s) by which to sort reports
- 6) **Display Options** – Select which variable (known as the “Page By” variable) by which to organize the report



- 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 HRD 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 Daily Hospital Respiratory”)
    - 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*, *context*, *HRDreportingDate* and *censusID*
    - 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 HRD 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, “Percent of inpatient beds occupied by COVID-19 patients” (*HRDpctConfC19InPtBedsOcc*), 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 Daily Hospital Respiratory**  
As of: November 14, 2024 at 4:08 PM UTC  
Date Range: DAILYHRDGOLD HRDreportingDate After and Including 09/01/2024

orgID=10018

orgID	censusID	context	HRDpctConfC19InPtBedsOcc	HRDnumConfC19HospPatsAdult	HRDnumConfC19HospPatsPed	HRDnumInPtBeds
10018	132	HOSP	15	10	5	100
10018	169	HOSP	15	10	5	100
10018	191	HOSP	15	10	5	100
10018	210	HOSP	15	10	5	100
10018	170	HOSP	15	10	5	100
10018	408	HOSP	15	10	5	100
10018	130	HOSP	.	.	.	100
10018	4340	HOSP	0	0	0	0
10018	255	IPF	.	.	.	200
10018	4341	IPF	0	0	0	0
10018	342	IRF	15	10	5	100
10018	4342	IRF	0	0	0	0

1. Data provided in this report reflect data submitted directly to the NHSN Hospital Respiratory Data Module Daily Reporting Pathway. Values shown have been evaluated using defined data quality checks.
  2. Null values may indicate either missing values or a result of failed data quality checks.
  3. A value of 9999 indicates the field was not applicable for the facility (e.g., if a facility does not have any ICU beds, a value of 9999 may be reported for numICUBeds).
- Sorted by orgID context HRDreportingDate censusID

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”.

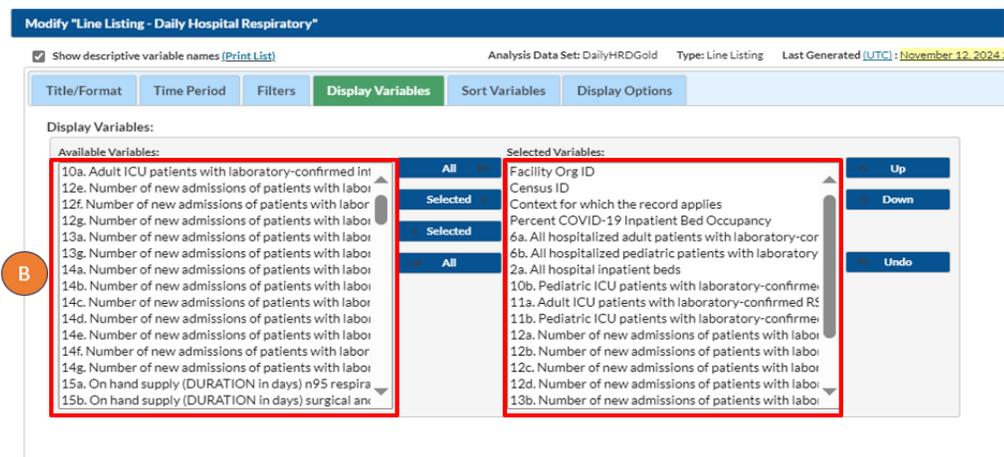
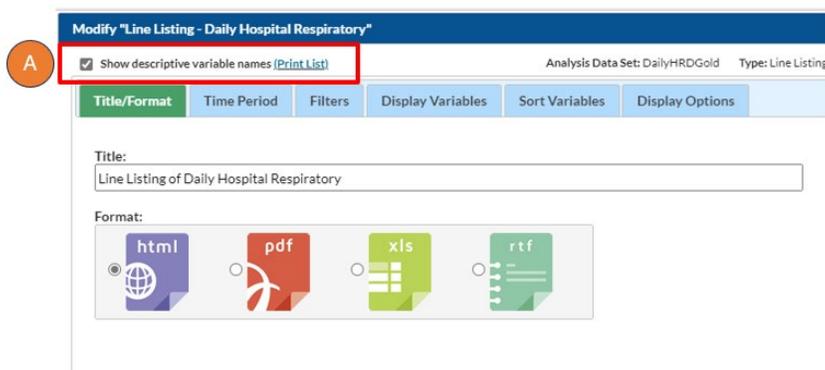
**National Healthcare Safety Network  
Line Listing of Daily Hospital Respiratory**  
As of: November 14, 2024 at 4:08 PM UTC  
Date Range: DAILYHRDGOLD HRDreportingDate After and Including 09/01/2024

orgID=10018

orgID	censusID	context	HRDpctConfC19InPtBedsOcc	HRDnumConfC19HospPatsAdult	HRDnumConfC19HospPatsPed	HRDnumInPtBeds
10018	132	HOSP	15	10	5	100
10018	169	HOSP	15	10	5	100
10018	191	HOSP	15	10	5	100
10018	210	HOSP	15	10	5	100
10018	170	HOSP	15	10	5	100
10018	408	HOSP	15	10	5	100
10018	130	HOSP	.	.	.	100
10018	4340	HOSP	0	0	0	0
10018	255	IPF	.	.	.	200
10018	4341	IPF	0	0	0	0
10018	342	IRF	15	10	5	100
10018	4342	IRF	0	0	0	0

