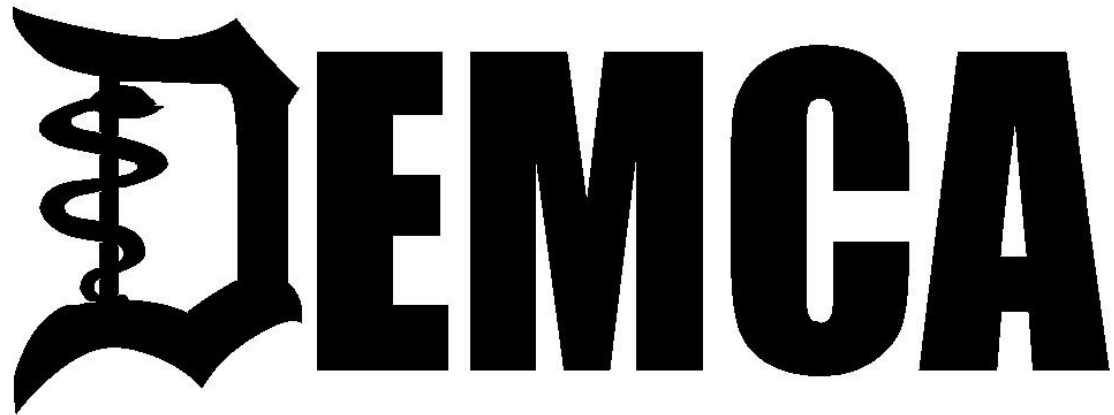


TCF Center Vaccine Distribution Site



**Detroit East Medical
Control Authority**



Forward

In 2000 the CDC developed the Strategic National Stockpile (SNS) program. The first formulary was configured as an initial “push-package”. This was materiel that could be assembled for rapid deployment to resupply overwhelmed local areas with medical supplies. The system was designed to be able to reach any point in the United States or its territories within 12 hours from a decision to deploy during a public health emergency. The first deployments were during the events of September 11, 2001, and the Anthrax incident in 2001.

After those events, the SNS began to widen its mission and has continued to grow. In 2004, the SNS began to stockpile pandemic influenza Medical Countermeasures (MCMs) and personal protective equipment (PPE). In order to continue to receive federal funding, all state and local health departments were required to create and maintain mass vaccination plans. These plans were for all eligible and willing people in an area specific geographic area who wanted or needed to be vaccinated. The vaccination plans began to expand out to include smallpox and other high infectious diseases. After the Ebola outbreak from 2013-2016, mass vaccination plans were further expanded to cover all special pathogens. These special pathogen plans were utilized to create the COVID-19 vaccination sites.

During a pandemic, the increased number of patients seeking acute medical care places a heightened burden on hospitals and clinics. That burden can be mitigated by providing mass testing, vaccination, or medication dispensing in nontraditional settings. Drive through sites can serve as an ideal strategy during respiratory pandemics, as there is minimal contact between the patient/vaccine recipient, other patients/vaccine recipients, and the staff working at the center. This limited contact decreases exposure risk and prevents the site from having the unintended consequence of becoming a super spreader event. Additionally, handling requirements for some COVID-19 vaccines, such as low temperature refrigeration, make large, consolidated off site vaccination centers particularly attractive. Accordingly, during the COVID-19 pandemic, the city of Detroit utilized TCF Convention Center as a high volume drive through vaccination site.

The drive through mass vaccination center that we describe in this document is meant to serve as a template for others faced with similar pandemic needs and can be modified/scaled depending on the needs in that particular setting.

Table of Contents

Site Selection.....	4
Command/Control.....	7
Vaccine Scheduling.....	8
Patient Flow.....	10
EMS.....	12
Pharmacy.....	13
Vaccine Administration.....	15
Data Entry.....	16
Inventory/Supply.....	17
Appendix A.....	21
Appendix B.....	22

Site Selection



TCF Center is a 2,400,000 square-foot convention center located in Detroit Michigan. It is the largest convention center in the US state of Michigan with more than 700,000 sq ft of usable exhibition space. The TCF center is surrounded by five parking garages with a total capacity of 2,596 parking spaces. It is physically located near the center of downtown Detroit and is adjacent to several major Detroit traffic arteries. During the initial pandemic surge, TCF Center was selected to serve as a Regional Care Center due to its large indoor space. For the vaccine roll out, the center was again selected, this time due to the large enclosed parking garage space, providing both ample space for a high volume of cars to receive vaccines as well as protection from the elements for vaccine recipients and staff members. Additionally, the location was selected due to its proximity to the city's vaccine storage site and the lack of planned events at the center due to COVID-19 related cancellations. The center is located downtown, making it easily accessible by surface streets and freeways, but is also bordered on the south by the Detroit River and surrounded by relatively few businesses, minimizing the impact of the vaccination site on local businesses. In Detroit and nationwide, COVID-19 has led to marked decreases in downtown city traffic as employers move to remote working, leaving the area surrounding the TCF center with little traffic.

