

Key Operational Considerations for Jurisdictions Planning to Operate COVID-19 Vaccination Clinics

Introduction

The ultimate public health goal of the US COVID-19 vaccination program is to make COVID-19 vaccine available to all who want to be vaccinated. To achieve this goal, the national vaccination effort will depend on vaccinating people in all communities across the United States in a timely way with the goal to reduce transmission of the virus and diminish the impact of the pandemic on people, communities, and the nation. Administering vaccine to the US population will depend on having an adequate supply of vaccine and multiple vaccination sites that provide convenient access to the vaccine in almost every community. The [National Strategy for the COVID-19 Response and Pandemic Preparedness](#) specifically states that “the federal government — in partnership with state and local governments — will create as many venues for vaccination as needed in communities and settings that people trust” (p. 9). Once there is ample supply of vaccine, activating more venues that can vaccinate large numbers of people a day can “accelerate getting shots into arms and vaccines to the communities that need them most.”

Safe and effective COVID-19 vaccines have been developed and authorized and are being manufactured. Jurisdictions are presently vaccinating people in their target populations.¹ Currently, vaccine is available in growing quantities, with even more vaccine slated to become available soon. Most jurisdictions can provide access to vaccination using a combination of usual vaccination providers (pharmacies and medical providers/community health centers) and a limited number of public health clinics. Many jurisdictions are planning for and operating multiple, temporary, large- and small-scale vaccination sites, both fixed location and mobile, as strategies to vaccinate more of the population rapidly. The Federal Emergency Management Agency (FEMA) is working with jurisdictions to establish [Community Vaccination Centers \(CVCs\)](#). These CVCs can be established as fixed facilities, drive-through facilities, or as mobile vaccination clinics based on a jurisdiction’s needs.

This document focuses on planning for, optimizing, and maximizing vaccinations in a variety of temporary vaccination sites and will be updated as more information is available.

Jurisdictions are currently offering vaccination to targeted populations in a phased approach; planning for increased vaccine supply and additional vaccination venues should also be underway.

¹ Kaiser Family Foundation. State COVID-19 Vaccine Priority Populations. Available from: <https://www.kff.org/other/state-indicator/state-covid-19-vaccine-priority-populations/?currentTimeframe=0&selectedDistributions=current-phase-of-vaccine-distribution&selectedRows=%7B%22wrapups%22:%7B%22united-states%22:%7B%7D%7D%7D&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>



The Centers for Disease Control and Prevention (CDC) offers these three stages of preparation to assist jurisdictions to plan for and launch operations for additional vaccination sites:

- **Plan**
- **Optimize**
- **Maximize**

Plan

Planning for the unprecedented need to vaccinate most of a jurisdiction's population is an iterative and ongoing process. These planning considerations apply to vaccine venues of all types and sizes.

CDC has worked extensively with jurisdictions, including providing an operational [playbook](#), developing [toolkits](#), reviewing jurisdictional plans, and providing technical assistance. In addition, CDC has launched the [Federal Retail Pharmacy Program](#) for COVID-19 Vaccination, engaging national pharmacy chains and networks of independent pharmacies and regional chains and is providing vaccine to these partners as they launch COVID-19 vaccination services.

Pharmacies, public health clinics, and medical facilities will serve as the primary venues for COVID-19 vaccination efforts. Vaccinating a jurisdiction's population will also require planning for and utilizing other venues that can be activated now or when the vaccine supply increases. Jurisdictions should conduct a gap analysis to determine specific geographic areas and specific populations that may benefit from additional sites to improve access to vaccination, especially for hard-to-reach populations or populations that do not have access to established vaccination sites. Planners should assess the optimal time to activate a vaccination site and consider the benefits of focusing vaccinations efforts.

[CDC guidance](#) is available to assist with planning and implementation of vaccination sites. The [Checklist of Best Practices for Vaccination Clinics Held at Satellite, Temporary, or Off-Site Locations](#) outlines CDC guidelines and best practices essential for patient safety and vaccine effectiveness, including guidance for vaccine shipment, transport, storage, handling, preparation, administration, and documentation at temporary clinics.

