Global Update
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Polio Partners Group Meeting, Geneva, 5 December 2016
Polio Eradication and Endgame Strategy

1. Poliovirus detection & interruption

2. OPV2 withdrawal, IPV introduction, immunization system strengthening

3. Containment & Global Certification

4. Transition Planning
GPEI’s Impact: Progress in WPV eradication

1988

34 Cases so far in 2016

Public Health Emergency of International Concern declared in May 2014
Global Wild Poliovirus & cVDPV Cases\textsuperscript{1,2}, Previous 12 Months\textsuperscript{3}

<table>
<thead>
<tr>
<th>Country</th>
<th>Wild poliovirus</th>
<th>cVDPV</th>
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<tbody>
<tr>
<td></td>
<td>Onset of most recent case</td>
<td>Total WPV1</td>
</tr>
<tr>
<td>Nigeria</td>
<td>21-Aug-16</td>
<td>4</td>
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<tr>
<td>Guinea</td>
<td>NA</td>
<td>0</td>
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<tr>
<td>AFR</td>
<td>21-Aug-16</td>
<td>4</td>
</tr>
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<td>Pakistan</td>
<td>03-Nov-16</td>
<td>21</td>
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<td>Afghanistan</td>
<td>12-Oct-16</td>
<td>13</td>
</tr>
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<td>EMR</td>
<td>03-Nov-16</td>
<td>34</td>
</tr>
<tr>
<td>Lao People's Democratic Republic</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>WPR</td>
<td>NA</td>
<td>0</td>
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<tr>
<td>Global</td>
<td>03-Nov-16</td>
<td>38</td>
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\textsuperscript{1}Excludes viruses detected from environmental surveillance

\textsuperscript{2}In Nigeria, 1 cVDPV2 from a healthy child contact of WPV1 case

\textsuperscript{3}Onset of paralysis 30 November 2015 – 29 November 2016

Guinea
cVDPV2: 14 Dec 2015

Nigeria
WPV1: 21 Aug 2016
cVDPV2: 28 Aug 2016 (healthy child)

Afghanistan
WPV1: 12 Oct 2016

Pakistan
WPV1: 03 Nov 2016

Lao PDR:
cVDPV1: 11 Jan 2016

Data in WHO HQ as of 29 November 2016
Pakistan – Afghanistan

Lowest number of cases ever in the epidemiological block
AFG-PAK epidemiological block: WPV1 by genetic cluster, 2016

Three 'corridors' of cross border transmission:
- Nangarhar/Kunar - Khyber/Peshawar
- Paktika - FATA / KP (Bermel outbreak)
- Kandahar/Helmand – Balochistan (Quetta block)

Poliovirus transmission - 2016
- PAK ES and AFP results still show widespread transmission. No positive ES from Afg in 2016.
- 5 separate VDPV type 2 events from PAK: Quetta (4, pending mOPV2 response), Hyderabad (fIPV response), Lahore (iVDPV).

Genetic sequencing - virus clusters, 2016:
- Diminishing number of chains of transmission - decreasing number of active virus clusters from 2015 (8) to 2016 (7)

Most recent cases - AFG: 12 Oct., PAK: 3 Nov.
Pakistan- Afghanistan Epidemiological Block

• Situation improved; decreased cases & +ve Environ. Samples
• Strong Emergency Operation Centers (EOCs)
• Strong coordination between the two national programs
• National Emergency Action Plans (2016-2017) operationalized and kicked off

Concerns:

– Deteriorating access in north-east Afghanistan (Kunduz)
– Outbreak in south KP / FATA – southeast Afg. Block
– Weaknesses in surveillance at district level in Pakistan
– Remaining quality problems in Northern Sindh and Karachi
Nigeria + Lake Chad
WPV Outbreak in Borno State, Nigeria

