

NATIONAL HEALTHCARE SAFETY NETWORK: COVID-19 Module Group Dashboard

October 2022

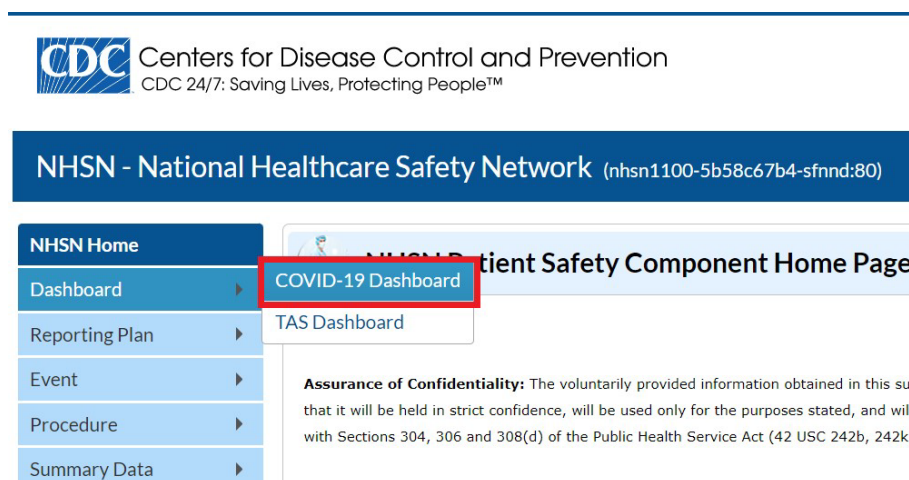
Description

As part of CDC's ongoing COVID-19 response, NHSN has created a Dashboard for Groups to visualize their facilities' COVID-19 data. The Dashboard is intended to provide daily summaries of measures collected under the COVID-19 Module pathways, 1) patient impact and hospital capacity and 2) healthcare worker staffing and supply shortage pathways. The Dashboard, accessible via the NHSN Patient Safety Component Home Page, gives Group users an opportunity to view and access their facilities' COVID-19 data via an interactive chart display. The Group Dashboard will include COVID-19 data for the facilities who have granted access to their data. This guide will help Group users understand how to use and interpret the COVID-19 Module Group Dashboard. All facility-level data included in this guide are fictitious. They are intended for education purposes only.

TIP: The Dashboard is best viewed using the following internet browsers: Microsoft Edge, Google Chrome, Safari.


How to Access the COVID-19 Group Dashboard

To view the Dashboard, select "COVID-19 Dashboard" from the Dashboard tab on the left navigation pane of the NHSN Patient Safety Component Home Page. No dataset generation is required to view data in the dashboard. The data in the dashboard are updated as data are entered or uploaded by facilities and/or Groups.



How to Filter Data in the COVID-19 Group Dashboard

There are 5 filter options that can be used to filter the data that are summarized and displayed in the COVID-19 Group

Dashboard. These filters can be accessed by selecting the Filter Data button  above the Dashboard Pathways. Group users may set any of the available filters to change the data this is displayed in the Dashboard. The 5 available filters are

1. **Reporting Context:** Filters data to include only hospital records for the specified reporting context (e.g., HOSP, IRF, etc.)
2. **State:** Filters data to include only records from hospitals within the specified state

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- County:** Filters data to include only records from hospitals within the specified county/county-equivalent (Note: a state must be selected in order to select from a list of counties)
- Facility ID Custom List:** Filters data to include only records from hospitals included in the specified Facility ID Custom List (Note: Facility ID Custom Lists can be created/edited/viewed on the Preferences page found on the Analysis tab of the left navigation pane. Instructions for creating Facility ID Custom Lists can be found in the [Preferences Function Quick Reference Guide](#))
- Collection Date:** Filters data for all pathways of the dashboard to the specified date (Note: If no collection date filter is selected, the default collection date for each pathway will be the previous day's date)

