



## Polio Eradication – Global update

Meeting of the Strategic Advisory Group of Experts

Geneva, 3 April 2019

Michel Zaffran, Director Polio Eradication, WHO

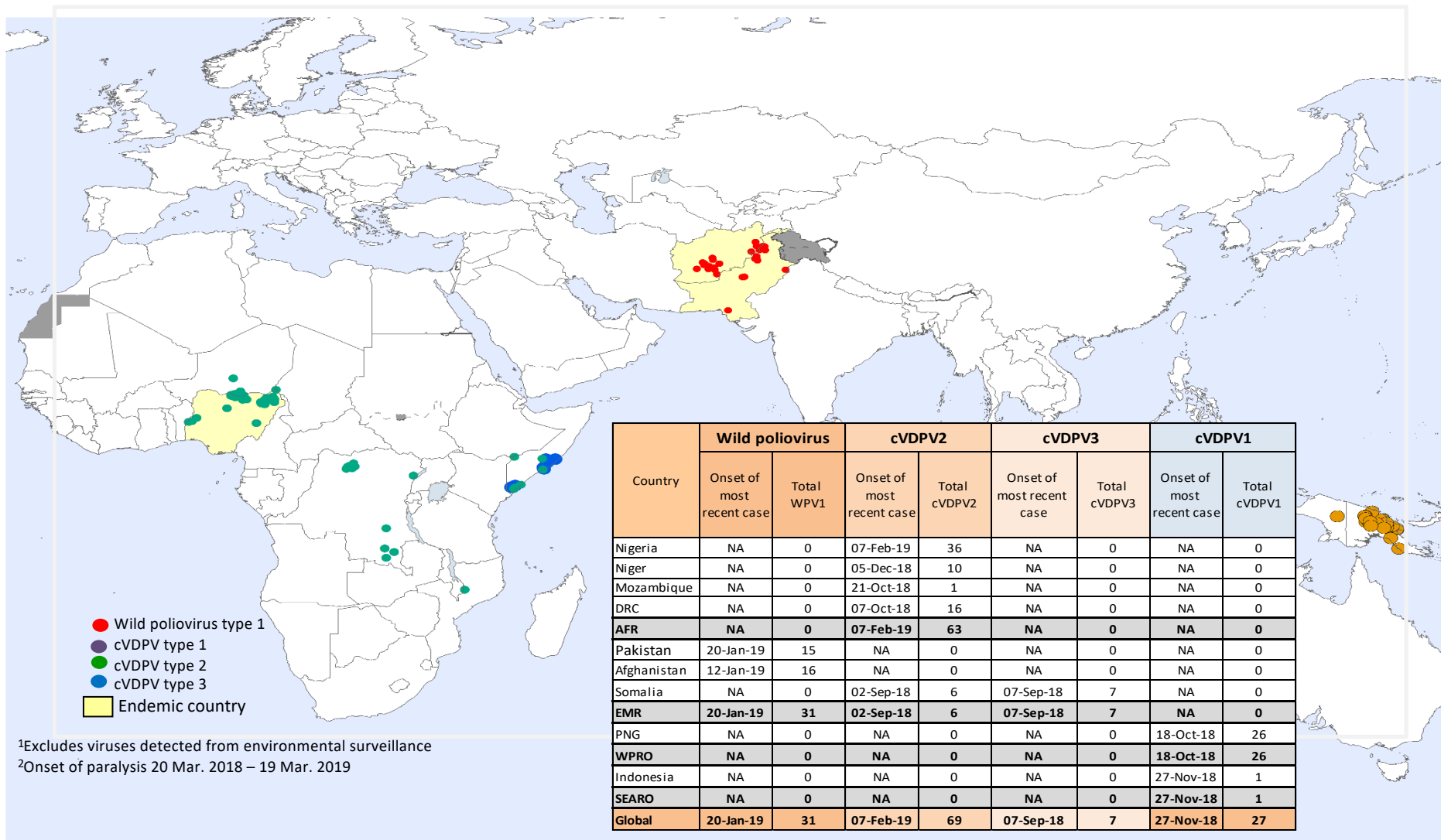


BILL & MELINDA  
GATES *foundation*



# Wild Poliovirus & cVDPV Cases<sup>1</sup>

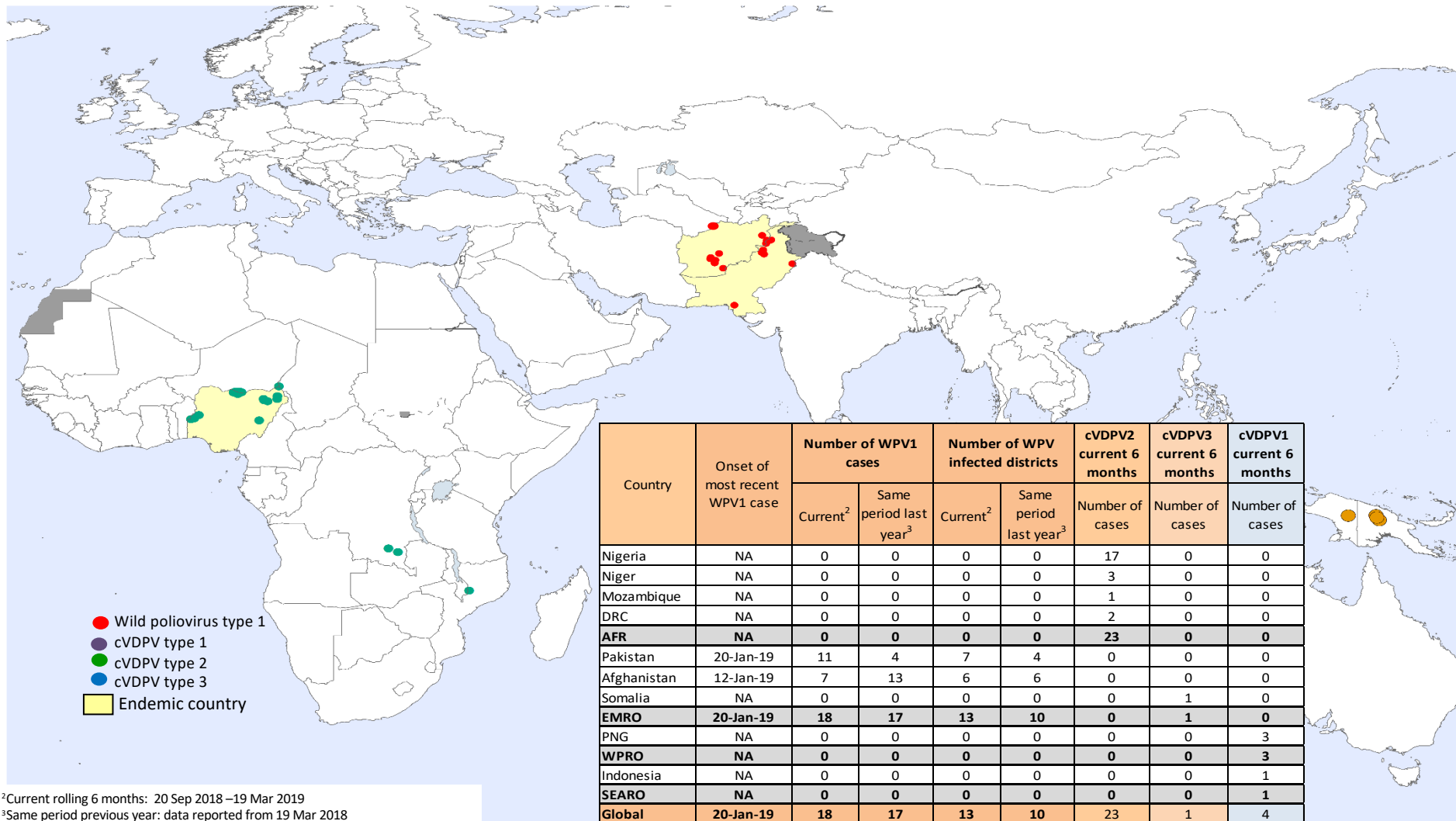
## Past 12 Months <sup>2</sup>



<sup>1</sup>Excludes viruses detected from environmental surveillance

<sup>2</sup>Onset of paralysis 20 Mar. 2018 – 19 Mar. 2019

# Wild Poliovirus & cVDPV Cases<sup>1</sup>, Past 6 Months <sup>2</sup>



<sup>2</sup>Current rolling 6 months: 20 Sep 2018 – 19 Mar 2019

<sup>3</sup>Same period previous year: data reported from 19 Mar 2018

<sup>1</sup>Excludes viruses detected from environmental surveillance

<sup>2</sup>Onset of paralysis: 20 Sep. 2018 – 19 Mar. 2019

# Wild Poliovirus & cVDPV Cases<sup>1</sup>, Past 6 Months <sup>2</sup>

## Public Health Emergency of International Concern

declared under the International  
Health Regulations in May 2014  
Confirmed on 19 February 2019

- Wild poliovirus type 1
- cVDPV type 1
- cVDPV type 2
- cVDPV type 3
- Endemic country

		Current <sup>1</sup>	period last year <sup>3</sup>	Current <sup>2</sup>	Same period last year <sup>3</sup>	Number of cases current 6 months	cVDPV3 current 6 months	cVDPV1 current 6 months
Nigeria	NA	0	0	0	0	17	0	0
Niger	NA	0	0	0	0	3	0	0
Mozambique	NA	0	0	0	0	1	0	0
DRC	NA	0	0	0	0	2	0	0
<b>AFR</b>	<b>NA</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>0</b>
Pakistan	20-Jan-19	11	4	7	4	0	0	0
Afghanistan	12-Jan-19	7	13	6	6	0	0	0
Somalia	NA	0	0	0	0	0	1	0
<b>EMRO</b>	<b>20-Jan-19</b>	<b>18</b>	<b>17</b>	<b>13</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>0</b>
PNG	NA	0	0	0	0	0	0	3
<b>WPRO</b>	<b>NA</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
Indonesia	NA	0	0	0	0	0	0	1
<b>SEARO</b>	<b>NA</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Global</b>	<b>20-Jan-19</b>	<b>18</b>	<b>17</b>	<b>13</b>	<b>10</b>	<b>23</b>	<b>1</b>	<b>4</b>

<sup>1</sup>Current rolling 6 months: 20 Sep 2018 – 19 Mar 2019

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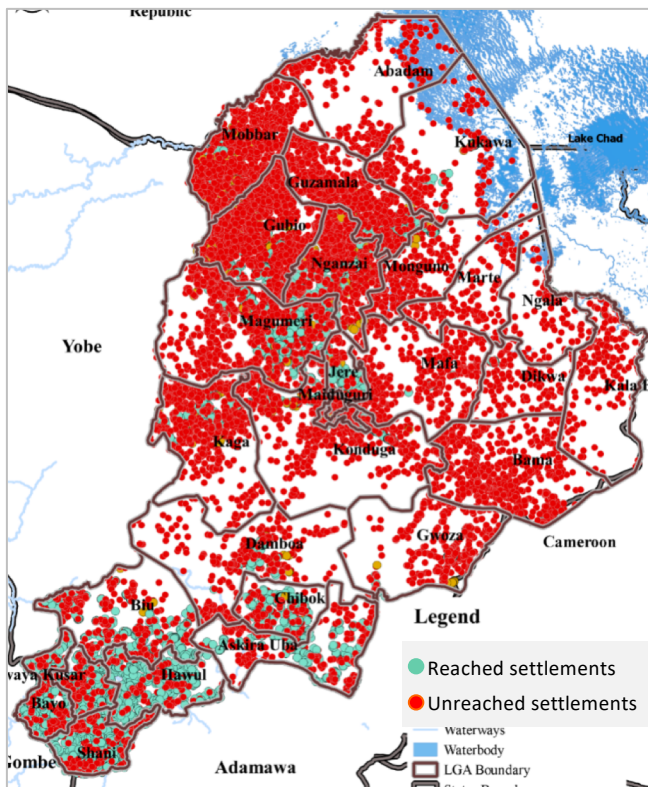
Data in WHO HQ as of 19 Mar. 2019



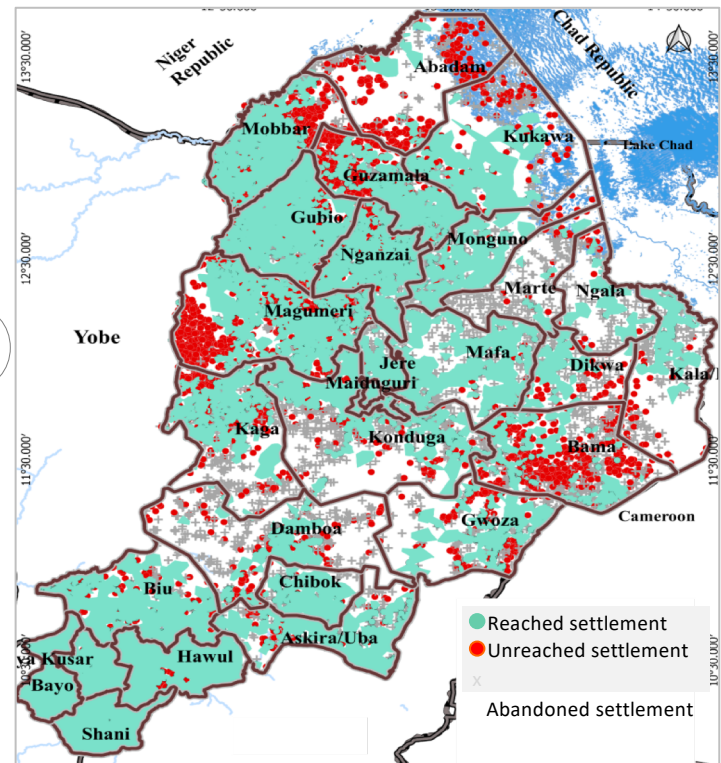
# Wild poliovirus transmission

# Nigeria : No WPV detected in 2.5 years

Vaccination reach map Dec. 2016



Vaccination reach map March 2019

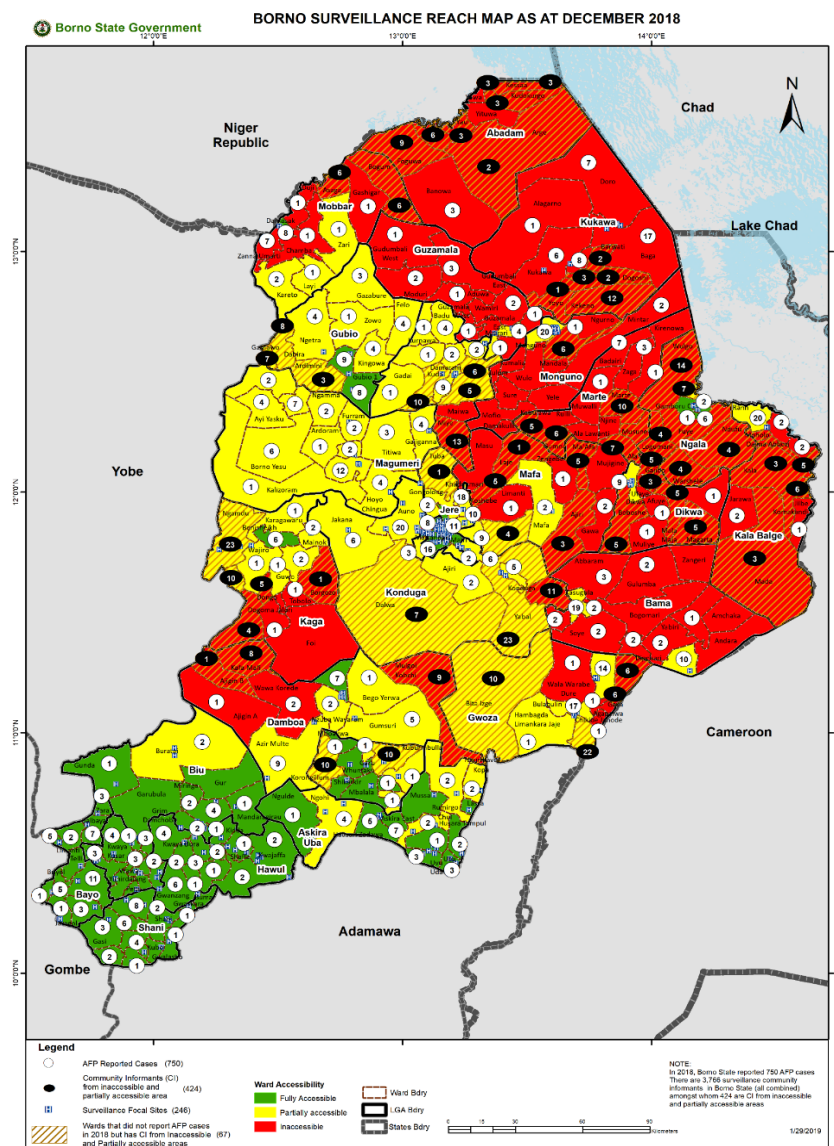


Source: Borno EOC data team analysis

- Last virus 27 September 2016 in healthy child in Borno
- **August 2016, ~ 600,000 children** unreached across over 10,000 communities
- **February 2019, ~ 60,500 children** remain unreached in ~ 3,000 settlements

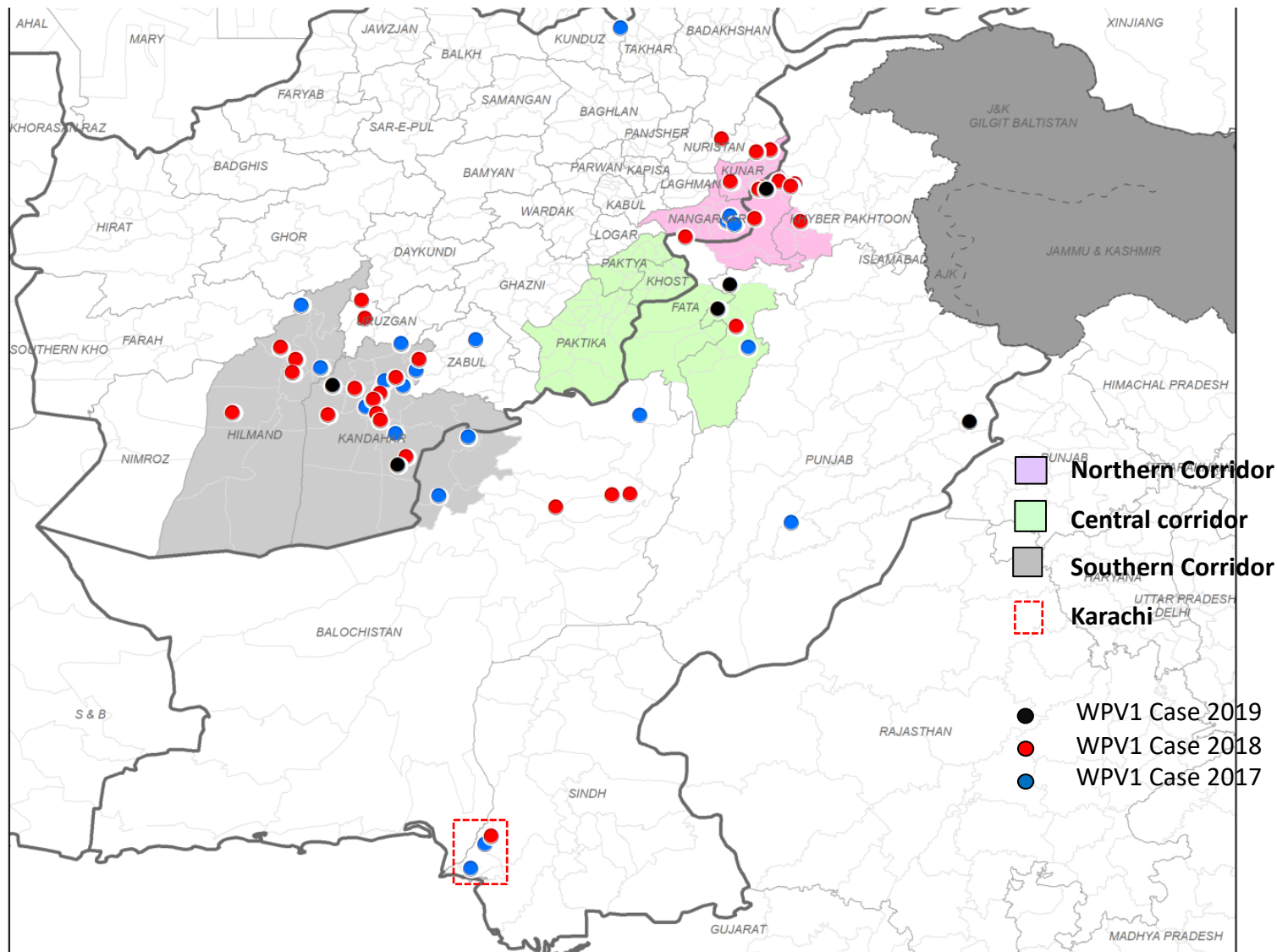
# Surveillance Reach, Borno, 2018

- 16.9% of AFP cases reported in 2018 in Borno State were from security compromised areas, including 6 from the Lake Chad islands
- The program has engaged at least one **community informant** from 61 of the 77 inaccessible non reporting wards
- Abadam (with 3 AFP cases) and Marte (with 12 AFP cases) no longer silent thanks to community informants
- **3 of 5 cVDPV2 AFP** cases in Borno state were from partially accessible areas and reported by community informants