- 4 WPV1s reported in Borno in the last three months – all ‘orphan viruses’
- 2 cVDPV2 isolated – also ‘orphan viruses’
- Represents hundreds of infections, and years of missed transmission
- All cases related to areas where the polio program stopped immunizing 2+ years ago because of inaccessibility due to Boko Haram threat
- Regional public health emergency
- Coordination established in N’djamena with 5 governments
- 5 Rounds of Multi-country outbreak response targeting over 40 million children being completed (5th round this week)
Strategies for reaching every child
Only 9 of 27 LGAs have been accessible consistently;

- Estimated population 2.6-2.8 Mio (~600K under 5)
- 2 LGAs remain completely off limits – Abadam and Marte

**Strategies to reach children:**

- Fire walling, Permanent Health Teams, Vaccination in International Border and Permanent Transit points, Hit and Run, Vaccination in IDP camps, etc.

**Strong linkages with Humanitarian response**

39% of settlements in Borno inaccessible (Oct/16)
Findings from Nigeria polls identify risks to community acceptance

Compared to other states, caregivers in BORNO were less likely to give child polio drops every time (Poll 2015)

Caregivers in Borno in 2015 were 24% less likely to give child polio drops every time compared with a year earlier.
Borno Response: focus on communication

- Rapid scaling up of Volunteer Community Mobilization (VCM) Network from 800 to 2,100 female social mobilizers, expanding area of work from 13-23 LGAs
- Variety of community influencers engaged (teachers, Ulema Chief imams, mosque imams, wives of Tsangaya school teachers) to reduce non-compliance and accompany vaccination teams to reduce missed children during campaigns
- Follow-up between rounds to reach missed children and tackle non-compliance
- Screen malnourished children and refer them to health centers (130,500 children screened in Oct)
- Social mobilizers deployed in camps to support IDPs from the inaccessible areas
Scale up of social mobilization networks
January 2013 – September 2016

Source: UNICEF/WHO Monitoring

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<tbody>
<tr>
<td>Nigeria</td>
<td>4,906</td>
<td>14,169</td>
<td>17,458</td>
<td>26,092</td>
<td>32,407</td>
<td>40,854</td>
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<tr>
<td>Pakistan</td>
<td></td>
<td>1,694</td>
<td>2,783</td>
<td>6,732</td>
<td>12,895</td>
<td>15,842</td>
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<tr>
<td>Afghanistan</td>
<td></td>
<td></td>
<td>1,558</td>
<td>4,492</td>
<td>5,466</td>
<td>8,000</td>
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</table>

Source: UNICEF/WHO Monitoring
Learning the lessons from Nigeria

Ensuring there are no more undetected reservoirs
Conflict-related access limitations

Potential risk
Medium risk/partially accessible
High risk/inaccessible

Source: United Nations Department of Safety and Security, August 2016
Risk of outbreaks following PV importation

% of AFP cases aged 6 to 59 mo with 0-2 OPV doses, last 12 months (5 Oct '15 to 4 Oct '16)

Need to look 'beyond indicators'
- Cohort of susceptible children in specific groups (IDPs, Refugees, ‘locked in’ groups, etc...)

Additional surveillance initiatives
- Mapping inaccessible settlements
- Expansion of env. surveillance
- Geocoding of AFP cases
- Community involvement

Additional SIAs initiatives
- Hard to reach strategies
- Permanent Transit Point Vaccinations,

Long period of missed transmission despite 'good' indicators

1.6 millions IDPs & 882,200 refugees
2.6 millions displaced

Less than 10%
10 - 19.99%
20% or more
Denominator is less than 10

Data source: WHO Database; Last updated 05 Oct 2016
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4. Legacy Planning
The OPV switch

Globally coordinated switch was a success!!

- Global switch occurred **17 April to 1 May 2016**
- All 155 countries/territories using tOPV switched to bOPV in a synchronised manner

Vaccine parade during Vaccination Week in the Americas - Guatemala

e.g. Haiti, Sierra Leone, South Sudan, Philippines, Myanmar, Madagascar

tOPV tombstone in Myanmar
Type 2 Poliovirus: need to stay vigilant!