Filter Data

1 Reporting Context: HOSP - Hospital

2 State: [Dropdown]

3 County: [Dropdown]

4 Facility ID Custom List: [Dropdown]

5 Collection Date: [Calendar]


Apply Filters Clear Filters


Patient Impact and Hospital Capacity Healthcare Worker Staffing and Supply Shortage

▸ Daily Summary

▸ Overall Patient Impact and Hospital Capacity

The Interactive Chart Displays: Patient Impact and Hospital Capacity (PIHC) Pathway of the Group Dashboard

There are two main display tabs in the Patient Impact and Hospital Capacity Pathway of the Group Dashboard: 1) **Daily Summary** and 2) **Overall Patient Impact and Hospital Capacity**. Each display can be exported to PDF for printing by using the Export PDF buttons .

 COVID-19 Dashboard

Filter Data

1

Patient Impact and Hospital Capacity Healthcare Worker Staffing and Supply Shortage

1 ▸ Daily Summary

2 ▸ Overall Patient Impact and Hospital Capacity

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Within each display tab is a list of measures displayed as numbers or proportions (%). Below is a list of the measures for the patient impact and hospital capacity pathway and how they are derived:

Table 1: Details of the Patient Impact and Hospital Capacity Pathway Measures Included in NHSN COVID-19 Group Dashboard

Measure Label	Measure Description	Data Type	Derived
Daily/Summary			
Number Hospitals Reporting	Number of facilities in the Group reporting PIHC COVID-19 data	Number	
Previous Day's Emergency Department Visits with COVID-19	Number of ED visits who were seen on the previous calendar day who had a visit related to suspected or confirmed COVID-19	Number	
Previous Day's Admissions with COVID-19	Number of new patients admitted to an inpatient bed who had confirmed COVID-19 at the time of admission	Number	
Previous Day's Adult Admissions with COVID-19	Number of new patients admitted to an adult inpatient bed who had confirmed COVID-19 at the time of admission	Number	
Previous Day's Pediatric Admissions with COVID-19	Number of new patients admitted to a pediatric inpatient bed who had confirmed COVID-19 at the time of admission	Number	
Total Hospitalized COVID-19 Patients	Number of patients currently hospitalized in an inpatient bed who have confirmed COVID-19	Number	
Total Hospitalized COVID-19 Adult Patients	Number of patients currently hospitalized in an adult inpatient bed who have confirmed COVID-19	Number	
Total Hospitalized COVID-19 Pediatric Patients	Number of patients currently hospitalized in a pediatric inpatient bed who have confirmed COVID-19	Number	
Percent of Inpatient Beds Occupied (All Patients)	Percent of all inpatient beds occupied	Percent	(Patients currently hospitalized in an inpatient bed / inpatient beds, including all staffed, licensed, and overflow (surge) beds used for inpatients) x 100
Percent of Inpatient Beds Occupied (COVID-19 Patients)	Percent of inpatient beds occupied by patients with confirmed COVID-19	Percent	(Total number of patients currently hospitalized in an inpatient bed who have confirmed COVID-19 / inpatient beds, including all staffed, licensed, and overflow (surge) beds used for inpatients) x 100



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Percent of ICU Beds Occupied (All Patients)	Percent of all ICU beds occupied	Percent	(Patients currently hospitalized in an ICU bed / number of staffed ICU beds) x 100
Percent of ICU Beds Occupied (COVID-19 Patients)	Percent of ICU beds occupied by patients with confirmed COVID-19	Percent	(Total number of patients currently hospitalized in an ICU bed who have confirmed COVID-19 / staffed ICU beds) x 100
Overall Patient Impact and Hospital Capacity: Patient Impact			
Percent of Previous Day's ED Visits with COVID-19	Percent of all patient visits to the ED seen on the previous calendar day who had a visit related to suspected or confirmed COVID-19	Percent	Number of ED visits who were seen on the previous calendar day who had a visit related to suspected or confirmed COVID-19 / Total number of ED visits who were seen on the previous calendar day regardless of reason for visit) x 100
Percent of Adult Inpatients with COVID-19	Percent of all hospitalized adult inpatients with confirmed COVID-19	Percent	(Patients currently hospitalized in an adult inpatient bed with confirmed COVID-19 / Total number of staffed adult inpatient beds occupied) x 100
Percent of Pediatric Inpatients with COVID-19	Percent of all hospitalized pediatric inpatients with confirmed COVID-19	Percent	(Patients currently hospitalized in a pediatric inpatient bed with confirmed COVID-19 / Total number of staffed pediatric inpatient beds occupied) x 100
Percent of Suspected or Confirmed COVID-19 Hospitalized Patients on Ventilators	Percent of all hospitalized inpatients with suspected or confirmed COVID-19 who are on a mechanical ventilator	Percent	(Total number of hospitalized and ventilated patients with suspected or confirmed COVID-19 / Total number of patients currently hospitalized with suspected or confirmed COVID-19) x 100
Overall Patient Impact and Hospital Capacity: Hospital Capacity			
Percent of Inpatient Beds Occupied (All Patients)	Percent of all inpatient beds occupied	Percent	(Patients currently hospitalized in an inpatient bed / inpatient beds, including all staffed, licensed, and overflow (surge) beds used for inpatients) x 100



