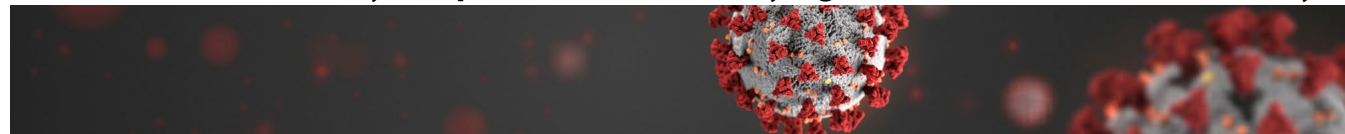# CDC COVID-NET Interactive: COVID-19-associated Hospitalizations Application Quick Reference Guide

Cumulative and Weekly Hospitalization Rates by Age, Sex, and Race and Ethnicity

Introduction

This Quick Reference Guide provides guidance on using the COVID-NET web application on this webpage: https://gis.cdc.gov/grasp/covidnet/covid19_3.html and gives an overview of the COVID-19-associated Hospitalization Surveillance Network (COVID-NET).

About the Data

Laboratory-confirmed COVID-19-associated hospitalization rates are monitored through the **COVID-19-Associated Hospitalization Surveillance Network (COVID-NET).** COVID-NET conducts population-based surveillance for all ages for laboratory-confirmed COVID-19-associated hospitalizations in more than 250 acute care hospitals in 99 counties. These acute care hospitals are located in the 10 Emerging Infections Program (EIP) states (CA, CO, CT, GA, MD, MN, NM, NY, OR and TN) and four Influenza Hospitalization Surveillance Project (IHSP) states (IA, MI, OH and UT). Approximately 10% of the U.S. population is covered by this surveillance system.

Individuals who meet the COVID-NET case definition must be residents of a designated catchment area and be hospitalized within 14 days of a positive SARS-CoV-2 test or have a positive test during hospitalization. Testing is performed at the discretion of health care providers or through facility testing policies. Cases are identified through active review of notifiable disease and laboratory databases, hospital admission, and infection control practitioner logs. A minimum set of variables (age, sex, race and ethnicity, hospital admission, and SARS-CoV-2 testing data) are collected for all patients to generate age-stratified, race and ethnicity-stratified, and sex-stratified COVID-19-associated hospitalization rates each week. Across COVID-NET race and ethnicity are categorized as: White, Black, Hispanic/Latino, Asian/Pacific Islander, or American Indian/Alaskan Native. COVID-19-associated hospitalization rates by race and ethnicity are calculated using hospitalized COVID-NET cases with complete race and ethnicity data for the numerator and NCHS bridged-race population estimates for the denominator. The default age strata displayed are 0–4, 5–17, 18–49, 50–64, 65+ years. The user may elect to stratify by additional age groups by clicking the corresponding checkboxes.

Detailed medical chart abstraction is conducted by trained staff, including information on signs/symptoms at admission, underlying medical conditions, intensive care unit admission, mechanical ventilation discharge diagnoses, and in-hospital death. Due to the large number of persons hospitalized with COVID-19, conducting a detailed abstraction of all hospitalizations is not possible. Therefore, a sample is generated as follows: random numbers are autogenerated and assigned to each case as soon as a case identification number is entered into the surveillance database; random samples of cases, stratified by age group and surveillance site, are drawn using these random numbers. Due to the sampling methodology, counts are not shown, and weighted percentages are presented for the sampled variables. The sampling strategy differs by surveillance site and month.

Note: COVID-NET hospitalization data are preliminary and subject to change as more data become available.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CS 320393-A   08/02/2021

Accessing the COVID-NET Web-based Application

The COVID-NET application is available online and accessible by the public through the following internet link: https://gis.cdc.gov/grasp/COVIDNet/COVID19_3.html.
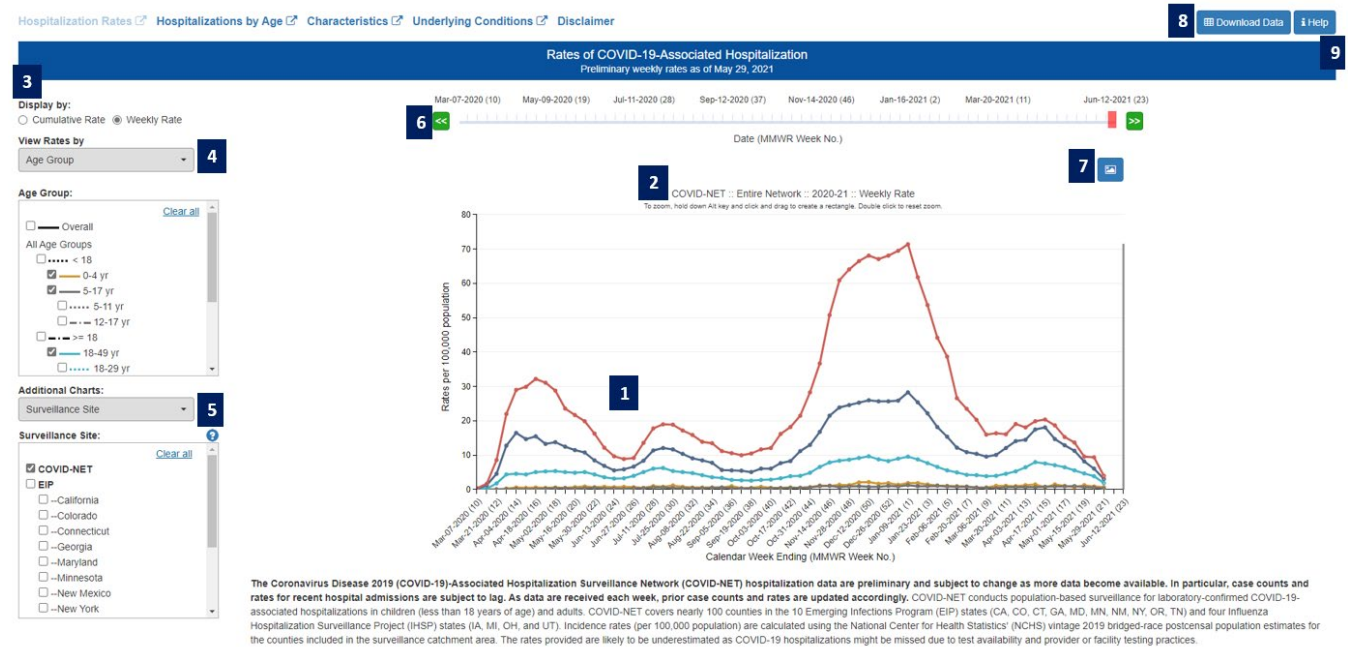
Application requirements:

- Preferred browsers are Google Chrome, Edge, Safari or Mozilla Firefox. Internet Explorer 11 is supported, but not a preferred browser due to decreased functionality and visualization of the interactive web application.

Once the website is loaded, a disclaimer dialog box will appear. Please review the disclaimer for important reference information.

Application Functions and Tool Overview

Below is an image of the default view of the COVID-NET web application. This interactive tool allows users to display and query information about laboratory-confirmed COVID-19-associated hospitalizations by age group, sex, race and ethnicity, and surveillance site. The numbered blue boxes highlight various functions of the web application, with the corresponding numbered descriptions for each tool function listed below. Data in the screenshot below are preliminary and subject to change.

The screenshot below contains preliminary data that are subject to change. This is an example of the appearance of the interactive web application.

1. ***Laboratory-Confirmed COVID-19-Associated Hospitalizations Graph –*** This graph displays the cumulative and weekly rates per 100,000 population of laboratory-confirmed COVID-19-associated hospitalizations.

2. ***Zoom/Info Tool –*** To see detailed information, use your mouse to hover over a point on a line. If lines are overlapping, the tool will display information for all the overlapping points. To zoom in on a specific area of the graph, hold down the Atl key, right-click and hold down your mouse and drag a box around the area of interest. To reset the zoom, double click within the chart area.

3. ***Display By –*** Click on the buttons (top left of the graph) to choose between cumulative or weekly rates. "Cumulative Rate" will display the preliminary cumulative crude incidence rates for the selected surveillance groups. "Weekly Rate" will display the preliminary weekly crude incidence rates for the selected surveillance groups.

4. ***View Rates by –*** A single click on the drop-down menu will reveal three options to select from: age group, sex, and race and ethnicity. Selecting "Age Group" will display a box with checkboxes to view overall rates and rates for specific age groups: <18, 0–4, 5–17, 5–11, 12–17, ≥18, 18–49, 18–29, 30–39, 40–49, 50–64, 65+, 65–74, 75–84, and 85+ years. "Sex" will display a box with options to view overall rates and rates by sex (male and female). "Race/Ethnicity" will display a box with checkboxes to view overall rates, as well as rates among persons who are White, Black, Hispanic or Latino, Asian Pacific Islander, and American Indian or Alaska Native.

5. ***Additional Charts –*** A single click on the drop-down menu will reveal four options to select from: surveillance site, age group by site, sex by site, and race and ethnicity by site. Selecting "Surveillance Site" will display a box with checkboxes to view overall rates and rates for selected COVID-NET surveillance sites. To select a specific area, select a state or a surveillance area network. The networks are the COVID-19-Associated Hospitalization Surveillance Network (COVID-NET) (EIP and IHSP surveillance networks combined), Emerging Infections Program (EIP) only, and Influenza Hospitalization Surveillance Project (IHSP) only. "Age Group by Site" will display a box with checkboxes to view overall rates and rates for specific age groups by surveillance site. "Sex by Site" will display a box with checkboxes to view overall rates and rates by sex (male and female) by surveillance site. "Race Ethnicity by Site" will display a box with checkboxes to view overall rates, as well as rates among persons who are White, Black, Hispanic or Latino, Asian Pacific Islander, and American Indian or Alaska Native.

6. ***MMWR Week Slider Bar –*** Data are displayed by MMWR week. Located above the graph, the MMWR week is the week of the year that local or state health departments use for disease incidence reporting and publishing. The weeks are assigned according to the calendar date on which the week ends. Values for MMWR week range from 1–53, although most years consist of 52 weeks.

   To see data for a specific MMWR week, use the cursor to move slider button across the week numbers. A grey line will be displayed on the chart(s) to indicate the location of the selected MMWR week on each chart. The buttons with green and white arrow icons can also be used to move the slider from week to week.

7. ***Download Image Button –*** To create an image of the data displayed in the current view, click the "Download Image" button (top right of the site). A file download dialog will appear with options to open, save or discard (cancel) the currently displayed chart(s).

8. ***Download Data Button –*** To create a copy of the data in the current view or to create a custom dataset, click the "Download Data" push button (top left of the site). The Download Data dialog will appear with two options: download the data as shown in the graph (by selecting the first radio button) or create a custom download (by selecting the second radio button). Custom downloads allow the user to select the Surveillance Area and Age Group for which the user would like to see the data. Once the data selection has been made, click the Download Data button to save or discard the Microsoft Excel file.

9. ***Help –*** The "Help" menu button provides a detailed overview and describes the full functionality of the COVID-NET web application.