The Supply Chain and Zero Dose COP webinar series

**Webinar 1:** Supply chain guidance and strategies to reach under-served zero-dose communities  
9 February, 1.00-2.30 pm UTC

**Webinar 2:** Immunization Supply Chain (iSC) interventions: lessons and best practices for reaching under-served zero-dose communities  
16 February, 1.00-2.30 pm UTC

**Webinar 3:** Integrated supply chain approaches to reach under-served zero-dose communities with vaccination and PHC services  
23 February, 1.00-2.30 pm UTC

How Immunization Supply Chains (iSC) contribute to reaching zero-dose communities
Supply chain guidance and strategies to reach under-served zero-dose communities

Karan Sagar
Michelle Seidel
Olamide Folorunso
Leveraging the Gavi Alliance Immunization Strategy (2021-2025) for identifying, targeting, and reaching zero dose populations

Karan Sagar
STRENGTHENING IMMUNISATION SUPPLY CHAINS

Gavi Immunization Supply Chain Strategy for 2021–2025
The shift from Gavi 4.0

The 2021 – 2025 Gavi Immunisation Supply Chain Strategy is aligned with Gavi 5.0 and builds on the successes we’ve had to date.

- Focuses on Gavi 5.0 – Leaving no-one behind and an emphasis on zero-dose and comprehensive vaccine management. Strong supply chains are key to achieving these goals.

- Builds and expands on the five fundamentals in the previous strategy. The new investments priorities are:
  - more holistic, incorporating key supply chain elements required to attain strategy goals, and
  - boost investments in areas that need the most attention.

- Identifies stakeholders and assigns clear responsibilities, setting accountability at all levels and harmonises partner efforts.

- Takes a clear measurement approach to enable and monitor progress against the strategy.
**Vision**

Strong supply chains enable DELIVERY OF LIFE-SAVING VACCINES TO EVERY PERSON when needed, no matter where they are
What are the types of challenges this strategy addresses?

- Expanding immunization programs to include new vaccines and reach more people puts pressure on already constrained supply chains.

- Significant progress in supply chain strengthening in 4.0 period in key areas (storage capacity), while others lag behind (information systems).

- Renewed focus under the 5.0 strategy will ensure:
  - supply chains deliver safe and effective and reach the people who need them
  - we protect the investment in vaccines by reducing waste

The Challenge

Inconsistent availability of high-quality vaccines and limited reach of vaccine supply chains in underserved populations threaten access as well as immunization coverage and equity outcomes, and put vaccine investments at risk.
What is the iSC vision?

The vision is the future state of iSC that we want to see. To develop the vision statement, a visioning activity, defined as the mental process in which images of the desired future (goals, objectives, outcomes) are made real and compelling, was conducted.

Meaning resilient, sustainable, efficient, adaptive

Meaning that supply chains and availability of vaccines and related supply are a critical component of ensuring the delivery of immunisation services

Strong supply chains enable delivery of potent life-saving vaccines to every person, when needed, no matter where they are.

Meaning that we focus on equitable access to immunisation services for each population segment

Meaning that sufficient vaccines are available whenever they are needed in a timely manner

Meaning that sufficient vaccines are available wherever they are needed in a timely manner
What are the impact goals?

The goals are the **direct changes** we aim to achieve. The goals unpack the vision into tangible outcomes and create a framework around which investment priorities can be made.

**EXTENDED REACH**
Equitable supply chains extend reach of vaccines to the last mile to serve underserved and zero-dose populations.

**VACCINE AVAILABILITY**
High-quality vaccines are available in adequate quantities, when and where they are needed.

**SUPPLY CHAIN EFFICIENCY**
Well-functioning supply chains minimise operational costs and product waste, with interconnected people, systems, and structures in place.

**SUPPLY CHAIN SUSTAINABILITY**
Government-led supply chains focus on activities that provide immediate benefit without compromising the needs of future generations financially, programmatically, or environmentally.

**SUPPLY CHAIN RESILIENCE**
Supply chains are agile and prepared to adapt to sudden changes including natural disasters and outbreaks of infectious disease.