D. **Note:** A value of zero (“0”) in the table indicates that the facility reported zero for that field (e.g., a value of 0 in the HRDpctConfC19InPtBedsOcc 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. A value of “9999” indicates that the field is not applicable to the facility (e.g., if a facility does not have any ICU beds, they may enter “9999” to indicate that the ICU bed fields are not applicable).

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).



National Healthcare Safety Network  
Line Listing of Daily Hospital Respiratory  
As of: November 14, 2024 at 4:10 PM UTC  
Date Range: DAILYHRDGold datepart=HRReportingDate After and including 08/01/2024

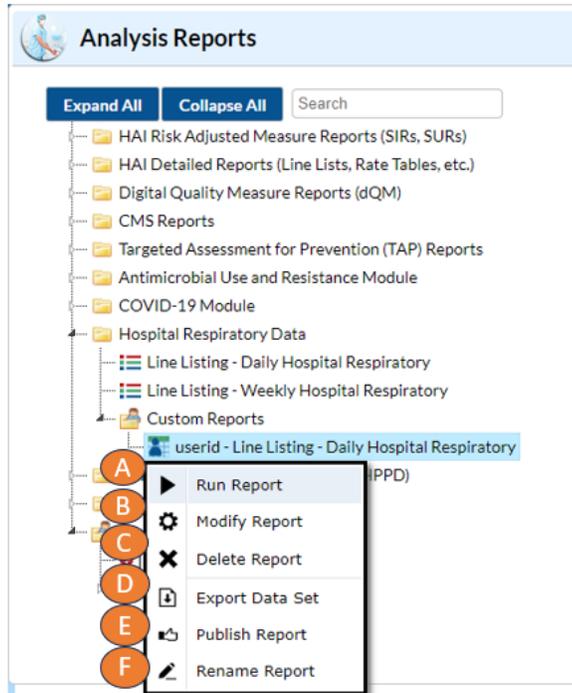
Facility Org ID=10018

Facility Org ID	Census ID	Context for which the record applies	Percent COVID-19 Inpatient Bed Occupancy	6a. All hospitalized adult patients with laboratory-confirmed COVID-19	6b. All hospitalized pediatric patients with laboratory-confirmed COVID-19	7a. All hospital inpatient beds	10b. Pediatric ICU patients with laboratory-confirmed influenza	11a. Adult ICU patients with laboratory-confirmed RSV	11b. Pediatric ICU patients with laboratory-confirmed RSV	12a. Number of new admissions of patients with laboratory-confirmed COVID-19, 0-4	12b. Number of new admissions of patients with laboratory-confirmed COVID-19, 5-17	12c. Number of new admissions of patients with laboratory-confirmed COVID-19, 18-49	12d. Number of new admissions of patients with laboratory-confirmed COVID-19, 50-64	13b. Number of new admissions of patients with laboratory-confirmed influenza, 5-17	13c. Number of new admissions of patients with laboratory-confirmed influenza, 18-49	13d. Number of new admissions of patients with laboratory-confirmed influenza, 50-64
10018	4340	HOGP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10018	4341	PF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10018	4342	RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0

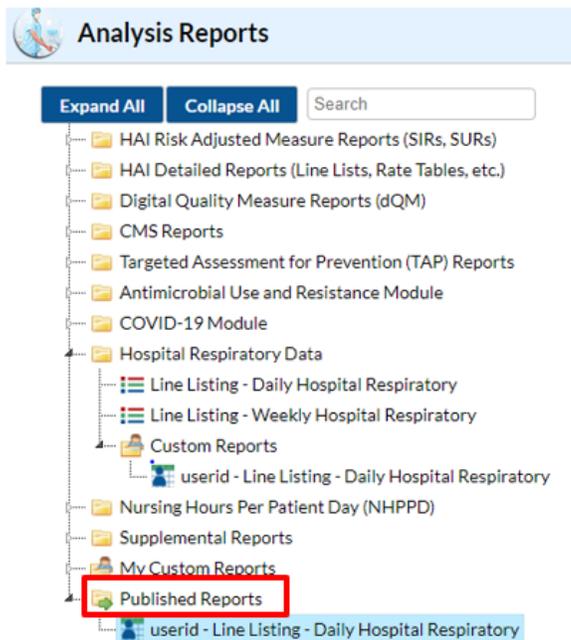
1. Data provided in this report reflect data submitted directly to the NHSN Hospital Respiratory Data Module Daily Reporting Pathway. Values shown have been evaluated using defined data quality checks.  
2. Null values may indicate either missing values or a result of failed data quality checks.  
3. A value of 9999 indicates the field was not applicable for the facility (e.g., if a facility does not have any ICU beds, a value of 9999 may be reported for numICUBeds).  
Sorted by orgID context HRReportingDate censusID

- 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).

