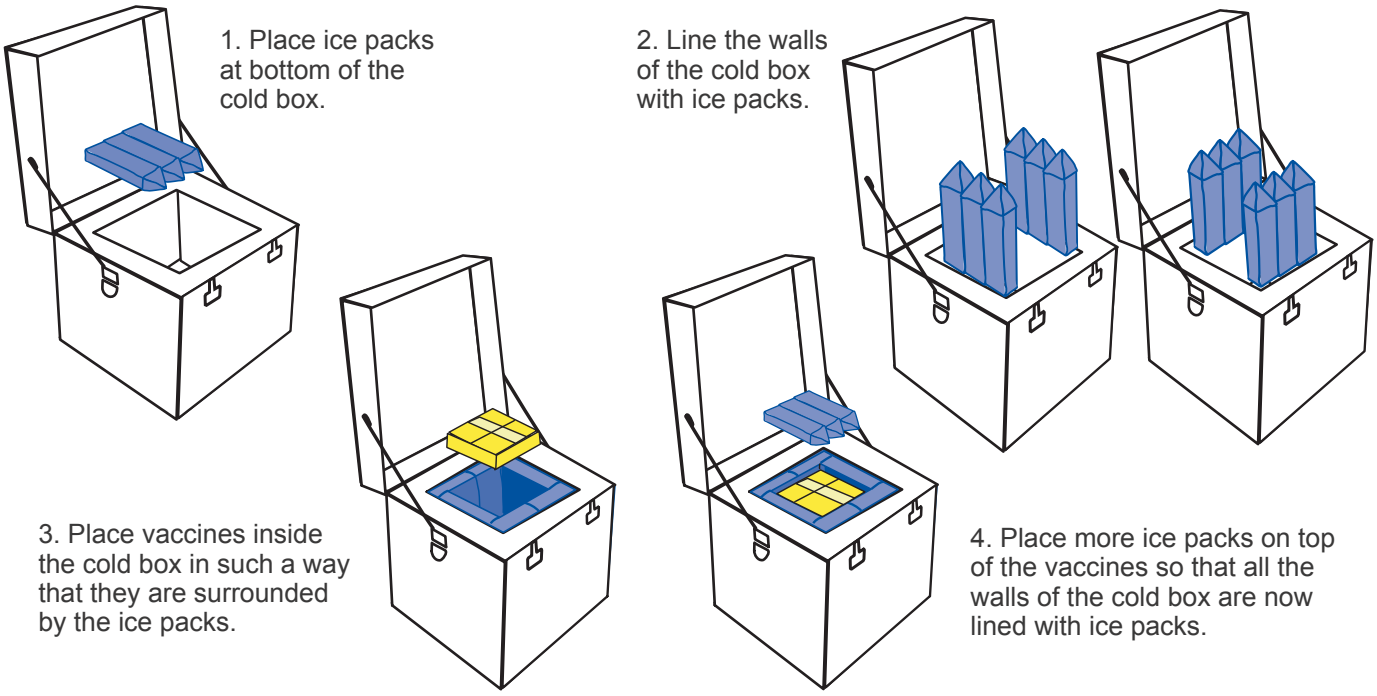
PLEASE REPRODUCE AND DISTRIBUTE TO ALL HEALTH CARE WORKERS

Packaging Vaccines for Transportation in Cold Boxes and Thermoses

When transporting vaccines to the field, the **walls of cold boxes and thermoses should be entirely lined with ice packs**. See illustrations below:



NOTE: Extra caution should be taken to avoid accidental freezing during transport of freeze-sensitive vaccines since cold packs right out of the freezer may be very cold (-5°C. to -30°C.). The procedure is as follows:

- Leave cold packs at room temperature for a few minutes until water, or "sweat", appears on the surface of the packs. They are now at 0°C.
- Place the cold packs that are "sweating" in the cold box.
- Vaccines can now be safely placed inside the cold box.

Viral vs. bacterial vaccines:

- Viral vaccines such as MR, MMR, polio, yellow fever, and any freeze-dried vaccines may be frozen or kept at temperatures between +2°C. and +8°C.
- Bacterial vaccines such as DPT, Hep. B (liquid), Hib (liquid), and DT should always be kept at temperatures between +2°C. and +8°C.

Packing instructions:

1. Place inside the cold box a form listing the temperature of vaccines, date and time of packing, number of boxes, number of ice packs used, and signature of person responsible for packing.
2. Place outside the cold box a label with the name and phone number of individual receiving the shipment (for contact in case of emergency), date and time of packing, and timeframe for delivery.

Basic precautions during transport:

1. Avoid placing cold box in direct sunlight. If necessary, a damp cloth can be placed over it to keep it cool.
2. Periodically check vaccine temperature during extended travel time. If necessary, ice packs should be replaced with new ones.
3. Do not drop cold box so as to avoid damage to walls and content of container.
4. During air travel, special precautions should be taken when transporting bacterial vaccines: see Note above.

Other essential aspects to keep in mind:

1. It is imperative to know how many hours the container will maintain the proper temperature after adequate preparation.
2. In hot tropical climates, special cold boxes holding vaccines for 4-5 days may be needed to ensure that vaccines arrive at the proper temperature.

Adapted from: PAHO EPI Newsletter 1993; XV(1):6 and (2):5; FUNASA/Brazil. Manual de Rede de Frio, June 2001:33-37.