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Percent of Inpatient Beds Occupied (All Adult Patients)	Percent of all adult inpatient beds occupied	Percent	(Patients currently hospitalized in an adult inpatient bed / number of adult inpatient beds, including all staffed, licensed, and overflow (surge) beds used for adult inpatients) x 100
Percent of Inpatient Beds Occupied (All Pediatric Patients)	Percent of all pediatric inpatient beds occupied	Percent	(Patients currently hospitalized in a pediatric inpatient bed / number of pediatric inpatient beds, including all staffed, licensed, and overflow (surge) beds used for pediatric inpatients) x 100
Percent of ICU Beds Occupied (All Patients)	Percent of all ICU beds occupied	Percent	(Patients currently hospitalized in an ICU bed / number of staffed ICU beds) x 100
Percent of ICU Beds Occupied (All Adult Patients)	Percent of all adult ICU beds occupied	Percent	(Patients currently hospitalized in an adult ICU bed / number of staffed adult ICU beds) x 100
Percent of ICU Beds Occupied (All Pediatric Patients)	Percent of all pediatric ICU beds occupied	Percent	(Patients currently hospitalized in a pediatric ICU bed / number of staffed pediatric ICU beds) x 100



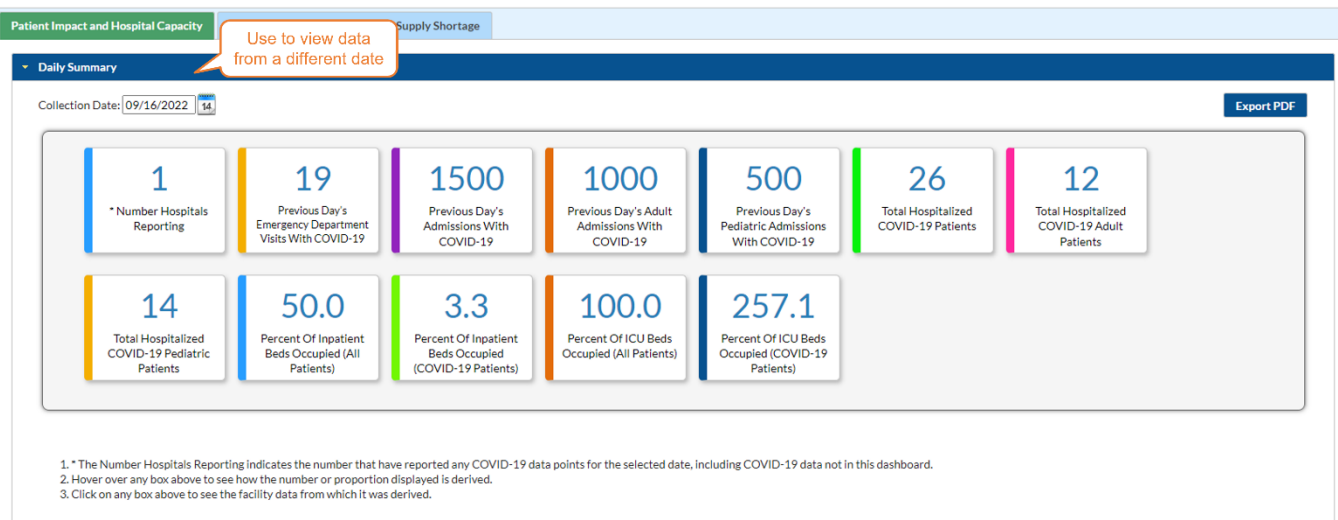
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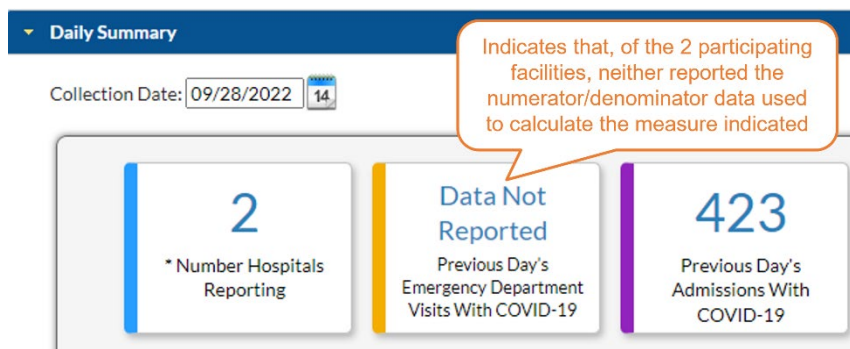
Daily Summary

