

Vaccine Storage & Handling: CDC's Perspective

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DEPARTMENT OF HEALTH AND HUMAN SERVICES



Objectives

- **Name at least 5 common vaccine storage and handling mistakes and describe how to prevent these errors**
- **Describe Connecticut's vaccine wastage policy**
- **Describe the resources available through the CDC and the Connecticut Immunization Program to help providers ensure proper vaccine storage and handling**

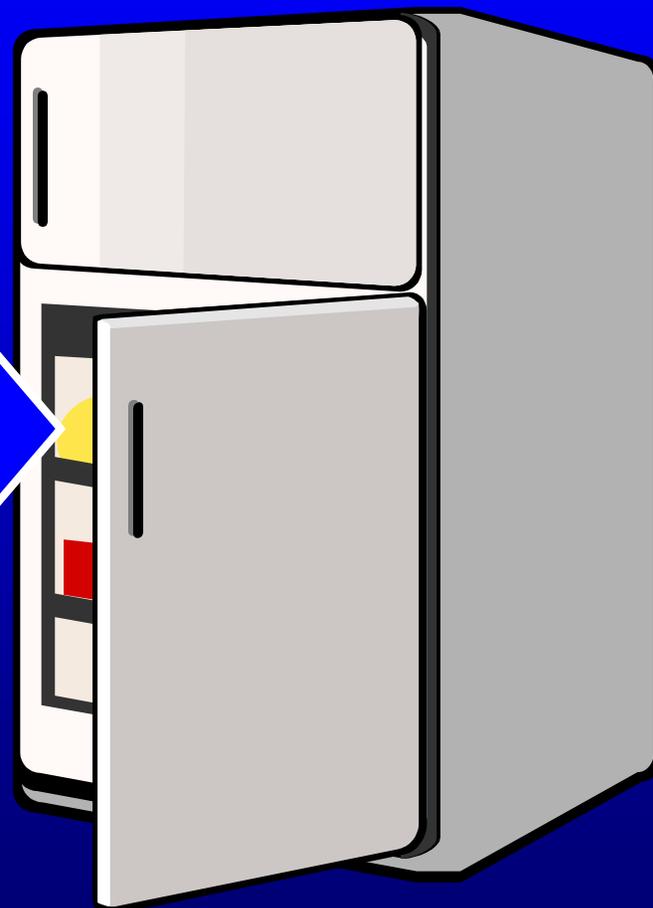
Why is Vaccine Management Important?

- **Vaccines prevent serious, sometimes fatal diseases**
- **Improper S&H = reduced vaccine effectiveness = inadequate protection against disease**
- **It is better to NOT VACCINATE than to administer a dose of vaccine that has been mishandled**

Vaccines Losses Are Costly

10 doses of each
recommended
pediatric vaccine
plus 2 combination
vaccines equals

\$8,367.20

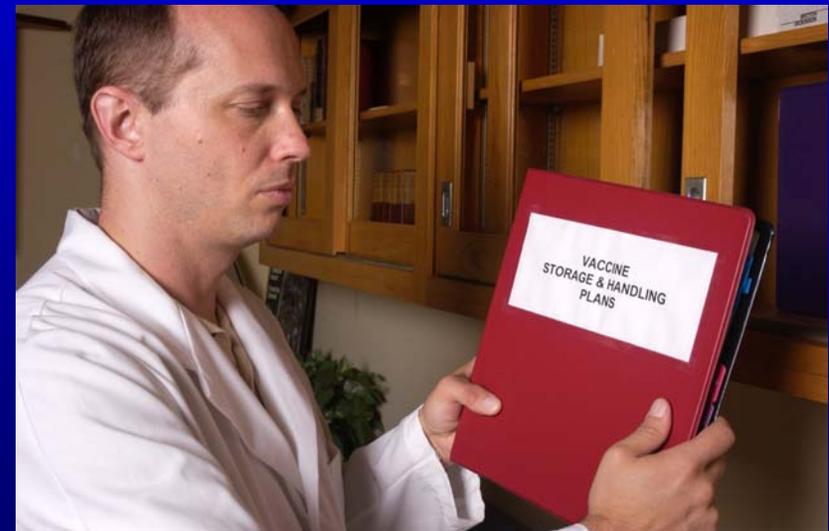


Staff Responsibilities



- Designate a vaccine manager
- Also designate a backup
- Orient and train other staff regarding their responsibilities

Vaccine Management Plans



Vaccine Storage Equipment

- Be sure your storage unit is:
 - in good working order
 - able to maintain required temperatures year-round
 - dedicated to storage of vaccines



Vaccine Storage Equipment

- If a single refrigerator/freezer unit is used, each compartment should have its own exterior door and, preferably its own separate thermostat



Vaccine Storage Equipment

- If you store a significant amount of vaccine, stand-alone freezer and refrigerator units are recommended



Vaccine Storage Equipment

- Do NOT use a dormitory unit as your main storage unit and NEVER store varicella-containing vaccines in them



