

## Refrigerators and Freezers for Vaccine Storage

Freezers and refrigerators are available in many different sizes, types (e.g., stand-alone versus combination), and grades (e.g., household, commercial, and pharmaceutical).

The Centers for Disease Control and Prevention (CDC) strongly recommends stand-alone freezers and refrigerators without freezers. Studies have demonstrated they maintain the required temperatures better than combination units.

An alternative to stand-alone units would be to use the refrigerator compartment of a combination refrigerator/freezer unit to store refrigerated vaccines. A separate stand-alone freezer would be used to store frozen vaccines. CDC has received multiple reports of incidences when refrigerated vaccines have been compromised by exposure to freezing temperatures in a combination unit.

At a minimum, a combination refrigerator/freezer unit sold for home use with separate exterior doors and thermostat controls for each compartment is acceptable (but not recommended). CDC recommends the use of units designed for storing biologics.

Any freezer or refrigerator used for vaccine storage should have its own exterior door that seals tightly and properly, as well as thermostat controls.

It must be able to maintain the required temperature range throughout the year.

The unit should be dedicated to the storage of biologics and it must be large enough to hold the year's largest vaccine inventory without crowding (including flu vaccine).

A storage unit that is frost-free or has an automatic defrost cycle is preferred. If using a combination freezer-refrigerator unit to store vaccines, care must be taken to ensure that the freezer is not so cold that the refrigerator temperature drops below the recommended temperature range.

### **Use of a dormitory-style refrigerator for storage of vaccine provided by the Vaccines for Children Program (VFC) is not allowed at anytime.**

A dormitory-style refrigerator is defined as a small combination freezer/refrigerator unit that is outfitted with one exterior door and an evaporator plate (cooling coil), which is usually located inside an icemaker compartment (freezer) within the refrigerator.

Based on research published in December 2009, the National Institute of Standards and Technology (NIST) concluded that "the dorm-style refrigerator is NOT recommended for vaccine storage under any circumstance."

Providers have many options for finding affordable, office-appropriate stand-alone units. **Stand-alone units can be under-the-counter size as discussed here or full-size.** Clinics can shop local home improvement stores or appliance dealers or purchase laboratory or pharmaceutical grade units.

### **Manufacturers to Consider\***

Marvel Scientific - [www.marvelscientific.com/](http://www.marvelscientific.com/)

Lab Research Products - [www.labresprod.com/](http://www.labresprod.com/)

Panasonic – <http://www.panasonic.com/business/healthcare/biomedical/vaccine/>

American Biotech Supply - <http://www.americanbiotechsupply.com/Products/Refrigerators/Pharmacy-Refrigerators.aspx>

Migali Scientific - <http://www.migaliscientific.com/>

Sun Frost - [http://www.sunfrost.com/vaccine\\_refrigerators.html](http://www.sunfrost.com/vaccine_refrigerators.html)

Dulas Solar for Life - <http://www.dulas.org.uk/products/solar-powered-refrigerators.cfm>

\*The Oklahoma State Immunization Service does not endorse any specific product or manufacturer. This list is provided for informational purposes only. Providers and their staff should do their own research and choose a product that best fits the needs of the practice.