

# The Journey of the Polio Vaccine

From European Capitals to the Most Remote Health Centres in Afghanistan

---

To ensure every polio drop counts, the vaccine itself must be carefully protected. And in Afghanistan, this effort links hundreds of people - from European capitals to the remotest Afghan health centre.

---

**E**ach drop of polio vaccine starts its life in Indonesia or Switzerland, carefully produced by WHO's pre-qualified manufacturers. UNICEF buys it in the millions of doses through its Copenhagen-based Supply Office. The vaccine arrives in Afghanistan by air, to be checked and delivered to the national cold store in Kabul.

The rest of its journey is not so easy. Afghanistan has six regional cold rooms and a working freezer room in each provincial capital. But these lie hundreds of miles away from the most remote villages.

“We have to find solutions to make sure that all the teams can get vaccine when they need it,” says Dr. Hamed, UNICEF's Cold Chain and Logistics Officer.

For the massive campaigns themselves, the vaccine and vaccine carriers wait for District Polio Coordinators to come to the provincial capital to collect vaccine for the campaigns. Here, vast freezers that UNICEF provides and fuels produce thousands of ice packs – enough to keep the vaccine cold and safe for the campaigns itself.

“One Ice-Pack Freezer can produce 350 ice packs per day,” says Dr. Hamed. “And we also distribute more than 5,000 cold boxes and 4,000 vaccine carriers. This is easily enough to keep the vaccine safe for even a week if necessary.”

But for teams working round the clock, the cold chain needs to stretch even further.

“In some parts of the country it takes up to a week to get the vaccine to the most remote health centres,” says Dr. Hamed. “And of course, Permanent Transit Teams and Permanent Polio Teams need vaccines every day. So for them, we have another solution.”



Vaccinators carrying cold storage boxes leave a storage facility outside Mirwais Regional Hospital in the southern city of Kandahar. Image credit: ©UNICEF/Noorani

The solution is in the shape of the RCW50 – a remarkable fridge that runs on liquid petroleum gas. UNICEF provides RCW50s and the fuel to run them to district-level health facilities – many of them run by NGOs providing basic health services including routine immunization. 1,500 such freezers exist nationwide. To avoid burdening vital existing fridges, another 50 are now in place in the highest priority polio areas where permanent teams are vaccinating.

“These health facilities are well-known and neutral,” says Dr Hamed. “And there are backup plans if things go wrong. If the fridge breaks down, we have more on standby. We can provide emergency ice packs, enough to last a week. We are even looking at solar technology. The campaigns must keep going, no matter what.”

The vaccine leaving these health centres can still have a long way to go to reach a child. Created in a modern laboratory on the other side of the world and jetted into the country, a vial may end its journey on a mule treading slowly into remote hills.

“This vaccine must get everywhere – to every Afghan house and village,” says Dr Shamsheer. “And in some parts of the north, it takes a week to reach the most remote places. You actually have to cross into Tajikistan to get there. Our vaccinators put the vaccines on mules and horses and find places to sleep on the way. If night falls they have to hope that the nearest village has a mosque – because at least then they can be sure of a roof over their heads.”

The dedication of those protecting the polio vaccine from manufacturer to mouth continues to save children’s lives in Afghanistan. Even in this most difficult of settings, the most simple things are providing the polio fight with its most powerful weapons: a fridge, a cold box and willing pair of legs holding back the advance of a virus in every corner of the land.

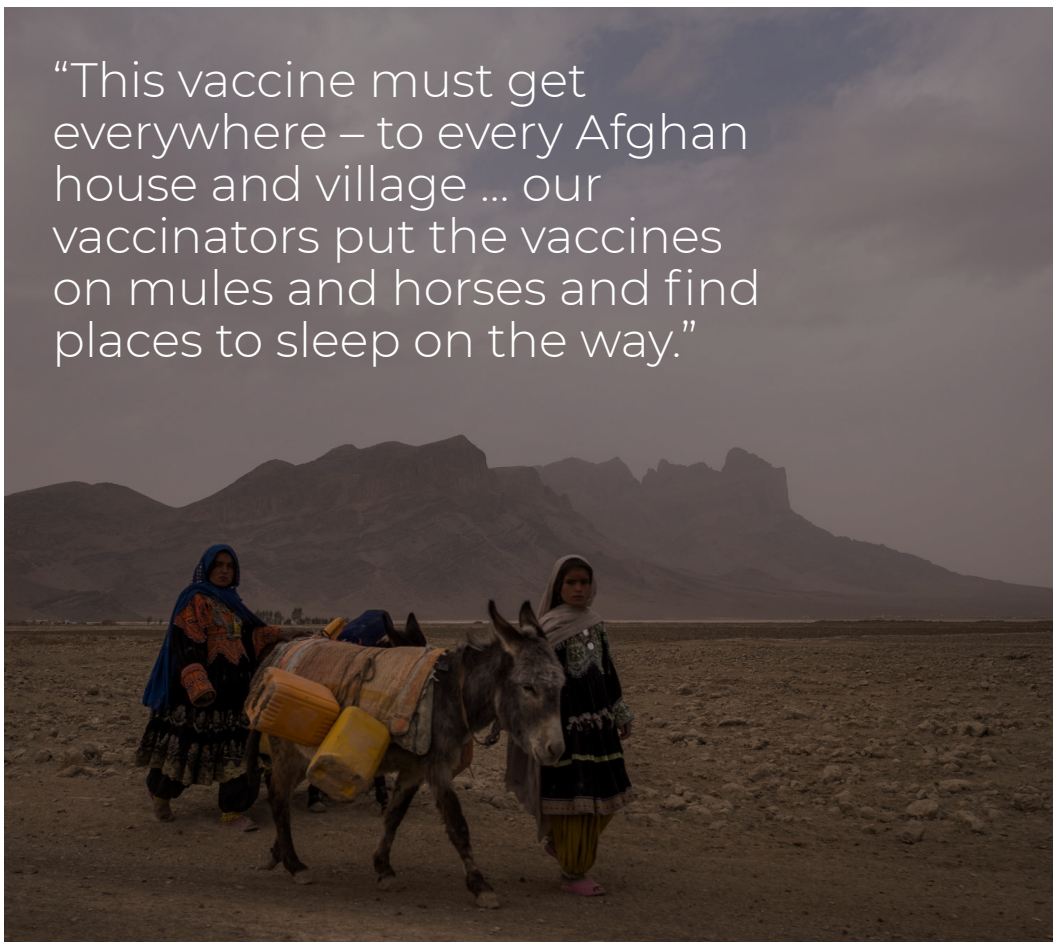


Image credit: ©UNICEF/Zaidi

Banner video provided by ©UNICEF