UNICEF Updates:
Current and future considerations to secure vaccine supply

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Session Objectives

1) To provide an overview of the global market for vaccines supplied through UNICEF, including UNICEF overview of procurement over 2017, with focus on DCVMN value and volume share of this market,

2) To provide an overview of vaccine security, opportunities and challenges going forward,

3) To provide an opportunity for global partners engaged in vaccine markets, and DCVMN suppliers, to reflect on considerations for vaccine security going forward into the future.
UNICEF procure vaccines & vaccine related supplies for around 100 countries annually.

Immunization Supplies:

- Vaccines
  - BCG, DTP, TT/Td, OPV, HepB, YF, Penta, MCV, Meningococcal, PCV, IPV, HPV, JE, OCV, Rota, TCV, Hep A, Rabies

- Safe Injection equipment
- Cold Chain Equipment

*This map does not reflect a position by UNICEF on the legal status of any country or territory or the delimitation of any frontiers.*
Nearly two decades ago UNICEF moved to a Vaccine Security approach.

United Nations Children’s Fund
Executive Board
First regular session 2002
21-25 January 2002
Item 6 of the provisional agenda*

Vaccine security: ensuring a sustained, uninterrupted supply of affordable vaccines
Vaccine, healthy market assessment 1990-2016
UNICEF’s procurement is focused on achieving Vaccine Security – the sustained, uninterrupted supply of affordable, vaccines of assured quality.

- To achieve value for money and access to vaccines for children in need.
- Achieving healthy markets through the Vaccine Security approach (forecasting, funding and appropriate contracting).
- Vaccines as biological products – requiring a specific approach.
- Ensuring quality of vaccines through WHO prequalification – as well as safety and efficacy in target population.
Forecasting

The forecast process is an integrated part of Immunisation Programmes in country and an essential step for the effective vaccine management.

- Forecasting is the foundation for all elements of Vaccine Security:
  - Basis for production at manufacturers
  - Basis for funding needs

The outcome of the forecast is a key input for a number of processes:
- Aligning annual country government budgeting and planning for health sector
- Planning and implementation of vaccine procurement and delivery activities in timely manner
- A mechanism to foster on-going information and knowledge sharing
- Securing better pricing and vaccine stock management
**Healthy Markets Framework**

HMF represents a set of attributes that should be used to measure the health of a market and a process to evaluate each attribute that is vaccine specific.

<table>
<thead>
<tr>
<th>Total System Effectiveness</th>
<th>Long Term Competition</th>
<th>Product Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffer Capacity</td>
<td>Individual Supplier Risk</td>
<td>NRA Risk</td>
</tr>
<tr>
<td>Accommodate Country Presentation Preference</td>
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<tr>
<td>Supply of Antigen = Demand for Antigen</td>
<td></td>
<td></td>
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<tr>
<td>Inadequate Supply</td>
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Developed in collaboration with BMGF and Gavi, the Vaccine Alliance

- The highest level achieves positive system features such as the effect of the market on immunization system effectiveness, long term competition and product innovation.
- A more healthy market has additional supply security attributes.
- A healthy market meets country preferences for specific vaccine characteristics.
- The minimum of a healthy market is supply meets demand.
- Markets without adequate supply are not healthy.
Vaccine tender & contracting approach

**Strategy development**
- Product-specific procurement strategies, based on analysis and experience
- Informed by industry and partner consultations and alignment of objectives

**Tender process**
- RFPs for strategic products – flexibility for manufacturers to shape the offer to highlight how they can bring best value
- Multi-year tender & award period – provides planning horizon and more certainty to manufacturers
- Wide invitee-list; all manufacturers are invited to participate (including pipeline)

**Awards**
- LTA – ‘good faith’ framework agreements:
  - Based on good will from accurate forecasts, but ‘treated’ as contracts
  - To achieve exceptional results, exceptional contracts have been awarded (e.g. firm or pre-paid contracts)
- Review with a Procurement Reference Group (GAVI-supported vaccines) or other confidential partner consultation (e.g. GPEI)
- Multiple suppliers awarded per product
- Innovation and Pipeline are assessed in award recommendation, and informs award strategy to incentivize continued market development
# Sustainable Procurement

## Environmental
- Preservation of natural resources, ecosystems, and biodiversity
- Reduction of ecological footprint
- Reduction of greenhouse gas emissions
- Waste management

## Social
- Human rights
- Labour rights
- Gender equality
- Poverty and inequality reduction
- Social inclusion
- Promotion of SMEs (small and medium enterprises)

