

NATIONAL HEALTHCARE SAFETY NETWORK: How to Use the Patient Impact and Hospital Capacity Module

Description

As part of CDC's ongoing COVID-19 response, a new Patient Impact Module has been created in NHSN to help facilities track and monitor the number of cases reported in their facilities daily. The new module collects summary data which can be viewed in a table form without generating new analysis datasets. In addition, the summary data can be exported to excel/CSV for additional analysis outside the application. The data collected using this module will be informative and provide situational awareness at both state and national levels.

How to Access and Enter COVID-19 Summary Data

STEP 1: Select the COVID-19 tab on the left navigation pane.

The screenshot shows the NHSN Patient Safety Component Home Page. On the left is a navigation pane with the following items: NHSN Home, Alerts, Dashboard, Reporting Plan, Patient, Event, Procedure, Summary Data, COVID-19, Import/Export, Surveys, Analysis, Users, Facility, Group, Tools, and Logout. The COVID-19 tab is highlighted with a red arrow and a red circle containing the number 1. A callout box with a green border contains the text: "Step 1: On the NHSN Patient Safety Component Home Page, select the COVID-19 Tab from the left-hand pane". The main content area on the right has a yellow header "NHSN Patient Safety Component Home Page" and contains three sections: "TAP Strategy Dashboard", "Reliability-Adjusted Ranking", and "Action Items".

A calendar defaulting to the current month will appear, as shown in the screenshot below. Note that data can be entered as far back as January 1, 2020. *Disclaimer: Data included in this guide is fictitious and does not represent an actual facility's data. This data is meant for illustration purpose only.*

NATIONAL HEALTHCARE SAFETY NETWORK: How to Use the Patient Impact and Hospital Capacity Module

In this module, data is expected to be collected each day at the same time and reported in the application for the date for which the data apply. Using the calendar below as an example:

- Data can be entered for both weekdays and weekend days, through the present date.
- Once you have entered data, the calendar date is marked green with a check mark, indicating 'Completion', as shown by the *March 02, 2020* example in the calendar below. Calendar days with incomplete data will show a green checkmark but shaded light yellow. A calendar date with no data is shaded white. Future dates cannot be accessed.
 - The legend defining the color codes is located at the top of the calendar shown by the green arrow.
- Data can be entered manually or uploaded using a CSV file. Use the 'Upload CSV' tab **(A)** to upload your daily counts of data.
- Use the 'Download CSV Template' tab **(B)** to download a sample CSV file to upload your data. The headers in the CSV file represent the data fields on the 'Add' screen, which will be described subsequently.
- Once you have entered data, you can manually view the data by double clicking on the calendar date(s) or using the 'Export CSV' **(C)** tab to export the data in a table form. Details on Uploading and Exporting are provided on page 4.

COVID-19

Double-click a cell to begin entering data on the day for which patient counts are reported

01 March 2020 - 11 April 2020

Record Complete Record Incomplete

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Mar 01	02 ✓ 20 COVID-19	03 ✓ COVID-19	04 ✓ 20 COVID-19	05	06	07
08	09	10	11	12	13	14
15	16 ✓ 200 COVID-19	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	Apr 01	02	03	04
05	06	07	08	09	10	11

A Upload CSV... **B** Download CSV Template... **C** Export CSV...

NATIONAL HEALTHCARE SAFETY NETWORK: How to Use the Patient Impact and Hospital Capacity Module

STEP 2: To Enter Data

To enter data manually, double click on the date for which the data apply. A separate window will appear with a list of data fields or questions as shown in the screenshot below. *Data for the 'date for which patient counts are reported' may be entered retrospectively into the application, for example, data collected for March 2, 2020 may be entered March 7, 2020.* The 'Collection date' and the 'BEDS: Inpatient beds in the hospital' fields are **required**, and the remaining fields are optional. Please note a blank field indicates no data. If you intend to report '0' for a field, please enter '0'.

- The 'Date for which patient counts are reported' is auto populated as shown by **(A)**.
- The data field **(B)** that is marked 'HOSPITAL INPATIENT BEDS: Total number of staffed inpatient beds in your hospital including all licensed overflow, and surge or expansion beds used for inpatients (includes ICU beds)' is a required field. All others are optional. Facilities are encouraged to complete all fields.
- Once you have entered data in all applicable fields, click Save **(2)**.