The air quality at TCF is managed/controlled using two methods.

The first method of controlling air quality in both garages is provided by the Metasys System. Metasys is a building automation system that controls various components within a building's structure, such as heating, ventilation, air conditioning (HVAC). The primary goal of this type of infrastructure is to improve system efficiency, reduce costs and increase safety.

DPD monitors all vehicles prior to entry into the garage, if a vehicle is emitting any fumes, it is not permitted in the garage and is escorted to a separate staging area where nurses service those patients separately.

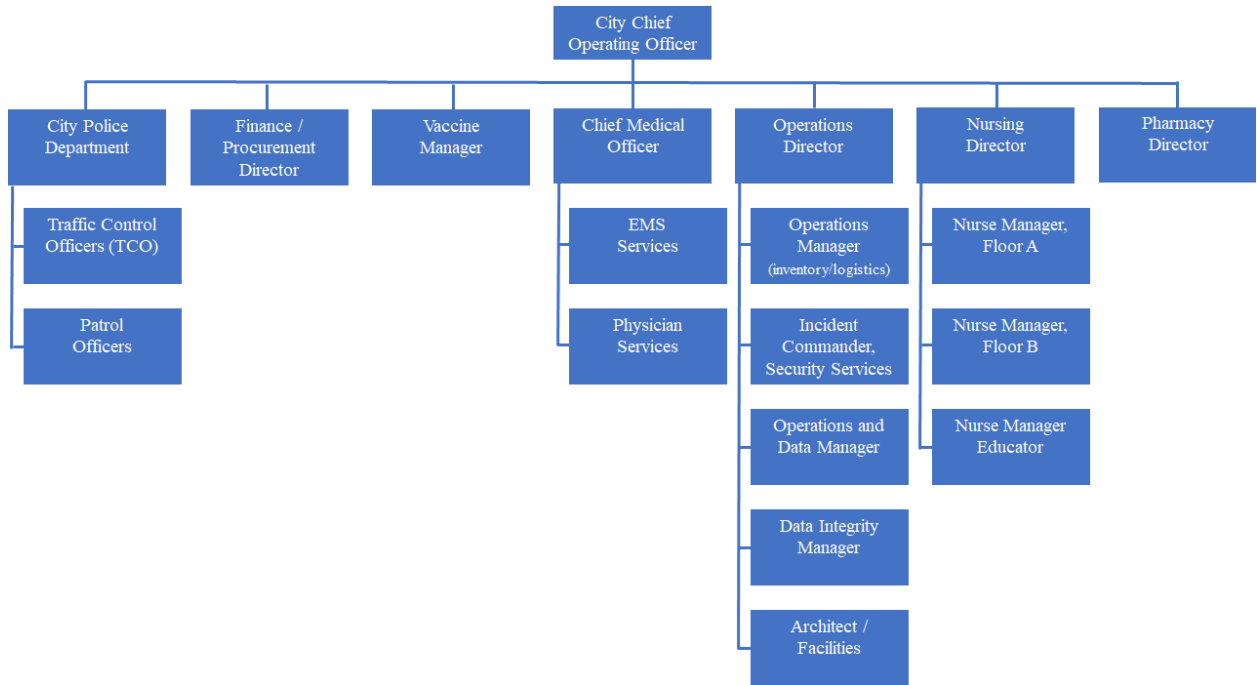
The second method of controlling air quality is to have all patients turn off their engines while in the garage awaiting service. To ensure proper levels of air quality are met, continuous monitoring of CO levels is performed by staff members throughout the course of the day utilizing a handheld CO monitor.