## Economic
- Best VfM (price, quality, availability, functionality, and innovation)
- Life cycle costing
- Economic development
- Employment
- Good governance
In all upcoming tender round, the intent is to focus on multiple elements crossing the 3 pillars (Environmental, Economic, Social) of sustainable procurement and extending along the supply chain, including:

- **Influencing Industry’s Sustainable Procurement (SP) Policy**: Continue driving for green manufacturing (QMS) and address social SP elements through requiring industry to report on such

- **Implementing Sustainable Procurement Criteria**: Implementation within the Tender activity, including SP elements in the tender evaluation (Weight, Volume, Local manufacturing); GTC requirements

- **Internal process**: Introduce step one of e-tendering and electronic bid submissions

UNICEF shipped over 30,000m³ (5,500 tons) of SIE in 2016, generating contaminated waste, requiring disposal
Emerging Market Country Manufacturers

2017: 1.3 billion doses with a value of $400m sourced from developing countries

Source: UNICEF Supply Division
Emerging Market Country Manufacturers

2017: 1.3 billion doses with a value of $400m comes from developing countries manufacturers

Source: UNICEF Supply Division

[Bar chart showing the USD value of doses produced by developing and industrialised countries from 1997 to 2017, with a significant increase in recent years.]
Emerging Market Country Manufacturers

2017: 1.3 billion doses with a value of $400m comes from developing countries

Source: UNICEF Supply Division

![Graph showing doses over years with labels for Developing and Industrialised categories](image-url)
2017 UNICEF SD Vaccine Procurement

Vaccines procured through UNICEF SD in 2017 (doses)

OPV doses procured through UNICEF SD in 2017

DCVMN

Other suppliers
Figure 6. Number of refugees by major countries of origin as of 2016 (millions)

Increased outbreaks and humanitarian needs

2017: $59m and 118m doses in 33 countries
2017 UNICEF Vaccine Procurement: Humanitarian

Doses procured from DCVMN suppliers for humanitarian purposes in 2017

- AdO
- DTP-HepB/Hib
- Hep B
- OPV
- Td
- DTP-HepB/Hib
- BCG
- Measles
- MR
- TT
- Td
- Hep B
- OPV
- MMR
- DTP
- TT

Suppliers:
- Bharat Biotech
- LG
- Bio Farma
- Shantha Biotechnics
Overview of AMC supply agreements

<table>
<thead>
<tr>
<th>Contracts Overview PCV</th>
<th>GSK</th>
<th>Pfizer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td>2, 4 dose</td>
<td>1 &amp; 4 dose</td>
<td>N/A</td>
</tr>
<tr>
<td>Last year of last contract</td>
<td>2024</td>
<td>2027</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Annual Supply Commitment Qty</strong></td>
<td>72</td>
<td>93</td>
<td>165</td>
</tr>
<tr>
<td>Total number of doses awarded</td>
<td>720</td>
<td>930</td>
<td>1650</td>
</tr>
<tr>
<td><strong>Accumulated Percentage of AMC funds</strong></td>
<td>36%</td>
<td>47%</td>
<td>83%</td>
</tr>
<tr>
<td>Accumulated share of AMC funds</td>
<td>540</td>
<td>697.5</td>
<td>1,237.5</td>
</tr>
</tbody>
</table>

Following the awards under the AMC-4 tender, a balance of $262.5 million out of $1.5 billion of AMC donor funds is available for future awards.
Challenges & Opportunities with DCVMN suppliers

- **New Vaccines:**
  - **HPV:**
    - Current supply constraints due to increase/surge in demand that is expected to rise in light of HPV elimination
  - **PCV:**
    - Expectation of market entry of at least one additional PCV supplier for AMC
  - **Rota:**
    - Two DCVMN suppliers have been added to the Rotavirus market, increasing opportunities for supply security and expansion of programs/introductions
  - **TCV:**
    - DCVMN suppliers are early market entrants

- **Future vaccines:**
  - **Coverage and equity:**
    - Product presentations that support immunization delivery/increasing coverage in countries
  - **Opportunity for research and development**
    - Zika, Chikungunya, Ebola, Marburg, Lassa, MERs:
What do you think is needed to achieve vaccine security in 2030 and beyond?

• Increase in supply needed to cover increase in coverage of existing vaccines
• Middle income countries falling behind Gavi supported countries in terms of new vaccines, and routine coverage
• Vaccine hesitancy increasing
• Children on the move and migration / refugee
• Increasing demands on domestic resources for funding / stagnating ODA funding for health
• New vaccines at varying stages of development & scale
• Healthy market targets
Key Market Updates

Visit UNICEF’s website on market updates here: https://www.unicef.org/supply/
THANK YOU