



## COVID-19

# Reporting COVID-19 Vaccinations in the United States

Updated Feb. 18, 2022

CDC's COVID Data Tracker provides COVID-19 vaccination data in the United States. Please visit the [About COVID-19 Vaccine Delivered and Administration Data](#) to better understand the IT systems behind the COVID-19 Data Tracker.



### COVID-19 Data Tracker

View data on [COVID-19 Vaccinations in the United States](#)

## Federal Agency Data

CDC COVID Tracker publicly displays federal agency data individually by agency and incorporates federal agency vaccination data into national and jurisdictional progress metrics.

- Federal agency data are included as part of the national total for each metric presented. These data exclude the Department of State.
- Federal agency data are presented in aggregate by agency in call-out boxes in the COVID-19 Vaccine Data Tracker.
- Federal agency data are ***also included as part of jurisdiction, state, or territory aggregate metrics***. To avoid duplicate counts, the agency data ***should not be combined*** with other data.
- When a federal agency has agreed to provide the denominator representing the population served by the agency, the rate per 100,000 is calculated. When the denominator data are not available, the rate per 100,000 is not included.
- On **January 19, 2022**, CDC changed the address algorithm for the Bureau of Prisons (BOP) and Department of Defense (DOD) to better align vaccine administration counts with the residential county of the recipient instead of the county where vaccine was administered. The change produced no net change for vaccination records at the national level and minimal impact at the jurisdiction level. The greatest impact was at the county level.
  - Residential counties located near DOD facilities will see increases in vaccine administration counts, and counties where DOD facilities are located will see decreases in vaccine administration counts.

## How CDC Estimates Vaccination Coverage

CDC estimates the number of people receiving at least one dose, the number of people who are fully vaccinated, and the number of people with a booster dose. CDC estimates are based on data that includes a dose number (first, second, booster or additional dose). To protect the privacy of vaccine recipients, CDC receives data without any personally identifiable information (de-identified data) about vaccine doses. Each jurisdiction or provider uses a unique person identifier to link records within their own systems. However, CDC cannot use the unique person identifier to identify individual people by name.

There are challenges in linking doses when someone is vaccinated in different jurisdictions or from different providers. Even with the high-quality data CDC receives from jurisdictions and federal entities, there are limits to how CDC can analyze those data. If a person received doses in more than one jurisdiction or from different providers within the same jurisdiction, they

could receive different unique person identifiers for different doses. CDC may not be able to link multiple unique person identifiers for different jurisdictions or providers to a single person.

For example, most people receive their first and second dose of a 2-dose vaccine from the same provider because those doses are given within just a few weeks of each other. As they receive their booster dose months later, it's possible they will go to a new location for that dose. The person may have moved or the provider who gave them their initial doses may no longer offer vaccination. This often happens for people who went to mass vaccination clinics that have since closed. In such a scenario, the person's booster dose may appear to be their first dose when reported. This is just one example of how CDC's data may over-estimate first doses and under-estimate booster doses.

Another issue that poses challenges to estimating doses administered is that different jurisdictions and providers use different reporting practices. As people receiving doses are attributed to the jurisdiction in which they reside, the reporting method might change between doses if they move to a different vaccination location. Also, CDC may lack information about a person's residence. These issues can cause CDC's dose number estimates to differ from those reported by jurisdictions and federal entities.

CDC has capped estimates of vaccination coverage shown on [COVID Data Tracker](#) at 95%. This cap helps address potential overestimates of vaccination coverage due to first, second, and booster doses that were not linked. Other reasons for overestimates include census denominator data not including part-time residents or potential data reporting errors. Previously, CDC had capped estimates of vaccination coverage at 99.9%. CDC changed the cap to 95% on December 9, 2021 to account for differences in the accuracy of vaccination coverage estimates between different jurisdictions.

**CDC encourages people to bring their CDC COVID-19 Vaccination Record card with them to their appointment for another COVID-19 vaccine shot** because having the card will help ensure the doses are linked.

