Temperature Excursions and Vaccine Transport

April 19-20, 2023

Presenting To the Arizona Annual Immunization Conference attendees

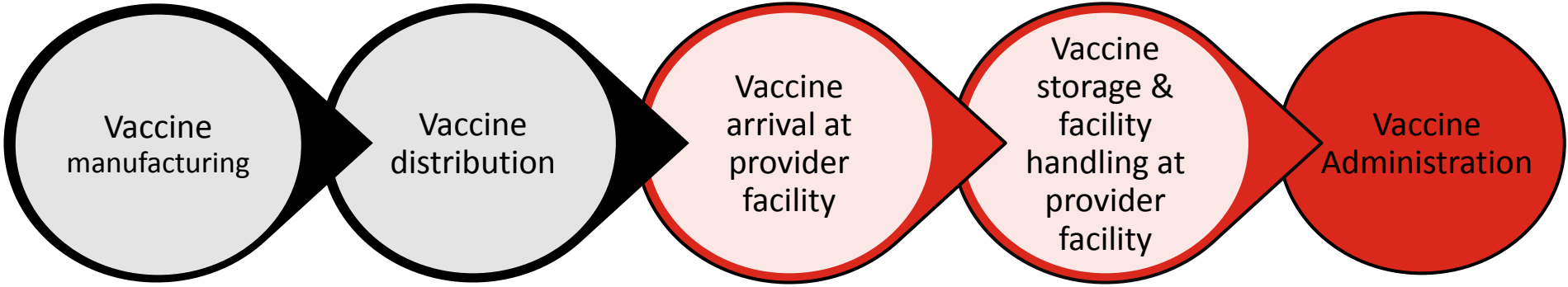
Bureau of Immunization Services | Arizona Annual Immunization Conference

Marni Balamut and Priscilla Lopez | Immunization Program Specialists

Objectives

- Discuss cold chain maintenance
- Review proper vaccine storage
- Temperature incident reporting process
- Packing vaccines for emergency transport

Cold Chain Overview



The cold chain begins with the cold storage unit at the manufacturing plant, extends to the transport and delivery of the vaccine. Until the vaccine arrives at the providers office the cold chain is the responsibility of the manufacturer.

The cold chain continues upon arrival at the providers facility. It then becomes the responsibility of the provider to maintain the cold chain. It is important the staff have storage and handling training and a plan for emergencies.

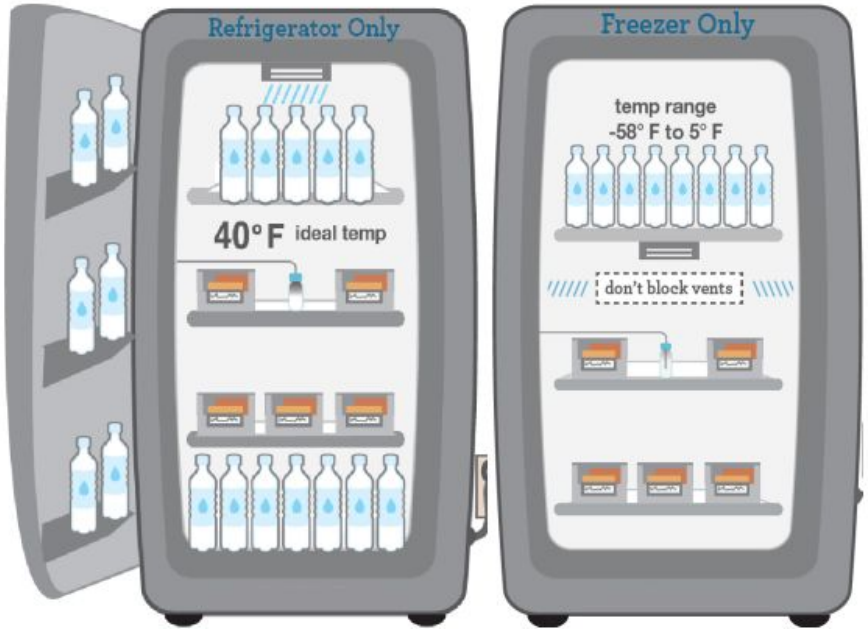
Key Items for Cold Chain Maintenance

Upon Vaccine Arrival:

- Unpack the vaccines, storing them in the appropriate cold storage unit.
- Store the vaccines in the center of the cold storage unit. Away from vents and coils allow space between the vaccines for circulation.
- Glycol bottle should be placed in the middle of the unit with the VFC vaccines around it.
- Water bottles are required in each storage unit containing VFC Vaccines. Unless specified otherwise by the manufacture.