23 VDPV2 events since the Switch (chronological order of lab notification)

23 VDPV2 events since the Switch (chronological order of lab notification)

1. Egypt
2. Nigeria – Borno 1 (envir. sample) + Lake Chad region: Niger, Chad, Cameroun
3. Kenya
4. Syria
5. DRC
6. India - Telangana 1
7. Nigeria - Jigawa
8. India - Kolkata
9. India – Delhi
10. India - Telangana 2
11. Pakistan – Balochistan, Quetta 1
12. Pakistan - Sindh
13. Ukraine - Odessa
14. Yemen - Aden
15. Palestine - Bethlehem
16. Nigeria – Borno 2 (healthy child) + Lake Chad region: Niger, Chad, Cameroun
17. Afghanistan - Paktika
18. Pakistan – Balochistan, Quetta 2
19. Russia – Moscow
20. Pakistan – Punjab
21. Pakistan – Balochistan, Quetta 3
22. Nigeria – Sokoto (AFP case) + neighbouring Niger districts
23. Somaliland - Togdher

mOPV2 released by WHO DG

fIPV campaign
Countries using IPV vaccine

105 Countries have introduced since January 2013

Data source: WHO/IVB Database, as of 13 October 2016

Map production Immunization Vaccines and Biologicals (IVB), World Health Organization

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. ©WHO 2016. All rights reserved.
IPV supply continues to decline due to production issues with both suppliers, now impacting Tier 1 and 2 countries.

A total of 18 million doses delivered to endemic countries for SIAs (≈15% of total supply).
Impact of the IPV supply Gap

• Tier 3 and 4
  • **Introductions delayed** in 21 countries (Tier 3 & 4)
  • **Forced stockouts** in 29 countries

• Tier 1 and 2
  • Latest supply reductions have led to impacts on higher risk countries
    • **As of Q1 2017 re-supply to routine programmes will be delayed**
      • 13 Tier 2 countries (3 months)
      • 4 Tier 1 countries (2 months)
  • Supply is expected to improve in 2018
mOPV2 : Supply status as of November 2016

- Total doses delivered since April 2016: 14 million doses (Nigeria/Lake Chad, Pakistan)
- Upcoming deliveries: 46.2 million doses (DG endorsed 25 November and 3 December) (Nigeria)
- Lead time for conversion: 12 months (369 million type 2 bulk doses remaining)
Securing sufficient OPV until certification

Demand projections historically too low; Additional awards required

Awards

- Initial awards of 5.2Bds based on programme forecasts, leaving un-awarded quantities for 2017
- Following supply constraints in 2013, moving from awards based on forecasts to maximizing supply capacity (2013-2015)
- 10 sequential awards since 2012 allowing to meet all demand due to:
  - Sufficient bulk was available
  - Allowing for production lead times (3-12 months)
- Increasing total awards by 42% to 7.4Bds
Current trajectory towards OPV cessation

- Continued OPV immunization for three years after last case
- OPV cessation 12 months after certification of polio eradication with some pre-cessation immunity boosting campaigns
- Given 24 months OPV production lead times, to ensure sufficient supply decisions are required 2 years in advance of cessation

Procurement objectives

- Sufficient supply to meet demand through to eradication and cessation
- To facilitate cessation of the OPV vaccine market in a responsible manner while maintaining affordability

Key risks

- Lack of clarity on annual demand and duration of demand (3.2 to 5.2 billion doses)
- Delays in eradication and cessation due to ongoing transmission
- Market exits from vaccine manufacturers to protect their investments - supply will not be available beyond 2022!