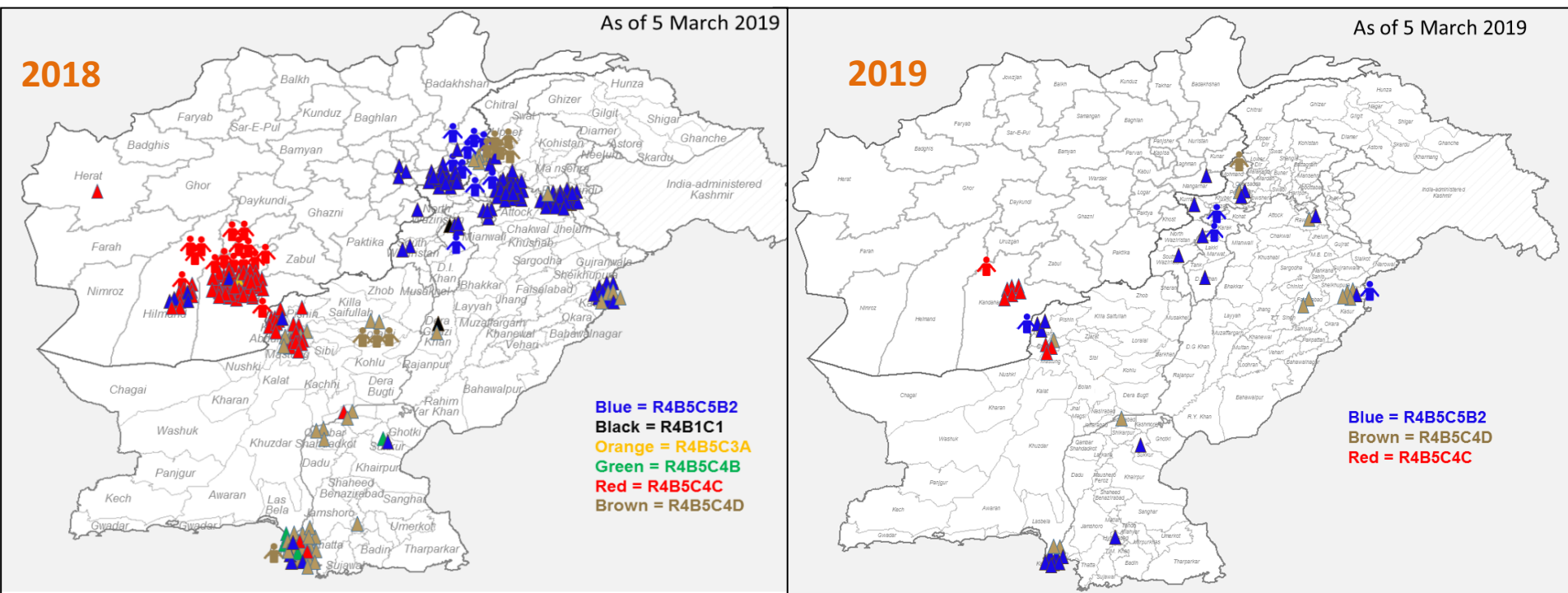
# Pakistan /Afghanistan

## Wild Poliovirus Cases, 2017-2019\*





# WPV1 : AFP Cases & Environment by Cluster, 2018-2019



# Key Challenges and Risks

## Nigeria

- Reduce the number of remaining 61,000 unreached children in Borno;
- Revitalize government interest and attention to finishing polio, while maintaining energy and focus on strengthening routine immunization;
- Polio transition roll out while ensuring critical functions are safeguarded to address priorities

## Afghanistan

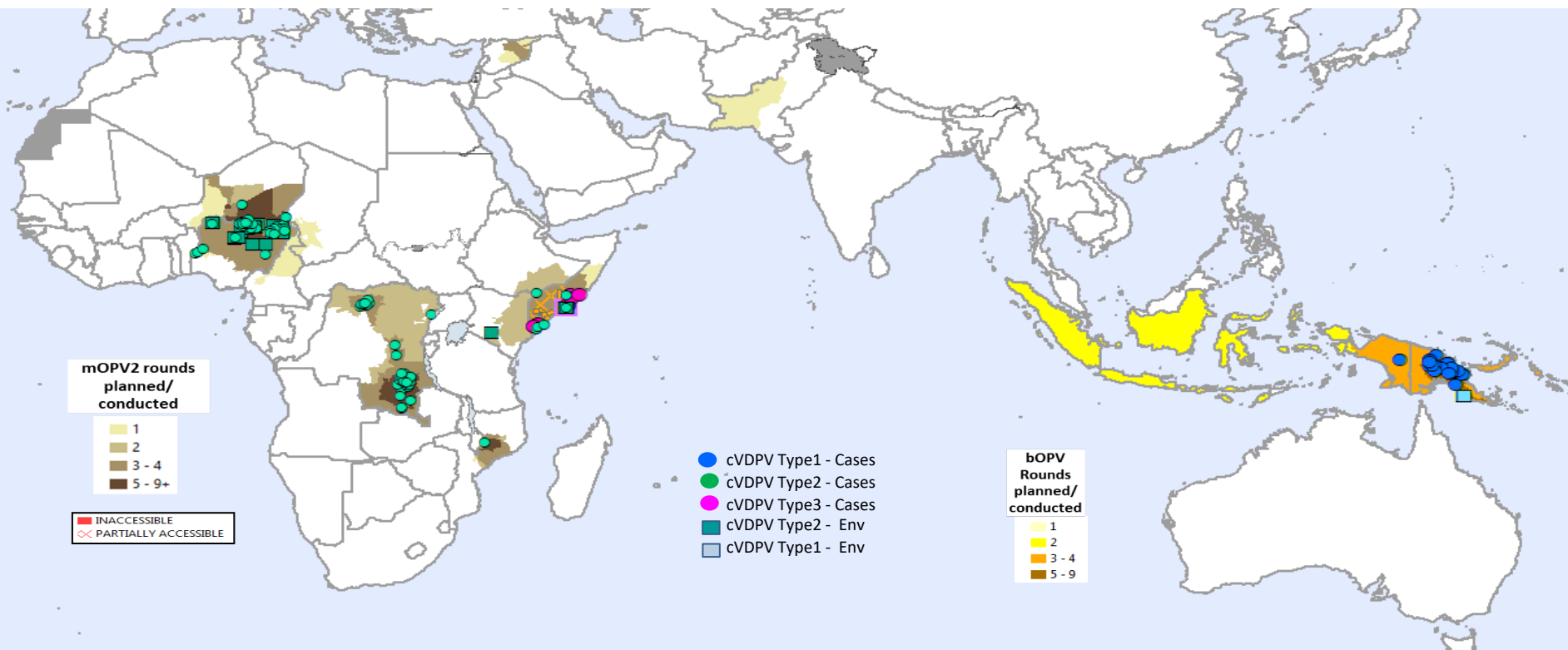
- Ban on house to house campaigns since May 2018 (~1 million children missed); spreading
- Kandahar engine of transmission with triple challenge: Campaign quality, refusal and bans
- Elections, peace talks & spring offensive-changing priorities of AGEs
- Leadership transitions in country
- Sustaining motivation and 'spark' among the staff

## Pakistan

- Government ownership and oversight at all level
- Resources -- Financial gaps/flows & finding right staff for the worst places
- Maintaining motivation and morale in the face of negative print media & social media
- Magnitude of still missed children in core reservoirs of Pakistan due to Low risk perception and community fatigue
- Reaching children through routine immunization and basic health / nutrition / wash services

# cVDPV Outbreaks

# cVDPV Outbreaks



- **DRC cVDPV2**; 4 outbreaks : 42 cases **(7 October)**
- **Horn of Africa (cVDPV2 & 3)** : 12 cases **(11 October)**
- **Mozambique cVDPV2**; 1 case **(21 October)**
- **Papua New Guinea cVDPV1** : 26 cases **(21 October)**
- **Nigeria cVDPV2** ; 36 cases and 10 in Niger **(7 February)**
- **Indonesia cVDPV1** ; 1 case **(27 November)**



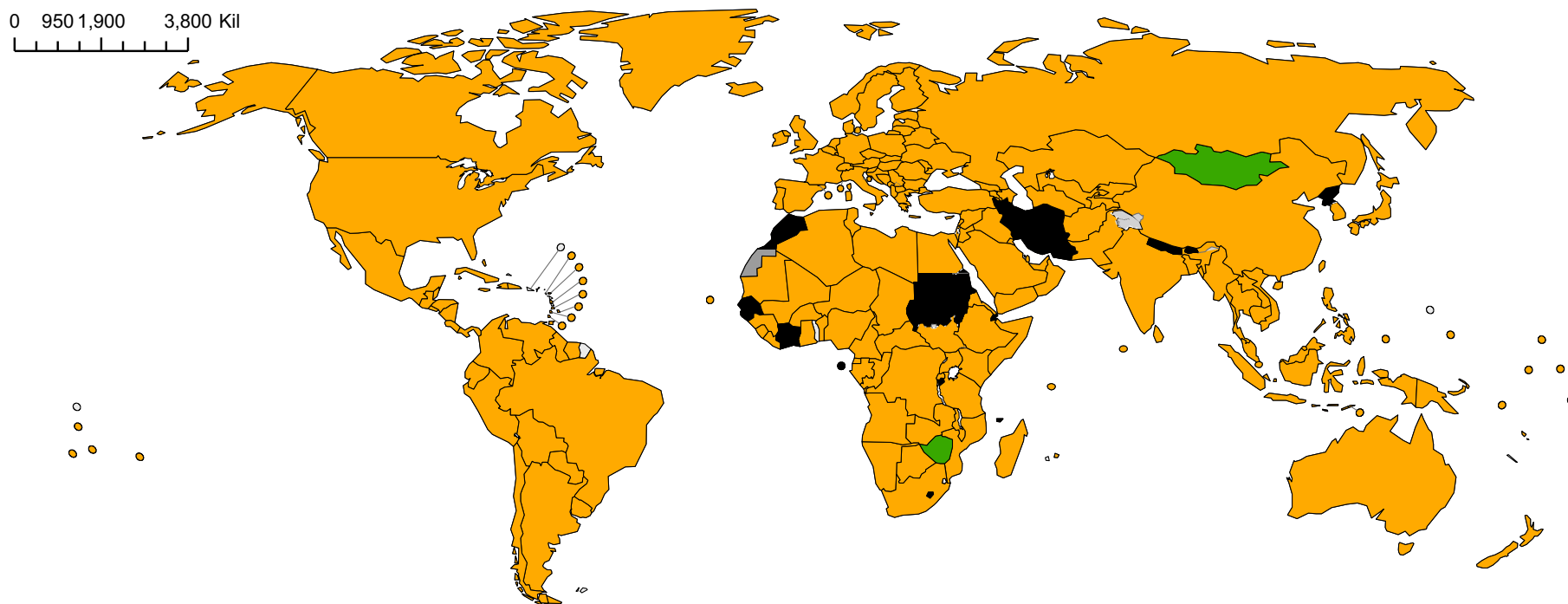
# Polio Eradication and Endgame Strategy

1. Poliovirus detection & interruption
- 2. IPV introduction**
3. Containment & Global Certification
4. Transition Planning



# Countries using IPV vaccine to date

0 950 1,900 3,800 Kil



Two remaining countries **Mongolia and Zimbabwe** to introduce IPV this month

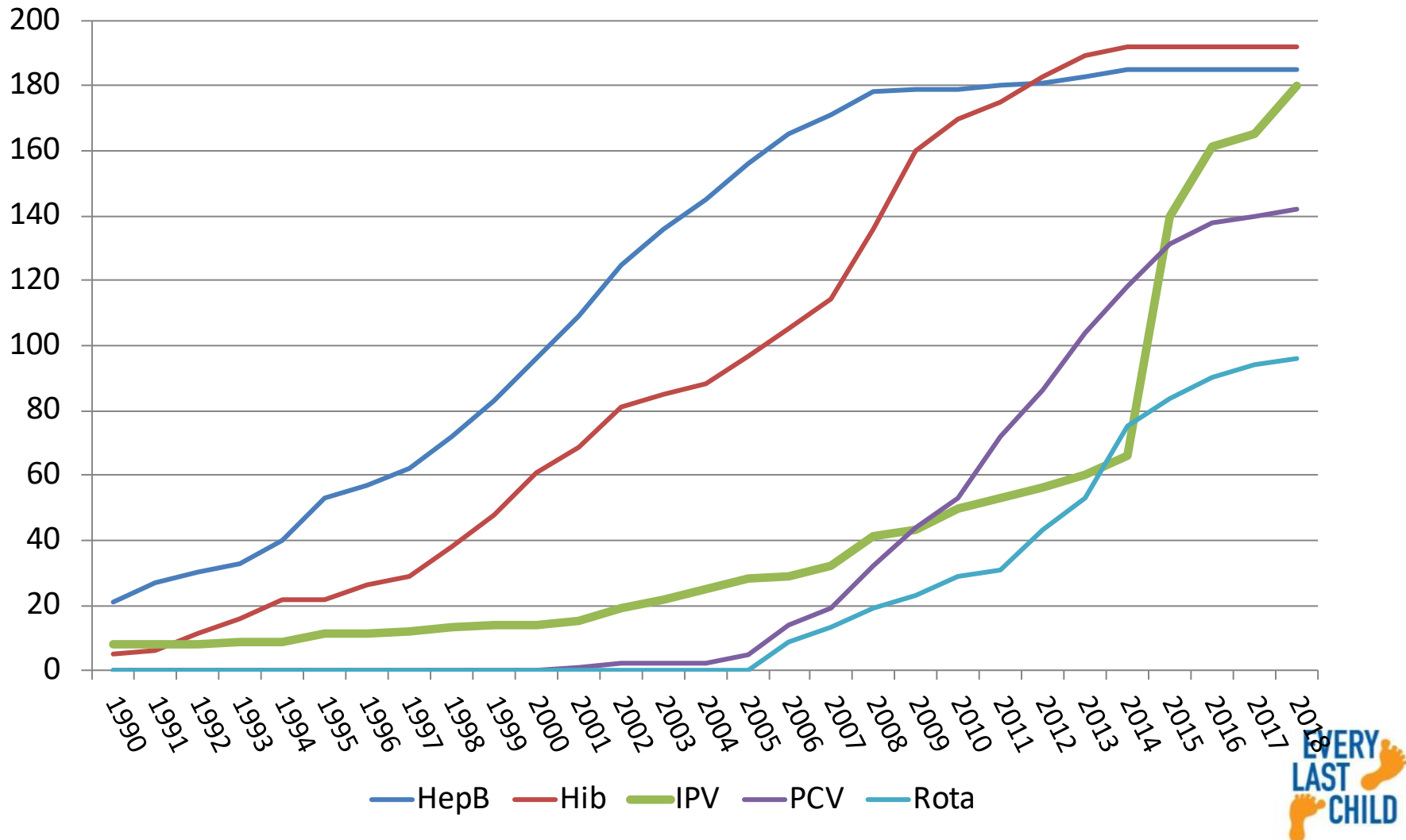
- Introduced\* to date (177 countries)
- Re-introduced (15 countries)
- Formal commitment to introduce in 2018-2019 (2 countries)
- Not available
- Not applicable

