Emergency Management Plan
Storage & Handling

Department of Public Health
CITY OF PHILADELPHIA

December 2020 | **tempcheck@phila.gov**

INSTRUCTIONS: *Post this page on the outside of all vaccine refrigerators and freezers. The emergency contact must have 24-hour access to vaccines. ALWAYS contact the VFC/VFAAR Program before moving vaccines.*

Do you have a generator on site? (please check all that apply)

☐ Yes, at the main site ☐ Yes, at a back-up site ☐ No access to a generator

Clinic Name	VFC/VFAAR PIN
Vaccine Coordinator Name	Vaccine Coordinator Phone Number
Back-up Vaccine Coordinator Name	Back-up Vaccine Coordinator Phone Number
Non-Office Hour Contact Name	Non-Office Hour Contact Phone Number

One of these back-up storage locations should be available 24 hours a day

Back-up Storage Location #1	Back-up Storage Location #2
Contact Person	Contact Person
Phone Number	Phone Number
Address	Address

Emergency Response Plan

IN THE EVENT OF AN EMERGENCY, ALWAYS:

1. Contact an emergency contact, listed above
2. Follow the steps on pages 2 and 3 of this document.

IF THE POWER IS ON

1. Ensure the storage unit doors are closed tightly.
2. Ensure that the storage unit is plugged directly into an outlet.
3. Adjust the thermostat on the unit to bring temps into range.

IF THE POWER IS OFF

1. Call PECO Energy. Ask for an estimated time of the outage.
2. Inform VFC/VFAAR. Business hours are 8:30 am to 5:00 pm, Mon to Fri. If nobody answers, leave a message.
3. If you can't reach VFC/VFAAR, move vaccines to a back-up location. See "Packaging/Transporting Vaccine" (p. 3).
4. When power returns or vaccines have been moved, take inventory of the affected vaccines and call TempCheck.
5. Record all actions taken and report to TempCheck. If necessary, fax **Emergency Temperature Response Form** to the Philadelphia Immunization Program 215-238-6948.

Important Contact Information	
PECO Energy	1-800-841-4141
Water Department	215-685-6300
PDPH Staff Contacts	
TempCheck	215-685-6777
VFC/VFAAR Coordinator	215-685-6424
VFC/VFAAR Fax	215-238-6948
Dept of Disease Control	215-685-6742

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To stay viable and effective, vaccines must stay within a certain temperature range. If your practice has a power outage or interruption (due to bad weather, building maintenance, or other events), use this checklist to protect vaccines. Document what action you take to protect the vaccine.

Before an emergency:

- ☐ Print out this document so that you can consult it even if the power is out.
- ☐ Maintain emergency contact information for key staff responsible for vaccine management. Identify an emergency contact who has 24-hr access to the vaccine.
- ☐ Store water bottles in fridge and freezer to help maintain the interior temperature, and to use in an emergency. Some refrigerators, particularly pharmaceutical-grade units, may have specific guidance about using water bottles. Check the manufacturer's guidance for your unit.
- ☐ Identify two back-up vaccine storage locations, like a local hospital or another VFC/VFAAR medical provider.
  One of the back-up locations must be offsite from your location.
  This location cannot be a personal house or have the same address as your clinic location.
  Ensure the location has enough space to accommodate vaccines and that their temperature monitoring equipment meets VFC/VFAAR Program requirements.
- ☐ Keep the contact information for the back-up locations up to date. Include the facility name, address, contact person, and telephone number.
- ☐ Stock the supplies mentioned in the attached CDC document, "Packing Vaccines for Transport during Emergencies." Make sure you have enough materials to transport all your vaccines. Store any other important information with these supplies.
- ☐ Be familiar with back-up power sources for commercial/lab/pharmacy grade units

During an emergency:

- ☐ Follow your Emergency Management Plan.
- ☐ Notify TempCheck@phila.gov (215-685-6777) if there is an out-of-range temperature, or you need to transport the vaccines.
- ☐ Keep a record of all actions you take.

