

# POLIO | GLOBAL ERADICATION INITIATIVE

## Global Update

SAGE meeting, Geneva 25 April 2017

Michel Zaffran, Director, Polio Eradication, World Health Organization



BILL & MELINDA  
GATES *foundation*

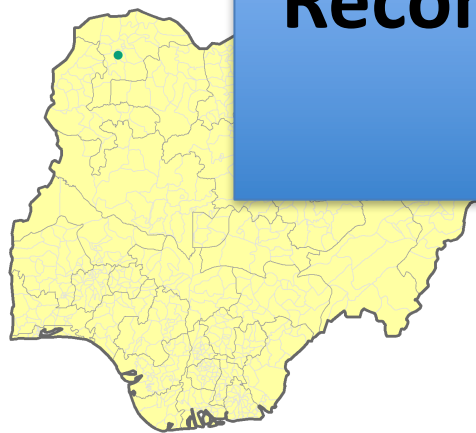


# Polio Eradication and Endgame Strategy

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



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



**Public Health Emergency of  
International Concern  
declared under the IHR  
Reconfirmed every three months  
since May 2014**

- Wild poliovirus type 1
- cVDPV type 2<sup>2</sup>
- Endemic country

Country	Onset of most recent WPV1 case	Number of WPV1 cases		Number of WPV infected districts		cVDPV current 6 months <sup>2</sup>
		Current <sup>4</sup>	Same period last year <sup>4</sup>	Current <sup>4</sup>	Same period last year <sup>4</sup>	Number of cases
Nigeria		0	0	0	0	1
<b>AFR</b>		0	0	0	0	1
Pakistan	13-Feb-17	4	23	4	15	1
Afghanistan	21-Feb-17	4	9	4	8	0
<b>EMR</b>	21-Feb-17	8	32	8	23	1
<b>Global</b>	21-Feb-17	8	32	8	23	2

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

<sup>2</sup>Onset of paralysis 19 October 2016 – 18 April 2017

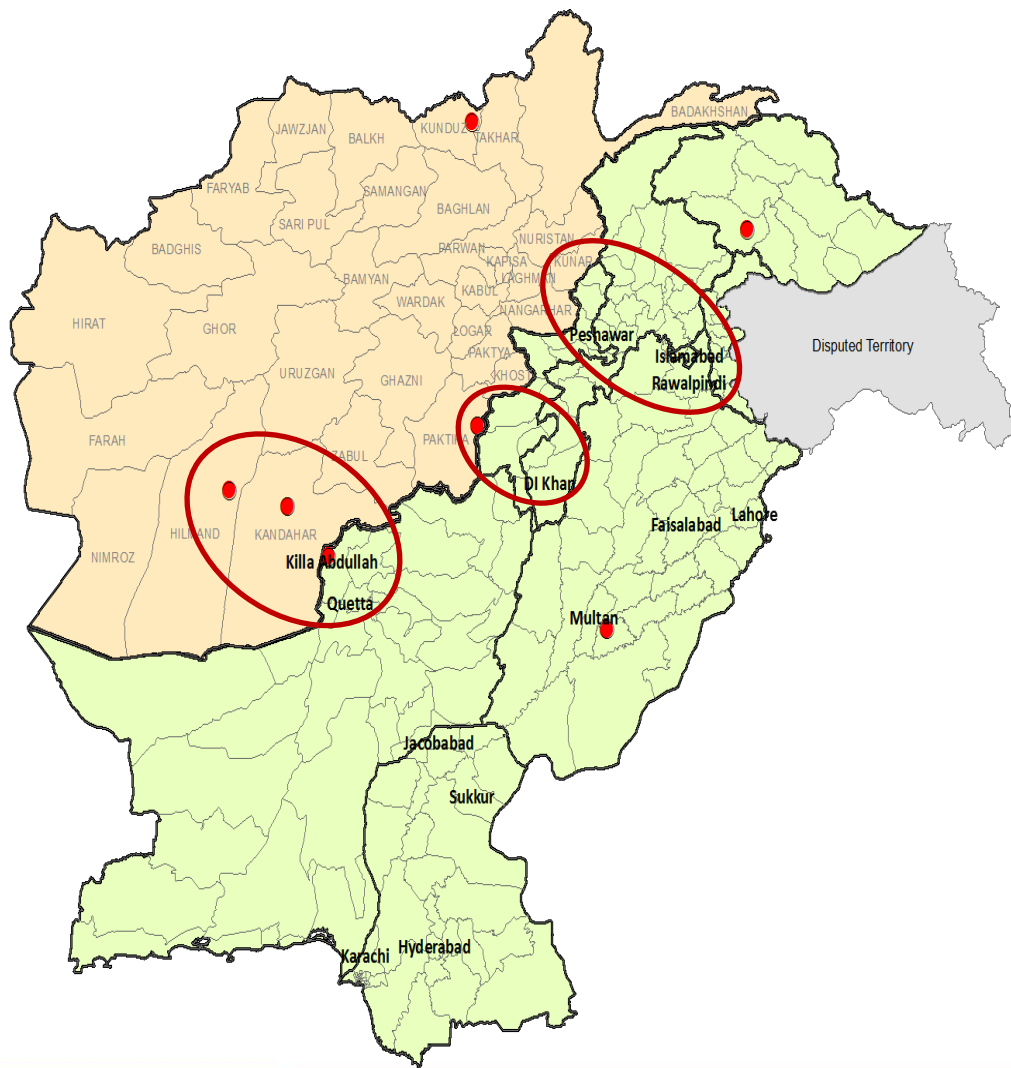
<sup>4</sup>Current rolling 6 months: 19 October 2016 – 18 April 2017  
Same period previous year: 19 October 2015 – 18 April 2016

# Pakistan and Afghanistan



# Afghanistan and Pakistan WPV1 Cases, last 4 months (Nov 2016 - Mar 2017)

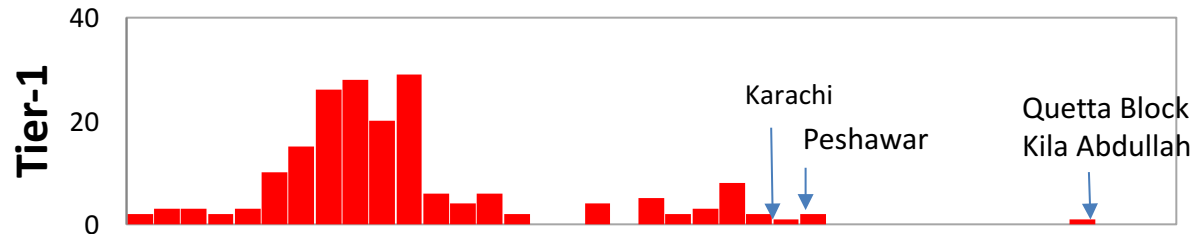
Common Corridors of transmission Create One Epidemiologic Block



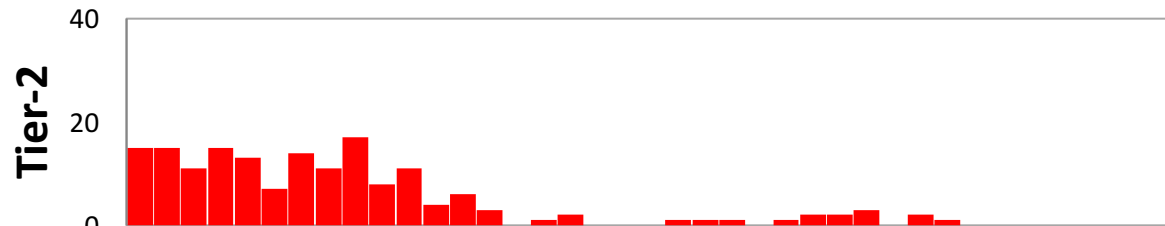
PROVINCE	CASES
PAKISTAN	3
BALUCHISTAN	1
G-BALTISTAN	1
PUNJAB	1
AFGHANISTAN	4
HILMAND	1
KANDAHAR	1
PAKTIKA	1
KUNDUZ	1

