WASHINGTON STATE CVP
Childhood Vaccine Program
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Thermometer Requirements Guide

This guide highlights the different types of thermometers available and identifies those that comply with the Washington State Childhood Vaccine Program. Using the correct thermometer or continuous monitoring system to monitor vaccine is critical. Providers are better able to maintain vaccines at the correct temperatures when they use the right thermometer. The table below identifies and describes the various temperature monitoring options available to providers and distinguishes those that are currently in compliance with program regulations. **All providers enrolled in the Childhood Vaccine Program** must use a continuous temperature monitoring device in each unit storing publicly supplied vaccine to monitor vaccine temperature. Please contact us for guidance prior to purchasing equipment.

Thermometer Regulations

Requirements
Use a continuous temperature monitoring device (i.e., digital data logger) in each unit storing publicly supplied vaccine to monitor vaccine temperature. The device must have the following features: • A temperature probe in a thermal buffer • An active current, minimum, and maximum temperature display that can be easily read from outside the unit • Alarm for out-of-range temperatures • Low battery indicator • Accuracy of +/- 1° F (0.5° C) f. User-programmable logging interval (or reading rate) to measure and record temperatures at least every 30 minutes • Have a current and valid Certificate of Calibration Testing** **Note: Digital Data Loggers for Ultra-Cold Temperatures (Pfizer COVID-19)** DDLs using a buffered temperature probe provide the most accurate measurement of vaccine temperatures. However, many manufacturers use pure propylene glycol (freezing point -59° C (-74° F)) or a glycol mixture with a warmer freezing point. Ultra-cold freezers store vaccines at temperatures between -90° to -60°C (-130° to - 76°F). For accurate ultra-cold temperature monitoring, it is essential to use an air-probe, or a probe designed specifically for ultra-cold temperatures with the DDL.

**Have a current and valid Certificate of Calibration Testing, issued by an appropriate entity, for each temperature monitoring device used to monitor vaccine storage temperatures. Calibration testing should be done every two years or according to the manufacturer's suggested timeline. Certificates must include the following:

- Model/device name or number
- Serial number
- Date of calibration testing (report or issue date)

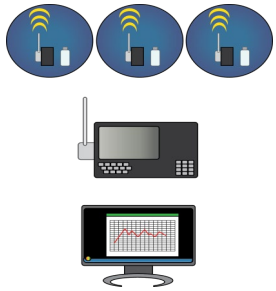
Have at least one back-up temperature monitoring device readily available in case a device fails, calibration testing is needed, or vaccine must be transported. Back-up devices must include the same features as primary devices. It is recommended they have a different calibration expiration date to avoid all devices requiring recalibration at the same time.

Approved Thermometers

Temperature Monitoring System

A temperature monitoring system is the most complex type of thermometer a provider can use. A temperature monitoring system is a series of thermometers connected to a main computer or hub. Large providers or hospitals use these systems because they have multiple storage units over a wide area. Providers can track the temperatures of all units through one computer.

Temperature Monitoring Systems meet best practices for temperature monitoring.



Digital Data Logger

A digital data logger is an electronic thermometer device that records temperatures over time. These recordings are stored into system memory. Data loggers connect to a computer so providers may download temperature information and review it via spreadsheets or charts and graphs.

Digital Data Loggers meet best practices for temperature monitoring.

Unapproved Thermometers

Digital Thermometer

A digital thermometer, also known as a minimum and maximum thermometer, is an electronic thermometer that displays the current temperature of the storage unit. It records the highest and lowest temperatures, referred to as the minimum (or MIN) temperature and the maximum (or MAX) temperature. It does not save temperature data and does not plug into a computer.

Providers can no longer use digital thermometers for temperature monitoring.

Chart Logger

A chart logger is the precursor to the digital data logger. It records temperatures over time on a circular paper chart or a scroll using needle with ink.

Providers cannot use chart loggers for temperature monitoring.

Fluid-Filled Thermometer

A fluid filled thermometer consists of a sealed glass tube containing liquid. The glass tube has a numbered scale which is used to measure temperature as the liquid rises and falls.

Providers cannot use fluid filled thermometers for temperature monitoring.

Dial Thermometer	
A dial thermometer is a most used for cooking. It has a metal probe connected to a circular temperature scale. A needle on the scale moves depending on the temperature reading. **Providers can't use dial thermometers for temperature monitoring.**