Other key general considerations when planning for all types of vaccination sites include:

- **Public Health Department leadership:** Since public health officials have the responsibility of conducting and managing an emergency response in their jurisdiction, public health department personnel should be involved in the planning, execution, and operations of any vaccination clinic that is activated in their jurisdiction. Close collaboration between relevant public health, emergency management, federal entities, and private sector will likely be needed to plan for and operate temporary vaccination sites.



- **Identifying target communities:** Temporary vaccination venues can be considered if there are populations or communities that are facing specific challenges and need additional access to vaccinations. A thorough needs assessment should be conducted to identify barriers to vaccination. This is particularly important for those who live in communities with:
 - A high social vulnerability, including rural or resource-scarce communities
 - A sizable population of people with limited English proficiency or low literacy
 - Large proportion of the community is unable to travel due to lack of public transportation
 - Mobility issues or disabilities
 - Affordable internet access is not available
 - Limited access to medical providers or COVID-19 vaccination clinics
 - Racial/ethnic disparities
 - Reach to critical infrastructure workforce or essential workers is difficult
 - Lack of vaccine confidence or vaccine hesitancy

- **Critical partnerships:** Planning for any type of vaccination venue will require close coordination between state and local public health; jurisdictional immunization programs, emergency management, and municipal services; as well as private sector partners. A strong connection, two-way communication, and collaborative planning with local community leaders also will be required to ensure the success of these efforts.

- **Community Outreach:** Continued efforts to improve community outreach may be needed, especially if there is a high level of reluctance or hesitancy toward vaccination in the community. CDC has developed [materials](#) to inform efforts for building confidence in COVID-19 vaccines. [Federal resources](#) are available to jurisdictions to support planning for and operating vaccination sites.

- **Site selection:** Site selection should be informed by input from health departments, emergency management agencies, and community leaders and constituents. Focus on locating venues that are accessible to target populations. A use agreement, appropriate license and space utilization agreement, or memorandum of understanding (MOU) may be needed for use of the space for a vaccination clinic.

Specific site selection criteria can include:

- An assessment of the size of the population to be reached
- The goal for vaccinating that specific population
- Potential demand for services



Site assets and infrastructure must be identified when planning for any type of vaccination site. All venues must be assessed for accessibility, safety, and security. In choosing the site type, also consider:

- Ability to accommodate weather if it is a walk-through, curbside, drive-through, or mobile clinic
- Ability to maintain appropriate vaccine cold chain, storage and monitoring, as well as ability to resupply as needed
- Accessible restrooms
- Accessible waiting areas with adequate space and seating
- Adequate space for entry and exit points, including the one-way clinic flow
- Adequate heating and cooling
- Adequate lighting
- Capacity to accommodate physical distancing of staff and patients and adhere to infection prevention, equipment specifications, and public safety regulation requirements and protocols
- Compliance with Americans with Disabilities Act (ADA) standards, along with ease of accessibility by the elderly and those with disabilities and mobility issues
- Internet access
- Enough power outlets and electrical capacity for clinic needs, including portable vaccine refrigerators and computers, if applicable
- Proximity to population centers and mass transit
- Space for clinic functions such as screening, registration, vaccine storage and preparation, vaccination, waiting areas to monitor for adverse reactions after vaccination, and emergency care
- Traffic flow, parking, entry/exit, and line queue and appropriate and easily understandable signage

It is also important to determine if additional equipment or other assets need to be brought to the site, including a stable power source, lighting, emergency back-up power, vaccine storage units, and robust communications capabilities (e.g., internet connectivity). A secure area with controlled access for storing vaccine (in appropriate cold chain equipment), ancillary supplies, vaccination cards, IT equipment, and other supplies/equipment should be identified. A thorough security assessment should be done, including confirmation that access to the venue can be controlled.

- **Staffing** is a key factor in planning for a vaccination venue. Both non-clinical and clinical staff will be needed. Key roles include those who will serve as site managers/leadership, pre-entrance screeners, greeters/registration staff, parking and traffic control staff, medical screeners, patient educators, vaccine inventory and storage managers, vaccine preparers, vaccinators, security/crowd management, runners, second dose schedulers, data input/management staff, post-vaccination observers (including clinical personnel), and exit managers.



