



Frequently Asked Questions about COVID-19 Vaccination Data

Updated July 1, 2022

CDC reports COVID-19 vaccination data online on [COVID Data Tracker](#) and in vaccination [datasets](#). Sharing timely and accurate information with the public is one of CDC's core activities. Timely and accurate reporting from jurisdictions provides the reliable data that can be reported by CDC. All reported numbers may change over time as updated data are continuously reported to CDC.

COVID-19 Vaccine Distribution and Tracking

How are COVID-19 vaccines distributed?

Distribution is the process of shipping vaccines to provider locations, as directed by jurisdictions, federal agencies, and pharmacy partners who are enrolled in the [CDC COVID-19 Vaccination Provider Program](#). Vaccine delivery to provider locations is the last part of the distribution process.

Vaccine Data Reporting

How are vaccine distribution data reported to CDC?

Jurisdictions (states, territories, tribes, and local entities), federal agencies, and pharmacy partners use the [Vaccine Tracking System \(VTrckS\)](#) to order vaccines from the federal government. VTrckS records information such as vaccine manufacturer, provider data, orders, shipments, and inventory. With one exception, distribution and delivery of COVID-19 vaccines and other routine vaccines are accomplished through a federal delivery system. Pfizer-BioNTech distributes and delivers doses of its COVID-19 vaccine through its own delivery system.

How are vaccine administration data reported to CDC?

Data on COVID-19 vaccine doses administered in the United States and territories are recorded by vaccination providers and reported to CDC through multiple sources, including:

- State, local, and territorial [Immunization Information Systems \(IISs\)](#)
- [Vaccine Administration Management System \(VAMS\)](#), which supports vaccination clinics in jurisdictions, federal agencies, and multi-state healthcare organizations
- Direct data submissions to the [COVID-19 Data Clearing House](#)

The [COVID-19 Vaccination IT Overview](#) provides an overarching view of the vaccine IT data systems and how they

How does CDC report vaccine distribution and administration data?

CDC uses the Immunization (IZ) Data Lake to receive, store, manage, and analyze COVID-19 vaccine distribution and administration data from all sources. Data in the IZ Data Lake are deidentified, meaning they do not identify specific people who have been vaccinated. CDC data scientists make every effort to ensure the data in the IZ Data Lake are correct (validated) and that the system does not double-count doses or vaccination records. (deduplication). CDC reports COVID-19 vaccination data online on [COVID Data Tracker](#) and in vaccination [datasets](#).

Does CDC report COVID-19 vaccine wastage?

CDC is tracking the number of manufactured vaccine doses that are not administered (wastage). A small amount of vaccine will go unused in any vaccination program. This information is not currently available on the COVID Data Tracker.

Data Variations

How does CDC manage data from multiple sources?

Data on COVID-19 vaccine doses administered in the United States are collected by the following vaccination providers: public health jurisdictions, federal entities, healthcare providers, long-term care facilities, employers, retail pharmacies, and other businesses. These providers report COVID-19 vaccination data to CDC through multiple sources using various reporting methods. Because CDC removes duplicate records, data presented on the COVID Data Tracker might differ from data listed in jurisdictional Immunization Information Systems (IIS) and dashboards. CDC makes every effort to reconcile doses administered that are reported through more than one system.

What are the reporting limitations and variations in COVID-19 vaccine data?

