



COVID-19

Reporting COVID-19 Vaccination Demographic Data

Updated Dec. 20, 2021

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 [Demographic Characteristics of People Receiving COVID-19 Vaccinations in the United States](#) and [Demographic Trends of People Receiving COVID-19 Vaccinations in the United States](#)

Demographic Data Reported to CDC

These data represent a subset of individuals in jurisdictions (states, territories, and local entities) for whom data have been reported. All reported numbers may change over time as historical data are reported to CDC.

Demographic data are currently collected by the jurisdiction and reported to CDC. Not all states and territories report demographic data on vaccine recipients to CDC; 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](#). CDC is working with jurisdictions to provide more information on the demographic characteristics of vaccinated people.

Age, sex, and race/ethnicity completeness varies by each demographic variable but is less than 100%. Completeness of reporting for race/ethnicity, age and sex are summarized on the [Demographic Trends page](#). This will result in vaccination coverage appearing lower when displayed as a percentage of the total US population on the [Demographics page](#).

Percentages displayed on the demographic pages represent the percent of people vaccinated for whom the demographic variable of interest is known.

Prioritized Populations

Prioritized populations differ within each jurisdiction's vaccination phase. Therefore, these data may not be generalizable to the entire US population.

Multiple Sources

The demographic data include people vaccinated through all parts of the program, including those vaccinated through pharmacies, the Federal Pharmacy Partnership for Long-Term Care (LTC) Program, and federal entities.

Missing Data

The demographic data reported have varying degrees of missing data and are not generalizable to the entire population of individuals with COVID-19 vaccination. Missing data may be influenced by:

- inconsistent collection of race and ethnicity information at the time of vaccination,
- differences in jurisdictional electronic data programs,
- as well as some jurisdictional policies or laws that do not allow demographic data to be reported.

Exceptions to Demographics Data

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

Emergency Use Authorization and Age

Emergency Use Authorization has been granted for use of the Pfizer-BioNTech vaccine among people ages 5 and older and for use of both the Moderna vaccine and the Johnson and Johnson Janssen vaccine among people ages 18 and older. Therefore, vaccine use is limited among those under age 18.

Timing of Updates

Data will be updated as soon as they are reviewed and verified, often before 8:00 pm ET each day. However, daily updates may take longer if there are any delays in data reporting.

- Data on doses of vaccine administered included data received by CDC as of 6:00 am ET on the day of reporting.
- Vaccination data on the CDC COVID Data Tracker are updated daily (including weekends) between 1:30 pm and 8:00 pm ET.
- Updates will occur the following day when reporting coincides with a federal holiday.

COVID-19 Vaccinations Demographic Data Definitions

People receiving at least one dose*

Represents the total number of people who have received at least one dose of vaccine.

People who are fully vaccinated*

Represents the number of people who received a second dose of a two-dose vaccine or one dose of a single-shot vaccine.

- For reporting on CDC COVID Data Tracker, CDC counts people as being “fully vaccinated” if they received two doses on different days (regardless of time interval) of the two-dose mRNA series or received one dose of a single-dose vaccine.
- 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 [Pfizer-BioNTech] or 1 month [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 greater than or equal to 2 weeks after completion of a two-dose mRNA series or single dose of Janssen vaccine.

*The number of people receiving at least one dose and the number of people who are fully vaccinated were determined based on information reported to CDC by jurisdictions (states, territories, and local entities) and federal entities on dose number, vaccine manufacturer, administration date, recipient ID, and date of submission. Because the method used to determine dose numbers needs to be applied across multiple jurisdictions 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 lives.**

Percent of the Population Metrics

CDC calculates measures of vaccination among the entire population and among select demographic groups.

- The metrics used for rate and percentage calculations are from the [Census Bureau Annual Estimates of the Resident Population for the United States and Puerto Rico, 2019](#) [↗](#) .
- CDC uses [2020 US Census International Data Base](#) [↗](#) estimates for American Samoa, Federated States of Micronesia, Guam, Republic of the Marshall Islands, Republic of Palau, Republic of the Marshall Islands, and U.S. Virgin Islands.

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 of vaccination coverage 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. Learn more about [how CDC estimates vaccination coverage](#).

