



New Mexico Department of Health Immunization Program

Immunization Update

Winter 2006

News for New Mexico VFC Providers

Vaccine Storage Refresher

This issue of *Immunization Update* highlights what you need to do to keep your vaccines safe so your patients are protected.

Contents:

- The costs of improper vaccine storage
- Storage basics
- Managing your temperature logs
- Storage and handling resources
- New thermometers for VFC providers

Vaccine Storage in New Mexico: Mistakes are expensive!

Vaccines must be kept within specific temperature ranges to maintain their potency and protect children from disease. In 2005, the DOH Immunization Program identified a number of serious vaccine storage problems among VFC providers. Review of temperature logs submitted to the DOH between September 2004 and April 2005 revealed that 37 providers had stored vaccines outside of acceptable ranges, and needed to recall children for revaccination.

Recalling patients for reimmunization is complicated and expensive. In 2005, the DOH sent teams of nurses to help providers with storage problems determine which children needed revaccination. Some 8,000 children needed to be recalled across the state for repeat immunizations at a cost per single infant or toddler visit of over \$100.

A total of \$360,000 worth of vaccine was eventually returned as “expired or wasted” to the NM VFC program in 2005 alone. During further 2005 site visits over half of VFC providers surveyed reported instances of wasted or expired vaccine over the previous year. A power outage in one city resulted in the loss of \$36,000 worth of vaccine over a single weekend.

Treat your vaccines with care! Beginning in 2006, VFC providers may be held financially responsible for vaccine that is wasted due to provider negligence. Just as importantly, patient confidence in their medical provider is damaged when repeat vaccinations are required to replace earlier invalid doses.

Problems and Solutions

The most common vaccine storage problems found in New Mexico over the past year include:

- Vaccines that should have been refrigerated at 35-46°F were inadvertently frozen.
- Some practices were not submitting temperature logs as required by VFC.
- Out-of-range temperatures were noted and recorded by providers but no action was taken.
- No written storage and handling procedures were available at some practices.

The good news is that most vaccine wastage can be avoided. More importantly, compromised vaccine can be identified *before* it's administered to children. VFC is dedicated to helping providers improve their vaccine storage and handling practices. VFC will review storage and handling procedures as part of site visits to all VFC providers in 2005-06. Each VFC provider will be given new certified digital thermometers, the VFC Storage and Handling Guide, and guidance on temperature logs.

Vaccine Stock Management: Inventory and Ordering

Having too much vaccine on hand means it's more likely to expire before it can be used. Also, more vaccine in stock means more will be lost if you have temperature problems. Try to keep no more than a 2-month stock of vaccine.

Do:

- Make a physical inventory of your vaccines at least once a month.
- Keep short-dated vaccines in front for first use.
- Make sure someone is available to receive vaccine shipments.
- Let VFC know if you have vaccine that is going to expire before you can use it all. This is especially important for flu vaccine, which will expire at the end of June every year. Give 3 months notice to VFC so the vaccine can be transferred to another provider.
- Remember: VFC will hold vaccine orders if temperature logs are not received by the 5th of every month.

Do you have 'Do Not Unplug' stickers for your refrigerator and freezer? If not, you can get them from VFC.