**SUPPLY CHAIN RESPONSIVENESS**
People-centred supply chains respond to the needs and preferences of people throughout their life course.
**What are the investment priorities & intermediate outcomes?**

Through **targeted investments** in 6 priority areas and by supporting 5 **key enablers** we will achieve our impact goals

1. **DATA VISIBILITY & USE**
   to make real time data available at all levels of the SC and encourage data use by decision makers to improve SC performance

2. **STRATEGIC PLANNING**
   to a country-led strategy informed by people’s needs, that is adequately financed

3. **SYSTEM OPTIMIZATION & SEGMENTATION**
   to design and optimize supply chains that reach everyone and minimize cost and waste

4. **CAPACITY DEVELOPMENT & PROFESSIONALIZATION**
   to adequately staff all levels of iSC with motivated and competent workforce

5. **FUNDAMENTAL INFRASTRUCTURE**
   to ensure vaccines are stored and transported in well-functioning equipment to ensure quality

6. **SMART HARMONIZATION**
   to integrate and harmonize iSCs with other public health supply chains, program functions and overall health system to maximize resources
What are enablers?
Enablers are critical elements that help the Vaccine Alliance, including countries, develop the chosen priorities. Just like the strategic priorities, they contribute to reaching the final goals and vision.

COUNTRY LEADERSHIP, GOVERNANCE, & STEWARDSHIP
Country governments are central stewards, providing oversight for the entire supply chain across sectors.

DOMESTIC & INTERNATIONAL FUNDING
Make the most of domestic and international resources with context-specific funding cycles considered.

PARTNER ALIGNMENT & COORDINATION
Coordinate partner support and investments to minimise duplication and achieve collective impact.

INNOVATION
New approaches, tools, and processes strengthen immunisation supply chains.

PRIVATE SECTOR ENGAGEMENT
Engage with and leverage the strength of the private sector as partners in iSC.
How can this strategy be used?

**Potential scenarios for use**

The iSC Strategy gives national and sub-national stakeholders a framework to plan and execute supply chain improvement strategies. It is meant to be adapted to country and programme contexts.

**Programme Planning, Prioritisation, Design & Development**

- Informs decisions about which interventions to implement given constraints and resources, and guides the development of supply chain strengthening strategies or annual workplans.

  **Who:** Programme and Supply Chain Managers

**Assessment, Monitoring & Evaluation**

- Highlights opportunities for supply chain performance improvement, and provide indicators to evaluate performance.

  **Who:** Programme and Supply Chain Managers

**Continuous Improvement**

- Informs the development and implementation of holistic continuous improvement plans informed by findings from routine monitoring and evaluation.

  **Who:** Supply chain managers

**Advocacy, Learning, & Growth**

- Creates awareness and helps to advocate for funding for supply chain improvements. Helps prioritise areas for supply chain staff capacity building and development.

  **Who:** National and sub-national stakeholders

**Resource Mobilization**

- Used as a framework for prioritising iSC strengthening needs for domestic and external resource mobilisation.

  **Who:** programme and supply chain managers, national and sub-national EPI and health programme leadership, and parliament members
Who is this strategy relevant for?

Successful implementation of the strategy requires **collective effort** guided by country leadership. The strategy provides a framework for the following actors to take some key actions:

- **Governments**
  - developing country-specific iSC improvement strategies
  - ensure all actors and partners prioritize iSC strengthening as stewards of the supply chain

- **Alliance partners, donors and other funders**
  - defining the priorities, scale and scope of support
  - articulating iSC work stream proposals to donors
  - evaluating investment priorities and monitoring performance
  - flexibly guiding investments according to need

- **Civil society & academia**
  - monitoring the quality and value of iSC services
  - advocating and lobbying parliament for support

- **Private sector iSC service providers**
  - design and development of products and services
  - standardization of services across service providers
### What changes will we see and how will progress be measured?

<table>
<thead>
<tr>
<th>Change</th>
<th>Measure &amp; Targets</th>
<th>Method</th>
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<tbody>
<tr>
<td><strong>Increased availability</strong> of life-saving vaccines where and when they are needed.</td>
<td>Full stock availability &lt;br&gt;Average over all reporting countries of the percentage of districts that reported no stock-outs (with full stock availability) for the full year for DTPcv and MCV.</td>
<td>- Measured monthly via LMIS data &amp; DHIS2  &lt;br&gt;- Reviewed by iSC2 bi-annually  &lt;br&gt;- Contributes to IA2030 and Gavi 5.0 strategy indicators  &lt;br&gt;- Reported by UNICEF &amp; WHO</td>
</tr>
<tr>
<td><strong>Improved performance</strong> of immunisation supply chains</td>
<td>Composite EVM Scores &lt;br&gt;Average composite EVM score across countries conducting an EVM assessment.</td>
<td>- Measured on an ongoing basis  &lt;br&gt;- Reviewed by iSC2 bi-annually and reported annually  &lt;br&gt;- Reported by WHO</td>
</tr>
<tr>
<td><strong>A.Q.E. EVM Scores</strong></td>
<td>The percentage of countries with &gt;=80% score in A-availability, Q-quality, and E-efficiency EVM indicator categories, for countries that undergone an EVM2.</td>
<td>- Measured on an ongoing basis  &lt;br&gt;- Reviewed by iSC2 bi-annually and reported annually  &lt;br&gt;- Reported by WHO</td>
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2021 Baseline 82.5% (92% MCV)  <br>2023 Mid-strategy 85% (93% MCV)  <br>2025 95% (95%* MCV)

2021 Baseline 70.5%  <br>2023 Mid-strategy 76%  <br>2025 79%*

2021 Baseline 12%  <br>2023 Mid-strategy 20%  <br>2025 25%
What changes will we see and how will progress be measured?

**Increased investments in iSCs in key priority areas**

**System Optimization & Segmentation**
Number of priority countries that have completed a system design assessment and adopted recommendations, including for last mile delivery into national supply chain strengthening roadmaps

- **2021 Baseline**: 9 countries
- **2023 Mid-strategy**: 15 countries
- **2025**: 21 countries

**Smart integration & Harmonization**
% of countries that have a supply chain strategy / masterplan for the integration of immunization supply chain into the national health commodities supply chain with plans to reach zero-dose population.

- **2021 Baseline**: 35% (20 countries)
- **2023 Mid-strategy**: 56% (32 countries)
- **2025**: 80% (46 countries)

**Fundamental Infrastructure**
# of Gavi countries that will have a CCE functionality** rate of 90%

- **2021 Baseline**: 3 countries
- **2023 Mid-strategy**: 12 countries
- **2025**: 25 countries

**Data Visibility & Data Use**
# of Gavi countries that have a vLMIS solution and processes for data use

- **2021 Baseline**: 18 countries
- **2023 Mid-strategy**: 30 countries
- **2025**: 47 countries

**Capacity Development & Professionalization**
% of countries that have conducted an EVM2 assessment have a score above 80% in the C4 category: “recruitment, training and knowledge of staff meet EVM standards”

- **2021 Baseline**: 54% (7 of 13 countries)
- **2023 Mid-strategy**: 65%
- **2025**: 70%

**Strategic Planning**
# of Gavi countries will have conducted an EVM2 and have a cIP – oversight by a functioning NLWG.

- **2021 Baseline**: 13 countries
- **2023 Mid-strategy**: 30 countries
- **2025**: 57 countries

**METHOD**

- Measured on an ongoing basis
- Reviewed by iSC2 bi-annually and reported annually
- Reported by UNICEF

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**Notes**

**Definition of functional CCE**: Operable cold chain equipment that protects vaccine potency by maintaining a safe storage temperature range in challenging environmental conditions as defined by WHO PQS specifications. Cold chain equipment will be considered functional unless any of the following criteria met: a. Refrigerator had 5 or more heat alarms of over 10-hour duration (above +8°C), b. Refrigerator had 1 or more freeze alarms of over 1-hour duration (below -0.5°C), c. Refrigerator had 1 or more heat alarms of 48-hour duration or longer (above +8°C).

*: subjected to revision after mid-strategy review 2023
What are **practical approaches** for the strategy to get implemented into action?

**Investment Priorities & Areas of Opportunity within the Investment Priorities**

<table>
<thead>
<tr>
<th>Data visibility and use</th>
<th>Capacity development and professionalization</th>
<th>Fundamental infrastructure</th>
<th>Strategic planning</th>
<th>System optimization and segmentation</th>
<th>Smart integration and harmonization</th>
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</thead>
<tbody>
<tr>
<td>Digitize and integrate information systems (eLMIS, Barcoding, Track &amp; Trace)</td>
<td>Supply chain competencies and structures</td>
<td>Continue support to maintain adequate CCE capacity</td>
<td>Conduct comprehensive supply chain planning</td>
<td>Continuously review and optimise existing systems</td>
<td>Conduct analysis and identify opportunities for integration</td>
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<tr>
<td>Collect, analyse, and use data</td>
<td>Strengthen and apply skills</td>
<td>Integrate temperature and other SC data</td>
<td>Consider various financing approaches</td>
<td>Improve processes, from forecasting to waste management</td>
<td>Develop guidance and evidence for integration</td>
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<td>Active vaccine &amp; syringe stock management, including wastage tracking &amp; mitigation</td>
<td>Identify effective incentives &amp; motivators</td>
<td>Invest in appropriate SC resources, either building capacity or outsourcing</td>
<td>Strengthened national and subnational governance mechanisms</td>
<td>Apply approaches from other settings and sectors</td>
<td>Connect broad community of SC actors at national and sub-national levels</td>
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<td>Establish a monitoring &amp; accountability framework</td>
<td>Create healthy work environments</td>
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The comprehensive vaccine management approach supports attainment of the iSC 5.0 strategic vision, and emphasizes a few areas of focus for targeted strengthening within the investment priorities.

**Please Note:** Practical actions for each of the investment priority areas are included in the longer version of this deck.
The CVM approach pivots delivery of all investment areas for Gavi 5.0 and contributes to the achievement of Alliance strategic goals.
Thank You

Click here for the Gavi Alliance iSC Strategy Landing Page
Supply Chain in the UNICEF 2030 Immunization Roadmap: a focus on under immunized and zero dose populations

Michelle Seidel
UNICEF IMMUNIZATION ROADMAP TO 2030

Overview presentation

Presented by:

JAN 2023
Objectives

- Articulate UNICEF Immunization Roadmap’s goals, objectives, and outputs to 2030
- Describe how UNICEF will work to achieve its goals through its change strategies and programming approach with a focus on iSC
- Describe how UNICEF’s iSC approach to contributing to IA2030 and reducing zero dose populations
EVOLVING IMMUNIZATION CONTEXT
The human, social and financial returns from investing in immunization are far-reaching

67 million deaths averted by 2030

Modelling estimates vaccination against just ten selected pathogens will have averted 67 million deaths between 2000 and 2030.¹

24 million people kept from poverty

Vaccines will help keep an estimated 24 million people from falling into poverty by 2030.²

$21 for every $1 invested

On average, for each US$1 invested against ten pathogens, it provides a return of US$21.³

Vaccines can reduce antibiotic use

Widespread use of the pneumococcal conjugate vaccine (PCV) could reduce the number of days on antibiotics for pneumonia in children under 5 years by 47%, equivalent to 11.4 million days on antibiotics per year.⁴

Vaccines protect girls and women from preventable cervical cancers

In countries that have introduced the HPV vaccine, after 5–8 years, the prevalence of precancerous lesions decreased by 51% among girls aged 15–19.⁵

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1. Xiang Li, PhD et al. (2021). https://doi.org/10.1016/S0140-6736(20)32657-X
5. Drolet M, Benard E, Perez N, Brisson M, DOI: 10.1016/S0140-6736(19)30298-3
Immunization programming context evolved significantly since the development of UNICEF Immunization Roadmap in 2018

**COVID-19 pandemic**
Impact on health systems, economies and demand for vaccination; new partnership dynamics; innovation and investment opportunities

**Public health emergencies & outbreaks**
Polio, Measles, Diphtheria, Monkey Pox, reversals in disease elimination status

**Conflicts, humanitarian emergencies**
and extreme weather events

**Population dynamics**
Population growth, urbanization, displacement, unprotected children in middle income countries

**Updated global strategies & partnerships**
[IA2030, Gavi 5.0, DSIs]
Zero-dose, life-course approach, PHC integration, data driven management improvements, sustainability and innovation, complexity of immunization programmes

**Challenging social, economic & political context**
Unprecedented levels of uncertainty, growing poverty, nationalism and exclusion, populism and misinformation
**ROADMAP OVERVIEW**

UNICEF’s Immunization Roadmap supports the achievement of:

**2022-2025 UNICEF’s Strategic Plan**

UNICEF Strategy for Health 2016-2030

Goal Area 1 – output 2:
Children, including adolescents, and women have access to quality immunization services as part of primary health care, in development and humanitarian contexts.

Goals:
1. Ending preventable maternal, newborn and child deaths
2. Promoting the health development of all children.

Approaches:
1. Address inequities
2. Strengthen health systems, including emergency preparedness, response and resilience
3. Promote integrated, multi-sectoral policies and programmes

Programmatic focus:
1. Equitable access to integrated primary health care services, including immunization
2. Public policies and supportive environments
UNICEF Immunization Roadmap to 2030 is being updated to respond to new context

The refresh emphasizes six areas:

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<tbody>
<tr>
<td>01</td>
<td>Zero-dose agenda</td>
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<tr>
<td>02</td>
<td>Gender-transformative programming</td>
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<td>03</td>
<td>New approaches to socio-behavioral change</td>
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<tr>
<td>04</td>
<td>Immunization as a strong foundation for PHC</td>
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<tr>
<td>05</td>
<td>Supporting immunization in middle-income countries (MICs)</td>
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<tr>
<td>06</td>
<td>Resilience building and pandemic preparedness</td>
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</tbody>
</table>
UNICEF Immunization Roadmap Programming Framework

**Change Strategies**

- Advocacy
- Partnerships
- Data
- Digital-transformation
- Gender-transformative
- Multi-sectoral
- Resiliency & preparedness

**Outputs**

- Improved generation and use of evidence
- Strengthened leadership, management and coordination, and strategic planning
- Enabled governments and immunization stakeholders to sustainably finance immunization services
  - Extended reach of immunization services, including new & under-utilized vaccines
  - Improved readiness to prevent and respond to VPD outbreaks and pandemics, while achieving eradication and elimination goals
  - Countries have uninterrupted access to affordable vaccines and immunization-related supplies
  - Improved availability of potent vaccines at service delivery points
- Responsive and effective social behavior interventions designed and implemented with communities
- Improved capacity of frontline health workers to build trust and confidence in vaccination and PHC services

**Objectives**

**Objective #1**
Create an enabling environment for immunization and primary health care

**Objective #2**
Enhance equitable access to quality immunization services provided through resilient primary health care

**Objective #3**
Improve demand for quality immunization and primary health services

**Goals**

1. **Catch up and recover**
   - Vaccinate children missed during the pandemic, restore disrupted immunization services, and accelerate to achieving Immunization Agenda 2030 goals.

2. **Leave no one behind**
   - Increase equitable access to and use of existing and new vaccines.

3. **Strengthen and sustain**
   - Strengthen immunization programmes to sustainably reach target populations with full vaccination and essential primary health care services

**Vision**

A world where every child, adolescent and woman fully and equally benefits from vaccinations for good health, well-being and full realization of their potential.

**Principles**

- Impact-driven
- Innovative
- People-centered
- Equitable
PROGRAMMING APPROACHES
UNICEF will use change strategies and enablers to meet its objectives

- Partnerships
- Data and evidence
- Gender-transformative programming
- Innovation
- Multi-sectoral approaches
- Immunization as a platform for PHC
- Multi-faceted approach to emergencies and pandemic preparedness
UNICEF’s Roadmap will contribute to the achievement of global goals
IA2030 IMPACT GOALS

Preventing Disease
All countries achieve the endorsed disease control, elimination and eradication targets

Promoting Equity
50% reduction in the number of zero dose children

Building Strong Programmes
90% global coverage for DTP3, MCV2, PCV3, and HPV

Vaccine goal
300m children to be reached through routine immunization

Equity goal
25% reduction in zero dose children by 2025 and 50% reduction by 2030

Sustainability goal
Strengthening commitment, promoting domestic resources for immunization and PHC

Healthy markets goal
Supply sustainability, healthy demand and innovation

GAVI 5.0 STRATEGY
UNICEF Immunization Roadmap objectives and outputs are linked and contribute to the achievement of the IA2030 strategic priorities

UNICEF IMMUNIZATION OBJECTIVES

1. Create an enabling environment for immunization and primary health care
   - Improved generation and use of evidence
   - Strengthened leadership, management and coordination
   - Governments and immunization stakeholders enabled to sustainably finance immunization services

2. Enhance equitable access to quality immunization services provided through resilient primary health care
   - Extended reach of immunization services, including new & under-utilized vaccines
   - Improved readiness to prevent and respond to VPD outbreaks, while achieving eradication and elimination goals
   - Countries have uninterrupted access to affordable vaccines and immunization-related supplies
   - Improved availability of potent vaccines at service delivery points

3. Improve demand for quality immunization and primary health services
   - Responsive and effective social behavior interventions designed and implemented with communities
   - Improved capacity of frontline health workers to build trust and confidence in vaccination and PHC services

SUPPORT THE ACHIEVEMENT OF

IA2030 STRATEGIC PRIORITIES

1. Immunization Programmes for Primary Health Care / Universal Health Coverage
2. Commitment & Demand
3. Coverage & Equity
4. Life-Course & Integration
5. Outbreaks & Emergencies
6. Supply & Sustainability
7. Research & Innovation

CONSULTATION WITH PARTNERS
Improved availability of potent vaccines at service delivery points

01  Last Mile Integrated PHC Commodities - DRIVE
Develop and support innovative approaches and partnerships for last-mile delivery of vaccine and other essential commodities.

02  Sustainable & environment friendly iSCL
- Improved access to PHC services through solarization of health facilities, leveraging our core expertise in cold chain and water, sanitation and hygiene.
- Support strategic partnerships and/or in-house distribution and waste management systems for vaccines and PHC commodities across the supply chain.

03  Evidence-based planning and decision making
Strengthen S/NLWG capacity to manage stocks and CCE to respond to over-/understocks in real time using existing systems and tools linking to operational systems at SD through Thrive360 and ViVa and strengthen national information systems to respond to NLWG SC response.

