Vaccine Data Technical Notes | Maricopa County, AZ

Last Revised: August 24, 2022

This document can be referenced for all data presented on the [Maricopa County Vaccine Data Page](), and includes information about the following:
1. Important vaccine data definitions
2. Data sources used and processing methods
3. GIS methods for Dashboard

Important Definitions

For surveillance purposes, the following definitions are used:

- **1 dose (presented only in dashboard):** any individual who has received *at least one* dose of any of the COVID-19 vaccines (Johnson & Johnson/Janssen, Moderna, Novavax, or Pfizer/BioNTech vaccines).
- **Primary Series Dose**: any dose administered to an individual that is part of a primary vaccine series for the Johnson & Johnson/Janssen, Moderna, Novavax, or Pfizer/BioNTech vaccines. Primary series doses do not include any third doses administered as part of a vaccine series for individuals who are immunocompromised.
- **Completed Primary Series**: any individual who received a 1-dose Johnson & Johnson/Janssen vaccine, two doses of a 2-dose MRNA vaccine (Moderna or Pfizer-BioNTech), or two doses of a 2-dose protein subunit vaccine (Novavax).
- **Booster Dose**: any dose administered to an individual beyond a completed primary series. Booster doses reported could include a third dose vaccine series for individuals who are immunocompromised.
- **Up to Date**: any individual who has received all COVID-19 vaccine doses they are currently eligible for based on their age group and timing (please refer to [CDC]() for current recommendations).

Data Sources and Processing Notes

- Vaccine data included in this report are taken from the Arizona State Immunization Informatics System ([ASIIS]()).
- Population denominators were obtained from the American Community Survey ([ACS]()). These denominators were used to calculate the proportions among the County population overall and within specific demographic groups.
- Up to date status can change for individuals based on updated recommendations for their age group. Therefore, a newly recommended vaccine dose could result in a substantial decrease in the overall up to date population, as it will take time for everyone in that age group to receive their next dose.
- Vaccination data for Maricopa County residents who were not administered vaccine in Maricopa County are included in these data.
- Not all vaccinations administered are reportable to ASIIS (i.e., adult vaccinations).
- 'Another Race' includes anyone who identified as and reported 'Other' race at the time of receiving their vaccination dose.

- Limitations in reporting and collecting demographic information results in missing data (e.g., an individual might not want to report their information). In the race/ethnicity tables, we include individuals who did not report a race or ethnicity or who reported "Unknown" for their race or ethnicity.
- For surveillance purposes, following methodology by CDC, the percent of vaccinated population was capped at 95% by age group. This cap helps address potential overestimates of vaccination coverage due to denominator data being incomplete or other potential reporting errors.

GIS Methods for Dashboard

This map shows the percent of Maricopa County residents who have completed a COVID-19 primary series by ZIP code and city of residence.

- The color displayed on the map indicates the percent of the population in each zip code and city that has completed a primary series.
- Each popup contains the following data:
  - Percent of the population that has completed primary series
  - Rate (per 100,000) of persons in the area that has received at least 1 dose of a COVID-19 vaccine. Rate calculated for all vaccinations administered December 2020 to present.
  - Rate (per 100,000) of persons in the area that has completed a primary series. Rate calculated for all vaccinations administered December 2020 to present.
- There are several zip codes located within Maricopa County that are outside the jurisdiction of MCDPH. Out-of-jurisdiction zip codes have no data displayed on this map.

Data sources for map creation:

- Maricopa County resident vaccine data was obtained from the Arizona State Immunization Information System (ASIIS). ZIP codes and cities are assigned by geocoding the residential address in ASIIS, which is self-reported.
- Maricopa County population and vaccine-eligible population denominators were obtained from Census 2020 estimates calculated by the geographic information system (GIS) software company Esri.