Add **1**

Date for which patient impact and capacity counts are reported: 03/25/2020 **A**

For the following questions, please collect data at the same time (for example 7 am)

Section 1 - Patient Impact Data Elements

<input type="text" value="60"/>	HOSPITALIZED: Patients currently hospitalized in an inpatient bed who have suspected or confirmed COVID-19
<input type="text" value="11"/>	HOSPITALIZED and VENTILATED: Patients currently hospitalized in an inpatient bed who have suspected or confirmed COVID-19 and are on a mechanical ventilator
<input type="text" value="10"/>	HOSPITAL ONSET: Patients currently hospitalized in an inpatient bed with onset of suspected or confirmed COVID-19 fourteen or more days after hospital admission due to a condition other than COVID-19
<input type="text" value="10"/>	ED/OVERFLOW: Patients with suspected or confirmed COVID-19 who currently are in the Emergency Department (ED) or any overflow location awaiting an inpatient bed
<input type="text" value="10"/>	ED/OVERFLOW and VENTILATED: Patients with suspected or confirmed COVID-19 who currently are in the ED or any overflow location awaiting an inpatient bed and on a mechanical ventilator
<input type="text" value="0"/>	DEATHS: Patients with suspected or confirmed COVID-19 who died in the hospital, ED, or any overflow location on the date for which you are reporting

Section 2 - Hospital Bed/ICU/Ventilator Capacity Data Elements

<input type="text" value="300"/>	ALL HOSPITAL BEDS: Total number of all inpatient and outpatient beds in your hospital, including all staffed, licensed, overflow, and surge or expansion beds used for inpatients and for outpatients (includes ICU beds)
<input type="text" value="300"/> B	*HOSPITAL INPATIENT BEDS: Total number of staffed inpatient beds in your hospital including all licensed, overflow, and surge or expansion beds used for inpatients (includes ICU beds)
<input type="text" value="100"/>	HOSPITAL INPATIENT BED OCCUPANCY: Total number of staffed inpatient beds that are occupied
<input type="text" value="100"/>	ICU BEDS: Total number of staffed inpatient ICU beds
<input type="text" value="50"/>	ICU BED OCCUPANCY: Total number of staffed inpatient ICU beds that are occupied
<input type="text" value="25"/>	MECHANICAL VENTILATORS: Total number of ventilators available
<input type="text" value="20"/>	MECHANICAL VENTILATORS IN USE: Total number of ventilators in use

2 Save Delete Cancel


NATIONAL HEALTHCARE SAFETY NETWORK: How to Use the Patient Impact and Hospital Capacity Module

To View, Edit or Delete Data

Once data have been entered and saved, it can be viewed or edited. To view entered data, double click on the calendar date with the data. A pop-up dialogue box will appear with the list of data as shown in the screenshot below.

To edit the data, simply change the data in the applicable field(s) and click Save at the bottom of the page. The dialogue box will then close.

To delete data from the calendar, double click on the calendar date and scroll down to select the Delete button, outlined in green. Once data has been deleted, the calendar date will return to the white shade.

Edit 

Date for which patient impact and capacity counts are reported: 03/25/2020




For the following questions, please collect data at the same time (for example 7 am)

Section 1 - Patient Impact Data Elements

<input type="text" value="60"/>	HOSPITALIZED: Patients currently hospitalized in an inpatient bed who have suspected or confirmed COVID-19
<input type="text" value="11"/>	HOSPITALIZED and VENTILATED: Patients currently hospitalized in an inpatient bed who have suspected or confirmed COVID-19 and are on a mechanical ventilator
<input type="text" value="10"/>	HOSPITAL ONSET: Patients currently hospitalized in an inpatient bed with onset of suspected or confirmed COVID-19 fourteen or more days after hospital admission due to a condition other than COVID-19
<input type="text" value="10"/>	ED/OVERFLOW: Patients with suspected or confirmed COVID-19 who currently are in the Emergency Department (ED) or any overflow location awaiting an inpatient bed
<input type="text" value="10"/>	ED/OVERFLOW and VENTILATED: Patients with suspected or confirmed COVID-19 who currently are in the ED or any overflow location awaiting an inpatient bed and on a mechanical ventilator
<input type="text" value="0"/>	DEATHS: Patients with suspected or confirmed COVID-19 who died in the hospital, ED, or any overflow location on the date for which you are reporting

Section 2 - Hospital Bed/ICU/Ventilator Capacity Data Elements

<input type="text" value="300"/>	ALL HOSPITAL BEDS: Total number of all inpatient and outpatient beds in your hospital, including all staffed, licensed, overflow, and surge or expansion beds used for inpatients and for outpatients (includes ICU beds)
<input type="text" value="300"/>	*HOSPITAL INPATIENT BEDS: Total number of staffed inpatient beds in your hospital including all licensed, overflow, and surge or expansion beds used for inpatients (includes ICU beds)
<input type="text" value="100"/>	HOSPITAL INPATIENT BED OCCUPANCY: Total number of staffed inpatient beds that are occupied
<input type="text" value="100"/>	ICU BEDS: Total number of staffed inpatient ICU beds
<input type="text" value="50"/>	ICU BED OCCUPANCY: Total number of staffed inpatient ICU beds that are occupied
<input type="text" value="25"/>	MECHANICAL VENTILATORS: Total number of ventilators available
<input type="text" value="20"/>	MECHANICAL VENTILATORS IN USE: Total number of ventilators in use

NATIONAL HEALTHCARE SAFETY NETWORK: How to Use the Patient Impact and Hospital Capacity Module

Uploading data using the Upload CSV Option:

Once you have downloaded the template CSV using the Download CSV button outlined above, a CSV file will open with the title 'exportCSVTemplatePSSummaryCovid'. The headers of the CSV file mimic the titles of data fields in the screenshot above and appear in the same order as the data fields shown in the table 1 below.

Table 1. COVID-19 Summary Data Upload Template

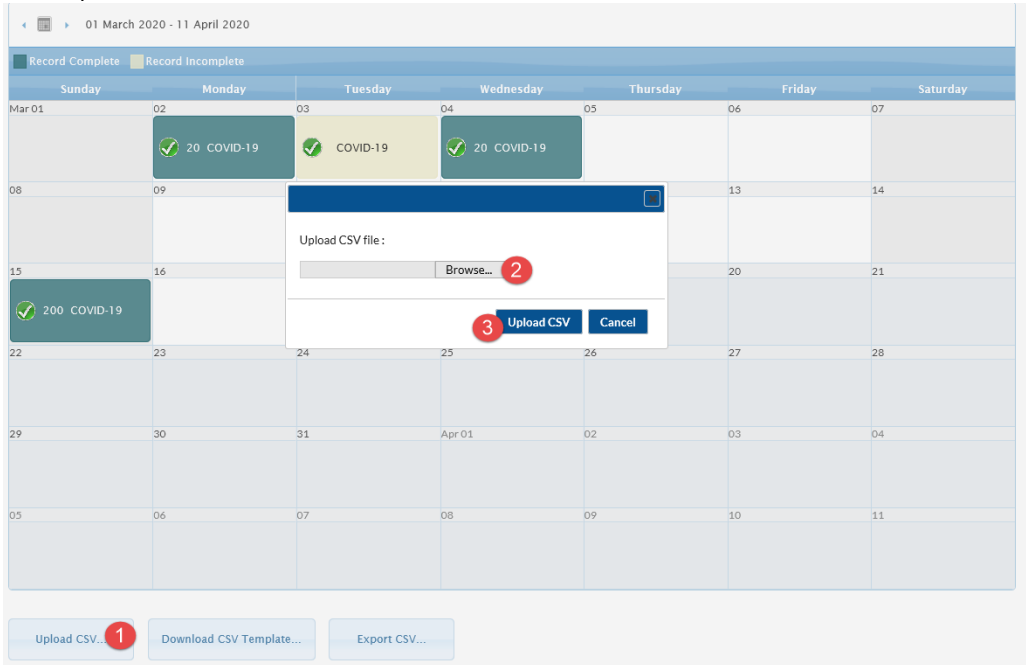
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	collectiondate	numc19hosppats	numc19mechventpats	numc19hopats	numc19overflowpats	numc19ofmechventpats	numc19died	numtotbeds	numbeds	numbedsocc	numicubeds	numicubedsocc	numvent	numventuse
2														
3														