04  Improved immunization supply chains
Strengthen Government capacity to benchmark supply chain incl. Effective Vaccine Management Assessments and maturity models, develop comprehensive Improvement Plans (cIPs) and track implementation of cIPs and its linkages to broader strategic initiatives and budget cycles.
The DRIVE Initiative

Overview

• The Initiative will prioritize supply chain interventions in initial 20 countries at the intersection of high un- and under-immunized populations and low supply chain performance

• Working closely with government, in-country partners, iSC2 partners, private sector and other organizations, UNICEF will implement last mile supply chain direct delivery interventions

• This will contribute to reduction in number of unvaccinated and under-vaccinated children (and low access to other public health commodities) in different contexts
### The DRIVE Initiative - Approach

<table>
<thead>
<tr>
<th>Typical last mile distribution</th>
<th>DRIVE Initiative</th>
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<tbody>
<tr>
<td>Healthcare workers (HCWs) responsible for last mile distribution</td>
<td>Young people and other stakeholders responsible for last mile distribution</td>
</tr>
<tr>
<td>Pick up from district stores/equipped HFs</td>
<td>Delivered to health workers from district stores/equipped HFs by young people/others</td>
</tr>
<tr>
<td>Default-prone hidden costs for vaccine distribution, often borne by HCWs</td>
<td>Dedicated vaccine distribution financing, assuring availability and optimizing cost</td>
</tr>
<tr>
<td>Potency risks laden multiple HCWs’ vaccine pick-ups and distribution</td>
<td>Reduced vaccine handling and mitigated potency risks</td>
</tr>
<tr>
<td>HCWs pick ups a missed stock management opportunities e.g., counts.</td>
<td>Leveraged opportunity for additional stock monitoring and management</td>
</tr>
<tr>
<td>Limited or no multi-stakeholder engagements in vaccine management</td>
<td>Multi-stakeholder engagements in vaccine management and increased ownership</td>
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</tbody>
</table>
Using the 41,000 SDDs installed using cold chain deployments (CCEOP) and global LTAs, electrify PHC facilities at the last mile [zero].

Since 2014, more than 21,000 HCFs in 85 countries have received WASH improvements through direct UNICEF support.

Comprehensive WM plans through expert TA support, contextual technology solutions for:

Integrated capacity development plan (guidance, webinars) for UNICEF CO and health workers on:
- Planning the integrated solutions
- Managing commissioning, operations and maintenance
- Monitoring & Impact Assessment
- Infection, prevention and control
- Climate resilience
Persistent stockouts

- Tracking frequency and duration of stockouts at district levels
- Leverage relevant existing analytics from other DHIS2 interventions

End to end Stock Monitoring at Health Facility / Service delivery points

- Forecasts, allocations, doses received, doses consumed and wastage.
- Projected shortfalls/surpluses
- Projected stockouts, overstock
- Contribute to distribution planning
- Side-by-side comparison with coverage rates, zero-doses numbers and monitoring findings

Map showing stock availability by district - 2022

Note: Calculating average stock coverage times across items, locations or time are not meaningful but counting stock coverage time categories (including stockouts) are meaningful.
THE COLD CHAIN EQUIPMENT OPTIMIZATION PROGRAMME (CCEOP) WAS LAUNCHED IN 2017 AND IS ADDRESSING CRITICAL COLD CHAIN GAPS GLOBALLY, WITH EXPECTED TARGET PROCUREMENT OF 75K UNITS BEFORE END 2022.

The 50 approved countries (to date) are positioned to radically transform their cold chain - both in performance and coverage impact.

- 65% of CCE to replace low performing or outdate equipment significantly increasing vaccine safety;
- 25% is targeted to extend access to newly-equipped facilities;
- 10% to expand capacity to meet RI and NVI storage needs.

As of Sep 2022, 70,540 Units on PO
69,551 Units Delivered to country
63,539 Units Installed

65% of CCE to replace low performing or outdate equipment significantly increasing vaccine safety;
25% is targeted to extend access to newly-equipped facilities;
10% to expand capacity to meet RI and NVI storage needs.
Driving supply chain improvements through the EVM-Continuous Improvement Plans Framework

Post-assessment continuous improvement plans (cIPs)

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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<tbody>
<tr>
<td>Iraq</td>
<td>Cambodia</td>
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40 cIPs since launch of EVM2 framework

10 cIPs from previous EVM framework

Continuous Improvement Plan (cIP) Development Tool

Effective Vaccine Management (EVM)
Setting a standard for the vaccine supply chain

https://www.vaccineasso.com/evm2
Supply chain Continuous Improvement Plans Implementation Tool (SCIP)

Globally tracking cIP Development and implementation

Systematic EVM Process Monitoring

(S)NLWG presence and functionality mapping
UNICEF’s Immunization Roadmap has been refreshed to align with new global documents and adjust to the current context

The context in which UNICEF’s immunization Programme operates has changed significantly in recent years:

• New areas of emphasis reflected in IA2030 and Gavi 5.0
• COVID-19 pandemic
• Increased importance of MICs
UNICEF has refreshed its Immunization Roadmap to respond to this new context

- Maintaining its traditional target population, with possibility of expanding if necessary
- Capitalizing on its comparative advantages
- Doubling down on traditional areas of focus: advocacy, supply, SBC
- Supporting new areas of global focus (e.g., zero-dose agenda, PHC...)
- Increasing support to MICs
THANK YOU!
Considerations and equity interventions to identify, target and reach underserved and zero dose populations

Olamide Folorunso
Coverage of the third dose of diphtheria, tetanus, and pertussis vaccine (DTP-3) dropped a further 2% compared to 2020, to 81% in 2021, leaving 25 million children vulnerable to vaccine-preventable diseases.

