VFC VACCINE MANAGEMENT PLAN TEMPLATE

Use this checklist to help develop or update your plan to be complete and current.

Hawai'i State Department of Health

Vaccines for Children (VFC) Program Template

SET THE ENVIRONMENT

Developing, implementing, and maintaining a vaccine management plan for routine and emergency vaccine management is strongly encouraged to minimize loss due to negligence. The plan should consist of clearly written, detailed and up-to-date storage and handling standard operating procedures.

VACCINE MANAGEMENT PLANS SHOULD INCLUDE

- ☐ Name and contact information for the current vaccine coordinator and backup coordinator
- ☐ Provider staff roles and responsibilities.
- ☐ Staff training/documentation on vaccine management, storage, and handling
- ☐ Proper storage and handling practices.
- ☐ Shipping and receiving procedures.
- ☐ Vaccine ordering procedures, inventory management (e.g., stock rotation), and procedures for handling spoiled or expired vaccine.
- ☐ Procedures for monitoring expiration dates and beyond-use dates/times.
- ☐ Emergency procedures for equipment malfunctions, power failures, or natural disasters

Vaccine Management Plan provides information on proper management of publicly funded vaccine. Use of this template assures that vaccine is managed according to CDC and Hawai'i VFC Program Requirements. The plan should be reviewed annually to ensure up-to-date information is on file. Post these guidelines near your vaccine units where they can be easily accessed. All staff should be aware of this plan.

Annual Review Date	Name, Signature & Credentials of primary or backup coordinator

CONTACT INFORMATION FOR VACCINE COORDINATORS

FACILITY INFORMATION	
Parent Organization	
Provider Location	
VFC Pin	

In an emergency, contact the following people in the order listed:

ROLE/RESPONSIBILITY	Name	Phone #	Email
Primary Coordinator			
Back-up Coordinator			
Additional Contact			

Vaccine Coordinators

• Designate a Primary Vaccine Coordinator and at least one Backup Vaccine Coordinator. These personnel are responsible for managing state-supplied vaccine, as described in this plan. Both should be equally knowledgeable about vaccine management, and the Backup should be capable of fulfilling all vaccine storage and handling requirements when the Primary Vaccine Coordinator is absent.

• When the Primary Vaccine Coordinator or the Backup is replaced, immediately notify the Immunization Program at HawaiiVFC@doh.hawaii.gov , so contact information and trainings can be updated.

Coordinator responsibilities should include:

- Ordering vaccines
- Overseeing proper receipt and storage of vaccine deliveries
- Documenting vaccine inventory information
- Organizing vaccines within storage units
- Setting up temperature monitoring devices
- Checking and recording minimum/maximum temperatures at start of each workday
- Reviewing and analyzing temperature data at least weekly for any shifts in temperature trends
- Rotating stock at least weekly so vaccines with the earliest expiration dates are used first
- Removing expired vaccine from storage units
- Responding to temperature excursions (out-of-range temperatures)
- Maintaining all documentation, such as inventory and temperature logs
- Organizing vaccine-related training and ensuring staff completion of training
- Monitoring operation of vaccine storage equipment and systems
- Overseeing proper vaccine transport (when necessary) per SOPs
- Overseeing emergency preparations per SOPs:
    - Tracking inclement weather conditions
    - Ensuring appropriate handling of vaccines during a disaster or power outage

GUIDANCE AND GOOD PRACTICE

The plan should be reviewed/updated annually or more frequently if changes occur and should include a review date and signature to validate it is current.

Here are some useful links for useful Resources:

Vaccine Storage & Handling Toolkit

- https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf

HDOH VFC Toolkit for providers

- VFC-Toolkit-List.pdf (hawaii.gov)

Vaccine Information

- Vaccines and Immunizations | CDC

STAFF TRAINING

Vaccine storage and handling practices are only as effective as the staff that implements them. Staff that are well trained in general storage and handling principles and organization-specific storage and handling standard operating procedures (SOPs) are critical to ensuring vaccine supply potency and patient safety.

The Primary Vaccine Coordinator and Backup Vaccine Coordinator are required to complete You Call the Shots Modules 10 and 16 annually.

All other staff members who receive vaccine deliveries as well as those who handle or administer vaccines should be trained in vaccine-related practices and be familiar with your facility's storage and handling SOP.

