



SEMI-ANNUAL STATUS REPORT

JULY TO DECEMBER

2015

PROGRESS AGAINST THE POLIO
ERADICATION AND ENDGAME
STRATEGIC PLAN 2013-2018

POLIO GLOBAL
ERADICATION
INITIATIVE

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ACRONYMS

bOPV	Bivalent oral polio vaccine
cVDPV	Circulating vaccine-derived poliovirus
cVDPV1	Circulating vaccine-derived poliovirus type 1
cVDPV2	Circulating vaccine-derived poliovirus type 2
GAP	Global Action Plan
GAPIII	Third edition of the WHO Global Action Plan to minimize poliovirus facility-associated risk after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use
GCC	Global Commission for Certification of the Eradication of Poliomyelitis
GPEI	Global Polio Eradication Initiative
IPV	Inactivated polio vaccine
mOPV2	Monovalent oral polio vaccine type 2
NEAP	National Emergency Action Plan of Pakistan
NID	National Immunization Day
OPV	Oral polio vaccine
OPV2	Oral polio vaccine type 2
PHEIC	Public health emergency of international concern
PPG	Polio Partners Group
SAGE	Strategic Advisory Group of Experts on immunization
SIA	Supplementary immunization activity
SNID	Subnational Immunization Day
tOPV	Trivalent oral polio vaccine
UNICEF	United Nations Children's Fund
VDPV	Vaccine-derived poliovirus
VDPV2	Vaccine-derived poliovirus type 2
WHO	World Health Organization
WPV	Wild poliovirus
WPV1	Wild poliovirus type 1
WPV2	Wild poliovirus type 2
WPV3	Wild poliovirus type 3

HIGHLIGHTS

Objective 1: Poliovirus detection and interruption

- **Endemic countries:** Nigeria passed the one-year mark with no wild poliovirus (WPV) cases on 24 July 2015. Efforts continue to intensify in Pakistan and Afghanistan, the final strongholds of the virus.
- **Outbreaks:** In the Horn of Africa, the Middle East and central Africa, outbreaks have been stopped. An outbreak in Ukraine continued into the second half of the year. Outbreaks also occurred in Lao People's Democratic Republic, Myanmar and Guinea.

Objective 2: Immunization systems strengthening and OPV withdrawal

- **The switch:** The Strategic Advisory Group of Experts on immunization (SAGE) concluded that the switch from the trivalent oral polio vaccine (tOPV) to the bivalent oral polio vaccine (bOPV) should go ahead in April 2016.
- **Inactivated polio vaccine supply:** The SAGE further concluded that a globally constrained supply of inactivated polio vaccine (IPV) must be carefully managed in the run up to the switch.

Objective 3: Containment and certification

- **Certification:** In September 2015, the Global Commission for Certification of the Eradication of Poliomyelitis (GCC) declared that wild poliovirus type 2 (WPV2) has been eradicated.
- **Containment:** Countries were requested to report on the destruction, or plans for retention, of WPV2 and vaccine-derived poliovirus type 2 (VDPV2) materials by the end of 2015, and oral polio vaccine type 2/Sabin2 materials by July 2016.

Objective 4: Legacy planning

- **Legacy:** Sixteen countries where polio infrastructure is significant have been selected as priorities for transition planning (Afghanistan, Angola, Bangladesh, Chad, the Democratic Republic of the Congo, Egypt, Ethiopia, India, Indonesia, Myanmar, Nepal, Nigeria, Pakistan, Somalia, South Sudan and Sudan). Fourteen of these countries (all except Afghanistan and Pakistan) have been asked to finalize transition plans by the end of 2016 based on a mapping of the polio eradication assets in each country.

INTRODUCTION

The Global Polio Eradication Initiative (GPEI) Polio Eradication & Endgame Strategic Plan 2013-2018 (the Endgame Plan) aims to make polio the second-ever human disease to be eradicated from the world. At the time of the GPEI's founding in 1988, polio was endemic in more than 125 countries and paralysed 350 000 children every year. Since then, the GPEI has overseen a 99.9% reduction in annual cases of polio, with just 74 WPV cases reported in 2015 from the only two remaining endemic countries.

The structure of this document includes a high-level summary, followed by a detailed narrative for each of the strategic objectives, broken down by geography where appropriate. The narrative is followed by a series of annexes that contain the monitoring framework indicators for endemic countries, outbreak countries and high-risk countries, and global indicators.

EXECUTIVE SUMMARY

By the end of 2015, strong progress continued towards each of the Endgame Plan's four objectives. The world has never been closer to eradicating polio, with fewer cases in fewer areas of fewer countries than at any time in the past. The virus is now more geographically constrained than at any point in history. As the GPEI enters 2016, it is more important than ever to redouble efforts to eradicate poliovirus in every corner of the globe.

Recognizing the progress made towards interrupting transmission, at its meeting in October 2015 the Strategic Advisory Group of Experts on immunization (SAGE) congratulated the GPEI and Member States on their contributions to the eradication effort. The SAGE reaffirmed the date of April 2016 for the switch from trivalent oral polio vaccine (tOPV) to bivalent OPV (bOPV).

A year without polio in Nigeria

In Nigeria, no new cases of wild poliovirus type 1 (WPV1) have occurred since a case with onset of paralysis on 24 July 2014 was reported. WHO declared Nigeria free from endemic polio on 24 September 2015. Three years with no polio cases and certification-standard surveillance are required before the Africa Regional Certification Commission determines whether the WHO Africa Region can be certified polio-free.

Regional insecurity continues to result in subnational surveillance gaps in Nigeria. Furthermore, immunization gaps persist, especially in the northern areas. These gaps must be filled for Nigeria to mitigate the risk of reinfection with the disease.

A circulating vaccine-derived poliovirus (cVDPV) case with onset of paralysis on 16 May 2015 did not result in further cases in the second half of the year, raising hopes that the aggressive response was effective against the outbreak

of this strain. However, its emergence in the first place underscores again the very real risk subnational immunity gaps continue to pose to populations, and the fragility of the progress achieved.

Progress in Afghanistan and Pakistan

Progress reported in the first half of 2015 continued into the second half of the year – typically the high season for polio transmission. Afghanistan and Pakistan continue to be treated as a single epidemiological block, with greater coordination between the two to interrupt transmission.

Pakistan is moving back on track. A total of 25 cases had onset of paralysis in the second half of 2015 – a vast improvement on the 206 in the second half of 2014. A national emergency action plan is being overseen by the office of the prime minister, focusing on identifying and reaching chronically missed children with the polio vaccine. Despite this improvement, vaccination gaps persist in Karachi, in the Peshawar-Khyber corridor and in parts of the Quetta block. Pakistan introduced inactivated polio vaccine (IPV) into its routine immunization schedule in July.

In the second half of 2015, 14 cases of WPV were reported in Afghanistan. Ten of these were reported in the neighbouring provinces of Nangarhar and Kunar, which border infected regions of Pakistan. This represents a decrease from the 20 cases reported in Afghanistan during the same period in 2014. Endemic circulation continues to be a concern. Security issues still hinder reaching children in some areas of the country, as do operational challenges in fully implementing supplementary immunization activities. No cVDPV cases have been reported since March 2013. Afghanistan introduced IPV into its routine immunization schedule in September 2015.

Continued progress in central Africa, the Horn of Africa and the Middle East

Outbreaks in central Africa, the Horn of Africa and the Middle East appear to have stopped. Due to the risk of residual immunity and subnational surveillance gaps in some parts of all three areas, comprehensive risk-mitigation activities are continuing there.

Ongoing responses in other areas

In Madagascar, an outbreak of circulating vaccine-derived poliovirus type 1 (cVDPV1) continued into the second half of 2015, with a further two cases reported in July and August. Both cases were linked to cVDPV1 that was detected in the second half of 2014. As time progresses, hopes are raised that this outbreak has also been brought to a close. Further cVDPV1 outbreaks occurred in Ukraine, with a second case in 2015 reported in July, and in Lao People's Democratic Republic, with eight cases between September and December 2015.

Outbreaks of circulating vaccine-derived poliovirus type 2 (cVDPV2) occurred in Guinea, with four cases reported between July and October, and in Myanmar, with one case in October and one retrospectively assigned with onset in April. While this is far fewer than reported in 2014, emerging cVDPV outbreaks are symptomatic of low immunization coverage in the affected areas.

