CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

COVID-19

WEAR A MASK   STAY 6 FEET APART   AVOID CROWDS   GET A VACCINE

About COVID-19 Vaccine Delivered and Administration Data

Updated Mar. 24, 2021   Print

Summary of Vaccination Data

The Centers for Disease Control and Prevention (CDC) is using both new and existing information technology (IT) systems to rapidly collect reliable data about how many doses of COVID-19 vaccines have been delivered (distribution) and how many people have been vaccinated with those doses (administration).

CDC; other Federal agencies; vaccination providers; state, local, and territorial public health departments; and tribal health facilities across the country use vaccine distribution and administration data to inform decisions about COVID-19 vaccination. The COVID-19 Vaccination IT Overview provides an overarching view of the vaccine IT data systems and how they integrate to track COVID-19 vaccine distribution and administration.

CDC publicly reports the number of COVID-19 vaccine doses delivered and administered, as well as vaccine trends and demographic data, through the COVID Data Tracker.

COVID-19 Vaccination Reported Includes:

- COVID-19 Vaccinations in the United States
- Trends in Number of COVID-19 Vaccinations
- COVID-19 Vaccination Demographics
- COVID-19 Vaccine Data from the Jurisdictions and Federal Entities
- COVID-19 Vaccination Data for Long-Term Care Facilities

Reporting COVID-19 Vaccination Data to CDC

Vaccine Delivery (Distribution)

Vaccine Delivery Data Systems

Vaccine Tracking System (VTrckS) is CDC's vaccine order management system.

VTrckS Provider Order Portal (VPOP) is CDC's platform where Federal entity providers report their on-hand COVID-19 vaccine inventory each day.

VaccineFinder is a platform where providers report their on-hand COVID-19 vaccine inventory each day.

Immunization Data Lake (IZ Data Lake) is a cloud-hosted data repository to receive, store, manage, and analyze deidentified COVID-19 vaccination data.

More About Vaccine Delivery

Jurisdictions (states, territories, tribes, and local entities), Federal agencies, and pharmacy partners are responsible for determining the quantity and type of vaccines that will be shipped to provider locations or vaccination provider sites. Distribution is the process of shipping vaccines to provider locations, as directed by jurisdictions, Federal agencies, and pharmacy partners who are enrolled in the COVID-19 Vaccination Program. Vaccine delivery is the last part of the distribution process. Deliveries represent the vaccine doses that have arrived at their destination.

How are vaccine delivery (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, 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 distributes and delivers doses of its COVID-19 vaccine through its own delivery system. More information for how COVID-19 vaccines get to you.

Vaccine Administration (When People Get a Vaccine)

Public health jurisdictions, Federal entities, healthcare providers, long-term care facilities, employers, retail pharmacies, and other businesses are all administering vaccinations to various populations throughout the US. This includes managing vaccine inventories, tracking vaccine doses given to recipients, creating vaccine records, scheduling vaccine appointments, sending appointment reminders, and other administrative functions.

Vaccine Administration Data Systems

- **Immunization information systems (IISs)** Most IISs create a centralized data repository for storing vaccination information specific to that jurisdiction.
- **Vaccine Administration Management System (VAMS)**is an optional, web-based application that supports planning and execution for temporary, mobile, or satellite COVID-19 vaccination clinics. VAMS connects with IISs and sends data to IISs through the COVID-19 Data Clearinghouse.
- **COVID-19 Data Clearinghouse** is a cloud-hosted data repository that receives, deduplicates, and deidentifies COVID-19 vaccination data, which are then used to populate the Immunization (IZ) Data Lake with deidentified data for
- **Immunization Data Lake (IZ Data Lake)**is a cloud-hosted data repository to receive, store, manage, and analyze deidentified COVID-19 vaccination data.

More About These Data Systems

How are vaccine administration data reported to CDC?

Data on COVID-19 vaccine doses administered in the United States and territories are collected 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**

How does CDC report vaccine distribution and administration data?

CDC uses the 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 sure the data in the IZ Data Lake are correct (validated) and that the system does not double-count any doses or vaccination records (deduplication).

CDC reports final, analyzed COVID-19 vaccine distribution and administration data on COVID Data Tracker.

COVID-19 Data Tracker

View data on COVID-19 Vaccinations in the United States

Reporting Limitations and Variation in COVID-19 Vaccine Data

Frequency and Timing

- 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 the day of reporting. Vaccination data in CDC's COVID Data Tracker are updated daily between 1:30 pm and 8:00 pm ET. For 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. **Vaccination data on CDC's COVID Data Tracker are typically at least 48 hours behind a state's vaccination data reports.** This can be due to the factors described above, or because a jurisdiction uploads data after the 6:00 am ET reporting cutoff.

- Healthcare providers are expected to report to federal, state, territorial, tribal, and local agencies doses administered within 72 hours of administration. There could be additional lag for data to be transmitted from the federal, state, territorial, or local agency to CDC. During the 72 hours, users should expect to see a large difference 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.

Technical Issues

Occasionally, technical issues with data processing or transmission will occur. When technical issues arise, CDC works closely with states, territories, tribes, local entities, and federal entities to resolve them.

Multiple Sources

Data on COVID-19 vaccine doses administered in the United States are collected by vaccination providers and reported to CDC through multiple sources, including jurisdictions, pharmacies, and federal entities, which use various reporting methods, including immunization information systems, Vaccine Administration Management System, and direct data submission. When CDC applies validation and business rules

to prevent data duplication, data presented on the COVID Data Tracker might differ from data listed in jurisdictional immunization systems and dashboards. CDC makes every effort to reconcile doses administered that are reported through more than one system.

Federal Entity Data

- The "**Rate per 100,000**" metric displays as "n/a" for federal entities because population-based rates do not apply. Data for federal entities will display when the "Total counts" metric is selected. Veterans Health Administration (VHA) totals include employees, veteran patients, and other federal partners vaccinated by VHA.
- **Veterans Health Administration (VHA) totals** include employees, veteran patients, and other federal partners vaccinated by VHA.

Tribal Nations

CDC's COVID Data Tracker does not include a breakdown of vaccine delivered and administered to Tribal Nations.

Age

Emergency Use Authorization (EUA) has been granted for use of the Pfizer-BioNTech vaccine among people aged 16 years and older and for use of both the Moderna vaccine and the Johnson and Johnson Janssen vaccine among people aged 18 years and older.

- **COVID Tracker and Age:** Therefore, vaccine use is limited among those younger than age 18 years, who represent approximately 22% of the US population. Inclusion of all age groups in these calculations helps to provide a better measure of community immunity.
- **Jurisdictions and Age:** Jurisdictions may use more targeted population counts for the denominators in their rate calculations (e.g., people over age 18 years or over age 16 years), which would result in values different than those reported on the CDC COVID Data Tracker.

Wastage

CDC is tracking the number of manufactured vaccine doses that are not administered (wastage). However, this information is not currently available on the COVID Data Tracker. A small amount of wastage is expected in any vaccination program.

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 Mar. 24, 2021

Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases