Report of the Polio WG Meeting
20-21 February 2018

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World Health Organization

Polio WG Discussions: Objectives

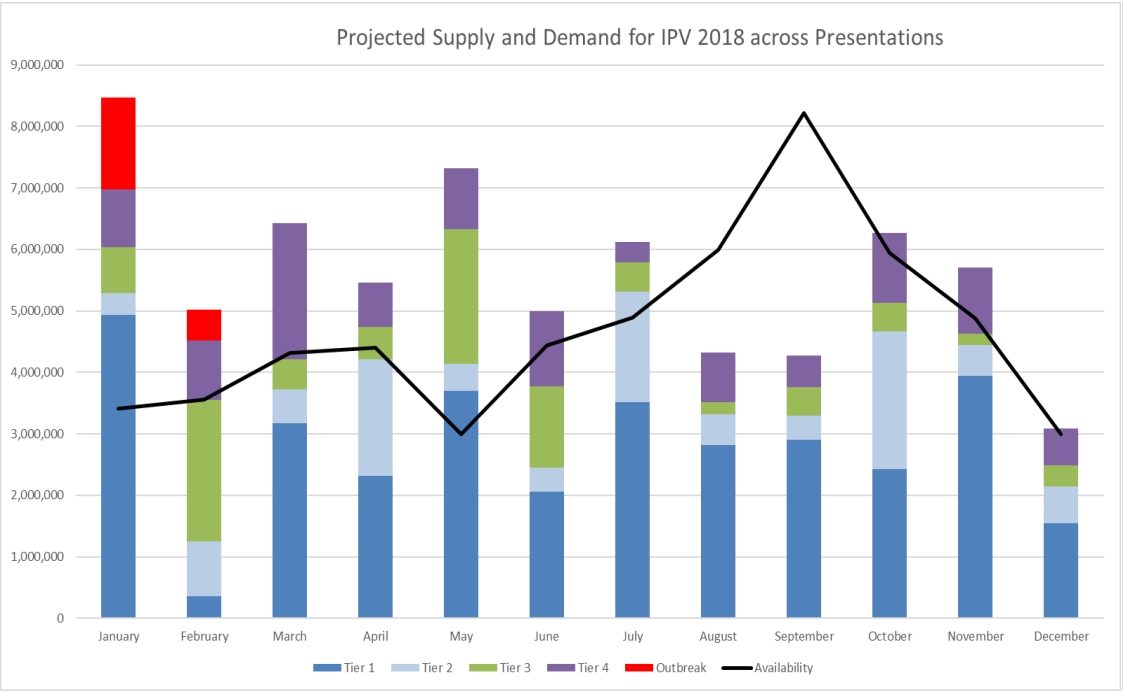
- To review progress towards global polio eradication and endgame strategy
  (including IPV supply and rationale for use of fIPV)
- To harmonize the recommendations of SAGE and GAP III on post-eradication polio immunization schedule
- To review the VDPV outbreak response protocol
- To review the proposed Polio Post-Certification Strategy
- To review criteria for certification of poliovirus eradication

Progress towards eradication and IPV Supply

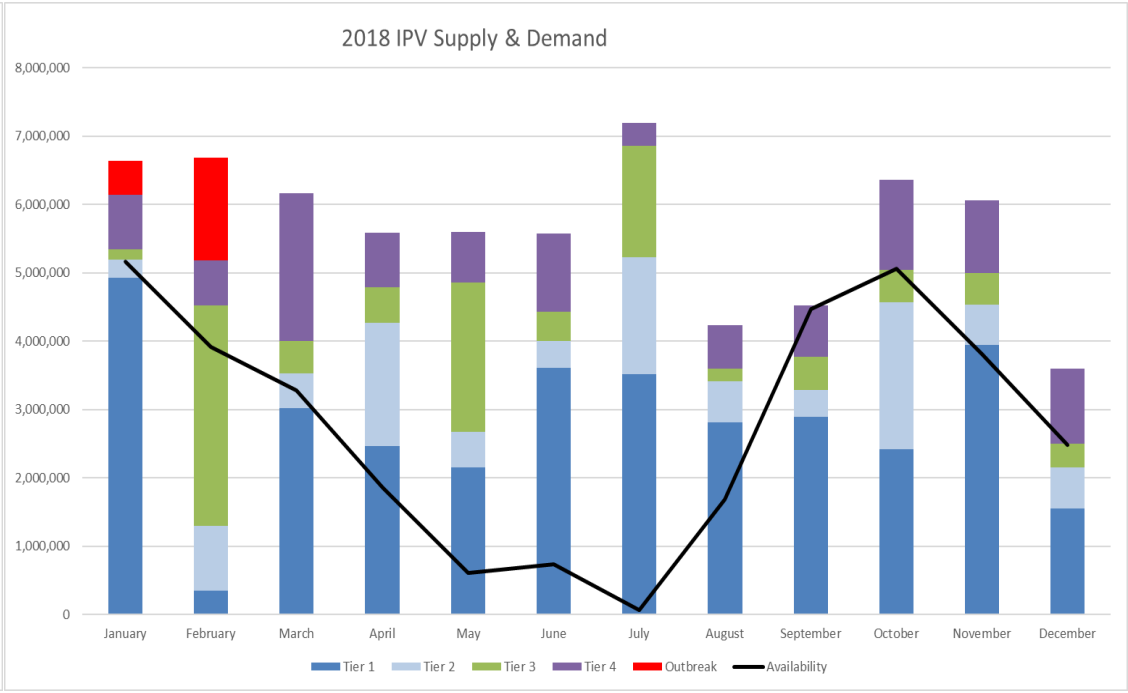
- The WG expressed concern over continuing WPV transmission in Pakistan and Afghanistan through the active corridors of transmission; and lack of access, supervision and monitoring
  - Decrease in WPV1 cases in Pakistan despite consistent detection in environment
  - Need to reach remaining pockets of under-immunized children (mobile population)
- Need for high quality AFP surveillance in high-risk areas
- Consider innovative targeted strategies such as testing stool in healthy children leaving the conflict area (as done in Nigeria).
- Expand environmental surveillance in high risk areas
- Significant progress made in controlling the cVDPV2 outbreak in Syria
- Noted the efforts of UNICEF to manage the IPV supply

Continued Changes to Supply Availability is buffered by delay in some Country Introductions after April

January 2018



February 2018



- IPV supply deteriorated between Jan and Feb 2018: from a comfortable buffer to mid year constraints
- Sufficient to introduce IPV globally in 2018 but not to conduct catch up campaigns for missed cohorts
- 2M doses of IPV set aside as outbreak response 'reserve' stock for 2018; and in case of supply shortages
- 1.1M doses remaining after deliveries to Syria and Somalia related to IPV campaigns

EPI POLIO GLOBAL ERADICATION INITIATIVE

Rationale for use of Fractional IPV

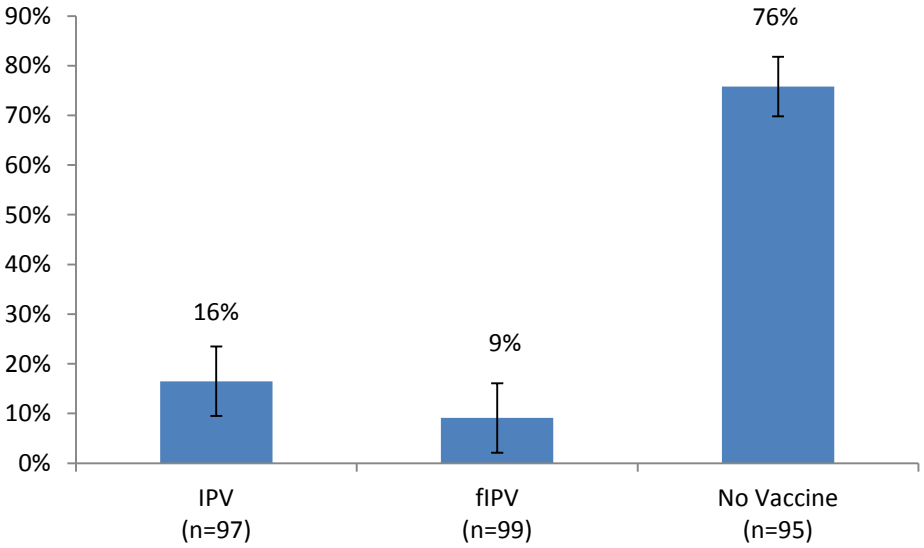
WG again reviewed available data on fIPV and concluded that:

- Two doses of fIPV are superior to one full IPV dose
- Mucosal boosting in persons previously vaccinated with OPV is equal after either full or fractional IPV
- No safety signals were detected in relation to fIPV use

WG:

- Does not endorse use of IPV for outbreak response.
- However, in specific instances (such as co-circulation of VDPV2 and WPV1) IPV may be beneficial for its boosting response (humoral and mucosa) in individuals who had been OPV vaccinated.
- In these specific cases, the WG strongly recommends to only use fIPV.
- Those countries that are willing to use fIPV in Routine Immunization should be encouraged to do so given the global shortage of IPV.

