

Routine Vaccine Storage and Handling Plan Worksheet

Complete the following checklist and forms and store this information in an easily accessible area near the vaccine storage unit. See the Vaccine Storage and Handling Plans chapter for details.

Checklist of Resources for the Routine Vaccine Storage and Handling Plan

- Up-to-date contact information
 - Primary and alternate (back-up) vaccine coordinators
 - Local and state health department immunization programs
 - Manufacturers of vaccines in your inventory
 - Refrigerator and freezer maintenance and repair companies
 - Vaccine storage unit alarm company (if applicable)
 - Sources for packing materials, calibrated temperature monitoring devices, and portable refrigerator/freezer units or qualified containers
- Descriptions of the roles and responsibilities of the primary and alternate (back-up) vaccine coordinators
- Policy on education and training for facility staff
- Summaries of the storage requirements for each type of vaccine and diluent in your inventory
- Protocols for vaccine storage unit temperature monitoring
- Protocols for vaccine storage equipment maintenance
- Protocols for the correct placement of vaccines within storage units
- Protocols for responding to vaccine storage and handling problems
- Protocols for vaccine/diluent inventory management
- Protocols for receiving and unpacking vaccine/diluent deliveries
- Protocols for transporting vaccines/diluents to off-site/satellite facility(ies)
- Protocols for handling vaccines/diluents prior to administration
- Protocols for proper disposal of vaccines, diluents, and supplies
- Samples of the forms used in your vaccination program

Date Updated

Name

Signature

Title

Routine Vaccine Storage and Handling Plan Worksheet

Vaccine Coordinators			
Vaccine Coordinators	Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
Primary			
Alternate (Back-up)			

Resources Contact List			
Resources	Contact Person Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
Local Health Department Immunization Program			
<u>State Health Department Immunization Program</u>			
Additional Resources	Company Name Contact Person Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
Electric Power Company			
Generator Repair Company (if applicable)			
Refrigerator Repair Company			
Freezer Repair Company			
Temperature Alarm Monitoring Company (if applicable)			
Security or Perimeter Alarm Company (if applicable)			

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Routine Vaccine Storage and Handling Plan Worksheet

Emergency Resources Company Name	Contact Person Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
Packing Materials			
Portable refrigerator/ freezer units			
Qualified containers			
Qualified containers (alternate)			
Fillers (e.g., bubble wrap, Styrofoam pellets)			
Fillers (alternate)			
Coolant packs			
Coolant packs (alternate)			
Calibrated temperature monitoring devices			
Calibrated temperature monitoring devices(alternate)			

CDC's Temperature Excursion Checklist

1. Checklist for general power loss

- Contact utility company
- Determine if time to restoration is acceptable
- Activate alternate generator if available

2. Checklist for presumed storage unit malfunction (DISPOSITION OF STORAGE UNIT if Unit is too warm, too cold, too noisy, or stopped):

- Check circuit breakers
- Unit plugged in
- Door closed
- Door seal adequate
- Assess location of temperature monitoring devices for temperature reading
- Record all temperatures
- Space between vaccines for air to circulate
- Coils free of dust
- Temperature adjusted gradually if not set correctly (need to re-check temperatures and record every 30 minutes)
- Unit secured and level (if unit is noisy)
- Screws tightened (if unit is noisy)
- Technician called

3. Disposition of vaccines (if power not restored or if temperature does not begin to recover)

- Label exposed vaccines "Do NOT Use" and store under appropriate conditions (set apart from other vaccines)
 - Check temperature of alternate storage unit
 - Vaccines moved to alternate storage unit (move refrigerated vaccines first)
 - Document temperature excursion action taken and results
 - Immunization Program contacted
 - Manufacturer contacted
 - Return vaccines determined to be usable only when storage unit is stable and resume use
 - Determine disposition of vaccines that are compromised:
 - Vaccines provided through Vaccines for Children (VFC) Program and other vaccines purchased with public funds prepared for return to distributor.
 - Vaccines purchased with private funds should be disposed of in consultation with the manufacturer(s) and according to state regulations for medical waste. Replacement plans will vary.
 - If insured against losses of this type, contact insurance representative.
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Fahrenheit to Celsius and Celsius to Fahrenheit Conversion

