UNICEF procures immunization supplies on behalf of 80-100 countries annually.

2009:
- Immunization Supplies: US$ 848m
  (vaccines: US$ 806m)
- 2.99 billion doses
- 1,997 shipments

Immunization Supplies:
- Vaccines
  - BCG, DTP, TT/Td/DT, Measles containing, OPV, HepB, YF, DTP-HepB, DTP-HepB/Hib, DTP/Hib, Hib, MR, Meningitis, MMR, IPV, etc.
- Safe Injection equipment
- Cold Chain Equipment

Countries UNICEF procures on behalf of:
- All Vaccines
- Part of the Vaccines

Source: 2009 forecasts received by UNICEF
Focusing on supporting the needs of the most vulnerable and poorest nations

2009

Data Sources:
A growing portion of vaccines procured by UNICEF come from Developing Country Manufacturers
2009: 1.3 billion doses with a value of ~ $250 million

*2010 – 2012 Data based on awards already made*
Principal drivers of the procurement volumes and value are polio and pentavalent vaccines.

Vaccine Procurement by Supplier*, 2009

* who procured $100,000 or above in 2009
In the ‘traditional EPI vaccines’ for routine activities, DCVM’s have supplied the majority of vaccines since 2004.
UNICEF vaccine spend as a portion of supplier’s total sales 2009

Share of UNICEF procurement in the 3 largest suppliers’ total sales* (multi-nationals)

Share of UNICEF procurement in the 3 largest suppliers total sales* (emerging markets)


Sources: UNICEF, SD, Suppliers’ Annual Reports
Evolving vaccine market for lower income countries, as seen by UNICEF
Establishment of Vaccine Security: Ensuring an uninterrupted, sustainable supply of affordable, quality vaccines

Accurate Forecasting
Multi-year forecasts from countries and programmes. Production planning forecasts and Strategic forecasts to industry.

Funding
Understanding of funding profiles (country + aggregate); and longer term views of funding.

Appropriate Contracting
Multi-year arrangements; Multiple sources; Firm contracting (& funding) as relevant

Specific Vaccine Procurement Principles

Seeking to achieve and maintain Healthy Markets to meet the needs of Developing Countries
### Historical mapping of tender periods & strategies, reflecting differing market dynamics

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<tbody>
<tr>
<td>GAVI HepB/Hib containing</td>
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<td>3 year</td>
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<td>3 year</td>
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<tr>
<td>Traditional routine (BCG, DTP, HepB, DT/Td,TT)</td>
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<td>Measles, MR, MMR</td>
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<td>YF routine</td>
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<td>YF stockpile</td>
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<td>Polio tOPV</td>
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<td>5 year</td>
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<td>3 year</td>
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<td>Jul04-May05</td>
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<td>Jul07-Sep07</td>
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<td>Apr05-Nov05</td>
<td>Jul06-Jul07</td>
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<td>Dec05-Dec06</td>
<td>Jun08-Dec08</td>
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<td>Polio mOPV3</td>
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<td>Sep05-Dec05</td>
<td>Oct07-Dec08</td>
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<tr>
<td>Polio bOPV</td>
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<td>Nov09-Dec10</td>
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</table>
Different views of assessing the health of each vaccine market

- Number of suppliers per vaccine
- Price
- Major Dependencies
- Pipeline
- Availability vs Demand
- Supply interruption
UNICEF contracted WHO pre-qualified vaccines suppliers over time, showing changes during the period.

Positive trends: broadening the supply base; reducing the risk of supply interruptions; increasing competition.
<table>
<thead>
<tr>
<th>Vaccine Group</th>
<th>Number of Manufacturers in the pipeline in 2007-2009</th>
<th>Number of Manufacturers in the pipeline in 2010-2012</th>
<th>Number of Manufacturers in the pipeline in 2010-2012 from Developing Countries</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>total</td>
<td>from Developing Countries</td>
</tr>
<tr>
<td>DTP-HepB+Hib</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>DTP+Hib</td>
<td>3</td>
<td>1</td>
<td>1</td>
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<tr>
<td>DTP-HepB</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>YF</td>
<td>6</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Measles</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>MMR</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MR</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BCG</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>DTP</td>
<td>4</td>
<td>2</td>
<td></td>
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<tr>
<td>TT</td>
<td>6</td>
<td>2</td>
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</tr>
<tr>
<td>HepB</td>
<td>4</td>
<td>1</td>
<td></td>
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<tr>
<td>DT</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Td</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>
Evolution of vaccine prices (vaccine groups) between 1997 and 2009

base 100 = 1997

Price

OPV

Pentavalent
GAVI funded support of Hib containing vaccines has enabled the 120m - 130m dose pentavalent market to be established, with 4 pre-qualified suppliers, more in the pipeline and supply now outweighing demand.
With GAVI funding over 95% of the procured quantities of pentavalent in 2009, highlighting the extreme dependency this market has on GAVI funding support.

