

COLD CHAIN EQUIPMENT OPTIMISATION PLATFORM (CCEOP)

Sushila Maharjan

Senior Manager, Innovative Finance

International Conference on Sustainable Cooling

World Bank

Washington DC - 29 November 2018



Reach every child

www.gavi.org

Gavi, the Vaccine Alliance is a public-private global health partnership

- Established in 2000 to address stagnating and declining immunisation rates in the poorest countries
- Gavi's mission:** creating equal access to vaccines for all children
- Since inception, the Alliance has delivered **real impact:**



keep people healthy

>700
million

children immunised



vaccines save lives

>10
million

future deaths averted



stronger economies

>100
billion US\$

costs averted
related to illness



sustainable future

~20
countries

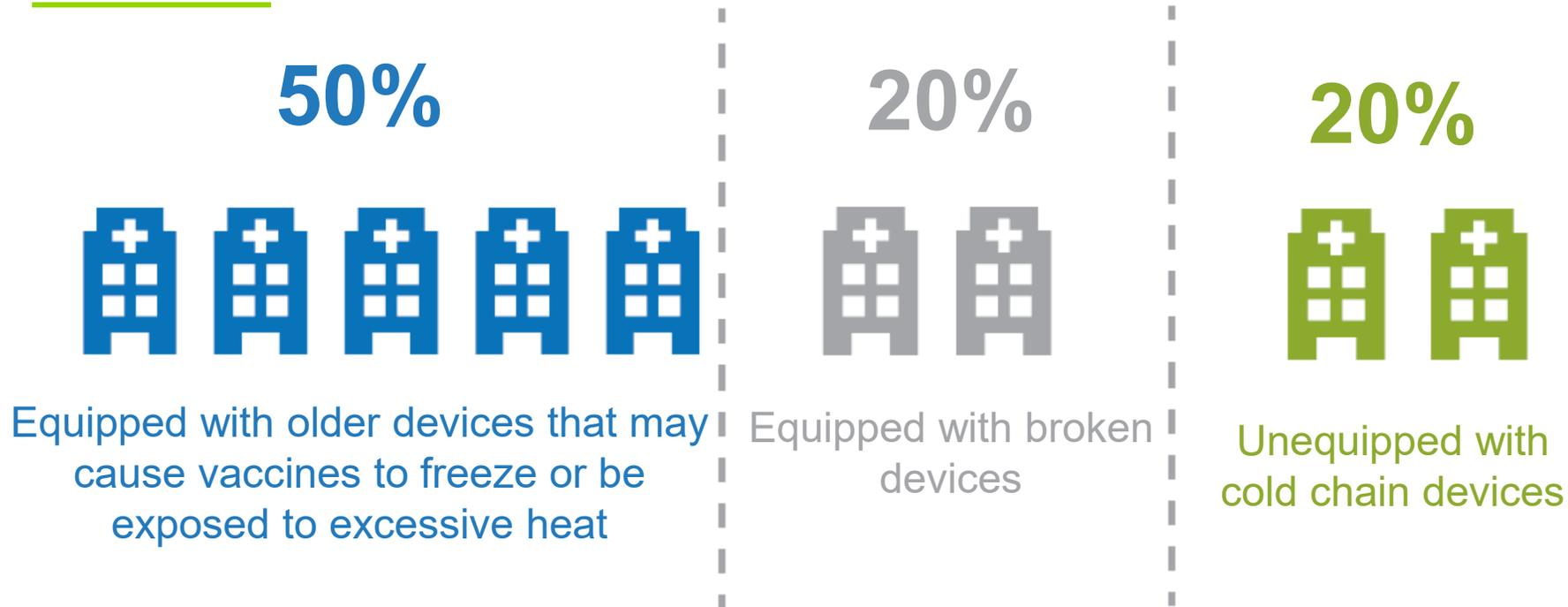
set to transition out of Gavi
support by 2020

Effective vaccine cold chain is critical to achieving Gavi's immunisation goals

- Over 60 million children immunised every year
- ~1.3 billion annual investment on vaccines
- 15 million are still under-immunised
- Vaccines need to be stored within 2-8°C or they lose effectiveness
- Vaccine cold chain is critical to: 1) safeguard vaccine investment; and 2) increase the Alliance's vaccine coverage and equity goals



Up to 90% of health facilities in 55 Gavi countries either rely on outdated technologies for vaccine storage or do not have one



Lack of efficient and functioning cold chain in Gavi countries puts the Alliance's and countries' investments in vaccines at high risk.