# Pakistan: Decreasing transmission in the core reservoirs, outbreaks in tier-4 districts

11 districts,  
4M target



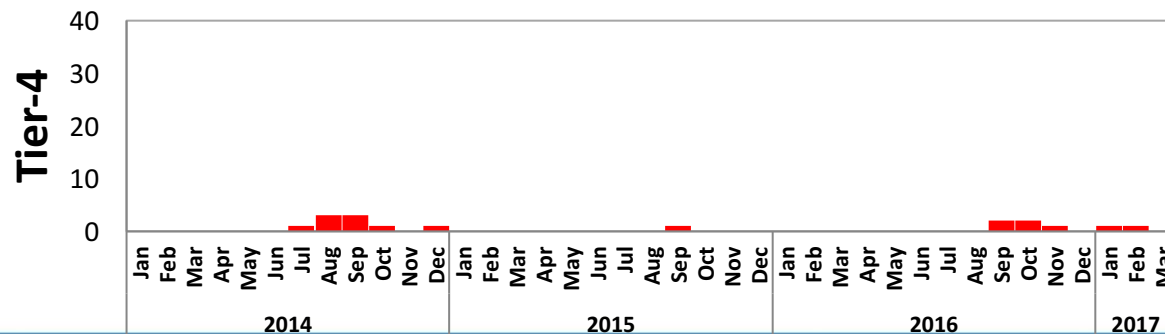
33 districts,  
6.4M target



24 districts,  
8.7M target



87 districts,  
17.8 M target



# Pakistan: Environmental Surveillance

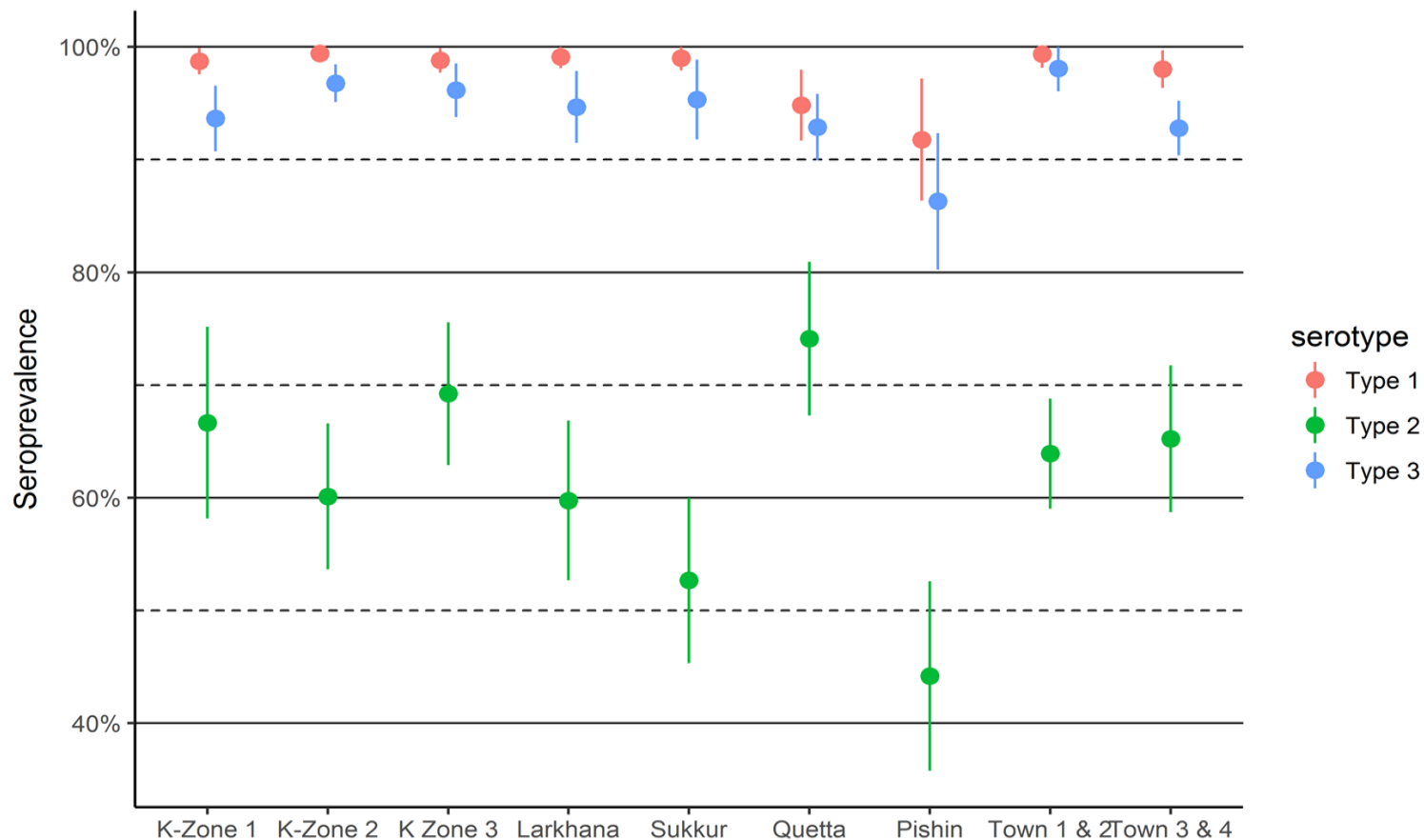
## Persistent and recurrent positives in Quetta and Peshawar



# Population immunity: progress and gaps

Sero-survey among children 6-11 months, Nov 16- Feb 17 (preliminary results)

- Seroprevalence very high for Types 1 and 3 – Except for Pishin and Quetta (Kila Abdullah results pending)
- Low immunity against Type 2 (many study children born after switch; sub-optimal routine immunization).

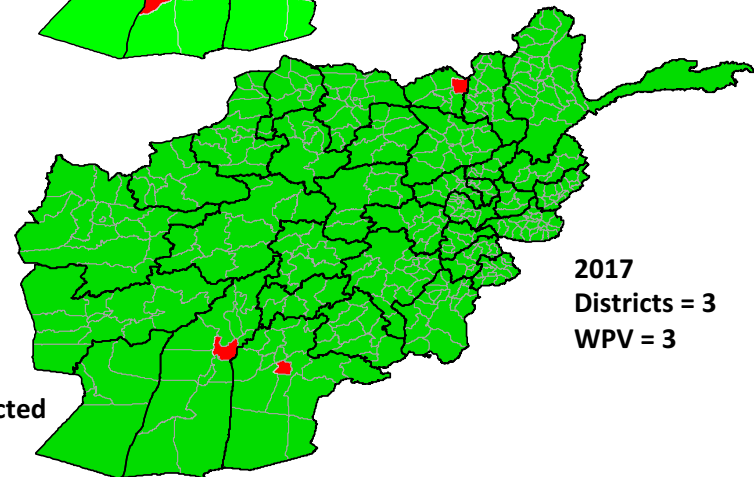
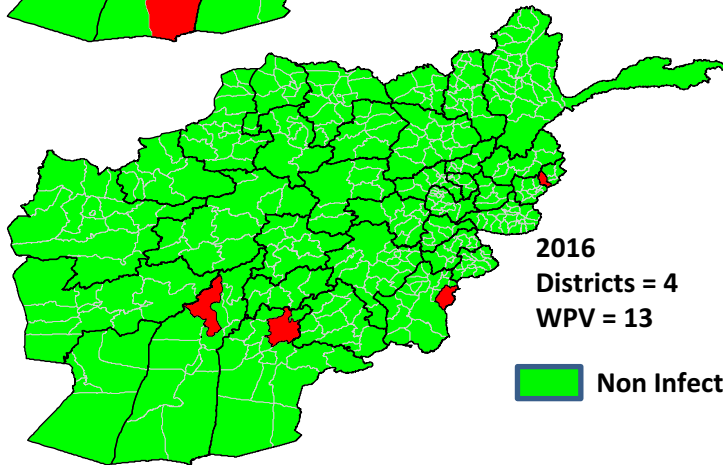
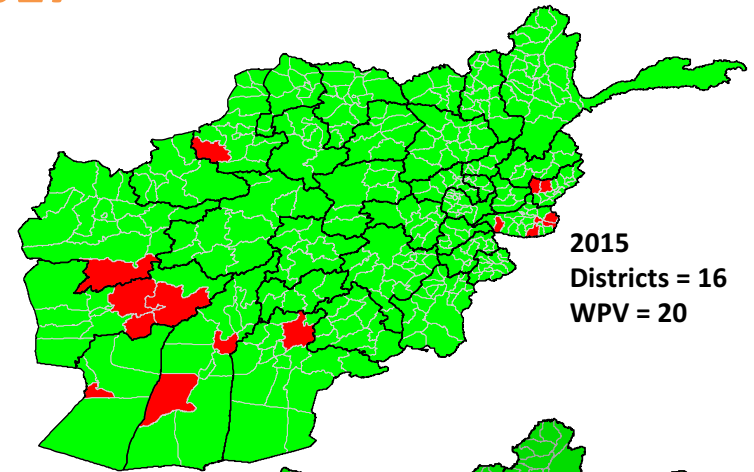
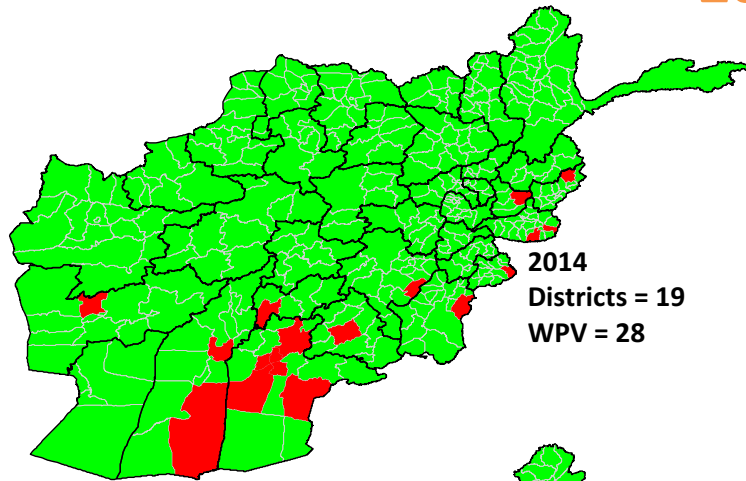


# Pakistan – Remaining Risks to Interruption

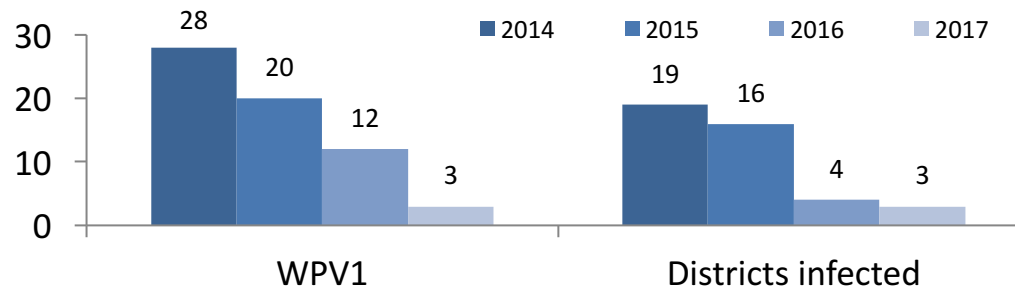
Risk	Mitigation
Core reservoirs remain greatest risk to eradication	<ul style="list-style-type: none"> <li>• Relentless focus on tier 1 with community based vaccination</li> <li>• Strengthen mobile team performance with local females</li> </ul>
Outbreak potential in Tiers 3 & 4 districts	<ul style="list-style-type: none"> <li>• Identify worst performing UCs for additional support</li> <li>• Monitor key indicators e.g. local and female vaccinators</li> </ul>
Enabling Environment (Governance, Access and Security)	<ul style="list-style-type: none"> <li>• GPEI partners advocate to ensure political commitment sustained, Pakistan Army continues as critical member of national/provincial EOCs coordinating security/access</li> </ul>
High Risk mobile populations (HRMP)	<ul style="list-style-type: none"> <li>• Detailed analysis of data for inter-provincial, country-wide overview of HRMP and their movements</li> </ul>
Common Corridors	<ul style="list-style-type: none"> <li>• Coordinate on common endemic reservoirs, at risk border communities and HRMP movement and their effective coverage</li> </ul>
Under performing EPI in core reservoirs	<ul style="list-style-type: none"> <li>• Engagement to be reinforced as per NEAP</li> <li>• Accelerate push to achieve NEAP targets in CBV UCs as asked for by Prime Minister's Focus Group</li> </ul>
Funding	<ul style="list-style-type: none"> <li>• Ensure required fund flow to fully implement NEAP</li> </ul>