The Daily Summary tab provides an overall picture of the Group's patient impact and hospital capacity burden for a given date (Note: Data displayed for a specified date will only include the most recently submitted record for each reporting facility). This quick display defaults to the data from the previous collection date (unless a collection date was chosen as a filter). The date for this tab can be modified to show a different day's data.

In the Daily Summary, the Group will see, among others, the number of hospitals reporting COVID-19 data for the selected date. This number reflects the hospitals who have granted access to their COVID-19 data and have reported data for the selected date. Elements of these data can also be gathered in the Analysis and Report function of NHSN under the COVID-19 Analysis folder.



In the instance where no data are reported for a particular measure on the selected date, the data box will indicate, **Data Not Reported**, as shown in the screenshot directly below. In our example, this means, of the two participating facilities, none reported the numerator/denominator reporting data used to calculate the measure indicated.



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Group users can learn more about the measures displayed on this tab by hovering their cursor over an icon to see measure specifications including the source dataset, column(s) used to calculate the measure, aggregation/derivation rules for calculating the measure, and the specifications for the associated table that will display when a user selects the specified icon. When an icon is selected, a table will appear below the display listing the records for all reporting facilities and the data reported for each column used to calculate the measure. Only the most recently submitted record for each reporting facility will be included in the associated table.

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 *numC19ConfNewAdmAdult* means that facility reported zero admissions of adult COVID-19 patients on the previous day) while a value of “NULL” indicates that the facility did not report any data for that field on the specified date.

The screenshot below provides an example of the hover text (1) and table (2) for the Previous Day’s Admissions with COVID-19 measure.

The screenshot displays the 'Daily Summary' for COVID-19 measures as of 09/14/2022. The dashboard includes a navigation menu on the left and a main content area with several metrics. A callout box (1) points to the 'Previous Day's Admissions With COVID-19' metric (1500), which has a tooltip showing source, columns, and rule information. Another callout box (2) points to a table below the metrics, which lists facility data for 'XYZ (dev) Medical Center'.

origID #	facName	numC19ConfNewAdmAdult	numC19ConfNewAdmPed
10009	XYZ (dev) Medical Center	1000	500

