POLIO GLOBAL ERADICATION INITIATIVE

Global Update to SAGE

On behalf of the GPEI
Michel Zaffran, Director, Polio Eradication, World Health Organization
18 Octobre 2016

World Health Organization

CDC Centers for Disease Control and Prevention

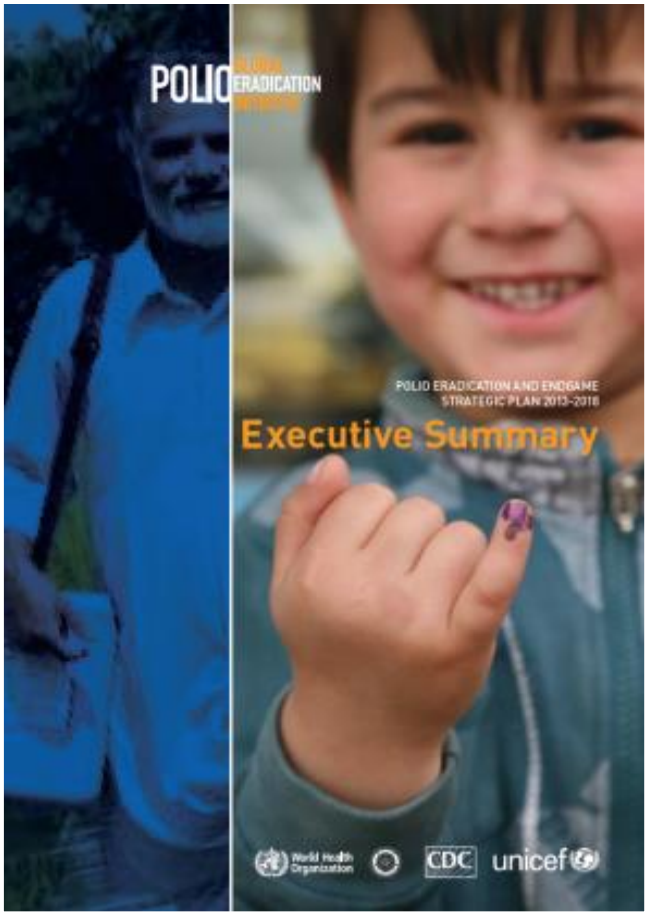
BILL & MELINDA GATES foundation

unicef

EVERY LAST CHILD

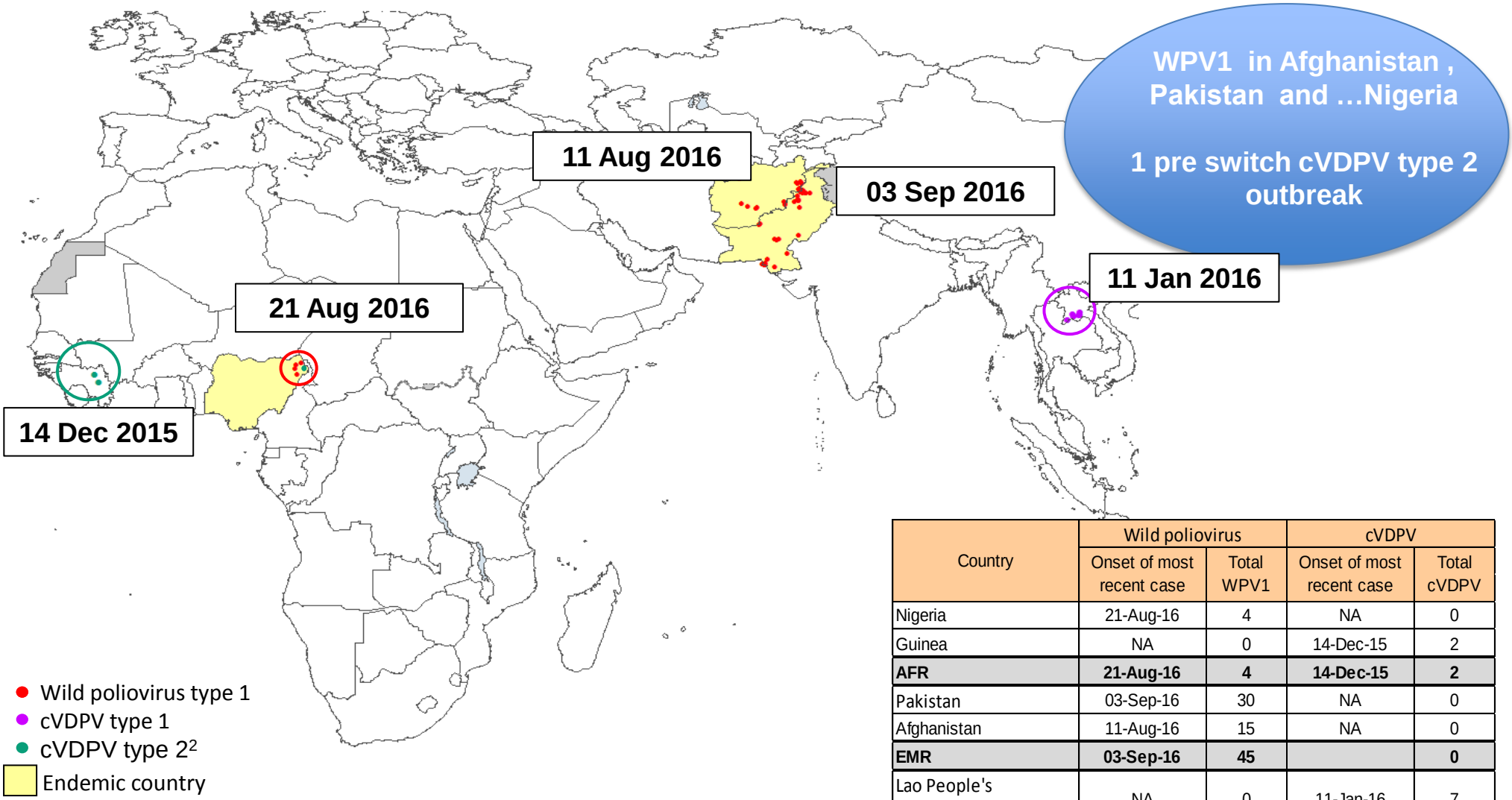
Polio Eradication and Endgame Strategy

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



EVERY LAST CHILD

Wild Poliovirus & cVDPV Cases[1,2] - Past 12 Months[2]



Country	Wild poliovirus		cVDPV	
	Onset of most recent case	Total WPV1	Onset of most recent case	Total cVDPV
Nigeria	21-Aug-16	4	NA	0
Guinea	NA	0	14-Dec-15	2
AFR	**21-Aug-16**	**4**	**14-Dec-15**	**2**
Pakistan	03-Sep-16	30	NA	0
Afghanistan	11-Aug-16	15	NA	0
EMR	**03-Sep-16**	**45**		**0**
Lao People's Democratic Republic	NA	0	11-Jan-16	7
WPR	**NA**	**0**	**11-Jan-16**	**7**
Global	**03-Sep-16**	**49**	**11-Jan-16**	**9**

[1]Excludes viruses detected from environmental surveillance
[2]In Nigeria, 1 cVDPV2 from a healthy child contact of WPV1 case
[3]Onset of paralysis 12 October 2015 – 11 October 2016

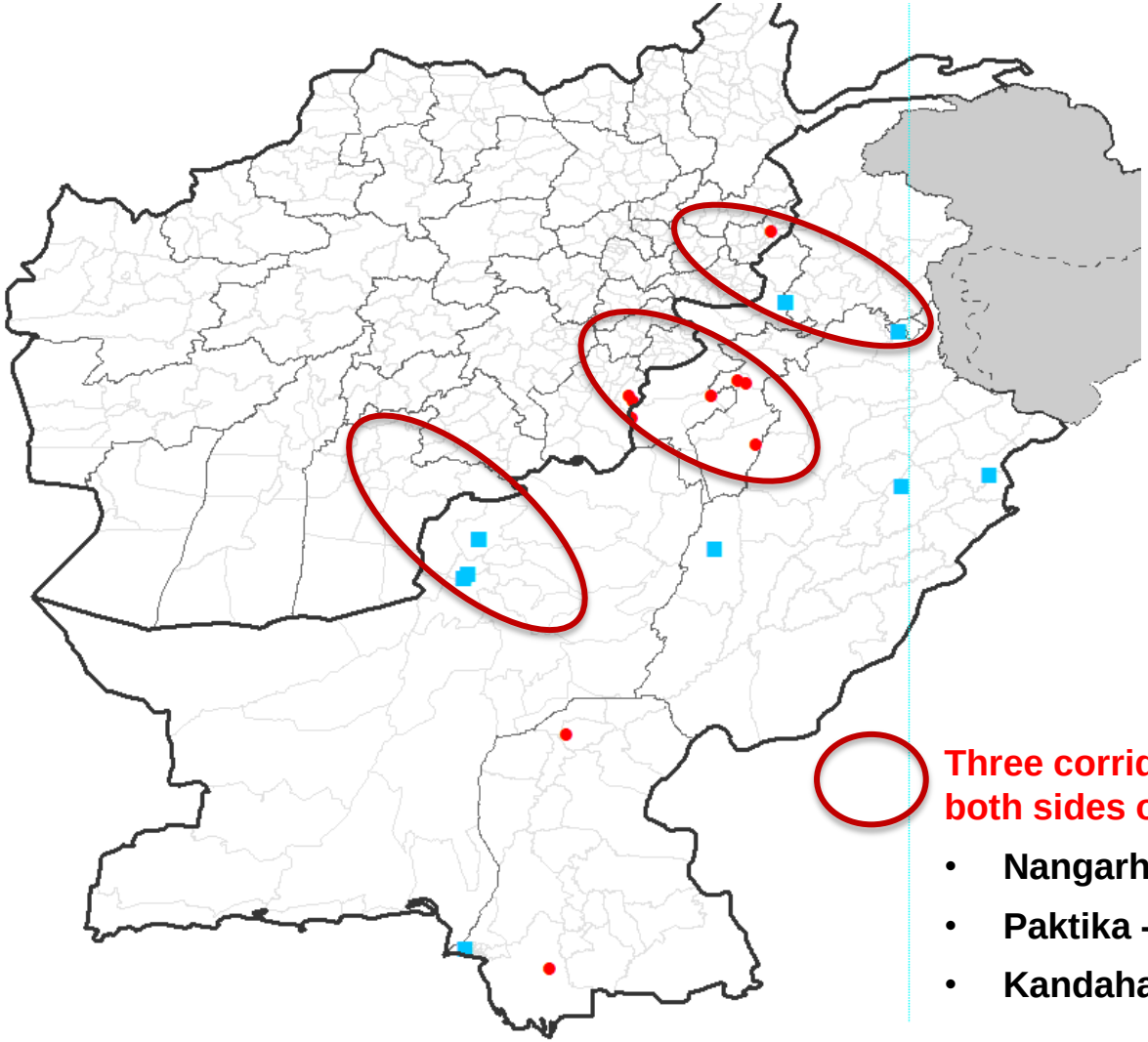
Data in WHO HQ as of 12 October 2016

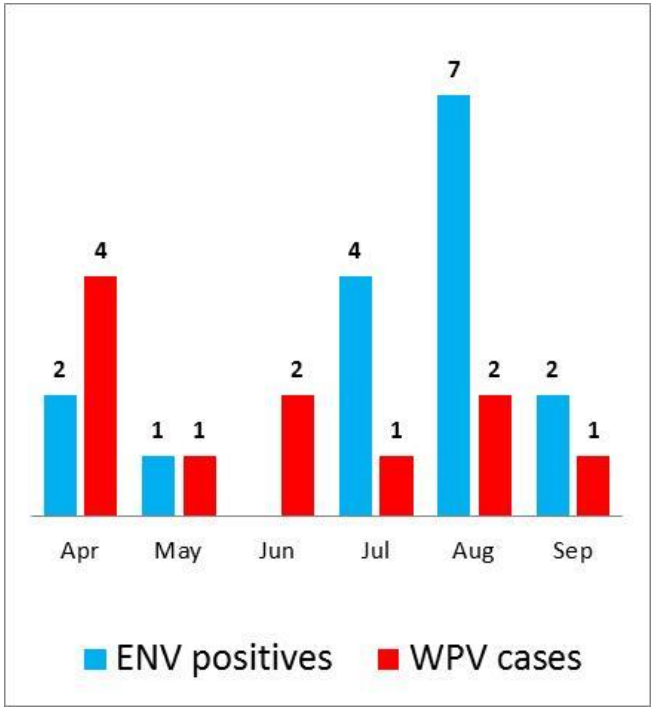
Pakistan – Afghanistan

Lowest number of cases ever in the epidemiological block

EVERY LAST CHILD

AFG-PAK epidemiological block- past 6 months





Three corridors of active transmission link reservoirs on both sides of the border:

- **Nangarhar/Kunar - Khyber/Peshawar**
- **Paktika - FATA / Bannu**
- **Kandahar/Helmand - Balochistan (Quetta block)**

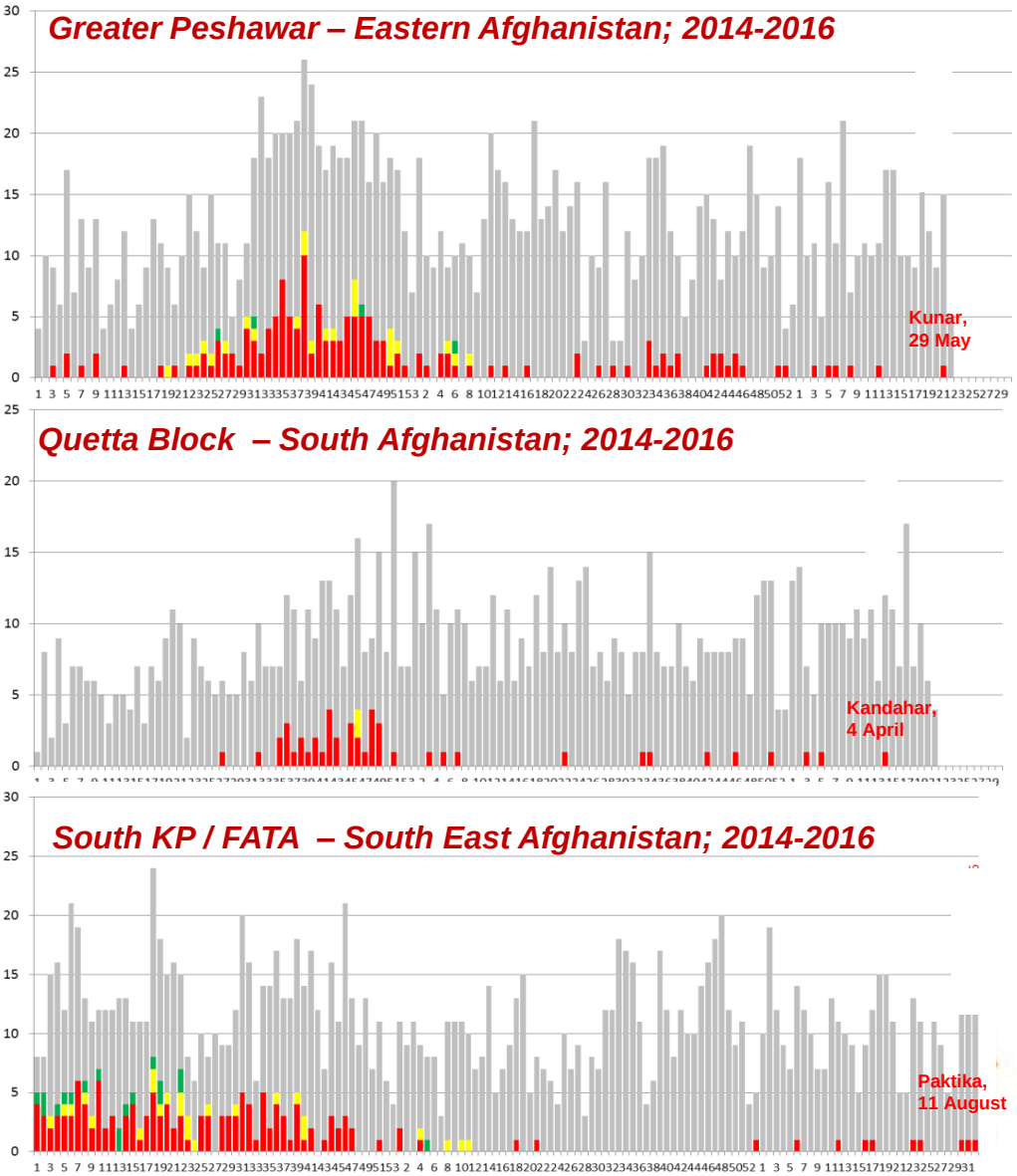
Most recent case onset:
AFG: 11 Aug '16
PAK: 03 Sep '16

ENV positives WPV cases

Data in WHO HQ as of 12 October 2016

Pakistan- Afghanistan Epidemiological Block

- Situation improved; decreased cases & +ve Environ. Samples
- Stronger Emergency Operation Centers (EOCs)
- Strong coordination between the two national programs
- TAG endorsed National Emergency Action Plans (NEAP 2016-2017) operationalized and kicked off (Sep. SIAs implemented both in Pak & Afghanistan)
- **Concerns:**
  - Deteriorating access in north-east Afghanistan (Kunduz)
  - Outbreak in south KP / FATA – southeast Afg. block

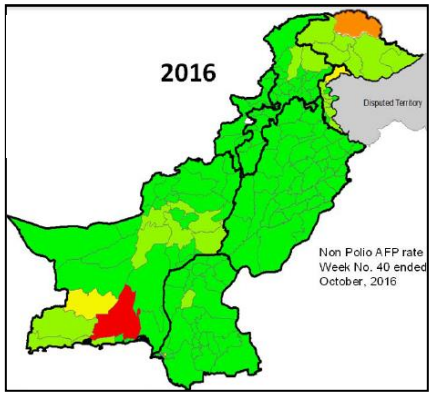


Pakistan:

Surveillance meets standards at the province level , but gaps at district level
Accessibility has continued to improve
(June 2015 – August 2016)

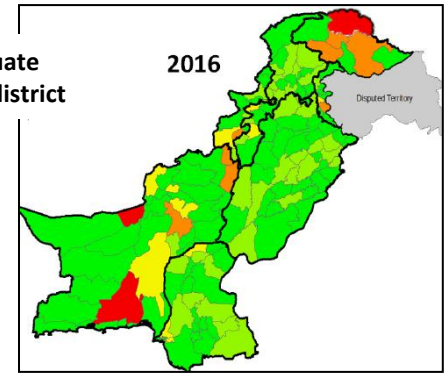
Surveillance

Non-Polio AFP rate by district



0.0000 - 0.5000 | 0.5001 - 0.9999 | 1.0000 - 1.9999 | 2.0000 - 3.9999 | 4+

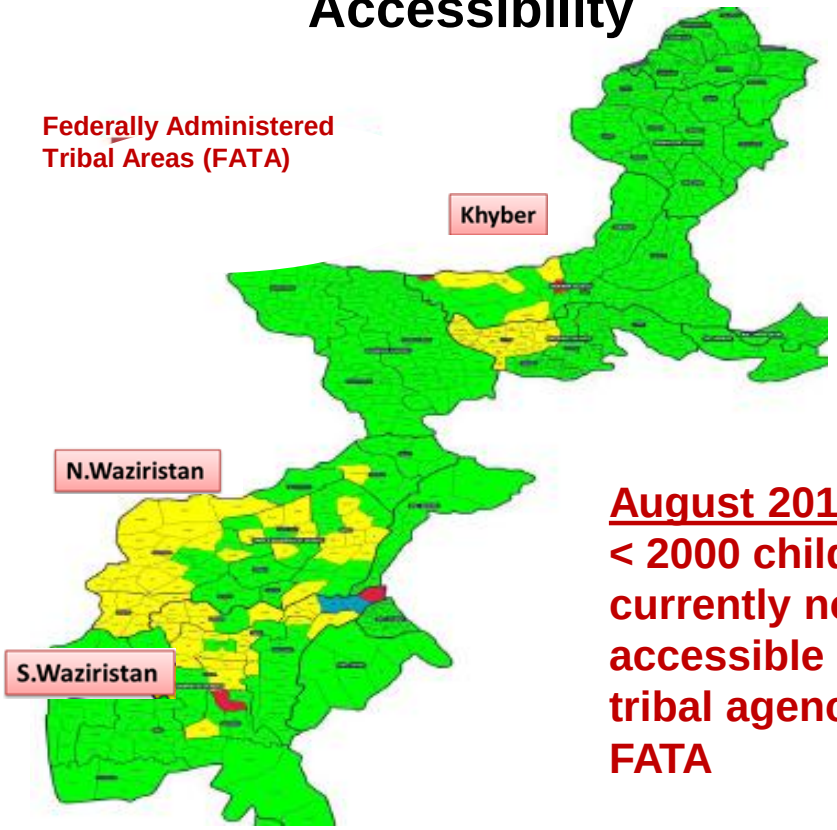
% AFP w. adequate specimens, by district



0 - 49 | 50 - 69 | 70 - 79 | 80 - 89 | 90 - 100

Data for 2016 up to week 40, and 'annualized'

Accessibility



August 2016:
< 2000 children currently not accessible in 3 tribal agencies of FATA

