

# Wyoming Immunization Unit Vaccine Storage Unit Guidelines

## Public Vaccine Program (PVP) Guidelines

The guidelines below are specific to Wyoming Immunization Unit providers enrolled in any Public Vaccine Program including the VFC/WyVIP Program and the Adult Hepatitis Vaccine (AHV) Program.

**Providers must not place publicly-supplied vaccines in a new unit or a unit that has been moved until an Immunization Unit staff member has reviewed the temperature readings and approved the unit for use.**

### Acceptable Vaccine Storage Units:

- Stand-alone pharmaceutical or medical-grade refrigerator units intended for storing vaccines.
  - Refrigerator units should have automatic defrost (frost-free) and remain free of any frost, ice, or water/coolant leaks.
  - Maintain required vaccine storage temperatures year-round between 4°C and 6°C.
  - Have sufficient usable space to store the largest number of doses expected at one time (including flu season), without overcrowding.
  - Be used only for vaccine storage. *\*Contact the Immunization Unit to request an exception.*
  - Be reliable, with a quiet compressor/motor, and not have a history of frequent repairs.
  - Have doors that seal tightly and close properly.
  - Have a working, calibrated digital data logger thermometer with the buffered probe placed centrally in the unit.
- Stand-alone pharmaceutical or medical-grade freezer units intended for storing frozen vaccines.
  - Freezer units should have an automatic defroster. *\*Manual defrost units should only be used if the office has an acceptable alternate freezer to store frozen vaccines while defrosting the freezer.*
  - Freezers must maintain vaccine storage temperatures year-round, at -20°C or below.
  - Provide space to store vaccines, calibrated thermometer, and frozen cold packs comfortably.
  - Be used only for vaccine storage.
  - Have a working calibrated digital data logger thermometer with the buffered probe placed centrally in the unit.
  - Have doors that seal tightly and close properly.
- Pharmaceutical-grade combination units may be used for storing refrigerated and frozen vaccines.
  - *The unit must have documentation stating it is pharmaceutical or medical grade.*

### Unacceptable Vaccine Storage Units:

- **Any type of** manual defrost (cyclic defrost) refrigerators with visible cooling plates/coiling in the internal back wall of the unit.
- **Household** combination refrigerator and freezer units. Providers enrolled before 2019 are allowed to use these units for refrigerator storage only. In the event the unit needs to be replaced, only pharmaceutical or medical-grade units are acceptable.
  - Household units must have separate temperature controls (separate thermostats) for the refrigerator and freezer. The freezer section of the unit cannot be used.
  - Bins and drawers must be removed from the unit or taped shut and only used to store temperature stability water bottles.
  - Vaccines should NEVER be stored in areas directly underneath air vents, in deli-crispers, vegetable bins, or in the doors.

The following storage unit types must NOT be used for vaccine storage at any time or duration:

- **Dorm-style or bar-style** units are defined as small refrigerator/freezer combination units with a single external door and a small freezer compartment within the unit. An evaporator plate or cooling coil forms the freezer or is pulled across the internal back wall of the unit.
  - Dorm-style units provide poor temperature control and often freeze vaccines that require refrigeration, resulting in immediate and irreversible damage.
- **Convertible** units with an internal switch that converts an “all-refrigerator unit” to an “all-freezer” unit.

### Vaccine Storage Unit Requirements and Recommendations

Use Velcro straps to secure storage unit doors if the door is not self-closing.

Maintain units according to manufacturer instructions and cleaning instructions in the Vaccine Management Plan. Generally, units over 10 years old need to be replaced.

The size of the unit you choose will depend on how many vaccine doses you intend to store at your busiest time of year, plus a buffered probe and water bottles placed in unusable areas.

- **Refrigerators:**
  - 100 - 400 doses needs a minimum of 4.9, up to 6.1 cubic feet
  - Up to 700 doses needs a minimum of 16.7 cubic feet
  - 701 - 800 doses needs between 17 - 20 cubic feet
  - 801 - 900 doses needs between 21 - 23 cubic feet
  - 900 - 1000 doses need 36 cubic feet
  - 1000 - 2000 doses need 40 cubic feet
  - 2000+ doses need multiple refrigerators
- **Freezers:**
  - Up to 200 doses needs a minimum of 1.5 cubic feet, up to 4.9 cubic feet
  - 201 - 500 doses need 5.6 cubic feet
  - 501 -6,000 doses need 7 - 14.8 cubic feet

### Placement of Your Vaccine Storage Units—Make Sure It Fits!

The number one reason new refrigerators and freezers are returned is that they do not fit in the designated space. Make sure your new unit will fit in your office. If you are replacing a refrigerator/freezer combination unit, you will need space for two units: a new stand-alone, pharmaceutical or medical-grade refrigerator unit and a stand-alone, pharmaceutical or medical-grade freezer unit.

Measure your space. Pay close attention to the depth, width, and height measurements of the model before you purchase. You will need to account for an additional extra 4 inches from the wall and ceiling to ensure good air circulation around the unit. This is essential for proper heat exchange and cooling functions on the unit. The unit’s location is also important. It must be placed away from direct sunlight and in a well-ventilated area.

Your unit must be in its permanent location prior to requesting Immunization Unit approval.

**IMPORTANT:** Never stack a vaccine storage unit on top of another, unless the manufacturer or retailer has approved the configuration.

### Setting Up Your New Unit

Your unit must be approved by the Immunization Unit prior to storing publicly-supplied vaccine. Before placing vaccines in your new unit, follow these simple steps to ensure success:

- Plug the vaccine storage units directly into outlets.
  - Never use extension cords, power strips, outlets connected to a wall switch, or any other device that can easily disconnect power to the unit.
  - Protect the power supply by only plugging in one unit per outlet.
- Fill bottles of water and mark them as “Do Not Drink.”
  - Place them in unusable places such as directly under fans, on the floor of the unit and the top shelf of the unit.
- Put “Do Not Unplug” signage directly on the unit, the unit’s power cord, and the power outlet to prevent the unit from being unplugged.
- Clearly label the areas within the unit that you will be storing each vaccine type (i.e. “Public” or “Private”).
- Place the calibrated, buffered data logger probe in the center of each unit, near the vaccines.
- Set refrigerator temperatures so that the data logger reads between 4°C and 6°C and the freezer data logger temperature reads at -20°C or below.
- Prior to requesting unit approval, your unit must have stable, recorded temperatures in the ideal range.
  - Use a properly calibrated digital data logger for at least 5 days. You will also need to complete the [Vaccine Storage Unit Checklist](#).

Please review the [CDC Vaccine Storage & Handling Toolkit](#) for additional information on setting up a new vaccine storage unit.

### Moved Units

Any time your vaccine unit is moved it will need to be reapproved for vaccine use by the Immunization Unit. This includes if the vaccine unit is moved to another space within your facility or the facility moves locations.

Vaccines can never remain in the unit while it is moved. Transfer your vaccines to your backup location listed on your facility’s Emergency Plan prior to the move.

- Place your units in their permanent location and plug them back in.
- Complete the [Vaccine Storage Unit Setup Checklist](#) to ensure the vaccine storage units are properly set up.
- Monitor the units to ensure they are working properly and returning to the ideal temperature range.
- Send data logger files of 48 hours of stable, in-range temperatures to [wdh.pvpreporting@wyo.gov](mailto:wdh.pvpreporting@wyo.gov) for review along with your completed Vaccine Storage Unit Setup Checklist.

**You must receive written approval from the Immunization Unit before publicly-supplied vaccine can be returned to the unit.**