

Using Data and Maps to Inform Vaccine Distribution and Implementation

To improve vaccination among populations of interest, jurisdictions must know where these groups of people are located to ensure they provide access to vaccination services. Create visual maps that show information such as employment locations for the critical infrastructure workforce category or places where people congregate, such as community centers or churches. This can help you plan COVID-19 vaccination clinics, especially for satellite, temporary, or off-site clinics.

Tips for Using Data to Improve Vaccination Program Success

1. Determine the size of the population to reach.

- » Reach out to partner agencies and organizations, including the emergency management agency, labor department, chamber of commerce, business healthcare coalitions, chronic disease/nutrition programs, community-based organizations, and faith-based organizations, to help accurately estimate of the size of the population group.
- » Use electronic health records or administrative data to estimate the size and location of your population of interest.

2. Ensure equitable access. Use mapping tools like CDC's [Social Vulnerability Index](#) or the [Mapping Medicare Disparities Tool](#) to identify areas with health disparities. This can help you determine where additional providers might be needed and the best way to use existing infrastructure as vaccination sites.

3. Map the distribution of the population. Ask the questions below to start identifying what map is needed.

- » Where are the vaccine distribution hubs?
- » Where are the vaccination points such as clinics, pharmacies, and mass vaccination centers?
- » Where are the providers, and what is their capacity?
- » Where are vaccination distribution points within or near your ZIP code?
- » Where are the populations that are disproportionately affected?
- » Where are your populations of interest for each vaccination phase?

4. Consider vaccination barriers for the population. Barriers to vaccination include transportation/drive time, vaccination site hours of operation, and ease of sign-up. Once barriers have been identified for your population, you can map based on demographic characteristics at the county level or lower.

5. Overlay the maps of the population to reach with vaccination providers.

References

CDC | [Vaccination Playbook](#)

CDC | [Vaccination Playbook Annex](#)

CDC | [Vaccination Implementation Strategies to Consider for Populations Recommended to Receive Initial Doses of COVID-19 Vaccine Implementation](#)

Additional Resources

CDC | [Social Vulnerability Index \(SVI\)](#)

CDC | [Cartographic Guidelines for Public Health](#)

Esri | [COVID-19 GIS Hub](#)

Esri | [COVID-19 Vaccine Distribution Tools](#)

GIS | [The Potential role of GIS in COVID-19 Vaccine Distribution](#)



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