The Immunization Agenda 2030 is to make vaccination available to everyone, everywhere, by 2030. The Covid-19 pandemic, associated disruptions, and Covid-19 vaccination efforts have strained health systems in 2020 and 2021, resulting in 25 million children missing out on vaccination, 6 million more than in 2019 and the highest number since 2008. The number of children missing out on any vaccination - "zero-dose children" – increased by 5 million, from 13 to 18 million.

In this analysis, zero-dose children are those who lack any dose of DTP. Under-vaccinated are those who received one dose, but not a third protective dose.

Innovative supply chain interventions are needed at scale to address zero dose and under-immunization gaps.
18 million children were left out by immunization services in 2021, a number not seen since 2005.

Almost all zero-dose children live in low- and middle-income countries, with global share of zero-dose children distributed as such:

- WCAR 24% (4.4m)
- ROSA 21% (3.8m)
- ESAR 20% (3.6m)
- EAPR 19% (3.4m)
- LACR 10% (1.8m)
- MENA 4% (0.8m)
- ECAR 1% (0.2m)

In this analysis, zero-dose children are those who lack any dose of DTP. Under-vaccinated are those who received one dose, but not a third protective dose.
The median scores decrease from PR to SP for all criteria except E2, where the opposite happens.
- The strongest criteria are E3 and E8 for which the median scores are above 80% at all levels of the supply chain.
- The weakest criteria are E2, E7 and E9 for which the median scores are below 80% at all levels of the supply chain.

Opportunities for identifying, targeting and reaching zero dose children, especially with Distribution and Stock Management.
iSC performance (40 countries), EVM2 Assessments- opportunities for developing interventions to identify, target and reach zero dose communities

Sub-national and service delivery points levels lower performing, across supply chain criteria
Distribution and stock management weakest at lower supply chain levels and biggest levers for identifying, targeting, and reaching zero dose communities
Availability is the weakest performance metric, and lowest at service delivery points and sub-national levels
Facilities management criteria (M1-M4) poorer at lower supply chain levels

Supply Chain Performance, EVM2 (n=40 countries)

E1, Vaccine Arrivals
E2, Temperature Management
E3, Storage and Transport Capacity
E4, Storage of vaccines and dry goods
E5, Maintenance
E6, Stock Management
E7, Distribution of vaccines and dry goods
E8, Vaccine Management
E9, Waste Management
M1, Annual needs forecasting
M2, Annual work planning
M3, Supportive supervision
M4, iSC performance monitoring

Supply Chain Performance, EVM2 Heat Map (n=40)

Primary
Sub-National
Lowest Distribution Points
Service Delivery Points

A, Availability  Q, Quality  E, Efficiency
Four priority areas for supply chain actions to contribute to reaching the unreached

REMOTE RURAL  URBAN  AFFECTED BY CONFLICT  GENDER BARRIERS
Root cause analysis of barriers (especially at the last mile) can contribute to designing differentiated supply chain strategies across four priority groups and facilitate access.