Recognizing the increasing importance of cVDPV outbreaks in the Endgame Plan, the risks that ongoing subnational surveillance gaps pose in allowing such strains to arise, and the urgent need for the phased removal of OPVs, the International Health Regulations Emergency Committee extended its Temporary Recommendations under the "public health emergency of international concern" to countries affected by such strains. Previously,

the Temporary Recommendations had been limited to countries affected by WPV.

Preparation for the withdrawal of oral polio vaccines and the strengthening of routine immunization systems

The SAGE met in October 2015 and concluded that preparations for the global switch from tOPV to bOPV are on track. Having reviewed transmission data, the SAGE established that the continued use of tOPV in immunization systems constitutes a greater public health risk than do the risks of proceeding with its withdrawal. According to its recommendation, the largest-ever globally coordinated vaccine switch will go ahead in April 2016. All tOPV will be removed from use and replaced by bOPV.

Containment and certification

In September 2015, the Global Commission for Certification of the Eradication of Poliomyelitis (GCC) declared that WPV2 has been eradicated. No cases of WPV2 have been reported since 1999. Containment activities are being further intensified in the run-up to the tOPV to bOPV switch in April 2016, to guard against any accidental release of poliovirus that could once again cause paralysis and death.

Legacy

In the second half of 2015, work continued to ensure the investments made in polio eradication serve as a foundation for future global health objectives. In 2015, the GPEI reached more children than ever before, including children in remote and often insecure areas. The lessons learned and infrastructure built can continue to reap rewards after eradication.

The second half of 2015 saw the end of the Ebola epidemic, throughout which the polio team provided staff support, surveillance capacity, contact tracing, data and outbreak

management, and logistical support. This is just one example of the polio legacy in action.

Financing the Endgame Plan

The midterm review by the Polio Oversight Board concluded that interruption of transmission would not occur in 2015 and that a further US\$ 1.5 billion would be required to fully implement the Endgame Plan.

Looking to the future

Progress in the second half of 2015 was strong and continues to justify cautious optimism. Africa has been polio-free for a year. Surveillance systems remain essential to monitor and stop outbreaks. The absence of wild poliovirus type 3 (WPV3) since November 2012 increases

confidence that WPV3 transmission has been stopped, leaving only WPV1. On entering 2016, the GPEI is shifting focus onto four key areas:

1. accelerating emergency measures to overcome the remaining obstacles in reaching all missed children with the polio vaccine;
2. continuing the introduction of at least one dose of IPV in the routine immunization schedule of all OPV-using countries;
3. intensifying efforts to monitor the switch from tOPV to bOPV;
4. ensuring sensitive polio surveillance and continuing to strengthen routine immunization systems to ensure high levels of immunity, particularly in high-risk areas.

OBJECTIVE 1: POLIOVIRUS DETECTION AND INTERRUPTION

Endemic countries

Progress in Pakistan

Pakistan saw encouraging signs of progress against polio in 2015, as the country tightened its grip on the last strongholds of the virus. This followed a high number of cases in 2014. This progress in large part can be attributed to renewed commitment on the part of the Government of Pakistan. A total of 25 cases had onset of paralysis in the second half of 2015, compared to 206 in the second half of 2014.

The National Emergency Action Plan (NEAP), endorsed by the Prime Minister of Pakistan on 11 June 2015 and overseen directly by his office, was instrumental in maintaining the momentum gained during the first half of the year. The NEAP focused on four key areas: increasing country ownership; tracking missed children systematically and implementing area-specific operational plans to overcome distinct challenges; improving training and support for vaccinators; and establishing new strategies to enhance community acceptance.

The establishment of functioning emergency operations centres at the federal and provincial levels, based on a model that contributed to success in Nigeria, played an important role in improving vaccination coverage and quality. The emergency operations centres serve as a platform for increased government ownership of the polio programme. They have been vital in the implementation of new strategies, such as health camps, which have served over 350 000 people with life-saving treatments in addition to the polio vaccine.

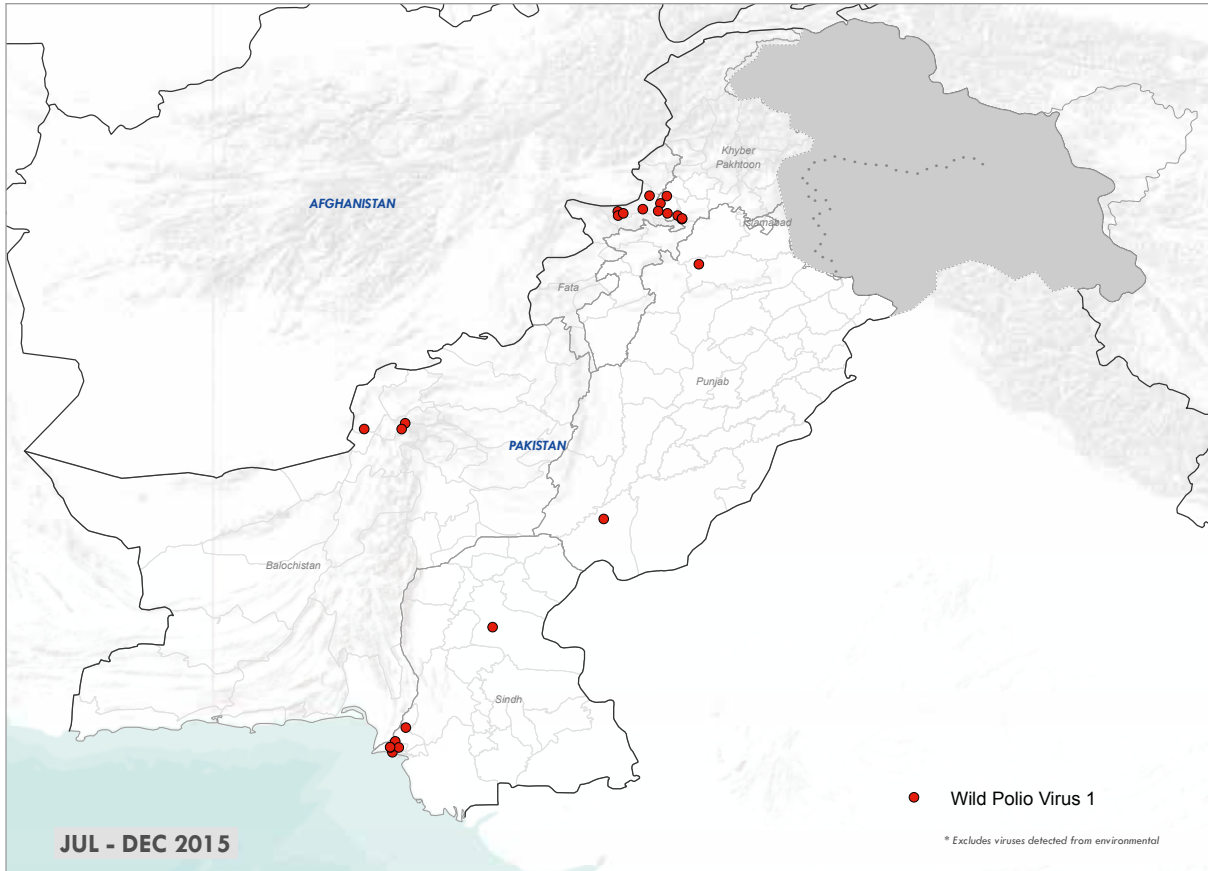
In August, Pakistan introduced IPV into its routine immunization schedule. This will benefit more than 4 million children a year across the country.

While progress in 2015 was strong, environmental sampling indicates that the virus remains geographically widespread. From the second half of 2015, Khyber and Peshawar in the Federally Administered Tribal Areas and Quetta in Balochistan remain of special concern. Areas of Sindh province, notably the high-risk areas of Karachi, and Khyber Pakhtunkhwa also continue to report transmission.

The reasons for continuing to miss children vary by area, from misconceptions about the polio vaccine in certain regions, to inaccessibility in some areas of insecurity, to continuing operational challenges in the planning and implementation of supplementary immunization activities. A key component of the NEAP is the recognition that a “one-size-fits-all” approach will not work. Instead, area-specific analyses are being conducted to determine the reasons for missing children, and operational plans are being targeted accordingly.