DTP-HepB/Hib Funding Profile
With 15 countries already graduating from GAVI support in 2011 and no longer be supported for vaccine procurement after 2015, Affordability needs to be prioritised in pentavalent procurement strategies in order for this to be sustainable.
Given the diversified market situations, it’s a good time to re-think strategies to achieve healthy market objectives

- Introduction of higher priced vaccines
- Increasing complexity within procurement as new products become available
- Competition with high-income markets for production allocation
- Demand reacting to changes and developments in immunization programmes, vaccine development and funding speculation
- Country preferences on presentation and formulation
- Requires balancing with financial sustainability
- Need for increased flexibility on tendering strategies, maintaining long time horizons and providing for market flexibility
OPV tender concluded, securing supply and reduction in WAP for 2011-2012

Lower WAPs contribute to a savings to the programme over the two year period

<table>
<thead>
<tr>
<th>WAP/dose</th>
<th>2010</th>
<th>2011</th>
<th>% Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>tOPV - 20</td>
<td>0.147</td>
<td>0.1294</td>
<td>12.0%</td>
</tr>
<tr>
<td>bOPV</td>
<td>0.151</td>
<td>0.1316</td>
<td>12.8%</td>
</tr>
<tr>
<td>mOPV1</td>
<td>0.132</td>
<td>0.1134</td>
<td>14.1%</td>
</tr>
<tr>
<td>mOPV3</td>
<td>0.133</td>
<td>0.1252</td>
<td>5.9%</td>
</tr>
<tr>
<td>Total OPV</td>
<td>0.144</td>
<td>0.1284</td>
<td>10.8%</td>
</tr>
</tbody>
</table>

No. of PQ/recommended products:
- bOPV – 4 suppliers
- mOPV3 – 3 suppliers
- mOPV1 – 6 suppliers
- tOPV – 5 suppliers
Upcoming Opportunities

Pentavalent

• 2011: Demand estimate 127 million doses. UNICEF has 77 million doses on LTA. Currently working on securing 50Mds due to changes in the supply base.
  • Expect and will pursue that the WAP continue the downward trend.
• 2012: At this point only 50Mds is covered by awards from pre-qualified sources. Demand projected at 127Mds.
  • Award decisions by mid year next year.

Yellow Fever

• 2011: additional 20 million doses for preventive campaigns

Potential additional awards for Measles & TT for 2011 and 2012

• Dependant on the outcome of the current country forecasting exercise
Pneumococcal Vaccine being procured under the Advance Market Commitment T&Cs

- 2 countries have introduced PCV7 in 2009, to switch in 2011
- 17 additional countries approved to introduce in 2010-12
- 5 countries conditional approval

Birth cohort of 18.5M to benefit

Birth cohort of 5M

Map showing countries approved for introduction (blue) and conditional approval (red).
Outcome of first tender under the AMC

- Supply agreements signed with two vaccine manufacturers for 30M doses each annually from 2012 and 2013 (total of 600M doses)
- First supply to countries has started this month as vaccines have been prequalified and approved by the Independent Assessment Committee
- Out of $1.5B of AMC subsidy $1.05B remains unallocated with the purpose to incentivize new manufacturers to accelerate development of suitable vaccines
- Currently reviewing in consultation with GAVI if based on updated Strategic Demand Forecast a new tender should be issued
Countries supported by GAVI for Rotavirus vaccine

• 4 countries in PAHO region introduced Rotavirus vaccine
• 1 country to procure through UNICEF approved for introduction 2011 ~ 2.7M doses
• 7 countries expected to apply in next application round
Rotavirus - Procurement activities initiated to meet demand and accelerate access…

- Currently in the process of establishing a Procurement Reference Group to discuss procurement objectives and strategy
- Pre-tender meeting likely to take place late October/early November
- Tender planned to be issued November
- Aim to have vaccines with countries late Q1 to allow introduction during Q2 2011
- Strong focus on low and affordable prices – alternative offers to secure access to low prices will be considered
In Summary

Positive developments in the supplier base and encouraging DCVMN manufacturer interest in developing new products

Need to introduce new vaccines to achieve the MDGs

Increased focus on Affordability and to reduce price to ensure sustainability

Moving forward, we are going to be more creative in our tender strategies to achieve lower/affordable prices in addition to ensuring continued supply

Look forward to continuing the valuable partnership we have with the DCVMN members
Thank You!