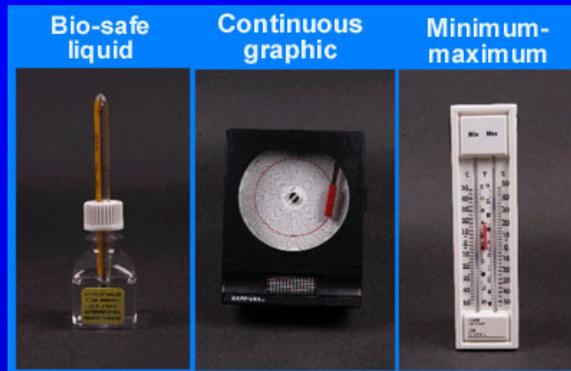
Keep the Refrigerator Working

Take Preventive Measures

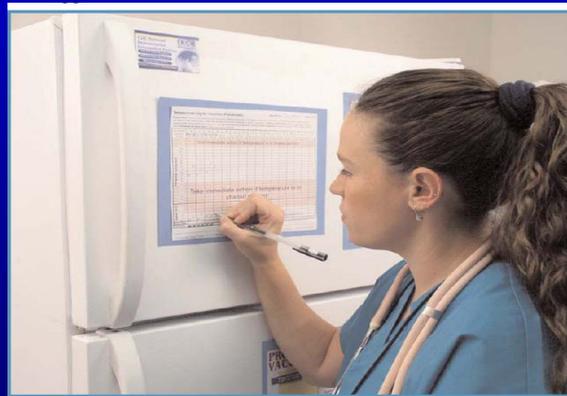
- Use a plug guard or safety-lock plug
- Post a warning sign at the plug and on the refrigerator
- Label fuses and circuit breakers
- Install a temperature alarm



Temperature Monitoring



Use only certified, calibrated thermometers



Record temperatures twice daily and
Store temperature logs for at least 3 years

Take IMMEDIATE Action for Out-of-range Temperatures

Temperature Log for Vaccines (Fahrenheit)

Month/Year: August, 2004 Days 1-15

***Instructions:** Place an "X" in the box that corresponds with the temperature. The hatched zones represent unacceptable temperature ranges. If the temperature recorded is in the hatched zone: 1. **Store the vaccine under proper conditions as quickly as possible.** 2. **Call the vaccine manufacturer(s) to determine whether the potency of the vaccine(s) has been affected.** 3. **Call the immunization program at your local health department for further assistance: (404) 555-8212.** and 4. **Document the action taken on the reverse side of this log.**

Day of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exact Time	Start/Stop														
Temp	am - pm														
Refrigerator temperature															
48°															
47°															
46°															
45°															
44°															
43°															
42°															
41°															
40°															
39°															
38°	X	X													
37°			X												
36°				X											
35°		X													
34°					X										
33°															
32°															
31°															
30°															
29°															
28°															
Freezer temp															
7°															
6°															
5°			X												
4°	X		X												
3°		X													
2°				X	X	X									
1°															
Room temp															
Staff Initials	Day/Stop														

Adapted by the Immunization Action Coalition courtesy of the Michigan Department of Community Health

www.immunize.org/itag-4q3031.pdf • Item #P3031(804)

Immunization Action Coalition • 1573 Selby Ave., Ste. 234 • St. Paul, MN 55104 • (651) 647-9009 • www.immunize.org • admin@immunize.org

Vaccine Storage Guide

Combination
Refrigerator/
Freezer Units

1. Proper Temperatures

 Freeze MMR, MMRV, and Varicella.

Aim for 0° F

5° F or below

Don't let temps get too warm!

 Refrigerate all other vaccines.

Aim for 40° F

Don't freeze liquid vaccines!

35° F - 46° F

Don't let temps get too warm!

2. Proper Set Up

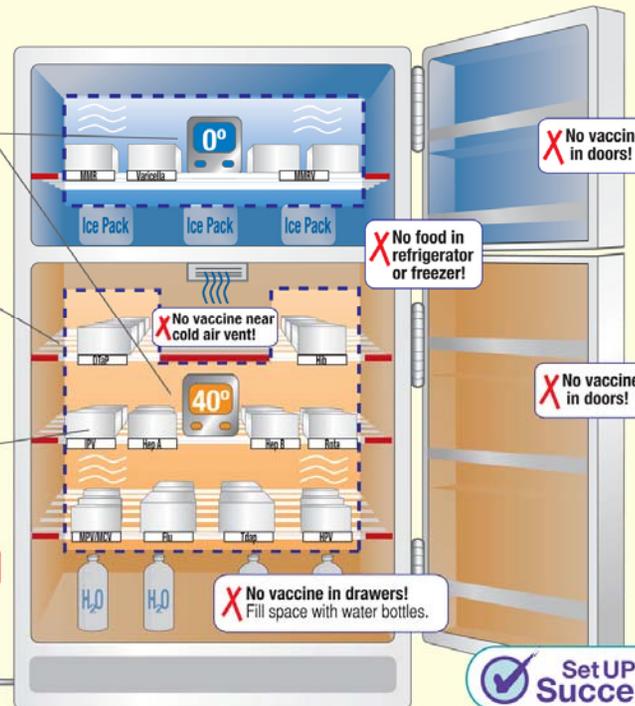
✓ Place thermometers in the center of both the refrigerator and freezer. Post a temperature log on the door.

