

COVID-19 Vaccination Clinic Implementation Toolkit

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Chapter 1. What is in this toolkit and how is it organized?

This is a toolkit for decision-makers and implementers of vaccine clinics. Institutions, including counties, need to make decisions about how to organize COVID-19 vaccines in their communities. Our goal was to create a “vaccination clinic in a box” that could be replicated in, and tailored to, many types of settings.

Mass vaccination sites versus community-based sites

There are mass vaccination sites, either drive-through or walk-in, and there are community-based sites that serve a smaller number of people, usually either in a health center/clinic building or another site within a distinct neighborhood (eg, church, school). We believe that all types of sites serve an important function in getting shots into arms. To achieve equity of access, creative thinking is needed to serve all community members.

Implementing a vaccination site

This toolkit focuses primarily on implementation of a community-based vaccine site in a health center/clinic building equipped to provide clinical care. We have developed this guide to share our team’s experience creating a vaccine clinic in a primary care rural health center (OHSU Family Health Center in Scappoose, Oregon). When we started planning the vaccine clinic in Columbia County, Oregon, we did not have a set of materials to guide our work. We want to make this easier for others. The guide includes prompts for questions you may need to ask, examples of many types of documents that you may need (and information about where to find more documentation), and lessons-learned from our experience. If your community-based site is in a location other than a clinic, many aspects of this guide will still be helpful to you, but we acknowledge that there are unique considerations for creating vaccine clinics in spaces not usually designated for providing clinical care.

How this toolkit is organized

We have organized this guide as follows: We start by covering the knowledge we found useful about the COVID-19 vaccines, evidence related to these vaccines, and federal, state and county information about vaccination. Then we provide information about implementing a vaccine clinic. We start with planning and start-up activities and then take you through the process step-by-step. Most of the chapters contain links to external websites for additional information as well as handouts, checklists and other material that can be found at the end of this document. Each of these links and documents should have active hyperlinks.

Pass on the learning

This guide is intended to be a “living document,” and we hope to update it frequently. If you implement a community-based vaccine clinic, whether it is in your clinic building or in a community building, we would love to learn from and integrate your experiences into this guide. Please send us an email to share your experiences.

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Chapter 2. Knowledge and evidence related to COVID vaccines

In this section, we share detailed information about the two vaccines for COVID-19 that have been approved for emergency use authorization as of February 1, 2021: the one developed by Pfizer/BioNTech and the one developed by Moderna. In addition to information about these vaccines and evidence to-date of their efficacy, we provide links to where you and your team can find additional information, and we include handouts that you might want to use to inform people about common vaccine side effects. We handed these out to people during the greeting/screening process that we describe in Chapter 6.

We recognize that the vaccines used for COVID-19 are rapidly changing, and we will revise and expand this section of the manual as new vaccines are approved for emergency use.

2.1. Information about the Pfizer vaccine

General information

Name: BNT162b2

Manufacturer: Pfizer, Inc., and BioNTech

Type of vaccine: mRNA

Number of shots: 2 shots, 21 days apart, range for second dose is 17-42 days

How given: Shot in the muscle of the upper arm (deltoid)

Does not contain:

- Eggs
- Preservatives
- Latex

Who should get vaccinated

The Pfizer-BioNTech vaccine is recommended for people aged 16 years and older.

Who should not get vaccinated

- If you have had a severe allergic reaction (anaphylaxis) or an immediate allergic reaction—even if it was not severe—to any ingredient in an mRNA COVID-19 vaccine, you should not get an mRNA COVID-19 vaccine.*
- If you have had a severe allergic reaction (anaphylaxis) or an immediate allergic reaction—even if it was not severe—after getting the first dose of the vaccine, you should not get another dose of an mRNA COVID-19 vaccine.*
- An immediate allergic reaction means a reaction within 4 hours of getting vaccinated, including symptoms such as hives, swelling, or wheezing (respiratory distress).
- This includes allergic reactions to polyethylene glycol (PEG) and polysorbate. Polysorbate is not an ingredient in either mRNA COVID-19 vaccine but is closely related to PEG, which is in the vaccines. People who are allergic to PEG or polysorbate should not get an mRNA COVID-19 vaccine.

*If you have had an immediate allergic reaction—even if the reaction was not severe—to a vaccine or injectable therapy for another disease, ask your doctor if you should get a COVID-19 vaccine. Your doctor will help you decide if it is safe for you to get vaccinated. Note: unless the allergic reaction was to covid vaccine or polyethylene glycol/PEG/polysorbate, we are vaccinating everyone with a history of allergic reaction, with a 30 minute observation period.

Side effects and safety information

Most common side effects

In the arm where you got the shot:

- Pain
- Swelling
- Redness

Throughout the rest of your body:

- Chills
- Tiredness
- Headache

These side effects usually start within a day or two of getting the vaccine. They might feel like flu symptoms and might even affect your ability to do daily activities, but they should go away in a few days. [Get tips on what to expect after getting vaccinated.](#)

Summary of safety data

- [In clinical trials](#), reactogenicity symptoms (side effects that happen within 7 days of getting vaccinated) were common but were mostly mild to moderate.
- Side effects (such as fever, chills, tiredness, and headache) throughout the body were more common after the second dose of the vaccine.
- Most side effects were mild to moderate. However, a small number of people had severe side effects—defined as side effects affecting a person’s ability to do daily activities.
- Although few people in the clinical trials went to the hospital or died, data suggest that people who got the Pfizer-BioNTech vaccine were less likely to have these more serious outcomes compared to people who got the saline placebo.
- CDC will continue to provide updates as we learn more about the safety of the Pfizer-BioNTech vaccine in real-world conditions.

Information on how well the vaccine works

Based on [evidence from clinical trials](#), the Pfizer-BioNTech vaccine was 95% effective at preventing laboratory-confirmed COVID-19 illness in people without evidence of previous infection.

CDC will continue to provide updates as we learn more about how well the Pfizer-BioNTech vaccine works in real-world conditions.

Demographic information from clinical trials

Phase 2 and 3 clinical trials for the Pfizer-BioNTech vaccine included people from the following racial and ethnic categories:

- 81.9% White
- 26.2% Hispanic/Latino
- 9.8% African American
- 4.4% Asian
- <3% other races/ethnicities

Age and sex breakdown:

- 50.6% male
- 49.4% female
- 21.4% 65 years and older

The most frequent underlying medical conditions were obesity (35.1%), diabetes (8.4%), and pulmonary disease (7.8%).

2.2. Information about the Moderna vaccine

General information

Name: mRNA-1273

Manufacturer: ModernaTX, Inc.

Type of vaccine: mRNA

Number of shots: 2 shots, one month (28 days) apart, range for second dose is 24-42 days

How given: Shot in the muscle of the upper arm (deltoid)

Does not contain:

- Eggs
- Preservatives
- Latex

Who should get vaccinated

The Moderna vaccine is recommended for people aged 18 years and older.

Who should not get vaccinated

- If you have had a severe allergic reaction (anaphylaxis) or an immediate allergic reaction—even if it was not severe—to any ingredient in an mRNA COVID-19 vaccine, you should not get an mRNA COVID-19 vaccine.*
- If you have had a severe allergic reaction (anaphylaxis) or an immediate allergic reaction—even if it was not severe—after getting the first dose of the vaccine, you should not get another dose of an mRNA COVID-19 vaccine.*
- An immediate allergic reaction means a reaction within 4 hours of getting vaccinated, including symptoms such as hives, swelling, or wheezing (respiratory distress).

- This includes allergic reactions to polyethylene glycol (PEG) and polysorbate. Polysorbate is not an ingredient in either mRNA COVID-19 vaccine but is closely related to PEG, which is in the vaccines. People who are allergic to PEG or polysorbate should not get an mRNA COVID-19 vaccine.

*If you have had an immediate allergic reaction—even if the reaction was not severe—to a vaccine or injectable therapy for another disease, ask your doctor if you should get a COVID-19 vaccine. Your doctor will help you decide if it is safe for you to get vaccinated. Note: unless the allergic reaction was to covid vaccine or polyethylene glycol/PEG/polysorbate, we are vaccinating everyone with a history of allergic reaction, with a 30 minute observation period.

Side effects and safety information

Most common side effects

In the arm where you got the shot:

- Pain
- Swelling
- Redness

Throughout the rest of your body:

- Chills
- Tiredness
- Headache

These side effects usually start within a day or two of getting the vaccine. They might feel like flu symptoms and might even affect your ability to do daily activities, but they should go away in a few days. [Get tips on what to expect after getting vaccinated.](#)

Summary of safety data

- In clinical trials, reactogenicity symptoms (side effects that happen within 7 days of getting vaccinated) were common but were mostly mild to moderate.
- Side effects (such as fever, chills, tiredness, and headache) throughout the body were more common after the second dose of the vaccine.
- Most side effects were mild to moderate. However, a small number of people had severe side effects that affected their ability to do daily activities.
- CDC will continue to provide updates as we learn more about the safety of the Moderna vaccine in real-world conditions.

Information on how well the vaccine works

- Based on [evidence from clinical trials](#), the Moderna vaccine was 94.1% effective at preventing laboratory-confirmed COVID-19 illness in people who received two doses who had no evidence of being previously infected.
- The vaccine appeared to have high effectiveness in clinical trials (efficacy) among people of diverse age, sex, race, and ethnicity categories and among persons with underlying medical conditions.

- Although few people in the clinical trials were admitted to the hospital, this happened less often in the people who got the Moderna vaccine compared to people who got the saline placebo.
- CDC will continue to provide updates as we learn more about how well the Moderna vaccine works in real-world conditions.

Demographic information from clinical trials

Clinical trials for the Moderna vaccine included people from the following racial and ethnic categories:

- 79.4% White
- 20% Hispanic/Latino
- 9.7% African American
- 4.7% Asian
- <3% other races/ethnicities

Age and sex breakdown:

- 52.6% male
- 47.4% female
- 25.3% 65 years and older

Most people who participated in the trials (82%) were considered to have an occupational risk of exposure, with 25.4% of them being healthcare workers.

Among people who participated in the clinical trials, 22.3% had at least one high-risk condition, which included lung disease, heart disease, obesity, diabetes, liver disease, or HIV infection. Four percent (4%) of participants had two or more high-risk conditions.