The upcoming low season (the first half of 2016) for poliovirus transmission provides an opportunity for the Government of Pakistan to eradicate polio once and for all. It is more important now than ever to redouble efforts to take advantage of this opportunity and build on the progress achieved in a consistent way across all subnational areas. This will ensure that no Pakistani child will ever again be paralysed by this disease, and that the door to a lasting polio-free world is opened widely.

Pakistan wild poliovirus – July to December 2015



Control in Afghanistan

The number of cases reported in Afghanistan continues to be low, although the virus remains stubbornly bound to some areas of the country.

With a total of 14 cases in the second half of 2015, compared to 20 cases in the second half of 2014, delicate progress was made in the right direction. Furthermore, the cases remained relatively geographically constrained, with 10 of the 14 found in the neighbouring provinces of Nangarhar and Kunar, which border endemic provinces in Pakistan.

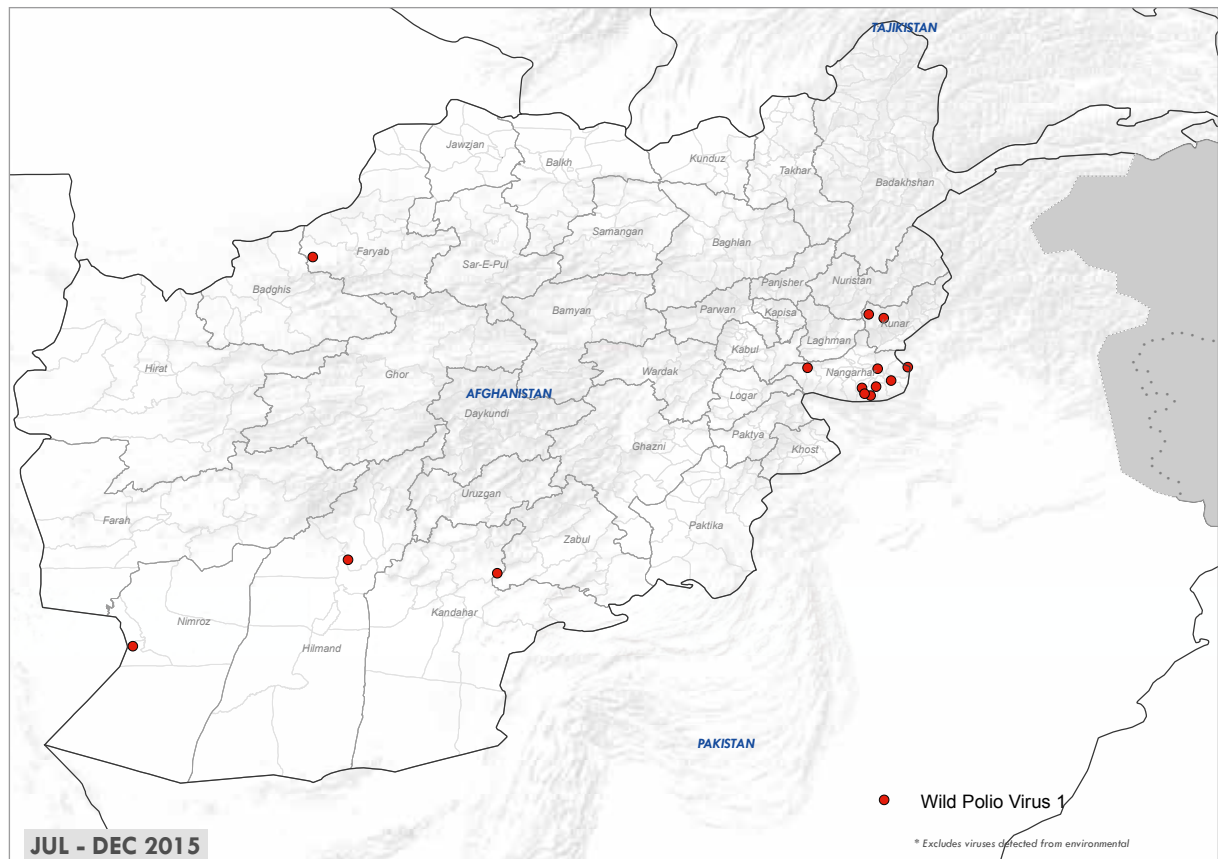
The adjacent provinces of Helmand and Nimruz in the south of the country each reported one case, with the final case in Faryab in the north-west. While in 2014 the majority of cases in Afghanistan came from transmission across the border, in 2015 the majority arose from a virus that had been circulating within Afghanistan for some time.

Insecurity continues to hinder reaching children with vaccines in some areas of the country, but health-care workers and volunteers continued to work tirelessly to protect children everywhere.

Because of the shared zone of transmission with neighbouring Pakistan, the programme in Afghanistan closely continues to align and synchronize its activities with the Pakistan teams. This is particularly the case in ensuring the vaccination of cross-border populations and the sharing of surveillance data across

the border. The Technical Advisory Group, an independent expert body guiding the eradication efforts at the country level, regularly reviews the progress and challenges in both countries jointly and puts forward cross-border recommendations.

Afghanistan wild poliovirus – July to December 2015



Recently endemic countries

Maintaining momentum in Nigeria

A milestone was reached in polio eradication when WHO declared Nigeria free from endemic polio on 24 September 2015. The last case of WPV in Nigeria reported onset of paralysis on 24 July 2014, 14 months earlier. As recently as 2012, Nigeria represented over half of the polio cases worldwide. Many pointed to the country as proof that eradication was an unrealistic

goal. Nigeria is now a shining example of what is possible with strong political and societal commitment.

Robust immunization campaigns continue in the country following a cVDPV case in Nigeria with onset of paralysis on 16 May 2015. It is vital that routine immunization remain strong and that immunization activities achieve high coverage to prevent re-emergence or reintroduction in the country.

Nigeria wild poliovirus – July to December 2015



Outbreaks

Regional wild poliovirus outbreaks in central Africa, the Horn of Africa and the Middle East

No cases due to WPV in any of the three outbreak zones were reported in the second half of 2015, continuing the success witnessed there in the first part of the year. Outbreaks were stopped in Cameroon, which marked

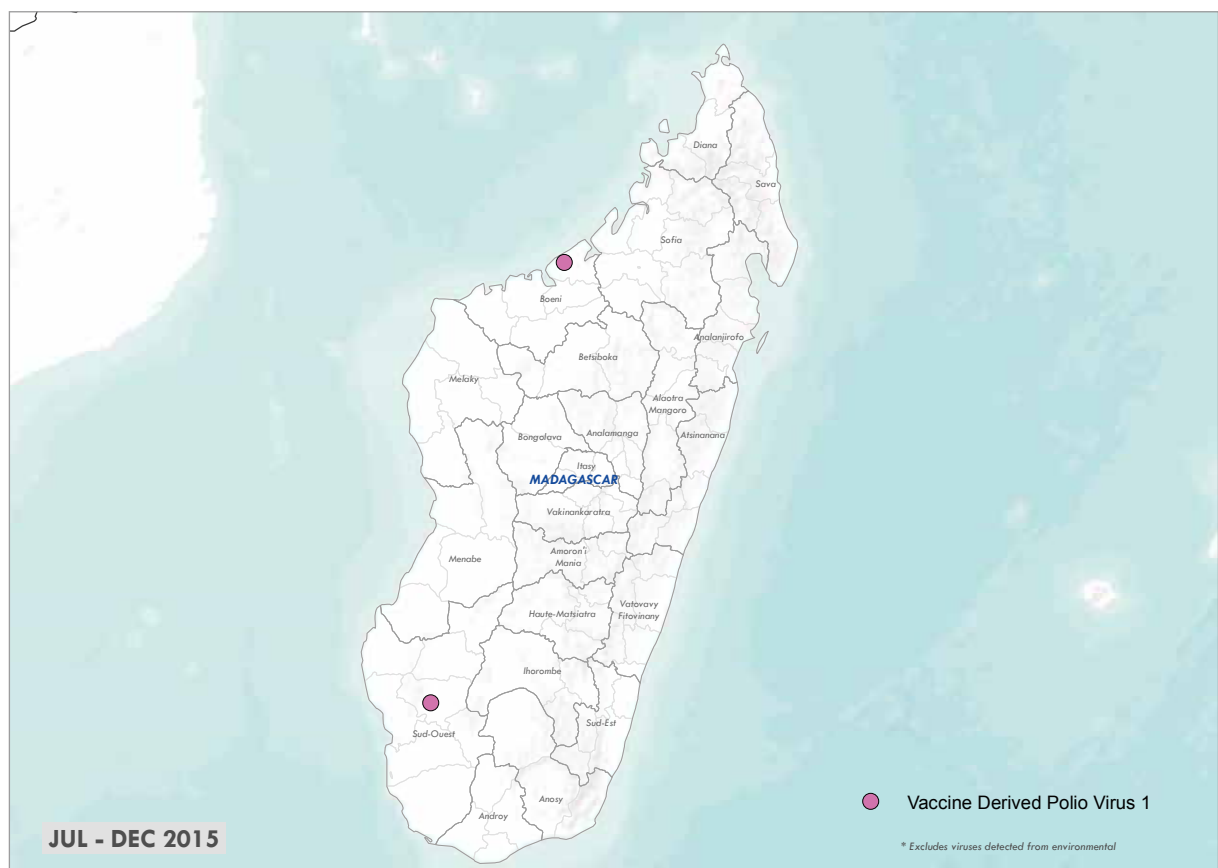
one year without WPV on 9 July 2015, and in Somalia, which passed the one-year mark on 11 August 2015. In the Middle East, no new cases have been reported since April 2014. Emergency outbreak response in all three regions is continuing, due to the ongoing risk of reinfection and the fact that, in key areas, subnational immunity gaps remain, which must be filled.