- Each state or territorial health department is responsible for establishing internal operations and schedules for reporting data. As a result, there are differences among states in the frequency of reporting.
- Data on doses of vaccine delivered and administered include data received by CDC as of 6:00 am ET on Wednesday, the day of weekly reporting. Vaccination data in CDC's COVID Data Tracker are updated weekly on Thursday between 1:30 pm and 8:00 pm ET. On federal holidays, updates will occur the following day.
- Data can be updated on different schedules and reflect data "as of" different dates or times of day. There can be a delay between the time a vaccination record appears in a jurisdictional or federal system and when it is received by CDC. **COVID Data Tracker's vaccination data typically have a lag time from vaccination data shown on a state's website. The amount of lag time varies for each state.** This can be due to the factors described above, or because a jurisdiction uploads data after the 6:00 am ET Wednesday reporting cutoff.
- Healthcare providers are expected to report doses administered to federal, state, territorial, tribal, and local agencies within 72 hours of administration. There are often significant differences between the number of doses distributed and the number of people who are vaccinated. This is due to several factors, including the time it takes for doses delivered to be administered, the time it takes for administered doses to be reported to CDC, and how jurisdictions and federal pharmacy partners manage available vaccine stock to meet local demands.

Why do data vary between the CDC COVID Data Tracker and state health department websites?

For the most complete and up-to-date data for any particular county or state, visit the relevant health department website. Vaccination data reported on the CDC COVID Data Tracker might differ from data reported by jurisdictions for a number of reasons. For example:

- Data quality: CDC receives administration data across multiple jurisdictions with different reporting practices. To reduce potential duplication across systems, CDC reconciles these data prior to reporting.
- Data completeness: Jurisdictions may have more complete and updated data for certain data elements (e.g., county of residence) that allow them to characterize their population more fully than the CDC. Thus, vaccination coverage reported on the CDC COVID Data Tracker may appear artificially low due to systematic missing data reported to CDC.
- Data availability: Data on the CDC COVID Data Tracker represent all vaccine partners including jurisdictional partner clinics, retail pharmacies, long-term care facilities, dialysis centers, Federal Emergency Management Agency and Health Resources and Services Administration partner sites, and federal entity facilities. These additional data streams may not be available to jurisdictions and therefore may not be included in totals presented on jurisdictional dashboards.
- Data definition: CDC's COVID Data Tracker attributes dose administrations to the jurisdiction (state, territory, tribe, or local entity) administering those doses and attributes people receiving COVID-19 vaccine to the jurisdiction where the vaccine recipient resides. Additionally, 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 reported by jurisdictions that includes a dose number (first, second, booster or additional dose). This may differ from how jurisdictions attribute their doses.
- Population definition: CDC includes all age groups in the *Total Population* calculations to provide a better measure of community immunity. Jurisdictions may use more targeted population counts for the denominators in their rate calculations (for example, people over age 18), which would result in values different than those reported on the CDC COVID Data Tracker

CDC Publicly Available Data

How often are COVID-19 vaccination data updated?

Data will be updated weekly on Thursday after review and verification, usually between 1:30 pm and 8:00 pm ET.

Note: Beginning June 13, 2022, instead of daily, jurisdictions and other partners report vaccine administration and delivery data to CDC weekly on Wednesdays by 6:00 AM ET. As a result, instead of daily, the following COVID Data Tracker tabs will be refreshed weekly on Thursday by 8:00 PM ET: [Vaccinations in the United States](#), [Vaccinations by County](#), [Vaccination Trends](#), [Vaccination Demographics](#), [Vaccination Demographic Trends](#), [Vaccination Equity](#), [Vaccinations and Case Trends](#), [Vaccinations and Other Outcomes](#).

- Weekly 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 Wednesday, the day of weekly reporting.
- There will be no updates on federal holidays. Data will be updated the following day.

Where can I download COVID-19 data?

Users can download daily cumulative data from CDC's COVID Data Tracker vaccination pages manually or programmatically. Users can also download [historical COVID-19 vaccination data](#) manually or programmatically.

Vaccination Information

Who is eligible for a COVID-19 vaccine?



COVID-19 vaccination is recommended for children of certain ages and all adults, including those who are pregnant. Learn more about staying [up to date with COVID-19 vaccination](#).

Where can I find more information about COVID-19 vaccines?



You can find answers to commonly asked questions about COVID-19 vaccination on CDC's [Frequently Asked Questions about COVID-19 Vaccination](#) page.

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