DAY 2

Safe Injection Equipment
Auto-disable syringes as the safe option for immunization

The syringe used for vaccine administration in UNICEF Program countries is an auto-disable syringe, specifically designed to ensure injection safety – with a standard dose volume of 0.5ml.

Alongside Auto disable syringes, Re-use prevention syringes are supplied for vaccine reconstitution and Safety boxes are supplied for collection of used syringes.

3 key features:

1. Built in disabling mechanism
   - Single use only
2. Fixed needle
   - No needle reuse
3. Single graduation line
   - Dose accuracy
Immunization planning needs to consider product diversity

From a product characteristic standpoint, it is clear that vaccines have more complexity and higher costs:

<table>
<thead>
<tr>
<th>Product Characteristic</th>
<th>Vaccine</th>
<th>Risk Status</th>
<th>Devices</th>
<th>Risk Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Profile</td>
<td>Biological, Complex</td>
<td><img src="red" alt="Red" /></td>
<td>Plastic &amp; Steel, Simple</td>
<td><img src="red" alt="Red" /></td>
</tr>
<tr>
<td>Product Cost (budget/dose)</td>
<td>$7.00</td>
<td><img src="red" alt="Red" /></td>
<td>$0.08</td>
<td><img src="green" alt="Green" /></td>
</tr>
<tr>
<td>Shelf life</td>
<td>6-24 months</td>
<td><img src="yellow" alt="Yellow" /></td>
<td>60 months</td>
<td><img src="green" alt="Green" /></td>
</tr>
<tr>
<td>Storage requirements</td>
<td>Cold Chain</td>
<td><img src="red" alt="Red" /></td>
<td>Dry Store</td>
<td><img src="green" alt="Green" /></td>
</tr>
</tbody>
</table>

However, from a delivery standpoint, injection devices can be a limiting factor to successful vaccination due to longer transport lead times:

<table>
<thead>
<tr>
<th>Product Characteristic</th>
<th>Vaccine</th>
<th>Risk Status</th>
<th>Devices</th>
<th>Risk Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipment Mode</td>
<td>Air</td>
<td><img src="green" alt="Green" /></td>
<td>Sea</td>
<td><img src="yellow" alt="Yellow" /></td>
</tr>
<tr>
<td>Decision Letter – Vaccination</td>
<td>14 weeks</td>
<td><img src="yellow" alt="Yellow" /></td>
<td>22-28 weeks</td>
<td><img src="red" alt="Red" /></td>
</tr>
<tr>
<td>Commencement in Country Lead Time</td>
<td></td>
<td><img src="yellow" alt="Yellow" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shipment Lead times</td>
<td>2-4 weeks</td>
<td><img src="green" alt="Green" /></td>
<td>12-18 weeks</td>
<td></td>
</tr>
</tbody>
</table>

[Vaccination requires integrated planning of vaccines & injection devices end-to-end]
UNICEF is the largest global procurer of safe injection devices

UNICEF procures injection devices for 90-100 countries annually, equal to 40% of the world’s volumes.

Immunization Supplies
- Vaccines
- Safe Injection Equipment
- Cold Chain Equipment

Countries UNICEF procures Injection devices on behalf of:

- Full schedule
- Partial schedule

Source: UNICEF Supply Division, 2023
UNICEF intentionally primed towards a healthy market

**Shorter tender cycles:**
2-year tender cycles for market shaping

**Consolidation of demand:**
Aggregating increasing demand, leading to increased competition and reductions in weighted average price

**Enabling bundled awards:**
Switch from individual product tenders to a Safe Injection Equipment bundled tender to improve delivery efficiency

**Inclusion of sustainability targets:**
New local producers entered market and waste generation reduced
While meeting the changing programmatic demand needs, the COVID-19 Pandemic response had significant impact on prior market gains:

- Price premiums of 40% - setting us 12 Years back from prior price gains
- Decline in bundled awards from 80% to 52% - setting us 4 years back from prior bundled awards
- Reduction in awards to New Local Producers (NLPs) from 16% to 6 % - setting us 4 years back in prior gains made

Impacting Sustainability and the Cost to Programs in the World’s poorest countries
Almost all childhood routine immunizations are delivered as 0.5mL doses.

- Atypical dose volumes emerging during the pandemic resulted in:
  - Higher costs
  - Less available supply for standard AD syringe volumes
  - Longer outbreak response lead times
  - Complex supply & implementation challenges in countries
- New vaccines should therefore be developed with consideration for AD syringes specifications, per WHO guidance

**Standard AD syringe dose volumes**

Prior to COVID-19, 95% of AD syringes supplied by UNICEF were 0.5-mL

**New vaccine dose volumes introduced during pandemic for C-19 vaccine delivery**

- 0.2 mL
- 0.25 mL
- 0.3 mL
Key takeaways

So…injection devices… why do we care again?

• No device, no vaccination!
• Auto-disable syringes are required to ensure a safe injection experience
• Devices have long transport times – integrated planning is a must
• Adherence to standard dose volumes is critical to market stability and effective program implementation
THANK YOU