UNICEF and the Immunization Supply Chain Management strengthening

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Immunisation Refrigerator Industry Consultation

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The immunization Supply Chain (iSC) system: a backbone for immunization programmes

Challenges in the field – a photo safari and evidence

Strategic objectives of the iSC Management

UNICEF’s strategic priorities to strengthen the Immunization Supply Chain management
Immunization supply chain system:
A backbone of national immunization programmes

What are we referring to?

Scope: In-country immunization supply chain

Records

Health Centers

Service Delivery

Waste management

Forecasting

Analysis

Ordering

Vaccine Arrival

Shipments (air & sea)
Many challenges in the field: 
**Vaccine Arrival:** Frequency and quantities are increasing

One of 20+ vaccine shipments arriving per year

Source: Dereje Haile (UNICEF)
Many challenges in the field

**Vaccine Arrival:** Vaccine volumes exceed management capacity

- Challenging vaccine shipping containers on arrival
- Shipping container of pneumococcal vaccine = 400 kg / 2m tall

Source: Serge Ganivet (WHO)
Many challenges in the field

Storage Capacity: More and new vaccines fill limited space

More vaccines being recommended but not enough space to store them effectively
Many challenges in the field

**Temperature Control:** Temperature monitoring essential but costly and not prioritized

Keeping vaccines in the correct temperature ranges increasingly more important
Many challenges in the field

Maintenance: Cold chain equipment requires regular maintenance

Cold room door no longer closing

lack of spare parts and technical ability to maintain equipment

Source: Serge Ganivet (WHO)
Many challenges in the field
Distribution: In-country transport is the weakest link in the supply chain

More and more expensive vaccines to handle and less and less trained national logisticians

Source: Dereje Haile (UNICEF)
Many challenges in the field

Distribution: Reaching the last mile with vaccines is that hardest.

Reaching the last mile with more vaccines is a challenge.

Source: Dereje Haile (UNICEF)
Many challenges in the field

Infrastructure: Ancient and inefficient equipment is still used at health center level

Inefficient and costly kerosene refrigerators still used today

Source: Simona Zipursky (WHO)
Many challenges in the field

Human resources: the supply chain extends all the way to service delivery

New vaccines means health workers need to carry more and more supplies
Many challenges in the field
Vaccine Management: avoidable wastage is widespread

VVM is great innovation...
... it makes the problem of heat damaged vaccines and costly avoidable waste visible
Many challenges in the field
Waste Management: more and more syringes to dispose of safely

Rarely does the immunization waste get disposed of in a safe and environmentally friendly manner

Source: Bertrand Jacquet (UNICEF)
Many challenges in the field
Information Systems: point of service data could help improve forecasts

Challenge of getting timely information of vaccine stocks at lower levels to improve forecasting of needs

Paper based system is time-consuming and error prone
Evidences: Quality indicators

% of countries that have carried out a systematic temperature monitoring study within the past 5 years: 23%

% of cold rooms for which a fully documented temperature mapping report is available: 16%

% of facilities in which all vaccine refrigerators comply with WHO specifications: 93%

% of facilities for which kerosene or gas is always available (where absorption refrigerators are used): 54%

Key observations:
- Only a quarter of countries have conducted a temperature monitoring study in the past 5 years.
- Only about 20% of cold rooms have been temperature mapped.
- On the plus side, almost all vaccine refrigerators comply with WHO specifications.

*from WHO/UNICEF HUB; The data was collected between 2010 and 2014 in 67 countries across all 6 WHO regions.
Evidences: Quality indicators

% of facilities in which all cold and freezer rooms have continuous temperature recorders

% of facilities in which all vaccine refrigerators have continuous temperature recorders or freeze indicators

% of facilities that pack freeze indicators with deliveries of freeze-sensitive vaccines

% of health facilities in which all VVMs are before the discard point

Primary
Sub-national
Lowest distribution
Service point

Key observations:

- Less than a half of all cold rooms and refrigerators have the recommended temperature monitoring equipment.
- Very few stores or facilities monitor the exposure to freezing temperatures during transport in passive containers with conditioned ice-packs.

*from WHO/UNICEF HUB; The data was collected between 2010 and 2014 in 67 countries across all 6 WHO regions.

*VVM = Vaccine Vial Monitor
Evidences: Efficiency indicators

Key observations:
- About 40% of countries do not have an up to date cold chain equipment inventory.
- About 25% and 50% of national and sub-national stores respectively still use paper based stock management systems.

*from WHO/UNICEF HUB; The data was collected between 2010 and 2014 in 67 countries across all 6 WHO regions.
Evidences: Excursions out of the adequate range of temperature still a concern on distribution routes

Many alarms (freeze/ heat alarms)
Strategic objectives of the iSCM

FUNDAMENTALS

OBJECTIVES

Available
- In the right place at the right time

Potent
- Providing a high level of immunity

Efficient
- Resources used for best purpose

DESIRABLE RESULTS

Vaccine coverage & equity

Under-5 mortality
WHO/UNICEF HAVE ISSUED A **JOINT STATEMENT** ON THE “VITAL ROLE OF THE IMMUNIZATION SUPPLY CHAIN IN ACHIEVING THE IMMUNIZATION TARGETS”
UNICEF and WHO commit to

- Leverage their partnership with key global health partners to reiterate the need to intensify efforts and increase investment to build the next generation of immunization supply chains

- Encourage/support all countries stakeholders, influencers and decision makers to rally behind a shared vision for country’s immunization supply chain in alignment with national immunization health system strengthening priorities

- Encourage/support countries to assess the performance of their immunization supply chain to generate right evidence on strengths, weaknesses, bottlenecks and root causes

- Encourage/support countries to develop a vision, formulate an evidence based strategy and roadmap for improvement and innovation

- Support countries to manage the implementation and change

*from the WHO/UNICEF joint statement
THAN YOU