## Fully Vaccinated and Johnson and Johnson's Janssen Vaccine

The number of people fully vaccinated by the Johnson and Johnson Janssen (J&J/Janssen) vaccine does not equal the total number of J&J/Janssen vaccine doses administered because some persons were reported to have received one or more mRNA vaccines prior to receiving the single-dose J&J/ Janssen vaccine.

## Timing of Updates

Data will be updated daily after review and verification, usually between 1:30 pm and 8:00 pm ET. Note: Daily updates might be delayed due to delays in reporting.

- Data on doses of vaccine distributed and administered include data received by CDC as of 6:00 am ET on the day of reporting.
- There will be no updates on federal holidays.

## Jurisdictional Reporting Conditions

**Texas** has historically provided COVID-19 vaccination administration data to CDC in aggregate format, which impacted CDC's ability to report metrics requiring information at the individual dose level. Although Texas still reports vaccinations data in aggregate form, Texas and CDC recently collaborated to update the format of this record submission to improve COVID-19 reporting of Texas' data on CDC's COVID Data Tracker at the national, state, and county levels.

Previously, for Texas, CDC estimated the number of people with at least one dose and the number of people who are fully vaccinated for the populations ages  $\geq 12$ ,  $\geq 18$ , and  $\geq 65$  years of age in the metrics for Texas alone and when including Texas in the national level metrics on the [Vaccinations in the U.S.](#) site. Additionally, Texas was omitted from several demographic and county-level graphics pages. Further, prior to October 22, 2021, all records reported by Texas were assumed to be for residents of Texas.

- Beginning **September 28, 2021**, age-based metrics for Texas are directly reported rather than estimated for the populations  $\geq 12$  years of age,  $\geq 18$  years of age, and  $\geq 65$  years of age on the [Vaccinations in the U.S.](#) site.

- Beginning **September 28, 2021**, the national counts for booster dose data on the [Vaccinations in the U.S.](#) site include Texas.
- Beginning October 22, 2021, county-level graphics on [Vaccinations by County](#), [Vaccination Equity](#), and [Vaccinations and Other Outcomes](#) include Texas.
- Beginning **October 22, 2021**, CDC is able to attribute non-residents of Texas to their respective state or territory of residence. Texas residents who received a COVID-19 vaccination in a different state or territory are also now attributed to Texas' population-based metrics.
- Beginning **November 18**, the [Vaccination Demographics](#) and [Demographic Trends](#) sites include vaccination demographic information from Texas.

**Idaho** provides vaccine data only for vaccine recipients who are 18 years and older, in line with state laws. COVID-19 vaccination administration data is unavailable for the [Vaccinations in the US](#) and [Vaccinations by County](#) pages for the population aged less than 18 years.

**New Hampshire** lifted its national COVID-19 emergency response declaration in May 2021, which allows vaccine recipients to opt out of having their COVID-19 vaccinations included in the state's Immunization Information System registry. As such, data submitted by New Hampshire since May 2021 may not be representative of all COVID-19 vaccination occurring in the state.

## COVID-19 Vaccinations in the United States Data Definitions

### Total Doses Delivered; Total Count

The total number of vaccine doses that have been delivered to the following locations

- jurisdiction (state, territory, tribe, or local entity) partner clinics,
- retail pharmacies,
- long-term care facilities,
- dialysis centers participating in the Federal Dialysis Center Program,
- Federal Emergency Management Agency (FEMA) partner sites,
- Health Resources and Services Administration (HRSA) partner sites, and federal entity facilities (e.g., Department of Defense, Veterans Health Administration, Indian Health Service, and Bureau of Prisons) in that jurisdiction.

For states, Washington DC, the US Virgin Islands, and Puerto Rico, total counts of COVID-19 vaccine doses include doses delivered since December 14, 2020.

For the Republic of Palau, the Federated States of Micronesia, the Republic of the Marshall Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands, total counts of COVID-19 vaccine doses include doses marked as shipped in VTrckS since December 13, 2020.

### Doses Delivered; Rate per 100,000

The total number of vaccine doses delivered for every 100,000 people (overall, per the population ages 5 years and older, per the population ages 12 years and older, per the population ages 18 years and older, and per the population ages 65 years and older) is calculated. This allows comparison between areas with different population sizes.