CDC Train Courses – Free Public Health Training

Modules 10 and 16

- Immunization: You Call the Shots-Module Ten-Storage and Handling - 2024 (Web Based) - WB4723 - CDC TRAIN - an affiliate of the TRAIN Learning Network powered by the Public Health Foundation Module 10 – Storage and Handling
- Immunization: You Call the Shots-Module Sixteen-Vaccines for Children Program - 2024 (Web Based) - WB4724 - CDC TRAIN - an affiliate of the TRAIN Learning Network powered by the Public Health Foundation Module 16 – Vaccines for Children Program

Training and Education Online

- http://www.cdc.gov/GetCE Continuing Education credit.

TRAINING DOCUMENTATION

Below are the trainings that are recommended/required for all staff handling VFC vaccines.

Name, Role & Date Completed	**REQUIRED** You Call the Shots: Module 10 Storage and Handling	**REQUIRED** You Call the Shots: Module 16 Vaccines for Children Program	You Call the Shots: General Best Practice Guidelines for Immunization	You Call the Shots: Vaccine Administration

More training can be found here: [You Call the Shots: Vaccines Web-based Training Course | CDC]

VACCINE ORDERING

Vaccine Order Placement

- VFC vaccine providers must submit orders for routine VFC vaccines via the Hawaii Immunization Registry (HIR). If you experience HIR technical/system difficulties and/or are unable to log in, please contact the HIR Help Desk at (808) 586-4665, 1-888-447-1023 (toll-free) or registryhelp@doh.hawaii.gov.
    - **EXCEPTION**: Orders for seasonal and/or allocated products with limited availability (e.g., influenza, COVID-19, nirsevimab-alip) may be requested on specialized VFC order forms.
- Providers are encouraged to submit vaccine orders by the 15th of every month (1-2 month supply of vaccine is allowed, at maximum).
- Providers are required to:

  ☐ Have current VFC Program enrollment.

  ☐ Submit VFC Vaccine Administration Visit Records or submit VFC vaccine administration data (including VFC eligibility categories) to the Hawai'i Immunization Registry within the last 6 months.

  ☐ **Report of doses used since last inventory and the number of doses currently on hand via the HIR "record inventory" function**

  ☐ Report the number of vaccine doses used since the item was last ordered. Vaccine usage must be reported to provide necessary justification for fulfillment of new vaccine requests.

  ☐ Submit (email) refrigerator, freezer, and ultracold freezer temperature logs for all units that house VFC vaccine.

More information can be found on the *Hawai'i VFC Vaccine Distribution Guide.*

How to Ensure Vaccine Orders are Received in a Timely Manner:

- If any of the elements in the section above are missing, provider order processing will be delayed.

If the provider office will be closed for holidays or other reason within the next month, this should be noted in the "Special Shipping Instructions" section of the provider's "Delivery Days and Times" page. Note, "Special Shipping Instructions" are for Hawaii VFC Program use and are not transmitted to the CDC.

SHIPPING & RECEIVING PROCEDURES

Receipt of Vaccine Shipments

- Providers should **never** refuse vaccine shipments under any circumstances including delivery after provider hours (i.e., suspected "warm"/spoiled vaccines) or damage to the exterior package. If there is damage to the exterior package, be sure to take a photo for documentation purposes.
- Open vaccine shipments **immediately**, check the temperature monitor reading, inspect the vaccine, compare the vaccine received with the vaccine products indicated on the packing list, and store at the appropriate temperature.
- If you suspect that vaccine viability has been compromised, vaccines should be separated from non-affected vaccine stock (e.g., placed in a paper or zip-top bag), labelled "Do Not Use," and stored at appropriate temperatures until vaccine viability is determined. Follow the procedures below based on where the vaccine was shipped from:

Shipments from McKesson (all refrigerated vaccines):

• VFC providers must contact McKesson directly on the same day that delivery has occurred to report the shipping incident. McKesson has a telephone number specifically dedicated for receiving provider calls about vaccine viability: 1-877-TEMP123 (1-877-836-7123).

- O **Providers must leave a detailed voice message at the number above if reporting a shipping incident to McKesson after 8:00 pm Eastern Time. Please be sure to clearly state your name, a contact phone number, your VFC provider PIN, delivery number (from packing slip) and a description of the issue.**

• McKesson will request that you supply photos of the shipping container, packaging, and activated warm/freeze monitors. Take photos for documentation purposes and avoid disposal of shipping boxes/packaging, packing slips, and temperature monitors until the situation is resolved.

• Contact the Immunization Branch/VFC Program at (808) 586-8300 or 1-800-933-4832 (toll-free) to report the incident.

• VFC staff will work with McKesson to determine if vaccine is viable, replace vaccines (if needed), and arrange for the return of any spoiled vaccines.