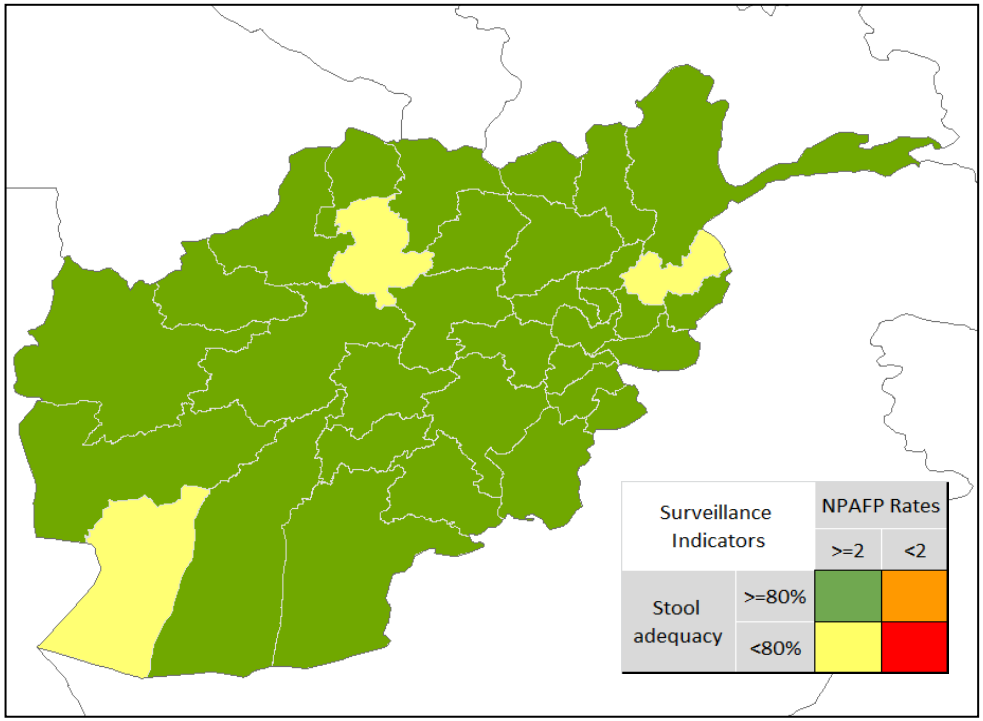
Source: WHO; *data reported as of August, 2016

EVERY LAST CHILD

Afghanistan: Access problems in parts of east and south

Increasing concern in north-east (Kunduz, inaccessible since late 2015)

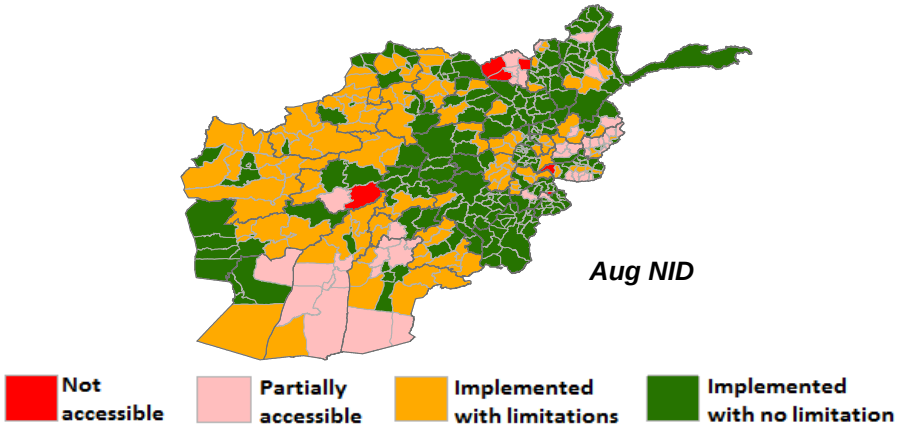
Surveillance



Data reflecting 12-month period Oct. 5, 2015 to Oct. 5, 2016

June 2016 AFP review: core AFP surveillance indicators maintained above standards even in access-compromised areas, despite challenges on the ground.

Accessibility



Region	Feb SNID	Mar NID	Apr SNID	May NID	Aug LPDs	Aug NID
East	22,938	25,869	30555	131,781	73,355	71,085
North	0	0	0	3376	0	0
NE	97,998	146,810	106281	165,333	101,434	197,192
South	7,079	11,684	56,662	22,811	49,403	28,798
SE	380	0	380	400	1,215	15,901
West	0	0	0	0	132,806	38,260
Central	0	0	0	0	0	0
Total	128,395	184,363	193,878	323,701	358,213	351,237

Pakistan- Afghanistan epidemiological block

POLIO GLOBAL ERADICATION INITIATIVE

- **Improvements in overall situation**
  - Improved access & SIAs quality
  - Decrease in number of polio cases and environmental positive samples
- **Progress in highest risk areas of Peshawar, FATA and Quetta**
  - Reduction in intensity of transmission and genetic diversity of circulating virus (cluster R4B3A not seen in 2016 and cluster R4B1C found only in the environment)
- **Strong coordination between the countries**
  - New National Emergency Action Plans (2016-2017) endorsed by TAGs
  - EOCs now operational in Kabul and the 3 high-risk AFG regions
- **However: concerning developments**
  - Continued viral transmission in south KP / FATA and adjoining south eastern Afghanistan (Paktika province)
  - Recent positive env. samples from Pishin (Quetta Block, Balochistan)

EVERY LAST CHILD

Nigeria + Lake Chad

WPV Outbreak in Borno State , Nigeria

POLIO GLOBAL ERADICATION INITIATIVE

4 AFP WPV1 case
NIE-BOS-MNG-16-013
Onset: 21-Aug-2016
24 m; 0 dose

3 AFP WPV1 case
NIE-BOS-MNG-16-010
Onset: 6-Aug-2016
23 m; 0 dose

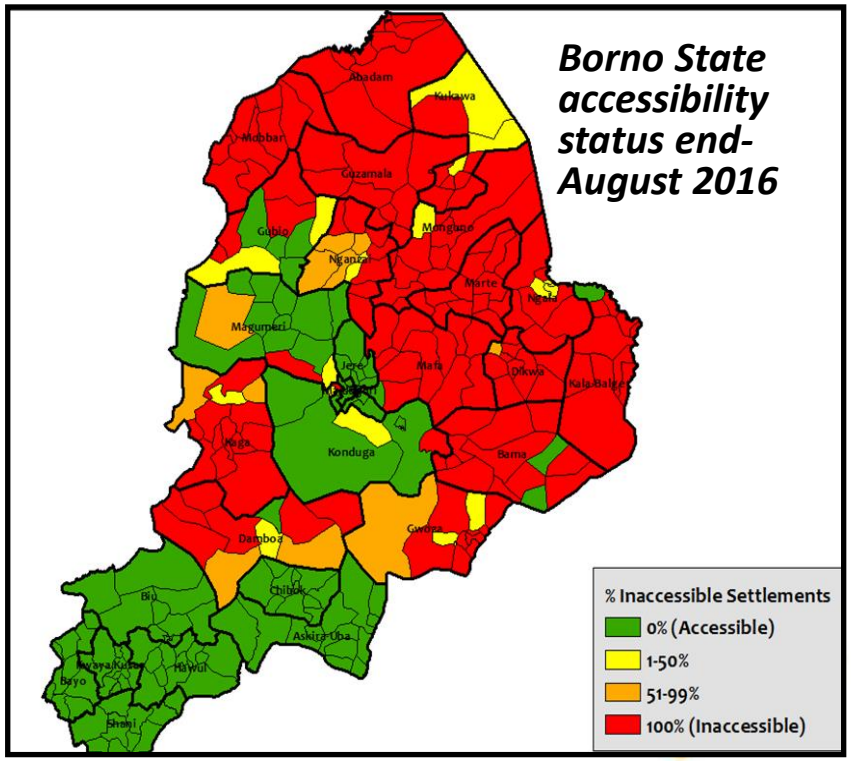
cVDPV2 healthy child
NIE-BOS-MNG-16-010-C14
collection: 26-Aug-2016
6 yr; 0 dose

cVDPV2 env positive
collection: 23-Mar-2016

1 Contact WPV1
NIE-BOS-JRE-16-044
index onset: 4-Jul-2016

2 AFP WPV1
NIE-BOS-GZA-16-007
Onset: 13-Jul-2016

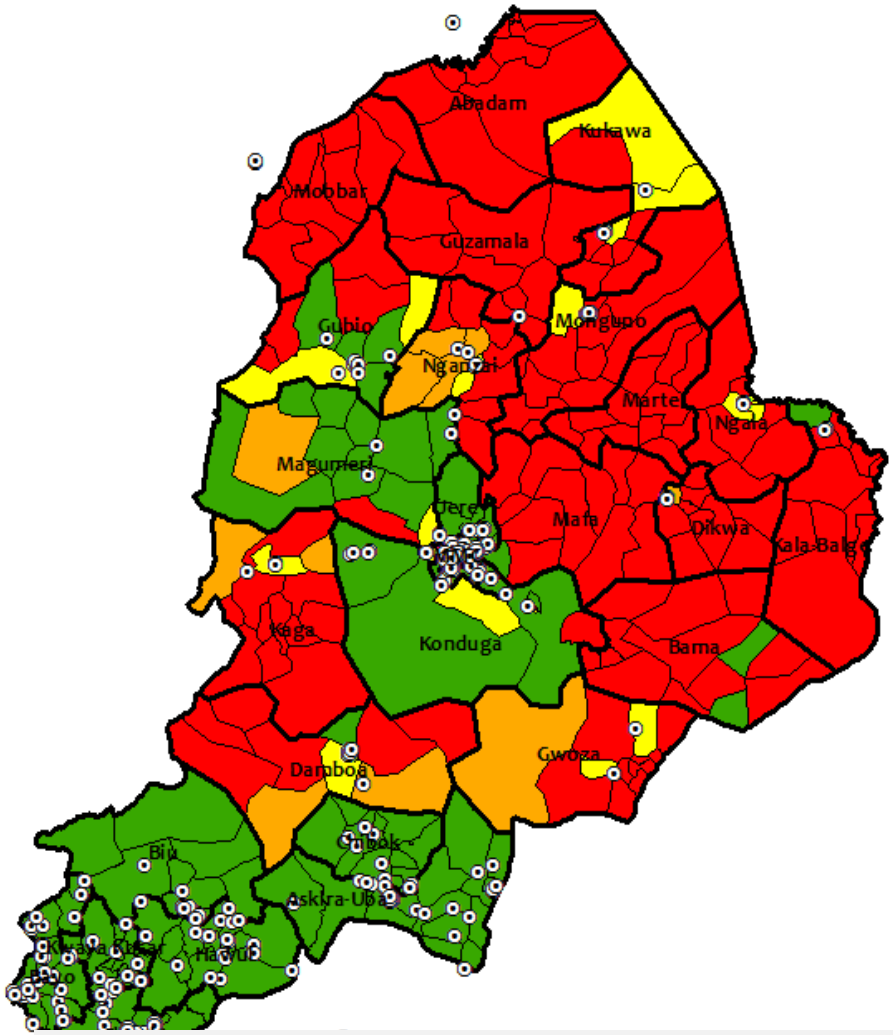
ABADAM
MOBBAR
KUKAWA
GUZAMALA
GUBIO
NGANZAI
MONGUNO
MARTE
JERE
MAFA
MAIDUGURI
KAGA
KONDUGA
BAMA
GWOZA
DAMBOA
BIU
CHIBOK
ASKIRA/UBA
KWAYA KUSAR
HAWUL
BAYO
SHANI



Data in WHO HQ as of 07 October 2016

Nigeria + Lake Chad Basin Outbreak

- WPV1 outbreak : 4 cases and 1 isolate in community contact
- cVDPV2 outbreak : ES isolate in March and one isolate from healthy child in August
- Evidence of prolonged undetected circulation (Over 4 years)
- AFP surveillance in inaccessible areas limited to IDPs camps established within partially accessible or recently liberated LGAs
- Insecurity and large population movements across 5 countries in the Lake Chad Basin region
- Declaration of level 3 health sector emergency



