Getting Vaccine, Storage & Handling

1. Onboarding with ADHS as an immunization provider
2. Checklist for safe vaccine storage and handling
3. Storage best practices for frozen and refrigerated vaccines
4. Vaccine Temperature Log
NOTES

WhyImmunize.org
News from the Immunization Program Office

Today's topic:  Pandemic Provider Onboarding

- The Arizona Immunization Program Office (AIPO) does not know if/when COVID-19 vaccines will become available. However we want to be prepared and engage our partners now, so we are ready if/when vaccines are available for distribution in Arizona.

- Both VFC and non-VFC providers who would like to administer future COVID-19 vaccines must complete the Pandemic Provider Onboarding survey forms.

- The survey forms serve two purposes: 1) to ensure the signatory provider knows the requirements, and 2) to ensure the facility is able to meet each requirement.

- The signatory provider is required to complete all of the surveys and be approved by the AIPO before this facility will be able to order future potential pandemic vaccines.

- As we learn more about future vaccines we may add additional survey forms to the onboarding tool to pass the information along.

- The signatory provider will need to sign a CDC provider agreement. When it is available it will be added to the onboarding tool.

- Email notifications will be sent as forms are added to the onboarding tool.

- Onboarding is not an instantaneous process. It will take AIPO time to add providers to ASIIS and review requirements. Onboard now. Plan for it to take time.

- The onboarding tool has the high level requirements for the signatory provider. Provider staff can go to A IPO Train to learn how to order, receive, store, administer, document, and account for pandemic vaccines in ASIIS.

  Go to https://redcap.link/onboard to onboard.

  If the link above does not work, try copying the link below into your web browser:

  https://redcapaipo.azdhs.gov/surveys/?s=DY8CA9LMJ8

  We appreciate your continued efforts to help Arizonans be healthy and vaccinated.
NOTES - Onboarding for covid vaccine

MASS VACCINATION - BE READY!
Checklist for Safe Vaccine Storage and Handling

Are you doing everything you should to safeguard your vaccine supply? Review this list to see where you might make improvements in your vaccine management practices. Check each listed item with either yes or no.

Establish Storage and Handling Policies

1. We have designated a primary vaccine coordinator and at least one alternate coordinator to be in charge of vaccine storage and handling at our facility.

2. Both the primary and alternate vaccine coordinator(s) have completely reviewed either CDC’s Vaccine Storage & Handling Toolkit (www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf) or equivalent training materials offered by our state or local health department’s immunization program.

3. We have detailed, up-to-date, written standard operating procedures for general vaccine management, including procedures for routine activities and an emergency vaccine retrieval and storage plan for power outages and other problems. Our procedures are based on CDC’s Vaccine Storage & Handling Toolkit and/or on instruction from our state or local health department’s immunization program.

4. We review these policies with all staff annually and with new staff, including temporary staff, when they are hired.

Log In New Vaccine Shipments

5. We maintain a vaccine inventory log that we use to document the following:

   a. Vaccine name and number of doses received
   b. Date we received the vaccine
   c. Condition of vaccine when we received it
   d. Vaccine manufacturer and lot number
   e. Vaccine expiration date

Use Proper Storage Equipment

6. We store vaccines in separate, self-contained units that refrigerate or freeze only. If we must use a household-style combination unit, we use it only for storage of our refrigerated vaccines, maintaining frozen vaccines in a separate stand-alone freezer.

7. We store vaccines in units with enough room to maintain the year’s largest inventory without crowding.

8. We never store any vaccines in a dormitory-style unit (a small combination freezer-refrigerator unit with the freezer compartment inside the refrigerator).

9. We use only calibrated temperature monitoring devices (TMD) that have a Certificate of Calibration Testing* (“Report of Calibration”) and are calibrated every 1 to 2 years from the last calibration testing date or according to the manufacturer’s suggested timeline. If storing Vaccines For Children (VFC) vaccine, our TMD is a digital data logger (DDL).

10. We have planned back-up storage unit(s) in the event of a power failure or other unforeseen event.

*Certificate of Calibration Testing (“Report of Calibration”) with calibration measurements traceable to a laboratory with accreditation from the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) signatory body.

