IPV implementation update

Diana Chang Blanc, IVB/EPI HQ
SAGE meeting, Geneva, 17 October 2017
Outline

• Overall IPV and fIPV implementation status
• Grading of risk in Tier 3 and Tier 4 countries
• Planned roll out of IPV in 2017-18
• fIPV catchup for missed cohorts (post May 2016)
Overall IPV implementation status

• By end of 2015, all 126 OPV-using countries committed to implement one-dose IPV

• However, manufacturers of prequalified IPV drastically reduced quantities of vaccine allocated to UNICEF/WHO (>50% reduction)
  – Postponed IPV introduction in 18 low risk countries
  – Delayed resupply in 2016 to 17 low risk countries that had previously introduced
    • 18% of global birth cohort not able to introduce or facing stock outs
  – Difficult to meet additional demands of IPV

• IPV will liberate in 2018-19, but will be tight -- available supply allocated based on risk of VDPV2
Countries using IPV vaccine to date and formal decision to introduce and with supply disruptions

- **Introduced** to date (158 countries)
- Introduced to date but with delayed resupply (17 countries)
- Formal commitment to introduce in 2017-2018 (19 countries)
- Not available
- Not applicable

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
WHO/UNICEF estimates of immunization coverage
Tier 1 IPV and DTP3, 2016

Source: WHO and UNICEF estimates of immunization coverage: 2016 revision
WHO/UNICEF estimates of immunization coverage
Tier 2 IPV and DTP3, 2016

Source: WHO and UNICEF estimates of immunization coverage: 2016 revision
IPV implementation in GPEI POB supported countries

• Of the 126 OPV-using countries, 16 non-Gavi were eligible for IPV introduction support by the GPEI based on their income status and the polio risk
  – Support consisted of vaccine introduction grant and 1 year initial catalytic procurement

• Due to the supply constraints
  – Egypt and Turkmenistan have not yet introduced
  – Morocco, Swaziland and Iran have not been resupplied

• All these countries will have supply available as per the roll out plan according to their level of risk
Fractional dose IPV: Global implementation

- Routine Immunization (2 fIPV at 6 and 14 weeks)
  - SEARO
    - Rolled out nationally in India and Sri Lanka (19% of global cohort)
    - Bangladesh Q4 2017, Nepal for Q1 2018 (3% of global cohort)
  - PAHO
    - PAHO TAG recommended 14 countries to implement a 2 fractional dose sequential schedule (represent 6% of global cohort)
    - Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua are conducting trainings in Q4 2017
  - Discussions underway with other regions (AFRO, EMRO)
- Additional fIPV experiences
  - SIAs in small geographical areas of India, Pakistan in response to VDPV2 detections
Fractional dose feasibility assessment in AFRO

- RITAG recommended AFRO Tier 3 & 4 countries to consider using 2 fIPV doses, if able to do so.
- Framework developed to assess country readiness and assist countries in decision-making about moving to fIPV.
- The assessment included current programme practices and capacities as well as risk factors such as size of missed cohorts.
- Preliminary results indicate that Burkina Faso, Burundi, Cabo Verde, Gambia, Ghana, Rwanda, Sao Tome and Principe, Togo, Tanzania and Zimbabwe could implement and benefit from fIPV implementation.
- The analysis presented at EPI managers’ meetings in September 2017.
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Grading of Risk in Tier 3 and Tier 4

• In April 2017, SAGE recommended a review of the tier classification with respect to prioritization of IPV

• Imperial College analyzed the risk of a VDPV2 outbreak in all tier 3 and 4 countries based on the following risk factors:
  – Estimated # children under 5 years old susceptible to type 2 poliovirus
  – Child mortality rate as a proxy for poliovirus transmission efficiency (reproduction number)
  – Migration from countries with circulating VDPV2 (Nigeria, Pakistan, DRC and Syria, in 2016-17)
  – Reported number of people with primary immunodeficiency shedding vaccine-derived poliovirus (iVDPV) during 2000-2012
Grading of Risk among Tier 3 and Tier 4

- Tier 3 countries that are graded at highest risk of VDPV2 outbreak are, in order of priority: Iran, Egypt and Sudan
  - These countries will be in the top of priority for allocation of available IPV

- Tier 4 countries that are graded at highest risk of VDPV2 outbreak are, in order of priority: Tanzania and Viet Nam
  - IPV supply will be available for Tier 4 countries immediately after Tier 3 countries

- In summary, all Tier 3 and 4 countries will have full dose supply available starting from Oct 2017 to end of Q1 2018

- WHO/UNICEF communication have gone out to country offices with revised timelines, so countries can finalise introduction plans
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• Grading of risk in Tier 3 and Tier 4 countries
• **Planned roll out of IPV in 2017-18**
• fIPV catchup for missed cohorts (post May 2016)
## Planned roll out of IPV in remaining countries, 2017-18

### Delayed introductions

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<thead>
<tr>
<th>Tier 3</th>
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<td>Turkmenistan</td>
<td>Oct 17</td>
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<td>Egypt</td>
<td>Nov-Dec 17</td>
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<td>Eritrea</td>
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<td>Sierra Leone</td>
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<td>Burkina Faso</td>
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<td>Tajikistan</td>
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<td>Tanzania</td>
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<td>Vietnam</td>
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<td>Malawi</td>
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<td>Mongolia</td>
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### Delayed resupply

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<td>Iran</td>
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<td>Nepal</td>
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<td>Sudan</td>
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<td>Cote d’Ivoire</td>
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<td>Guinea Bissau</td>
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<td>Senegal</td>
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<td>Sao Tome</td>
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<td>Bhutan</td>
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<td>Comoros</td>
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Catch up of missed cohorts

• In September 2017, SAGE WG recommended that catch up activities should provide what it is provided through RI in each country
  – Catch up with 1 full dose: if the country is providing 1 full dose in RI
  – Catch up with 2 fIPV: If the country is providing 2 fIPV in RI
• Estimated **27 million children will have been missed in countries with no IPV since the tOPV switch (btwn May 2016-Oct 2017)**
  – **Highest risk countries:** Egypt 3.6m, Sudan 1.5m, Iran 1.8m, Tanzania 3m
• Due to current supply shortage
  – Supply for **1 full dose** catch up will only be available in 2019 (exact time to be determined in 2018 when manufacturers confirm 2019 plan)
    • Assuming Jan 2018 introduction in 4 highest risk countries, they alone will have around 11 million children unvaccinated for IPV
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!