# Afghanistan - Reduced geographic spread of cases

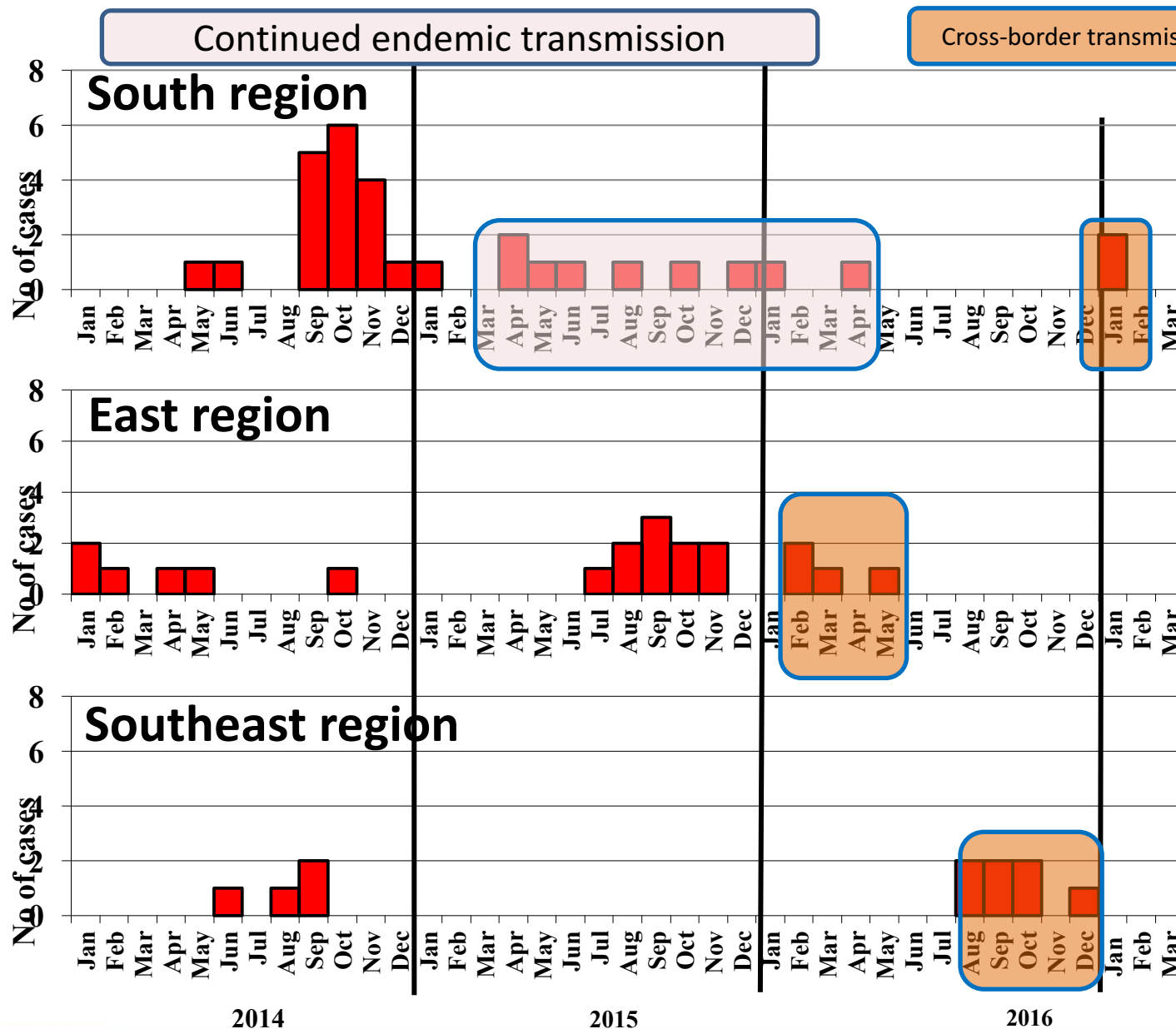
## 2014 - 2017



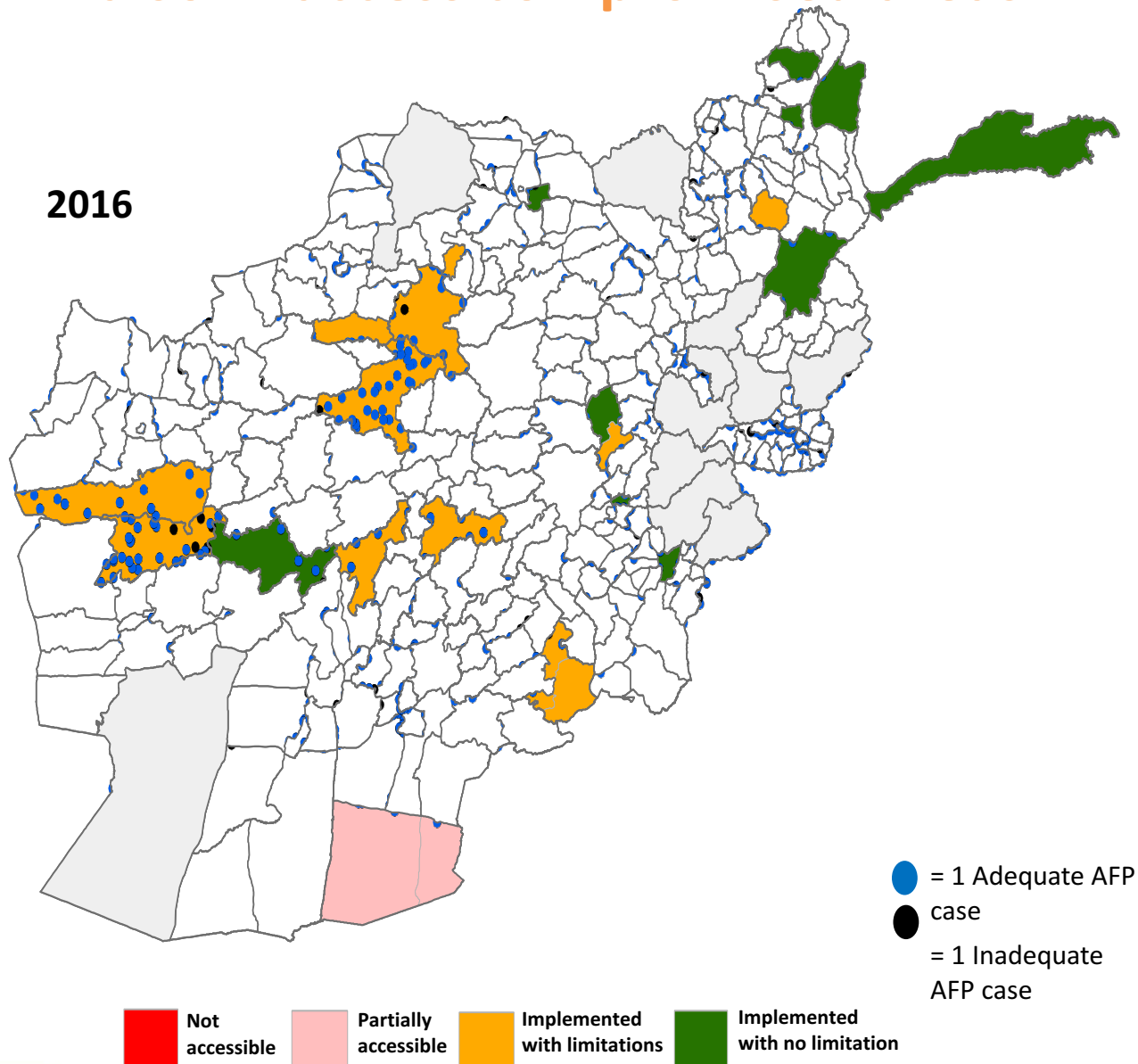
Non Infected Infected



# Afghanistan: Recent cases linked to cross-border transmission



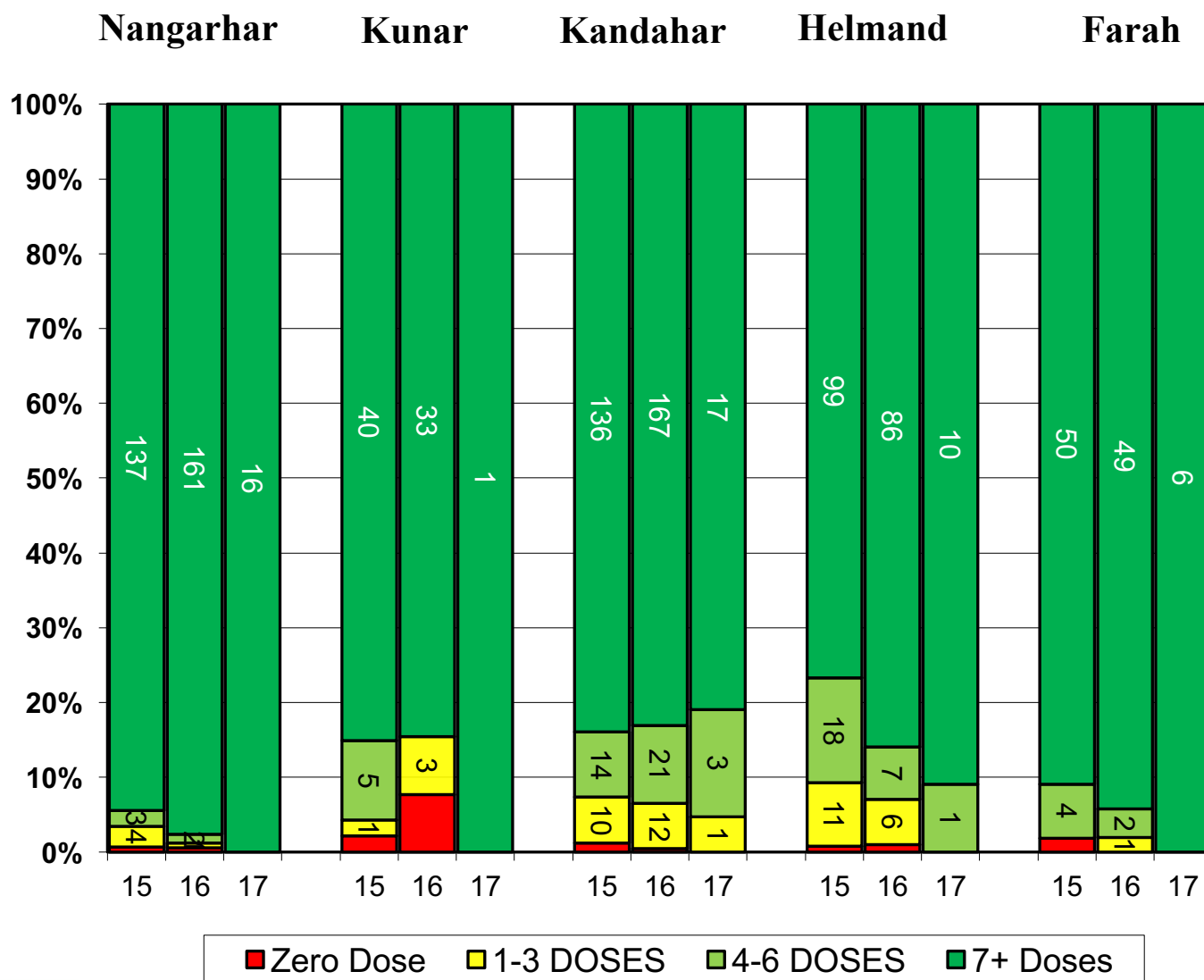
# Very Sensitive Surveillance also in access compromised areas