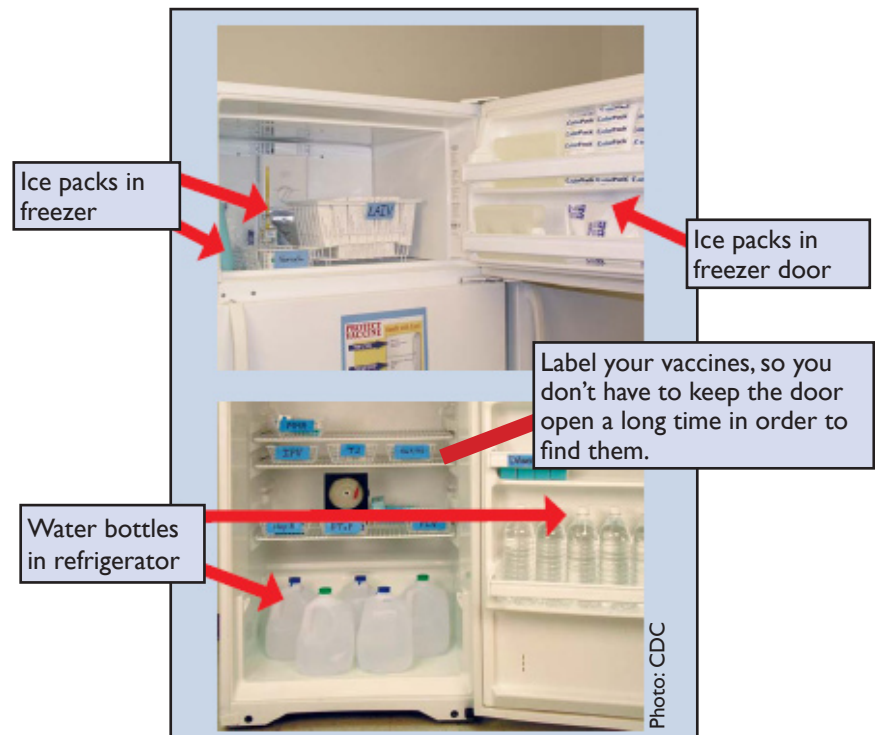


Keep these vaccines in the...

Refrigerator only: (35-46°F)	DTaP, Tdap, Td, DT Hepatitis (A and B) Inactivated Polio (IPV) Pneumococcal (PCV and PPV) Hib Inactivated (injectable) Influenza Meningococcal Inactivated combination vaccines (Ex: Pediarix)
Freezer only: (5°F or colder)	Varicella MMRV Nasally-administered Influenza (FluMist)
Refrigerator or freezer:	MMR

Maintaining steady temperatures

Fewer than a third of New Mexico VFC providers surveyed in 2005 were keeping water bottles in their refrigerators to help maintain stable temperatures. The photo below shows how to place water bottles to increase the "thermal mass" of your refrigerator. Ice packs serve the same function for freezers.



Temperatures will vary within refrigerators. In general, the top of the refrigerator in a combined refrigerator/freezer unit will be the coldest. Some vaccines are less freeze-sensitive than others, so if you have to use the top shelf of the refrigerator, put your MMR vaccine there.

If your refrigerator temperature fluctuates regularly more than a few degrees, try to stay in the mid to upper part of the 35-46° range (try to aim for 40°F). Trying to keep temperatures in the colder end of the range makes it more likely vaccines may freeze.

Temperature logs

Temperature readings in shaded areas need immediate action!

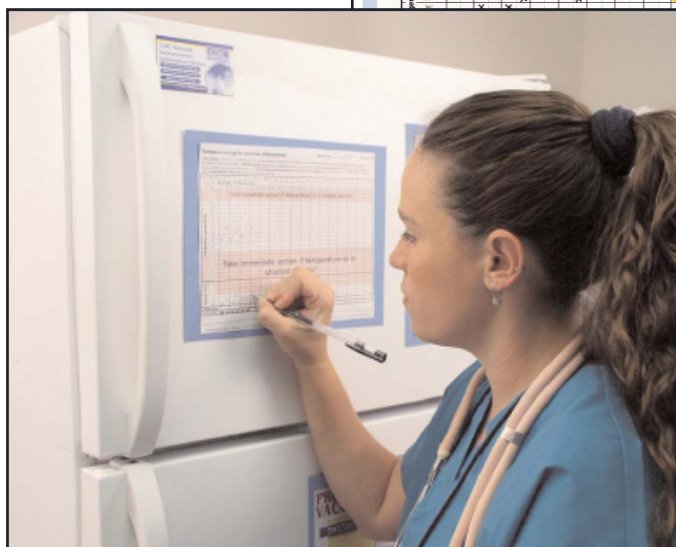
Temperature Log for Vaccines (Fahrenheit) Month/Year: August 2007 Days 1-15