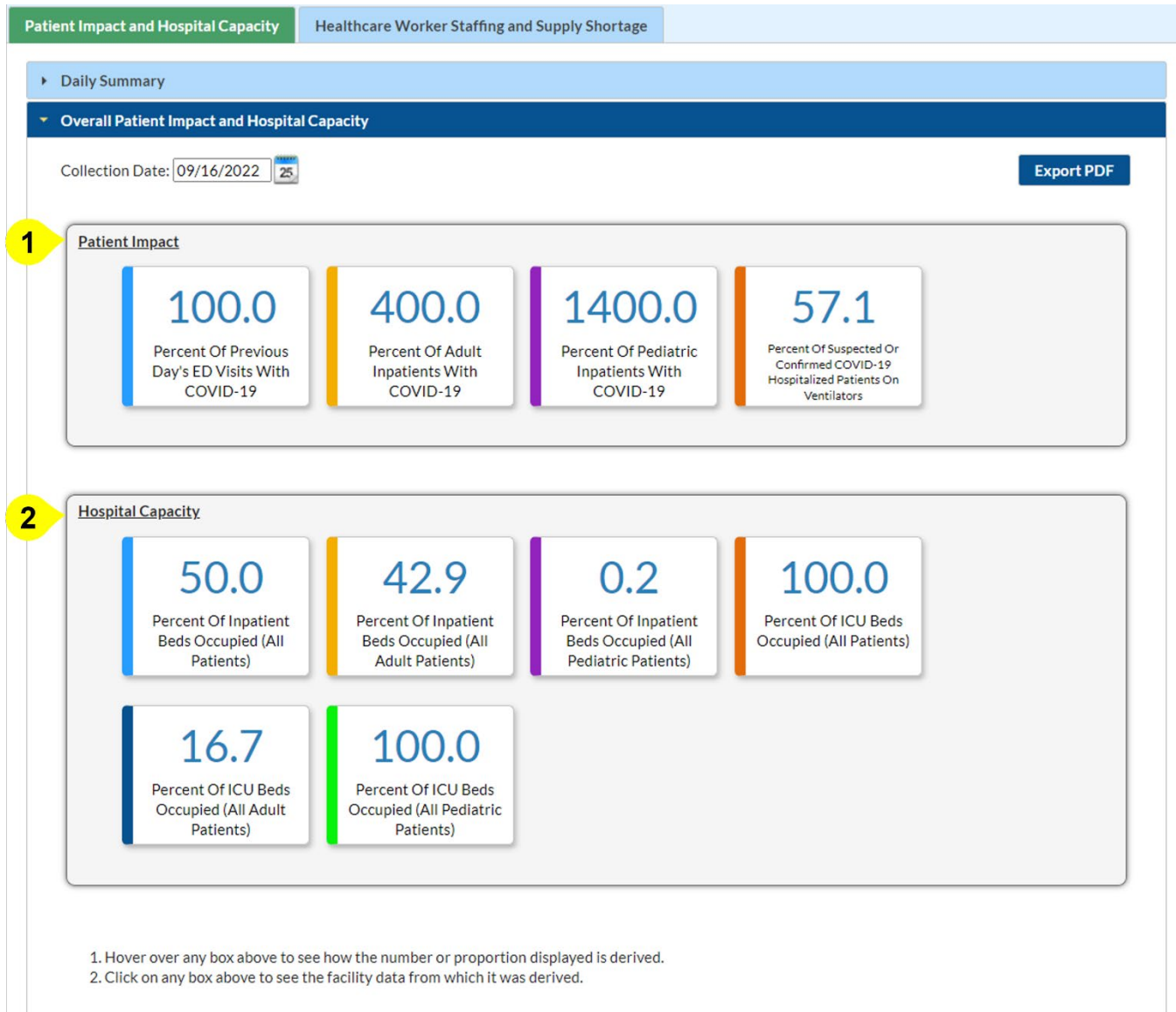
1. * The Number Hospitals Reporting Indicates the number that have reported any COVID-19 data points for the selected date.
2. Hover over any box above to see how the number or proportion displayed is derived.
3. Click on any box above to see the facility data from which it was derived.

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Overall Patient Impact and Hospital Capacity

The Overall Patient Impact and Hospital Capacity provides a snapshot of the overall patient impact and hospital capacity within the Group for the specified Collection Date. Similar to the Daily Summary display, the date for this tab can be modified to show a different day's data. The measures are separated into 1) **Patient Impact** and 2) **Hospital Capacity** as shown in the screenshot below. NOTE: If data needed to calculate a metric missing, the metric will display "Data Not Reported".