# Improving population immunity

## Vaccination status of Non Polio AFP cases 6-59 Months- HR Provinces 2015-2017\*



# Afghanistan : Remaining Risks to Interruption

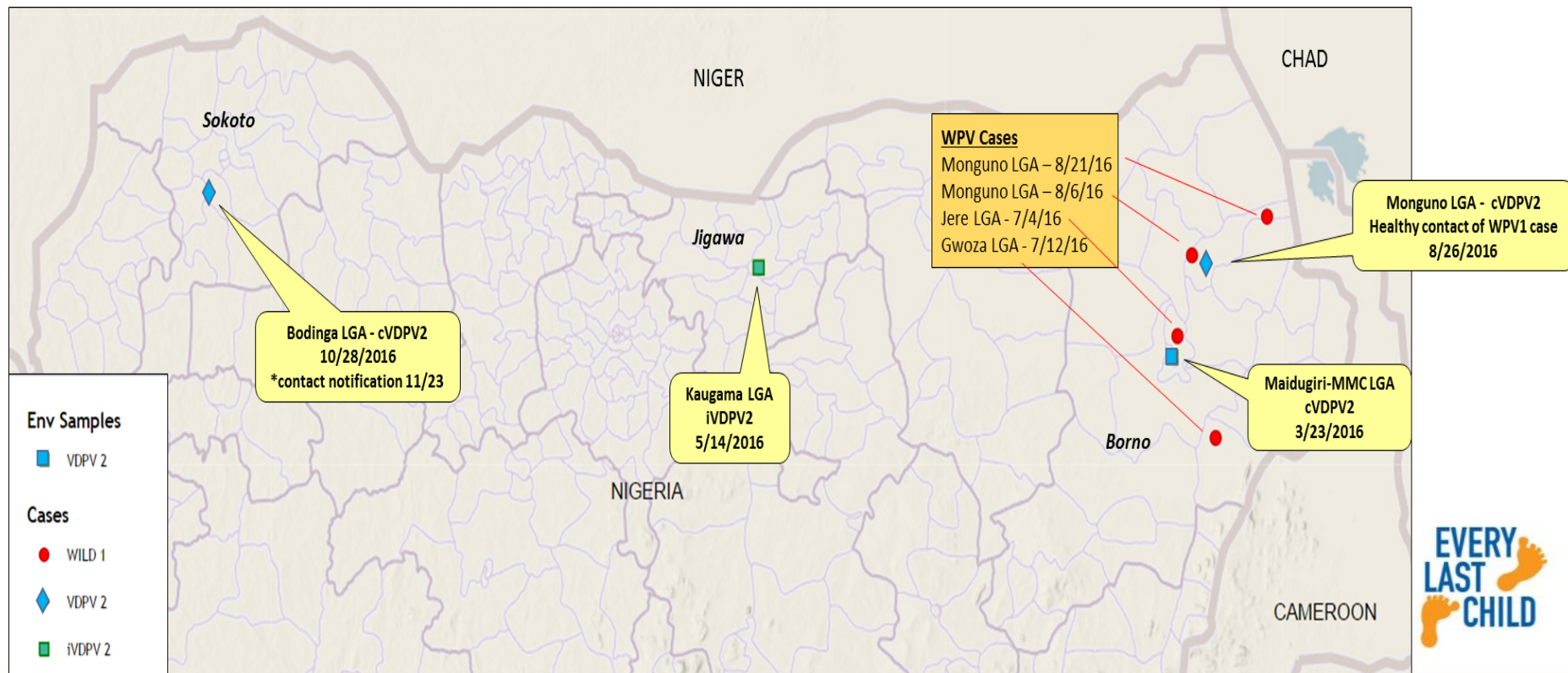
Risk/Focus	Mitigation/Action
Spread of transmission in Kunduz to neighboring inaccessible areas	<ul style="list-style-type: none"> <li>• Permanent transit teams in place</li> <li>• Access gained for 3 Campaigns; two &lt;10 ; 3rd with IPV+OPV;</li> </ul>
Re-establishment of transmission in southern region	<ul style="list-style-type: none"> <li>• Complete household based microplan revision</li> <li>• Use of GIS for identification of changes as well as peri-urban microplanning in view of returnees</li> </ul>
Remaining inaccessible area in Eastern and Southeastern region.	<ul style="list-style-type: none"> <li>• Continued dialogue and preparedness for window of opportunity</li> <li>• Analyze data to identify potential blind spots</li> </ul>
High risk mobile populations (HRMP): Long distance travellers, nomads, straddling population and returnees	<ul style="list-style-type: none"> <li>• Joint mapping and planning with Pakistan team and specific strategies for each category</li> <li>• PTTs and CBTs at strategic locations</li> </ul>
Risk of VDPV2	<ul style="list-style-type: none"> <li>• Preparedness plan in place and any isolation to be responded to</li> </ul>
Maintaining surveillance sensitivity in security compromised areas	<ul style="list-style-type: none"> <li>• Regular performance review based on access for corrective interventions; Expanding ES to Mazar, Herat and Kunduz and implement healthy children sampling strategy from silent districts</li> </ul>
Continued coordination among all stakeholders and Pakistan program	<ul style="list-style-type: none"> <li>• Continue AFG-PAK coordination at National and subnational level including regular VC/face to face meetings</li> </ul>

# Nigeria and Lake Chad Basin

# Nigeria Outbreaks

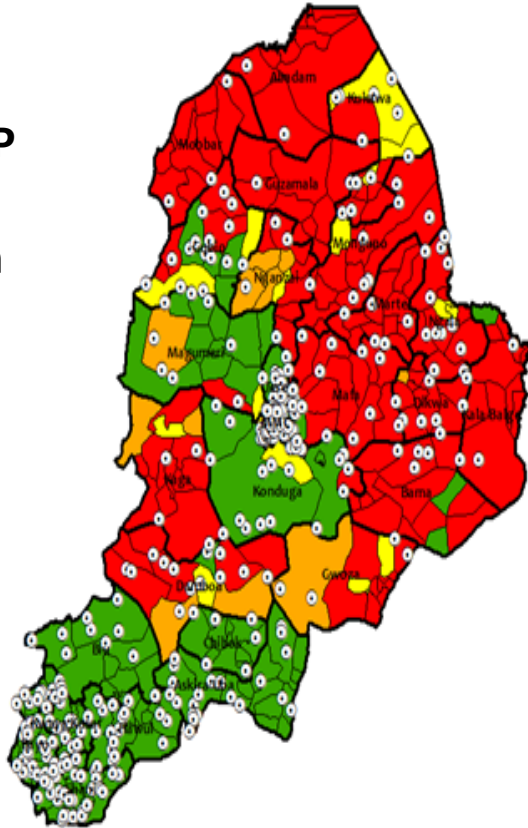
**July 2016 : first WPV transmission detected in more than two years**

- 4 WPV1 in under-immunized children from conflict-affected areas
- Genetic sequencing indicates missed transmission 2-5 years
- 2 cVDPV2s in Borno and Sokoto states
- Several VDPV2 isolated from environment in Bauchi, Gombe and Sokoto in 2017

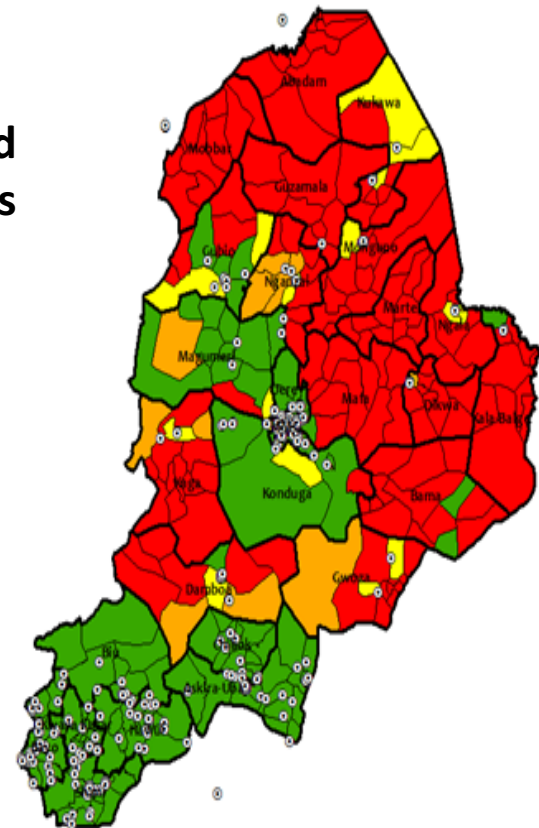


# Surveillance in Borno was weak

**2016 AFP  
cases  
location**



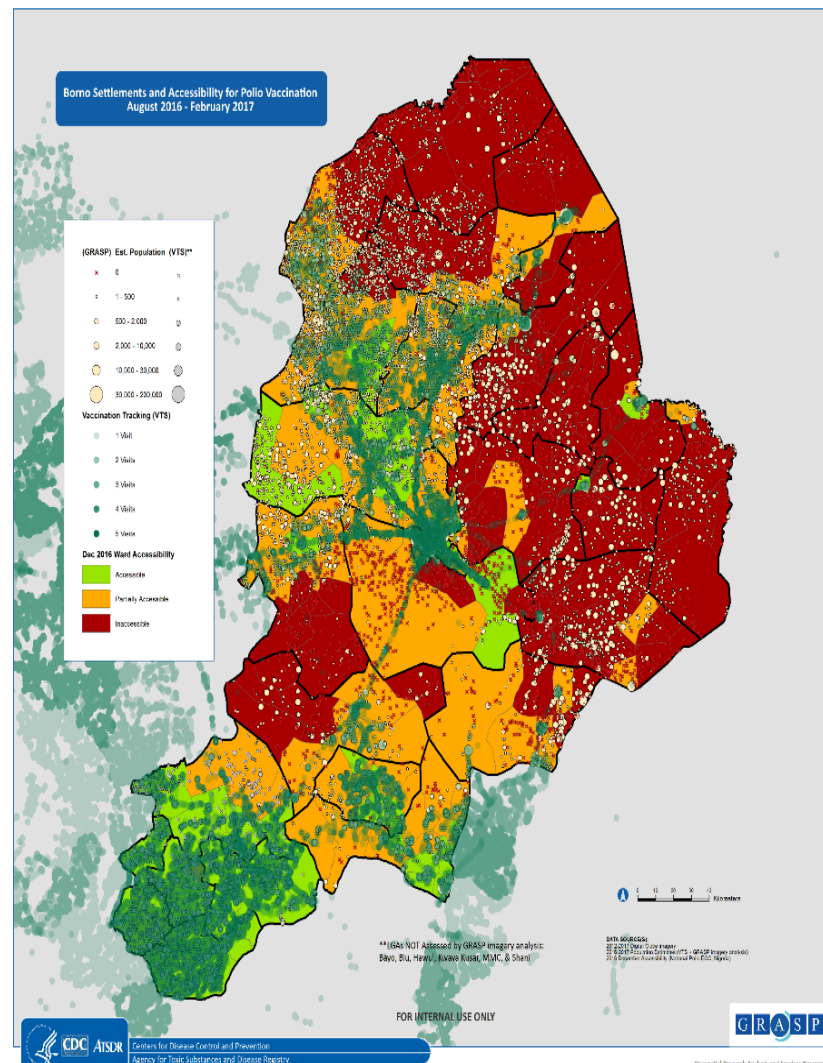
**Corrected  
AFP cases  
location**



- Surveillance indicators initially thought to be strong
- However systematic errors in data collection and assessment
- Almost complete lack of information from inaccessible districts