Continued on the next page
Ensure Optimal Operation of Storage Units

YES  NO  11. We have a “Do Not Unplug” sign (e.g., www.immunize.org/catg.d/p2090.pdf) next to the electrical outlets for the refrigerator and freezer and a “Do Not Stop Power” warning label (e.g., www.immunize.org/catg.d/p2091.pdf) by the circuit breaker for the electrical outlets. Both signs include emergency contact information.

YES  NO  12. We perform regular maintenance on our vaccine storage units to assure optimal functioning. For example, we keep the units clean, dusting the coils and cleaning beneath the units as recommended by the manufacturer.

Maintain Correct Temperatures

YES  NO  13. We always keep at least one accurate (+/- 0.5°C [+/- 1°F]) calibrated temperature monitoring device (TMD) with the vaccines in the refrigerator and a separate calibrated TMD with the vaccines in the freezer.

YES  NO  14. We use a temperature monitoring device (TMD) that

a. uses an active display to provide continuous monitoring information.

b. is digital and has a detachable probe that has been buffered against sudden temperature changes by being immersed in a vial filled with liquid (e.g., glycol, ethanol, glycerin), loose media (e.g., sand, glass beads), or a solid block of material (e.g., aluminum, Teflon®).

c. includes an alarm for out-of-range temperatures.

d. has a low-battery indicator.

e. has a digital data logger that indicates current, minimum, and maximum temperatures.

f. can measure temperatures within +/- 0.5°C (+/- 1°F).

g. has a logging interval (or reading rate) that can be programmed by the user to measure and record temperatures AT LEAST every 30 minutes.

YES  NO  15. We maintain the refrigerator temperature at 2–8°C (36–46°F), and we aim for 5°C (41°F).

YES  NO  16. We maintain the freezer temperature between -50°C and -15°C (-58°F and +5°F).

YES  NO  17. We set the thermostat for the refrigerator and the freezer at the factory-set or midpoint temperatures.

YES  NO  18. We keep extra containers of water in the refrigerator (e.g., in the door and/or on the floor of the unit where the vegetable bins were located) to help maintain cool temperatures. We keep ice packs, ice-filled containers, or frozen water bottles in the freezer to help maintain cold temperatures and to have frozen water bottles available for conditioning in the event of an emergency.

Maintain Daily Temperature Logs

YES  NO  19. If we are using a TMD (preferably a digital data logger or DDL) that records minimum and maximum temperatures, we check and record these temperatures first thing in the morning during each workday when our practice is open. (See selections for recording at www.immunize.org/clinic/storage-handling.asp.)

YES  NO  20. If we are using a TMD that does not record minimum and maximum temperatures, we check and record the current temperatures of the refrigerator and freezer at least twice each workday. (See selections for recording at www.immunize.org/clinic/storage-handling.asp.)

YES  NO  21. We consistently record temperatures on the log either in Celsius or Fahrenheit. We never mix temperature scales when we record our temperatures.

YES  NO  22. If the temperature log prompts us to insert an “x” by the temperature that’s preprinted on the form, we do not attempt to write in the actual temperature.

YES  NO  23. We follow the directions on the temperature log to call appropriate personnel if the temperature in a storage unit goes out of range.
24. If out-of-range temperatures occur in the unit, we complete the Vaccine Storage Troubleshooting Record (www.immunize.org/catg.d/p3041.pdf) to document actions taken when the problem was discovered and what was done to prevent a recurrence of the problem.

25. Trained staff (other than staff designated to record the temperatures) review the temperature logs weekly.

26. We keep the temperature logs on file for at least 3 years.

**Store Vaccines Correctly**

27. We post signs (e.g., www.immunize.org/catg.d/p3048.pdf) on the doors of the refrigerator and freezer that indicate which vaccines should be stored in the refrigerator and which in the freezer.

28. We do not store any food or drink in any vaccine storage unit.

29. We store vaccines in the middle of the refrigerator or freezer (away from walls and vents), leaving room for air to circulate around the vaccine. We never store vaccine in the doors.