Expected tender ask

- Financial guarantees and risk sharing likely to be required by manufacturers to secure sufficient supplies through to eradication
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24 countries have reported hosting 58 designated Poliovirus-Essential Facilities (PEFs)

Source: WHO Database; Last updated 11 Nov 2016
Phase II: reduce risk in remaining facilities:

<table>
<thead>
<tr>
<th>Phase II: reduce risk in remaining facilities:</th>
<th>0 facilities certified against GAPIII</th>
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<tbody>
<tr>
<td>Containment Advisory Group (CAG):</td>
<td>• Address technical concerns, including guidance for completion of Phase I</td>
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<td>• Group being established through open call for nomination</td>
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<td>GCC Containment Working Group (GCC CWG)</td>
<td>• Supports the Global Certification Commission with expert review of countries dossiers</td>
</tr>
<tr>
<td></td>
<td>• Group being established</td>
</tr>
<tr>
<td>GAPIII Containment Certification Scheme (CCS)</td>
<td>CCS supersedes GAPIII, Annex 4:</td>
</tr>
<tr>
<td>• Certificate of participation</td>
<td>• Verification of containment is a national responsibility</td>
</tr>
<tr>
<td>• Interim certificate of containment</td>
<td>• Submission of dossier to Global Certification Commission CWG</td>
</tr>
<tr>
<td>• Certificate of containment</td>
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Post-certification Strategy

**Purpose:** Define how a polio-free world will be sustained

- **Four goals:**
  - **Goal 1: Contain Polio Sources**
    - Ensure potential sources of poliovirus are properly controlled or removed
  - **Goal 2: Detect and Respond**
    - Detect any poliovirus introduction and rapidly respond to prevent transmission
  - **Goal 3: Protect Populations**
    - Immunize current and future populations against unanticipated polio events
  - **Goal 4: Manage Effectively and Monitor**
    - Ensure polio is embedded in existing or develop new mechanisms to sustain the goals of polio post-certification

**Development process:** GPEI-led but highly inclusive; approximately one year

**Relationship to transition planning (TMG):**
- This strategic plan defines the future state (technical and programmatic) for a polio-free world. The TMG will coordinate the implementation of the Post-certification Strategy.
Post-certification Strategy: DRAFT

High-Level Timeline

<table>
<thead>
<tr>
<th>Sep 16</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan 17</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<tbody>
<tr>
<td>SC meeting, 09 Sep</td>
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<td>WHO EB, 25-30 Jan</td>
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<td>SAGE, 25-27 Apr</td>
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<td>MGs retreat, 15 Sep</td>
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<td>WHA, 15-20 May</td>
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<td>SAGE, 18-20 Oct</td>
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<td>TIMB, 15 Nov</td>
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<td>PPG, 05 Dec</td>
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Key Dates/Events
- SC meeting, 09 Sep
- MGs retreat, 15 Sep
- SAGE, 18-20 Oct
- TIMB, 15 Nov
- PPG, 05 Dec
- POB, 09 Dec
- WHO EB, 25-30 Jan
- WHA, 15-20 May
- SAGE, 25-27 Apr
- SAGE, 17-19 Oct
- POB, TBD

Concept and Scoping
- Gather & Develop
- Consultation 1
- First draft, end-Apr
- Revise
- Second draft, 30 Jun
- Consultation 2
- Revise
- Third draft, 30 Sep
- Consultation 3
- Refinement
- Final Materials
- Final Version, end-Nov
Programme Priorities

Next 6 months
Priorities

1. **Interrupt transmission in 3 endemic countries**
   - Response to Nigeria outbreak in all 5 Lake Chad basin countries
   - Continued support to Pakistan and Afghanistan to implement all NEAP activities
   - Implement effective outbreak response

2. **Tighten surveillance everywhere with a focus on security compromised and IPV deprived countries:**
   - Surveillance gaps
   - Careful management of IPV supply

3. **Intensify progress with containment**
   - Scientific guidance (CAG)
   - Launch of Certification process (CCS)

4. **Maintain momentum on transition planning**
   - Internal Agencies processes
   - Ramp down of country budgets, taking into account necessary pause for Lake Chad

5. **Political advocacy and resource mobilization**
   - Including to sustain efforts in non endemic countries
Thank you