Shipments from Merck (frozen vaccines – Varicella/MMRV)

• Return/replacement instructions are included in all Merck shipments. Please contact Merck directly at: https://cdcshipping.merck.com/ to report shipment issues and arrange for vaccine return/replacement.

• Providers must contact Merck within 15 days of the original shipment to report the vaccine spoilage and request replacement vaccine.

• Note: For frozen vaccine shipments, diluent is located in the lid compartment of the shipping box.

Varivax (Varicella)

• Merck varicella vaccine shipments no longer include temperature indicators. Viability is determined by assessing shipment transit time. Providers will need to look at their packing slip to identify their shipment date.
• Orders of 40 doses or less will be shipped in the small 2-day box, unless those 40 doses are shipped on a Thursday or Friday in the large 4-day box for delivery on a Monday or Tuesday.
• Orders of 40 doses or more will ship in the large 4-day box.

ProQuad (MMRV)

• Orders are viable for 1 day regardless of shipping container size. ProQuad shipments may include a temperature monitoring device.

Shipments from Pfizer (Pfizer COVID-19 vaccines)

Contact Pfizer Customer Service at 1-800-666-7248, option 8 or cvgovernment@pfizer.com to report shipping/delivery issues.

Shipments from the Hawai'i Immunization Branch/Vaccine Supply and Distribution Section (VSDS)

• VSDS will ship the following vaccines/biologics to providers on the Neighbor Islands:
• HBIG (Hepatitis B Immune Globulin for Birthing Hospitals)
• Vaccines/biologics requested in response to a disease outbreak
• A warm temperature monitor strip and a freeze indicator will be included in the vaccine/biologics shipment.
• Inspect the temperature monitors and if any have activated, take photos of the monitors, and contact the contact the Immunization Branch/VFC Program at (808) 586-8300 or 1-800-933-4832 (toll-free) to report the incident.
• VSDS/VFC staff will work with you to determine if vaccine is viable, replace vaccines (if needed), and arrange for the return of any spoiled vaccines.

Over Shipments and Mis-shipments

• "Over Shipments" are defined as situations in which the vaccine quantity shipped to a provider exceeds the amount that was ordered.
• "Mis-shipments" are defined as shipments that include at least one vaccine product that was not ordered by the provider.

In each of the above-listed situations, vaccines which exceed a provider's immediate need have been shipped. The preferred action is for the provider to keep the additional vaccine and use it. If this is not possible, vaccine should be transferred to a VFC provider in the near vicinity. If vaccine will be

transferred to another facility, please complete and submit the Vaccine Transfer Form to the Immunization Branch/VFC program.

• Contact the Immunization Branch at (808) 586-8300 or 1-800-933-4832 (toll-free) to report the incident.

Transporting Vaccine

Vaccines from your supply should not be routinely transported. In instances where the transport of vaccine from your supply is necessary, take appropriate precautions to protect your supply. Vaccines should only be transported using appropriate packing materials that provide the maximum protection.

- ✓ The total time for transport alone or transport plus clinic workday should be a maximum of 8 hours (e.g., if transport to an off-site clinic is 1 hour each way, the clinic may run for up to 6 hours).
- ✓ Your facility should have a sufficient supply of materials needed for vaccine transport of your largest annual inventory. Appropriate materials include:
    - Portable vaccine refrigerator/freezer units (preferred option)
    - Qualified containers and pack outs
    - Hard-sided insulated containers or Styrofoam™ (Use in conjunction with the Packing Vaccines for Transport during Emergencies tool. This system is only to be used in an emergency.)
    - Coolant materials such as phase change materials (PCMs) or frozen water bottles that can be conditioned to 4° C to 5° C (39° F to 41° F)
    - Insulating materials such as bubble wrap and corrugated cardboard—enough to form two layers per container.
    - Temperature Monitoring Devices (TMD) for each container

	Emergency Transport	Transport for Offsite Clinic, Satellite Facility, or Relocation of Stock
Portable Vaccine Refrigerator or Freezer	Yes	Yes
Qualified Container and Packout	Yes	Yes
Conditioned Water Bottle Transport System	Yes	No
Manufacturer's Original Shipping Container	Yes (last resort ONLY)	No
Food/Beverage Coolers	No	No

Transporting Frozen Vaccines

- ✓ If frozen vaccines must be transported, use a portable vaccine freezer unit or qualified containers, and pack out that maintains temperatures between -50° C & -15° C (-58° F and +5° F).

Follow these steps for transporting frozen vaccines:

- Place a TMD (preferably with a buffered probe) in the container as close as possible to the vaccines.