<table>
<thead>
<tr>
<th>REMOTE RURAL</th>
<th>URBAN</th>
<th>AFFECTED BY CONFLICT</th>
<th>GENDER BARRIERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cost barriers to reach populations due to their low density</td>
<td>• Lack of accurate, disaggregated data limits populations identification and tracking</td>
<td>• Supply chain interruptions due to damaged infrastructure or uncertainties</td>
<td>• High distance between residential and healthcare service points present additional opportunity costs to mothers and care givers</td>
</tr>
<tr>
<td>• Physical distance and remoteness adds more complexities with ensuring timely availability of potent vaccines</td>
<td>• Social distance, cultural barriers and discrimination presents additional supply chain barriers</td>
<td>• Poor motivation of health workers and retention</td>
<td>• Availability, acceptance and cultural factors associated with female health providers create supply chain burdens</td>
</tr>
<tr>
<td>• Out of pocket financing of distribution/pick-up limit regular replenishments and reduce staff motivation and retention</td>
<td>• Limited prioritization of service delivery points, impacting access (including for disenfranchised and informal settings)</td>
<td>• Limited room for robust supply chain planning, forecasting and demand aggregation</td>
<td>• Reach of female health workers or supply chain staff may be limited in rural/conflict/urban poor settings</td>
</tr>
<tr>
<td>• Incomplete data and information on populations</td>
<td>• Sub-optimal engagement with informal private sector providers, limiting reach</td>
<td>• Mistrust distance between communities, clients and authorities, creating additional supply chain barriers</td>
<td>• Multiplicity of immunization sessions and missed opportunities for integration limits young adolescent females and mothers to access care</td>
</tr>
<tr>
<td>• Migrant and changing population dynamics impact targeted supply chain programming</td>
<td>• Dynamic population impact supply chain programming, especially in slums</td>
<td>• Lack of accurate population data due to demographic flux, displacements and migrations</td>
<td>• Reach of female health workers or supply chain staff may be limited in rural/conflict/urban poor settings</td>
</tr>
</tbody>
</table>
Adaptable supply chain interventions to address zero dose communities' barriers

Supply Chain Equity Strategies in Action

**Immunization Supply Chain Interventions to Enable Coverage and Equity in Urban Poor, Remote Rural and Conflict Settings**

- **Urban poor** Measures for accurate, disaggregated data to identify and track key populations and service deliveries.
- **Remote Rural** Engage diverse stakeholders in direct vaccine delivery.
- **Conflict** Ensure integrated approaches with demand generation, community ownership etc.
- **Pro-Equity Immunization Strategies** Prioritized budgets for key populations to meet unique requirements
- Implications of targeted strategies to mitigate cultural differences and discrimination.
- Agile strategies (including estimates) for disenfranchised/'informal' populations.
- Implications of optimized strategies to mitigate geographic and access bottlenecks.
- Stock variations on account of geographic peculiarities.
- Implications of potential damage to infrastructure and supply chain.
- Implications of strategies to mitigate access bottlenecks/ensure service continuity.
The DRIVE Initiative

The Initiative will prioritize supply chain interventions in countries with high underserved and unreached (with primary healthcare commodities) populations.

- Working closely with governments, private sector, young people, NGOs and other stakeholders, DRIVE initiative will implement last mile supply chain delivery interventions at scale.

- This will contribute to increasing supply chain efficiencies (including timely and integrated deliveries, reverse logistics etc.), higher PHC commodities availability and reduction in number of unreached and underserved populations in different contexts.
The DRIVE Initiative - Activities

Core Activities
Direct last mile delivery related

Companion Activities
Reinforce implementation or performance of last mile delivery activities

Innovative Activities
Innovative ways of implementing core and/or companion activities

Technology Platform facilitate multi-partner interactions
## The DRIVE Initiative - Approach

<table>
<thead>
<tr>
<th>Typical PHC commodities last mile distribution</th>
<th>DRIVE Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare workers (HCWs) responsible for last mile distribution</td>
<td>Young people and other stakeholders responsible for last mile distribution</td>
</tr>
<tr>
<td>Pick up from district stores/equipped HFs</td>
<td>Delivered to health workers from district stores/equipped HFs by young people/others</td>
</tr>
<tr>
<td>Default-prone hidden costs for PHC commodities distribution, often borne by HCWs</td>
<td>Dedicated PHC commodities distribution financing- optimizing availability and cost</td>
</tr>
<tr>
<td>Risk-laden multiple HCWs PHC commodities pick-ups and distribution</td>
<td>Reduced PHC commodities handling and mitigated risks</td>
</tr>
<tr>
<td>HCWs pick ups are missed stock management opportunities e.g., counts.</td>
<td>Leveraged opportunity for additional stock monitoring and management</td>
</tr>
<tr>
<td>Limited stakeholder engagements in PHC commodities supply chain management</td>
<td>Multi-stakeholder engagements and increased ownership</td>
</tr>
</tbody>
</table>
Persistent stockouts

- Tracking frequency and duration of stockouts at district levels
- Leverage relevant existing analytics from other DHIS2 interventions
How Immunization Supply Chains (iSC) contribute to reaching zero-dose communities

The Supply Chain and Zero Dose COP webinar series

**Webinar 1:** Supply chain guidance and strategies to reach under-served zero-dose communities
9 February, 1.00-2.30 pm UTC

**Webinar 2:** Immunization Supply Chain (iSC) interventions: lessons and best practices for reaching under-served zero-dose communities
16 February, 1.00-2.30 pm UTC

**Webinar 3:** Integrated supply chain approaches to reach under-served zero-dose communities with vaccination and PHC services
23 February, 1.00-2.30 pm UTC