- Securing sufficient qualified staff to fill critical clinical and vaccinator positions can be challenging; therefore, recruiting personnel from the venue, local government, private sector, non-governmental partners, and the federal government may be needed. Recently, an [Amendment](#) to the Public Readiness and Emergency Preparedness (PREP) Act Declaration was enacted to allow more qualified clinical professionals to serve as vaccinators. Ensure vaccinators have been [trained](#) and observed for proper injection technique (see next section on training). Planners should factor in the need for extra qualified clinical staff to allow breaks for vaccinators, especially in large throughput clinics, as well as additional non-clinical staff to fill in during breaks. Additional clinical staff may also be needed so that vaccinators can take a day off from their duties to rest. Assign a small cadre of clinical staff to conduct quality control checks at each venue to ensure that vaccine is being stored, prepared, and administered properly.
- Prior to initiating each day's vaccination clinic, be sure that there are sufficient trained staff available for each station as well as staff to relieve others for breaks and for setup, breakdown, and cleanup duties after each day of operations. Ensure that all staff have masks, other PPE as needed, and access to hand hygiene supplies.
- Having additional non-medical staff to assist and accompany persons from station to station can help with throughput. These staffers can serve as "fill-ins" for non-clinical staff who are on break and refer to clinical personnel or answer patients' questions while they are waiting for their vaccination.
- If it is likely that participants will speak languages other than English, at least some personnel should be conversant in those languages (or translation services should be available).
- It is important that each venue always have at least one trained physician, emergency medical technician (EMT), paramedic, physician's assistant, nurse practitioner, or registered nurse who is certified in basic cardiopulmonary resuscitation (CPR) to administer treatment for allergic reactions and address urgent medical problems. Healthcare personnel who are **trained and qualified to recognize the signs and symptoms of anaphylaxis as well as administer intramuscular epinephrine** should be available at the vaccination location at all times. Vaccination locations that anticipate vaccinating large numbers of people (e.g., mass vaccination clinics) should plan adequate staffing and supplies (including epinephrine) for the assessment and management of anaphylaxis. Larger venues with multiple vaccination pathways may need several highly trained clinicians present at all times.
- **Staff training** is a critical factor for the smooth operation of a vaccination site. Everyone working in a clinic must know their role, their job duties, how their role relates to others, and be qualified and trained to carry out their responsibilities. Ensure that new staff and volunteers are provided adequate [training](#) and orientation before assigning duties. Time should be allotted to train personnel before they assume their roles.



- Training for those administering vaccines must be ongoing as new COVID-19 vaccines become available and as vaccine recommendations are updated. Training materials, checklists, and standard operating procedures for on-site handling and administration of vaccines should be developed and updated using the latest information from the relevant health departments, vaccine manufacturers, US Food and Drug Administration, and [CDC](#).
 - In addition, CDC recommends that all healthcare personnel who administer COVID-19 vaccines receive comprehensive, competency-based training on vaccine administration policies and procedures. Healthcare providers who are not currently practicing or whose license or certification is expired, are [required to undergo an on-site observation period](#) conducted by a currently practicing healthcare professional BEFORE administering vaccines.
 - It is important that all staff (both medical and non-medical) understand the principles of infection control to help ensure the safe delivery of care during vaccination and understand that they must always wear a face mask and maintain distancing between people. All clinical staff must perform proper [hand hygiene](#) between patients.
 - It is important to clearly identify the chain of command so that personnel know which staff to reach to for questions or concerns.
- **Communication about the vaccination site with target population:** Plans to announce the opening of the venue, description of who is eligible to be vaccinated at the facility, and methods for scheduling appointments need to be developed in a culturally appropriate manner.
 - Ensure that target population community leaders can assist in getting the word out to their communities about the dates and times of the vaccination site . Jurisdictions and community or private sector partners can develop plans to publicize the availability of this service.
 - If internet service is not widely available or not used by some populations, ensure that information about the vaccination site is provided by other means including use of radio and television ads, hotlines, and local newspapers.
 - Provide information about the opening of the vaccination venue and signage to be used at the event in languages relevant to the target community and plan to have interpreters at vaccination sites or by telephone for commonly used languages.
 - Ensure that clear information is provided about how to schedule an appointment (if one is required) along with instructions about how to access the vaccination site.
 - **Scheduling appointments for vaccination and preregistration:** Vaccination centers may be operated on an appointment-only basis or, if space and vaccine supply allow, a walk-in/no appointment needed system.