# Substantial efforts underway to identify and reach inaccessible children

- CDC Analysis identified thousands of destroyed or abandoned settlements
- ‘Reach Every Settlement’ initiative has reached 2,300+ communities not visited by polio teams in more than two years
- Huge areas of Borno (in red) still unreachable.
- 285,000-465,000 children <5 still potentially unreachable

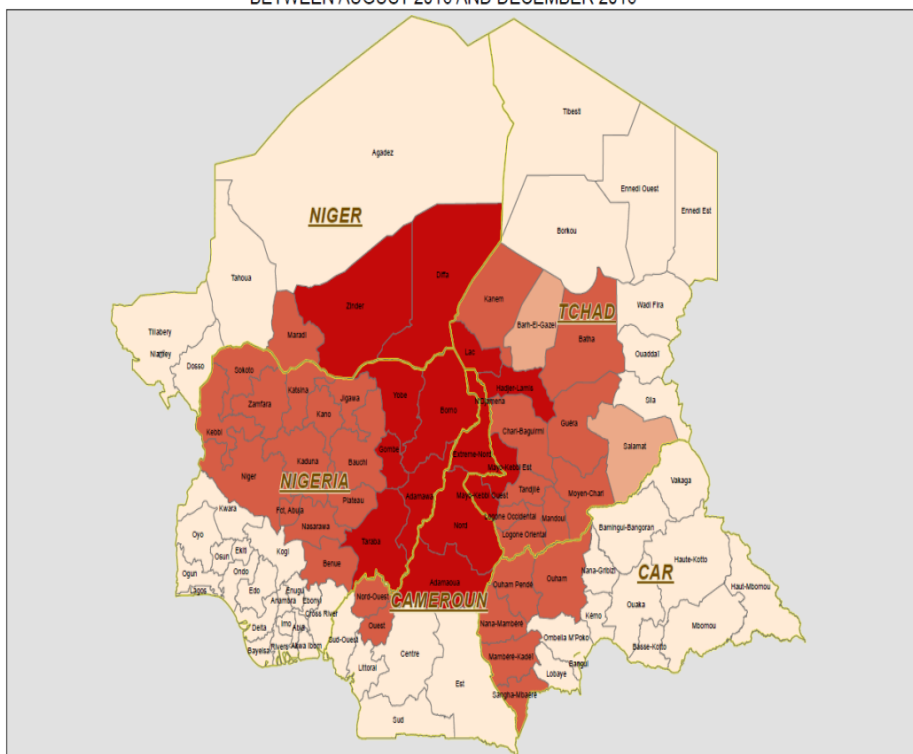




# Regional response targeting 40 million children

Multiple rounds Aug-Dec Overall cost : \$140m

bOPV SIA CAMPAIGN ROUNDS WITHIN THE LAC COORDINATION REGION  
BETWEEN AUGUST 2016 AND DECEMBER 2016

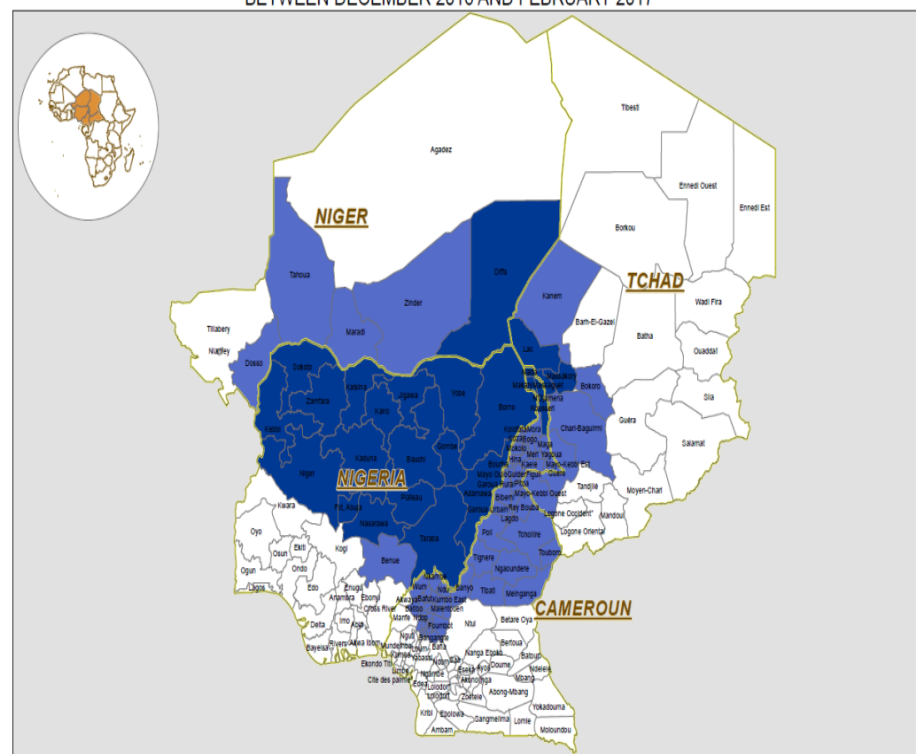


**Legend**  
Number of bOPV Campaigns  
NO SIA CAMPAIGN DATA 2 4 5 LAC REGION COUNTRIES

1 cm = 97 km  
0 345 485 580 Kilometers