\* Including partial introduction in India

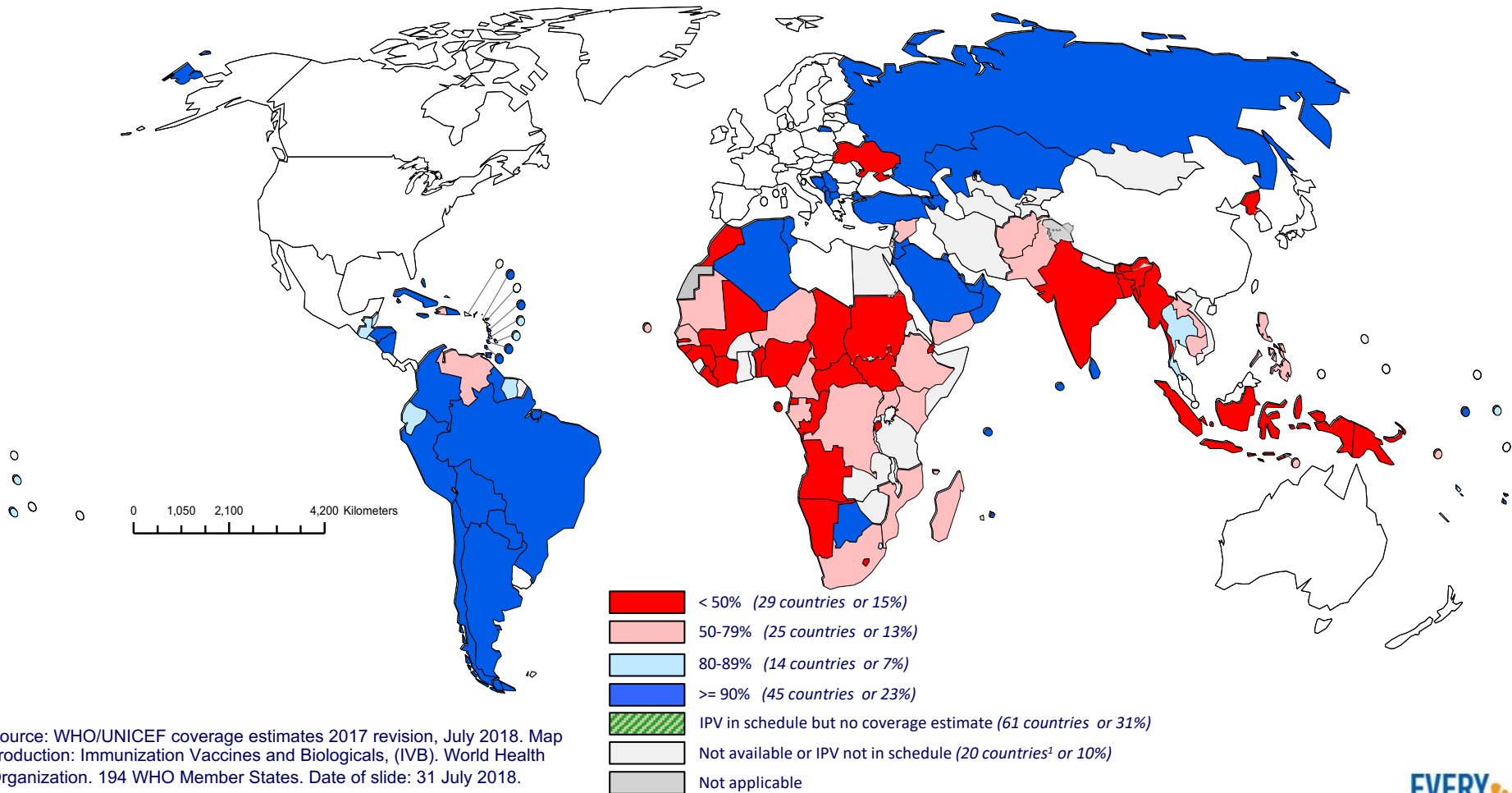
Data source: WHO/IVB Database, as of 11 February 2019  
Map production Immunization Vaccines and Biologicals (IVB), World Health Organization

# IPV introduction

Unprecedented achievement, in spite of supply challenges



# IPV1 Immunization coverage 2017



Source: WHO/UNICEF coverage estimates 2017 revision, July 2018. Map production: Immunization Vaccines and Biologicals, (IVB). World Health Organization. 194 WHO Member States. Date of slide: 31 July 2018.

1. No coverage estimates for Cook Islands and Nepal although countries reported having IPV/OPV in their national immunization schedule.

# Polio Eradication and Endgame Strategy

1. Poliovirus detection & interruption
2. OPV2 withdrawal, IPV introduction, immunization system strengthening
- 3. Containment & Global Certification**
4. Transition Planning



# Global Certification Commission

- **WPV : Certification of the eradication of the wild polio virus** will follow a sequential approach
- **The sequential approach:**
  - WPV type 3 eradication certification
  - Certification of WPV1 eradication (~ 3 years after last WPV1 detection)
- **cVDPVs : Validation/verification** of absence of each type of cVDPV after total withdrawal from use of the type-specific oral polio vaccine

# Certification of WPV3 eradication

**GCC confirms that WPV3 can be certified as eradicated, based on current surveillance data and modelling**

**Asia** : Last case in the FATA, Pakistan (April 18, 2012) ; last environmental isolate in Karachi, Pakistan, October 7, 2010)

**Africa** : Last case in Yobe, Nigeria, (November 10, 2012 ) (last environmental isolate in Lagos, Nigeria, November 11, 2012)

- Process initiated
- Regional Directors AFRO and EMRO requested to seek member states validation of available WPV3 data
- For regions already certified, RCC's requested to reaffirm absence of WPV3
- Process NOT linked to OPV3 withdrawal



# Poliovirus Containment

## Major Activities

### The Polio Endgame Strategy (2019 – 2023)

Achieve & sustain containment of polioviruses in laboratories, vaccine manufacturing and other facilities

**Reduce number of facilities storing and handling poliovirus**

- Finalize national poliovirus surveys and inventories for all WPVs + Sabin 2 viruses as per defined quality standards
- Remove all poliovirus materials from facilities not designated as PEFs

- Develop quality standards for verification of national poliovirus surveys and inventories
- Advocate to avoid excessive designation of Polio Essential Facilities (PEFs)

- Further reduce the amount of required PEFs as research developments<sup>1</sup> and vaccine requirements allow
- Maintain and regularly update a global inventory of PEFs

**Implement and monitor safeguards for long term containment of poliovirus**

- Ensure PEFs meet and maintain the safeguards required by national requirements and GAPIII<sup>2</sup>
- Provide technical assistance and expert containment advice to countries, including strengthening auditing capacity

- Issue, renew, modify, or withdraw the certificates of containment, through coordination of NACs, WHO and GCC-CWG<sup>2</sup>
- Conduct periodic PEF assessments by auditors and NACs