If it's a short-term power outage:

If the power outage is expected to be short-term (restored within 2 hours):

- ☐ Record the time the outage started, the unit temperatures (CURRENT, MIN and MAX) and room temperature.
- ☐ Place a "DO NOT OPEN" sign on storage unit(s) to conserve cold air.
- ☐ Monitor the interior temperature until power is restored. **Do not open the unit** to verify the temperature.

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If it's a long-term power outage:

Prepare to move vaccines to one of your back-up storage locations if:

- You have a power outage that is not over in 2 hours, or
- If the office will close before the power is restored, or
- The temperature of your vaccine storage units is rising and may reach out-of-range temperatures

Before transporting vaccines:

- ☐ Review emergency management plan and worksheet.
- ☐ Contact the back-up storage facility to verify they can accept the vaccines.
- ☐ Notify TempCheck at 215-685-6777.

If it's not feasible to move the vaccines (e.g., the back-up location isn't available, or if it's not safe to travel):

- ☐ Keep units closed and document the temperatures (CURRENT, MIN, MAX).
- ☐ Notify TempCheck@phila.gov (215-685-6777).

Packaging and transporting vaccine:

- ☐ Notify the key staff listed on this Emergency Plan as appropriate.
- ☐ Pack vaccine according to the attached document "Packing Vaccines for Transport During Emergencies."
  - ☐ Do not use frozen cold packs or dry ice: placing vaccine directly on frozen packs may damage vaccines.
  - ☐ Vaccines need to be monitered by your DDLs at all times.
- ☐ Transport the diluent the same way that you store it normally:
  - ☐ MMR, Varicella and MMRV diluent can be stored at room temperature or in the refrigerator.
  - ☐ Diluents stored in the refrigerator should be transported with refrigerated vaccines.
  - ☐ Diluents stored at room temperature should be transported at room temperature.
  - ☐ Diluents packaged with their vaccine should be transported with the vaccine.
- ☐ Upon arrival at the back-up location, document total vaccine transport time, the temperatures (CURRENT, MIN, and MAX) in the transport cooler(s) and the back-up storage unit(s).
  - ☐ Monitor temperatures twice a day and document them on the manual log.

After power is restored:

- ☐ Verify that storage units work and maintain in-range temperatures before moving vaccine back to them.
- ☐ Follow the same transportation procedures to transfer vaccine back to its original storage unit.
- ☐ Continue to use vaccines that have stayed in the proper temperature range.
- ☐ For any vaccine that experiences out-of-range temperatures:
  - ☐ Segregate it in the storage unit.
  - ☐ Mark it "DO NOT USE."
  - ☐ Contact the TempCheck@phila.gov (215-685-6777) to provide time frames and temperature information.

Never return vaccine to the vaccine distributor without VFC/VFAAR Program authorization.

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INSTRUCTIONS: *In case of emergency, first contact your on-site Vaccine Coordinators in the order listed below. Then contact PDPH staff (available Mon - Fri, 8:30 am - 5 pm), and any other appropriate emergency contacts (example: PECO Energy in the event of a power outage).*

Title	Name	Phone Number	Email Address
Your Vaccine Coordinator			
Your Back-up Vaccine Coordinator			
Your Non-Office Hour Contact			
Your Medical Director			
PDPH: Temp Check	Victor Obeck	215-685-6777	TempCheck@phila.gov
PDPH: VFC/VFAAR Coordinator	Jillian Brown	215-685-6424	Jillian.Brown@phila.gov
PDPH: Vaccine Specialist	Christine Wilson	215-685-6728	Christine.Wilson@phila.gov
PDPH: Disease Control	Ask for Immunization staff	215-685-6742	
Power Company	PECO Energy	1-800-841-4141 Report an Outage	
Power Company	PECO Energy	1-800-494-4000 Customer Service	
Power Company (other)			
Water Department	Philadelphia Water Department (PWD)	215-685-6300	
Fridge/Freezer Repair Company			
Generator Repair Company			
Security Company			
Building Manager			