°F	°C	°F	°C	°F	°C	°C	°F	°C	°F
-22	-30	21	-6.1	64	17.8	-30	-22	13	55.4
-21	-29.4	22	-5.6	65	18.3	-29	-20.2	14	57.2
-20	-28.9	23	-5	66	18.9	-28	-18.4	15	59
-19	-28.3	24	-4.4	67	19.4	-27	-16.6	16	60.8
-18	-27.8	25	-3.9	68	20	-26	-14.8	17	62.6
-17	-27.2	26	-3.3	69	20.6	-25	-13	18	64.4
-16	-26.7	27	-2.8	70	21.1	-24	-11.2	19	66.2
-15	-26.1	28	-2.2	71	21.7	-23	-9.4	20	68
-14	-25.6	29	-1.7	72	22.2	-22	-7.6	21	69.8
-13	-25	30	-1.1	73	22.8	-21	-5.8	22	71.6
-12	-24.4	31	-0.6	74	23.3	-20	-4	23	73.4
-11	-23.9	32	0	75	23.9	-19	-2.2	24	75.2
-10	-23.3	33	0.6	76	24.4	-18	-0.4	25	77
-9	-22.8	34	1.1	77	25	-17	1.4	26	78.8
-8	-22.2	35	1.7	78	25.6	-16	3.2	27	80.6
-7	-21.7	36	2.2	79	26.1	-15	5	28	82.4
-6	-21.1	37	2.8	80	26.7	-14	6.8	29	84.2
-5	-20.6	38	3.3	81	27.2	-13	8.6	30	86
-4	-20	39	3.9	82	27.8	-12	10.4	31	87.8
-3	-19.4	40	4.4	83	28.3	-11	12.2	32	89.6
-2	-18.9	41	5	84	28.9	-10	14	33	91.4
-1	-18.3	42	5.6	85	29.4	-9	15.8	34	93.2
0	-17.8	43	6.1	86	30	-8	17.6	35	95
1	-17.2	44	6.7	87	30.6	-7	19.4	36	96.8
2	-16.7	45	7.2	88	31.1	-6	21.2	37	98.6
3	-16.1	46	7.8	89	31.7	-5	23	38	100.4
4	-15.6	47	8.3	90	32.2	-4	24.8	39	102.2
5	-15	48	8.9	91	32.8	-3	26.6	40	104
6	-14.4	49	9.4	92	33.3	-2	28.4		
7	-13.9	50	10	93	33.9	-1	30.2		
8	-13.3	51	10.6	94	34.4	0	32		
9	-12.8	52	11.1	95	35	1	33.8		
10	-12.2	53	11.7	96	35.6	2	35.6		
11	-11.7	54	12.2	97	36.1	3	37.4		
12	-11.1	55	12.8	98	36.7	4	39.2		
13	-10.6	56	13.3	99	37.2	5	41		
14	-10	57	13.9	100	37.8	6	42.8		
15	-9.4	58	14.4	101	38.3	7	44.6		
16	-8.9	59	15	102	38.9	8	46.4		
17	-8.3	60	15.6	103	39.4	9	48.2		
18	-7.8	61	16.1	104	40	10	50		
19	-7.2	62	16.7			11	51.8		
20	-6.7	63	17.2			12	53.6		

Emergency Vaccine Retrieval and Storage Plan Worksheet

In advance of an emergency, complete the following checklist and forms and store this information in an easily accessible area near the vaccine storage units. See the [Vaccine Storage and Handling Plans](#) chapter for details.

Checklist of Resources for the Emergency Vaccine Retrieval and Storage Plan

- Designated primary and alternate (back-up) vaccine coordinators with emergency contact information
- Emergency staff contact list in order of contact preference
- Specifications of vaccine storage unit (type, brand, model number, serial number)
- Alternate vaccine storage facility(ies)
- Written protocols, vehicles, and drivers for transporting vaccines to and from alternate vaccine storage facility(ies)
- Written instructions for entering your facility and vaccine storage areas in emergency if building closed. Instructions should include building security/after-hours access procedure, floor diagram, and locations of the following:
 - Alarms (including instructions for use)
 - Doors
 - Flashlights
 - Spare batteries
 - Light switches
 - Keys
 - Locks
 - Circuit breakers
 - Packing materials
- Calibrated temperature monitoring devices
- Portable refrigerators and freezers
- Qualified containers
- Appropriate packing materials to safely transport or temporarily store vaccines
- Written protocol for vaccine packing refrigerated vaccines
- Written protocol for vaccine packing frozen vaccines
- Written protocol for vaccine transport
- Written protocol for appropriately storing vaccines at alternate storage facility
- Up-to-date list of manufacturers' telephone numbers

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Emergency Vaccine Retrieval and Storage Plan Worksheet

Vaccine Coordinators

Vaccine Coordinators	Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
Primary			
Alternate (Back-up)			

Emergency Staff Contact List*

Name	Title	Telephone Numbers (home, cell, pager)	E-mail Address
1.			
2.			
3.			
4.			
5.			
6.			

* List contacts in order of preference. Determine whether all or certain persons on the list should be contacted or if the first person reached is sufficient. Include the primary and alternate (back-up) vaccine coordinators on the list.

