Immunization Service
Oklahoma State Department of Health

November, 2014

VACCINES FOR CHILDREN

Guidelines for Buying a Refrigerator or Freezer

A Vaccines for Children (VFC) vaccine storage equipment requirement began April 1, 2009. This requirement has helped ensure that VFC-supplied vaccines are properly stored and managed. It has also ensured that enough usable space is available to store the increased number of recommended vaccines.

All refrigerator units must:

- Maintain required vaccine storage temperatures at 35°-46°F (2°-8°C) year-round.
- Be automatic defrost (frost-free) and free of any frost, ice, water, or coolant leaks. Manual defrost (cyclic defrost) refrigerators with visible cooling plates/coiling in the internal back wall are not acceptable.
- Provide enough space to store the largest number of doses expected at one time (including flu season), allowing for vaccine storage at least 2-3 inches away from walls, floor, and other boxes, and away from cold air vents.
- Be reliable and has not needed frequent repairs. Replacement to commercial or pharmaceutical stand alone units should be considered for household refrigerator/freezer combination units over 10 years old.
- Have doors that seal tightly and close properly.
- Have separate temperature controls for refrigerator and freezer if combination unit. (Use only refrigerator compartment.)
- Not have convertible features that switch to an all-freezer unit.
- Have a working certified, calibrated thermometer placed centrally in the unit.
- Be used only for vaccine storage. In limited circumstances, and as space allows, other medications may be stored in the same units.

All freezer units must:

- Maintain required vaccine storage temperatures at 5°F or below (<-15°C) year-round.
- Provide enough space to store vaccines along with sufficient frozen cold packs.
- Have an automatic defroster. (Manual defrosters are acceptable only if the clinic has an alternate place to store vaccines when defrosting the unit.)

Did you know an average VFC provider stores tens of thousands of dollars worth of vaccines?

Not having the appropriate refrigerator or freezer may lead to costly vaccine losses or worse, inadvertently giving non-viable vaccines to your patients!

Things To Think About Before Buying

1. Contact the Immunization Field Consultant for your area prior to purchasing to assure appropriate equipment is purchased.
2. Where will it go?
   - It must be placed away from direct sunlight and in a well ventilated area.
   - There must be enough space around it to allow air to flow freely.
   - There must be an electrical outlet nearby that can be used only by the unit and does not depend on a light switch. (Extension cords must not be used.)
3. What is the warranty and extended service option?
4. How long will it take for the delivery?
5. Allow a week of refrigerator and freezer temperature readings/recordings a minimum of two times each workday, including minimum/maximum temperatures one time each morning in a newly installed or repaired unit to stabilize the temperatures before use.

Estimate the maximum number of doses of VFC and privately purchased vaccine that will be stored in the refrigerator and freezer.

REFRIGERATOR

VFC vaccine (current inventory)		_____
VFC Flu vaccine	+	_____
Private vaccine	+	_____
Private Flu vaccine	+	_____
Total doses	=	_____
Multiply	x	1.25
Maximum doses	=	_____

FREEZER

VFC MMRV & Varicella vaccine (current inventory)		_____
Private MMRV & Varicella vaccine	+	_____
Total doses	=	_____
Multiply	x	1.25
Maximum doses	=	_____

Match your maximum doses with the minimum cubic feet needed to safely store your vaccine.

REFRIGERATOR

≥2,000 doses - May need more than one refrigerator

1,000-2000 doses = 40 cubic feet

900-1000 doses = 36 cubic feet

800-900 doses = 21 - 23 cubic feet

700-800 doses = 17 - 20 cubic feet

400-700 doses = 16.7 cubic feet

100-400 doses = 4.9 - 6.1 cubic feet (pharmacy grade)

FREEZER

500-6,000 doses = 7 - 14.8 cubic feet

200-500 doses = 5 - 5.6 cubic feet

0-200 doses = 1.5 - 4.9 cubic feet