mOPV SIA CAMPAIGN ROUNDS WITHIN THE LAC COORDINATION REGION  
BETWEEN DECEMBER 2016 AND FEBRUARY 2017

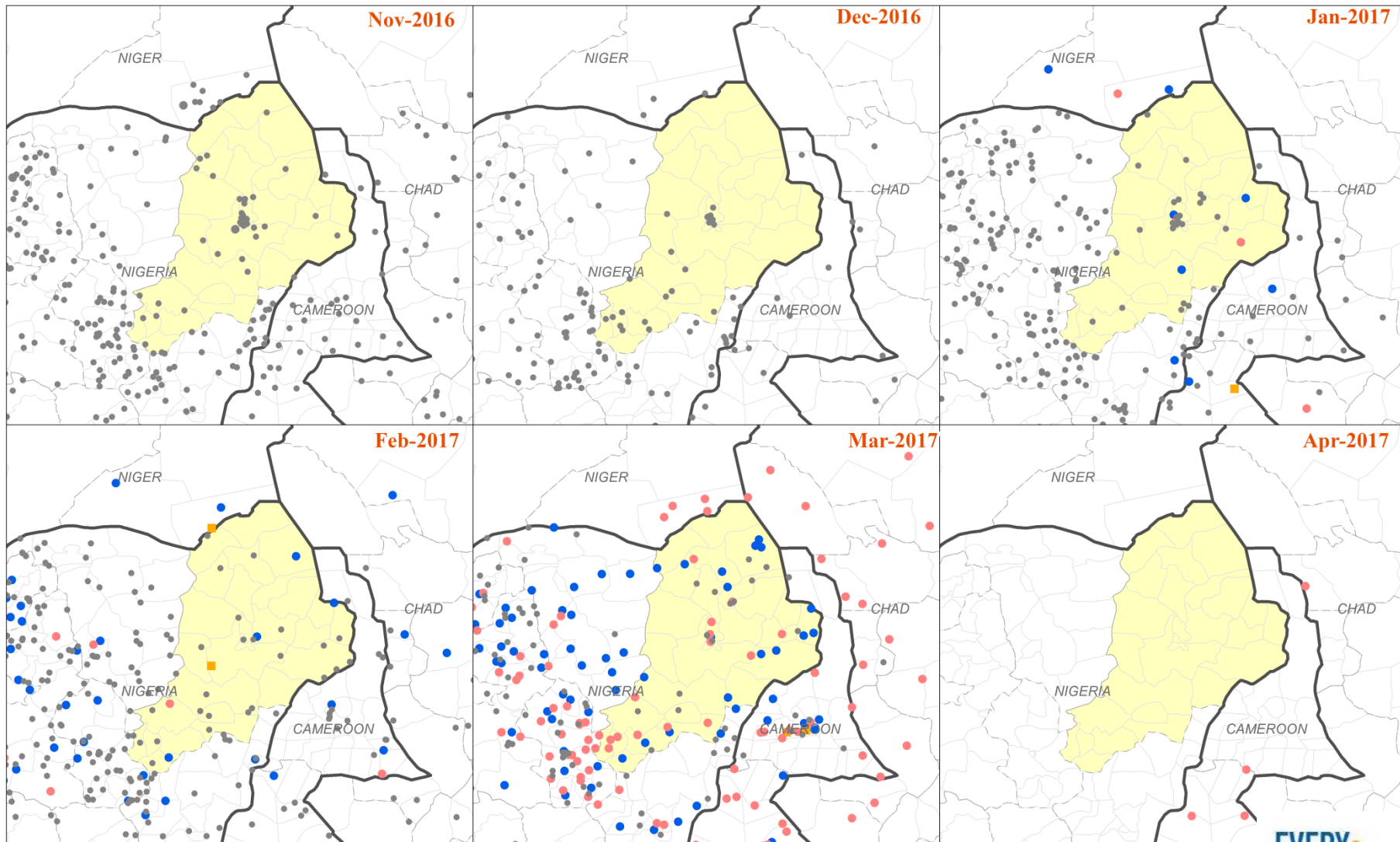


**Legend**  
Number of mOPV Campaigns  
NO SIA CAMPAIGN DATA 1 2 LAC REGION COUNTRIES

1 cm = 97 km  
0 345 485 580 Kilometers



# AFP cases in Borno and adjoining areas



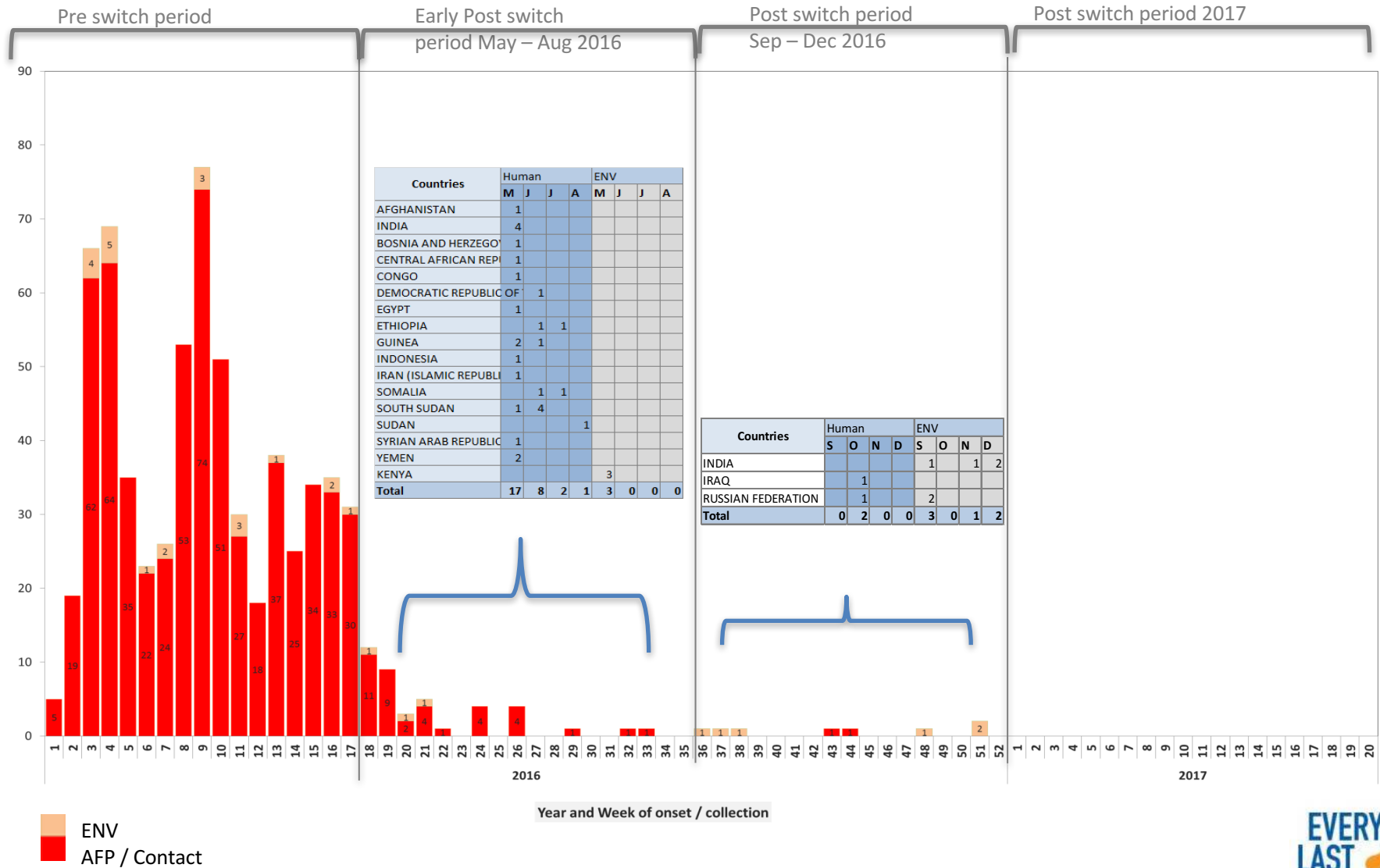
- Pending in lab
- Negative In lab
- Not in lab
- Classified (Discarded)





# Type 2 Events Post Switch

# SL2 (AFP & ENV) : Countries with no mOPV2 round



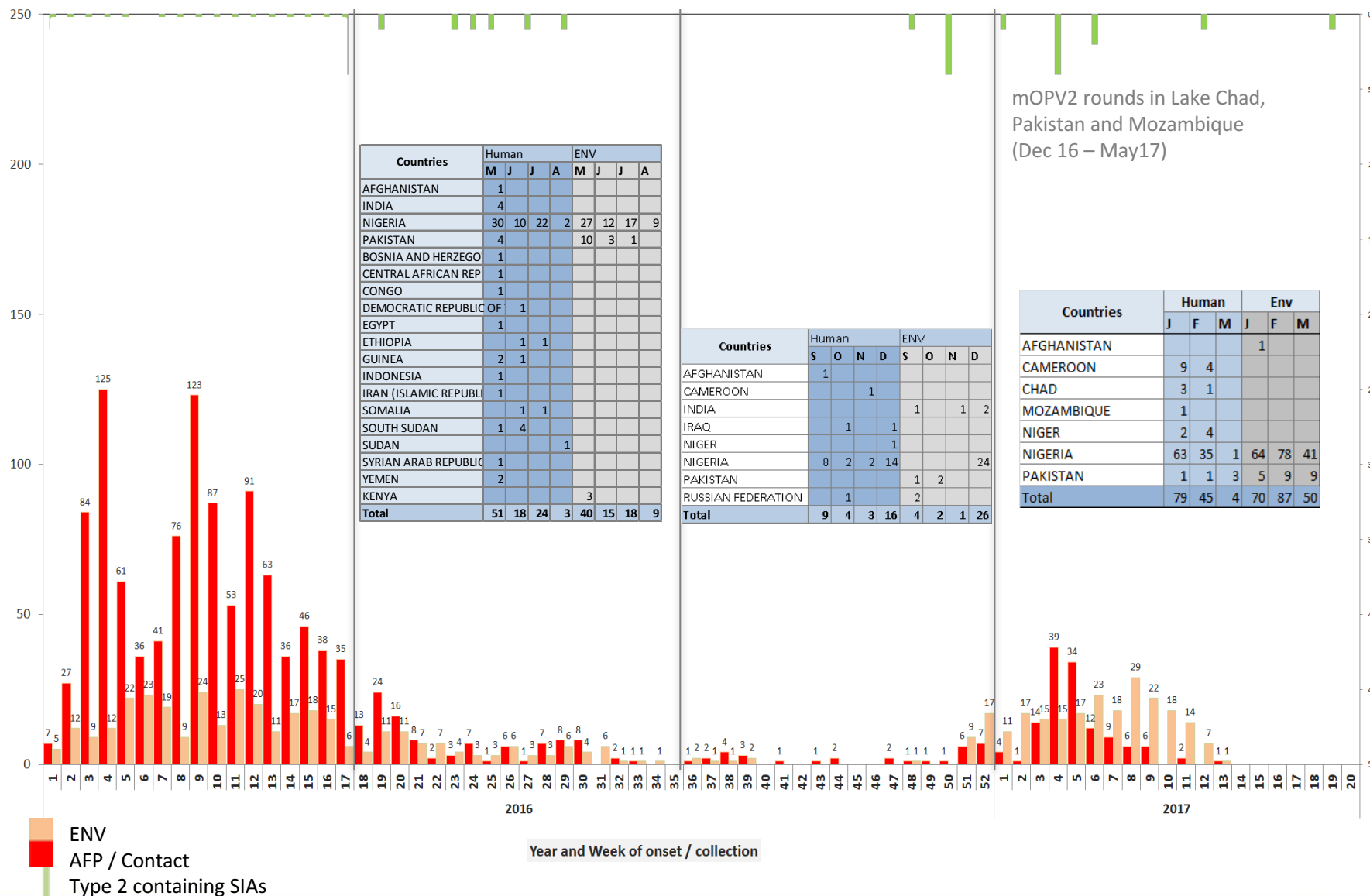
# SL2 from AFP and ENV - mOPV2-using Countries

Pre switch period

Early Post switch period  
May – Aug 2016

Post switch period  
Sep – Dec 2016

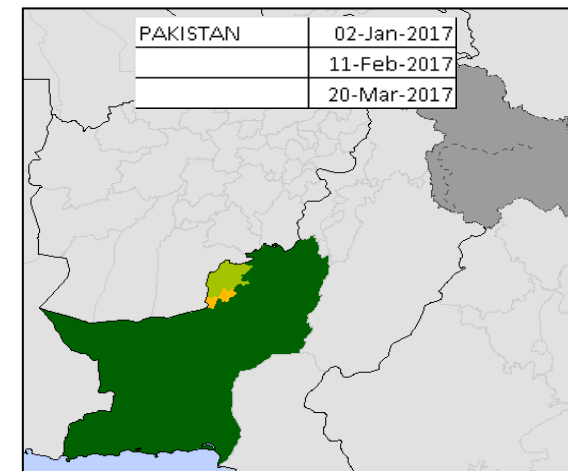
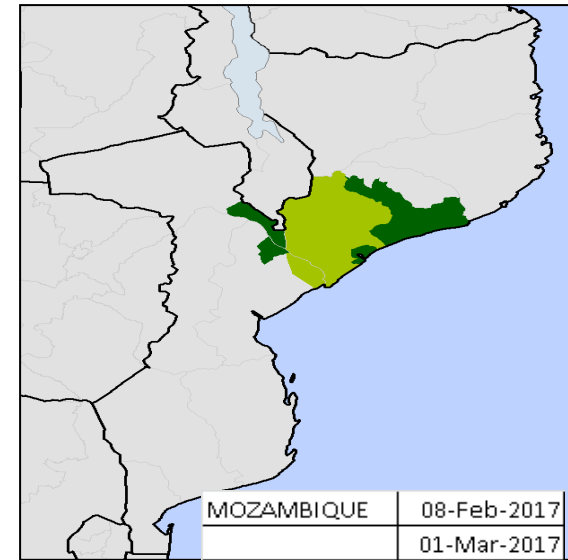
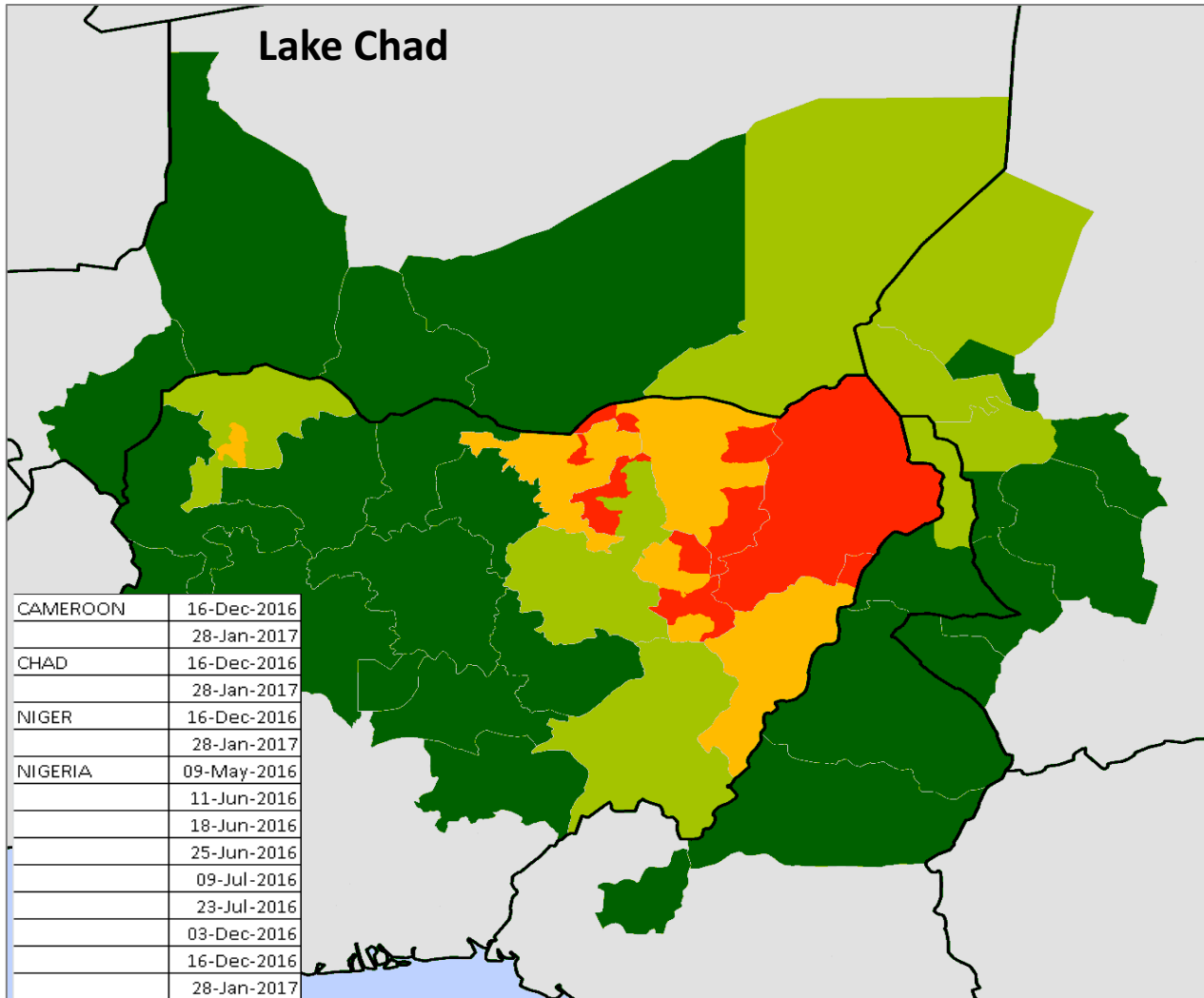
Post switch period  
2017