Avoid:

- Unnecessary opening and closing of the cold storage units door.
- Refrigerator: Don’t use top shelf or floor of the unit for vaccine storage.
- NO food or beverages in unit.
- Don’t drink or remove water bottles from the cold storage units.
- Temp monitoring: Do not save reports with limited access. Use a shared drive or ensure all applicable staff has access.



Keep Fridge unit between
<u>36°F to 46°F (2.0°C to 8.0°C)</u>

Keep Freezer unit between
<u>-58°F to 5°F (-50.0°C to -15°C)</u>

Anything higher or lower is an out of range temperature/vaccine incident

What do you do when your site experiences a temperature excursion?

What is a Temperature Excursion?

Three Steps During a Temperature Excursion

Notify

The primary or back up vaccine coordinator immediately or report the problem to a supervisor and notify staff by **Isolating** the vaccines **in the cold storage unit** and label them DO NOT USE.

Document

Document the details of the excursion- **date, time, storage unit temp including the min and the max** during the time of the excursion. Name of the person completing the report and a general **description of the incident.** Determine the **length of time** the temps were OOR.

Contact

Submit an **incident report** via online through our website or the ASIIS homepage. Be prepared to submit the **supporting data logger reports** and/or manufacture viability reports (if you contacted the manufacture yourself).

Temperature Excursion

Online Reporting

1. Electronically online via the **ASIIS homepage** ~ VFC Incident report button – Upload the data logger reports.
2. Electronically online via the **AZDHS Immunization Program Page**- Upload the data logger reports.

<u>Out of range temperatures must be reported immediately!</u>

Incident Report

- Provider Contacts the Manufacturer(s)
  - Temperature Incident Instructions & Checklist
  - Vaccine Incident Report
- AIPO Contacts the Manufacturer(s)
  - e-form - (submit directly to AIPO/VFC)
  - PDF form – fillable PDF (fill and send via e-mail or fill, print and scan or fax)

Temperature Excursion

Contacting the Manufacturer Directly

If providers choose to check the viability of the vaccines, follow the instructions step by step from the incident report checklist in order to report the incident to BIZS.

1. **ISOLATE THE VACCINES, MARK DO NOT USE**
2. **DOWNLOAD THE DATA LOGGER REPORTS**
3. **DETERMINE HOW LONG THE UNIT WAS OOR**
4. **CREATE A LIST OF ALL AFFECTED VACCINES**
5. **CALL THE MANUFACTURE OR USE THE VACCINE STABILITY CALCULATOR**
6. **OBTAIN A STABILITY LETTER**
7. **REPORT THE OUTCOME OF THE INCIDENT TO THE BIZS USING THE REDCAP LINK ON THE ASIIS HOME PAGE OR ON THE ARIZONA IMMUNIZATION PAGE**

If the affected vaccines are deemed viable and the information reported to the manufacturers and BIZS is accurate, you may resume use of the viable vaccines once the incident is reported to BIZS.

You will NOT receive any communication from the BIZS office unless there is a problem with the submission.

Packing Vaccines for Transport

Packing Vaccines for Transport

Be Ready BEFORE the emergency

- Equipment failures, power outages, natural disasters, flood, building closure- these and other emergency situations can compromise vaccine storage conditions and damage your vaccine supply.
- It is critical to have an up to date emergency plan (VAMP) with steps you should take to protect the vaccines. As well as listing your emergency facility.
- Vaccines should be transported using a portable vaccine cooler or qualified pack out.
- Refrigerated and frozen vaccines must be packed separately
- For best practice have supplies on hand

Packing Vaccines for Transport

Emergency Storage Facility

- Ideally a VFC provider
- 10 miles or less from facility

Emergency storage facility

Name: **Bikini Bottom**	Pin#: **4545**
Address: **4545 Patrick rd**	
Phone number: **602 454 - 4545**	
Contact at facility: **Mr. Crabs**	
Major cross streets: **Ocean Dr & Pebble Blvd**	