Location of Verified AFP Cases Vs Accessibility, Borno State, Jan-Aug 2016

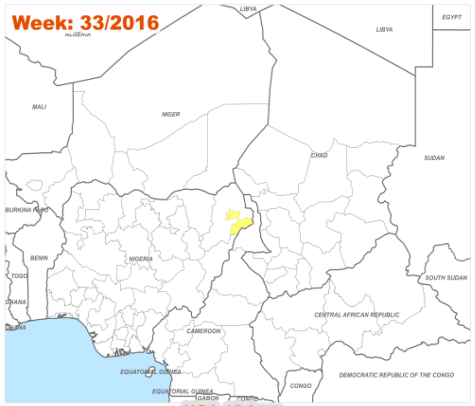
Multi-country outbreak response

- Lake Chad Countries have declared regional public health emergency
- Lake Chad Coordination established in N'djamena with partner agencies and 5 governments with Regional GPEI Coordinator appointed by WHO/AFRO
- Multi-country response plan
  - 5 bOPV SIAs followed by mOPV2
  - Up to 41 million under 5 targeted
  - Surveillance enhancement (active case search enhanced lab capacity)
- Strategies to reach children in inaccessible areas
  - Fire walling, Permanent Health Teams, Vaccination in International Border and Permanent Transit points, Hit and Run, Vaccination in IDP camps…
- Advocacy, communications and social mobilization strategies
- Strong linkages with Humanitarian response

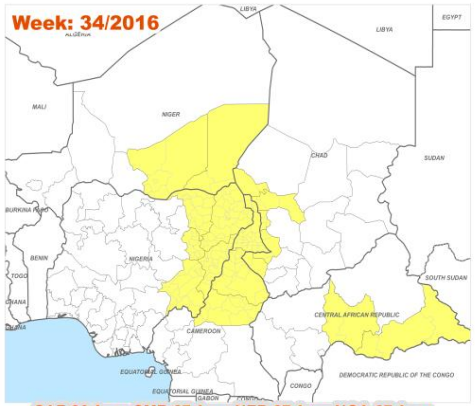
Lake Chad: SIAs conducted and planned, August - December 2016

POLIO GLOBAL ERADICATION INITIATIVE

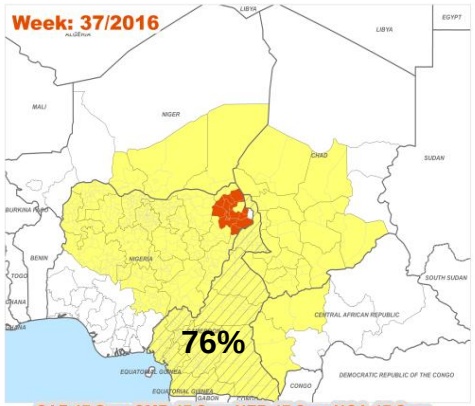
bOPV | IPV | IPV|+bOPV | mOPV1 | mOPV2 | mOPV3 | tOPV



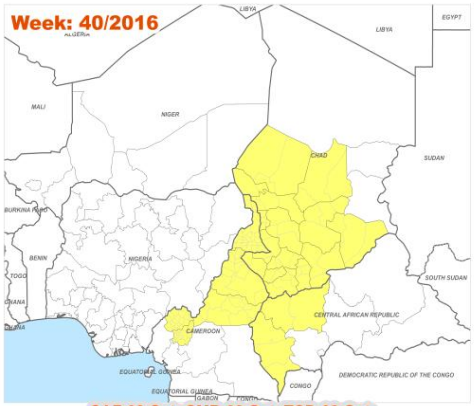
NGA-15 Aug;



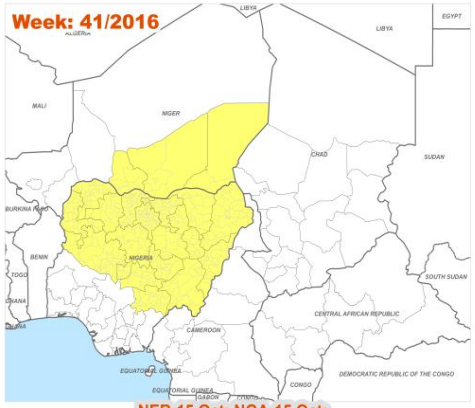
CAF-26 Aug; CMR-27 Aug; NER-27 Aug; NGA-27 Aug; TCD-27 Aug;



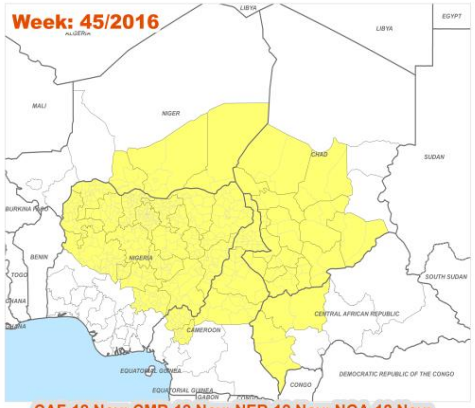
CAF-17 Sep; CMR-17 Sep; NER-17 Sep; NGA-17 Sep; TCD-17 Sep;



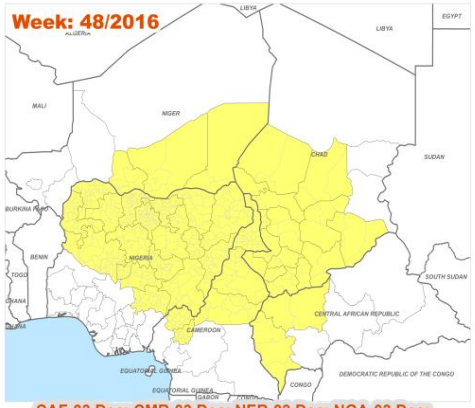
CAF-08 Oct; CMR-08 Oct; TCD-08 Oct;



NER-15 Oct; NGA-15 Oct;



CAF-12 Nov; CMR-12 Nov; NER-12 Nov; NGA-12 Nov; TCD-12 Nov;



CAF-03 Dec; CMR-03 Dec; NER-03 Dec; NGA-03 Dec; TCD-03 Dec;