Circulating vaccine-derived poliovirus outbreaks

WPV transmission is at the lowest levels ever recorded worldwide. In 2015, however, more countries and more regions were affected by ongoing or new cVDPV outbreaks than were affected by WPV transmission. This underscores the fragility of progress, the inherent danger of remaining subnational immunity gaps that enable the emergence of such strains, and the urgent need for the phased withdrawal of OPVs as rapidly as possible.

In Madagascar in the second half of 2015, two new cases due to a cVDPV1 outbreak were confirmed, with onset of paralysis on 7 July and 22 August 2015. These new cases are related to a cVDPV1 case with reported onset on 29 September 2014, indicating the prolonged circulation of cVDPV1 first detected in September 2014. The virus continues to be geographically widespread. National Immunization Days (NIDs) were carried out in August using tOPV, and in September, October and November using bOPV. The emergency response continues with further NIDs planned in February and March.

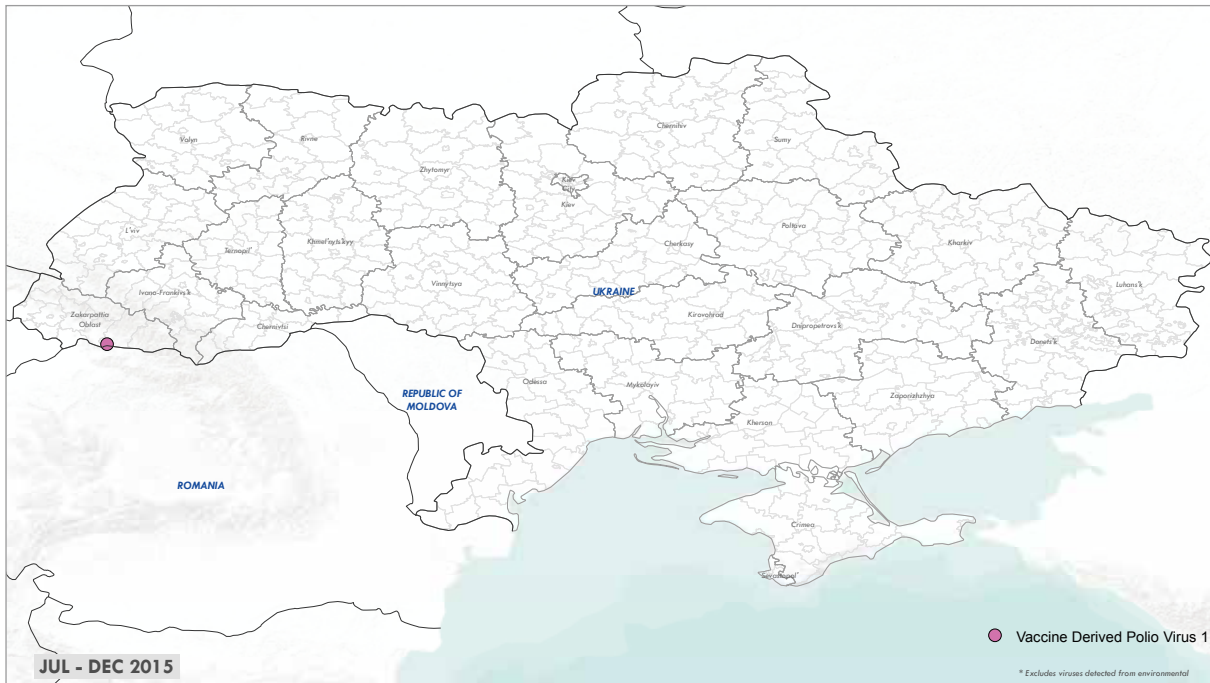
Madagascar cVDPV – July to December 2015



In Ukraine, one new case of cVDPV1 was reported in Zakarpatskaya Oblast in the south-west of the country, with onset of paralysis on 7 July. This followed a case at the end of June 2015 in the same province.

Immediately following notification of the new outbreak, the Government of Ukraine publicly announced it upon confirmation. The outbreak response, however, did not commence until October, after several weeks of delay.

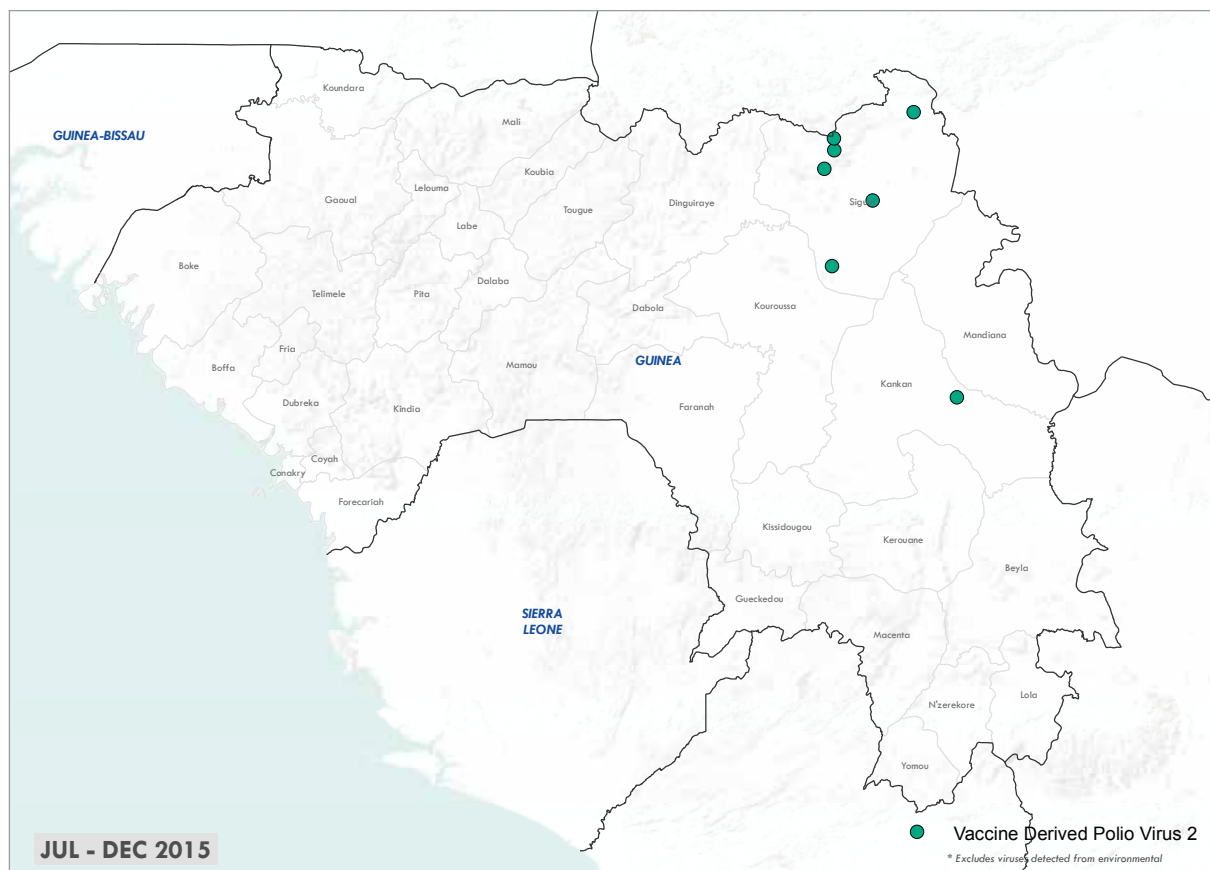
Ukraine cVDPV – July to December 2015



In Guinea, seven cases due to cVDPV2 were confirmed in the second half of 2015. All cases in this outbreak were in Kankan province. These cases are genetically linked to a case that had onset of paralysis in August 2014, indicating prolonged circulation within the

country. Subnational surveillance and immunity have been declining in the country, due to the effects of the Ebola outbreak there. Following notification of the cases, an outbreak response was launched immediately, in close coordination with neighbouring areas of Mali.