Public Health Department for Santa Clara Valley Health & Hospital System’s Drive-Through Medicine Drive-Through Triage Template includes the following checklist which can serve as a guide to selecting an ideal site. The most suitable location is the one with the highest score added down the column

Drive-Through Triage Site Assessment Checklist		Parking Lot										Parking Structure									
Infrastructure																					
Roof																					
Space for portable toilets																					
Ventilation																					
Total Space and Layout																					
Equipment/supply storage area																					
Patient observation area																					
Pharmacy area																					
Staff rehab area																					
No. of traffic lanes (capability)																					
Utilities																					
Electrical power																					
Emergency power																					
Heating																					
Lighting																					
Refrigeration																					
Water																					
Communication																					
Landline																					
Two-way radio capability to main facility																					
Cell phone signal strength																					
Other Services																					
Security of equipment and supplies																					
Biohazard & other waste disposal																					
Proximity to main hospital																					
Access control																					
Total Rating/Ranking (Largest # indicates best site)																					
Rating System																					
1 = Positive attribute																					
0 = Neither positive nor negative																					
-1 = Negative attribute																					

Source: Drive-Through Medicine Drive-Through Triage Template, Public Health Department Santa Clara Valley Health & Hospital System

Command/Control



Vaccine Scheduling

Initially, to receive a COVID vaccine at TCF center required Detroit citizens to call a central scheduling phone number. Call center staff then ensured that the patient meets criteria for the vaccine and discussed potential vaccination sites with patients (TCF center versus neighborhood based weekend sites versus other weekday sites in the city). To set up the appointment, the call center staff confirmed patients identification information and asked whether translation services or other accommodations were needed. Additionally, they asked about prior allergic reactions and informed the vaccine recipient of how long they will need to wait after the shot based on this info (15 or 30 minutes). If the patient was due to receive a Moderna or Pfizer vaccine, both vaccine appointments were scheduled during the initial call.

Below are some excerpts from the call center script:

Hello, my name is [Agent Name] on a recorded line I'll be helping you with scheduling an appointment for a COVID 19 vaccination through the CCCN in Detroit, MI. Who do I have the pleasure of assisting today? [Client gives name]

Pleasure to meet you [client]. Are you scheduling for yourself or as a good neighbor driving a resident to get vaccinated?

Now to make sure we can get you scheduled for the vaccine, are you a Detroit resident, a Michigan resident 16+ OR a Detroit resident ages 12-15?

OK. We are able to offer you a number of scheduling options. We have our regular weekday site at the TCF Center, A series of neighborhood-based sites on Saturday, Options at the Northwest Activity Center and StraightGate

The next thing I'm going to do is collect some basic information to get the appointment set up,

Can you please provide:

- *First Name Legal name, Middle Initial, Last Name, Gender, Race, Date of Birth, Age,*
- *Email, cell phone number, home phone number, address,*
- *Will you need a translator or interpreter during your appointment?*
- *Do you require any special accommodations during your appointment?*

Have you ever had an allergic reaction to any vaccine

- *[yes/not sure] - You will be asked to stay 30 mins for monitoring after your shot.*
- *[no]—You will be asked to stay 15 mins for monitoring after your shot.*

FOR MODERNA AND PFIZER VACCINES ONLY

For your awareness, this vaccine is a two-dose vaccine. I will be scheduling for both doses on this call. It looks like the next available opening for the first dose is on [date] at [time]. May we schedule that for you?

[If yes, book appointment in scheduling system.]

[If no, find another date and time that works]

For your second dose, to make sure the vaccine will be effective, and we are aligned with waiting periods, your schedule date and time for your second dose is {dates} and {times}. It is very important that you show up for both these appointment dates and times as scheduled.

Let me know when you have a pen and paper ready as I'm going to confirm your appointment times, dates, and location again. You will also receive a confirmation text or email. Please make sure to show your confirmation text/email on site to make the process go smoothly.

[Repeat dates and times for resident]