- Immediately upon arrival at the destination, unpack the vaccines and place them in a freezer at a temperature range between -50° C and -15° C (-58° F and +5° F) . Any stand-alone freezer that maintains these temperatures is acceptable.
- Record the time vaccines are removed from the storage unit and placed in the transport container, the temperature during transport, and the time at the end of transport when vaccines are placed in a stable storage unit.

Do not use dry ice, even for temporary storage. Dry ice might expose the vaccines to temperatures colder than -50° C (-58° F). (The only exception to this is for transport of COVID-19 Vaccine (Pfizer) which can be transported using the manufacturer's thermal shipping container.)

Temperature Monitoring During Transport

Use a continuous TMD, preferably a DDL, for monitoring and recording temperatures while transporting vaccines:

- The TMD should have an accuracy of +/-0.5° C (+/-1° F).
- Place buffered probe material in a sealed vial directly with the vaccines.
- Keep the TMD display on top of vaccines so you can easily see the temperature.
- Record the time and minimum/maximum temperature at the beginning of transport.

Vaccine Packing Procedure (Refrigerated Temperatures)

1. Line the bottom of the cooler with the conditioned water bottles
2. Place 1 inch layer of bubble wrap over the water bottles
3. Place vaccines and thermometer probe over the bubble wrap layer
4. Place another 1-inch layer of bubble wrap over the vaccines
5. Place conditioned water bottles over the top layer of bubble wrap
6. Close and secure cooler lid.

Temperature Monitoring

- Temperature monitoring should be the primary responsibility of the provider/clinic vaccine coordinator and backup. If other staff must monitor temperatures, those persons must be trained in how to respond to and document actions taken when temperatures are outside the appropriate range.
    1. Post a temperature log on the vaccine storage unit door or nearby in a readily accessible and visible location.
    2. Record refrigerator, freezer, and ultra-cold freezer temperatures twice each day (beginning and end) ensuring that refrigerator temperatures are between 36° and 46° F (2° and 8°C) the freezer temperatures are between -58°F and +5°F (between -50°C and -15°C) and the ultra-cold freezer temperatures are between -130°F and -76° F (-90° and -60°C) at all times. Twice-daily temperature monitoring and recording is required even if a continuous graphing/recording thermometer or a digital data logger is used.
    3. Take immediate action to correct improper vaccine storage conditions, including inappropriate exposure to light and inappropriate exposure to storage temperatures outside the recommended ranges. Document actions taken on the Troubleshooting Record page of the temperature log.
    4. Maintain an ongoing file of temperature logs, and store completed logs for a minimum of 3 years.

STORAGE UNITS FOR VACCINES

• Stand-alone refrigerators and freezers are strongly recommended over combination units.

• If providers must use a combination refrigerator/freezer unit, it must have separate doors and should have separate temperature controls for each section. Use of such units is discouraged due to documented problems managing frozen vaccine and refrigerated vaccine.

• ***Never Permitted***: Dormitory or bar-style refrigerators. These are small combination refrigerator/freezer units outfitted with one exterior door and an evaporator plate (cooling coil) which is usually in an icemaker/freezer compartment in the refrigerator.

• **Providers enrolled after July 1, 2024 will not be allowed to use the freezer component of a household combination unit.**

Refrigerator

o Stand-alone refrigerators are strongly recommended. Refrigerated vaccine may be stored in a combination unit if a stand-alone unit is not available. Use a separate stand-alone freezer for frozen vaccines.

o Refrigerator temperature must be maintained between 2°C and 8°C (36°F and 46°F).

o Refrigerator should be frost-free

o To determine what size unit is required:

o Vaccine should not be stored in the door, crisper or other bins.

o Vaccine should be 2-3 inches from the walls and back, with space for air flow.

o Vaccine should not be placed on the floor of the unit.

o Vaccine should not be stored near a cooling fan or vent.

o There should be enough room to accommodate the largest inventory of the year – typically during flu season (or back-to-school) – without overcrowding.

o There should be space for water bottles marked "do not drink."

o If medications and biologic materials need to be stored with vaccine, they should be placed below vaccine on a separate shelf to prevent possible contamination. They should not impede air flow.

Freezer

o The freezer should be frost-free.

o Stand-alone freezers are strongly recommended. Studies have shown that the freezer in a combination unit is unreliable for keeping frozen vaccine at the proper temperature.

o Freezer temperature must be maintained between -50°C and -15°C (-58°F and +5°F).

Setting Up Storage Units for Vaccine Storage

• Store food and beverages in a separate storage unit, not with vaccines.