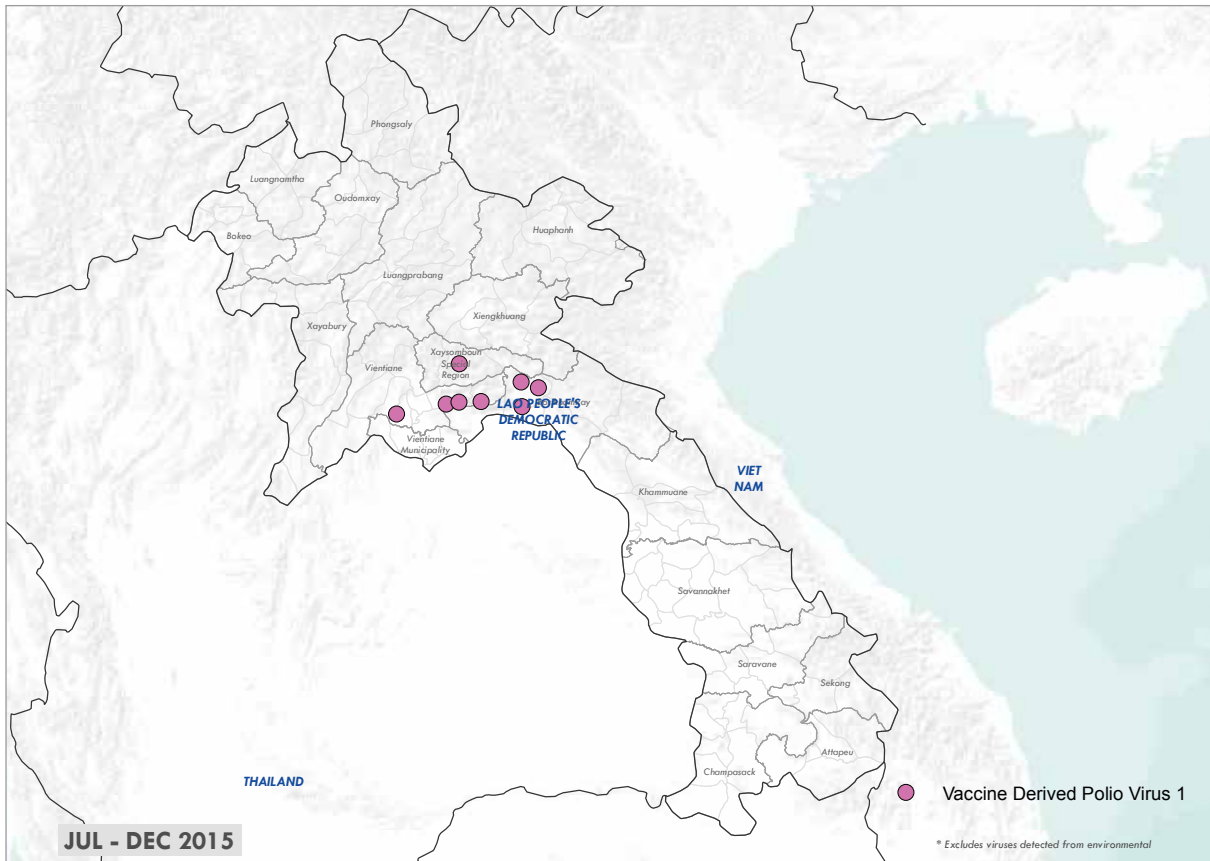
Guinea cVDPV2 – July to December 2015



In Lao People's Democratic Republic, eight cases due to cVDPV1 were confirmed, with the first reported on 7 September 2015. Reacting quickly, an emergency outbreak response was planned between the partners of the GPEI and the Government of Lao. Subnational

Immunization Days (SNIDs) targeting the centre of the country were carried out in mid-October and mid-November, and NIDs were carried out in mid-December. All campaigns used tOPV and targeted an expanded group of children aged under 15 years.

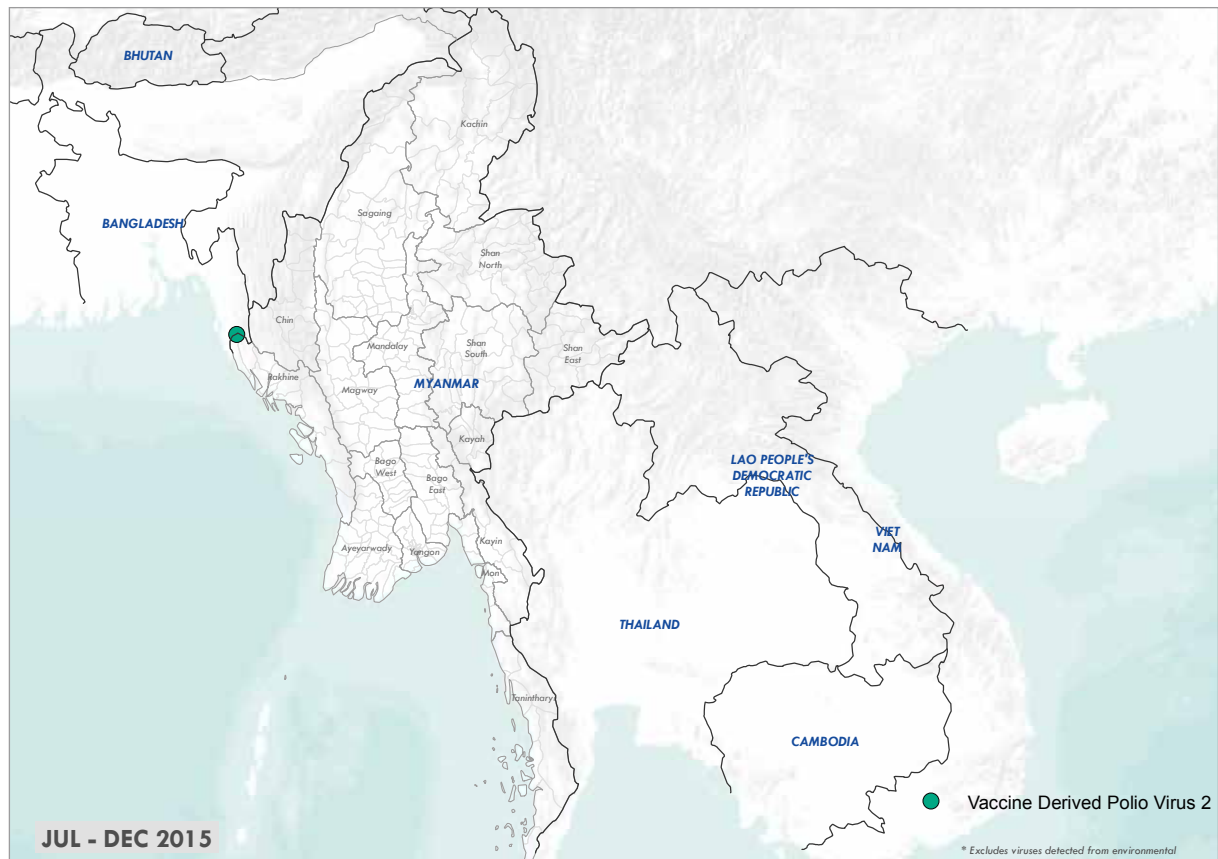
Lao People's Democratic Republic cVDPV – July to December 2015



In Myanmar, an outbreak of cVDPV2 occurred in the province of Rakhine in the north. The most recent case was isolated from a 15-month-old boy with onset of paralysis on 15 October. It was genetically linked to a VDPV isolated in the same village earlier in April, which was reclassified as a cVDPV2 after emergence of

the second case. The Ministry of Health of Myanmar was supported by WHO and partners of the GPEI in planning and implementing an urgent outbreak response. Large-scale SNIDs with tOPV were conducted from 5 to 7 December 2015, with further immunization rounds planned until February 2016.