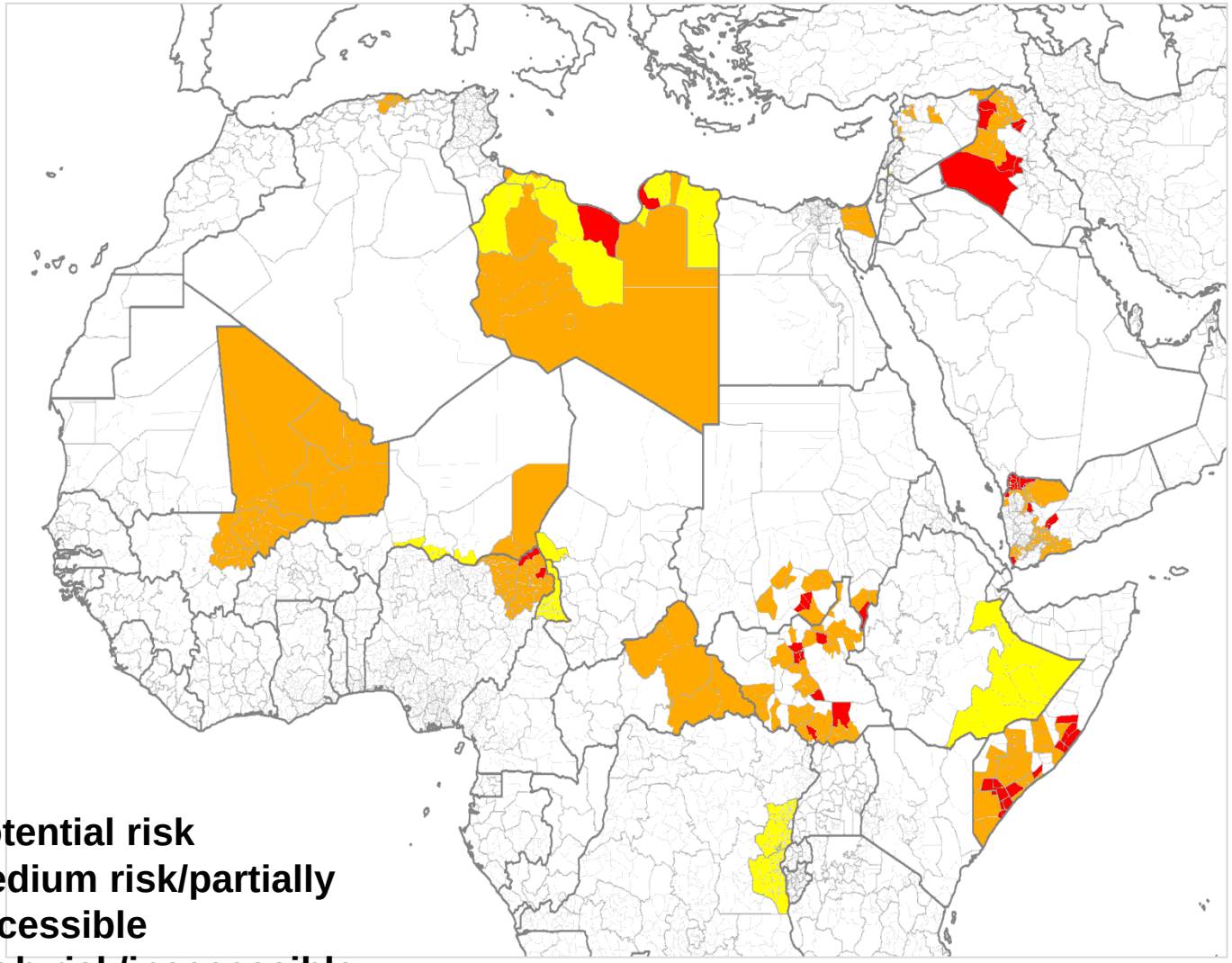
SNID with unknown geography

EVERY LAST CHILD

Ensuring there are no more undetected reservoirs

EVERY LAST CHILD

Conflict-related access limitations

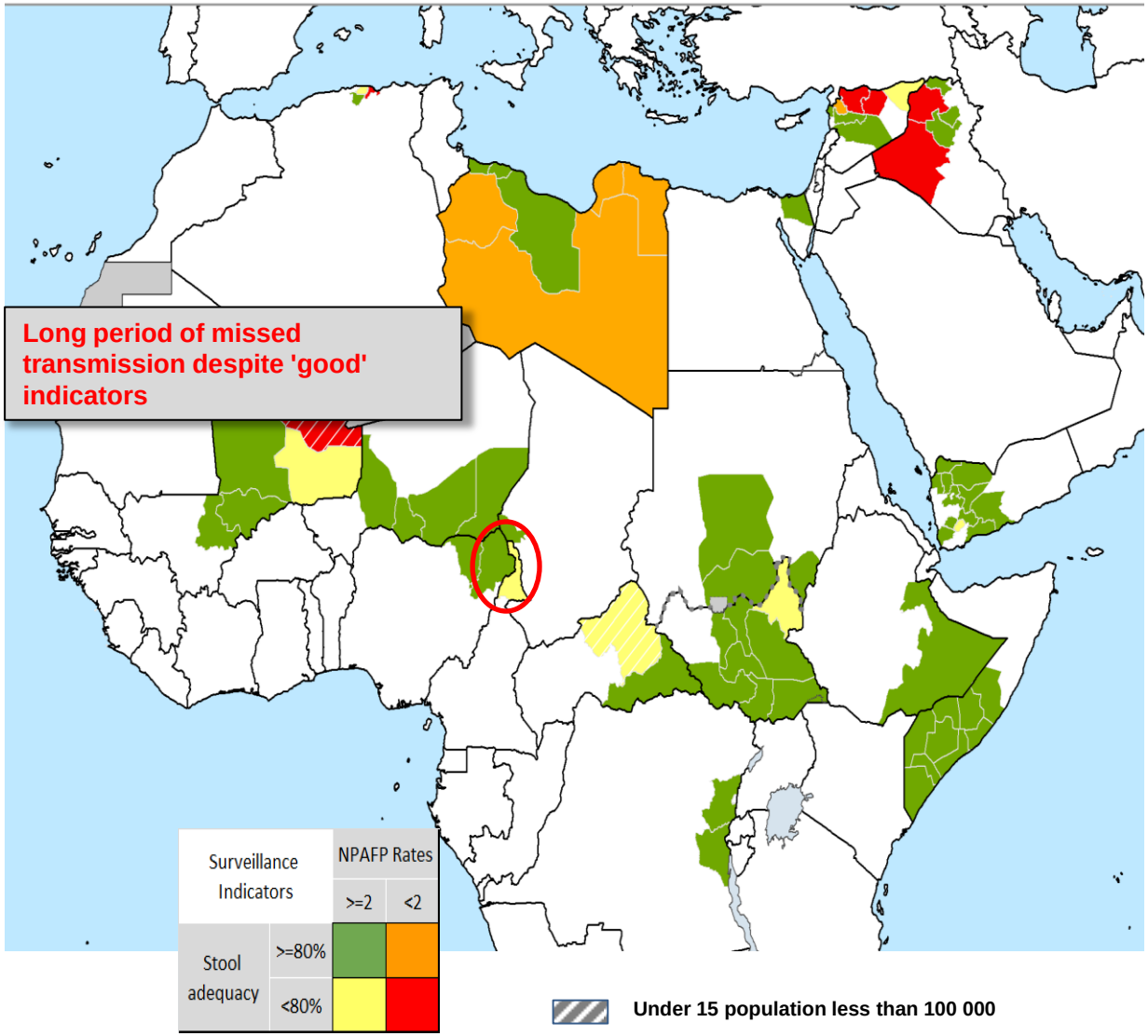


- Potential risk
- Medium risk/partially accessible
- High risk/inaccessible

Source : United Nations Department of Safety and Security , August 2016

AFP quality in access-compromised areas

5 Oct 2015 - 4 Oct 2016

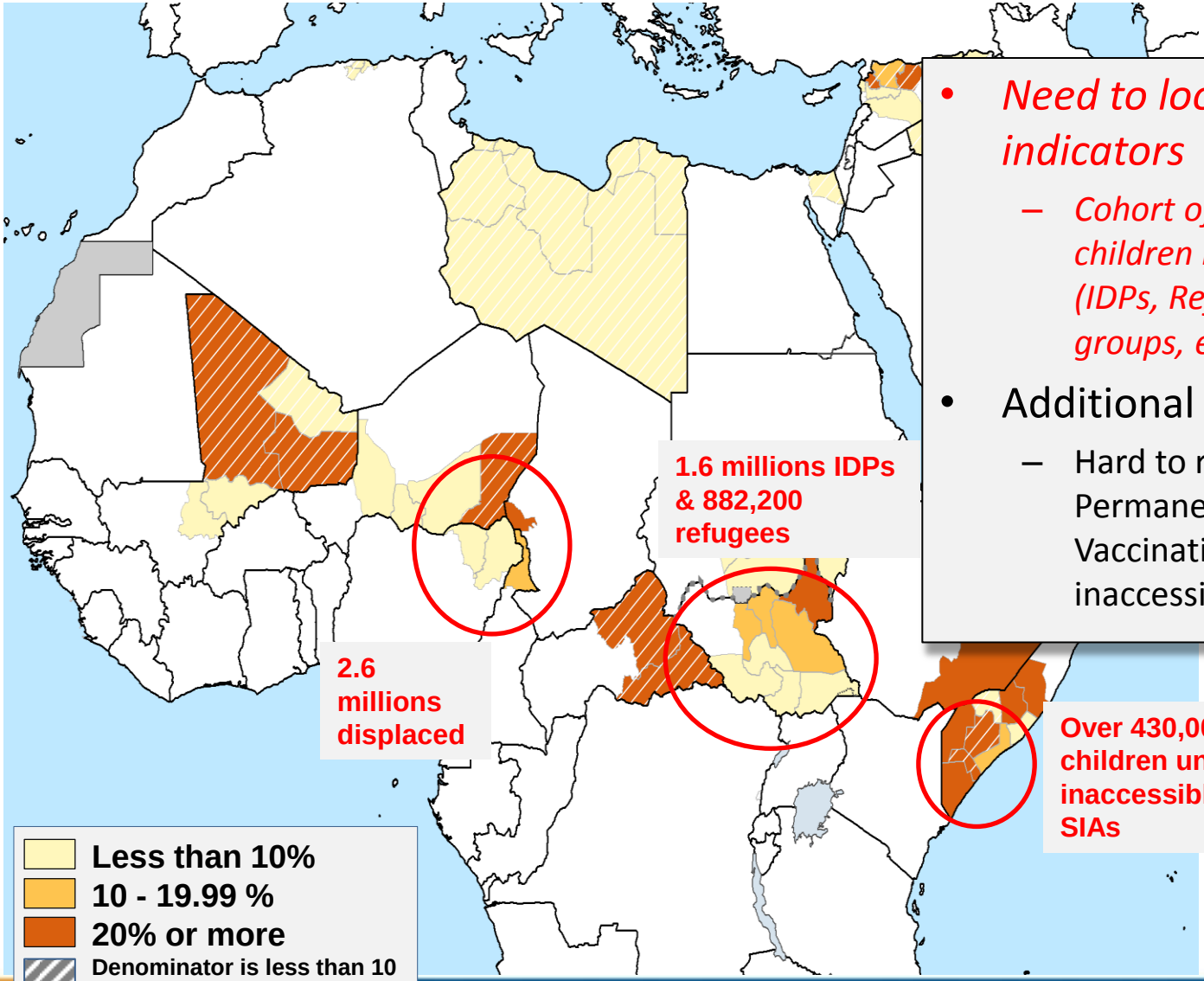


- *Need to look 'beyond indicators'*
  - *Population movements (adjust AFP rate)*
  - *Assure quality 'Active Surveillance'*
  - *Validation of cases*
- **Additional surveillance initiatives**
  - Brazzaville Initiative (AFR)
  - Community involvement (village Polio volunteers
  - Expansion of env. surveillance
  - Mapping inaccessible settlements
  - Geocoding of AFP cases

Souorce: WHO Database; Last updated 05 Oct 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 SIAs initiatives
  - Hard to reach SIAs, Permanent Transit Point Vaccinations, mapping of inaccessible settlements

Data source: WHO Database; Last updated 05 Oct 2016

Ongoing detailed risk assessments for all countries / areas with access limitations

POLIO GLOBAL ERADICATION INITIATIVE

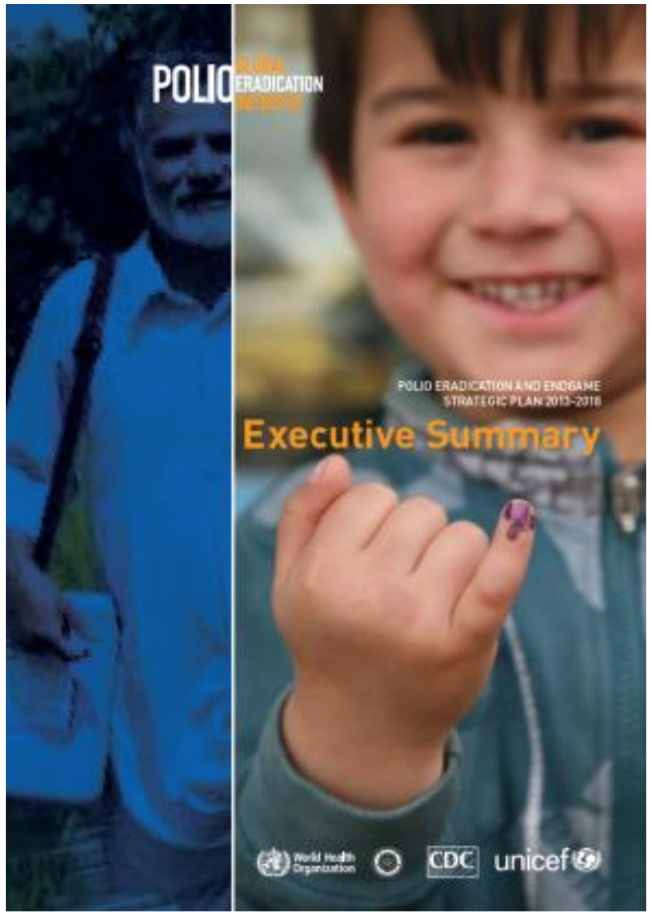
Review of Surveillance and Immunity levels

- Detailed risk assessment close to completion for 6 polio-free countries of EMR: **Syria, Iraq, Yemen, Libya, Sudan, Somalia**
- Detailed desk review ongoing for 8 polio-free countries in AFR: **Ethiopia, S. Sudan, DR Congo, CAR, Chad, Cameroun, Niger, Mali**
- Field assessments ongoing in Nigeria and will follow in selected priority conflict-affected countries

EVERY LAST CHILD

Polio Eradication and Endgame Strategy

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

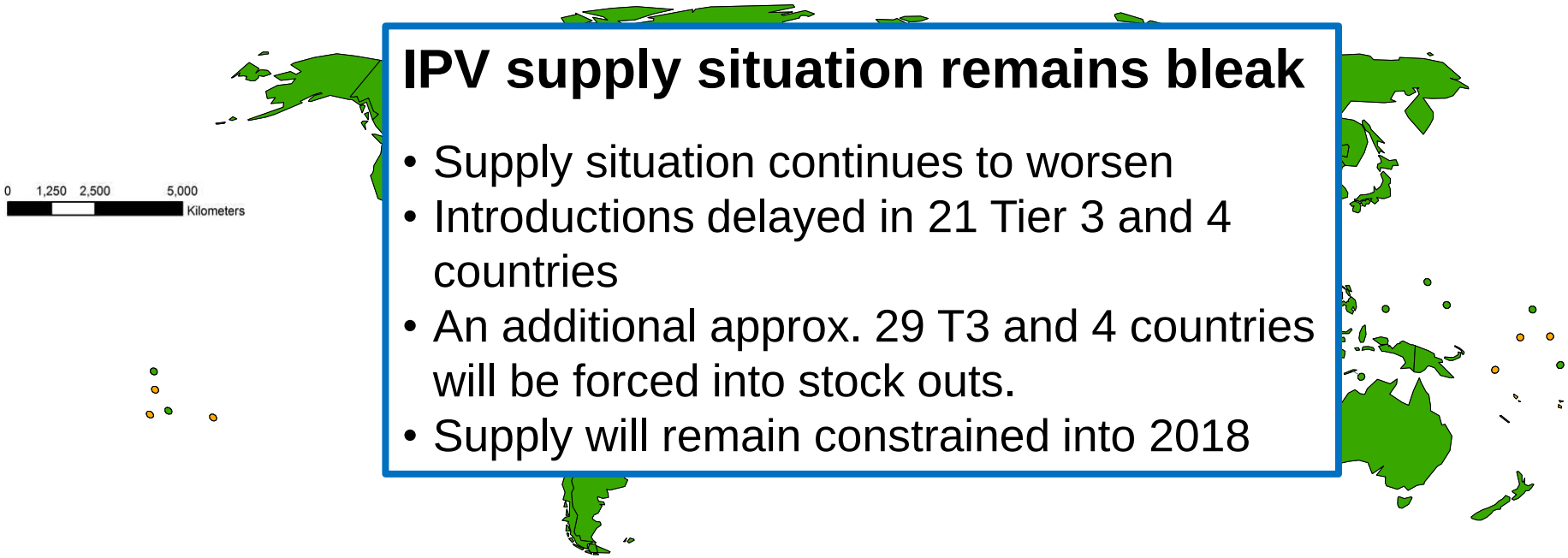


EVERY LAST CHILD

Countries using IPV vaccine

IPV supply situation remains bleak

- Supply situation continues to worsen
- Introductions delayed in 21 Tier 3 and 4 countries
- An additional approx. 29 T3 and 4 countries will be forced into stock outs.
- Supply will remain constrained into 2018