• Water bottles marked "do not drink" should be placed in the refrigerator as a thermal buffer to help protect vaccine from temperature variations. Place them in the door and on the floor. Also, place it against the back and walls if possible.

• Frozen water bottles should be placed in the freezer as a thermal buffer. Place these in the door and on the floor. Also, place frozen water bottles against the back and walls if possible.

• A "Do Not Disconnect" notice must be posted next to every outlet where a vaccine freezer or refrigerator is plugged in. A second "Do Not Disconnect" sticker must be posted on or near the corresponding circuit breaker.

• Prior to use of vaccine, the storage unit(s) should be inspected by Immunization Program staff and have at least 5 consecutive days of in-range temperatures.

How to Store Vaccines

BEST PRACTICES

Place water bottles on the top shelf and floor and in the door racks. Putting water bottles in the unit can help maintain stable temperatures caused by frequently opening and closing unit doors or a power failure.

Water bottles are not recommended for use with certain pharmaceutical-grade and purpose-built units. For such units, follow the manufacturer's guidance.

STORAGE AND HANDLING PRACTICES

Proper vaccine storage and handling is crucial to maintaining the viability and integrity of vaccines. The vaccine storage practices listed below are the responsibility of the provider/clinic vaccine coordinator or the vaccine coordinator's back-up. If delegated to the back-up, the designated vaccine coordinator must monitor these activities regularly.

As part of the VFC Provider Agreement, providers are required to:

- Store and handle all vaccines under proper conditions, including always maintaining cold chain conditions and chain of custody in accordance with the manufacturer's package insert and CDC guidance in CDC's *Vaccine Storage and Handling Toolkit*.
- Always monitor vaccine storage unit temperatures at all times using equipment and practices that comply with Hawai'i Department of Health Immunization Branch Storage and Handling requirements.
- Return all spoiled/expired public vaccines to CDC's centralized vaccine distributor within six months of spoilage/expiration.
- Comply with Hawai'i Immunization Program guidance for dealing with temperature excursions.

Additional duties required are:

- Store vaccines that require refrigeration in the middle of the refrigerator compartment away from the coils, walls, floor, and cold air vent.
- Store vaccines that require freezer storage in the middle of the freezer compartment, away from the walls, coils, and peripheral areas.
- Store vaccine with enough space to allow for cold air circulation around the vaccine.
- Never store vaccines in the door of the storage unit.

More information can be found at:
https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html

VACCINE INVENTORY MANAGEMENT

Organization must report the vaccine inventory that were unused, spoiled, expired, or wasted as specified via the "VFC Vaccine Loss Reporting Form".

In order to minimize the number of unused expired doses and manage expired doses correctly, HDOH encourages providers to:

- Monitor expiration dates weekly, rotate stock as needed, and follow a "first in, first out" strategy to manage inventory.
- If nearing expiration, check posted manufacturer information for the most up to date expiration/extension information for vaccine lots.
- Based on the latest expiration information, REMOVE expired vaccine from the storage unit IMMEDIATELY. Do not give staff opportunity to administer expired vaccine.
- If expired vaccine is inadvertently administered, it is considered a vaccine administration error. This requires remediation including submitting a VAERS report and contacting the recipient to inform them of the error. Administering an expired vaccine may or may not require revaccination based on the manufacturer's guidance.

INVENTORY CONTROL PROCEDURE AND VACCINE MANAGEMENT

INVENTORY CONTROL PROCEDURE TEMPLATE

Providers must have a written procedure for vaccine management that includes an Inventory Control Procedure. The following Inventory Control Procedure template should be personalized and customized to suit your practice's needs.

The VFC Program recommends that you make your Inventory Control Procedure available to all other clinic staff who may be involved in ordering of VFC vaccines.

Your Inventory Control Procedure should include plans for vaccine management that take the following concerns into account:

- Designation of primary vaccine coordinator and at least one back-up staff
- Inventory control (e.g., stock rotation)
- Vaccine ordering
- Proper vaccine storage and handling
- Sending temp logs monthly for all VFC storage units to the Hawaii VFC Program via email HawaiiVFC@doh.hawaii.gov
- Vaccine shipping (includes receiving and transport)
- Vaccine wastage
- Has the Inventory Control Procedure been reviewed or updated annually or since a change in responsible staff?

Name of Person in Charge of Inventory Control: _____

Back-up Person: _____

The Hawai'i Vaccine for Children Program will be notified when there is a change in staff involved in VFC vaccine management.

A vaccine inventory log is maintained that includes:

- Identification of vaccines that are VFC (versus privately purchased vaccine)
- Vaccine name and number of doses received.
- Date the vaccine is received.
- Arrival condition of vaccine.
- Vaccine manufacturer and lot number.
- Vaccine expiration date.