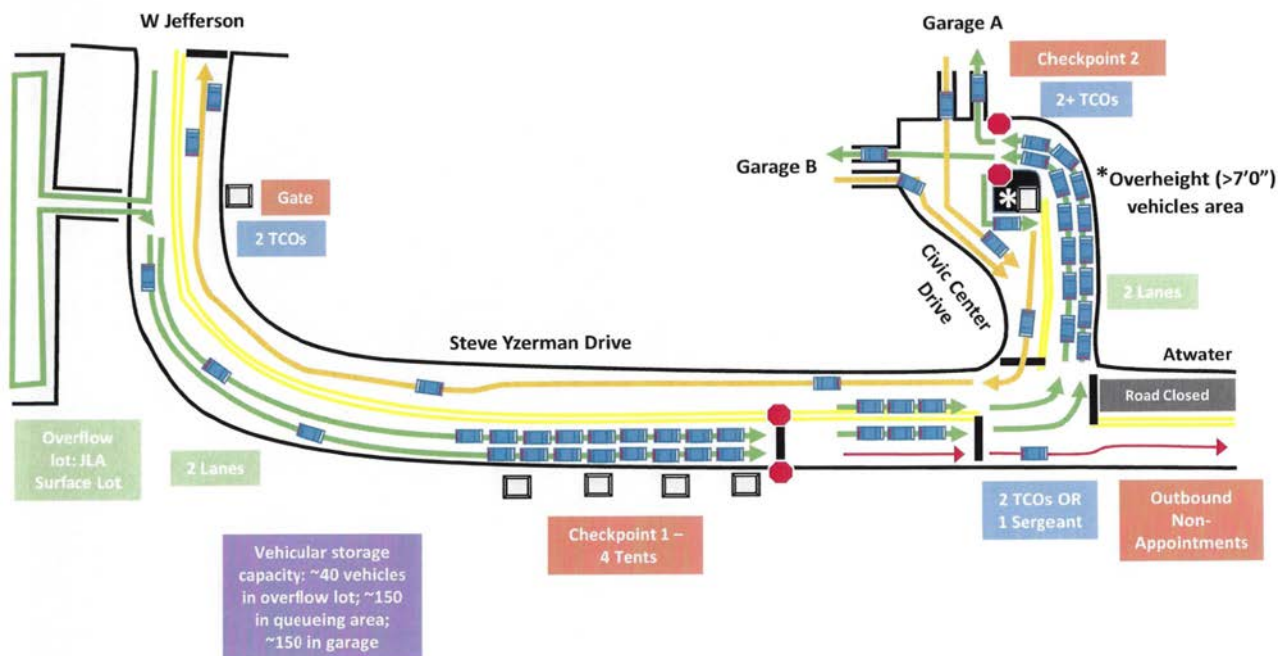
Patient Flow

Once patients arrive via their vehicle, there are three separate check points before entry to the vaccinations site.

- The Gate is located at the start of the driveway, Traffic Control Officers (TCOs) validate the patient's appointment. A requisition number is written on the windshield and radioed to check point 1 so they can begin to prepare paperwork.
- Checkpoint 1 is located at the midpoint of the driveway. Patients receive instruction packets and consent forms. The TCO will verify name, ID, and number written on the windshield.
- Checkpoint 2 is located at the entrance of the garage. Traffic is controlled here based on communicated garage vehicle flow.

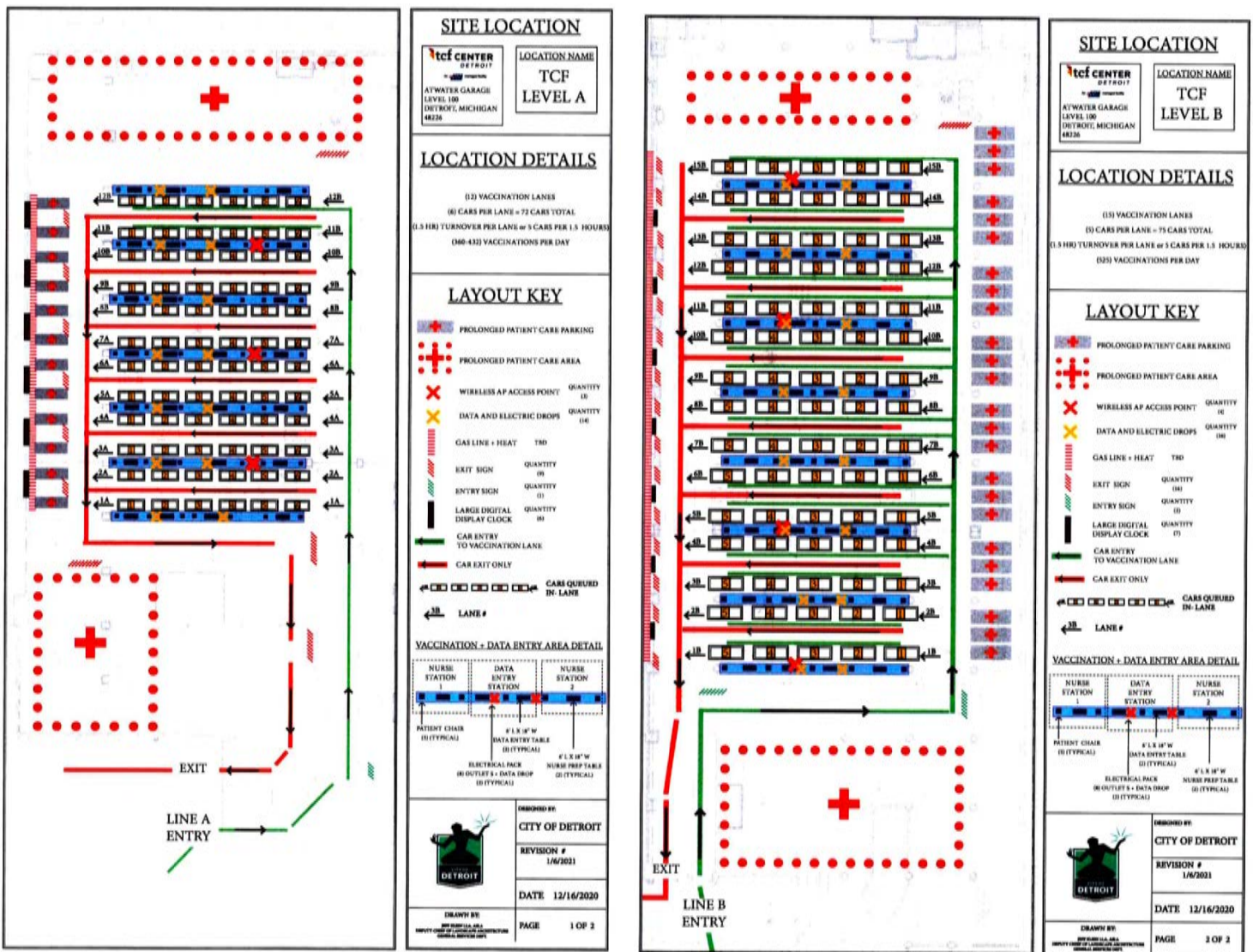
After checkpoint 2, TCOs will direct the patient to either garage A or garage B. They are allowed entry based on traffic flow.