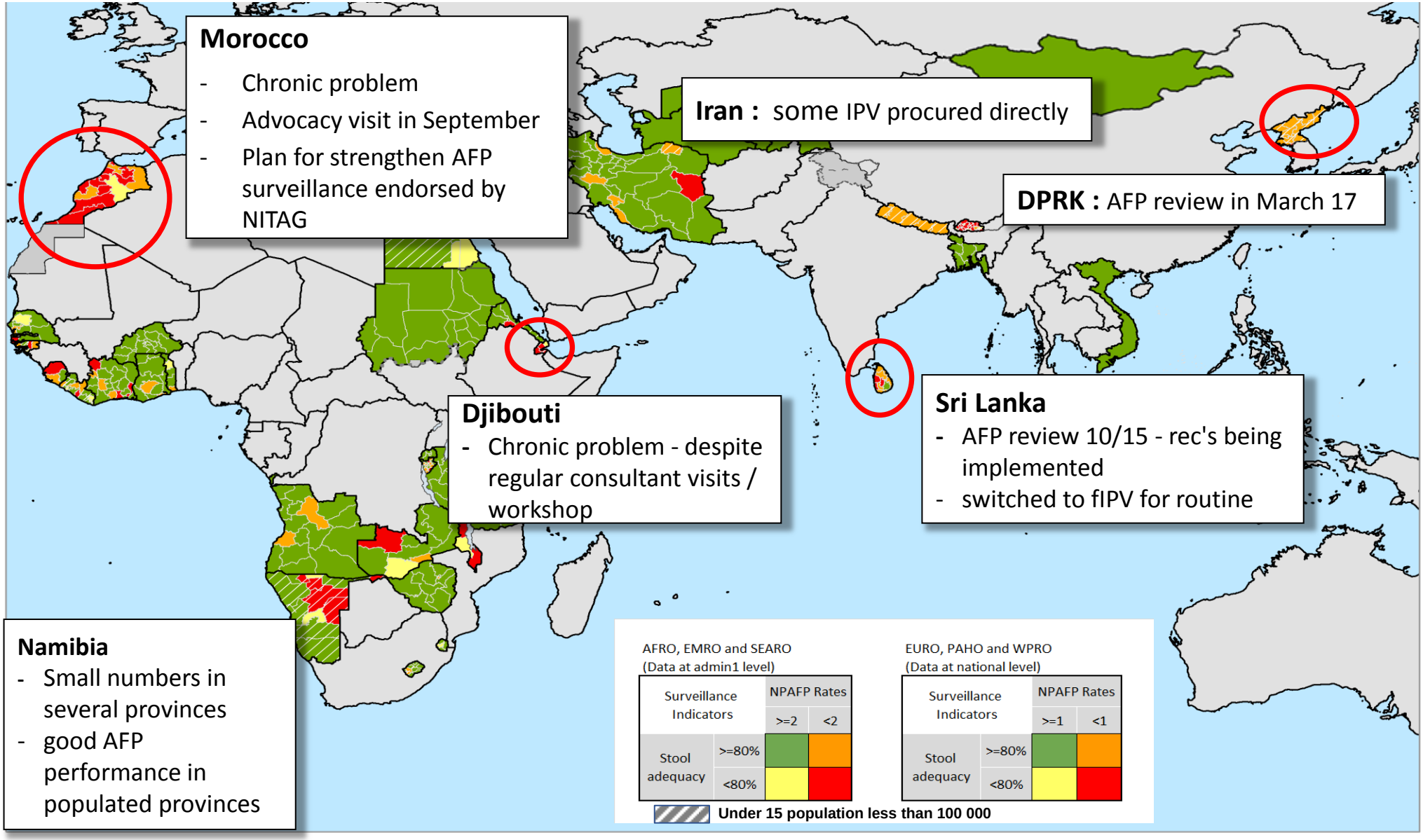
- Introduced to date *(173 countries or 89%)*
- Countries with delayed introductions *(21 countries or 11%)*
- Countries affected by stock outs *(29 countries)*
- Not available
- Not applicable

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.

Data source: WHO/IVB Database, as of 13 October 2016
Map production Immunization Vaccines and Biologicals (IVB), World Health Organization

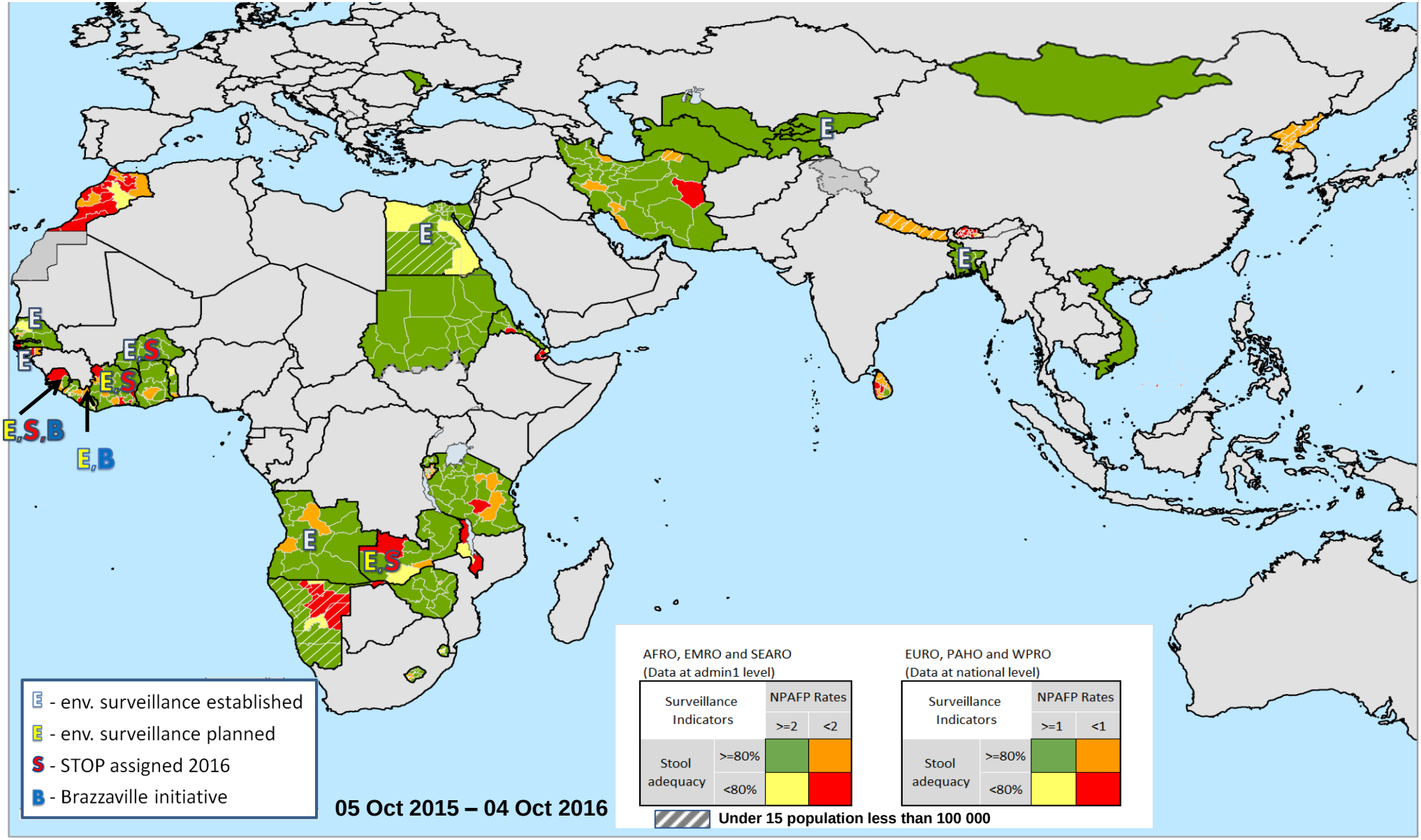
Risks for countries with delayed or interrupted access to IPV

Surveillance indicators (Last 12 months)



Data source: WHO Database; Last updated 05 Oct 2016

Ongoing efforts to strengthen surveillance



Data source: WHO Database; Last updated 05 Oct 2016

Summary: surveillance in countries with delayed / interrupted access to IPV

POLIO GLOBAL ERADICATION INITIATIVE

- Surveillance indicators in most countries reach or surpass standards at national level;
  - surveillance gaps at sub-national level
- **Continued problems or recent worsening of AFP quality**:
  - Sierra Leone and Liberia (post-Ebola) - recent improvements following support through Brazzaville initiative
  - Morocco, Djibouti, Sri Lanka, DPRK: WHO working with MoHs to assess situation and implement surveillance strengthening measures
- Env. surveillance established in 7 countries;
  - plan to expand to 5 additional countries (AFR)

Type 2 Poliovirus : need to stay vigilant!