A physical inventory of stored VFC vaccines is conducted _____. (write in specific date of the month. *A physical inventory of vaccines should be done at least monthly.*)

Temp logs for the previous 30-day period for all units (permanent and temporary, i.e., daily use only) used to store VFC vaccine will be sent to the Hawai'i VFC Program on the first day of each month via email to HawaiiVFC@doh.hawaii.gov.

The inventory is conducted to ensure that:

- The inventory with the shortest expiration dates is used first.
- The inventory is stocked and rotated so that the newest vaccines of each type (with the longest expiration dates) are placed behind the vaccines with the shortest expiration dates.
- VFC vaccines are kept separate from privately purchased vaccine and are easily identified as such.
- Vaccine stock on hand is no greater than a 2-month supply.
- Short-dated vaccines, expiring in 3 months or less, that will not be administered before expiration should be redistributed to other VFC providers for administration, if possible. Proper vaccine packing procedures must be used if transferring vaccine to other VFC providers that are able to use the short-dated vaccine. The Vaccine Transfer Form (Section 5 of the VFC Provider Reference Toolkit) must be completed and emailed to the VFC program.
- The Hawai'i Vaccines for Children Program will be notified when vaccines have been spoiled or wasted via the Vaccine Loss Report Form.

EXPIRED, SPOILED, & WASTED VACCINES

• Non-viable vaccine is any vaccine that is unopened (with the cap intact) that cannot be used because it has either expired or has been spoiled due to exposure to out-of-range temperatures.

1. Take spoiled or expired vaccine out of the unit and place in a box labeled "Spoiled, Do Not Use" or "Expired, Do Not Use"
2. All expired or spoiled vaccine must be reported. Complete the Vaccine Loss Reporting Form and email to the VFC Program at HawaiiVFC@doh.hawaii.gov or through HIR.
3. The Immunization Program will review the return, and, upon approval, McKesson will email you a shipping label.
4. Upon receiving the shipping label, ship the vaccine in any sturdy box (packed to prevent vial breakage) to McKesson within six months of spoilage or expiration. Enclose the confirmation page as a packing slip.

• Wasted vaccine is vaccine that has been opened but not used.

1. Reasons for waste include:
   - being drawn into a syringe but not administered,
   - opened in error, error in reconstitution.
   - or vaccine whose sterility has been compromised by the vial being dropped
   - or broken or open multi-dose vials that have expired.
2. All wasted vaccine must be reported. Complete the Vaccine Loss Reporting Form and email to the VFC Program at HawaiiVFC@doh.hawaii.gov
3. Dispose of wasted vaccine on site in a sharps container.

EMERGENCY PROCEDURES

Emergencies like equipment failures, power outages, severe weather conditions, or natural disasters usually happen without warning and may compromise vaccine storage conditions. In addition to vaccine transport planning, you should make plans to prepare for emergencies.

Below is a checklist for Emergency Vaccine Storage, Handling and Transport.

☐ The following items are up-to-date and complete.
- ☐ Primary and Backup Coordinators
- ☐ Emergency Staff Contact List
- ☐ Alternative vaccine storage facility
- ☐ Transportation of vaccines
- ☐ Any/all: Emergency Vaccine Storage Plan

☐ Vaccine storage unit specifications (type, brand, model number, serial number)

☐ Diagram of facility showing important elements, including doors, flashlights, packing materials, batteries, circuit breakers

☐ Keep a copy of emergency SOPs with emergency supplies and at multiple off-site locations such as homes of vaccine coordinator and alternate coordinator and with building manager, security staff, and alternative storage facility.

☐ Protocols for:
- ☐ Monitoring vaccines during a power outage
- ☐ Packing vaccines and diluents for emergency transport
- ☐ Transporting vaccines to and from an alternative vaccine storage facility
- ☐ Assessing whether vaccine can be used after an emergency
- ☐ Accessing your building and facility after hour

VACCINE STORAGE AND HANDLING SOP

Name	Title	Phone #	Email
	Primary Coordinator		
	Back-up Coordinator		
	Additional Contact		

Emergency Staff Contact List

Name	Title	Phone #	Email
1)			
2)			
3)			
4)			
5)			

Alternative Vaccine Storage Facilities

Facility Name & Address	Contact Name	Phone #	Storage Unit Specification (Brand, Model #, Serial #)
1)			
2)			
3)			
4)			
5)			
6)			
7)			

EMERGENCY VACCINE STORAGE PLAN TEMPLATES

Providers must have written procedures for vaccine management that include Emergency Vaccine Storage Plans. The attached Emergency Vaccine Storage Plan templates should be personalized and customized to suit your practice's needs.