- If a no appointment system is used, ensure adequate security and crowd control.
 - Confirm that all scheduling or booking systems are operated by experienced personnel who can clearly communicate with the target populations about how to schedule a vaccination appointment and have the bandwidth to accommodate a large number of inquiries and interactions.
 - Private sector partners may have “turnkey” scheduling systems that can be modified and launched to ensure that target populations know how, where, and when to seek vaccination.
 - Communication methods that can confirm or reschedule vaccination appointments for each day of operation based on availability of vaccine may be needed.
 - Scheduling systems need to be tested prior to going live.
- **Workflow/separate stations** with personnel conducting various functions need to be planned in detail, including plans to allow for social distancing both between those being vaccinated and staff and among staff at all times. Based on the population served, bilingual staff or translation services may always be needed at each station. Stations can include:
 - **Pre-entry crowd control:** Security or other staff may be needed to manage an orderly queue waiting for facility entry. Floor markers and/or signs should designate physical distancing. Ensure that all people (over the age of 2 years) entering the facility have a mask. Plan to have extra disposable masks on hand in case vaccine recipients need them. Personnel who serve as screeners can check temperatures or ask about symptoms or exposure to COVID-19 of those entering the facility. Signs or posters listing COVID-19 symptoms can be displayed to facilitate this process. Some venues have asked patients to call or text a number when they arrive; patients are then asked to stay in their vehicles until they are summoned for their appointment to reduce crowding in the facility. Weather conditions need to be considered when planning areas for pre-entry queuing and tents may be needed to shelter those who are waiting to enter the facility. Staff to manage traffic control and parking may also be needed.
 - **Greeters:** Staff members who greet those coming into the facility can direct them to waiting areas or registration stations. Ensure all who enter the facility are wearing a mask,
 - **Registration:** Staff will verify patient’s name, time, and date of appointment (and other information, as needed) and in some cases, may ask that they show a form of identification. Staff will also screen patients for [medical contraindications](#) and precautions to vaccination. The EUA Fact Sheet for Recipients and Caregivers must be provided about the vaccine that will be administered.



- **Medical screeners:** If Registration staff note that a person has mentioned a medical eligibility question or possible contraindication, they will be referred to the medical screening station. CDC has provided guidance with criteria for [triage of persons presenting for COVID-19 vaccination](#).²
- **Waiting/patient education areas:** People may need to wait until they are called to receive their vaccine. Vaccine information and/or videos can be offered in the waiting area to provide information about the vaccination process and the vaccine. Determine how people waiting will be notified that it is their turn for vaccine administration. Utilize roving “concierges” while people are waiting for their vaccination to answer questions, give information about waiting times, and address concerns for those expressing anxiety about being vaccinated. This effort will improve the vaccination experience for recipients and likely speed up the vaccination process by reducing time needed with the vaccinator.
- **Vaccine preparation station:** A clean, designated separate area where clinicians are preparing vaccine and filling syringes should be established. CDC recommends that providers [draw up vaccines only at the time of administration](#). These staff will need convenient access to a secure area for vaccine cold storage. However, if vaccines must be pre-drawn, consider U.S. Pharmacopeia’s [best practices for handling and preparing vaccine](#). CDC recommends the following:
 - Never combine or “pool” partial doses from two or more vials to obtain a full dose of vaccine.
 - Withdraw only the number of doses authorized for the specific vaccine.
 - Discard the vaccine vial and remaining vaccine if the amount of vaccine left in the vial is not a full dose.
- **Vaccination administration stations:** Qualified vaccinators will provide information, answer questions, review documentation, and [administer the vaccine](#). Vaccinators should be provided with appropriate personal protection equipment and employ appropriate [infection prevention and control procedures](#). Vaccinators (or a scribe who is present at their station) will fill out a CDC COVID-19 Vaccination Record Card (or affix a sticker) that has the name of the vaccine product, manufacturer lot number, date of administration, and clinical site information. Ensure there are vaccine administration areas with privacy screens for those who need to remove clothing to expose the administration site or request privacy during vaccination.

