Cold Chain Technical Reference Guide

Overview:
The Cold Chain Technical Reference Guide provides general guidance and useful references for UNICEF Country Offices (CO) and Procurement Service (PS) partners to assist with ordering a range of Cold Chain equipment. More detailed information is available in Product Specific Reference Guides.

A fully functional cold chain system for receiving and safely storing vaccines must be in place before ordering vaccines. The importance of a functional cold chain system is essential, particularly with competing health priorities, constrained budgets, and in light of the introduction of new vaccines in country programmes which will stretch cold chain systems.

Cold chain is an important component in the Expanded Programme on Immunization to ensure that safe and potent vaccines are administered to the children. Unfortunately, the cold chain is sometimes an afterthought in CO planning for immunization campaigns and new vaccine introduction, resulting in late orders for cold chain equipment.

UNICEF Supply Division (SD) provides technical guidance to COs and PS partners on cold chain equipment to support efforts related to:

- Ensuring safe and potent vaccines are delivered and administered to children and mothers.
- Reducing vaccine wastage.
- Reducing country cost for the procurement of vaccines for the EPI programmes by minimising vaccine wastage.
- Ensuring adequate spare part components are procured for existing cold chain products for timely repairs of cold chain equipment.
- Sensitising countries on the necessity for cold chain equipment inventory from primary to health facility levels.

Cold Chain items available for order can be located under the Cold Chain Equipment section of the UNICEF Supply Catalogue.

Functional quality equipment to be fit-for-purpose and ready on time
UNICEF SD procures WHO performance, quality and safety pre-qualified equipment that conforms to the WHO guidelines for developing countries and those in transition. Clear and forward planning is vital due to the limited availability of some of these products and delivery lead times.

Procured equipment can remain uninstalled in countries long after procurement for a range of reasons ranging from lack of installation expertise to the delivered goods not being appropriate for the intended purpose.

Countries should procure cold chain equipment only after consulting the equipment adaptability for specific locations in the country of use. This will reduce equipment down time and vaccine wastage due to improper storage as a result of unusable or inadequate equipment.

SD provides technical support to COs/PS partners by:

- Advising countries on choice of cold chain equipment.
- Reviewing the impact of introduction of new vaccines in the immunization schedule on the existing cold chain system.
- Supporting in-country capacity building in cold chain management and logistics.

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• Preparing standard cold chain training manuals reflective of equipment procured by specific countries.

UNICEF SD has at times learned of reported vaccines stored at improper temperatures on receipt in a country. It is therefore recommended to evaluate the potential for training of freight forwarders on safe handling and storage of vaccines during shipment and on arrival to the country.

Additional WHO technical support documents are available in the Cold Chain Country Support Package. For more information, please the Supply Division Cold Chain Unit.