VFC Providers must use the guideline below in determining when vaccine should be transported to avoid spoilage/waste of vaccine due to exposure to temperatures outside of the accepted ranges.

These are three Emergency Vaccine Storage Plan templates:

Template 1 – Transport to another Location (location is a professional facility):

This plan should be used if vaccines are to be transported to another location in the event of a power outage.

Template 2 – Transport to another location (location is a personal home) or alternate location:

This plan should be used if vaccines are to be transported to the home of the Provider or a staff member. NOTE: An alternate location must be identified in case the owner of the Primary location is unavailable (e.g., off-island).

Template 3 – Emergency Generator within Facility:

This plan should be used if your refrigerator/freezer containing the vaccines will be connected to an emergency generator in the event of a power outage.

EMERGENCY VACCINE STORAGE PLAN

Provider/Clinic Name _____

Name of Person in Charge of Emergency Vaccine Storage: _____

Back-up Person: _____

VACCINE STORAGE ALARM RESPONSE PROTOCOL Complete Power Failure

TRANSPORT TO ANOTHER LOCATION**

(Location is a professional facility)

1. In the event of a power outage that affects the refrigerator/freezer containing vaccines, (Name of Staff) _____ will pack

- all refrigerated vaccines into a portable refrigerator, qualified pack out, or cooler with conditioned water bottles
- all frozen vaccine into a portable freezer***

2. The cooler is located in (Location)_____. The water bottles are frozen and located in the (Location) _____ freezer.

The portable freezer is located in the (Location)_____.

3. The following will be noted by (Name of Staff) _____.

- Estimated time of power outage
- Temperature of refrigerator/freezer at the time vaccines are removed for transport; and
- The time that the vaccines are removed from refrigerator/freezer for transport.

4. The above information will be available for reference when notifying the Hawaii Immunization Branch VFC Provider Program of the power outage so that vaccine manufacturers can be contacted by the provider for a determination of vaccine viability.

5. Notify (Contact at Emergency Location) _____ at (Emergency Storage Location) _____ of vaccine transfer.

6. (Name of Staff) _____ will take vaccines packed in portable refrigerator or cooler with conditioned water bottles and/or portable freezer to (Emergency Storage Location) _____. Place a TMD or Digital Data Logger (DDL) in the container as close as possible to the vaccines. (To be used to monitor temps for duration of transport and emergency storage.)

7. Vaccines are to be kept in refrigerator and/or freezer at (Emergency Storage Location) _____

until power has been restored in the office/clinic and the refrigerator/freezer temperature in the office/clinic is within acceptable range for the vaccines.

(Name of Staff) _____ will retrieve vaccine from (Emergency Storage Location) _____,

pack refrigerated vaccine in a portable refrigerator or cooler with conditioned water bottles and the frozen vaccine in the portable freezer and return vaccine to office/clinic. Place a TMD or Digital Data

Logger (DDL) in the container as close as possible to the vaccines. (To be used to monitor temps for duration of transport and emergency storage.)

8. It is important that the cold chain be maintained throughout the transport process.

*****NOTE: If a portable freezer is not used for the transport of frozen vaccine, the Hawaii VFC Provider Program must be contacted when the vaccine is returned to its original location. (Oahu providers can call 808-586-8300, Neighbor Islands Toll-free 1-800-933-4832 or email** HawaiiVFC@doh.hawaii.gov **).**

******Prior to implementation of this plan, provider/clinic must establish an emergency storage location that has a functioning refrigerator/freezer. Location must also be willing and able to store provider's/clinic's vaccine whenever necessary.

EMERGENCY VACCINE STORAGE PLAN

Provider/Clinic Name _____

Name of Person in Charge of Emergency Vaccine Storage: _____

Back-up Person: _____

VACCINE STORAGE ALARM RESPONSE PROTOCOL Complete Power Failure

TRANSPORT TO ANOTHER LOCATION**
(Location is the home of a Provider or staff member)

1. In the event of a power outage that affects the refrigerator/freezer containing vaccines, (Name of Staff) _____ will pack

- all refrigerated vaccines into a portable refrigerator, qualified pack out, or cooler with conditioned water bottles
- all frozen vaccine into a portable freezer***

2. The portable refrigerator or cooler is located in (Location) _____. The conditioned water bottles are frozen and located in the (Location) _____ freezer. The portable freezer is located in the (Location) _____.