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Measures included in the Overall Patient Impact and Hospital Capacity tab are:

Patient Impact:	Hospital Capacity
<ul style="list-style-type: none"> Percent of Previous Day's ED Visits with COVID-19 Percent of Adult Inpatients With COVID-19 Percent of Pediatric Inpatients With COVID-19 Percent of Pediatric Inpatients with COVID-19 Percent of Suspected or Confirmed COVID-19 Hospitalized Patients on Ventilators 	<ul style="list-style-type: none"> Percent of Inpatient Beds Occupied (All Patients) Percent of Inpatient Beds Occupied (All Adult Patients) Percent of Inpatient Beds Occupied (All Pediatric Patients) Percent of ICU Beds Occupied (All Patients) Percent of ICU Beds Occupied (All Adult Patients) Percent of ICU Beds Occupied (All Pediatric Patients)

The measure icons displayed on this tab function in the same way as those displayed on the Daily Summary tab. Group users can hover their cursors over an icon to display measure specifications and select an icon to display a table with records for all reporting facilities and their reported data (or NULL if not reported) for each column used to calculate a measure. Details and specifications for these measure can be found in Table 1.

The screenshot displays the 'Overall Patient Impact and Hospital Capacity' dashboard. It features two main sections: 'Patient Impact' and 'Hospital Capacity'. Each section contains several metric cards with values and descriptions. A callout box explains that hovering over an icon displays measure specifications, and another callout explains that clicking an icon displays a table of facility data. Below the metrics is a table with columns for orgID, facName, numC19MechVentPatsHHS, numC19HospPatsAdult, and numC19HospPatsPed. The table shows data for 'XYZ (dev) Medical Center' with values 16, 13, and 15 respectively. A legend at the bottom explains the hover and click actions.

Patient Impact Metrics:

- 100.0: Percent Of Previous Day's ED Visits With COVID-19
- 400.0: Percent Of Adult Inpatients With COVID-19
- 1400.0: Percent Of Pediatric Inpatients With COVID-19
- 57.1: Percent Of Suspected Or Confirmed COVID-19 Hospitalized Patients On Ventilators

Hospital Capacity Metrics:

- 50.0: Percent Of Inpatient Beds Occupied (All Patients)
- 42.9: Percent Of Inpatient Beds Occupied (All Adult Patients)
- 0.2: Percent Of Inpatient Beds Occupied (All Pediatric Patients)
- 100.0: Percent Of ICU Beds Occupied (All Patients)
- 16.7: Percent Of ICU Beds Occupied (All Adult Patients)
- 100.0: Percent Of ICU Beds Occupied (All Pediatric Patients)

Table Data:

orgID	facName	numC19MechVentPatsHHS	numC19HospPatsAdult	numC19HospPatsPed
10009	XYZ (dev) Medical Center	16	13	15

Callouts:

- When user hovers cursor over an icon, a text box will appear with measure specifications.
- When an icon is selected, a table will appear below the display listing records for each reporting facility and the reported data for each column used to calculate the selected metric.

Legend:

- Hover over any box above to see how the number or proportion displayed is derived.
- Click on any box above to see the facility data from which it was derived.



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The Interactive Chart Displays: Healthcare Worker Shortage (HCW) Pathway of the Group Dashboard

There are two main displays in the **Healthcare Worker Staffing and Supply Shortage** pathway of the Group Dashboard: 1) **Weekly Summary** and 2) **Supply Shortages**. Each display can be exported to PDF for printing by using the Export PDF button

Export PDF

The screenshot shows the 'COVID-19 Dashboard' with a 'Filter Data' section. Two tabs are visible: 'Patient Impact and Hospital Capacity' and 'Healthcare Worker Staffing and Supply Shortage'. Under the second tab, there are two sub-tabs: 'Weekly Summary' (marked with a yellow circle and the number 1) and 'Supply Shortages' (marked with a yellow circle and the number 2).