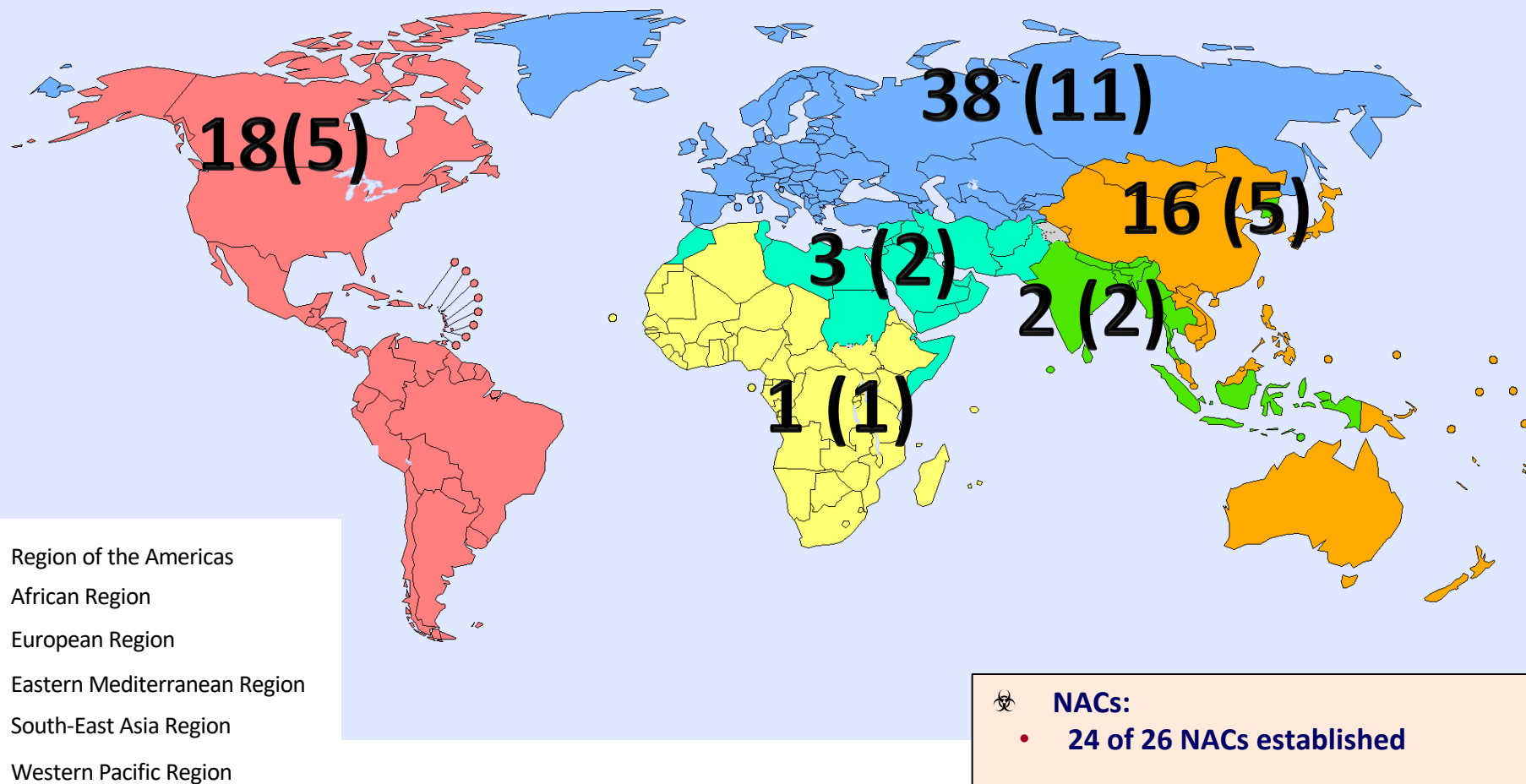
- Incorporate containment breach response plans into national emergency response plans
- Regularly update guidelines and technical materials related to poliovirus containment

Communications and Advocacy





# 26 countries plan to retain PV2 in 78 facilities



**Number in parenthesis represents the number of countries with facilities planning to retain PV2 materials**

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 and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.



## NACs:

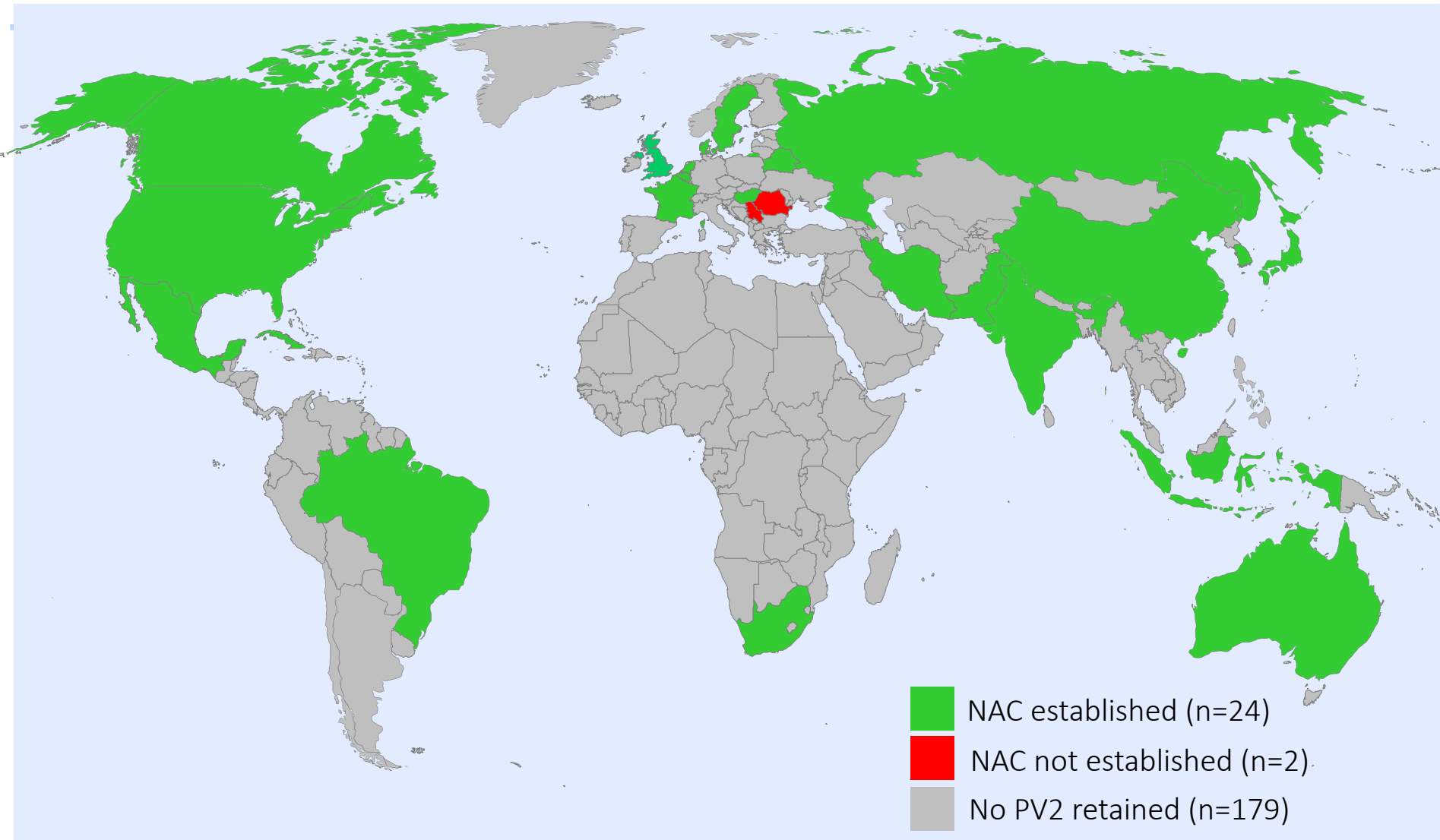
- 24 of 26 NACs established



## PEFs:

- Applications submitted to GCC via NAC: 10
  - CPs endorsed by GCC: 4
  - CPs under review : 6

# National Authority for Containment established



Resolution WHA71.16 (2018) : URGES all Member States retaining polioviruses (n=26) to appoint, as soon as possible and no later than the end of 2018, a competent National Authority for Containment.