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Manufacturer	Website	Phone #	Products
U.S. Centers for Disease Control & Prevention (CDC)	www.cdc.gov/ncezid/dsr/	404-639-3670	Distributor for diphtheria antitoxin, VIG, smallpox vaccine
GlaxoSmithKline (GSK)	www.gskvaccines.com	866-GSK-VACC (475-8222)	Infanrix, Kinrix, Pediarix, Havrix, Engerix-B, Twinrix, Hiberix, Cervarix, Fluarix, FluLaval, Rotarix, Boostrix
Grifols (immuneglobulin)	www.grifols.com	800-520-2807	HBIG, IGIM, RIG, TIG
Massachusetts Biologics (distributed by Grifols)	www.umassmed.edu/massbiologics/	617-474-3000	Td, TT
MedImmune, Inc.	www.medimmune.com	877-633-4411	FluMist
Merck & Co., Inc.	www.merckvaccines.com	800-MERCK-90 (637-2590)	PedvaxHIB, Comvax, Vaqta, Recombivax-HB, Gardasil, M-M-R II, ProQuad, Afluria, Pneumovax 23, RotaTeq, Varivax, Zostavax, Td
Biotest Pharmaceuticals	www.biotestpharma.com	800-458-4244	HBIG
Novartis Vaccines	www.novartisvaccines.com/us/	877-NV-DIRECT (683-4732)	Fluvirin, Agriflu, Menveo, RabAvert (distributer for Ixiaro)
Pfizer (Wyeth Vaccines)	www.pfizerpro.com	800-438-1985	Prevnar 13
Sanofi Pasteur	www.vaccineshoppe.com	800-VACCINE (822-2463)	Daptacel, Tripedia, Pentacel, ActHIB, Fluzone, Menomune, Menactra, IPOL, Imovax, Decavac, Tenivac, Adacel, Quadracel, Typhim Vi, YF-Vax

Packing Vaccines for Transport during Emergencies

Be ready BEFORE the emergency

Equipment failures, power outages, natural disasters—these and other emergency situations can compromise vaccine storage conditions and damage your vaccine supply. **It's critical to have an up-to-date emergency plan with steps you should take to protect your vaccine.** In any emergency event, activate your emergency plan immediately. Ideally, vaccine should be transported using a portable vaccine refrigerator or qualified pack-out. However, if these options are not available, you can follow the emergency packing procedures for refrigerated vaccines below:

1 Gather the Supplies

Hard-sided coolers or Styrofoam™ vaccine shipping containers

- Coolers should be large enough for your location's typical supply of refrigerated vaccines.
- Can use original shipping boxes from manufacturers if available.
- Do NOT use soft-sided collapsible coolers.

Conditioned frozen water bottles

- Use 16.9 oz. bottles for medium/large coolers or 8 oz. bottles for small coolers (enough for 2 layers inside cooler).
- Do NOT reuse coolant packs from original vaccine shipping container, as they increase risk of freezing vaccines.
- Freeze water bottles (can help regulate the temperature in your freezer).
- Before use, you must condition the frozen water bottles. Put them in a sink filled with several inches of cool or lukewarm water until you see a layer of water forming near the surface of bottle. The bottle is properly conditioned if ice block inside spins freely when rotated in your hand (this normally takes less than 5 minutes.

Insulating material — You will need two of each layer

- **Insulating cushioning material** – Bubble wrap, packing foam, or Styrofoam™ for a layer above and below the vaccines, at least 1 in thick. Make sure it covers the cardboard completely. Do NOT use packing peanuts or other loose material that might shift during transport.
- **Corrugated cardboard –** Two pieces cut to fit interior dimensions of cooler(s) to be placed between insulating cushioning material and conditioned frozen water bottles.

Temperature monitoring device – Digital data logger (DDL) with buffered probe. Accuracy of +/-1°F (+/-0.5°C) with a current and valid certificate of calibration testing. Pre-chill buffered probe for at least 5 hours in refrigerator. Temperature monitoring device currently stored in refrigerator can be used, as long as there is a device to measure temperatures for any remaining vaccines.