mOPV2 rounds in Lake Chad, Pakistan and Mozambique (Dec 16 – May17)

# mOPV2 rounds Recommended by Advisory Group and Authorized by WHO DG (01 May 2016- 30 Apr 2017)

- 1 Round
- 2 Rounds
- 3 Rounds
- 4 - 5 Rounds



# Polio Eradication and Endgame Strategy

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- 3. Containment & Global Certification**
4. Legacy/Transition Planning



# Oversight - new developments

## **Global Commission for the Certification of Polio Eradication (GCC)**

- Chair : Dr David Salisbury
- Takes on oversight of Member States compliance with GAP III

## **Containment Working Group (CWG)**

- Support Global Certification Commission in containment certification role
- 7 Members- Chair: Dr Arlene King

## **Containment Advisory Group (CAG)**

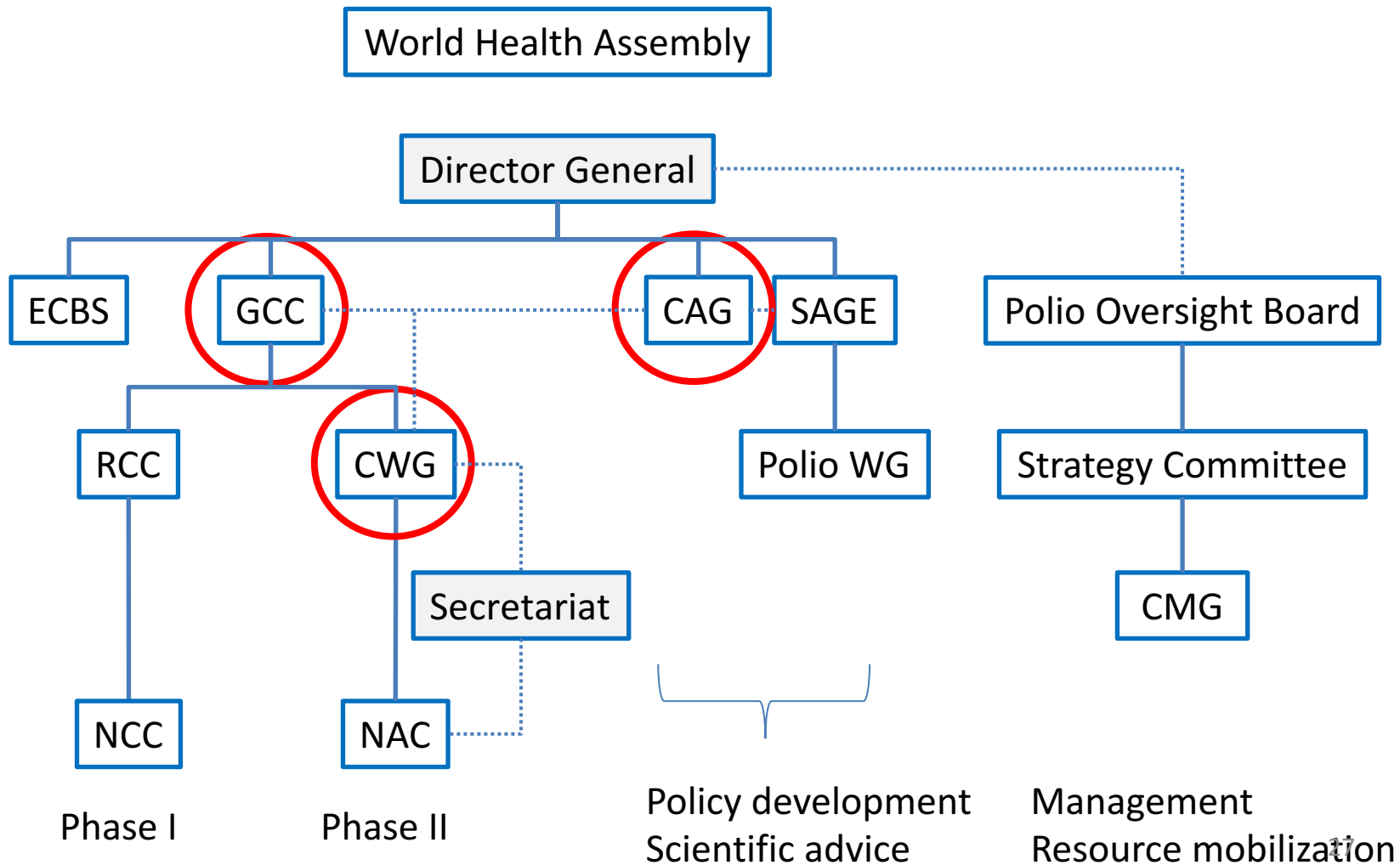
- Reports to WHO/DG
- Addresses technical issues related to GAP III
- 13 Members- Chair: Dr David Heymann

## **Expert Committee on Biological Standardization (ECBS):**

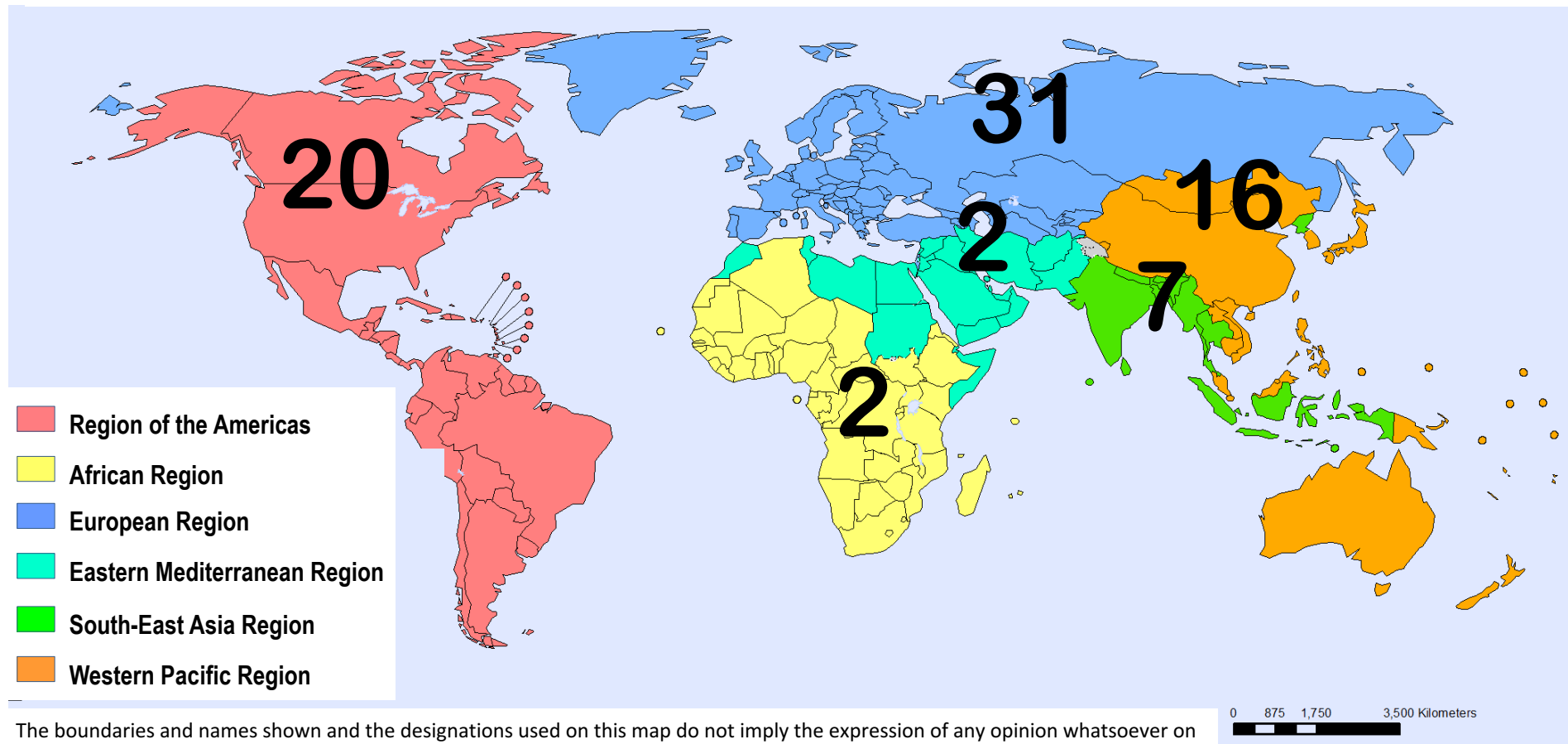
- Revision of TRS 926 Guidelines for the safe production and quality control of poliomyelitis vaccine



# Oversight structure



# 29 Countries have designated 78 facilities which plan to retain Poliovirus Type 2\*



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.