POLIO GLOBAL ERADICATION INITIATIVE

19 VDPV2 incidents since the Switch (chronological order of lab notification)

(Guinea-ongoing since 2014)

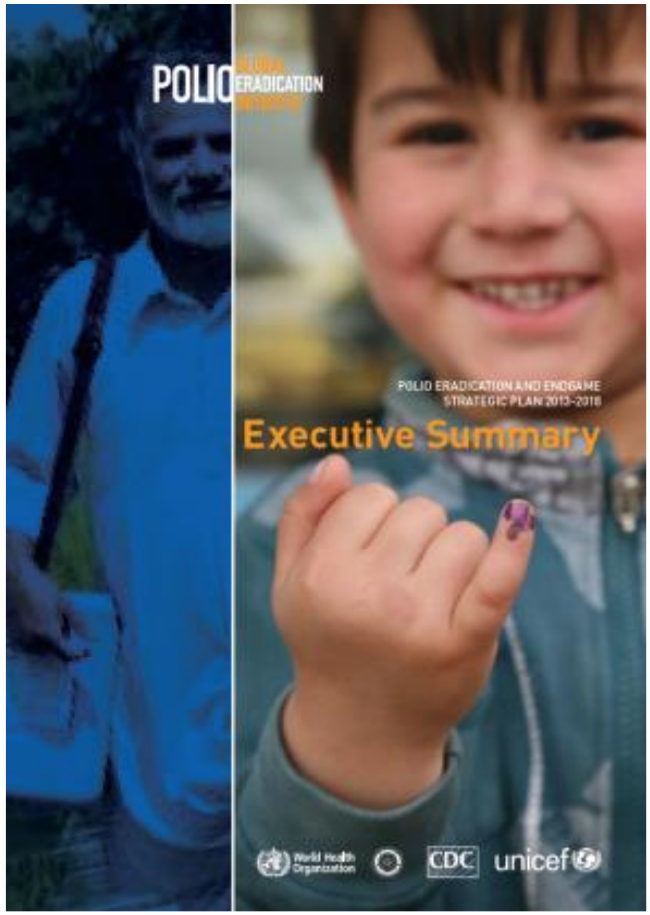
1. Egypt
2. Nigeria - Borno (Environmental sample) + Lake Chad region - Niger, Chad, Cameroun
3. Kenya
4. Syria
5. DRC
6. India - Telangana 1
7. Nigeria - Jigawa
8. India - Kolkata
9. India - Delhi
10. India - Telangana 2
11. Pakistan – Balochistan Quetta 1
12. Pakistan - Sindh
13. Ukraine - Odessa
14. Yemen - Aden
15. Palestine - Bethlehem
16. Nigeria - Borno (healthy child)
17. Afghanistan – Paktika
18. Pakistan – Balochistan Quetta 2
19. Moscow, Russian Federation

cVDPV2

mOPV2 released by WHO DG

Polio Eradication and Endgame Strategy

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



EVERY LAST CHILD

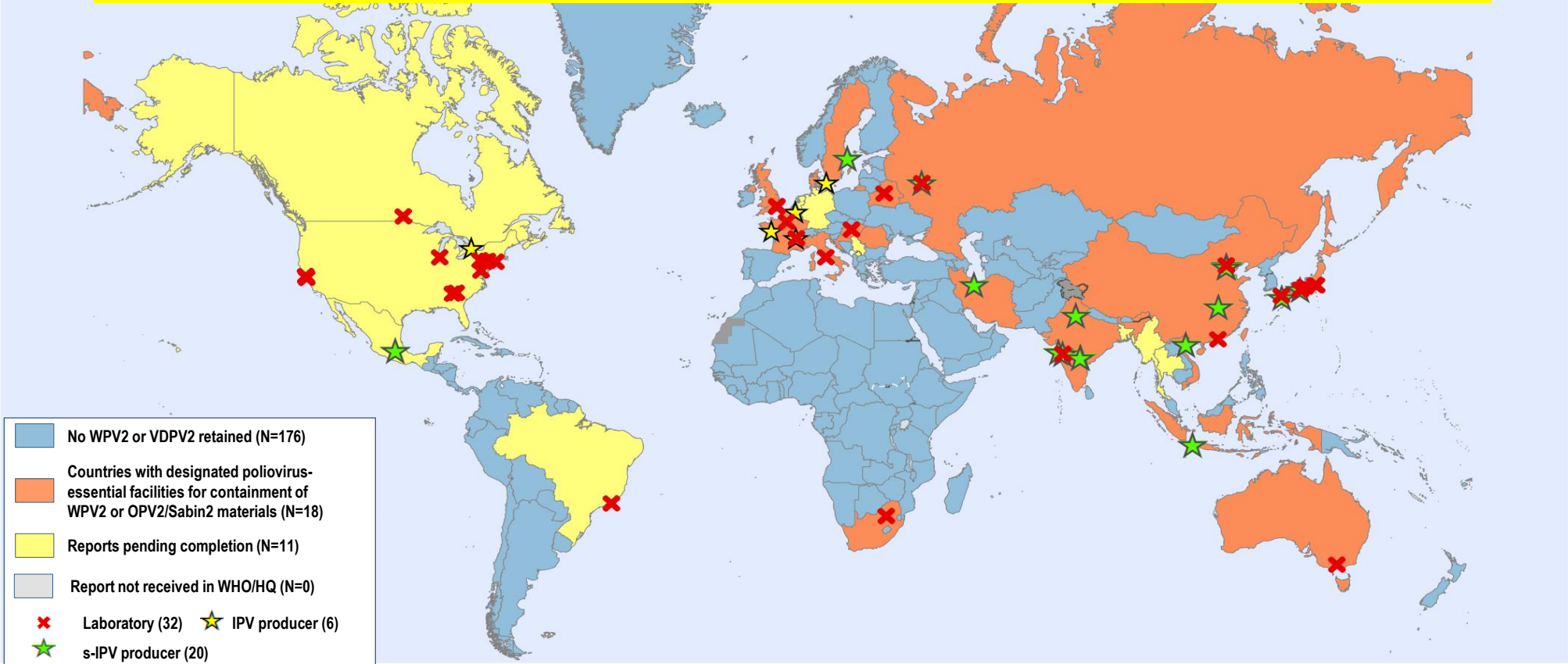
Phase I. Progress/Status Update

Phase I: reduce the number of facilities containing PV2:	**WPV2/VDPV2 by end-Dec 2015** • 176/205 official reports received • 18 countries designated 58 PEFs to retain WPV2 or Sabin2 materials **OPV2/Sabin2 by end-July 2016** • 1 official report received
National capacity building:	21 containment implementation and certification workshops conducted addressing Phase I and preparing for Phase II

Guidance for completion of Phase I	• Identification of potentially infectious materials into 3 groups based on likelihood of being contaminated with PV2
	  • **High –** destroy or contain (Annex 2 and 3 of GAPIII)
	  • **Medium –** appropriate handling (additional guidance)
	  • **Low** - ***no change to working conditions***
	• Work in progress, will be submitted to CAG

GAPIII - Phase I, part 1 (WPV2/VDPV2)

23 countries reported hosting 58 designated Poliovirus-Essential Facilities (PEFs)



used on this map do not imply the expression of any opinion whatsoever
he 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.

World Health Organization
© WHO 2016. All rights reserved.

Source: WHO Database; Last updated 06 Oct 2016

Phase II. Progress/Status Update

Phase II: reduce risk in remaining facilities:	0 facilities certified against GAPIII
Containment Advisory Group (CAG): Address technical concerns, including guidance for completion of Phase I	TORs established Call for Nomination issued
GCC Containment Working Group (GCC CWG)	TORs established Call for Nomination issued in October

GAPIII Containment Certification Scheme (CCS)
• Proposes interim solutions:
  • Certificate of participation
  • Interim certificate of containment
  • Certificate of containment
	CCS to supersede GAPIII, Annex 4:
	  • Verification of containment is a national responsibility
	  • Submission of GCC /CWG
	CCS submitted to SAGE Polio WG for endorsement

Data as of October 2016

Phase II. Implement and certify containment

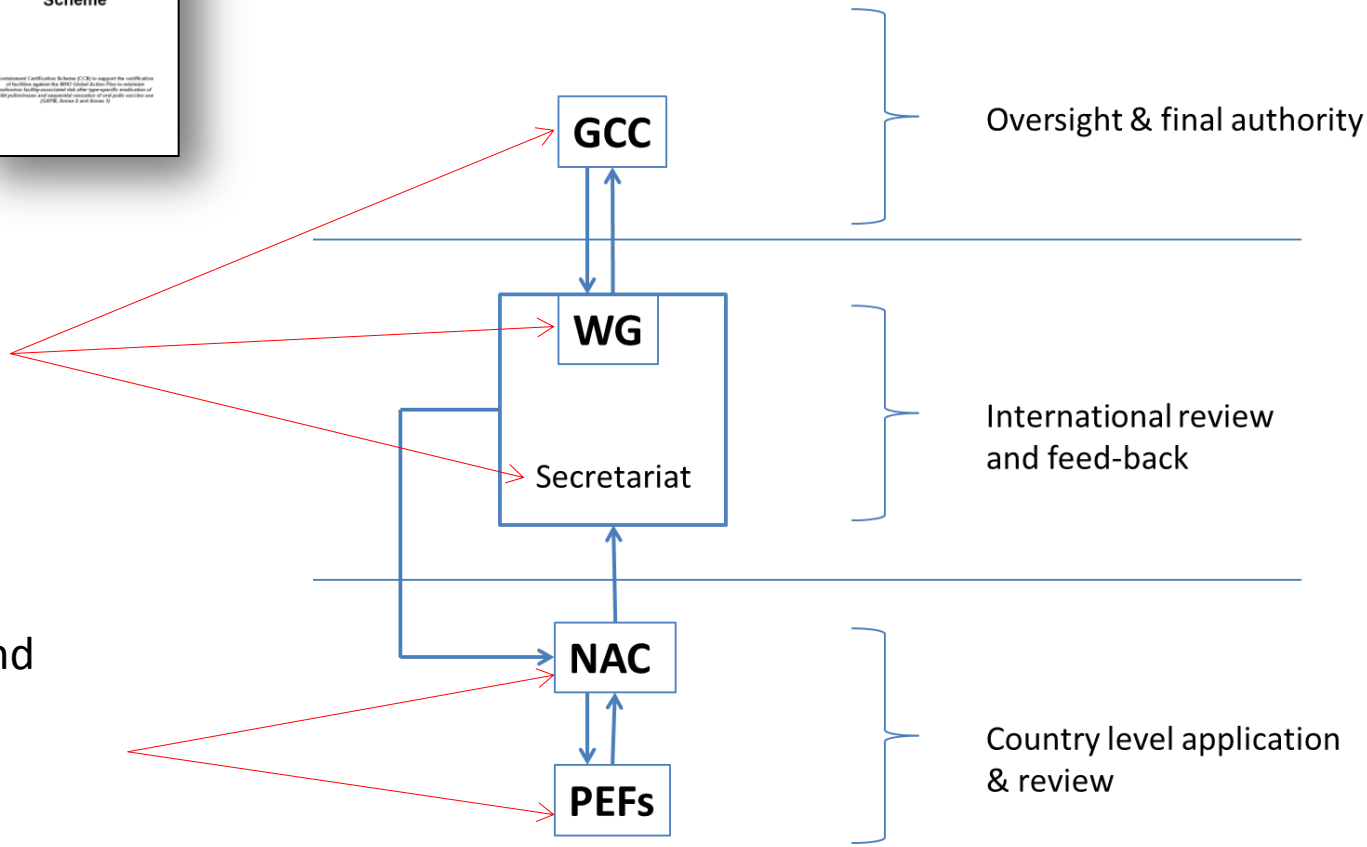
WHO role:

Support GCC:

1. Establish GCC CWG
2. Formalize CWG Secretariat

Support NACs and PEFs:

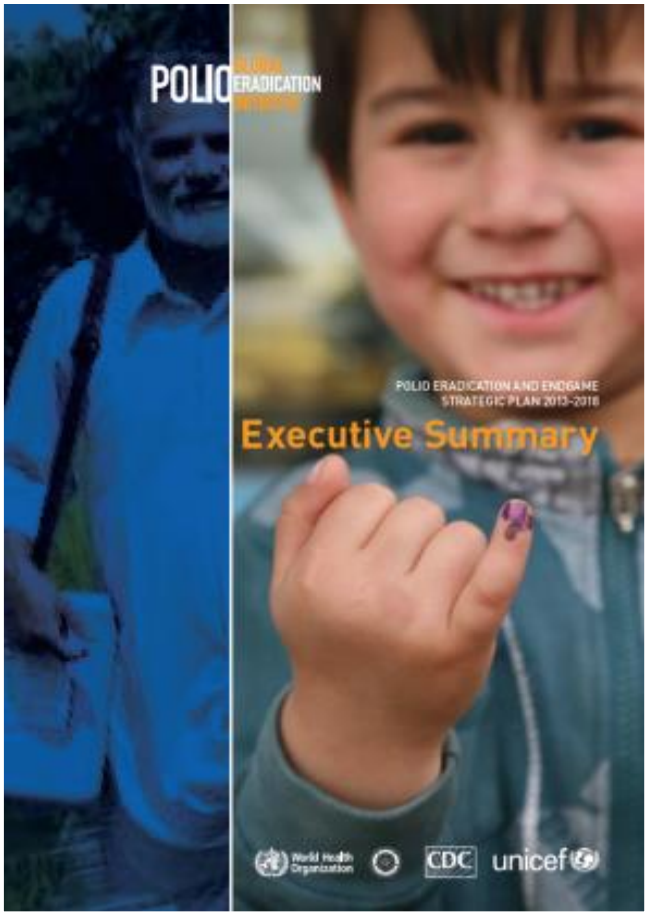
1. CCS
2. GAPIII Implementation and certification training
3. Pool of auditors:
4. Align TRS 926 to GAPIII



TRS 926: Safe production of polio vaccines

Polio Eradication and Endgame Strategy

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



EVERY LAST CHILD

Polio Transition Planning

POLIO GLOBAL ERADICATION INITIATIVE

Three related planning streams underway:

1. Country-level transition planning
   - Regional offices are taking the lead
   - Coordinated by GPEI Transition Management Group
2. Agency-based transition planning
   (WHO & other GPEI partners)
3. Post-certification strategy development

Oversight : Transition Independent Monitoring Board

EVERY LAST CHILD

Country-level Transition Planning

POLIO GLOBAL ERADICATION INITIATIVE

- Focused on 16 priority countries (representing >90% of GPEI investment

Country	WHO Region	UNICEF Region	GPEI PLANNING MILESTONES						
			Communication to government leadership (with budget projections)	Governing body and management team appointed	Mapping of polio-funded assets available	Mapping of country priorities available	Transition strategies identified and agreed with stakeholders	Draft transition plan available	Final transition strategy available
Afghanistan	EMRO	ROSA							
Angola	AFRO	ESARO	Complete	In process	Complete	In process	Not yet started	Not yet started	Not yet started
Bangladesh	SEARO	ROSA	Complete	In process	In process	In process	Not yet started	Not yet started	Not yet started
Cameroon	AFRO	WCARO	Complete	Complete	Complete	In process	Not yet started	Not yet started	Not yet started
Chad	AFRO	WCARO	Complete	Unknown	Complete	In process	Not yet started	Not yet started	Not yet started
DRCongo	AFRO	WCARO	Complete	Unknown	Complete	In process	Not yet started	Not yet started	Not yet started
Ethiopia	AFRO	ESARO	Complete	Complete	Complete	In process	Not yet started	Not yet started	Not yet started
India - UNICEF	SEARO	ROSA	Complete	Complete	Complete	Complete	Complete	Complete	In process
India - WHO	SEARO	ROSA	Complete	Complete	Complete	Complete	Complete	Complete	In process
Indonesia	SEARO	EAPRO	Complete	In process	In process	In process	Not yet started	Not yet started	Not yet started
Myanmar	SEARO	EAPRO	Complete	Not yet started	Not yet started	Not yet started	Not yet started	Not yet started	Not yet started
Nepal	SEARO	ROSA	Complete	Not yet started	In process	In process	Not yet started	Not yet started	Not yet started
Nigeria	AFRO	WCARO	Complete	Complete	Complete	In process	In process	Not yet started	Not yet started
Pakistan	EMRO	ROSA							
Somalia	EMRO	ESARO	Complete	Unknown	Not yet started	Not yet started	Not yet started	Not yet started	Not yet started
South Sudan	EMRO	ESARO	Complete	Unknown	Complete	In process	Not yet started	Not yet started	Not yet started
Sudan	AFRO	MENA	Complete	Complete	In process	In process	Not yet started	Not yet started	Not yet started

Context for Transition Planning

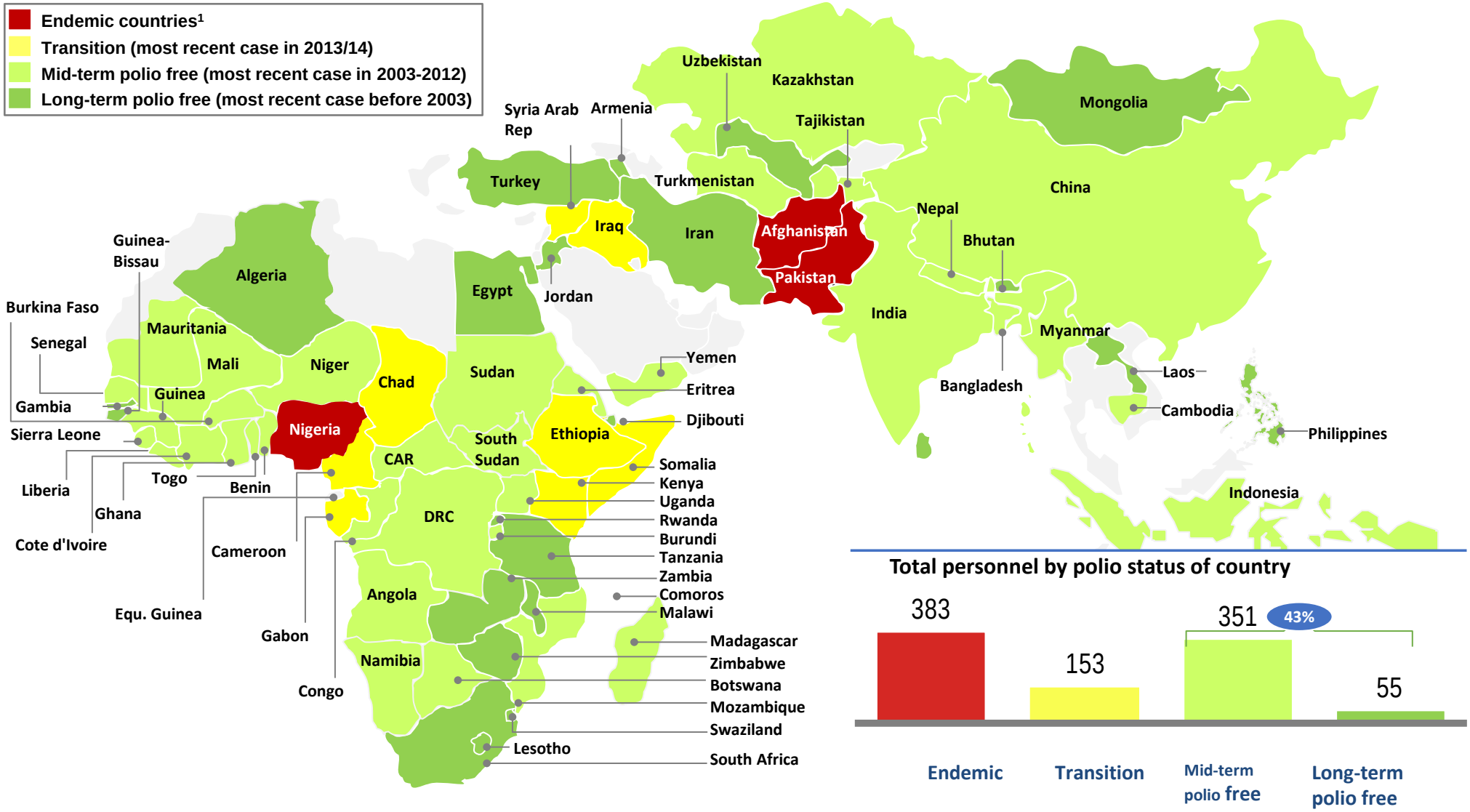
POLIO GLOBAL ERADICATION INITIATIVE

- GPEI funding will ramp down substantially over the coming years and GPEI will cease to exist soon after global certification

WHO context :

- Over 1,000 WHO staff and 6,000 non-staff positions are funded by Polio across 66 countries.
- In 22 countries, Polio staff constitute between 20% -70% of all WHO staff in the country.
- Polio funds constitute 20% of WHO total program budget (2016-17: $895m);
  - 20% - 35% of WHO budgets in AF, EM, and SEA Regions

Footprint of WHO Polio-funded Staff in Countries



SOURCE: AFP/polio data (WHO website), GSM, GPEI HR Map August 2013

Some Next Steps / Outcomes

- Steering group established, co-led by Executive Director, DGO and ADG, GMG on Transition planning at WHO
- HR Working Group established with HQ and Regions to oversee and develop global HR transition plan and manage indemnity risks
- Collaborative inter-programme process to develop process for "consequence analysis" of impact of loss of polio funds and staff
- Participation in the WHO Financing Dialogue – to receive input from donors

Post-certification Strategy

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

Four goals (provisional):

1. Contain polio sources
2. Detect and respond to any poliovirus
3. Protect populations through immunisation
4. Manage effectively and monitor, to ensure delivery of the above goals is embedded in existing mechanisms – or develop new mechanisms

Development process:

- GPEI-led but highly inclusive; approximately one year

Relationship to transition planning:

- More tightly define the parameters towards which transition planning is needed

Transition Independent Monitoring Board

Independently monitor and guide the process of polio transition planning assessing the quality, sufficiency and impact of work being undertaken.

Chair: Sir Liam Donaldson

Members (invited) :

- Dr Jon Andrus, USA
- Dr Saleh Al Awaidy, Oman
- Dr Mohammed Abdi Jama, Somalia
- Dr Jeffrey Koplan, USA
- Prof Yvonne Maldonado, USA
- Dr Bjørn Melgaard, Denmark
- Mrs Anne Mtonga, Zambia
- Dr Mirta Roses, Argentina
- Dr Roma Solomon, India
- Ms Heidi Wieczorek-Zeul, Germany

Preparatory meeting: 15 November 2016
First formal meeting: Spring 2017

Programme Priorities - Next 6 months

POLIO GLOBAL ERADICATION INITIATIVE

1. **Response to Nigeria outbreak in all 5 Lake Chad basin countries**
2. **Continued support to Pakistan and Afghanistan**
   - Implement all NEAP activities
   - Improvement of SIAs quality;
   - Additional allocation of IPV for 2017 SIAs (fIPV?)
3. **Revisit risk assessment in all security compromised areas** :
   - Surveillance gaps
   - Nigeria, Afghanistan, Pakistan but also Syria, Somalia, Sudan, Iraq, Yemen, …
4. **Further strengthen and sustain outbreak response capacity**
   - Global and regional levels
5. **Political advocacy and resource mobilization**
   - Also to sustain efforts in non endemic countries

POLIO GLOBAL ERADICATION INITIATIVE

Thank you

EVERY LAST CHILD