Packing Vaccines for Transport

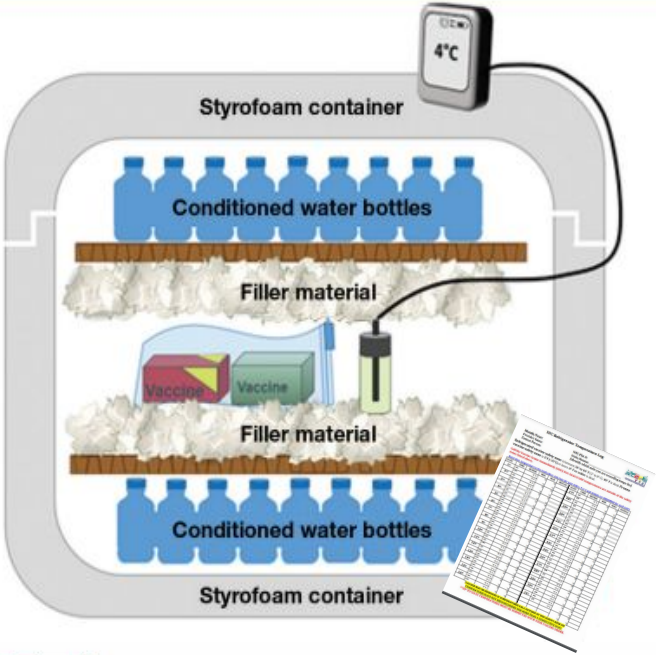
Supplies to Have on Hand

- Hard insulated cooler or styrofoam vaccine shipping containers
- Frozen water bottles (to condition)
- Insulating material- bubble wrap, packing foam, or styrofoam and corrugated cardboard.
- Digital data logger with a buffered probe. Ensure the calibration date is not expired. For best practice, place the backup data logger's glycol bottle in the cold storage unit.

Why do you need cardboard, bubble wrap and conditioned frozen water bottles?

Condition frozen water bottles and corrugated cardboard along with insulating materials keep refrigerated vaccines at the right temperature and prevents from freezing.

Pack Vaccines for Transport



1. CONDITION THE FROZEN WATER BOTTLES UNTIL THE ICE CAN ROTATE IN SIDE THE WATER BOTTLE.
2. LINE THE BOTTOM OF THE COOLER WITH A SINGLE LAYER OF CONDITIONED WATER BOTTLES.
3. PLACE 1 SHEET OF CARDBOARD OVER THE WATER BOTTLES TO COVER THEM COMPLETELY.
4. PLACE A LAYER OF INSULATING CUSHIONING MATERIAL (I.E. BUBBLE WRAP)
5. STACK BOXES OF VACCINES ON TOP OF INSULATING MATERIAL.
6. WHEN COOLER IS HALF WAY FULL, PLACE DDL BUFFERED PROBE IN CENTER OF VACCINES.(KEEP THE DDL TEMP DISPLAY OUTSIDE OF THE COOLER)
7. ADD REMAINING VACCINES AND DILUENTS TO COOLER COVERING THE DDL PROBE.
8. COVER VACCINES WITH ANOTHER LAYER OF INSULATING CUSHIONING MATERIAL (I.E. BUBBLE WRAP)
9. ON TOP OF THE INSULATING CUSHIONING MATERIAL ADD 1 SHEET OF CARDBOARD.
10. FILL THE REMAINING SPACE IN THE COOLER WITH AN ADDITIONAL LAYER OF CONDITIONED FROZEN WATER BOTTLES.
11. CLOSE THE LID AND ATTACH DDL DISPLAY AND TEMPERATURE LOG ON TO ON THE LID.

THANK YOU

Marni Balamut | Immunization Program Specialist
Priscilla Lopez | Immunization Program Specialist

marni.balamut@azdhs.gov | 480-881-2485
priscilla.lopez@azdhs.gov | 602-463-4229

azhealth.gov

@azdhs

facebook.com/azdhs

Continuing Education Credits 4/19/23

https://www.surveymonkey.com/r/NXT25KL

- Follow the QR code/Link to receive CEs for this session
- Select this session from the drop down menu.
- Update sessions you attended throughout the day.
- Go to conference app or program for more information.

Pharmacy Only