² CDC considers a history of the following to be a contraindication to vaccination with COVID-19 vaccines:

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of the COVID-19 vaccine
- Immediate allergic reaction of any severity to a previous dose or known (diagnosed) allergy to a component of the vaccine

See <https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html#Appendix-B> for more information



- **Post-vaccination second dose scheduling station:** People who have received vaccine can schedule their second dose (if needed) at a separate station or while in the post-vaccination observation area.
- **Post-vaccination observation stations:** CDC currently recommends the following observation periods after vaccination³:
 - 30 minutes for:
 - People with a history of an immediate allergic reaction of any severity to another vaccine or injectable therapy.
 - People with a contraindication to a different type of COVID-19 vaccine (for example, people with a contraindication to mRNA COVID-19 vaccines who receive Janssen viral vector vaccine should be observed for 30 minutes following Janssen vaccination).
 - People with a history of anaphylaxis due to any cause.
 - 15 minutes for: All other people

Note: People may be observed for longer, based on clinical concern. For example, if a person develops itching and swelling confined to the injection site during their post-vaccination observation period, this period may be extended to assess for development of any hypersensitivity signs or symptoms consistent with anaphylaxis.

Both non-medical and medical staff will be needed in the observation area. Non-medical staff can ensure that people are observed for the recommended amount of time, answer any patient questions, schedule second dose appointments, and offer information about enrolling in [v-safe](#).⁴ This area must be staffed by trained clinicians who can recognize early symptoms of anaphylaxis. They should be familiar with [CDC guidance for Preparing for the Potential Management of Anaphylaxis After COVID-19 Vaccination](#), trained to respond to anaphylaxis, and have necessary emergency supplies and medications available. An area that is cordoned off and screened from view should be available to give emergency care should a person experience an adverse or anaphylactic reaction after vaccination. If anaphylaxis is suspected, administer epinephrine as soon as possible, contact emergency medical services, and transfer patients to a higher level of medical care.

³ Please see <https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html#Appendix-B> for more information.

⁴ **v-safe** is a smartphone-based, CDC-developed tool that uses text messaging and web surveys to provide personalized health check-ins after COVID-19 vaccination. **v-safe** allows vaccinated people to report side effects to CDC after COVID-19 vaccination and can also provide second dose reminders (if appropriate). <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/vsafe.html>



- **Venue exit:** Consider a “check-out team” model at exit, staffed with a clinical provider or health department staff and security personnel that allows patients to ask any last questions and ensures that everyone was offered information about v-safe or other state health department materials. Security personnel can ensure there is no unauthorized entrance to the facility.
- **Patient education** about COVID-19 vaccine should be provided to vaccine recipients before or during their vaccination visit. Informational materials can be provided at the registration area or electronically during online preregistration. It is important that patients receive information so they know [how to prepare for their vaccination](#). CDC advises that patients avoid taking certain medication before vaccination and that persons wait at least 14 days after getting a COVID-19 vaccine before getting any other vaccine, including a flu or shingles vaccine. It is required that all vaccine recipients or their caregivers be given [The EUA Fact Sheet for Recipients and Caregivers for the specific vaccine they will receive](#) to help them make an informed decision about vaccination. The EUA Fact Sheet can be provided electronically to patients when they schedule their vaccination appointment or handed to them when they register on-site at the vaccination clinic. During a busy vaccination clinic, there will be several times that patients will be waiting to progress to the next station. The post-vaccination observation period can be an ideal time to answer questions or display video loops and posters about COVID-19 vaccination. All persons receiving vaccine should be informed of any possible adverse effects and how to seek help and report these effects. It is important to have sufficient staff to circulate among those waiting to answer questions and assist as needed.
- **Plan the amount of vaccine doses and ancillary supplies to transport to the vaccination site:** Detailed advance preparation is needed to arrange for the appropriate quantity of COVID-19 vaccine. Appropriate storage and handling considerations should be factored into protocols, with the goal of maximizing available doses and minimizing vaccine wastage. Backup plans should be formulated that include steps to take if excess vaccine has been prepared or if insufficient vaccine is available while the clinic is operational. This planning also includes having adequate ancillary supplies available at the vaccination site in quantities to match vaccine supplies. All vaccine, ancillary supplies, and vaccination records should be stored in a secure area with controlled access.
- **Ensure security for crowd control, parking, and facility entry access control:** There are multiple considerations for ensuring safety and security when planning and operating new vaccination sites. Uniformed security staff that routinely works at an indoor facility may be able to serve in the primary security function, especially since they are knowledgeable about the venue and its access points and infrastructure. However, local law enforcement may need to augment security staff. Securing enough security personnel is critical if planners anticipate large numbers of persons accessing the facility, particularly if protests or civil unrest are anticipated.