Prevalence of children who excreted any poliovirus serotype at any point following tOPV challenge



Decreases in excretion prevalence:

88% after fIPV
80% after IPV
compared with the "No IPV Vaccine" control arm

Excretion following tOPV challenge in fIPV and full-dose IPV boosted OPV-vaccinated children, Sri Lanka

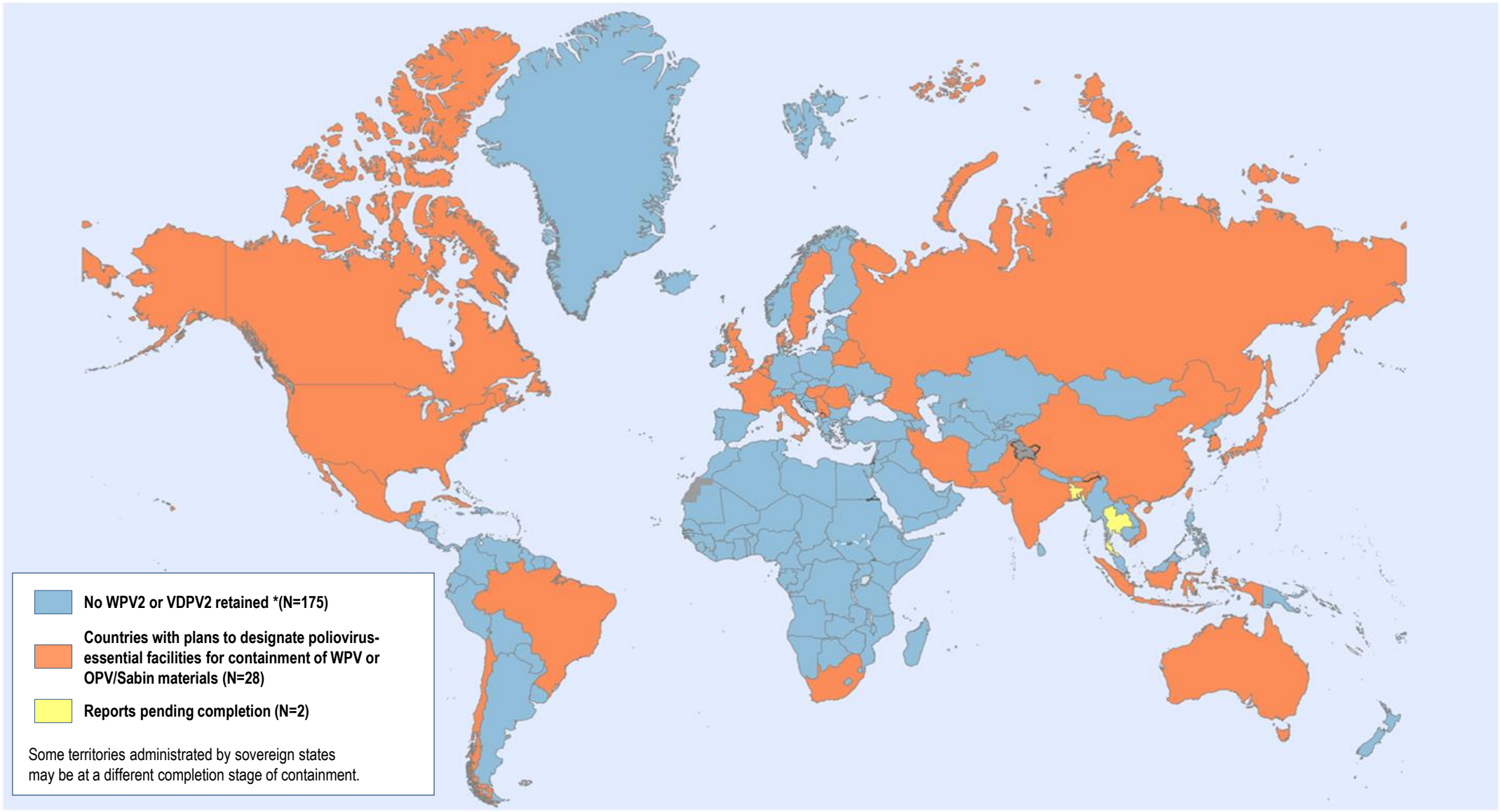
Stool specimens collected at 3, 7 and 14 days following tOPV challenge

One fractional-dose IPV (1/5 of a full dose) administered intradermally is equally effective as full-dose IPV in boosting mucosal immunity in children with previous exposure to live poliovirus

Harmonizing recommendations on post-eradication polio immunization schedule (1/2)

- The WG endorsed the proposal to harmonize IPV schedule for countries hosting PEFs, and recommended the same schedule, coverage targets and geographical scope for PEFs storing or manipulating Sabin/OPV or WPV
  - The WG recommended a routine schedule of 2 IPV doses (full or fractional)
  - 1st dose administered at 4 months and 2nd dose at an interval of at least 4 months after the 1st dose
  - Maintain high population immunity of ≥90% of IPV2 coverage in infants in the area surrounding the PEF defined as within a 100km commutable distance from the PEF
  - The WG recommended that beyond the immediate zone of 100km, the GVAP target should be maintained (90% national coverage and 80% in every district or equivalent administrative unit with all vaccines in national programs, unless otherwise recommended)

29 countries plan to retain poliovirus materials* in 91 designated PEFs



Includes WPV/cVDPV and OPV2/Sabin

Data reported by WHO Regional Offices as of February 2018 and subject to change

*for the Americas, this includes WPV - and cVDPV types 1 to 3

Examples: China & India

Hebei Province

Location of Hebei Province

- **Area:** 190,000 square km
- **Population:** 71.85 million (2010)
- **Capital City:** Shijiazhuang

Radius 100 km

Example: PEF Ranking Results by Criteria and Country

	Risk Factor 1	Risk Factor 2		Risk Factor 3	Risk Factor 4		Outcome	
Country	WPV/VDPV = 10 pts	High content+high volume = 7 pts High content+low volume = 4 pts		POL3 ≤90% = 5 pts	% sanitation access <95% = 5 pts		Score	Rank
Australia (WPV, Sabin)	10						10	2
Belarus (WPV, VDPV)	10				✓	5	15	1
Belgium (WPV, Sabin)	10	✓	7				17	1
Belgium (WPV, Sabin)	10	✓	7				17	1
Belgium (Sabin)							0	3
Belgium (Sabin)							0	3
Belgium (Sabin)							0	3
Brazil (WPV, Sabin)	10				✓	5	15	1
Brazil (WPV, Sabin)	10				✓	5	15	1
Canada (WPV)	10	✓	7				17	1
Canada (WPV)	10						10	2
Canada (Sabin)							0	3
Canada (Sabin)							0	3
Chile (Sabin)							0	3
Chile (Sabin)							0	3
Chile (Sabin)							0	3
China (WPV, Sabin)	10				✓	5	15	1
China (Sabin)		✓	7		✓	5	12	2
China (Sabin)		✓	7		✓	5	12	2
China (Sabin)		✓	7		✓	5	12	2
China (Sabin)		✓	7		✓	5	12	2
China (Sabin)		✓	7		✓	5	12	2
China (Sabin)		✓	7		✓	5	12	2
China (Sabin)					✓	5	5	3

Rank 1: ≥15 pts

Rank 2: >5 and <15 pts

Rank 3: ≤5 pts

NB: PEFs not yet assigned points for doing cell harvest

Harmonizing recommendations on post-eradication polio immunization schedule (2/2)

The WG strongly urged that countries hosting PEFs

- Have an outbreak plan specifying response to containment breach
- Conduct simulation exercises in the PEF hosting countries and their immediate neighbours
- The WG endorsed the risk ranking proposal proposed by the CWG to assign a risk score to each PEF, categorizing relative risk to polio eradication