Historical Updates

- On **November 18, 2021**, CDC updated the demographic data to use the date of vaccine administration instead of the date when the vaccination was reported to CDC.
- Beginning **November 18, 2021**, vaccination demographic data now include Texas.
- On **August 31, 2021**, CDC updated its algorithm for assigning a race/ethnicity category for vaccine recipients to align with U.S. Census Bureau race/ethnicity classifications. As a result, approximately 4.5 million vaccine recipients where a valid race was reported in conjunction with "other" race who were previously categorized as "Non-Hispanic Multiracial" are now categorized into a single race/ethnicity group.
- Beginning **August 9, 2021**, submitting entities will have the ability to update or delete previously submitted records using new functionality available in CDC's Data Clearinghouse. Use of this new functionality may result in fluctuations across metrics on the CDC COVID Data Tracker as historical data are updated or deleted. The functionality will also allow for more accurate reporting and improved data quality.
- Demographic Trends of People Receiving COVID-19 Vaccinations in the United States previously showed "date administered" erroneously. This has been replaced with "date reported to CDC" as of **June 24, 2021**.
- On **May 16, 2021**, the total number of administered doses for the US and New Hampshire were incorrectly reported by an additional 619,920 records. This was due to an error in data processing that is being corrected. The data for **May 17, 2021** will account for this error. The correct numbers for **May 16, 2021** are 272,925,287 for the US, and 1,211,530 for New Hampshire.
- On **May 13, 2021**, the number of persons aged <18 years, who had received at least 1 dose of vaccine was incorrectly reported as 3,687,617 on the Vaccinations Demographics page. This was due to inclusion of those ages 18 years in the <18 years group. This error has been corrected. The correct number for May 13, 2021 is 2,340,538.
- On **April 13, 2021**, the total doses administered data posted to Tracker inadvertently included 221,081 duplicate doses affecting Vermont (6,605), Georgia (102,711), Illinois (64,886), West Virginia (60), and Maine (46,819). The issue has since been resolved and totals for April 14, 2021 accurately reflect the total doses administered.
- On **April 6, 2021**, improvements in reporting vaccine recipient race/ethnicity data to CDC resulted in an increase in the number of people for whom race/ethnicity data are available. These improvements will continue to allow for better

race/ethnicity data reporting.

- Due to a data synchronization error between **April 3 and 5, 2021**, the daily count of doses reporting “Unknown Age” in the COVID-19 Case Surveillance Public Use Data incorrectly appeared higher than expected. The issue was resolved on April 6, 2021, and the count of doses reporting “Unknown Age” now accurately reflects the totals reported to CDC.
- Since **March 29, 2021**, the total number of doses delivered, and total number of doses administered by dialysis centers participating in the Federal Dialysis Center Program are reflected in national totals and in jurisdictional totals.
- Due to a delay in data syncing on **March 13, 2021**, 4,575,496 new doses administered were initially reported, which included records that were reported after 6:00 AM ET (the regular cutoff time for daily reporting). The site has since been updated to reflect the totals reported as of March 13 at 6:00 AM ET. Totals for **March 14, 2021** reflect the number of doses reported through the regular daily reporting period.
- As of **March 12, 2021**
 - Age: The algorithm used to calculate the age of persons who have received vaccine has been updated to address variability in how jurisdictions report age-related information (e.g., report date of birth, year of birth, age).
 - Census: To calculate national population estimates, CDC uses, as a denominator, a combination of:
 - The 2019 National Census Population Estimates from the US Census Bureau Annual Estimates of the Resident Population for the United States (including the District of Columbia [DC]) and Puerto Rico and the US Census Bureau 2018 population estimates and CIA World Factbook for US territories and freely associated states (American Samoa, the Federated States of Micronesia, Guam, the Commonwealth of Northern Mariana Islands, Republic of Palau, the Republic of the Marshall Islands, and US Virgin Islands).
 - To estimate the 18+ and 65+ populations for US territories, CDC assumes that the proportions of people ages 18 years and older and people ages 65 years and older in the territories are the same as in the aggregate of the 50 states, DC, and Puerto Rico (78% and 17%, respectively).
- Doses reported as administered before the beginning of the national vaccination program on 12/14/2020 are not included in the figures but are included in the cumulative count of total doses administered in the CDC COVID Tracker.

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](#)

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