Vaccine Storage Unit Specifications

Type of Unit (Refrigerator or Freezer)	Brand	Model Number	Serial Number
1.			
2.			
3.			
4.			
5.			

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Emergency Vaccine Retrieval and Storage Plan Worksheet

Emergency Resources Contact List			
Emergency Resources	Company Name Contact Person Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
Additional Staff (to move and pack vaccine)			
<u>State Health Department Immunization Program</u>			
Local Health Department Immunization Program			
Electric Power Company			
Emergency Generator Repair Company (if applicable)			
Emergency Generator Fuel Source (if applicable)			
Refrigerator Unit Repair Company			
Freezer Unit Repair Company			
Temperature Alarm Monitoring Company (if applicable)			
Security or Perimeter Alarm Company (if applicable)			
Weather Service			

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Emergency Vaccine Retrieval and Storage Plan Worksheet

Alternate Vaccine Storage Facility(ies)

Emergency Resources Company Name/Address	Contact Person Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
1.			
2.			
3.			
4.			

Transportation to Alternate Vaccine Storage Facility(ies)*

Emergency Resources Name/Address	Contact Person Name/Title	Telephone Numbers (home, cell, pager)	E-mail Address
Refrigeration Company			
Refrigeration Company (alternate)			
Private Vehicle			
Private Vehicle (alternate)			

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Packing Materials			
Portable refrigerator/ freezer units			
Portable refrigerator/ freezer units (alternate)			
Qualified containers			
Qualified containers (alternate)			
Fillers (e.g., bubble wrap, Styrofoam pellets)			
Fillers (alternate)			
Coolant packs			
Coolant packs (alternate)			
Calibrated temperature monitoring devices			
Calibrated temperature monitoring devices (alternate)			

Emergency Management Internet Resources

Three National Oceanic and Atmospheric Administration (NOAA) websites provide up-to-date information on U.S. weather:

<http://www.nws.noaa.gov/> 
<http://www.nhc.noaa.gov/> 
<http://www.goes.noaa.gov/> 

The Federal Emergency Management Agency (FEMA) offers a wide range of information on disaster preparedness:

<http://www.fema.gov/index.shtm> 

The Center for Biologics Evaluation and Research (CBER) at the Food and Drug Administration (FDA) offers information concerning the storage and use of temperature-sensitive biological products that have been involved in a temporary electrical power failure or flood conditions:

<http://www.fda.gov/BiologicsBloodVaccines/SafetyAvailability/ProductSecurity/ucm147243.htm> 

Manufacturer/Distributor Contact Information

Manufacturer / Distributor Websites	Telephone Number/E-mail	Products
Acambis http://www.pharmamedtechbi.com/companies/199300028	800-332-2181	Smallpox
Berna http://crucell.us.com/	800-533-5899	Typhoid
Centers for Disease Control and Prevention www.cdc.gov/ncidod/srp/drugs/drug-service.html http://www.cdc.gov/laboratory/drugservice/index.html	404-639-3670 drugservice@cdc.gov	Distributor for diphtheria antitoxin, smallpox vaccine
CSL Limited (Merck Distributor) https://www.merckvaccines.com/	800-637-2590	IIV
Emergent BioSolutions http://www.biothrax.com/	877-246-8472 productsafety@ebsi.com	AVA
GlaxoSmithKline (GSK) http://www.gskvaccines.com/	https://www.contactus.gsk.com/callback.html or 1-888-825-5249	DTaP, DTaP-HepB-IPV, DTaP-IPV, HepA, HepB, HepA-HepB, Hib, Hib-MenCY, HPV2, IIV, RV1, Tdap
Massachusetts Biological Labs http://www.umassmed.edu/massbiologics/	800-457-4626	Td
MedImmune http://www.medimmune.com/	877-633-4411 medicalinformation@medimmune.com	LAIV
Merck & Co., Inc https://www.merckvaccines.com/	800-637-2590	HepA, HepB, Hib, Hib-HepB, HPV4, HZV, MMR, MMRV, PPSV23, RV5, VAR

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Manufacturer / Distributor Websites	Telephone Number/E-mail	Products
Novartis http://www.novartisvaccines.com/us/index.shtml 	877-683-4732 Vaccineinfo.us@novartis.com 	IIV, JE, MCV4, Rabies
Pfizer/Wyeth http://pfizerpro.com/ 	800-438-1985	PCV13
Protein Sciences http://www.flublok.com/professionals.html 	http://www.flublok.com/contact.html 	IIV3
Sanofi Pasteur https://www.vaccineshoppe.com/ 	800-822-2463	DT, DTaP, DTaP-IPV/Hib, Hib, IIV, IPV, MCV4, MPSV4, Rabies, Td, Tdap, TT, Typhoid, YF