2.3. For more information about the vaccines

- [How COVID-19 vaccines work](#)
- [Understanding mRNA COVID-19 vaccines](#)
- [Vaccine cold-chain information](#)
- [COVID-19 vaccines and allergic reactions](#)
- [What to expect after getting vaccinated](#)
- [How the CDC is making COVID-19 vaccine recommendations](#)
- [Who should be vaccinated first when supplies are limited](#)
- [Vaccine safety monitoring after a vaccine is authorized or approved for use](#)
- [COVID vaccine FAQs](#) (from Memorial Physicians Services and Sangamon County Department of Public Health)
- [COVID-19 Vaccination Training](#) (free CME credit from OHSU – 50 minutes)

Pfizer

- [Information about the Pfizer-BioNTech COVID-19 Vaccine](#)
- [Full list of ingredients](#)
- [Evidence from the Pfizer-BioNTech clinical trials](#)

- [Safety and reactogenicity data from the clinical trials](#)
- [Demographic information trial participants](#)

Moderna

- [Information about the Moderna COVID-19 Vaccine](#)
- [Full list of ingredients](#)
- [Demographic information for trial participants](#)

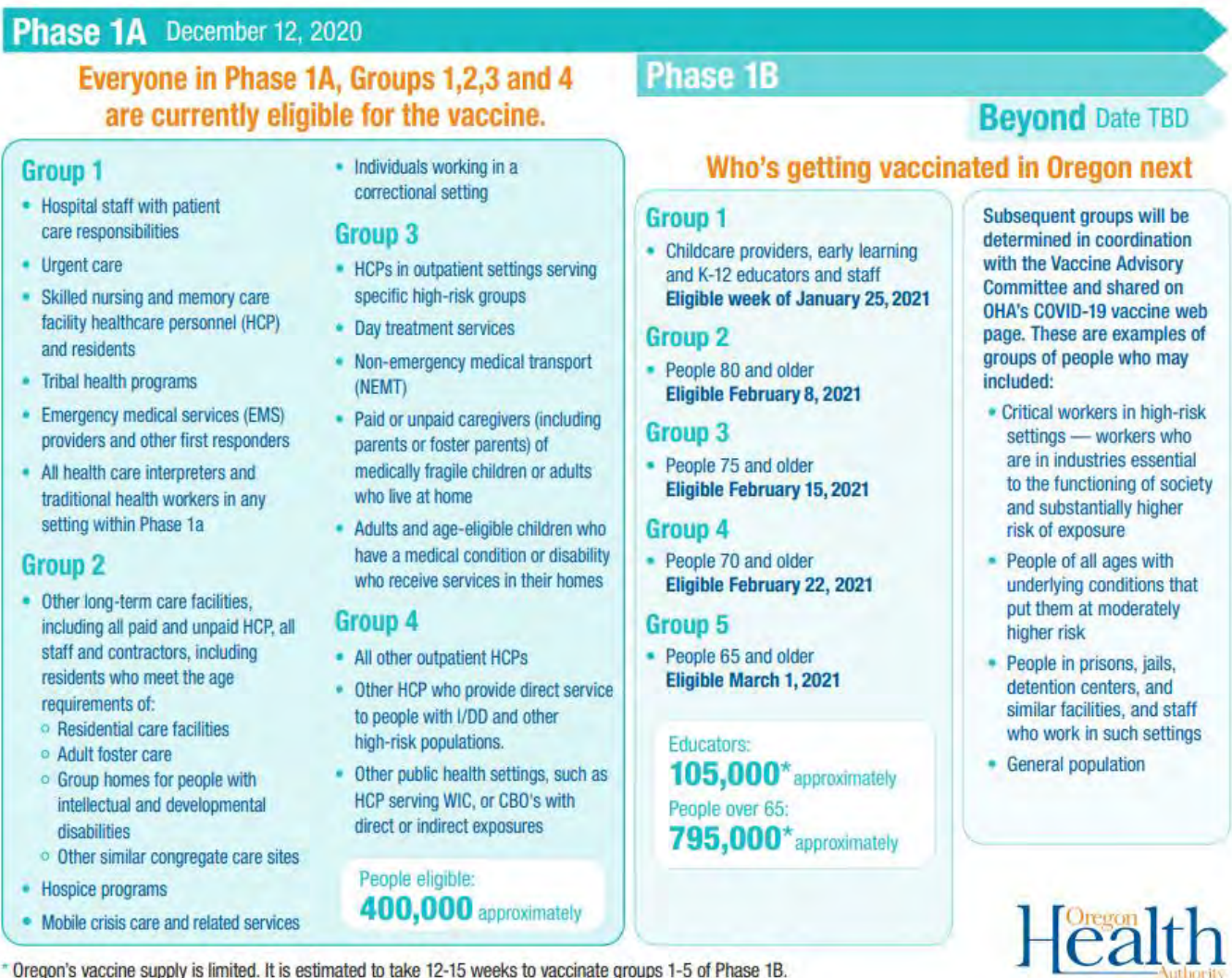
2.4. Materials you might find useful about the vaccines

- Fact Sheet for Recipients and Caregivers
 - [Pfizer-BioNTech](#) (6 pages)
 - [Moderna](#) (5 pages)
- Vaccines are one of the tools we have to fight the COVID-19 pandemic (2 pages)
 - [English](#)
 - [Spanish](#)
- What to Expect after Getting a COVID-19 Vaccine (1 page)
 - [English](#)
 - [Spanish](#)

Chapter 3. Federal, state and county information about vaccinating community members

The US Centers for Disease Control (CDC) has provided a great deal of information about the COVID-19 vaccine. Based on this information and informed by state leaders, each state has developed its own priorities, and counties are developing plans to distribute vaccines to community members. In this chapter, we summarize the state of Oregon's priorities, and point you to federal, state and county resources that might be helpful to you and the people in your community, who have many questions about when they and their family members can get vaccinated. **Some of these resources can be especially helpful to share with people who might arrive at your site eager to get a vaccine but who are not yet eligible.**

The figure below shows Oregon's phases and dates when the COVID-19 vaccine will be made available to different community members.



* Oregon's vaccine supply is limited. It is estimated to take 12-15 weeks to vaccinate groups 1-5 of Phase 1B.

3.1 For more information regarding federal, state, and county vaccine efforts and recommendations:

- [CDC's COVID-19 Vaccine site](#)
- [Oregon Health Authority's COVID-19 Vaccine site](#)
- [OHA vaccine FAQs](#)
- [Get Vaccinated Oregon tool](#) (to check eligibility, get notifications, and find a provider)
- [Vaccine information by county](#)
- [Vaccine distribution phases in other languages](#)

Chapter 4. Staffing and roles

This chapter describes our experiences building the team to staff the vaccine clinic. This includes engaging staff and volunteers, how we led and communicated with the team, how we organized shifts, oriented teams to their roles, and kept staff safe.

We also describe the roles and functions that are necessary for a vaccine clinic. We've described these functions so that in your vaccine site you can distribute functions among the staff and volunteers that you have. In many cases, these roles and functions can be combined such that one person could play multiple roles.

4.1. Engaging staff and volunteers

People working at a vaccination site will likely come from three sources: clinical staff, non-clinical staff such as administrators and managers, and external volunteers.

Clinic staff were paid for shifts that they worked at the vaccine clinics, including overtime pay if applicable. Our initial vaccine clinics were held on weekends when the clinic would normally have been open but with limited staff assigned to work. The assigned staff for those clinic sessions were converted to become the core team for the vaccine clinic. This team was augmented with additional clinic staff and volunteers. Because we were creating appointments and documenting vaccinations within our electronic health record (EHR), it was critical to have experienced staff members. This also limited the number of volunteers that we could have who were unfamiliar with the EHR. Many of our clinical staff belong to a union, such as ONA and AFSCME. Our institution (OHSU) held discussions with the unions to determine guidelines around pay and extra hours. We sent an email to clinic staff on Thursday morning listing the shifts that were available that weekend. The short turnaround was due to the county's weekly vaccine allotment process, which currently happens mid-week.

Non-clinical staff in our department, such as administrators, managers and researchers, were enthusiastic about volunteering. For those without EHR knowledge and access, there were only a few roles (eg, assisted with greeting, screening, and directing traffic as needed). Volunteers who committed to working several shifts were given the opportunity to receive EHR training and access. Clinic staff, such as front-desk and registration, were generous with their time and helped orient our volunteers to easy EHR-based tasks, such as how to look up appointments and check people in. With enhanced training and "learning on the job," we were quickly able to expand our group who are now able to do tasks that require basic EHR access.

Of note, the Vaccinators and Lead Monitor need to be medical personnel who are licensed in the state. Some states are also allowing retired medical personnel whose licenses have expired to do vaccination. The people drawing up vaccines need to be trained to prepare vaccines (eg, nurses, pharmacists). The remainder of the roles don't need to be medical staff.

To date, our vaccine clinics have been conducted with a blend of clinic personnel and volunteers from other departments and locations. This has been an overwhelming success, as it has created a camaraderie among people who would not otherwise work together. Although your clinic may not be affiliated with an academic health center, there may be family and community members who want to volunteer and support

your clinic. We encourage you to consider this, as vaccinating your community will take months, staff may struggle to sustain the level of participation required, and inviting volunteers into the process can create joy and connection in a time when that is needed. If you do not have enough staff and a cadres of people connected with your organization who can volunteer, many communities have two organizations that have highly trained and organized volunteers: American Red Cross and Community Emergency Response Teams (CERT). These organizations can quickly mobilize trained and reliable volunteers who can help with roles such as putting out signs, directing traffic, and greeting and screening people when they arrive at the vaccination site. If your site is not using an EHR for scheduling and documentation, these volunteers could staff other roles, too.

Communication with volunteers

We had originally planned to have a web-based form for volunteers to use to indicate interest and schedule themselves for shifts. However, it was just as effective to communicate via email. We sent out an initial email querying for interest and built a list of names and email addresses using Smartsheet (though Excel would work as well). We specifically asked people if they could commit to volunteering at least three shifts per month, to try to build a core team of recurring volunteers. Then we communicated at least once a week with everyone on the list, providing training updates and opportunities for shifts.

Shifts

We set up shifts that are 4 to 5 hours long. We heard feedback from many people that this was the maximum they would be able to commit to regularly. We timed shifts so that there was a 30-minute overlap between shifts (e.g., first shift 8-12:30, second shift 12-4:30). This allowed the first shift personnel to provide orientation and on-the-fly training for the people taking over their roles. Here is an example of how we managed volunteers using an Excel spreadsheet for morning and afternoon shifts with a goal of 400-500 vaccines administered each shift. We have made this Excel file available to you, too (note link in section 4.4).

	A	B	C	D	E
1	Vaccine Clinic Team Assignments				
2	Vaccine Goal:	400 per Day	Date Range	2/6 - 2/7	
3	Rooms per Team:	5+1			
4					
5	Staff	Saturday AM	Saturday PM	Material Needs	
6	Greeter 1 - Screening				
7	Greeter 2 - Check-in				
8	Greeter 3 - Check-in				
9	Blue Vaccine Team - LIP			Blue Pod & Rooms 6 - 7 - 8 - 9 - 10 + 5	
10	Blue Vaccine				
11	Blue Vaccine				
12	Red Vaccine Team - LIP			Red Pod & Rooms 12 - 13 - 14 - 15 - 16 + 11	
13	Red Vaccine Team				
14	Red Vaccine Team				
15	Orange Team - LIP			Orange Pod & Rooms 17 - 18 - 19 - 25 - 26 + 24	
16	Orange Vaccine Team				
17	Orange Vaccine Team				
18	Monitor/Navigator 1			Carts - Cleaning Material & Juice/Snacks	
19	Monitor/Navigator 2			Carts - Cleaning Material & Juice/Snacks	
20	LIP - Triage				
21	Phones - 1 WFH				
22	Phones - 2-in clinic				
23	Vaccine Draw/Monitor				
24	Vaccine Draw/Monitor				
25	Admin Support - Troubleshooter				
26	Shift Lengths	830 - 1230	12 - 400	FULL SHIFT - 830-400	
27		Available staff			
28					
29					
30					
31					
32					
33					
34					
35					

Orientation and leadership

Orientation: We created short descriptions for major roles and shared these with staff by email ahead of their shift. We also laminated shift descriptions and had them on-site for people to briefly review at the start of their shift. Much of the orientation was done “on the fly” by the person who was working the shift just prior or by others who had worked previous shifts. For some of the roles (e.g., EHR registration), there was a short orientation video or other training required.

Leadership: We learned that it was very helpful to have a point person for the start of each shift, for each main function. Team members could check in with this person and be oriented to their role. We also provided an email orientation, including what to wear, where to park, and what to bring. This email is available to you and referenced again in Chapter 6.

It was very helpful to have leaders clearly identified whose responsibility it was to step in and make tough decisions. For example, depending on the number of anticipated extra doses, there may be some flexibility to schedule an on-the-fly appointment for a caregiver or spouse. Individual volunteers shouldn’t make those judgements; rather, there should be a person identified who team members can call on in sticky situations.

Keeping volunteers safe

We provided personal protective equipment (PPE) for everyone. Medical-grade disposable procedure masks were available as well as hand sanitizer and bleach wipes. Vaccine recipients were instructed to and kept at least 6 feet apart. Disposable face shields, gowns, and gloves were also available to all, if desired.

4.2. Functions and roles for the vaccination clinic

In this section we describe, as completely as possible, all the functions that we needed to carry out a vaccine clinic. Before we started, we knew that rules governing who could vaccinate and who could have access to and the ability to use our clinic’s EHR would define what functions a person could play. We did take steps to train a subset of our non-clinic volunteers in the registration and scheduling processes, and this has been successful. Our institution created an online training program that these volunteers completed, and this was complemented by onsite training by clinic staff, several hours of shadowing, and then doing the task with support from an experienced user.

We divided this section about specific team member roles by the following functions:

- No computer/EHR knowledge/access required
- The ability to use the EHR to do Registration/Scheduling
- The ability to use the EHR to create and manage an Encounter
- The clinical certification to vaccinate (e.g., MA, LPN, RN, MD, DO, APP, student working under license of a certified individual)

We describe functions and the tasks that belong to that function. Depending on the size of the vaccine site and the number of doses given, one role (person) could do multiple functions. For example, at one site the MA acts as scribe, documenting the vaccine, monitoring for screening time, cleaning the room, and escorting people to the exam room. At another site, MAs might be vaccinating, and there may be non-clinical volunteers escorting people, serving as scribes, and/or cleaning rooms.

Functions that do not require EHR access/knowledge					
Function	Role	Tasks	Materials Needed	Location	Training Needed
Manage non-clinical volunteers	Volunteer lead	Inform volunteers of safety rules; Inform volunteers of their role; Train/orient volunteers for their role, giving them the information and materials needed; Tracking/sending people out for breaks	List of volunteers and assignments; materials for volunteers; explanation of each role	Inside/outside	Orientation to workflow; volunteer roles, and what all roles do
Monitoring the Parking Lot	Parking Monitor	Ensure people entering the lot of are in the right place; help people in and out of spots, if needed; direct people to alternative parking, if lot is full stay aware of outside line of people and direct the line so that it is away from car traffic, and people are distanced and wearing masks	Map of alternative places to park; bright-colored vest; parking baton	Outside	None
Greet patient	Greeter	Before patient enters building greet the patient; screen to ensure have appointment; ask people with the patient who do not have an appointment to wait in the car (unless patient needs assistance); give handouts (VIS and vaccine questionnaire); explain that masks must be worn at all times; and maintain 6-foot distance from others; direct patient to line inside and explain what the process will be review COVID questionnaire responses, direct to help desk as needed.	Vaccine information sheet and vaccine questionnaire	Ideally outside May need to be inside depending on configuration of outdoor space and weather conditions	Brief training in what questions to ask. Questions on laminated cards.
Screen for COVID-19 Symptoms	Greeter	Screen for COVID-19 symptoms. We want to do this before patient enters building, if possible.	Screening instructions	Ideally outside, but may need to be inside	Brief training in what questions to ask. Questions on laminated cards.
Text/phone list for end of day waiting list	Greeter	For people who don't have an appointment ask if they would like a text/call at end of day if there are extra vaccines, and take their contact information (keep a list); Contact patients at end and line up the numbers needed to use all the vaccines	Prepared list to record name, contact information and other pertinent information	Ideally outside, but may need to be inside	No training needed.
Answering patient questions	Triage/Help Desk	Answer patient questions that require a bit more detail; Assisting patients with yes responses on COVID questionnaire. Initial judgement on length of observation.	FAQs to help with answer question	Inside; front area	Clinical personnel address to answer COVID question and engage LIP, as needed
Assist patients without an appointment	Triage/Help Desk	Explain who is getting vaccinated now and why; Take patients contact information for end of clinic waitlist; keep this list (this sheet will need to have time on it to be fair)	CDC and state vaccine guidelines and who qualifies; waiting list	Inside; front area	Training in who does and does not fall into current vaccine cohort

Monitoring the line (ensuring flow, and 6-foot distancing, masks are worn)	Flow Director	remind patients to wear masks; remind patients to keep a 6-foot distance from others; help direct line so that people are not in the way of flow; direct patient to open examination rooms	Masks to provide to patients	Inside; moving around	No training needed
Clean clinic (doors, surfaces etc.)	Triage/Help Desk	Wipes down surfaces that people touched every few hours and at end of clinic session;	Wipes for cleaning	Inside	No training needed
Clean examination rooms	Scribe	Wipes down seat in exam room after each patient	Wipes for cleaning	Inside	Appropriate room turn over training
Set up/take down signs	Scribe	Sets up and takes down and stores signage in and outside of clinic	List of all of the signs to put up, where to put them, and a checklist to make sure they're all taken down	Inside	No training needed
Writing out the vaccine cards (if documenting on paper – this person can also record vaccine details and schedule 2 nd appointments)	Scribe	Write vaccine cards for patients; Explains timing for second shot vaccine specific stickers applied. Gives instructions for 15-minute wait. If documenting on paper, can also log shot details and schedule appointments for second shots.	Vaccine cards Vaccine specific stickers	In exam room	Clinical personnel (Medical Assistant) were briefly training in these issues
Monitor patients following vaccination	Symptom monitor	Observe or check-in on patients for 15 or 30 minutes, as indicated following vaccination; Offer juice, water or crackers, if needed; Provide first aid assistance to patients, if needed Alert doctor if there is a problem	Cart with juice, water, crackers Clear instructions on who to contact if there's a problem		Basic first aid
Screening for 15 vs 30-minute monitoring	Monitoring Screener	Asks about factors that might differential people with different monitoring needs	Questions to differential monitoring length		Review of vaccine questionnaire and monitoring requirements

Registration/Scheduling/Check-in/EHR access**					
Functions	Role	Tasks	Materials Needed	Location	Training Needed
Pre-appointment registration	Registration	Search for person in the EHR; create a new EHR record and MRN if needed; schedule appointment for Dose #1 Need to have the following information on each person: Full name, DOB, address, phone, preferred language, sex. Possibly also insurance info now.	Computer with EHR access Secure internet connection Laptop charger	Can be done from home	EHR scheduling access EHR training for PAS
Add patient to EHR to track vaccination, if not already in EHR	Registration	For those who may have been missed in pre-appointment registration. Search for person in the EHR; create an MRN if needed; schedule appointment for Dose #1	Computer with EHR access Secure internet connection Laptop charger	Outside	EHR scheduling access EHR training for PAS
Identify patients on the schedule and confirm identify; check-in patient to appointment	Check-in	Search by name, DOB Identify the correct appointment Check-in the person Confirm that *AR appears on the appointment	Computer with EHR access Secure internet connection Laptop charger	Outside	EHR scheduling access EHR training for PAS
Create an appointment the appropriate number of days from first vaccine	Scheduling dose #2	Search by name, DOB Make appointment for the correct dose (28-day booster) at the correct vaccination site location give patient appointment card or send appointment message via email or MyChart	Computer with EHR access Secure internet connection Laptop charger	Inside	EHR scheduling access EHR training for PAS
Trouble shoot EHR Problems	Data Team	Help address problems with EHR	None	Inside	None

**If you are completing check-in and documentation on paper and planning to enter the data into your state's immunization registry at a later time, you will just need a paper system for scheduling, registering, and documenting. Another option is to use a computer system that is not a certified electronic health record. Ensure you have adequate resources to report information to your county and state. Also, be sure you are following all confidentiality and privacy guidelines.

Clinical person with credential to vaccinate – e.g., MA, RN, LPN, MD, DO, APP, student working under license of certified individual					
Functions	Role	Tasks	Materials Needed	Location	Training Needed
Understand and oversee all aspects of daily flow	Float Lead	Trouble shoot all aspects daily flow; Final authority on decision regarding adapting flow during clinic session; Work with volunteer lead to manage the ebbs/flows	Copies of materials used by all other team members	Inside	EHR scheduling and documentation, vaccine prep and administration.
Screening for 15 vs 30-minute monitoring	Vaccinator	Confirm with individual factors that might differential people with different monitoring needs (why did the screener flag this person to wait 30 mins vs 15 mins?)	Questions to differential monitoring length	Inside	Review of vaccine questionnaire and monitoring requirements.
Prepare syringes	Shot filler	This person fills the syringes enough for the next for the next 30-40 of vaccines needed	Syringes vaccine	Inside	Proper handling and preparation of vaccine for administration
Vaccinate people	Vaccinator	Administers vaccines	Filled syringes; Alcohol swabs Cotton balls Band aids	Inside	Proper technique for IM administration of vaccine. Judgement on appropriate needle length.
Document vaccine given	Vaccinator or scribe	This person documents the vaccination delivery in EHR and for state immunization registry system, if both needed	Computer with EHR access or paper forms	inside	Training on brief documentation
Medical oversight of monitoring	Symptom monitor	Observe or check-in on patients for 15 or 30 minutes, as indicated following vaccination; Provide first aid assistance to patients, if needed Be alerted by the monitor if there is a problem	Walkie-talkie/pager, LIP information sheets: ACLS, BLS, and How to use EpiPen auto injector	Inside	Basic first aid

4.3 For more information about staffing and roles

- [Vaccine clinic time and budget worksheet](#) (Harvard Primary Care Center)
- [Vaccine clinic readiness checklist](#) (state of California)

4.4. Materials you might find useful about staffing and roles

- [Shift spreadsheet](#)
- Role descriptions
 - [Check-in Guide](#)
 - [Greeter Guide](#)
 - [Monitor Guide](#)
 - [Scribe Guide](#)
 - [Vaccinator Guide](#)
 - [Overview template](#)

Chapter 5. Organizing the vaccination clinic

This chapter describes what you need to get started on planning and organizing your vaccine clinic. We provide a one-page printable checklist for key supplies, resources, and documents. We also describe our experience obtaining vaccine doses from our county, including key contacts, delivery, storage, and reporting.

One of the most complex aspects of vaccine clinics is to consider all the factors involved in planning for the number of vaccine doses that can be administered in an hour. We describe some of the methods we've used to estimate this, based on physical space, the number of people who are scheduled, and staffing capacity. We also describe decision-making around monitoring the remaining vaccine doses. These are some of the most critical decisions that you will face as you are operating your vaccine clinic.

5.1. Checklist

SPACE NEEDS	
	Pharmacy prep area
	Restrooms
	Place to eat
	Tables
	Chairs
	Outdoor heaters or space heaters
	Umbrellas or tents
	Extention cords
SUPPLIES FOR VACCINE RECIPIENTS	
	Hand sanitizer
	Vaccine cards (pre-fill out lot number, manufacturer, site, date), ample supply of pens to share (if needed)
	Informational handouts (see section 2.4)
	Snacks
	Wheelchairs
SUPPLIES FOR STAFF/VOLUNTEERS	
	Clipboard
	Laminated screening card (15-30 min wait)
	2-5 EpiPens and EpiPen instructions (some clinics have chosen to have Benadryl, Zyrtec, etc available, too)
	Clear protocol for what your team will do in an emergency, BLS and ACLS resuscitation instructions
	Pens
	Walkie-talkies/Pagers/Communication Devices
	Flags indicating “exam room ready” and “in use” (or another system you will use to communicate this info)
	Bright-colored vests for person in charge and traffic directors
	Traffic wands
	Masks
	Face shields
	Gloves/Gowns
	Sani-wipes
	Hand sanitizer
	Laptops and chargers (for registration, vaccinator, LIP, and monitor) and/or stationary computers
	Snacks
	Lap blankets
VACCINE SUPPLIES (in addition to the COVID-19 vaccine doses)	
	Needles/syringes
	Bandaids
	Alcohol prep wipes
	Cotton swabs
	Sharps containers
	Labels
	Caddy for vaccinator to transport vaccines, alcohol swabs and bandaids, plus larger needles
	Freezer
	Clock to note time when vaccine removed from freezer and vial punctured
	Draw table and chairs

5.2. Obtaining vaccines

When contemplating the implementation of a vaccine clinic, you need to know if you will have consistent access to vaccines. In Oregon, vaccine receipt from the federal government is managed by the state. The state then distributes most of the vaccine doses to each individual county, which is authorized to manage distribution to organizations and people within their region.

Vaccine allocation to our Scappoose clinic team was determined directly by the county health department. Our clinic was approached by the county health department to assist with vaccine administration due to limited availability of space and teams at other sites. After we created a prototype model for a vaccine clinic, we started with a pilot clinic weekend, to work out issues in real time, while not getting overwhelmed by volume. For us, this translated to 100 vaccines/day, with vaccinators averaging about 10 vaccines given/vaccinator/hour. We were able to dramatically upscale from that rate on subsequent clinic days.

Every week our clinic leadership communicates with the county health department about our potential capacity for vaccine administration, at which point the county makes a request to the state. We are notified by early/mid week of the final allocation for our county (often, we are not given the full amount requested). Within the next 48 hours, we recruit staff needed to administer that week's vaccine allocation, and then give the final schedule of available appointment slots to the county health department, which then directs groups to sign up via a third party, HIPAA-compliant software system.

Vaccines currently are shipped to OHSU's central pharmacy and transported to our community-based clinic, but we anticipate they will eventually be shipped directly to our clinic. The vaccine doses arrive as a kit, including syringes/needles, CDC vaccine cards, and vials of vaccine. Band-aids/gauze/alcohol/gloves are provided by the clinic.

We were approached about the possibility of adding Pfizer vaccines because there are fewer places who can store them. Our state had a certain number of sub-zero freezers available per county (our county was allocated 1), and the county asked us to take this freezer in order to store Pfizer vaccines. (We also had to commit to delivering at least 1000 vaccines per week.) Currently, we receive and store Moderna vaccines on-site in our normal vaccine freezer/fridge.

5.3. Estimating how to “right-size” your vaccine clinic to match your vaccine doses

On a national scale, delivering as many doses as quickly as possible is the goal. However, every local vaccination site must be able to expand and contract depending on the number of doses available or how many people are scheduled. This is because vaccine doses available from week to week are highly variable and inconsistent. There are several factors that determine the number of people that can be vaccinated per hour at a site. This chapter describes considerations and lessons-learned on how to balance vaccine doses with the ability to administer the vaccines.

5.4. Estimating throughput

One important consideration for your vaccine clinic will be determining the time it takes to vaccinate someone, how you define a vaccination team, how many vaccinations a team can do, and how many teams will be needed to deliver the scheduled vaccinations on Vaccination Day. There are several factors that go into making this decision.

- Where will people be monitored, and can 15- and 30-minute monitoring be done as a group?
If people can be moved and monitored safely in a large conference room or waiting, this is important because it frees up the vaccinators and vaccination space to continue with the next person. Are you going to have vaccinators moving from room to room, or will you have the vaccination team remain stationary and have people move? We had limited large spaces available, so we had vaccinators moving from room to room.
- Who will be on a vaccination team? This may take some trial and error.
We paired one vaccinator with two people (scribes) who were tasked with rooming people, opening, preparing and completing the vaccination encounter in our EHR and scheduling 2nd dose appointments. This team could vaccinate 100-150 people in a 4-hour clinic session if they had enough exam rooms available for them to efficiently move from room to room.
- When estimating the number of vaccines you can administer, the following may be helpful:
 - Start small. Set a small goal for your first vaccine clinic, and then built on your success. Our first clinic aimed to vaccinate 200 people. That success gave us the confidence to increase our target for the next weekend. We have been able to steadily increase the number of vaccines we deliver at each clinic session.
 - Have a “modular” structure that can be increased or decreased in size due to changes that will inevitably occur each week as vaccination supplies ebb and flow.
 - Decide if you want to continue to provide routine and urgent clinical care during the same time frame. This will limit availability of staff, rooms, and parking but may be the best option for your community and your clinic’s sustainability.

5.5. How vaccine storage impacts decision making

There are two ways to approach vaccine storage. These have a dramatic impact on decision-making in all aspects of the vaccine clinic.

Option 1: If you are able to store unused vaccine doses for another day, you can calculate the approximate number of doses that can be administered in your physical space and with your staff, but you will have some “wiggle room” to flex your supply of vaccine up or down as you go.

Option 2: If you have XX number of doses that you must administer within XX hours, and any leftover doses will be wasted, then you must aggressively utilize a waiting list and keep people flowing through the site until you’ve given your last dose (*i.e.*, at a site with no refrigeration).

Option 1:

One major consideration for monitoring vaccine doses is whether or not you have the capability to store vaccines for multiple days/weeks. If you have the ability to store vaccines for multiple days/weeks, then you can pace your clinic sessions. As described above, set a target for vaccinations in collaboration with county leaders or other community-based partners who may be handling requests for doses, prioritization of people, and/or online scheduling. By Thursday of each week, county leaders would tell our team how many people signed up to get a vaccine. This gave us an initial estimate of the number of doses we needed to have available per day, and we have the ability to store unopened vials, so we opened vials and filled syringes individually throughout the day to match demand being careful not to have too much supply at any given time. (Note: You can get at least 10 doses from vials of Moderna, so if you open the vial for one person, you'll need 9 people ready to receive the remaining doses that day.)

Option 2:

If you need to use all vaccine doses in a specific timeframe, you will need to set your vaccine clinic hours of operation and schedule adequate staff to work the site in order to be sure to administer all doses within this timeframe. You need to aggressively manage a waiting list. This is an ongoing list of people who did not have an appointment, but approach your team about getting vaccinated. Or, you may have a list that your county or other partners have generated ahead of time from eligible people who were interested but did not get a scheduled appointment. We recommend beginning to call the people on your wait list early in the session, especially if you have a high number of no shows. We describe our experience with this in Section 6.11. You may decide to overschedule your clinic, to account for no shows (although this could lead to disappointment for people scheduled late in the day if everyone shows up). As part of this option, you could theoretically create a stand-by line for people who show up without an appointment, so you have people on site and ready to go.

In summary: If you fall short one day/session and can store unused vials, you can try to add additional people to your schedule the next day/session to utilize the leftover vials of vaccine. If you cannot store unused vials, you need a plan for quickly adding same day appointments to your schedule (more on this topic below in 6.11).

In our clinic we used Option 1 described above. We prepared vaccine doses as we went, rather than preparing them all in advance. We did this because it allowed us to closely align the number of vaccines prepared with number of people who actually showed up for the clinic session.

We had a no show rate of 1-10% most days.

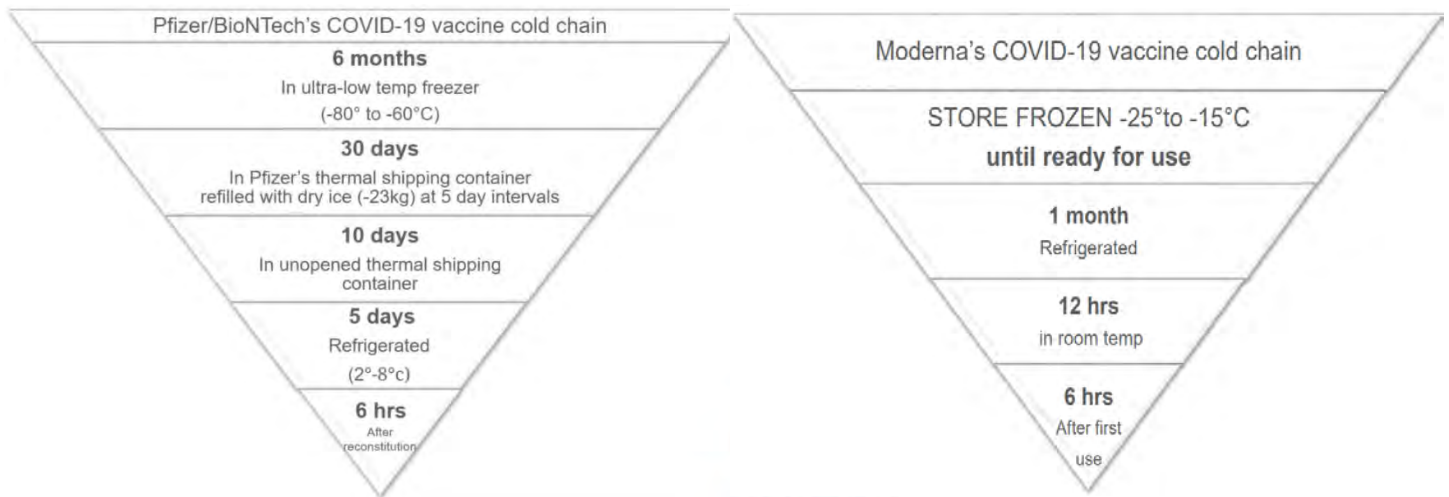
Proceeding in this way, it is very important to estimate the total number of vaccinations you anticipate administering in 1 hour, and then purposefully draw up fewer vaccinations for that hour. That way if there is a bottleneck at check-in, or multiple no-shows, you do not have expiring syringes that you are scrambling to administer before they expire.

The nurse/pharmacist drawing up the vaccines likely will not know the actual rate at which you are vaccinating, so this can get tricky. We had an experience one hour where there were several expiring vaccines and no waiting patients. We scrambled and got them into other pods, but this is a situation to try and avoid.

Regardless of which way you plan to run your vaccine clinic, keep in mind that each vial contains multiple doses which must be completely administered within short time frames. Vaccines CANNOT BE RE-FROZEN once they have been thawed.

5.6. Vaccine freezing and thawing guidelines

The following infographics show the amount of time each vial can be held at each stage; this can help to back-calculate handling.



5.7. Materials you might find useful about organizing the vaccination clinic

- [EpiPen instructions](#)
- [ACLS instructions](#)
- [BLS instructions](#)
- [Vaccine cold-chain information](#)

Chapter 6. Developing a vaccine clinic workflow and utilization of space

An important part of preparing for a vaccination event at your clinic is to plan the workflow. This can take a little bit of time and iteration. Planning a workflow is one of those tasks that is best accomplished by a small multidisciplinary group, as having team members with different types of knowledge and different perspectives can help.

Once you develop what you think might be a good workflow, do a test run. Walk through all steps of the flow and identify where things might go wrong. Recruit a few patients to help, too! Also, be prepared to debrief after each vaccine clinic and discuss what worked and what did not regarding the timing and flow of the people for the vaccine clinic. You will continue to iterate and refine the workflow as you go. As mentioned above, start with a small number, this “mini-version” of your clinic will allow you to identify bottlenecks and refine your workflow. We also used observers to help us identify workflow improvements.

There are going to be bottlenecks in the workflow on vaccine day. While greeting and screening people for COVID-19 symptoms and possible adverse reactions to the vaccine can be done quickly, checking people in for their appointment, particularly if you are using a complicated EHR and/or collecting billing information, can be a bit more time consuming. Check-in is one place where there can be a bottleneck. A second common bottleneck is after people are checked-in as they wait to be roomed for their vaccination (or wait to be called over to a vaccination station).

6.1. First steps and considerations

As you begin to plan your vaccine clinic, take stock of all of your clinic’s physical assets:

Some examples of outside assets include:

- Parking lot – will there be sufficient parking? If not, where is good overflow parking? What about people with mobility issues?
- Is there a paved walkway around the building? Is any of this paved walkway covered? This could be a good place to set-up a check-in desk and the shape of the building can be used to form help form lines for people waiting to check-in and then for vaccinations.
- Consider where the team will be most visible as people approach.
- Sandwich board signs/ signs on the walls to help with way finding and one direction flow. (Try to reduce or eliminate people having to cross back over the flow.)
- Consider where check in is located – make sure that the noise level will not make it hard for staff to hear people.

Some examples of inside assets include:

- How many examination rooms do you have?
- Do you have a room, perhaps a small conference room, where vaccines can be filled?
- Do you have a room where multiple people can be monitored after they have been vaccinated?
- Do you have places where signs could be placed to help with wayfinding? It is very easy to get lost in a clinic where everything looks the same.

- Do you have tools that foster communication, such as flags on doors, white boards outside rooms, walkie-talkies?

If setting up in a community building not fitted for clinical care (e.g., school, church, community center), what spaces do you have and how do you want to design your space and allocate certain spaces for certain tasks? *If you create this type of clinic – please share information with us so we can add a chapter about it in our next version!*

Next is a list of items to consider as you begin to plan for the flow of this clinic vaccine event.

Parking

- Where will people park?
- Where will volunteers and clinical staff park?

Activities that are best conducted outside, if possible

- COVID-19 symptom screening
- Screening for possible adverse reactions to past vaccines, history of anaphylaxis, and identifying those who need 30-minute monitoring (vs. the standard 15-minute monitoring)
- Check-in
- Waiting for a vaccinator

For outside activities, here are some questions that might prompt your team's workflow development:

- How will people visually know where to go after they've parked?
- Will there be tables set up for check-in? If so, where will you place these?
- How will people be directed to the end of the first line after they park?
- How do you want that first line to move? Consider the advantages of having that line (or a line) follow the contour of the building, particularly if you don't have other markers.
- After the person is greeted, how do you want the line to move from having been greeted to check-in? You will see in our clinic, people were asked to line up for check-in and greeters moved up and down the line to screen people.
- How do you want the line to move from check-in to being brought in for a vaccine?
- How will you keep lines separate?
- How will you keep people appropriately spaced (physically-distanced by 6 feet)?
- Do you want or have markings 6-feet apart? Chalk could work for this. We just estimated it.
- How will you support people who are unable to stand in line to wait? How will you support people unable to walk short distances (wheelchairs, walkers, etc)?

For activities inside your clinic, here are some questions that might prompt your team's workflow development:

- What rooms will you use to vaccinate people?
- How will the team know when a room is open, but not yet clean? When it's clean and available? When a room is occupied?
- Where will you monitor people?

- Will this be inside an exam room with the door open, inside a larger space within the clinic (e.g., waiting room), or is it possible to do this outside under a structure (e.g., a tent) or in personal cars?
- If monitoring inside the building, how can you keep people moving so exam rooms for vaccinations open quickly?
- How will you keep people physically distanced?
- How will you identify and monitor people who need 15- and 30-minute monitoring?
- How will people know when they can leave?

6.2. Sample workflow and floor plan

In this section, we walk you through the floor plan of our clinic and show you how we organized our clinic, as this might help your planning. We also walk you through the workflow at our clinic, and provide you with sample scripts that you can use to get your team started.

Physical Layout and People Flow

The figure below is the floor plan of our clinic. Our clinic is part of a medical/shopping center where there is ample parking. The building has a small overhang around the building, and a larger overhang at the front of the building. There are multiple doors where people can enter and exit the building.



We set up two folding tables at the front of the building to be used for check-in. This is marked on the map as “Registration.” Three people were typically seated at this table to register people. See Section 6.7 for more details about how the check-in table was set up. After people parked, they could see the check in desk, as they approached the front of the building. A greeter was watching people as they approached the building, and directed them to the end of the line. There was a check-in line. And, once this line formed, people generally knew to follow it and go to the end, with little assistance.

The main limitation of this spot was the curb, as it was not wheelchair accessible. There was not a great alternative for us, but it is an important consideration.

The people in line for Registration are marked with an X on the map. People lined up six feet apart for this line. Given the building's overhang, people could stay somewhat dry while they waited.

We did not have spots marked on the sidewalk, and people needed to be reminded by the greeter(s) to maintain 6-feet from others. If possible, mark the distance.

People who cannot stand and ambulate:

At each session, we had a number of people who could not physically stand for 20-30 minutes waiting for a vaccine and/or who were in a wheelchair. In these instances, we either had someone in the line just after this person “mark their spot” and let us know when it was their turn so the Greeter could locate the person and his/her caregiver. We also sometimes had a family member hold the person's spot. Or, if possible, we found a place inside the clinic where people could sit and wait for their turn.

After Registration, people were initially directed to one of two doors, although the flow worked better when we used three doors; the lines were shorter and moved faster with three doors. This, however, required having an extra vaccination team working. Doors 1, 2 and 4 are marked on the map with the appropriate number. Lines formed at each of these doors as people waited (outside) to be roomed for a vaccine. Blue dots mark how we directed this line. Given the footprint of the clinic, we needed to be careful and guide people to keep these two lines separate. This was a particular concern at Doors 2 and 4, but when we added a third door and an extra vaccination team, there were fewer people waiting in line at this step in the process.

Inside the clinic, we used the Platinum Pod Conference Room for the team filling the syringes. This room was staffed by at least one RN and was also where people who needed 30-minute monitoring were located while they waited, as the people filling the syringes could also monitor these people.

Having an RN fill vaccine syringes and monitor people in this space was useful. Think about places in your workflow and space where you can strategically place your team members who can do multiple tasks.

We used the lobby to monitor some of the people who had a 15-minute waiting period. We could safely distance about 12 people in this waiting room, which was generally all that was needed. If the waiting room was too full, people were asked to wait in their examination room, and monitors walked the halls to make sure people were doing okay. People were asked to set a personal timer for the time they needed to wait. Most had a smart phone that they could use for this task. We also used white boards outside each exam room to note the time a vaccine was given.

PROVIDER:	RMS:	AM:	PM:	EVE:
BLUE	6,7,8,9,10,5	Joe	Shawna	Jason
Red	12,13,14,15,11	Pen-Sonita Pen-Mall Chans	Ashley	Pen-Ruthless Pen-Beth
Orange	17,18,19,20,21,22	Pen-Garland Pen-Lizelle Pen-Jessie	Tiff	Malissa
Gold	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100	Pen-Ryan Norton Pen-Chris Michael	LeAn	Britt
Greeter 1- Screening		Pen-Deb Echlin	Pen-Matrina Pen-Matrina	
Greeter 2- Screening		Pen-Sara Pen-McCormen	Pen-Alison Pen-Fred	
Greeter 3- Check-in		Pen-Karla	Pen-Karla	
Greeter 4- Check-in		Pen-Pearl	Pen-Pearl	
Greeter 5- Check-in		Pen-Aman Pen-Prasad	Pen-Tina	
Monitor/Navigator 1		Pen-Blanca	Pen-Deborah	
Monitor/Navigator 2		Pen-Stephanie Pen-G	Pen-David	
LIP		Pen-Mandy Pen-Mandy		
Phonics 1- WFL		Pen-Cynthia		
Phonics 2- in clinic		Pen-Tina	Pen-Karen D	
Vaccine (dental) Monitor		Pen-Jmac	Pen-Jmac	
Vaccine (dental) Monitor		Pen-Randy		
Vaccine (dental) Monitor		Pen-Stem	Pen-Stem	

The picture above shows people assigned to each role and each location. We used approximately 25 examination rooms. The clinic has four pods. Each pod had a vaccination team (1 vaccinator/2 scribes), the teams are described in Section 6.9. Each team worked between 4-6 examination rooms, with one team overflowing into the lobby, if needed. This overflow rarely occurred.

The Roomer/Scribe would invite and escort the next person in the “already check-in” line outside into the building (from either Doors 1, 2 or 4), bring the person into an open (and cleaned) examination room, log into the EHR to create an encounter, and schedule their second appointment (if applicable). The Roomer/Scribe would then use a room flag system and/or walkie-talkie to communicate with the clinician that the person was ready for vaccination. The vaccinator did one additional screen of allergies prior to vaccinating and answered any additional questions.

We used flags similar to how our usual clinic flows: red flag signaled scribe was in room with vaccine recipient, green flag signaled recipient was ready for vaccinator, blue flag signaled recipient had been given vaccine and was waiting for 15 minute monitoring in exam room with the door open.

Workflow

The figure below shows our workflow. It is downloadable as a PDF [here](#). In Chapter 5 we describe all of the functions needed to carry out a vaccine clinic. And, we describe how, in our clinic, we combined some of those functions into roles, such as the Greeter/Screeners role and the Roomer/Scribe role. The workflow below

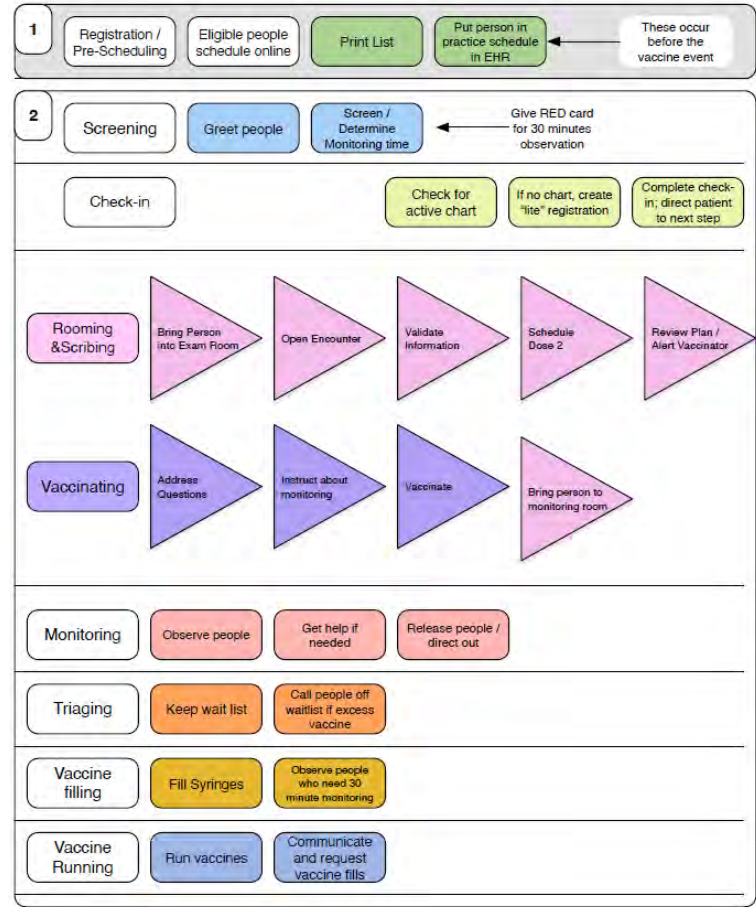
shows the sequence in which these functions or activities were carried out and by whom.

This is a swim lane diagram. It is read from top to bottom and from left to right. Working from the top, the first grey row, which is labeled number 1 is the first swim lane. We created a grey swim lane to show that these activities all occur before the day of the vaccine clinic.

The top lane denotes all functions related to the registration activity, which is complete when all people scheduled for the vaccine clinic have had an appointment scheduled in the clinic’s EHR.

The ovals show each step in the process: The green ovals show steps carried out by the registrator. The first uncolored oval shows a step that is carried out by the person who is wishing to be vaccinated (i.e., schedule online).

As this swim lane shows, this Registrar receives a list of eligible people who scheduled an online vaccination appointment. The Registrar prints



this list to have at the day of the vaccine clinic. And, they enter each person into the clinic’s EHR.

Each swim lane shows a different activity and the steps in the process and the order in which they occur, if read from left to right. In our clinic, those doing Rooming and Scribing worked in teams with those doing Vaccinating. The triangles show the steps in the process, and the colors of the triangle show which role carries out the step (e.g., green is done ahead by clinic staff; blue is the Greeter/Screeners; pink is the Roomer/Scribe; purple the vaccinator, and so forth).

6.3. Scheduling vaccine recipients

Before the day of the vaccine clinic, people were pre-scheduled via a HIPAA compliant platform. For us, this was facilitated by Columbia County Public Health. The Registrator prints this list and schedules each person on the vaccine schedule in allotted times. If possible, the Registrator attempts to pre-register each person via an expedited registration system. If this is possible, it will speed the check-in process on the day of the vaccine clinic. **It is important to know the elements of information needed for registration and for completing your state's immunization registry documentation.** In order to register people in our EHR, the following information needed to be collected by the county's scheduling system: full name, date of birth, address, phone number, sex, preferred language.

6.4. Assisting with car flow/traffic in the parking lot

We found that people would arrive early to the vaccine clinic. We asked them to wait in their cars until the clinic opened. In addition, cars would be arriving and departing the lot all day. We did not experience trouble with traffic, and drivers were largely able to negotiate the parking lot, park their car and join the line. If you have a tricky parking situation, it is advisable to have someone directing traffic and monitoring parking (ensure they have vests and traffic wands).

Given limited spaces in the lot, volunteers and staff were asked to park elsewhere. An email was sent to the vaccination team the day before the clinic with directions for where to park. For the example email that was sent to volunteers, click [here](#).

6.5. Screening people for an appointment and appropriate priority group

Our clinic is following the priorities that Oregon has set for vaccinating the population. This prioritization can be found by clicking [here](#). Updates to the state's vaccine priorities can be found on [COVID-19 Updates \(egov.com\)](#).

We assumed that people the county had scheduled into an appointment slot met eligibility criteria; we did not do a re-assessment at the check-in door to determine whether each person who arrived fit within the state's eligibility criteria.

Managing the communication when a person must be turned away

There will be people who you will have to turn away. We recommend listening to these people, and treating them kindly. Everyone wants to get vaccinated, and it's difficult to have to wait.

- Explain to the person that the state and county are identifying and inviting people to the vaccine clinic based on priorities. The clinic is not making these decisions.
- Give them a handout that describes your state's vaccination eligibility groups, if appropriate (example from Oregon is in Chapter 3).
- Provide them with a handout of who they can contact in their county. In Oregon, this information can be found [here](#).
- Offer to take the person's phone number and put them on a wait list. We explained to people that sometimes, at the end of a clinic session, there are a few extra vaccines to be used. We contacted people in the order that they were placed on this list to come into the clinic to be vaccinated. The person may only get 15-20 minutes notice, if this were to happen. Typically, people were happy to have this opportunity.

Managing family and friends

Friends and family that accompany the person with a scheduled appointment, but are not part of the priority group being vaccinated (and do not have an appointment) were not vaccinated at our clinic. We asked these people to wait in the car (or elsewhere), but not in line, if the person with the appointment was able to wait in line alone. If the person getting vaccinated needed assistance, we asked family and friends to identify one person to accompany the person.

We had some instances where multiple people from the same family were getting vaccinated, and all had appointments. These people waited in line as a group. Each individual was checked-in. This family was then roomed as a group (in the same examination room). The Roomer/Scribe created an encounter and second appointment for dose 2 for each individual, and the vaccinator vaccinated all people at the same time. In some instance, we allowed families to monitor in the examination room.

6.6. Screening people for COVID-19 symptoms

The questions we asked to screen people for COVID-19 symptoms can be found [here](#). We laminated these questions. People were screened for COVID-19 symptoms outside. The Greeter/Screeners did this. After completing these questions. If a person screens positive on COVID symptom screen, they needed to reschedule. The Screener contacted the Vaccination Lead on duty for assistance. We did not have anyone at the event screen positive for COVID-19 symptoms.

6.7. Screening people for adverse reactions to the vaccine/monitoring needs

After screening for COVID-19 symptoms, the Greeter/Screen then asked people about potential adverse reactions to the vaccine. The following visual document was created to identify people who should and should not proceed with a vaccine, and people who should wait for 15 or 30 minutes after vaccination. Although we

had a laminated version of this available to the Greeters/Screeners, it was easier for these volunteers (who were often non-clinical volunteers) to have a few short questions to guide their screening process.

	MAY PROCEED WITH VACCINATION	PRECAUTION TO VACCINATION	DO NOT VACCINATE
	Conditions: <ul style="list-style-type: none"> Immunocompromised condition Pregnancy Lactation Actions: <ul style="list-style-type: none"> Vaccination not contraindicated Patient may consider discussion with primary healthcare provider 15-minute observation period 	Conditions: <ul style="list-style-type: none"> Moderate/severe acute illness Actions: <ul style="list-style-type: none"> Risk assessment Potential deferral of vaccination 15-minute observation period if vaccinated 	Conditions: <ul style="list-style-type: none"> None Actions: <ul style="list-style-type: none"> N/A
ALLERGIES	Allergies: <ul style="list-style-type: none"> Non-serious allergy history (e.g., no anaphylaxis) to any of the following: <ul style="list-style-type: none"> Food, pet, insect, venom, environmental, latex, etc. Oral medications Vaccines or other injectables Family history of allergies Actions: <ul style="list-style-type: none"> 15-minute observation period 	Allergies: <ul style="list-style-type: none"> History of anaphylaxis due to any cause History of any immediate allergic reaction to vaccines or injectable therapies (except those related to component of mRNA COVID-19 vaccines or polysorbate, as these are contraindicated) Actions: <ul style="list-style-type: none"> Risk assessment Potential deferral of vaccination and/or referral to allergist-immunologist 30-minute observation period if vaccinated 	Allergies: History of the following are contraindications to receiving either of the mRNA COVID-19 vaccines: <ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose of an mRNA COVID-19 vaccine or any of its components Immediate allergic reaction of any severity to a previous dose of an mRNA COVID-19 vaccine or any of its components (including polyethylene glycol) Immediate allergic reaction of any severity to polysorbate Actions: <ul style="list-style-type: none"> Do not vaccinate Consider referral to allergist-immunologist

Date Reviewed: 1/13/2021

The CDC prevaccination checklist is shown below and available to download [here](#). OHSU provided our clinical system with the following guidance: People should delay an immunization until a consult with an allergist has occurred if the person has had:

- Hypersensitivity reaction to the first dose of the COVID-19 vaccine;
- Known severe allergy to a COVID-19 vaccine ingredient;
- Their own concerns that they might have a severe reaction when they get the vaccine.

Based on this guidance, we identified four key questions for the Greeter/Screeners to ask.

- CDC item #4 Have you ever had an allergic reactions to another vaccine other than COVID-19 vaccine?
- CDC item #5 Have you ever had a severe reaction to severe reaction to anything else, or history of anaphylaxis needing an EpiPen?
- #9 Do you have a weakened immune system?
- #11 Are you pregnant or breastfeeding?

We asked this last question, not because these are contraindications, but because this allowed us to direct people to the medical lead if they had additional questions or wished to talk with a clinician. Greeters and Screeners held laminated cards that said “30 minutes.” They handed this card to anyone who reported a prior allergic reaction to a vaccine. They also handed a 30 minute card to people who had concerns they wanted to discuss with a clinician and/or who reported a severe allergy that could be clinically relevant (e.g., antibiotics, peanuts) and required additional assessment/consideration.

Prevaccination Checklist for COVID-19 Vaccines



For vaccine recipients:

Patient Name _____

The following questions will help us determine if there is any reason you should not get the COVID-19 vaccine today.

Age _____

If you answer "yes" to any question, it does not necessarily mean you should not be vaccinated. It just means additional questions may be asked.

If a question is not clear, please ask your healthcare provider to explain it.

Yes No Don't know

1. Are you feeling sick today?			
2. Have you ever received a dose of COVID-19 vaccine?			
• If yes, which vaccine product did you receive? <input type="checkbox"/> Pfizer <input type="checkbox"/> Moderna <input type="checkbox"/> Another product _____			
3. Have you ever had an allergic reaction to: (This would include a severe allergic reaction [e.g., anaphylaxis] that required treatment with epinephrine or EpiPen® or that caused you to go to the hospital. It would also include an allergic reaction that occurred within 4 hours that caused hives, swelling, or respiratory distress, including wheezing.)			
• A component of the COVID-19 vaccine, including polyethylene glycol (PEG), which is found in some medications, such as laxatives and preparations for colonoscopy procedures			
• Polysorbate			
• A previous dose of COVID-19 vaccine			
4. Have you ever had an allergic reaction to another vaccine (other than COVID-19 vaccine) or an injectable medication? (This would include a severe allergic reaction [e.g., anaphylaxis] that required treatment with epinephrine or EpiPen® or that caused you to go to the hospital. It would also include an allergic reaction that occurred within 4 hours that caused hives, swelling, or respiratory distress, including wheezing.)			
5. Have you ever had a severe allergic reaction (e.g., anaphylaxis) to something other than a component of COVID-19 vaccine, polysorbate, or any vaccine or injectable medication? This would include food, pet, environmental, or oral medication allergies.			
6. Have you received any vaccine in the last 14 days?			
7. Have you ever had a positive test for COVID-19 or has a doctor ever told you that you had COVID-19?			
8. Have you received passive antibody therapy (monoclonal antibodies or convalescent serum) as treatment for COVID-19?			
9. Do you have a weakened immune system caused by something such as HIV infection or cancer or do you take immunosuppressive drugs or therapies?			
10. Do you have a bleeding disorder or are you taking a blood thinner?			
11. Are you pregnant or breastfeeding?			

Form reviewed by _____

Date _____

01/05/2021 CS321.629-F

Adapted with appreciation from the Immunization Action Coalition (IAC) screening checklists

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6.8. Registration and check-in

Your clinic will need to consider how it will register, check-in, and submit the vaccination information to the state. We used a vaccination module built into our EHR, which is Epic. This enabled us to use a streamlined registration and scheduling process for people who were not patients of the clinic. At the check-in table, each staff member had a laptop, a printout of the people scheduled for the day (for reference in case the person's appointment could not be found in the EHR), sanitizing wipes for pens, umbrella handles, and wheelchair handles, and to wipe laptops in between users. We also provided blankets and a small heater under the table.

People made their appointments via the county. The county sent information to the clinic. For many people, minimal information was added to the EHR for the person and an appointment was created. On the day of the vaccine clinic, when people arrived, those at the Registration Desk found the person's name on the schedule and then followed steps to check-in the person. When people were already in the system and their information was complete (which was accomplished through pre-scheduling done by the team in advance), check-in was rapid. When this information was not in the EHR, the person at Registration added the necessary information. This did slow down the Registration process. (As noted above, if this is happening frequently at registration, consider having another desk available to do this additional work so that you can keep your line moving.)

If you choose to use an EHR-based tool to track vaccine administration, it is important to outline the essential information needed (i.e., the least amount of information your clinic needs to collect from hundreds of people who are not already registered as your established patients in the EHR). Streamlining this process as much as possible and doing work ahead of the vaccination day will make the registration process most efficient.

6.9. Monitoring people post-vaccine

Post-vaccine monitoring is the biggest limiting factor in how a vaccine clinic will function. You must provide space for every person to safely sit for 15 minutes after being vaccinated, distanced from others. A small number will need 30 minute monitoring. Effective planning of monitoring space is essential. Some ideas are:

- Bring 15-minute people to the lobby. They can self-time the 15 minutes using their phone or watch.
- Move 30-minute people to a conference room.
- Have people return to their cars if the parking lot is large enough to accommodate this. People can write the time on their windshield or be handed a piece of paper for their dashboard.
- If you have ample exam rooms, have them sit in an exam room with the door open.

Regardless of where you choose to monitor people, you will need a few team members to keep an eye on people. You will need to have some supplies on hand for (**extremely rare**) vaccine reactions. In general, the critical piece is benadryl and epinephrine. We alerted our local fire & rescue team about the clinic and to let them know their services may be needed for anaphylactic reaction; in our case, the fire & rescue building is a few hundred feet away from the clinic building so they were not on-site. For other vaccine clinics it would be advisable to have EMTs on site in the parking lot to help to respond to emergencies. Anaphylactic reactions are EXTREMELY rare. In our experience the vast majority of reactions were vasovagal reactions from people with either needle phobias or anxiety around vaccine administration itself. For this reason, it was important to

have someone available that can offer this latter group juice/water/crackers and have ability to take basic vitals, etc. We extended monitoring of anyone with vasovagal reactions to 30 minutes (minimum) of monitoring with the requirement that they must feel back to baseline before leaving the facility.

6.10. Managing a waitlist for end of day leftover doses

As described above, we kept a wait list of people who were interested in getting called if we have extra vaccines to use at the end of the clinic. You can find the list we created for this purpose [here](#). Typically, the person at the Registration Desk kept this list.

6.11. For more information about developing a vaccine clinic workflow and utilization of space

- [COVID-19 vaccine FAQs from OHSU](#)
- [Symptoms of Coronavirus](#)
- [Vaccine clinic time and budget worksheet](#) (Harvard Primary Care Center)
- [Vaccine clinic readiness checklist](#) (state of California)

6.12. Materials you might find useful about developing a vaccine clinic workflow and utilization of space

- [CDC's Prevaccination Checklist for COVID-19 Vaccines](#)
- [Role workflow](#)
- [Vaccination flow – staff perspective](#)
- [Vaccination flow – recipient perspective](#)
- [Staff/volunteer sample reminder and parking email](#)
- [Oregon eligibility contact card](#)
- [Sample parking lot map](#)
- [Sample “What to expect” video](#)
- [Waiting list](#)

Chapter 7. Vaccination procedures

This chapter provides training resources for your vaccinators, as well as vaccination instructions for each of the two vaccines. For example, how to thaw the vaccine vials, how to reconstitute the Pfizer vaccine, how to fill syringes, administer the vaccine, monitor people after receiving the vaccination, and how to complete the vaccination record card.

7.1. Training vaccinators

OHSU training:

- **COVID-19 Vaccination Training: Become a COVID-19 Immunizer**
<https://www.ohsu.edu/school-of-medicine/cpd/covid-19-vaccination-training>
COVID -19 vaccination is the most crucial mass immunization program in history.
Time to complete: approximately 50 minutes.
Credit fee: Free
Learning objectives
 - Contribute to a public health cause of this magnitude
 - Make a global impact, not only a U.S, Oregon, or OHSU effort
 - Be part of the solution in this devastating pandemic
 - Save lives one safe and effective vaccination at a time

CDC training:

- **WB4464: Moderna COVID-19 Vaccine: What Healthcare Professionals Need to Know**
<https://www2.cdc.gov/vaccines/ed/covid19/moderna/index.asp>
PROGRAM DESCRIPTION: CDC has created a new, web-on-demand, self-paced module for healthcare providers who will be administering Moderna COVID-19 Vaccine. This module will provide information to healthcare professionals about COVID-19 vaccine manufactured by Moderna, Inc., based on the recommendations of the Advisory Committee on Immunization Practices and guidance from the manufacturer.
OBJECTIVES: At the conclusion of the session, the participant will be able to:
Describe characteristics of the Moderna COVID-19 vaccine used to prevent COVID-19 infection.
Describe storage and handling requirements for Moderna COVID-19 vaccine.
Describe vaccine preparation procedures for Moderna COVID-19 vaccine.
Describe vaccine administration procedures for Moderna COVID-19 vaccine.
Locate current immunization resources to increase knowledge of team's role in program implementation for improved team performance.
Implement disease detection and prevention health care services (e.g., smoking cessation, weight reduction, diabetes screening, blood pressure screening, immunization services) to prevent health problems and maintain health.
- **WB4461: Pfizer-BioNTech COVID-19 Vaccine: What Healthcare Professionals Need to Know**
<https://www2.cdc.gov/vaccines/ed/covid19/pfizer/index.asp>
PROGRAM DESCRIPTION: CDC has created a new, web-on-demand, self-paced module for healthcare providers who will be administering Pfizer-BioNTech COVID-19 Vaccine. This module will

provide information to healthcare professionals about COVID-19 vaccine manufactured by Pfizer Pharmaceuticals, based on the recommendations of the Advisory Committee on Immunization Practices and guidance from the manufacturer.

OBJECTIVES: At the conclusion of the session, the participant will be able to:

Describe characteristics of the Pfizer-BioNTech COVID-19 vaccine used to prevent COVID-19 infection.

Describe storage and handling requirements for Pfizer-BioNTech COVID-19 vaccine.

Describe vaccine preparation procedures for Pfizer-BioNTech COVID-19 vaccine.

Describe vaccine administration procedures for Pfizer-BioNTech COVID-19 vaccine.

Locate current immunization resources to increase knowledge of team's role in program implementation for improved team performance.

Implement disease detection and prevention health care services (e.g., smoking cessation, weight reduction, diabetes screening, blood pressure screening, immunization services) to prevent health problems and maintain health.

7.2. Procedures for filling syringes

How to Thaw and Prepare the Moderna Vaccine

<https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html>

How to Thaw the Vaccine

- Vaccine may be thawed in the refrigerator or at room temperature.
- Refrigerator: Between 2°C and 8°C (36°F and 46°F) for 2 hours and 30 minutes
- Room temperature: Between 15°C and 25°C (59°F and 77°F) for 1 hour
- Vials that have not been punctured may be kept at room temperature (between 8°C and 25°C (46°F and 77°F)) for up to 12 hours. Do **NOT** refreeze thawed vaccine.

How to Prepare the Vaccine

1. Ensure you have an adequate number of people ready to receive the vaccine before preparing it.
2. Follow aseptic technique. Perform hand hygiene before vaccine preparation, between recipients, when changing gloves (if worn), and any time hands become soiled.*
3. Unpunctured vials: Check the expiration date. Never use expired vaccine.
Note the date and time the vial is punctured. Keep the vaccine between 2°C and 25°C (36°F and 77°F) for up to 6 hours. Discard any unused vaccine after 6 hours. (If your vial is already punctured, check the beyond-use time. Never use vaccine after the beyond-use time.)
4. With the vial upright, gently swirl the vaccine. Do NOT shake. If the vial is shaken, contact the manufacturer.
Note: Gently swirl the vaccine before withdrawing subsequent doses.
5. Examine the vaccine. It should be white to off-white in color and may contain white particles. Do not use if liquid contains other particulate matter or is discolored.
6. Using a new, sterile alcohol prep pad, cleanse the stopper of the multidose vaccine vial.
7. Choose the correct equipment, including the correct needle size.
8. Withdraw 0.5 mL of vaccine into the syringe.* Ensure the prepared syringe is not cold to the touch.

9. Bring the dose of vaccine from the designated preparation area immediately to the treatment area for administration.

*Gloves are not required unless the person administering the vaccine is likely to come in contact with potentially infectious body fluids or has open lesions on the hands. If worn, perform hand hygiene and change gloves between recipients.

*Changing needles between drawing vaccine from a vial and injecting it into a recipient is not necessary unless the needle has been damaged or contaminated.

How to Thaw and Prepare the Pfizer Vaccine

<https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html>

How to Thaw the Vaccine

- Vaccine may be thawed in the refrigerator or at room temperature.
- Refrigerator: Between 2°C and 8°C (36°F and 46°F)
 - 25 to 195 vials may take 2 to 3 hours to thaw in the refrigerator.
 - Fewer number of vials will take less time.
- Room temperature: Up to 25°C (77°F) between 30 minutes and 2 hours
 - Vials at room temperature must be mixed within 2 hours or returned to the refrigerator.
- Do NOT refreeze thawed vaccine.

How to Prepare the Vaccine

1. Ensure you have an adequate number of people ready to receive the vaccine before preparing it.
2. Follow aseptic technique. Perform hand hygiene before vaccine preparation, between recipients, when changing gloves (if worn), and any time hands become soiled.*
3. Remove vaccine from the freezer or refrigerator. Allow vaccine to come to room temperature. Vials can be held at room temperature for up to 2 hours before mixing. After 2 hours, return unmixed vials to the refrigerator.
4. Before mixing, check the expiration dates of the vaccine and diluent. NEVER use expired vaccine or diluent.
5. With the vaccine at room temperature, gently invert the vial 10 times. Do not shake the vial. If the vial is shaken, discard the vaccine. The vaccine is white to off-white in color and may contain opaque particles. Do not use if liquid is discolored.
6. Using a new, sterile alcohol prep pad for each vial, wipe off the stoppers of the diluent and vaccine vials.
7. Using a 21-gauge (or narrower) needle, **withdraw 1.8 mL** of 0.9% sodium chloride (normal saline, preservative-free) into a mixing syringe. After use, discard diluent vial and any remaining diluent.
 - Do NOT use or save the remaining vaccine diluent to mix additional vaccine or for other uses.
 - Do NOT use bacteriostatic normal saline or other diluents to mix the vaccine.
8. Inject 1.8 mL 0.9% sodium chloride (normal saline, preservative-free) diluent into the vaccine vial.
9. Using the mixing syringe, remove 1.8 mL of air from the vaccine vial to equalize the pressure in the vaccine vial.
10. Gently invert the vial containing vaccine and diluent 10 times. The vaccine will be off-white in color. Do not use if discolored or contains particulate matter. Do not shake. If the vial is shaken, discard the vaccine.

11. Note the date and time the vaccine was mixed on the vial.
12. Keep mixed vaccine between 2°C and 25°C (36°F and 77°F) and administer within 6 hours. Discard any unused vaccine after 6 hours. Do not return to freezer storage.
13. Choose the correct equipment, including the correct syringe and needle size.
14. Cleanse the stopper on the vial of mixed vaccine with a new, sterile alcohol prep pad. Withdraw 0.3 mL of mixed vaccine into the syringe. Ensure the prepared syringe is not cold to the touch.
15. Remove any air bubbles with the needle still in the vial to avoid loss of vaccine. Use the same needle⁺ to withdraw and administer the vaccine, unless contaminated or damaged.
16. Bring the dose of vaccine from the designated preparation area immediately to the treatment area for administration.

*Gloves are not required unless the person administering the vaccine is likely to come in contact with potentially infectious body fluids or has open lesions on the hands. If worn, perform hand hygiene and change gloves between recipients.

⁺Changing needles between drawing vaccine from a vial and injecting it into a recipient is not necessary unless the needle has been damaged or contaminated.

7.3. Procedures for administering vaccinations



- Perform Hand hygiene for 15-20 sec. Gloves are not required for IM injections per CDC/ACIP/OSHA
- Position patient and self ergonomically. Have patient relax arm on their lap. Position yourself parallel to the patients arm to align your back
- Have patient roll up sleeve all the way to the shoulder to expose injection site
- Palpate the acromion process (bony tip of shoulder). Mark it with your pinky or ring finger depending on whether you are using a 2 or 3 fingerbreadth measurement
- Measure 2-3 fingerbreadths directly below the acromion process
- Form a V shape with your thumb and index finger as shown above
- Mark injection site by measuring from your web of thumb and middle of your index finger
- Avoid the top 2/3 of the deltoid which is where the bursa and joint space is to prevent shoulder injury

Administering Moderna Vaccine

<https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html>

1. Ensure staff has the correct PPE before administering vaccines and implement policies for the use of face coverings for vaccine recipients older than 2 years of age (if tolerated). Note: gloves are not required for administering vaccines but some staff prefer to use them.
2. Ensure that your pre-filled syringe has an appropriately sized needle for the designated recipient⁺, then administer the vaccine immediately by intramuscular (IM) injection in the deltoid muscle.
3. Observe recipients after vaccination for an immediate adverse reaction:
 - **30 minutes:** Persons with a history of an immediate allergic reaction of any severity to a vaccine or injectable therapy and persons with a history of anaphylaxis due to any cause
 - **15 minutes:** All other persons

⁺Changing needles between drawing vaccine from a vial and injecting it into a recipient is not necessary unless the needle has been damaged or contaminated. Larger individuals will require a longer needle, as seen below.

Administering Pfizer Vaccine

<https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html>

1. Ensure staff has the correct PPE before administering vaccines and implement policies for the use of face coverings for people older than 2 years of age (if tolerated). Note: gloves are not required for administering vaccines but some staff prefer to use them.
2. Ensure you have an appropriately sized needle for the designated recipient⁺, then administer the vaccine immediately by intramuscular (IM) injection in the deltoid muscle.
3. Observe recipients after vaccination for an immediate adverse reaction:
 - **30 minutes:** Persons with a history of an immediate allergic reaction of any severity to a vaccine or injectable therapy and persons with a history of anaphylaxis due to any cause
 - **15 minutes:** All other persons

⁺Changing needles between drawing vaccine from a vial and injecting it into a recipient is not necessary unless the needle has been damaged or contaminated. Larger individuals will require a longer needle, as seen below.

Needle Size Recommendations		
MALE	FEMALE	NEEDLE SIZE
Adults ≥ age 18 yrs.		
Less than 130 Lbs	Less than 130 Lbs	5/8- 1 inch
130- 150 Lbs	130-150 Lbs	1 inch
153-260 Lbs	153- 200 Lbs	1- 1.5 inches
260 + Lbs	200 + Lbs	1.5 inches

7.4. Procedures for monitoring people following the vaccination

<https://www.cdc.gov/vaccines/covid-19/clinical-considerations/managing-anaphylaxis.html>

Observation period following COVID-19 vaccination

CDC currently recommends that persons without [contraindications to vaccination](#) who receive an mRNA COVID-19 vaccine be observed after vaccination for the following time periods:

- 30 minutes: Persons with a history of an [immediate allergic reaction](#) of any severity to a vaccine or injectable therapy and persons with a history of anaphylaxis due to any cause.
- 15 minutes: All other persons

7.5. Procedures for filling out vaccine cards

Vaccine	Product Name/Manufacturer	Lot Number	Date	Healthcare Professional or Clinic Site
1 st Dose COVID-19	Pfizer-BioNTech		mm / dd / yy	
2 nd Dose COVID-19	Pfizer-BioNTech		mm / dd / yy	
Other			mm / dd / yy	
Other			mm / dd / yy	

People will receive a vaccination record card, shown below. Vaccination site staff should fill out the vaccine manufacturer, lot number, date of first dose, and date the second dose is due. Encourage people to enroll in VaxText, a free text messaging to receive COVID-19 vaccine second dose reminders: [VaxTextSM COVID-19 Vaccination Second-Dose Reminder](#). If you do not have ample supply of vaccination record cards, you may need to make additional photocopies.

7.6. Considerations when setting a date for dose 2

7.6.a. Setting a date for dose 2 – Pfizer

<https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html>

Persons age 16 years and older should receive **2 doses at least 21 days apart. Range: 17-42 days**

- Second doses administered up to 4 days before the recommended date (17 or more days after first dose) are considered valid. However, doses administered earlier do not need to be repeated.
- Second doses should be administered as close to the recommended interval as possible.
 - Do not use the grace period to schedule appointments for the second dose.
- There is no maximum interval between the first and second dose.

7.6.b. Setting a date for dose 2 - Moderna

<https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html>

Persons age 18 years and older should receive **2 doses at least 28 days apart. Range: 24-42 days**

- Second doses administered up to 4 days before the recommended date (24 or more days after first dose) are considered valid. However, doses administered earlier do not need to be repeated.
- Second doses should be administered as close to the recommended interval as possible.
 - Do not use the grace period to schedule appointments for the second dose.
- There is no maximum interval between the first and second dose.

7.7. For more information about vaccination procedures

- [OHSU training](#)
- [CDC training – Moderna](#)
- [CDC training – Pfizer](#)
- [How to thaw, prepare, and administer – Moderna](#)
- [How to thaw, prepare, and administer – Pfizer](#)
- [Managing anaphylaxis](#)
- [Clinical considerations](#)

Tools and Handouts

Tools for clinic staff/volunteers

Prep

- [Supply checklist](#)
- [Staff/volunteer sample reminder and parking email](#)
- [Shift spreadsheet](#)
- [Role workflow](#)
- [Vaccination flow – staff perspective](#)
- [Vaccination flow – recipient perspective](#)
- Role descriptions
 - [Check-in Guide](#)
 - [Greeter Guide](#)
 - [Monitor Guide](#)
 - [Scribe Guide](#)
 - [Vaccinator Guide](#)
 - [Overview template](#)
- [Vaccine cold-chain information](#)
- [Vaccine training](#) (OHSU Occupational Health)
- [Vaccine clinic time and budget worksheet](#) (Harvard Primary Care Center)
- [Vaccine clinic readiness checklist](#) (State of California)

Clinic days

- [CDC prevaccination checklist](#)
- [Vaccine leftovers scramble list](#)
- [Vaccine administration procedure](#)
- [Vaccine monitoring recommendations](#)
- [EpiPen instructions](#)
- [ACLS instructions](#)
- [BLS instructions](#)

Handouts for vaccine recipients

- Fact Sheet for Recipients and Caregivers
 - [Pfizer-BioNTech](#) (6 pages)
 - [Moderna](#) (5 pages)
- Vaccines are one of the tools we have to fight the COVID-19 pandemic (2 pages)
 - [English](#)
 - [Spanish](#)
- What to Expect after Getting a COVID-19 Vaccine (1 page)
 - [English](#)
 - [Spanish](#)
- [Oregon eligibility contact card](#)
- [VaxTextSM COVID-19 Vaccination Second-Dose Reminder](#)

More info and guidance

Vaccines

- [How COVID-19 vaccines work](#)
- [Understanding mRNA COVID-19 vaccines](#)
- [Vaccine cold-chain information](#)
- [COVID-19 vaccines and allergic reactions](#)
- [What to expect after getting vaccinated](#)
- [How the CDC is making COVID-19 vaccine recommendations](#)
- [Who should be vaccinated first when supplies are limited](#)
- [Vaccine safety monitoring after a vaccine is authorized or approved for use](#)
- [Symptoms of Coronavirus](#)
- [Memorial Physicians Services COVID vaccine FAQs](#)
- [OHA vaccine FAQs](#)
- [OHSU vaccine FAQs](#)
- [CHSU vaccination training](#) (free CME credit from OHSU – 50 minutes)
- [Managing anaphylaxis](#)
- [Clinical considerations](#)
- [CDC's COVID-19 vaccine site](#)
- [Oregon Health Authority's COVID-19 vaccine site](#)
- [Oregon vaccine priorities updates](#)
- [Get Vaccinated Oregon tool](#) (to check eligibility, get notifications, and find a provider)
- [Vaccine information by county](#)
- [Vaccine distribution phases in other languages](#)

Pfizer

- [Information about the Pfizer-BioNTech COVID-19 Vaccine](#)
- [Full list of ingredients – Pfizer](#)
- [CDC training – Pfizer](#)
- [How to thaw, prepare, and administer – Pfizer](#)
- [Clinical trials – Pfizer](#)
- [Evidence from the Pfizer-BioNTech clinical trials](#)
- [Safety and reactogenicity data from the clinical trials](#)
- [Demographic information trial participants](#)

Moderna

- [Information about the Moderna COVID-19 Vaccine](#)
- [Full list of ingredients – Moderna](#)
- [CDC training – Moderna](#)
- [How to thaw, prepare, and administer – Moderna](#)
- [Clinical trials – Moderna](#)
- [Demographic information for trial participants](#)



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