- **Medical and other waste:** Determine how medical waste will be collected and disposed of during and after each day of operations, including having ample “sharps” containers to collect used syringes and vials. After all doses are withdrawn from vaccine and diluent vials, consider defacing or removing the label on the empty vial to reduce the chance for the empty vials to be inappropriately reused. Plan for garbage collection throughout operating hours to ensure that non-medical waste does not overflow in waste bins and is properly disposed of.
- **Iterative planning:** Conducting a vaccination venue is complex and dynamic; therefore, planning must be a continuous process. At the end of each day’s vaccination session or shift, consider conducting a discussion (mini “[hot wash](#)”) with venue team leaders to identify successes, challenges, and barriers during operations, and refine or adjust plans as needed.
- **Reporting requirements:**
 - **Vaccine administration tracking and reporting:** In addition to reporting vaccines administered to the jurisdiction’s IIS or other reporting system, accurate reporting of every vaccination administered is a critical part of participation in the CDC COVID-19 Vaccination Program and guidance on [specific vaccine administration and reporting requirements](#) is posted on CDC’s website. CDC has outlined expectations for jurisdictions to ensure timely reporting.
 - **Vaccine inventory reporting to VaccineFinder:** Logs should be kept that track every vial of vaccine transported to the venue and whether it was used, appropriately stored for future use, or wasted. All COVID-19 vaccination providers must report COVID-19 vaccine inventory daily into [VaccineFinder](#). In some jurisdictions, providers may report vaccine inventory to the jurisdiction’s IIS for the jurisdiction to upload into VaccineFinder.

Optimize

While vaccine remains in constrained supply, jurisdictions will want to reach as many people in the targeted populations as possible.

If large venues will be used to vaccinate a significant proportion of the population when more vaccine is available, jurisdictional planners may want to start with a smaller-scale operation located within a large-venue vaccination site and offer access to people in a specific geographic area. This “ramp-up” approach can enable testing of workflow, throughput, protocols, and procedures, training of volunteers and staff, and fine-tuning of patient traffic flow to improve readiness for larger vaccination operations. By initially scheduling a smaller patient load in a large-venue setting, jurisdictions can learn how to expand operations when more vaccine supply is available. In addition, the public will begin to learn about vaccination activities in the venue.

Initial vaccination efforts could then become operational over a period of time as new systems are launched and staff becomes familiar with processes and procedures. After launch, the vaccine supply may increase, stabilize, or decrease, which demands that vaccine doses be distributed and administered in a way that optimizes public health goals and minimizes waste.

In addition to the general recommendations for operating a vaccination center, key considerations for opening a vaccination clinic during constrained vaccine supply to “optimize” available resources include:

- Calibrate the amount of vaccine doses sent to venues to carefully match the daily projected uptake in vaccination and avoid wasting scarce doses. Daily assessments of appointments booked and potential need for vaccine should be conducted before doses are transported to off-site locations.
- Vaccine should be carefully stored and prepared at the vaccination site. CDC has issued detailed guidance for [vaccine storage and handling](#). There may be significant operational efficiencies that support a separation of the vaccine preparation steps (and personnel) from vaccine administration to the patient. CDC has released a [toolkit](#) that includes detailed operational considerations for vaccine preparation, including labeling, storage, handling, transport, waste, and disposal.
- As operations ramp up, jurisdictions should consider the following:
 - Conduct daily and weekly assessments of uptake by target groups to identify gaps and disparities in access and create outreach to hard-to-reach populations.
 - Conduct informal and frequent operational studies to identify process parameters that will inform further planning. Determine barriers to venue access and bottlenecks in throughput and develop solutions.
 - Document promising practices so they can be shared with others and replicated.
 - Evaluate job functions and staff and volunteer training to improve processes and refine protocols.
 - Continuously assess communications and vaccination appointment scheduling and launch improved processes.
 - Ensure that all vaccinations administered in the venue are promptly, properly, and accurately documented and reported.

Maximize

In addition to the process improvement recommendations listed above, additional efforts will be needed when vaccine is more plentiful for administration at both large-scale and focused vaccination sites. The goal is to vaccinate as many people as possible in alignment with vaccination goals, while ensuring equity in vaccine distribution and administration.



When jurisdictions receive sufficient vaccine to vaccinate the population broadly, the focus will be to expand operations, activate new sites, and improve throughput to maximize the number of people who receive vaccine.

Key considerations to maximize throughput at vaccination sites

Large venue/“ mass” vaccination site

Areas with large populations may be able to significantly increase the number of people vaccinated by operating large-venue, high-throughput “mass vaccination” sites. In addition to the general recommendations for operating a vaccination center, strategies to increase throughput in these settings may include:

- As described above, initiate vaccination processes at a smaller scale initially (first few days) and build to large operations after staff is familiar with processes and procedures.
- Operate large vaccination sites to include multiple shifts, evenings, and weekends. Some jurisdictions have the personnel and other resources to support 24-hour operations.
- Establish multiple vaccination pathways throughout a large facility (rather than one vaccination setup), depending on the layout of the venue. Determine if there is sufficient space and efficiency to accommodate separate vaccination setups with one-way traffic flow in the facility. Sufficient staff must be available to implement this model, as well as multiple bathrooms, entrances, and exits to support each setup.
- Conduct frequent time-motion studies and staff utilization reviews to maximize staff roles and placement. The number of staff at each station may have to be adjusted frequently based on utilization assessments. Optimizing staff utilization can improve throughput and increase the number of people the site can vaccinate. Evaluate station setup locations to maximize efficiency when patients are moving from station to station.
 - Alternative setups are being explored in some jurisdictions where patients are stationary and staff approaches them for registration and vaccination and provides observation-in-place.
- Consider altering scheduling for vaccinations from an individual exact time appointment system to a time block method (e.g., asking people to sign up for a one- or two-hour time block rather than for an exact appointment time). If resources and available space permit, using a no-reservation, first-come, first-served approach might be feasible. Use caution in relaxing appointment-based systems to prevent site congestion and crowding.
- Deploy strategies that can reduce the time needed for the initial intake of persons seeking vaccination. This can include:
 - Online or telephone preregistration may speed up the throughput in a large venue. For populations with internet access, consider developing a preregistration process so that necessary forms can be filled out electronically and submitted in advance. These forms can be sent out a few days before the vaccination appointment (or made available



online when scheduling the appointment), and include information about [preparing for vaccination](#), [EUA Fact Sheet for Recipients and Caregivers](#), prescreening questions for [COVID-19 symptoms](#) and exposures, and screening questions for [contraindications and precautions to vaccination](#).

- If preregistration is not feasible, consider establishing desks with staff to help vaccine recipients fill out needed forms. Alternatively, consider distributing electronic tablets that can be disinfected between use or which vaccine recipients do not have to touch that have the needed registration forms loaded and can be filled out in the waiting area. Ensure staff is available to answer questions and assist persons with use of the device. If feasible, provide a video on the tablet with key patient education information that the person can view after registration.
- Display video loops and posters in waiting areas that include key patient education information.
- Establish a separate vaccination process/line for those who have mobility issues or disabilities or will need more time moving through the process to reduce bottlenecks. Consider erecting partitions so those using that line will be shielded from others for privacy concerns.
- Assign staff to continually monitor immunization areas to determine needs for resupply of vaccine and ancillary supplies so that vaccinators do not run out of vaccine or needed equipment and supplies.
- Include roving non-medical observers in the post-vaccination observation area to answer questions, discuss v-safe and other reminder programs, and ensure that each vaccine recipient knows when and where they need to return to receive their second dose of vaccine (if needed). These observers should also ensure that persons wait the full time after vaccination before they leave the observation area and exit the venue.
- Exit protocols: Assign staff and security at venue exits to prevent people from entering the venue through the exits and to ensure orderly egress from the venue.

