

Minimum Required Vaccine Ordering, Handling, and Storage Procedures

Overview

All NCIP participants must ensure their vaccine stock is being managed appropriately following the specifications and requirements listed below. The standard operating procedures listed below must be applied all-year around to ensure the vaccine supply is protected.

Vaccine Personnel Staff Training

- Primary vaccine coordinator and back-up coordinator must complete annual training on VFC program requirements.
- Training options
 - [CDC's "You Call the Shots" online training modules.](#)
 - [Module 10 - Storage and Handling 2025.](#)
 - [Module 16 – VFC Program 2025.](#)
 - [NCIP sponsored](#)
 - Virtual conferences (odd years).
 - In-person conference (even years).
- Training is highly recommended for all staff responsible for vaccine storage and handling, including staff that accept vaccine shipments.
- All changes to key staff must be communicated to the NCIP.

Storage and Handling Plans

Routine Vaccine Management Plan

- Update Routine Vaccine Management Plan annually or as changes occur.
- Routine Vaccine Management Plan must include the following information:
 - Proper storage and handling practices.
 - Vaccine shipping and receiving.
 - Vaccine ordering.
 - Inventory control.
 - Vaccine expiration, spoilage, waste prevention.
 - Receiving and unpacking shipments.
 - Thermometer and Temperature monitoring.

Emergency Vaccine Management Plan

- Update Emergency Vaccine Management Plan annually or as changes occur.
- Emergency Vaccine Management Plan must include the following information:
 - Staff name, contact information, how to notify staff responsible for preparing/transporting vaccine.
 - Alternative vaccine storage facility information.
 - How to pack vaccine for transport during an emergency.
 - How to document steps taken.

Storage Unit Requirements

Key Requirements for Vaccine Storage Units

- **Dedicated Use:** Storage units must be used exclusively for vaccines.
- **Temperature Range Compliance**
 - **Refrigerators:** Must maintain a constant temperature between 2°C and 8°C (36°F to 46°F) for refrigerated vaccines.
 - **Freezers:** Must maintain a constant temperature between -15°C and -50°C (5°F to -58°F) for frozen vaccines.
- **Sufficient Capacity:** Units must have enough space to store the largest anticipated vaccine inventory for the year, without overcrowding. This includes space for water bottles in the refrigerator and frozen coolant packs in the freezer to stabilize temperatures.
- **Year-Round Temperature Reliability:** Units must be capable of maintaining the required temperatures throughout the year.
- **Location:** Storage units should be placed in a well-ventilated room with at least 4 inches of space from the wall.
- **Warning Signs:** Post clear "DO NOT UNPLUG" signs at electrical outlets, on storage units, and circuit breakers to prevent accidental disconnection by staff, custodians, or maintenance personnel.

Note: Storage units that do not meet the minimum requirements or that have malfunctioned must be replaced. (New purchases must be stand-alone units).

Vaccine Storage Best Practices

- **Vaccine Ordering:** Order and administer all ACIP-recommended vaccines based on actual population served.
- **Vaccine Stock:** Rotate vaccine stock at least once a week and use short-dated vaccine first.

- **Expired Vaccine**
 - Remove expired vaccine immediately from the unit and contact the NCIP for wastage instructions.
 - Notify NCIP at least four months before the expiration date to avoid restitution for improper inventory management.
- **How to Store Vaccines**
 - Store vaccines in their original packaging with lids closed until ready for administration.
 - Arrange vaccines in rows in the central area of the unit to promote air circulation.
 - Do not store vaccines in the door, vegetable bins, on the floor of the unit or near the cooling vents at the top of the unit.
- **Placement of Water Bottles & Freezer Packs**
 - Store water bottles on the top shelf, floor and in the door racks for the refrigerator.
 - Store freezer packs water in the freezer along the walls, floor, and inside the freezer door.
- **Vaccine Ordering & Inventory Management**
 - Draw up vaccine only at the time of administration.
 - Physically distinguish between public and private vaccine stock and maintain complete, accurate, and separate stock records.
 - Multi-dose products may be used until the expiration date stamped on the vial unless otherwise indicated in the manufacturer's package insert.

Temperature Monitoring Requirements

Effective July 1, 2024, temperatures must be manually recorded once per day, including on half-days.

- **Clear Min/Max Readings:** Record and clear the minimum/maximum reading once a day (when the clinic opens).
- **Data Review:** Download and review data logger readings weekly to ensure continuous monitoring.
- **Probe Position:** The data logger probe must be centrally located within the unit surrounded by the vaccines.
- **Log Maintenance:** Temperature logs should be posted on the vaccine storage unit and copies must be retained for 3 years.
- **Ensure all recorded temperatures include:**
 - Time of reading.
 - Name or initials of the person conducting the temperature check.
- **What to do if units are out of range:**
 - Refer to your emergency vaccine management plan.
 - Continue to store vaccines in appropriate conditions and mark them "do not use".
 - Notify the NCIP at 877-873-6247 for information regarding vaccine viability.

Vaccine Shipments and Transfers

Schedule vaccine deliveries only when the Primary Vaccine Coordinator or Back-up Coordinator are available.

Upon receipt of vaccine shipment, providers must:

- Open vaccine package immediately.
- Check the cold chain monitor, a device used to monitor vaccine temperatures during transport.
- Inspect the vaccine and packaging for any signs of physical damage.
- Determine length of time the vaccine was in transit by looking at the packing list.
- Immediately store vaccine at appropriate temperatures.

Note: All instances of borrowing between VFC vaccine and private vaccine must be recorded, documented, and paid back within 30 days. Notify NCIP to get approval prior to borrowing/transferring vaccines.

Additional Resource: [Immunization Branch website information on vaccine storage and handling.](#)

For assistance, contact the NCIR Help Desk

Phone: 1.877.USE.NCIR (873-6247)

Email: ncirhelp@dhhs.nc.gov