VDPV outbreak response protocol

WG reviewed version 2.4 of the protocol and suggested revisions for version 3.0

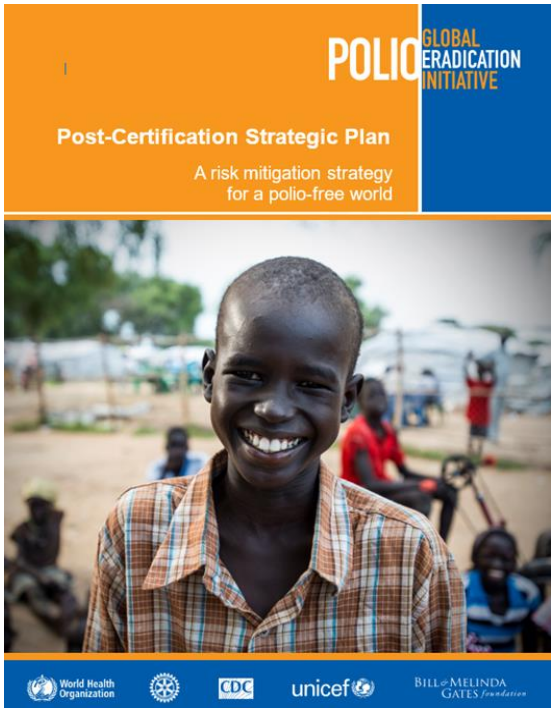
- WG recommended implementation of a high quality timely outbreak response within 14 days of notification.
- The geographic scope may be of smaller scale encompassing the epicenter of the outbreak zone;
- This immediate response will be in addition to, and followed by the timely implementation of high quality SIAs as recommended in the current outbreak response protocol (round 1 within 28 days; round 2 within 6 weeks; mop-up in poorly performing areas within 3 months after date of notification)

VDPV outbreak response protocol

WG reviewed version 2.4 of the protocol and suggested revisions for version 3.0

- The WG recommended the inclusion of the concept of "sentinel event" as part of the broader risk assessment for any event or outbreak:
  - A "sentinel event" may be any event in an outbreak or contiguous area, suggesting the presence of lower population immunity or increased polio risk
  - Every sentinel event must be investigated, and its potential impact included as part of the risk assessment of poliovirus event or outbreak

Post-certification Strategy (PCS)



Purpose: *High-level guidance for maintaining a polio-free world after global certification of wild poliovirus eradication.*

- Functions required to sustain polio eradication
  - Future risks jeopardizing eradication
  - Mitigating strategies
- Global/regional requirements and general country expectations
  - Does not provide detailed national guidance
- Recommendations independent of future ownership
  - Governance, implementation, and resource mobilization plans to be developed with future stakeholders

Post-certification Strategy (PCS)

- The WG ***endorsed*** the content and approach of the PCS document as a high level working document which aims to alert member states and other key stakeholders to the essential functions required to sustain a polio free world after certification of eradication

  – The WG supported the proposal to include a foreword to the PCS, with a statement from high level stakeholders (signed by heads of agencies); emphasizing that the PCS remains a dynamic document

- The WG agreed to have the document shared with SAGE in April 2018 ***for endorsement*** with a view to bring the PCS to the WHA in May 2018

Update on revising criteria for certification of poliovirus eradication

- WG discussed proposed revision of criteria for certification of poliovirus eradication presented by the chair of the Global Certification Commission (GCC):
  - Certification of Wild Poliovirus Eradication will also include pre-conditions related to VDPVs (absence of persistent polio disease due to cVDPV defined as):
    - Detection of cVDPV2 from any population source in the previous 18 months; or
    - Detection of cVDPV1 or 3 from any population source in the previous six months
  - In addition to pre-conditions relating to VDPVs, requirements for poliovirus containment will have to be met and linkage to the PCS will need to be maintained.
- WG noted the proposed changes to the preconditions for certification and requested GCC to maintain communication with other advisory bodies (such as IMB, IHR, CAG)

Summary of Main Recommendations

- The WG ***endorsed*** the content and approach of the PCS document as a high level working document which aims to alert member states and other key stakeholders to the essential functions required to sustain a polio free world after certification of eradication

- The WG endorsed the risk ranking proposal proposed by the CWG to assign a risk score to each PEF, categorizing relative risk to polio eradication

- The WG endorsed the proposal to harmonize IPV schedule for countries with PEFs, and recommended the same schedule, coverage targets and geographical scope for PEFs storing or manipulating Sabin/OPV or WPV

Thank you

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