# Where are we ?

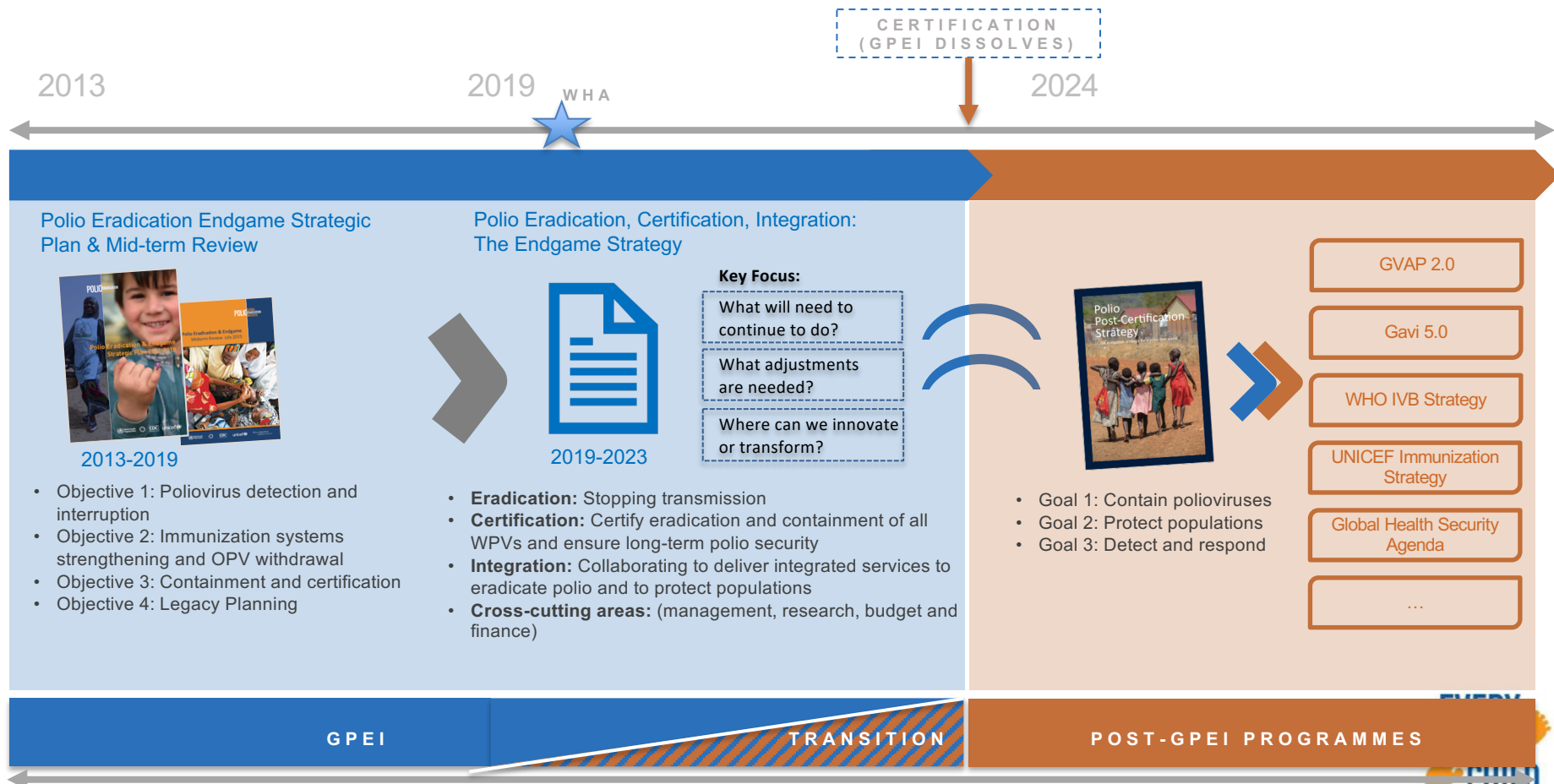
## Wild Poliovirus

- WPV3 **likely eradicated**
- Nigeria and Africa **likely wild polio free**
- **Pakistan/Afghanistan continued transmission**

## Outbreaks of Vaccine derived poliovirus

- Somalia- Horn of Africa, PNG, DRC **likely controlled**
- Indonesia should be soon under control
- **Nigeria cVDPV2 outbreak is concerning**

# Polio Eradication, Integration and Certification: The Endgame Strategy 2019-2023



# Strategies and Innovations

## Continue and improve implementation of core strategies

- Comprehensive vaccination with polio vaccines through SIAs and EPI
- Sensitive poliovirus surveillance (AFP + environmental)

## Innovations

- Responsive and nimble support to Pakistan and Afghanistan through **regional hub**
- Prioritize community engagement through integrated basic services approaches and new initiatives with development agencies
- Enhance impact of SIAs through vaccinating extended age groups, use of mOPV1 and fractional dose IPV with jet injectors.
- Improve efficiency and effectiveness of outbreak response through dedicated Rapid Response Teams and collaboration with communicable disease outbreak response platforms
- Intensify collaboration with Gavi and other partners to target EPI strengthening efforts to high-risk polio districts

# Eradiation

- The ultimate goal of the GPEI is to attain a polio-free world in which no child is paralyzed by either wild or vaccine-derived poliovirus
- Two core objectives directed to achieving this overarching eradication goal:
  - To interrupt transmission of all remaining WPVs
  - To stop all cVDPV outbreaks within 120 days of detection and mitigate emergence of any further VDPVs
- While preventing paralysis from any source is a critical public health imperative, the primary priority under the 2019-2023 strategy is to interrupt WPV transmission
  - This objective must be attained as urgently as possible to facilitate OPV cessation, only sure way to eliminate long-term risks of VDPVs

# Integration

- **Focuses on systematically collaborating with other public health actors:**
  - Leverage the capacities and contributions of other health actors to help achieve and sustain eradication
  - Channel GPEI assets, knowledge and expertise to protect populations through supporting the public health system and emergency response
- **On transition: GPEI collaborates with RI, surveillance, and emergencies groups to:**
  - Ensure core capacities (e.g. certification-level surveillance) are maintained or strengthened during transition
  - provide advocacy support to ensure implementation of country plans
  - collaborate with Gavi in areas of weak RI where GPEI can help, with knowledge & staff to mitigate risks of new outbreaks

# Enabling Areas

## **Gender Equality and Equity**

- Increasing women's employment as frontline workers, and in leadership and mid-level roles and achieving parity within the GPEI management structure

## **Governance and Management**

- Emphasizing changes such as the creation of the hub

## **Research**

- Overview of priority areas such as new OPV and IPV

## **Financial Resources**

- Full costing of IPV, Pre-PCS, Integration, and new strategic approaches

## **Preparing for Implementation of the Post-Certification Strategy**

- Key activities that must take place to ensure the successful implementation of the Post-Certification Strategy (PCS)



# Next steps

# Main activities for the next six months

## Global

- Launch strategy, investment case and mobilise resources to fully finance the programme

## Endemic countries

- Establishment of Pakistan/Afghanistan hub
- Surge of qualified personnel to countries and to “Hub”

## Outbreak Countries

- Secure quality of vaccination responses in Nigeria
- Sustain surveillance in all outbreak countries and collaborate with EPI to build capacity to mitigate risks
- Secure sufficient quantities of mOPV2 for stockpile

# Thank you