Myanmar cVDPV2 – July to December 2015



OBJECTIVE 2: IMMUNIZATION SYSTEMS STRENGTHENING AND OPV WITHDRAWAL

To prevent the emergence of new cVDPVs, all OPV must eventually be withdrawn from immunization activities. This will begin with the largest globally synchronized project in the history of vaccines, with the withdrawal of the type 2 component of tOPV in the switch to bOPV.

One part of preparing for the switch is the introduction of at least one dose of IPV in routine immunization systems. The main role of IPV is in minimizing the emergence of paralytic disease from any cVDPV2 outbreak after the switch. IPV will also:

- reduce the risk of re-emergence of WPV2 or cVDPV2;
- facilitate the interruption of outbreaks;
- accelerate WPV eradication by boosting immunity against poliovirus types 1 and 3 in children who have previously received OPV.

At its meeting in October 2015, the SAGE concluded that significant progress had been made since its previous meeting in April 2015. The SAGE recognized the emergence of a new cVDPV2 outbreak in Guinea, and stressed the importance of stopping them within 120 days of

outbreak confirmation. It emphasized that all countries should ensure regulatory approval of bOPV for routine immunization before April 2016. Furthermore, it noted that careful management of the global supply constraints of IPV is required, primarily ensuring that highest-risk countries are able to introduce IPV before the switch.

Having reviewed all the data, the SAGE concluded that the public health risks associated with the continued use of the type 2 component contained in tOPV far outweigh the risks associated with not proceeding. As such, the switch will go ahead as planned in April 2016.

The level of commitment from countries to introduce IPV ahead of the switch has been exceptional. The introduction of IPV has been hindered in some countries, however, by the technical challenges in scale-up of the manufacture process. As a result, some countries at low risk of cVDPV2 emergence and circulation will experience delays in IPV introduction. In this context, the GPEI is also exploring with WHO Regional Offices and Member States the feasibility of instituting dose-sparing strategies, such as using fractional dose IPV.

OBJECTIVE 3: CONTAINMENT AND CERTIFICATION

In September 2015, the GCC declared that WPV2 has been eradicated. However, WPV2 materials are still present in laboratories and other facilities (for example in IPV manufacturing sites) worldwide.

Countries have been requested to report on the destruction, or plans for retention, of WPV2 and VDPV2 materials by the end of 2015, and OPV2/Sabin2 materials by July 2016. This is Phase I of the Global Action Plan for poliovirus containment (GAPIII). The completion of this phase will reduce the number of facilities retaining poliovirus type 2 materials worldwide.

By 28 December 2015, 85 countries had reported they no longer hold any WPV2 or VDPV2 materials, and 13 had reported they have designated poliovirus-essential facilities to retain poliovirus type 2 viruses.

In Phase II of GAPIII, the designated poliovirus-essential facilities will have to demonstrate the appropriate management of biorisk associated with the retention of poliovirus type 2 materials. In preparation for Phase II, countries planning to retain any of these materials are expected to nominate a national authority for containment. Its responsibility will be to certify that designated poliovirus-essential facilities implement the containment requirements described in GAPIII.

OBJECTIVE 4: LEGACY PLANNING

After polio eradication is certified, the GPEI will cease to exist, having achieved its goal. At the core of Objective 4 is to build on the opportunity to use the investments made in the polio infrastructure and the lessons learned over the past three decades to strengthen other health programmes in the future. In addition, incorporating essential polio functions, such as vaccination, containment and surveillance, into other programmes after the GPEI will be essential to maintain a polio-free world. The broader benefits that can be achieved with the human and technical infrastructure of the polio eradication plan are already in evidence; in countries with strong polio programmes, polio staff and systems are already supporting other global health priorities, such as surveillance, routine immunization, maternal and child health needs, and emergency and outbreak response. For example, during the October polio campaigns in Iraq, essential messaging was distributed about the cholera outbreak, and the Emergency Operations Centre in Nigeria is playing a key role in the response to an outbreak of Lassa fever, as it did when Ebola infected the country.

Progress towards Objective 4 ramped up in the second half of 2015, building on increased stakeholder input into transition planning work established since 2014. The Legacy Management Group has expanded to include a wide range of partners. The Polio Partners Group (PPG) was used as a platform for engaging partners,

including donors, in the discussion. In October, a programmatic workshop on legacy planning and implementation was held, followed by an update at the PPG's December meeting. These meetings were an important opportunity for stakeholders to provide advice and input into the three core channels of transition planning: mainstreaming polio-essential functions into other programmes; documenting and sharing lessons learned; and identifying and planning opportunities for transitioning capacity and systems from the polio eradication plan to other health programmes.

With over a year since the last case of WPV was reported on the African continent, 2016 is the year in which the transition planning process is to begin in earnest. Sixteen countries where polio infrastructure is significant have been selected as priorities for transition planning (Afghanistan, Angola, Bangladesh, Chad, the Democratic Republic of the Congo, Egypt, Ethiopia, India, Indonesia, Myanmar, Nepal, Nigeria, Pakistan, Somalia, South Sudan and Sudan). Fourteen of these countries (all except Afghanistan and Pakistan, where the focus remains squarely on interrupting transmission) have been asked to finalize transition plans by the end of 2016 based on a mapping of the polio eradication assets in each country. These plans will ensure that polio-essential functions are mainstreamed and will identify opportunities for transitioning the infrastructure to other health programmes after eradication. Afghanistan and Pakistan will begin transition planning once they have interrupted transmission.

Delivering the Polio Eradication & Endgame Strategic Plan 2013-2018

The midterm review evaluated the future financial needs of the GPEI. Presented with the outcomes of this review, the Polio Oversight

Board endorsed a revised financial scenario at its meeting in September 2015. The delay in achieving the interruption of WPV transmission has resulted in an additional year of intense polio eradication activities. This has increased the budgetary requirements by US\$ 1.5 billion.