✓ Keep vaccine spaced 2-3 inches away from walls, floor, and other boxes. Dashed lines show usable space. Mark unusable space.

✓ Group vaccines by type. Clearly label the designated space for each vaccine.

✓ Post "Do Not Unplug" warning signs on electrical outlets and circuit breakers. Plug in only one unit per outlet.

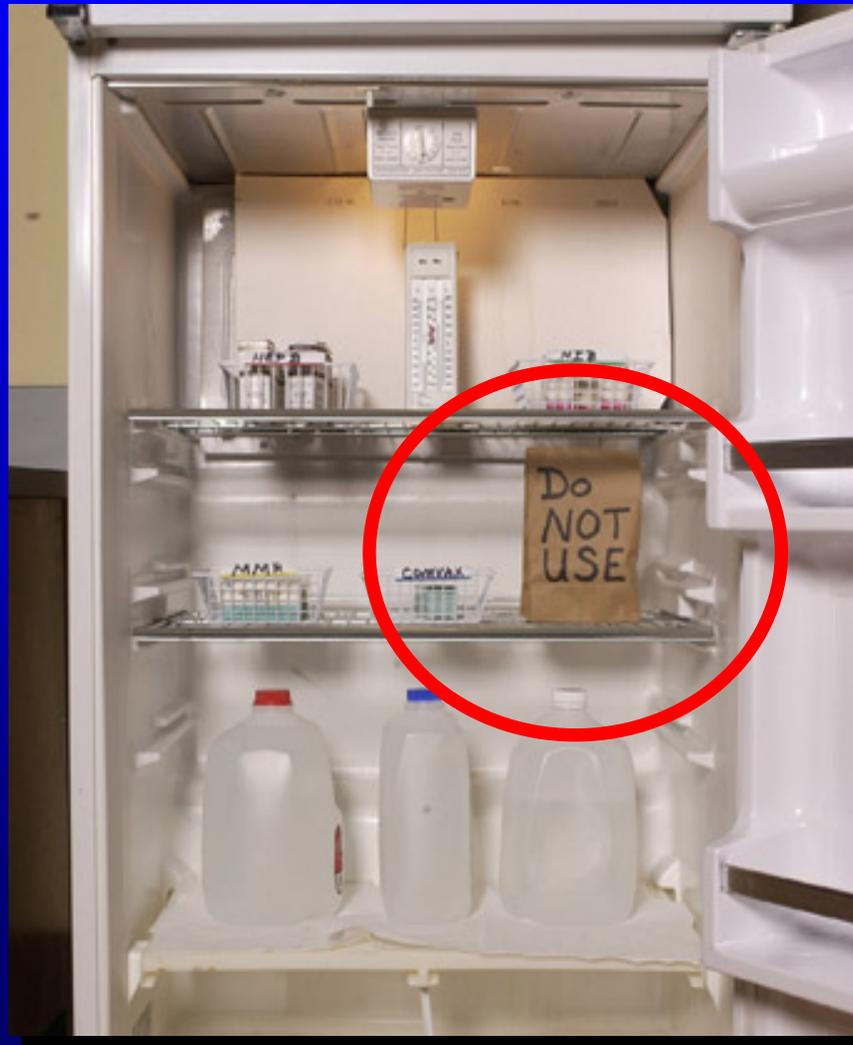
WARNING!
Do Not Unplug



Manage Your Vaccine Inventory



Isolate Questionable Vaccines



Handle Vaccines with Care



- **Do NOT refreeze vaccines after thawing**
 - Unreconstituted varicella and MMRV may be stored for up to 72 hours at 35°-46°F (2° -8° C)
 - Unreconstituted zoster vaccine may not be stored in this manner
- **Do NOT uncap vials until ready for use**
- **Remember, the clock is ticking once a lyophilized vaccine is reconstituted**

Prefilling Syringes

- This practice is **strongly discouraged** by NCIRD
- May result in vaccine administration errors and vaccine wastage
- May consider in situations of heavy use of a single vaccine (e.g., annual influenza clinic)
- Consider using manufacturer-supplied prefilled syringes
- Syringes other than those filled by manufacturer should be discarded at end of clinic day. Also, manufactured prefilled syringes that have had the caps removed and a needle attached to the syringe should be discarded at the end of the day.

Vaccine S&H Resources

- **CDC Vaccine S&H Toolkit**
 - <http://www.cdc.gov/vaccines/recs/storage/default.htm>
- **VFC Vaccine Management Guidelines**
 - <http://www.cdc.gov/vaccines/programs/vfc/projects/vacc-mgmt-manage.htm#providers>
- **Immunization Action Coalition Resources**
 - <http://www.immunize.org/printmaterials/topic.asp#hand>

National Center for Immunization and Respiratory Diseases Contact Information

- Telephone **800.CDC.INFO**
- Email **nipinfo@cdc.gov**
- Website **www.cdc.gov/vaccines/**



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