Instructions: Place an "X" in the box that corresponds with the temperature. The shaded zones represent unacceptable temperature ranges. If the temperature remains in the shaded zone: 1. Store the vaccine under proper conditions as quickly as possible. 2. Call the vaccine manufacturer(s) by telephone whether the presence or absence of a problem has been detected. 3. Call the immunization program at your local health department for further assistance: **907-555-8414**, and 4. Document the actions 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
Room Temp															
Refrigerator Temperature															
Freezer Temperature															

Take immediate action if temperature is in shaded section!

www.immunize.org/imm40307.pdf • form #1502P-03/07
11/4/1/0009 • www.immunize.org • admin@immunize.org



Photos: CDC

Check and record refrigerator and freezer temperatures twice a day. Tape your logs onto your refrigerator and freezer to simplify recording.

My temperatures are out of range...what do I do now?

Having an out-of-range temperature reading doesn't necessarily mean your vaccine is spoiled. **Don't destroy or return vaccine until you have talked with your VFC representative and the vaccine manufacturer.**

Refrigerator out-of-range

In general, higher-than-recommended temperatures are less damaging to refrigerated vaccines than freezing temperatures. But for all temperatures **below 35°F or above 46°F**, follow these steps:

- Call your VFC representative immediately.**
- Gradually* adjust your temperature controls and monitor the out-of-range unit every hour until the temperature is in-range and stabilized. Move vaccines to a back-up unit if needed.
- Label the vaccine "do not use" until you find out if they can be used.
- Call the vaccine manufacturer to see if the vaccine can still be used. (See page 4 for manufacturer contact information.)
- Document your actions on the temperature logs.

Freezer out-of-range

Varicella vaccine and the new MMRV vaccine must be kept frozen. If your freezer rises above +5°F, adjust your freezer controls and complete the above process.

Digital Thermometers for VFC Providers

In October 2005, VFC began distributing certified digital thermometers to all VFC providers. They record minimum and maximum temperatures reached, and sound an alarm when temperatures go out of range. VFC staff will assist with installation of the thermometers in refrigerators and freezers during VFC site visits.



Photo: CDC

Thermometer tips:

- Be sure the sensor vial is placed in the middle of the refrigerator.
- Press 'Memory clear' button on the front each time you record temperatures so you will know if the refrigerator or freezer has gone out of range since the previous temperature check.
- Keep 2 high-quality replacement AA alkaline batteries on hand. If the thermometer doesn't function properly for any reason, try replacing the batteries.

Questions? Call your VFC representative (see page 4) for more information on thermometers. For technical questions you can also contact Weber Scientific at 800-328-8378 or the Control Co. (manufacturer) directly at 281-482-1714.

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Storage and Handling Resources**New Mexico VFC**

The New Mexico VFC Vaccine Storage and Handling Guide is being distributed to all VFC providers during 2005/06 site visits. Go to www.health.state.nm.us/immunize for more VFC information: Click on *Provider Information*, then on *VFC* for temperature logs and other VFC information.

Vaccine Manufacturer Contact Information

Sanofi-Pasteur: 800-822-2463 Glaxo Smith Kline: 866-475-8222

Merck & Co: 800-672-6372 Wyeth: 800-358-7443

Centers for Disease Control

Find storage and handling information at www.cdc.gov/nip. Click on *Health Care Professionals*, then on *Topics Below*, then on *Storage and Handling*.

**Storage and Handling
DVDs and Videos**

Limited numbers of vaccine storage videos are available from VFC. More DVDs and videos can be ordered from the Immunization Action Coalition at www.immunize.org



Photos: CDC



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