- Custom reports will be saved to Hospital Respiratory Data > Custom Reports. Users can select a previously saved custom report 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



# Assessing Completeness of Reporting

## Using HRD Line Listing Reports

The screenshot shows the 'Modify "Line Listing - Weekly Hospital Respiratory"' interface. At the top, it displays 'Analysis Data Set: WeeklyHRDGold', 'Type: Line Listing', and 'Last Generated (UTC): November 18, 202'. Below this are tabs for 'Title/Format', 'Time Period', 'Filters', 'Display Variables', 'Sort Variables', and 'Display Options'. The 'Display Variables' tab is active, showing a list of 'Available Variables' on the left and 'Selected Variables' on the right. The 'Available Variables' list includes: ccn, censusID, county, createDate, facStatus, factype, HRDglove3DaySupply, HRDgloveSupplyDays, HRDgown3DaySupply, HRDgownSupplyDays, HRDN95Mask3DaySupply, HRDN95MaskSupplyDays, HRDnumBedsPSSurvey, HRDnumConfC19HospPatsAdult, and HRDnumConfC19HospPatsPed. The 'Selected Variables' list includes: orgID, context, HRDweekEndingDate, and weekCMSStatus. There are 'All', 'Selected', and 'All' buttons for the 'Available Variables' list, and 'Up', 'Down', and 'Undo' buttons for the 'Selected Variables' list. A red line connects the 'Selected Variables' list to the 'Available Variables' list.

The Line Listing – Weekly Hospital Respiratory report can be used to assess weekly completeness of fields required for reporting by CMS. The variable *weekCMSStatus* indicates whether a facility has met the requirements for reporting for a given week. This variable has two possible values:

1. “Complete”: The facility has submitted data for all required fields for the given week and has met the minimum requirement for CMS.
2. “Incomplete”: The facility has submitted some data for the given week but has not met the minimum requirement for CMS. This may be a result of incomplete data submitted to the Daily HRD pathway or some data submitted via the Healthcare Bed Connectivity Initiative while other data elements are still missing in the HRD module.

Missing values can be identified using the Line Listing – Weekly Hospital Respiratory report by generating a report of all required data elements and looking for fields with a value of “.”, meaning no data was reported for that field. Users can also use the Filters tab to filter to records with a *weekCMSStatus* of “Incomplete” to more easily identify facilities/weeks that have not met the CMS reporting requirements.

## Using HRD Calendar View and Completeness Viewer

Users may also verify reporting completeness in the NHSN application using the calendar view (facilities) and completeness viewer (groups).

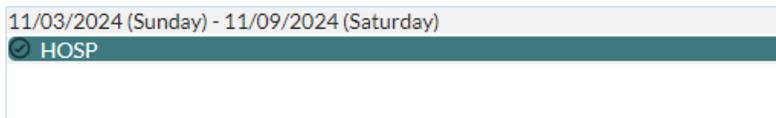
### Facility users:

Complete reporting indicated by a green record indicator.

If using the Daily pathway, green record indicator in each day of the reporting week (Sunday-Saturday):



If using the Weekly pathway, green record indicator for reporting week (Sunday-Saturday):



### Group users:

Groups users can access the Completeness Viewer to identify reporting completeness for facilities within the Group for the reporting week.

NOTE: The Completeness Viewer is based off the weekly reporting completeness and will reflect complete reporting for both the daily and weekly submission pathways.

- **Complete:** Green complete record indicator shows complete data submission for a facility for the reporting week.
- **No records available:** No data submitted for the facility for the reporting week.
- **Incomplete:** Incomplete data submitted for the facility for the reporting week. For example, 3 days out of 7 submitted in the daily pathway.

Hospital Respiratory Data Reporting Completeness Viewer						
Facility ID	Facility Name	State	Weekending Date	Reporting Context	Status	
			11/16/2024		No Records available	
			11/16/2024		No Records available	
			11/09/2024	HOSP	Complete	
			11/09/2024	IPF	Complete	
			11/02/2024	HOSP	Incomplete	
			11/02/2024	HOSP	Incomplete	

## 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 NHSN Hospital Respiratory Data](#)