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

Conditioned frozen water bottles and corrugated cardboard used along with one inch of Insulating cushioning material such as bubble wrap keeps refrigerated vaccines at the right temperature and prevents them from freezing. **Reusing vaccine coolant packs from original vaccine shipping containers can freeze and damage refrigerated vaccines.**

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

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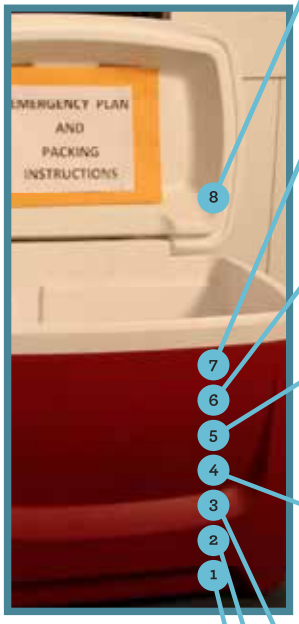
Visit **www.cdc.gov/vaccines/SandH** for more information, or your state health department.

Packing Vaccines for Transport during Emergencies

2 Pack for Transport

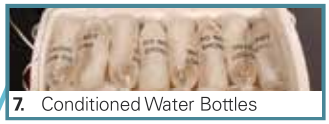
Conditioning frozen water bottles (this normally takes less than 5 minutes)

- Put frozen water bottles in sink filled with several inches of cool or lukewarm water or under running tap water until you see a layer of water forming near surface of bottle.
- The bottle is properly conditioned if ice block inside spins freely when rotated in your hand.
- If ice "sticks," put bottle back in water for another minute.
- Dry each bottle.
- Line the bottom and top of cooler with a single layer of conditioned water bottles.
- Do NOT reuse coolant packs from original vaccine shipping container.




8. Temperature Monitoring Device Display (on lid)

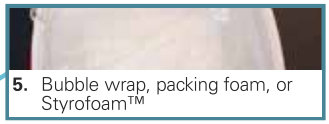
Close lid – Close the lid and attach DDL display and temperature log to the top of the lid.


7. Conditioned Water Bottles

Conditioned frozen water bottles – Fill the remaining space in the cooler with an additional layer of conditioned frozen water bottles.


6. Cardboard Sheet

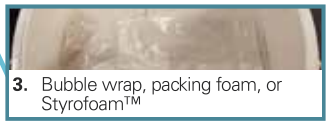
Insulating material – Another sheet of cardboard may be needed to support top layer of water bottles.


5. Bubble wrap, packing foam, or Styrofoam™

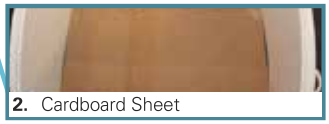
Insulating cushioning material – Cover vaccines with another 1 in. layer of bubble wrap, packing foam, or Styrofoam™


4. Vaccines, Diluents, and Temperature Monitoring Device Probe

Vaccines – Add remaining vaccines and diluents to cooler, covering DDL probe.
Temperature monitoring device – When cooler is halfway full, place DDL buffered probe in center of vaccines, but keep DDL display outside cooler until finished loading.
Vaccines – Stack boxes of vaccines and diluents on top of insulating material.


3. Bubble wrap, packing foam, or Styrofoam™

Insulating cushioning material – Place a layer of bubble wrap, packing foam, or Styrofoam™ on top (layer must be at least 1 in. thick and must cover cardboard completely).


2. Cardboard Sheet

Insulating material – Place 1 sheet of corrugated cardboard over water bottles to cover them completely.


1. Conditioned Water Bottles

Conditioned frozen water bottles – Line bottom of the cooler with a single layer of conditioned water bottles.

NOTE:
This pack-out can maintain appropriate temperatures for up to 8 hours, but the container should not be opened or closed repeatedly.

3 Arrive at Destination

Before opening cooler – Record date, time, temperature, and your initials on vaccine temperature log.
Storage – Transfer boxes of vaccines quickly to storage refrigerator.
Troubleshooting – If there has been a temperature excursion, contact vaccine manufacturer(s) and/or your immunization program before using vaccines. Label vaccines "Do Not Use" and store at appropriate temperatures until a determination can be made.