Improved cold chain technologies are available but their uptake by countries is slow...

due to two key barriers:

High technology cost

- due to cold chain market inefficiencies, including limited demand visibility, fragmented procurement, high production cost and in-transparent pricing

Lack of country financing

- to invest in new cold chain technologies due to the high upfront capital cost

Gavi launched the Cold Chain Equipment Optimisation Platform (CCEOP) that builds demand for, and supply of, affordable and environmentally-sound new technologies to improve the effectiveness of vaccine delivery in Gavi countries

Responding to cold chain technology demand means meeting a country's context in a sustainable way

Country context	Technology Type
<ul style="list-style-type: none">■ On-grid facilities but with intermittent power supply	<ul style="list-style-type: none">■ Devices that have longer holdover time and keep vaccines cool and safe even if the power is intermittent or out for multiple days
<ul style="list-style-type: none">■ Off-grid facilities	<ul style="list-style-type: none">■ Dependable solar-powered devices that do not need batteries and that keep vaccines cool and temperature stable

CCEOP currently focuses on two types of technologies - solar-powered solar direct drive (SDD) and energy efficient ice-lined (IL) refrigerators and freezers – that meet WHO's Performance Quality and Safety standards.

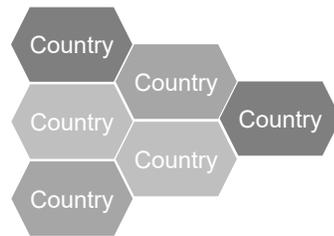
CCEOP aims to scale-up uptake of more efficient and sustainable cold chain technologies at affordable prices

Joint investment between Gavi and countries



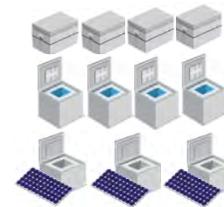
- **Gavi and country** co-invest between 80/20 and 50/50 depending on country's gross national income (GNI) status

Pool technology demands from countries



- Eligible **countries** apply for funding based on their needs
- Gavi pools demands from approved countries

Pool procurement through UNICEF



- **UNICEF** on behalf of Gavi negotiates with manufacturers for better pricing and effective deployment

Equipment, deployment, service bundle and Warranty



- **Manufacturers** provide equipment, service bundle plus warranty (minimum of 2 years)

Operations & Maintenance



- **Countries** fund and implement maintenance and service during equipment operating life

Through CCEOP, Gavi has committed US \$250 million for a five-year period between 2017-2021 to jointly invest with countries to purchase and install equipment in about 62,000 health facilities globally.

CCEOP applies a preventive approach to cold chain modernisation in Gavi countries

Optimal products, to better protect vaccine potency

“Service bundle”, to deploy CCE more quickly, reliably and sustainably

Manufacturer's warranty

Monitoring Plan

- Built-in freeze protection
- Extended ambient temperature range (ie, 10°C to 43°C)
- Bundled voltage stabilisers
- Bundled temperature monitors
- Suppliers are accountable for in-country distribution, installation, and training of end-users at facilities
- Ministry of Health/UNICEF or supplier is responsible for customs clearance, depending on the country situation
- Suppliers need to provide at least 2 years of a manufacturer's warranty (some extend to 10 years)
- Countries need to submit a full maintenance plan with budget at the application approval stage

Cold chain equipment



Ice Lined Refrigerators



Solar Direct Drive



cold boxes



Vaccine carrier



Temp Monitors



Long-term passive devices

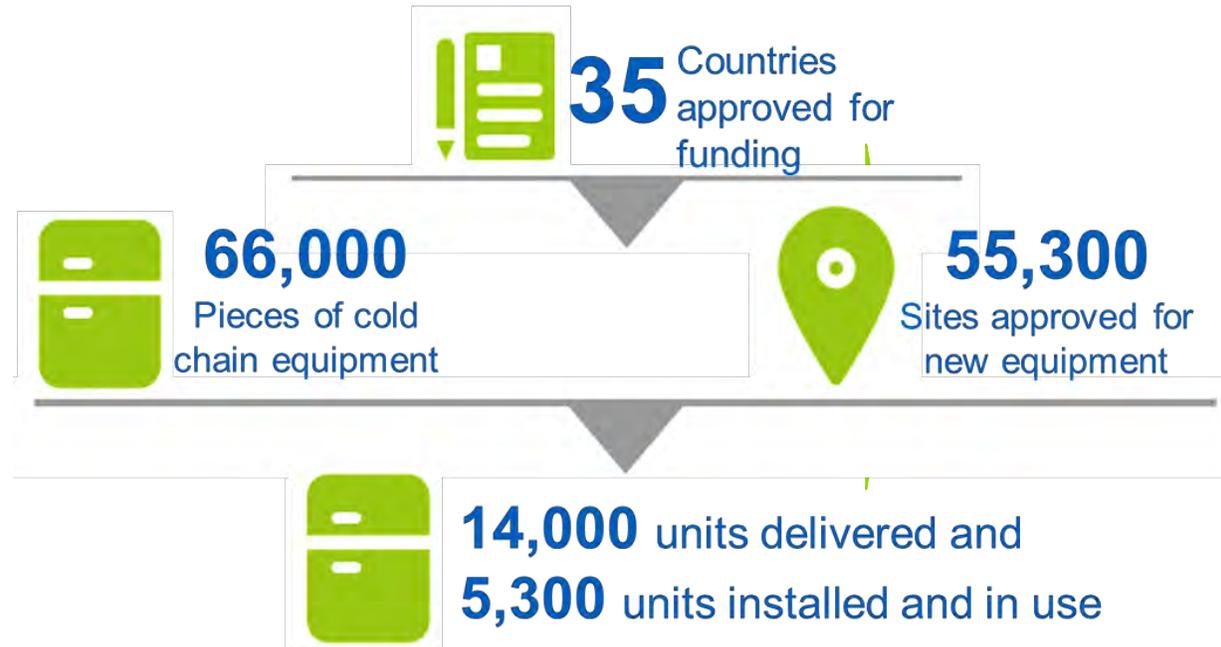
With its five-year investment, CCEOP effectively represents a \$50m per year “insurance policy” to safeguard Gavi’s ~\$1.3b per year vaccine investments

CCEOP is already delivering results nearly halfway through its funding cycle

Total eligible countries

Out of
55 eligible countries for joint investment under CCEOP

Outcome to date



But there are still challenges in implementation

At the programme level:

- Procurement delays due to involvement of a multitude of suppliers and countries in the tender and negotiation process
- Rate of price reductions slower than expected

At the country level:

- Maintaining country governments' commitment to a multi-year maintenance plan.
- Lack of the sustained capacity needed to implement the maintenance plan (funding and technical)

Consultations are ongoing with the Alliance partners to identify specific interventions to address these challenges.

55 countries are eligible for co-investment through CCEOP

Application in process

Afghanistan
Bangladesh
Chad
DPRK
Ghana
Guinea-Bissau
Lao People's Democratic Republic
Lesotho
Nigeria
Sudan
Tajikistan
Yemen
Zambia
Zimbabwe

Approved (ODP pending)

Benin
Central African Republic
Ethiopia
Mauritania
Papua New Guinea
Mozambique

Procurement in process

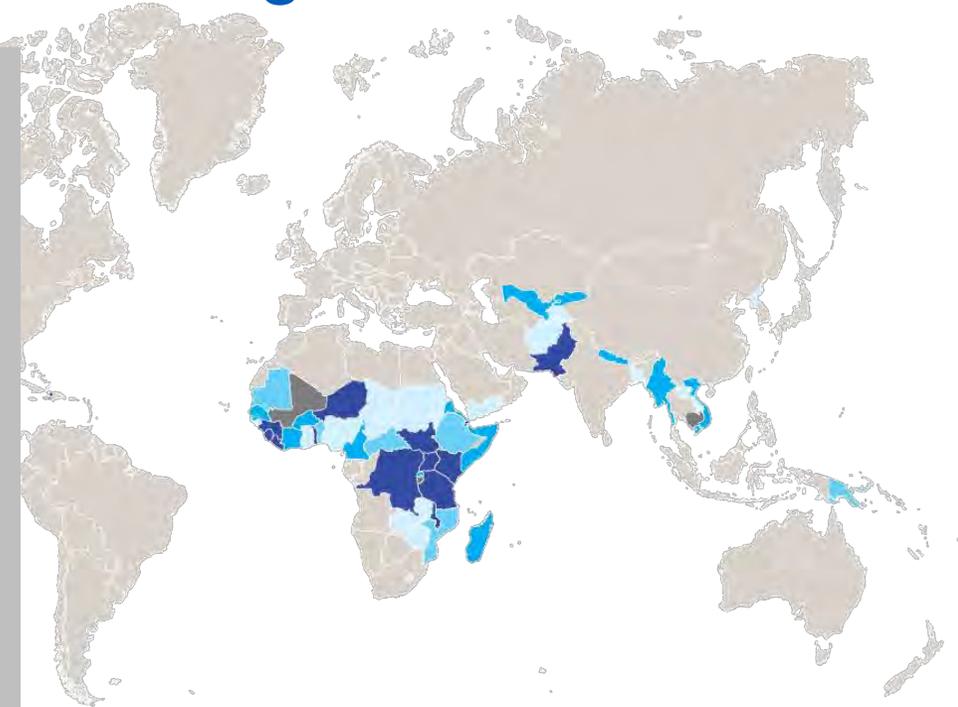
Burkina Faso
Cameroon
Côte d'Ivoire
Eritrea
Gambia
Kyrgyzstan
Madagascar
Myanmar
Nepal
Rwanda
Senegal
Solomon Islands
Somalia
Uzbekistan
Viet Nam

Deployment in process

DRC
Djibouti
Guinea
Haiti
Kenya
Liberia
Malawi
Niger
Pakistan
Sierra Leone
South Sudan
Tanzania
Togo
Uganda

Eligible but have not applied

Burundi
Cambodia
Comoros
Mali
Nicaragua
São Tomé and Príncipe
Syria



THANK YOU



Reach every child

www.gavi.org