Update on polio vaccine supply & forecast

DCVMN - Polio Vaccines Session
27 September 2017

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Overview of presentation

• bOPV supply situation and outcome of tender

• IPV supply prospects

• mOPV2 stockpile: Current status and next steps
bOPV supply situation and outcome of tender
bOPV supply situation through to end of 2017 is sufficient to meet demand

- Planned SIAs and routine requirements based on March 2017 calendar can be met
Update on the outcome of tender for bOPV

Award letters issued in July; supply agreements under legal review to be shared shortly; debriefing with all bidders July/August:

- General concerns expressed from most manufacturers about awarded quantities
- Still six suppliers through to 2019, with new Chinese bulk supplier being phased in

Offers provide access to sufficient supply of bOPV to meet demand through polio eradication and cessation

<table>
<thead>
<tr>
<th>Product</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Suppliers awarded</td>
<td>Quantity (Doses)</td>
<td>Weighted Average Price (WAP) $/dose</td>
<td># Suppliers awarded</td>
</tr>
<tr>
<td>bOPV 10ds</td>
<td>3</td>
<td>60,000,000</td>
<td>$0.176</td>
<td>3</td>
</tr>
<tr>
<td>bOPV 20ds</td>
<td>6</td>
<td>955,000,000</td>
<td>$0.137</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>1,015,000,000</td>
<td>$0.139</td>
<td>975,000,000</td>
<td>$0.141</td>
</tr>
</tbody>
</table>
Actual availability compared to contracted quantities – Period 2014 to 2018

2 manufacturers are supplying 50% of quantities on contract with UNICEF

+45% Increase
Countries using IPV vaccine to date and formal decision to introduce and with supply disruptions

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>Introduced* to date</td>
<td>158</td>
</tr>
<tr>
<td>Maroon</td>
<td>Introduced to date but with delayed resupply</td>
<td>18</td>
</tr>
<tr>
<td>Green</td>
<td>Formal commitment to introduce in 2017-2018</td>
<td>18</td>
</tr>
<tr>
<td>Gray</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Gray</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

Data source: WHO/IVB Database, as of 01 September 2017
Map production Immunization Vaccines and Biologicals (IVB), World Health Organization
Date of slide: 01 September 2017
Current status of IPV roll out to +80 countries procuring through UNICEF

IPV vaccine supply for routine programs

- Tier 1 and 2 countries continue to receive uninterrupted supply of IPV to meet the needs (stock level information required prior to each shipment)

- Tier 3 & 4 countries are not currently receiving IPV
  - 18 countries have yet to introduce a dose of IPV
  - 18 countries had supplies interrupted in April 2016, for UNICEF to reallocate available IPV to secure supply to tier 1 & 2 countries

- 3 countries have decided to move to fIPV (Sri Lanka, Bangladesh & Nepal)

Other countries affected by shortage switching to fIPV to spare doses:
- India; 14 countries in the PAHO region may possibly switch to fIPV
WUENIC estimates Tier 1 2016 comparison IPV vs. DTP3

Source: WHO and UNICEF estimates of immunization coverage: 2016 revision
IPV supply projections for 2018 allows for introductions in tier 3 and 4 countries

Supply increasing to an all time high, and expected to be more reliable – however, insufficient to meet all requirements

Routine immunisation

- All tier 3 & 4 countries now informed when they can receive IPV and asked to confirm timing of launch
- Countries to be resupplied based on the updated risk assessment, with higher risk countries being offered supply from Q4 2017
- Countries will also be offered doses to cover missed birth cohort BUT as 1 fIPV dose – 1 full dose for catch up immunisation will only be available in 2019

Outbreak Response ‘Reserve’ Stock (managed by EOMG)

- For 2018, 2 million doses will be set aside for requirements beyond routine (similar to Q3-Q4 2017)
IPV supply and demand for 2017 & 2018

- Availability of the 1 & 5 dose presentation will be limited in 2018 which may impact availability for IPV usage
With current contracts expiring end of 2018, due to production lead times IPV tender now issued

Status on next tender to meet demand 2019-2022
• Tender issued 4th July, closing date 15th September
• UNICEF will send clarification letters to proposers in October and set up calls with manufacturers to review proposals
• Procurement Reference Group set up for early November
• Awards anticipated before end of 2017, with supply starting in 2019

Expected outcome
• Sufficient supply for routine and as applicable one full dose for catch-up
• New suppliers from 2019 but with increased supplier base from 2020
• Sufficiency of supply for a 2 dose schedule in all countries...
mOPV stockpiles: Current status and prospects
Overview of the mOPV2 global stockpile: usage and availability

- 80Mds delivered in 16 months
- 70Mds in stock, increasing to 100Mds in October

69 million doses semi-finished – lead time 20 weeks (9 years shelf life expected 2nd half of 2018)
Activities over the past 12 months...

GPEI Bulk mOPV Stockpiles at time of OPV2 cessation and today

<table>
<thead>
<tr>
<th>Type</th>
<th>Bulk amount</th>
<th>..as of today</th>
</tr>
</thead>
<tbody>
<tr>
<td>mOPV1</td>
<td>300Mds</td>
<td>300Mds</td>
</tr>
<tr>
<td>mOPV2</td>
<td>519Mds</td>
<td>250Mds*</td>
</tr>
<tr>
<td>mOPV3</td>
<td>300Mds</td>
<td>300Mds</td>
</tr>
</tbody>
</table>

*) residual stocks of type 2 bulk outside of contracts with three suppliers

- Polio Stockpile Working Group established, report prepared by a cross functional group – consultations currently ongoing, with expected submission to SC by end Septmeber

- Original contracts on bulk and finished product with expiry end 2018:
  - GSK bulk and finished contract extended at no cost
  - Sanofi – agreement in principle to extend bulk contract, pending assessment of costs beyond 2018; negotiations continue since March on finished product contract....

- Offer received from another manufacturer to prequalify and stockpile mOPV2
Polio Endgame & Legacy - Implementation, Best Practices, and Lessons Learned

Volume 216, Issue suppl_1
1 July 2017
Free access at

https://academic.oup.com/jid/issue/216/suppl_1
Thank you