\*includes WPV2/cVDPV2 and OPV2/Sabin2 materials



# Containment of PV2 : Progress

## Preparation Phase

**WPV2**



205 official reports received - 29 countries have designated 78 PEFs

**VDPV2**



Completion dependent on stopping cVDPV2 transmission in Nigeria and Pakistan

**OPV2/Sabin2**



- Guidance for non-polio facilities with potentially infectious materials will be submitted to CAG in June 2017
- Countries using mOPV2 will need to wait up to 3 months after the last use of mOPV2 to complete this part.

## PV2 Containment

**Poliovirus-essential  
Facilities**



78 PEFs have been designated - Efforts ongoing to further reduce numbers through dialogues with countries

**National Authority for  
Containment**



17/29 countries hosting PEFs have nominated NACs  
Support efforts for the remaining countries are ongoing.

**Capacity Building in  
Certification Activities**



6 Auditor Training covering for 24 countries to build capacity in containment certification activities in line with the CCS,

# Global Certification Commission

## Priority topics for July 2017 meeting

- **Surveillance quality criteria:** GCC to review certification quality requirements for AFP / env. surv. / alternative methods (NPEV surveillance)
- Review of '**3-year rule**'
- Certification criteria for countries with **conflict-affected inaccessible areas**
- Role of certification groups post-WPV certification - i.e. **validation of absence of VDPVs**
- Role of GCC in **implementing PV containment GAP III** - support through the GCC Containment Working Group

# Polio Eradication and Endgame Strategy

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



# Transition : High-Level Attention

- **Serious programmatic impact of GPEI ramp-down**
  - Necessity to maintain essential functions that will be critical to sustain a polio free world and identify necessary financial resources
  - Some GPEI contributions, not part of these essential functions , may be critical to other health programmes
  - Some GPEI contributions will stop
- **WHO – Polio Transition among 7 principal organizational Risks**
  - Team established within DGO
  - WHO wide post-polio Transition Steering Committee
  - Active engagement of RDs, DPMs, WRs, HQ Depts.
  - Updating of HR Risks and Financial Indemnities

# Post-certification Strategy : Goals

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

Goal 1: Contain Polio Sources	<ul style="list-style-type: none"><li>■ Ensure potential sources of poliovirus are properly controlled or removed</li></ul>
Goal 2: Detect and Respond	<ul style="list-style-type: none"><li>■ Detect any poliovirus introduction and rapidly respond to prevent transmission</li></ul>
Goal 3: Protect Populations	<ul style="list-style-type: none"><li>■ Immunize current and future populations against unanticipated polio events</li></ul>
Goal 4: Manage Effectively and Monitor	<ul style="list-style-type: none"><li>■ Ensure ongoing polio functions are embedded in existing or develop new mechanisms to sustain the goals of polio post-certification</li></ul>

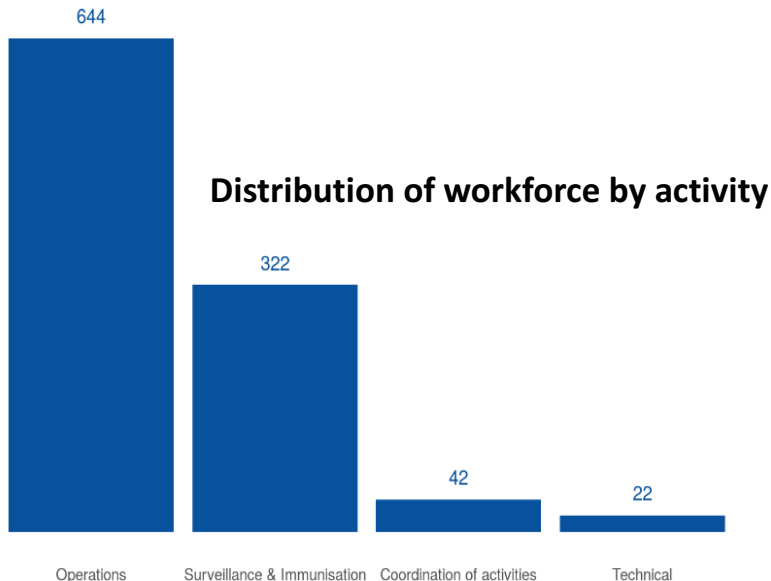
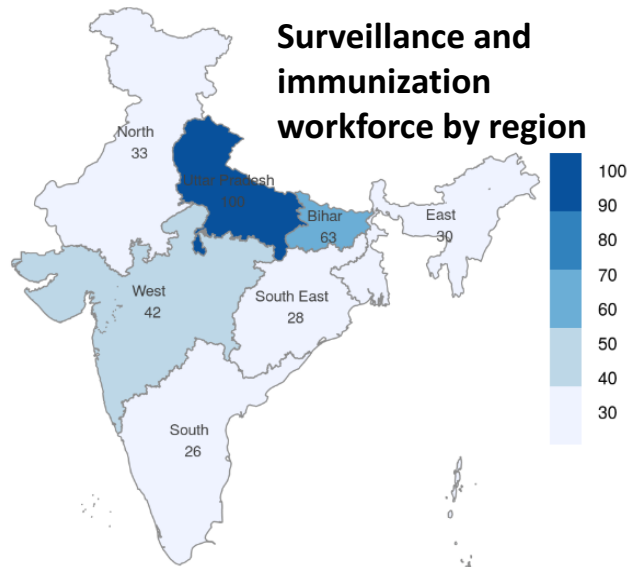
# Country Planning Progress –April 2017

Country	Comms to govt leadership (+bdgt ramp down details)	Governing & management team appointed	Mapping of polio assets available	Mapping of country priorities available	Govt & stakeholders agree on transition strategies	Draft transition plan/ Costed option/Business case	Final Transition Plan & Formal Agreement
Afghanistan							
Angola	Complete	Complete	Complete	Complete	In process	Not yet started	Not yet started
Bangladesh	Complete	N/A	Complete	Complete	Complete	In process	Not yet started
Cameroon	Complete	Complete	Complete	In process	Complete	In process	Not yet started
Chad	Complete	Complete	Complete	Complete	Complete	In process	Not yet started
DR Congo	Complete	Complete	In process	In process	Not yet started	Not yet started	Not yet started
Ethiopia	Complete	Complete	Complete	Complete	In process	Not yet started	Not yet started
India	Complete	Complete	Complete	Complete	Complete	Complete	In process
Indonesia	Complete	N/A	Complete	Complete	Complete	In process	Not yet started
Myanmar	Complete	In process	Not yet started	Not yet started	Not yet started	Not yet started	Not yet started
Nepal	Complete	Complete	Complete	Complete	Complete	In process	Not yet started
Nigeria	Complete	Complete	Complete	Complete	In process	Not yet started	Not yet started
Pakistan							
Somalia	Complete	In process	In process	Not yet started	Not yet started	Not yet started	Not yet started
South Sudan	Complete	Complete	In process	In process	Not yet started	Not yet started	Not yet started
Sudan	Complete	Complete	In process	Not yet started	Not yet started	Not yet started	Not yet started

Transition plans developed by countries with GPEI tools, guidance and support  
TIMB set up monitor progress (first meeting 4-5 May)



# India Transition



## NPSP

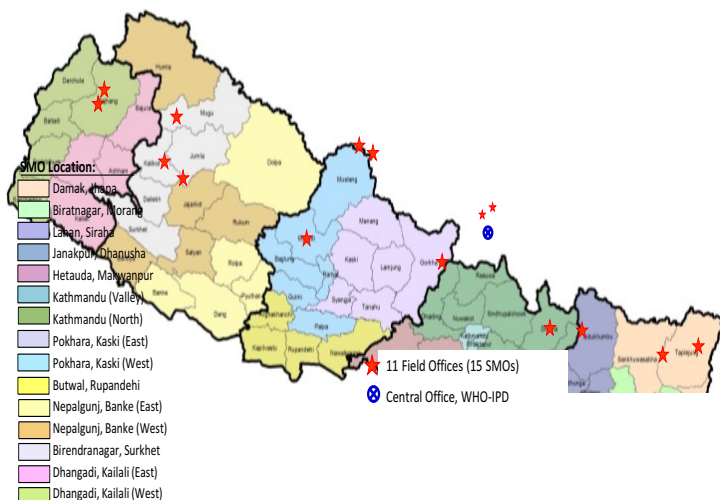
- National and 7 regional field offices
- 299 field units spread across country
- GPEI currently funds 55% of NPSP
- Field units mostly clustered in UP and Bihar

## MOH-WHO Agreed Transition

- Gradual phase-out of field presence:
  - 30% over the next 3 years,
  - 50% by 2021,
  - complete phase-out by 2026
- Broadening the scope of NPSP to Support VPD and communicable disease surveillance
- Reorientation to broaden workforce skills – epidemiological intelligence training supported by CDC

# Nepal Transition

## Location and districts covered by WHO-IPD field offices



## WHO-IPD Unit

### 20 personnel in Central Office (Kathmandu)

8 technical officers

8 support staff

4 drivers

### 41 field workers in 11 field offices

15 surveillance medical officers

15 drivers

11 administration and finance clerks

- IPD network supports wide range of immunization-related activities in all districts
- Full government take-over not feasible in medium term (technically and financially)

## Current approach : 5 year plan

- WHO manages re-designed IPD network with gradual transition of some functions to MoH;
- Transition includes innovations to support other health goals
- Government will provide small amount of funding in 2017/18 budget with prospective gradual increase
- MoH/WHO work with development partners to raise additional funding to sustain the network beyond 2019



# Challenges - Next 6 months

## 1. Interrupting WPV Transmission

- Pakistan, Afghanistan, Nigeria (Lake Chad)

## 2. Maintaining High Quality surveillance

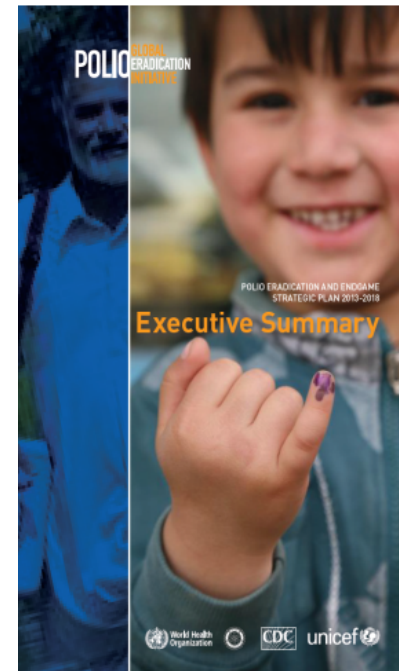
- Endemic countries as well as well as Access Compromised areas e.g.: CAR, Syria, Somalia, South Sudan, Iraq, Yemen ...

## 3. Maintaining high level of donor support

- Fully fund programme at US \$ 7 billion
- Stretch existing budget through 2020

## 4. Also...

- Accelerating efforts for PV2 containment
- Accelerating Transition Planning efforts



# Thank you