30. We have removed all vegetable and deli bins from the storage unit, and we do not store vaccines in these empty areas.

31. If we must use a combination refrigerator-freezer unit, we store vaccines only in the refrigerator section of the unit. We do not place vaccines in front of the cold-air outlet that leads from the freezer to the refrigerator (often near the top shelf). In general, we try to avoid storing vaccines on the top shelf, and we place water bottles in this location.

32. We check vaccine expiration dates and rotate our supply of each type of vaccine so that vaccines with the earliest expiration dates are located close to the front of the storage unit, facilitating easy access.

33. We store vaccines in their original packaging with the lids closed in clearly labeled containers.

**Take Emergency Action As Needed**

34. In the event that vaccines are exposed to improper storage conditions, we take the following steps:

   a. We restore proper storage conditions as quickly as possible. If necessary, we label the vaccine “Do Not Use” and move it to a unit where it can be stored under proper conditions. We do not discard the vaccine before discussing the circumstances with our state/local health department and/or the appropriate vaccine manufacturers.

   b. We follow the Vaccine Storage Troubleshooting Record’s (www.immunize.org/catg.d/p3041.pdf) instructions for taking appropriate action and documenting the event. This includes recording details such as the length of time the vaccine was out of appropriate storage temperatures and the current room temperature, as well as taking an inventory of affected vaccines.

   c. We contact our clinic supervisor or other appropriate clinic staff to report the incident. We contact our state/local health department and/or the appropriate vaccine manufacturers for consultation about whether the exposed vaccine can still be used.

   d. We address the storage unit’s mechanical or electrical problems according to guidance from the unit’s manufacturer or a qualified repair service.

   e. In responding to improper storage conditions, we do not make frequent or large changes in thermostat settings. After changing the setting, we give the unit at least a day to stabilize its temperature.

   f. We do not use exposed vaccines until our state/local health department’s immunization program or the vaccine manufacturer has confirmed that the vaccine is acceptable for use. We review this information with our clinic medical director before returning the vaccine to our supply. If the vaccine is not acceptable for use, we follow our state/local health department instructions for vaccine disposition.

If we answer **YES** to all of the above, we give ourselves a pat on the back! If not, we assign someone to implement needed changes!
NOTES- Storage and Handling

MASS VACCINATION -
BE READY!
Storage Best Practices for Frozen Vaccines—Fahrenheit (F)

1. **Unpack vaccines immediately**
   1. Place the vaccines in trays or containers for proper air flow.
   2. Put vaccines that are first to expire in front.
   3. Keep vaccines in original boxes with lids closed to prevent exposure to light.
   4. Separate and label vaccines by type and public (VFC) or private.

2. **Thermostat should be at the factory-set or midpoint temperature setting**

   **Frozen Vaccines**
   
   **Too Cold! Take Action!**
   -70° F -65° F -60° F
   **Within Range**
   -50° F -45° F -40° F -35° F
   **Too Warm! Take Action!**
   10° F 15° F
   
   Report out-of-range temperatures immediately!

3. **Use vaccine storage best practices**

   **Freezer Only**
   
   **temp range**
   -58° F to 5° F
   
   **DO**
   - ✓ Do make sure the freezer door is closed!
   - ✓ Do use water bottles to help maintain consistent temperature.
   - ✓ Do leave 2 to 3 inches between vaccine containers and freezer walls.
   - ✓ Do post “Do Not Unplug” signs on freezer and by electrical outlet.

   **DON’T**
   - ❌ Don’t use dormitory-style refrigerator/freezer.
   - ❌ Don’t use combo refrigerator/freezer unit.
   - ❌ Don’t put food in freezer.
   - ❌ Don’t store vaccines on shelves in freezer door.

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Centers for Disease Control and Prevention

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Visit [www.cdc.gov/vaccines/SandH](http://www.cdc.gov/vaccines/SandH) or contact your state health department for more information.