Overall site flow:



Once in the garage, patients will complete the consent forms if they have not already. Nursing staff will verify ID and consent form completion, asking any questions necessitated by form responses. Vaccination card is filled out and the vaccine is administered. Nursing staff then places a sticky note indicating the end of the 15 minute (or 30 minute based on patient’s medical history), periodically checking during this time. Data entry personnel concurrently enter the patient into a state database and confirm completion of the consent form. Once the observation period is over, patients are directed out of the garage by the TCOs. Forms are transmitted to data entry persons. Data entry supervisors produce two counts of people vaccinated each day.

The layout of the garages, is as follows:



EMS

Medical support for vaccination is provided by Detroit Fire Department EMS. One EMS supervisor is stationed at the site and coordinates dispatch of ambulances and EMS teams. Two ambulances, one BLS unit and one ALS unit, are available at all times. If both units are on a run, another unit is requested via dispatch and responds to the EMS staging area until relieved by a returning unit.

A physician is on site at all times for oversight of medical command and on-scene medical direction. The physician schedule is filled by emergency medicine doctors from hospitals affiliated with the Detroit East Medical Control Authority (DEMCA), the medical control authority (MCA) that oversees EMS agencies in the area surrounding Detroit. (In Michigan, medical control is provided by regional medical control authorities (MCAs), which are “organization(s) designated by the department for the purpose of supervising and coordinating an emergency medical services (EMS) system, as prescribed, adopted, and enforced through department-approved protocols for a particular geographic region.”)

The vaccination team is tasked with detecting and reporting adverse vaccine reactions. If they suspect an adverse reaction, they notify on-site security, who activate EMS via radio, directing them to the location of the vehicle. If possible, the vehicle is moved to a parking space equipped with privacy dividers on either side of the vehicle. EMS command dispatches an ALS or BLS team as well as the physician. Patients are then evaluated and treated per standard local MCA protocol.

Providers are equipped as follows:

<p style="text-align: center;">Vaccine Administrators</p> Epinephrine Kit for each floor Diphenhydramine Graham Crackers/Juice	<p style="text-align: center;">Physician Team</p> BLS travel bag with Epinephrine Kit Epinephrine Vial (1mg/1mL) 1 mL Syringe Intramuscular Needle Alcohol Prep Epinephrine Dosing Card Replacement/Discrepancy Form
<p style="text-align: center;">EMS Team- ALS Unit</p> ALS Unit Kit Transport Monitor Portable Air Quality Monitor	<p style="text-align: center;">EMS Team- BLS Unit</p> BLS Unit Kit with Epinephrine Kit Transport Monitor Portable Air Quality Monitor

Pharmacy

Vaccine products are delivered daily by the Detroit Health Department and stored in a medical grade, alarmed refrigerator that is maintained at 36-46°F (2-8°C). The temperature is recorded twice daily (in the morning and afternoon) and is also easily observed by pharmacists working in the designated area throughout the day in addition to being equipped with an excursion alarm.