Field	Requirement	Values	Format ⁺	Description of Field
numTotBeds	Optional	0 to 10000	Must be a whole number	ALL HOSPITAL BEDS: Total number of all Inpatient and outpatient beds, including all staffed, ICU, licensed, and overflow (surge) beds used for inpatients or outpatients
Numbeds	Required	0 to 10000	Must be a whole number Must be <= numTotBeds	HOSPITAL INPATIENT BEDS: Inpatient beds, including all staffed, licensed, and overflow (surge) beds used for inpatients
numBedsOcc	Optional	0 to 10000	Must be a whole number Must be <= numBeds	HOSPITAL INPATIENT BED OCCUPANCY: Total number of staffed inpatient beds that are occupied
numICUBeds	Optional	0 to 10000	Must be a whole number Must be <= numBeds	ICU BEDS: Total number of staffed inpatient intensive care unit (ICU) beds
numICUBedsOcc	Optional	0 to 10000	Must be a whole number Must be <= numICUBeds	ICU BED OCCUPANCY: Total number of staffed inpatient ICU beds that are occupied
numVent	Optional	0 to 10000	Must be a whole number Must be <= numTotBeds or <= 10,000	MECHANICAL VENTILATORS: Total number of ventilators available
numVentUse	Optional	0 to 10000	Must be a whole number Must be <= numVent or <= 10,000	MECHANICAL VENTILATORS IN USE: Total number of ventilators in use
numC19HospPats	Optional	0 to 10000	Must be a whole number Must be <= numBedsOcc	HOSPITALIZED: Patients currently hospitalized in an inpatient care location who have suspected or confirmed COVID-19
numC19MechVentPats	Optional	0 to 10000	Must be a whole number Must be <= numVentUse	HOSPITALIZED and VENTILATED: Patients hospitalized in an NHSN inpatient care location who have suspected or confirmed COVID-19 and are on a mechanical ventilator
numC19HOPats	Optional	0 to 10000	Must be a whole number Must be <= numBedsOcc	HOSPITAL ONSET: Patients hospitalized in an NHSN inpatient care location with onset of suspected or confirmed COVID-19 14 or more days after hospitalization
numC19OverflowPats	Optional	0 to 2000	Must be a whole number Must be <= 2000	ED/OVERFLOW: Patients with suspected or confirmed COVID-19 who are in the ED or any overflow location awaiting an inpatient bed
numC19OFMechVentPats	Optional	0 to 10000	Must be a whole number Must be <= numVentUse	ED/OVERFLOW and VENTILATED: Patients with suspected or confirmed COVID-19 who are in the ED or any overflow location awaiting an inpatient bed and on a mechanical ventilator
numC19Died	Optional	0 to 1500	Must be a whole number Must be <= 1500	DEATHS: Patients with suspected or confirmed COVID-19 who died in the hospital, ED, or any overflow location



NATIONAL HEALTHCARE SAFETY NETWORK: How to Use the Patient Impact and Hospital Capacity Module

Enter data into the Upload Template file and save to file path from which you can upload into NHSN. Then select 'Upload CSV' button on the calendar as shown in the screenshot on page 3. A dialogue box will appear. Browse to the CSV file and click 'Upload CSV'.



Exporting data using the Export CSV Tab:

Once data has been entered or uploaded, facility users can export their data in table form to view or to perform additional analysis outside the application. First select Export CSV on the calendar. A dialogue box will appear with options to Open or Save the file. Select preference and open to view data. A sample exported table is displayed below.

Table 2. COVID-19 Summary Data Export

collectiondate	numc19hosppats	numc19mechventpats	numc19hopats	numc19overflowpats	numc19ofmechventpats	numc19died	numtotbeds	numbeds	numbedsocc	numicubed	numicubed	numvent	numventu
3/2/2020	20	28	0	25	10	2		15					
3/3/2020								15					
3/15/2020	200	100	5	150	50	5		250					
1/6/2020	125	25	50	600	10	2		250					
2/12/2020	5	1	2	10	2	0		250					
3/4/2020	20	20	10	25	10	2	300	250	50	100	50	25	20
3/16/2020	25	20	0	3	1	1		300					
3/24/2020	52	10	10	10	10	10		300					
3/25/2020	60	11	10	10	10	0	300	299	100	100	50	25	20
3/23/2020	130	100	4	50	20	5	1000	900	700	200	200		
3/17/2020	130	5	3	1	2	4	200	190	150	100	90	15	10
3/26/2020				3	4		200	100					

Additional Resources:

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