### Total Doses Administered; Total Count

The total number of vaccine doses that have been given to people in the United States since December 14, 2020. This is the date when the first dose was administered to a person in the United States under the Emergency Use Authorization not within a clinical trial. Doses administered in a jurisdiction (state, territory, tribe, or local entity) include those administered in:

- jurisdictional (state, territory, tribe, or local entity) partner clinics,
- retail pharmacies,
- long-term care facilities,

- dialysis centers participating in the Federal Dialysis Center Program,
- Federal Emergency Management Agency (FEMA) partner sites,
- Health Resources and Services Administration (HRSA) partner sites, and
- federal entity facilities (e.g., Department of Defense, Veterans Health Administration, Indian Health Service, and Bureau of Prisons) in that jurisdiction.

### **Total Doses Administered; Rate per 100,000**

The total number of vaccine doses given for every 100,000 people (overall, per the population ages 5 years and older, per the population ages 12 years and older, per the population ages 18 years and older, and per the population ages 65 years and older). This allows comparison between areas with different population sizes.

### **People Receiving at Least One Dose; Total Count\* (Formerly “Receiving 1 or More Doses”)**

Represents the total number of people who received at least one dose of COVID-19 vaccine, including those who received one dose of the single-shot J&J/Janssen COVID-19 vaccine.

- This metric includes everyone who has received only one dose and those who received more than one dose.
- For this measure, CDC’s COVID Data Tracker attributes each dose to the jurisdiction (state, territory, tribe, or local entity) in which the person resides.

### **People Receiving at Least One Dose; Percent (%) of the Population\***

Represents the percent of people who received at least one dose of COVID-19 vaccine, including those who received one dose of the single-shot J&J/Janssen COVID-19 vaccine. This metric includes everyone who has received only one dose and those who received more than one dose.

- For this measure, CDC’s COVID Data Tracker attributes each dose to the jurisdiction (state, territory, tribe, or local entity) in which the person resides. This includes doses administered by FEMA partner sites, HRSA partner sites, and federal entity facilities.
- Estimates for the total population, population of those ages 5 years and older, population of those ages 12 years and older, population of those ages 18 years and older, and population of those ages 65 years and older are used as the denominators to calculate these percentages.

### **People Who Are Fully Vaccinated; Total Count\* (Formerly “Receiving 2 Doses”)**

Represents the number of people who have received the second dose in a two-dose COVID-19 vaccine series or one dose of the single-shot J&J/Janssen COVID-19 vaccine.

- For this measure, CDC’s COVID Data Tracker attributes each dose to the jurisdiction (state, territory, tribe, or local entity) in which the person resides.

### **People Who are Fully Vaccinated; Percent (%) of the Population\***

Represents the percent of people who have received the second dose in a two-dose COVID-19 vaccine series or one dose of the single-shot J&J/Janssen COVID-19 vaccine.

- For this measure, CDC’s COVID Data Tracker attributes each dose to the jurisdiction (state, territory, tribe, or local entity) in which the person resides. This includes doses administered by FEMA partner sites, HRSA partner sites, and federal entity facilities.
- Estimates for the total population, population of those ages 5 years and older, population of those ages 12 years and older, population of those ages 18 years and older, and population of those ages 65 years and older are used as the denominators to calculate these percentages.
- This definition differs from the current [CDC Interim Clinical Considerations](#) in two ways:

1. According to the interim guidance, the second dose of Pfizer-BioNTech and Moderna vaccines should be administered as close to the recommended interval as possible, but not earlier than recommended (i.e., 3 weeks for Pfizer-BioNTech or 4 weeks for Moderna). However, second doses administered within a grace period of 4 days earlier than the recommended date for the second dose are still considered valid. If it is not feasible to adhere to the recommended interval and a delay in vaccination is unavoidable, the second dose of Pfizer-BioNTech and Moderna COVID-19 vaccines may be administered up to 6 weeks (42 days) after the first dose. Currently, only limited data are available on efficacy of mRNA COVID-19 vaccines administered beyond this window.
2. To ensure adequate time for an immune response to occur, a person is considered fully vaccinated 2 weeks after completion of a two-dose mRNA series or one dose of Janssen vaccine.