All excursions must be documented and handled appropriately. Vaccine excursions are recorded in detail, products are labelled “Do Not Use”, date and length of time at the holding temperatures are noted, and any other relevant information is recorded. The manufacturer is to be contacted for further guidance and a determination as to whether the affected vaccine may be used or if patients need to be contacted for revaccination. Temperature records and excursion event records must be kept for 3 years and include the following: date, time, current temperature, minimum and maximum temperature (if available), and name of person checking and recording temperature.

Pharmacists operate in a designated vaccine preparation area where vaccine products are stored. The designated area is clean, away from windows, sunlight, food preparation areas, restrooms, or other environmental challenges. Equipment needed in the vaccine preparation area includes: sharps containers, alcohol swabs, sanitizing wipes, hand sanitizer, powder-free gloves, clocks, office supplies (dry erase board, printers, computers, paper, pens, post-it notes, small totes) and materials for garbing. The room is equipped with tables with plastic covers and chairs for drawing vaccines dosed in syringes. The covers on the tables are sanitized and may be changed daily.

The designated pharmacy area has 3 large white boards for recording the vaccine dispensing and delivery process. These white boards list the number of appointments and estimates used for each manufacturer based on 8% missed appointment rate (no-show rate). Examples of white board format are included in the appendix as figure 1 and figure 2. When vials are removed from the refrigerator, this is also recorded in the written perpetual inventory log and the daily inventory log on a laptop computer. One individual at each table is considered a “table captain”. Table captains should periodically check the inventory balance on the board. The table captain withdraws the vials from the refrigerator, allowing vials to stand at room temperature for 15 minutes. The vials are issued to drawers or the dilution station in the designated drawing area and placed in plastic containers and marked with the expiration date and number of pre-filled syringes. After the full number of doses are drawn from the vials, a pharmacist must check the drawn doses. Checking should include at a minimum; correct dose in each syringe, number of cards matches the number of syringes, Extra doses drawn must be recorded on the board.

After vaccine preparation, the checked and noted plastic container should then be given to table captains for delivery. Doses are delivered by a runner to the floors. Runners must

deliver personally to “floor captains.” Floor captains are responsible for delivery to vaccination stations (lanes). The floor captain and the runners print names and sign for receipt of the delivery. Delivered doses at vaccination stations are recorded on a chain of custody with names and signatures of the floor captain and a vaccinator. At the conclusion of each day, the number of doses prepared vs. the number of patients waiting in line need to be carefully titrated. Any left-over, whole, unpunctured vials are collected by the agent of the Detroit Health Department for overnight storage. No vials or doses are stored overnight at TCF Center.

Vaccine Administration

Prior to Administration, all patients are provided a copy of the current EUA Fact Sheet for Patients and Caregivers. This should also include the V-Safe enrollment information and are reminded to use the V-Safe enrollment information. They are provided a screening questionnaire to review for contraindications, precautions, or previous vaccine administration. Patients proceed as directed to their designated lanes for vaccine administration.

Vaccines are administered intramuscularly in traditional fashion using the prefilled vaccine syringe once warmed to room temperature. Prior to vaccine administration, CDC vaccination record card is provided to the vaccine administrator and vaccination is recorded (Date, manufacturer/lot number, clinical site and administrator initials) on the card immediately after administration.

Individuals are monitored in their vehicles in the vaccination lanes for a minimum of 15 minutes and extended to 30 minutes if the patient has any history of immediate allergic reactions to any vaccine. The observation time is noted on a post-it note that is applied to the windshield of the vehicle. During this time, the vaccination team is responsible for detection of potential adverse vaccine reactions or medical emergencies and alerting on-site security for response team activation.

During the observation time, patients are reminded to return for their 2nd appointment, if they are having their initial vaccination. The appointment is made through the Detroit Health Department either online or by calling: 313-230-0505.

Data Entry

After vaccine administration, the vaccination team enters administration information and signs the “Consent for COVID-19 Vaccine” from the Detroit Health Department. This form is delivered to the data entry workers for Michigan Care Improvement Registry (MCIR) entry. This record also constitutes the patient medical record for the TCF Vaccine Clinic and will be archived. The Detroit Health Department is responsible for security, maintenance, and preservation of these medical records. MCIR system entry of this information is required within 72 hours.

In addition to MCIR system entry, Vaccine Adverse Event Reporting System (VAERS) reporting is mandatory in some circumstances: vaccine administration errors (whether or not associated with an adverse event), serious adverse event (irrespective attribution to vaccination), cases of Multisystem Inflammatory Syndrome (MIS) in adults or children, or cases of COVID-19 that result in hospitalization or death. Such reporting to VAERS is completed by pharmacy staff and are submitted to VAERS either online at <https://vaers.hhs.gov/index.html> or via phone at 1-800-822-7967.

Inventory/Supply

Daily estimates in the following table are taken from an item daily check out log on a day of approximately 3000 vaccinations. *Items with no recorded number may not have been taken out on that specific day, but may have already been in circulation on the vaccination floor*

	Number Taken From Supply (If Recorded)
Bandages (100 per Box)	1000
Lysol	2
Alcohol Pads (100 per Box)	3200
Battery - AA	12
Battery - AAA	
Tyves Suites (25 per Box)	
Coverall/Tyvek Suit -M	
Coverall/Tyvek Suit -XL	
Coverall/Tyvek Suit - L	
Coverall/Tyvek Suit - 2XL	
Coverall/Tyvek Suit - 4XL	
Faceshield (100 per box)	4
Gloves (10 boxes of 100 per Box)	
Gloves - Medical -Small	1700
Gloves - Medical - Medium	2900
Gloves - Medical - Large	2600
Gloves - Medical - XL	2200
Gloves - Medical - XS	
Cotton Balls (1ea bag)	
Gown - Level 1 White (Health Department)	
Gown - Level 3 - Blue (50 per Box)	50

Shoe Covers	
Hand Sanitizer - 1 gal l(w/pump) (4 per box)	3
Hand Sanitizer -Alcohol 1 gal (w/ pump) (4 per box)	1
Cold Compress	
Purell Hand Sanitizer	
Hand Sanitizer - Spray 375 ml (12 oz)	1
Hand Sanitizer GelRite 4oz.	5
SC Johnson Hand Sanitizer 7.5oz	5
KN95 Mask Particle Half Mask (10 Per pkg)	150
N95 - 3M 1860S Respirator (20 per box)	
N95 - Harley Commodity	
N95 - Makrite Particulate Respirator (20 per box)	
N95 - Modex Particulate Respirator (20 per box)	
Disposable Surgical (50 per box)	250
Ford Disposal Mask White (100 per bag)	
Safety Goggles/Glasses (12 per box)	
Spray Bottle	
Clean Cide Santizing Wipes (10 per box)	5
Hand Sanitizing Wipe Canister(10per box)	
Sponge/Gauze 2X2 (200 per pack)	2000
Bleach	
Tablecolths White Oblong	15
Tablecolths Gray Oval	
Water (24 per case) Count as 1	14
Pens	26
Sharpie Markers	21
Post-it-Notes	5800

Metal Clipboards 8x14	2
Plastic Clipboards 8x11	
Copier Paper 8 1/2X11	
Copier Paper 8 1/2X14	
Paper Clips Small	3
Paper Clips Large	3
Yellow Note Pads 8X11	4
Highlighters	
Mechanical Pencils	
Avery Dry Erase Markers	
Avery Dry Erase Pad	
Avery Dry Erase Spray Cleaner	
Power Cord Strip White	
Power Cord Strip Yellow 100ft	
Power Cord Orange 50ft	
Black Storage Legal/Letter File	
Black Weave Baskets	1
Back Nursing Caddy	
Garbage Cans Black	1
Toe Warmers	
Hand Warmers	
Shoe Covers	
Tylenol	
Motrin	
Red First Aid Kit	
Orange First Aid Tackle Box	
Abbott rapid Test HIV	

Needle Sharps Containers/Small	8
Needle Sharps Containers/Large	10
Ziploc Bags Small (500 per box)	
Ziploc Bags Quart (250 per box)	
Digital Clocks	
54 Quart Storage Bins	
64 Quart Storage Bins	
Small Black Cooler	
Large Blue Cooler	
Teddy Grahams (12 pkg)	
MicroClip XT/XL/X3 Gas Detector	

Traffic Signage

<i>Item</i>	<i>Quantity (Total)</i>
One Sided Stop Sign	35
Two Sided Lane Identifiers	52
One Sided Exit Signs	40
Type III Barricades	24
Grabber Cones	400
Sandbags	60
Post Driven Signage	5
Mounted Signs	3
Barricade Signs	2
Temporary Stands	8

Descriptions of traffic signage, barricades, cones, and sandbags, as well as their locations can be found in the Appendix B.

Appendix A

Figure 1

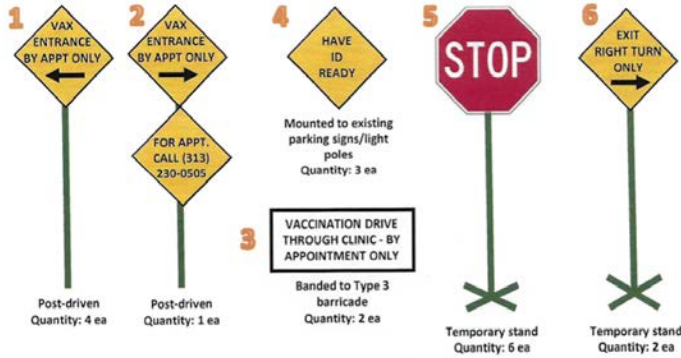
Pfizer	(Lot #)	(Total Vials)	Total Apts	Moderna	(Lot #)	(Total Vials)	Total Apts
	Average Number to Produce (Cumulative)	Planned Syringe Production Each Hour	Cumulative Plan to Produce		Average Number to Produce (Cumulative)	Planned Syringe Production Each Hour	Cumulative Plan to Produce
8am	(eg. 180)	(eg. 240)		8am	(eg. 222)	(eg. 400)	
9am	(eg. 360)	(eg. 180)	420	9am	(eg. 444)	(eg. 200)	600
10am				10am			
11am				11am			
12pm				12pm			
1pm				1pm			
2pm				2pm			
3pm				3pm			
4pm				4pm			
5pm				5pm			
6pm				6pm			

Figure 2

(Starting Full Vial Inventory in Fridge)	Wasted Doses & Location Rx:	Delivery Log			
(Record time & vials removed from refrigerator)		Time	Qty (Doses)	Floor	Runner
(eg. 7:31a - 30)	Extra Doses Drawn: (Tally Marks) (>6 for Pfizer, >10 for Moderna)	(eg. 7:30a)	(eg. 158)	(B)	(John)

Appendix B

Sign shop:



- Southwest corner West Jefferson and Steve Yzerman Drive:
 - 5 Type III barricades
 - 20 sandbags
- Joe Louis Arena surface parking lot entrance, various spots along Steve Yzerman Drive:
 - 50 grabber cones each spot
- Outside of TCF Center underground parking garages A and B (off of Civic Center Drive):
 - 75 grabber cones
- Atwater at Bates St, northwest corner:
 - 2 Type III barricades (1 with ROAD CLOSED)
 - 8 sandbags
- Atwater at Civic Center Drive, northeast corner:
 - 4 Type III barricades (2 with ROAD CLOSED)
 - 16 sandbags
- Steve Yzerman Drive, north side: place all extra, leftover devices here.



Interior Signage (all to be mounted/hung by TCF staff):

- Stop signs 30": positioned at beginning of lanes on support columns
- Lane identifiers with directional arrow 12"x36": positioned above lane entry and lane exit
- Exit directional 12"x36": positioned above end of lanes and along exit route (in garage) where needed



front

back

Structure A		Structure B	
Front Side (LEFT ARROW)	Back Side (RIGHT ARROW)	Front Side (LEFT ARROW)	Back Side (RIGHT ARROW)
LANE 1A	LANE 1A	LANE 1B	LANE 1B
LANE 2A	LANE 2A	LANE 2B	LANE 2B
LANE 3A	LANE 3A	LANE 3B	LANE 3B
LANE 4A	LANE 4A	LANE 4B	LANE 4B
LANE 5A	LANE 5A	LANE 5B	LANE 5B
LANE 6A	LANE 6A	LANE 6B	LANE 6B
LANE 7A	LANE 7A	LANE 7B	LANE 7B
LANE 8A	LANE 8A	LANE 8B	LANE 8B
LANE 9A	LANE 9A	LANE 9B	LANE 9B
LANE 10A	LANE 10A	LANE 10B	LANE 10B
LANE 11A	LANE 11A	LANE 11B	LANE 11B
LANE 12A	LANE 12A	LANE 12B	LANE 12B
		LANE 13B	LANE 13B
		LANE 14B	LANE 14B

two sided - quantity 52 (2 of each)

one-sided - quantity 35

one-sided - quantity 5