Annex 1 – Definition and significance of indicators

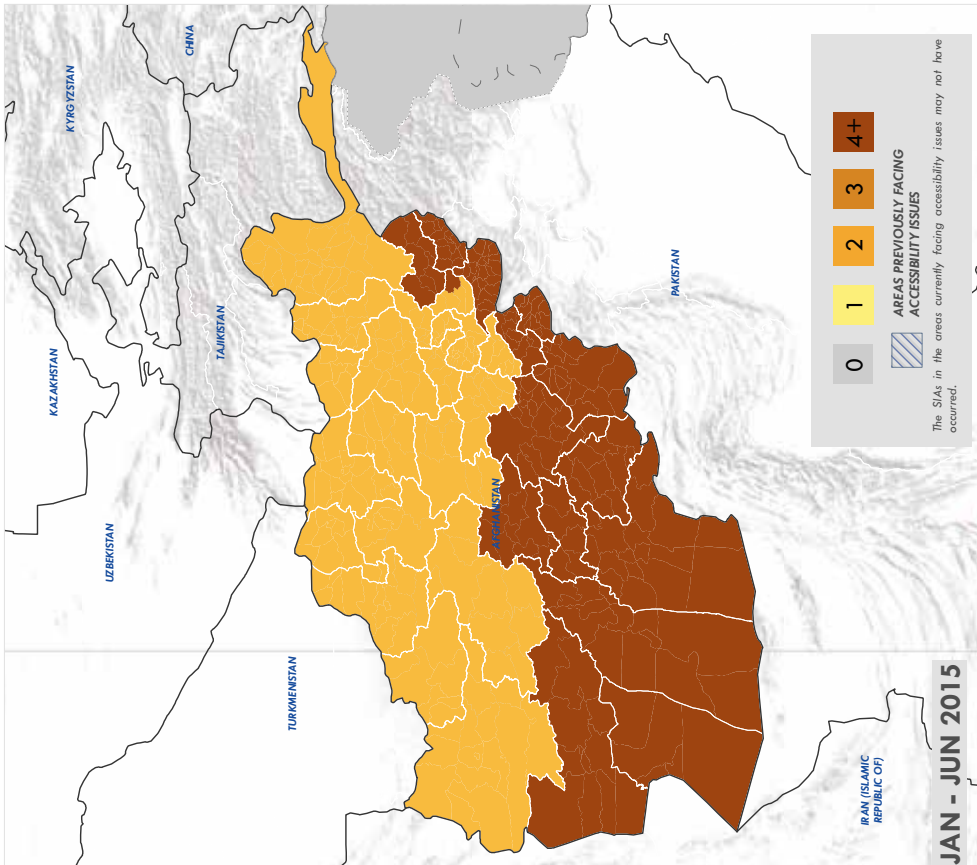
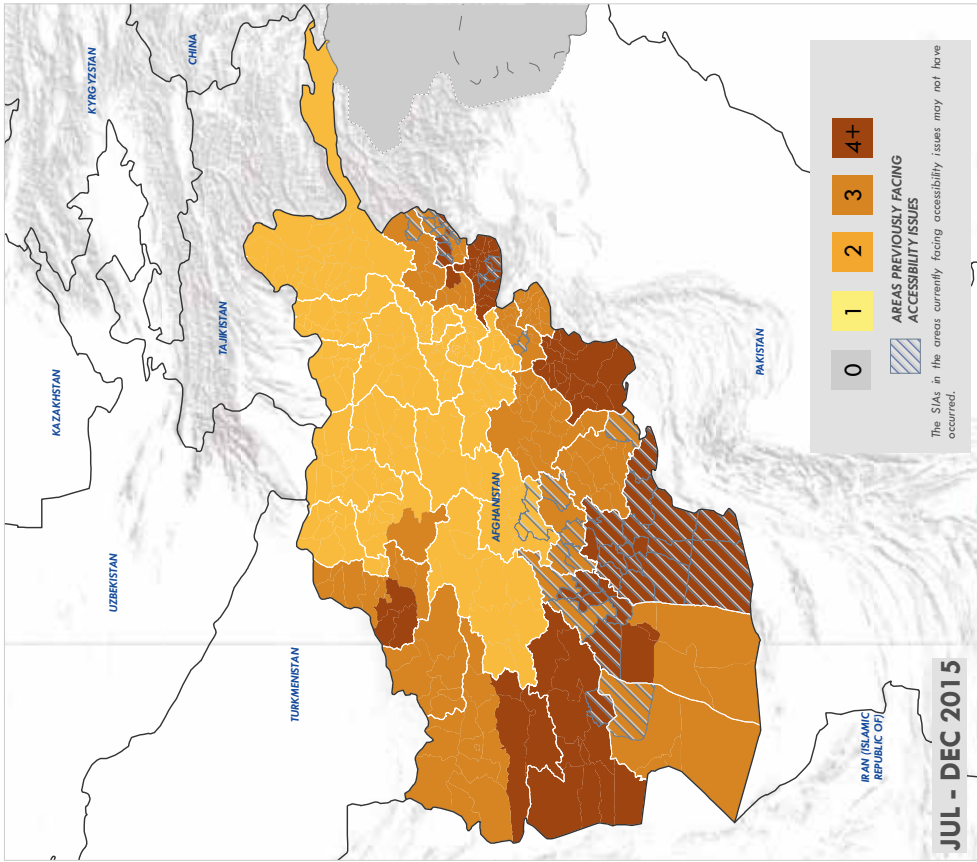
Indicator	Definition
0-dose	Percentage of children between 6 and 59 months of age who have never received a dose of polio vaccine
LQAS	Lot Quality Assurance Sampling (LQAS) – a methodology, which classifies geographic areas (corresponding to 'lots') as having 'acceptable' or 'unacceptable' levels of vaccination coverage; based on sampling of individuals in a given geographic area against a pre-set decision value. Ideal methodology to detect areas with low vaccination coverage
Independent monitoring	Real-time independent monitoring of SIAs to assess levels of vaccination coverage achieved during a given SIA
% inaccessible	Percent of children missed during an SIA due to inaccessibility
% children missed due to child not being seen	Percent of children missed during an SIA due to house not visited or child not at home
% children missed due to refusal	Percent of children missed during an SIA due to caregiver refusal to allow vaccination
Number and type of activity	Number and type of SIAs conducted (ie National Immunization Days, Subnational Immunization Days)
Non-polio AFP rate	Non-polio AFP rate (npAFP) refers to surveillance sensitivity. Target is to achieve npAFP rate of 2/100.000 population aged <15 years
Stool adequacy	Further indicator to assess surveillance sensitivity. Target is to achieve 80% stool adequacy rate
IPV introduction	Indicator tracking progress in introducing IPV into routine immunization programmes of OPV-only using countries by end-2015
Primary isolation at the laboratory upon receipt of stool specimens	Virus isolation results available within 14 days of receipt of stool specimens at the laboratory
Routine immunization strengthening	Indicator to monitor progress against improving routine immunization in ten priority countries through use of GPEI infrastructure (Afghanistan, Angola, Chad, Democratic Republic of Congo, Ethiopia, India, Nigeria, Pakistan, Somalia and South Sudan), as measured through percent reduction in un-immunized children year-on-year, with DTP3-containing vaccine
Financial resources	Indicators to measure availability of funds to implement Polio Endgame Plan:
-Proportion of 2014 required funds received	Percent of positions vacant
-Proportion of 2013-2018 committed funds received	Indicator tracking adequacy of available OPV supply for planned SIAs and type-specific buffer stock
<i>Human Resources</i>	<i>Percent of positions vacant</i>
<i>OPV supply</i>	<i>Indicator tracking adequacy of available OPV supply for planned SIAs and type-specific buffer stock</i>

Annex 2 – Endemic and recently endemic country monitoring

AFGHANISTAN

Endemic Country	State/Area	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Afghanistan	Southern (Kandahar, Helmand)	Interrupt transmission	Number of cases	0 case	1	2
		High population immunity	% 0-dose	<10%	0.70%	1.39%
			LQAS (% lots with "High Pass")	>= 90%	27.0%	52.5%
			% inaccessible	<5%	24.9 start 20.5 end	0.9 start 8.8 end
			Number and type of activity	per plan	1 NID, 8 SNIDs	2 NIDs, 4 SNIDs
		% children missed due to no visit/child absent (in 11 LPDs)	N/a	0.5% start 0.6% end	6.8% start 7.7% end	
		% children missed due to refusal (in 11 LPDs)	N/a	0.2% start 0.3% end	1.8% start 2.0% end	
		AFP rate	> 2 per 100 000	21.3	19.3	
		Stool adequacy	> 80%	91.59	82.5	
		Lab receipt to virus isolation result (median)	< 14 days	11	11	
	RI improvement: % reduction in unimmunized children	> 10%	N/a	N/a		
	Rest of country	Interrupt transmission	Number of cases	0 case	5	12
		High population immunity	% 0-dose	<10%	0.26%	0.82%
			LQAS (% lots with "High Pass")	>= 90%	18.9%	13.9%
			% inaccessible	<5%	N/a	N/a
Number and type of activity		per plan	1 NID, 6 SNIDs	2 NIDs, 9 SNIDs		
AFP rate	> 2 per 100 000	15.1	14.1			
Low risk of reintroduction	High virus detection	Stool adequacy	> 80%	97.27	94.39	
	Lab receipt to virus isolation result (median)	< 14 days	12	11		
	RI improvement: % reduction in unimmunized children	> 10%	N/a	20% reduction (2014 vs 2013)		
All of country	Number of polio cases from families refusing OPV	0 case	N/a	N/a		
IPV introduction	intro by 2015	N/a	Yes (Sep-15)			