Drive-through Vaccination Sites

CDC has provided [specific guidance](#) for drive-through vaccination clinics. Drive-through and curbside vaccination settings can provide an efficient way of vaccinating a large population and, at the same time, maintain physical distancing, as patients remain in their vehicles for the entire vaccination process. Specific recommendations include:

- Planners for drive-through clinics should consider climate when determining site locations. Whereas vaccine recipients will remain in their vehicles during the entire process, staff may need to be outdoors and will be subject to weather conditions. Vaccine prepared for administration should be stored in containers that will maintain the [recommended temperature and storage conditions](#). Therefore, jurisdictions may consider locating a drive-through clinic in a large covered area or well-ventilated parking garage to afford protection for staff from the elements.



- Traffic flow, parking, entry/exit, and line queue must be carefully planned to maximize throughput and reduce bottlenecks. To accommodate a large number of vehicles, a sufficiently adequate footprint will be needed that can be configured for a one-way traffic flow and allow for an entrance and exit that won't impede local traffic. A separate lane for emergency vehicles must be designated in case an ambulance needs to reach people in a vehicle or in case a vehicle becomes disabled and needs to be moved.
- Vehicles can be directed to different lanes for vaccine administration depending on the number of persons in the vehicle. Driver-only lanes can be designated as well as lanes with vaccinators that can simultaneously administer vaccine to occupants on both sides of the car to improve efficiency.
- CDC recommends that all patients are observed for at least 15 minutes after vaccination to assess for any adverse post-vaccination effects, such as anaphylaxis. In addition, because syncope (fainting) is possible after vaccination, it is critical that patients wait the full amount of time at a drive-through vaccination clinic because of the potential for injury when the vaccinated person is the driver. Enough parking, including accessible parking, should be available for drivers to wait the recommended 15 minutes after vaccination either in the same space the vaccination occurs, or in a staff-monitored parking area nearby. A separate observation area staffed by clinical and non-clinical personnel can be designated for persons who need to be observed for 30 minutes (as previously discussed) .

Mobile Vaccination Venues

In some jurisdictions, traveling distance, limited access to medical providers or vaccination clinics, lack of mass transportation, mobility issues, and other factors make it difficult for some persons to access vaccination venues, especially in rural communities. Mobile vaccination is an umbrella term to describe various initiatives to bring vaccination services closer to the community in need, with a targeted, smaller-scale approach. Temporary mobile “pop-up” vaccination clinics can be operated by jurisdictions in indoor or outdoor settings with support from pharmacies, other private sector vaccinators, or federal resources to target specific sub-populations who may be hard to reach, including underserved populations and isolated or small rural communities. Jurisdictions will need to conduct outreach and garner collaboration with the target community as part of bringing a mobile vaccination site to the community and identify a community “champion” to assist with outreach and planning.

Planners need to ensure that the site selection for mobile vaccination includes easy access for the specific population, space for clinic operations and workflow, and traffic flow, including considerations of impact on nearby traffic patterns. Sites should be large enough to implement physical distancing and infection control practices for COVID-19. All required materials, including access to power sources and internet, can be transported to the site, so that these clinics can operate in almost any location. Mobile vaccination sites should be scaled to provide vaccinations to a smaller population compared with large venues and drive-through vaccination centers and, therefore, will require fewer staff and less space. Many jurisdictions are launching mobile vaccination clinics in selected communities and, through



FEMA, the federal government is [offering support to jurisdictions](#) to activate and operate temporary “Type V” Mobile Community Vaccination Centers (Mobile CVCs). Specific planning requirements for Mobile CVCs are outlined in the [FEMA Community Vaccination Centers Playbook](#) .