Weekly Summary

The Weekly Summary tab provides an overall picture of the Group's healthcare worker staffing and supply shortages for a given date. This display defaults to data from the previous collection date (unless a collection date was chosen as a filter). The date for this tab can be modified to show a different day's data (see screenshot below).

The screenshot shows the 'Weekly Summary' tab selected. A callout box points to the 'Collection Date' field, which is set to '09/23/2022' with a calendar icon, and contains the text: 'Use the Date option to change data to display a different day's data'. An 'Export PDF' button is visible in the top right. Below the date field are four data cards:

2 * Total Hospitals Reporting Data In Healthcare Worker Staffing Pathway	1 Number Of Hospitals Reporting Impending Staffing Shortage	2 * Total Hospitals Reporting Data In Supply Shortage Pathway	1 Number Of Hospitals Reporting Supply Shortages
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Below the cards, there are three numbered instructions:

- * The Total Hospitals Reporting indicates either the number of hospitals that have reported any COVID-19 Healthcare Worker Staffing pathway data or COVID-19 Supply Shortage pathway data on at least one day during the seven days prior to the collection date above, including COVID-19 data not used in the dashboard.
- Hover over any box above to see how the number or proportion displayed is derived.
- Click any box above to see the facility data from which it was derived.

At the bottom, there is a link to 'Supply Shortages'.

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The Weekly Summary displays the number of hospitals reporting data in either the Healthcare Worker Staffing or Supply Shortage pathway as well as the number of hospitals reporting either staffing or supply shortages. Below is a list of measures in the Healthcare Worker Staffing and Supply Shortage pathway:

Table 2: Details of the Healthcare Worker Staffing and Supply Shortage Pathway Measures Included in NHSN COVID-19 Group Dashboard

Measure Label	Measure Description	Data Type
Healthcare Worker Staffing Pathway		
Total Hospitals Reporting Data in Healthcare Worker Staffing Pathway	Number of hospitals in the Group that have reported any COVID-19 healthcare worker staffing pathway data	Number
Number of Hospitals Reporting Impending Staffing Shortage	Number of hospitals in the Group that reported an anticipated critical staffing shortage within a week of the collection date specified	Number
Supply Shortage Pathway		
Total Hospitals Reporting Data in Supply Shortage Pathway	Number of hospitals in the Group that have reported any COVID-19 supply shortage pathway data for the collection date specified	Number
Number of Hospitals Reporting Supply Shortages	Number of hospitals in the Group that reported having an on-hand supply of less than four days for any of the following supplies: N95 masks, surgical and procedure masks, exam gloves, single-use gowns, or eye protection including face shields and goggles:	Number

Similar to the **Patient Impact and Hospital Capacity** pathway tabs, Group users can hover their cursor over a measure icon on the Weekly Summary tab to display measure specifications and select an icon to display a table listing all reporting facilities and the data reported (or NULL if not reported) for each column used to calculate the measure.

When user hovers cursor over an icon, a text box will appear with measure specifications

When an icon is selected, a table will appear below the display listing records for each reporting facility and the reported data for each column used to calculate the selected metric

1. * The Total Hospitals Reporting indicates either the number of hospitals that have reported data in either the Healthcare Worker Staffing or COVID-19 Supply Shortage pathway data on at least one day during the seven days prior to the collection date.
 2. Hover over any box above to see how the number or proportion displayed is derived.
 3. Click any box above to see the facility data from which it was derived.



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Supply Shortages

The Supply Shortages tab displays a chart of the percent of facilities who reported on-hand supplies categorized by the supply items and by the days of availability category. When a user selects a supply category bar on the graph, a table will display with all reporting facilities and the data reported (or NULL if not reported) for the supply category selected for the date.



Note to Groups with multi-state members

NHSN recognizes that there are Groups within NHSN with participating facilities in different states. To get the most accurate depiction of the COVID-19 module data for their facilities, NHSN recommends that Groups with participating facilities in different states view data by state instead of viewing all data by their overall Group. We anticipate that there may be differences in the state-level description of the COVID-19 Module.

Additional Resources:

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>

NHSN Preferences Function Quick Reference Guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/preferences-guide-508.pdf>