3. The following will be noted by (Name of Staff) _____.

a. Estimated time of power outage.

b. Temperature of refrigerator/freezer at the time vaccines are removed for transport; and

c. The time that the vaccines are removed from refrigerator/freezer for transport.

4. The above information will be available for reference when notifying the Hawaii COVID-19 Provider Program of the power outage so that vaccine manufacturers can be contacted by the provider for a determination of vaccine viability.

5. Notify (Contact Name) _____ at (Primary Emergency Storage Location) _____ of vaccine transfer **OR** Notify (Contact Name) _____ at (Back-up Emergency Storage Location) _____ of vaccine transfer if primary location is unavailable.

6. (Name of Staff)_____ will take vaccines packed in portable refrigerator or cooler with conditioned water bottles and/or portable freezer **TO** (Primary Emergency Storage Location)_____ **OR** TO (Back-up Emergency Storage Location)_____ if the Primary Emergency storage location is unavailable. Place a TMD or Digital Data Logger (DDL) in the container as close as possible to the vaccines. (To be used to monitor temps for duration of transport and emergency storage.)

7. Vaccines are to be kept in refrigerator/freezer at the Primary or Back-up Emergency storage location until power has been restored in the office/clinic and the refrigerator/freezer temperature in the office/clinic is within acceptable range for the vaccines. (Name of Staff) _____ will retrieve vaccine from the Primary or Back-up Emergency storage location, pack vaccine in a portable refrigerator or cooler with conditioned water bottles and/or portable freezer and return vaccine to

office/clinic. Place a TMD or Digital Data Logger (DDL) in the container as close as possible to the vaccines. (To be used to monitor temps for duration of transport and emergency storage.)

8. It is important that the cold chain be maintained throughout the transport process.

*****NOTE: If a portable freezer is not used for the transport of frozen vaccine, the Hawaii VFC Provider Program must be contacted when the vaccine is returned to its original location. (Oahu providers can call 808-586-8300, Neighbor Islands Toll-free 1-800-933-4832 or email** HawaiiVFC@doh.hawaii.gov **)**

******Prior to implementation of this plan, provider/clinic must establish an emergency storage location that has a functioning refrigerator/freezer. Location must also be willing and able to store provider's/clinic's vaccine whenever necessary.

EMERGENCY VACCINE STORAGE PLAN

Provider/Clinic Name _____

Name of Person in Charge of Emergency Vaccine Storage: _____

Back-up Person: _____

EMERGENCY GENERATOR WITHIN FACILITY

1. In the event of a power outage that affects the refrigerator/freezer containing the vaccines, (Name of Staff) _____ will connect the emergency generator to refrigerator/freezer.

2. The generator is located in (Location)_____.

Extension cords are located in (Location)_____.

3. The following will be noted by (Name of Staff) _____:

- **a.** Estimated time of power outage.
- **b.** Temperature of refrigerator/freezer prior to connecting the generator
- **c.** The time the generator is connected and functioning; and
- **d.** The time at which the refrigerator/freezer temperature is restored to within acceptable range.

4. The above information will be available for reference when notifying the Hawai'i VFC Provider Program of the power outage and when the vaccine manufacturers are contacted by the provider for the determination of vaccine viability.

5. Generator may be disconnected after electrical power is restored.

EMERGENCY VACCINE STORAGE PLAN

Provider/Clinic Name _____

Name of Person in Charge of Emergency Vaccine Storage: _____

Back-up Person: _____

PHASE CHANGE MATERIAL (PCM) COOLER WITHIN FACILITY

1. In the event of a **power outage** that affects the refrigerator/freezer containing the vaccines, (Name of Staff) _____ will transfer all vaccines from the refrigerator/freezer to the PCM Cooler.

2. The PCM Cooler is located in (Location)_____.

3. The PCM Cooler can keep vaccines in a stable temperature for _____ days or _____ hours per the direction stated in the manufacturer instructions.

4. The following will be noted by (Name of Staff) _____:

- **a.** Estimated time of power outage.
- **b.** Temperature of refrigerator/freezer prior to connecting the generator
- **c.** The time the vaccines were transferred to the PCM Cooler; and
- **d.** The time at which the refrigerator/freezer temperature is restored to within acceptable range.

5. The above information will be available for reference when notifying the Hawai'i VFC Provider Program of the power outage and when the vaccine manufacturers are contacted by the provider for the determination of vaccine viability.

6. The PCM Cooler should remain closed until time to transfer vaccines back to regular storage.

7. The PCM Cooler should have a DDL and temperature log ready for emergency.