CS243541-O Revision February 2018
1. Store vaccines at ideal temperature: 40° F
   - Never freeze refrigerated vaccines!
   - Exception: MMR can be stored in refrigerator or freezer

2. Record daily temperatures
   - 3 steps, daily: Check and record min/max temperatures at the start of the workday.
     1. **Min/Max:** The coldest and warmest temperatures in the refrigerator since you last reset the thermometer
        - Note: If your device does not display min/max temperatures, then check and record current temperature a minimum of 2 times (at start and end of workday)
     2. **Reset:** The button you push after you have recorded the min/max temperatures
     3. **Current temperature:** Check current temperature each time you access vaccines in the refrigerator

3. Take action if out of range!
   - Contact your state or local health department immediately. Or for private vaccines, call the manufacturer directly.
   - Tell them the total amount of time the refrigerator temperature was out of range.
   - **Take your time.** Check and record temperatures accurately.
   - **Make your mark!** Initial the log when recording temperatures.
   - **Leave it blank.** If min/max temperatures were not recorded, leave the space blank!

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**Best Practices**

Visit [www.cdc.gov/vaccines/SandH](http://www.cdc.gov/vaccines/SandH) or contact your state health department for more information.
**Temperature Monitoring Best Practices for Frozen Vaccines—Fahrenheit (°F)**

1. **Thermostat should be at the factory-set or midpoint temperature setting**

   - Too Cold! **Take Action!**
   - Within Range
   - Too Warm! **Take Action!**

   Report out-of-range temperatures immediately!

   \(-70°F -65°F -60°F -55°F -50°F -45°F -40°F -35°F -20°F -15°F -10°F -5°F 4°F 5°F 10°F 15°F 20°F 25°F 30°F 35°F 40°F 45°F 50°F 55°F 60°F 65°F 70°F\)

2. **Record daily temperatures**

   **3 steps, daily:** Check and record min/max temperatures at the start of the workday.

   1. **Min/Max:** The coldest and warmest temperatures in the refrigerator since you last reset the thermometer

      *Note: If your device does not display min/max temperatures, then check and record current temperature a minimum of 2 times (at start and end of workday)*

   2. **Reset:** The button you push after you have recorded the min/max temperatures

   3. **Current temperature:** Check current temperature each time you access vaccines in the refrigerator

3. **Take action if out of range!**

   - Contact your state or local health department immediately. Or for private vaccines, call the manufacturer directly.
   
   - Tell them the total amount of time the freezer temperature was out of range.

   **Best Practices**

   - **Take your time.** Check and record temperatures accurately.
   
   - **Make your mark!** Initial the log when recording temperatures.
   
   - **Leave it blank.** If min/max temperatures were not recorded, leave the space blank!

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CSI243541-B Revision February 2018

Visit [www.cdc.gov/vaccines/SandH](http://www.cdc.gov/vaccines/SandH) or contact your state health department for more information.

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U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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# Hourly Vaccine Temperature Log

## For Outreach Clinics

For use by special event clinics, health fairs, special school clinics, and mass vaccination clinics: Monitor and record current, MIN, and MAX temperatures on this form every hour.

### Instructions

- Review transport job aids for refrigerated and frozen vaccines before transporting vaccines.
- Keep cooler in OK range.
- Check temperatures hourly.
  1. Fill out clinic details in header.
  2. Record the time and your initials.
  3. Record a check if an alarm went off.
  4. Record Current, MIN, and MAX.

### If no alarm:

1. Clear MIN/MAX.
2. Ensure data logger is in place and recording.

### IF ALARM WENT OFF:

3. Alert your on-site supervisor and follow clinic protocol.
4. Ensure data logger is still in place and recording.
5. Report excursion to SHOTS at MyVFCvaccines.org as soon as possible.
6. Record assigned SHOTS ID.

### Vaccine Tracking

<table>
<thead>
<tr>
<th>DOSES AT START</th>
<th>LOT NUMBERS</th>
<th>ADMINISTERED</th>
<th>WASTED</th>
<th>RETURNED</th>
</tr>
</thead>
</table>

**Notes:**

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### Supervisors Review

Date of Data Download: _____/_____/_____

On-Site Supervisor’s Name:

________________________

Signature: ____________________

Date: _____/_____/_____

Staff Names and Initials:

________________________

________________________

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Keep all VFC temperature logs and data files for three years.