### People Who Received a Booster Dose

Represents the total number of fully vaccinated people who later received another dose of any COVID-19 vaccine on or **after August 13, 2021**. This does not distinguish if the recipient is [immunocompromised and received an additional dose](#). People who are fully vaccinated are those who received the second dose in a two-dose COVID-19 vaccine series or one dose of the J&J/Janssen COVID-19 vaccine.

Learn more about [CDC's recommendations for COVID-19 vaccine booster doses](#).

On **September 30th, 2021**, this language was changed to reflect the recommendation for booster doses. People who received an additional dose since August 13, 2021 are included in this count.

### People Who Are Eligible to Receive a Booster Dose

Represents the total number of fully vaccinated people who are eligible to receive another dose of an mRNA COVID-19 vaccine if it has been at least 5 months since their completed Pfizer-BioNTech or Moderna primary series or at least 2 months since their completed J&J/Janssen single-dose vaccine. Completion of a primary series does not distinguish if the recipient is [immunocompromised and received an additional dose](#). This measure excludes recipients who received an "Other" primary series vaccine type.

### Rates per 100,000

Represent the rate of total doses delivered, the rate of total doses administered, the rate of people receiving at least one dose, and the rate of people who are fully vaccinated per 100,000. The total population, population of those ages 5 years and older, population of those ages 18 years and older, and population of those ages 65 years and older are used as estimates to calculate rates for total doses delivered and total doses administered. In some limited circumstances, people might receive vaccinations outside the jurisdiction (state, territory, tribe, or local entity) where they live. These rates currently account for vaccinations that occur in the jurisdiction where the vaccination was administered.

### Percent of the Population

Represents the percent of people receiving at least one dose and the percent of people who are fully vaccinated. The total population, population of those ages 5 years and older, population of those ages 18 years and older, and population of those ages 65 years and older are used as denominators to calculate the percent of the total population, the percent of the population ages 5 years and older, the percent of the population ages 18 years and older, and the percent of the population ages 65 years and older who have received at least 1 dose or who are fully vaccinated. The percent of the total population was derived using the location of residence.

CDC has capped estimates of vaccination coverage shown on [COVID Data Tracker](#) at 95%. This cap helps address potential overestimates of vaccination coverage due to first, second, and booster doses that were not linked. Other reasons for overestimates include census denominator data not including part-time residents or potential data reporting errors. Previously, CDC had capped estimates of vaccination coverage at 99.9%. CDC changed the cap to 95% on December 9, 2021 to account for differences in the accuracy of vaccination coverage estimates between different jurisdictions.

\*CDC determines the **number of people receiving at least one dose** and the **number of people who are fully vaccinated** based on information that state, territorial, tribal, and local public health agencies and federal entities reported to CDC on dose number, dose manufacturer, administration date, recipient ID, and date of submission. Because the method used to determine dose numbers needs to be applied across multiple jurisdictions (states, territories, tribes, or local entities) with different reporting practices, **CDC's dose number estimates might differ from those reported by jurisdictions and federal entities. People receiving doses are attributed to the jurisdiction in which the person resides. When the vaccine manufacturer is not reported, the recipient is considered fully vaccinated with two doses.**

## Reporting COVID-19 Vaccination Demographics

Demographic data are currently collected by the jurisdiction and reported to CDC. Not all states and territories report to CDC demographic data on vaccine recipients; the laws in each state or territory dictate whether the state can collect or report demographic data. For more information on vaccine distribution and administration demographic data, see [Demographic Characteristics of Persons Vaccinated During the First Month of the COVID-19 Vaccination Program — United States, December 14, 2020–January 14, 2021](#)

## Downloading Data

Users can download .CSV files of all data presented on CDC's COVID Data Tracker. Additional vaccination data sets for COVID-19 and other diseases can be found at <https://data.cdc.gov/browse?category=Vaccinations>.

### More Information

[COVID-19 Vaccine Data Systems](#)

[How COVID-19 Vaccines Get to You](#)

Last Updated Feb. 18, 2022