SIA in Afghanistan

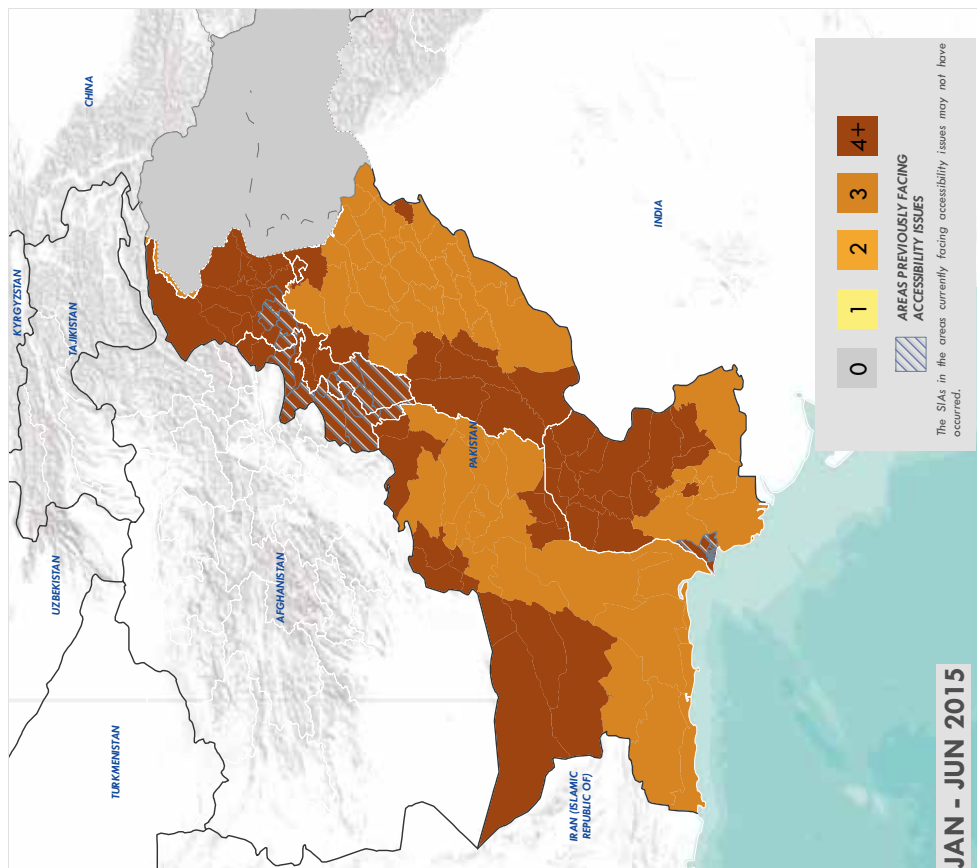
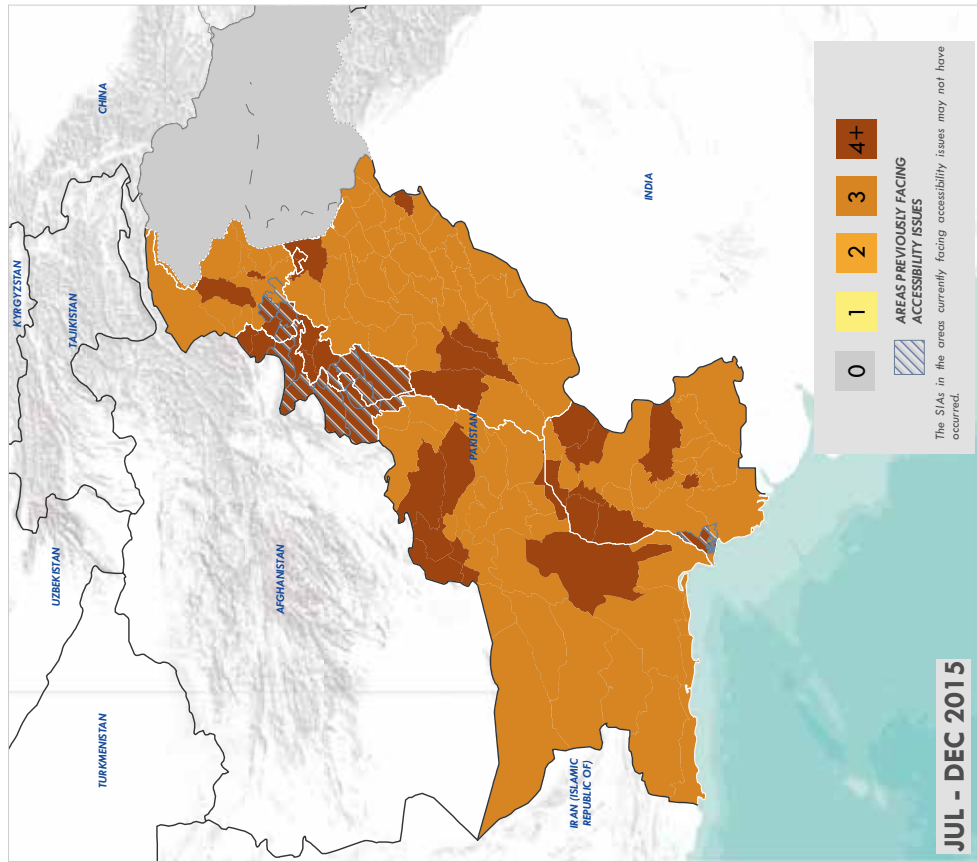


PAKISTAN

Endemic Country	State/Area	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Pakistan	KP (Peshawar, Nowshera, Swabi, Charsaddah, Mardan, Bannu, Tank, Lakki Marwat)	Interrupt transmission	Number of cases (WPV1 only)	0 case	13	4
			% 0-dose	<10%	1.72%	4.48%
		High population immunity	LQAS (% UCs w/ 0-3 missed children; i.e. "Pass")	>= 90%	66%	81% (KP, Dec)
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	3 NIDs, 4 SNIDs	3 NIDs, 1 SNID
			% children missed due to no visit/child absent	N/a	2% start 1% end	N/a
		% children missed due to refusal	N/a	0.03% start 0.04% end	5% start 4% end	
		AFP rate	> 2 per 100 000	9.43	10.60	
		High virus detection	Stool adequacy	> 80%	87.37	90.9
			Lab receipt to virus isolation result (median)	< 14 days	11	11
		Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	N/a
		FATA	Interrupt transmission	Number of cases (WPV1 and cVDPV2)	0 case	8 (8+0)
	% 0-dose			<10%	6.35%	2.63%
	High population immunity		LQAS (% UCs w/ 0-3 missed children; i.e. "Pass")	>= 90%	N/a	86% (FATA, Dec)
			% inaccessible	<5%	5.0 start (Q1) 4.8 end (Q2)	3.5 start (Q3) 0.5 end (Q4)
			Number and type of activity	per plan	3 NIDs, 4 SNIDs	3 NIDs, 2 SNIDs
% children missed due to no visit/child absent			N/a	1% start 1% end	N/a	
% children missed due to refusal	N/a		0% start 0% end	N/a		
AFP rate	> 2 per 100 000		10.23	18.8		
High virus detection	Stool adequacy	> 80%	79.78	85.7		
	Lab receipt to virus isolation result (median)	< 14 days	10	10		
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	N/a		

Endemic Country	State/Area	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Pakistan	Karachi (SINDH)	Interrupt transmission	Number of cases (WPV1 and cVDPV2)	0 case	0	8
			% 0-dose	<10%	3.23%	1.39%
		High population immunity	LQAS (% UCs w/ 0-3 missed children; i.e. "Pass")	>= 90%	28%	64% (Sindh, Dec)
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	3 NIDs, 6 SNIDs	3 NIDs, 1 SNID (and mop ups)
			% children missed due to no visit/child absent	N/a	0.05% start 0.07% end	N/a
			% children missed due to refusal	N/a	0.01% start 0.03% end	N/a
			AFP rate	> 2 per 100 000	5.5	5.7
		High virus detection	Stool adequacy	> 80%	93	92.9
			Lab receipt to virus isolation result (median)	< 14 days	11	11
	Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	N/a	
		Number of cases (WPV1 only)	0 case	8	5	
	Rest of country	Interrupt transmission	% 0-dose	<10%	0.82%	0.45%
			LQAS (% UCs w/ 0-3 missed children; i.e. "Pass")	>= 90%	N/a	74% (Baloch, Dec) 93% (Punjab, Dec)
		High population immunity	% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	3 NIDs, 6 SNIDs	3 NIDs, 1 SNID (and mop ups)
			AFP rate	> 2 per 100 000	5.47	7.6
high virus detection		Stool adequacy	> 80%	91.2	89.37	
		Lab receipt to virus isolation result (median)	< 14 days	11	11	
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	0% reduction (2014 vs 2013)		
	Number of polio cases from families refusing OPV	0 case	N/a	N/a		
All of country	IPV introduction	intro by 2015	N/a	Yes (Jul-15)		

SIA in Pakistan

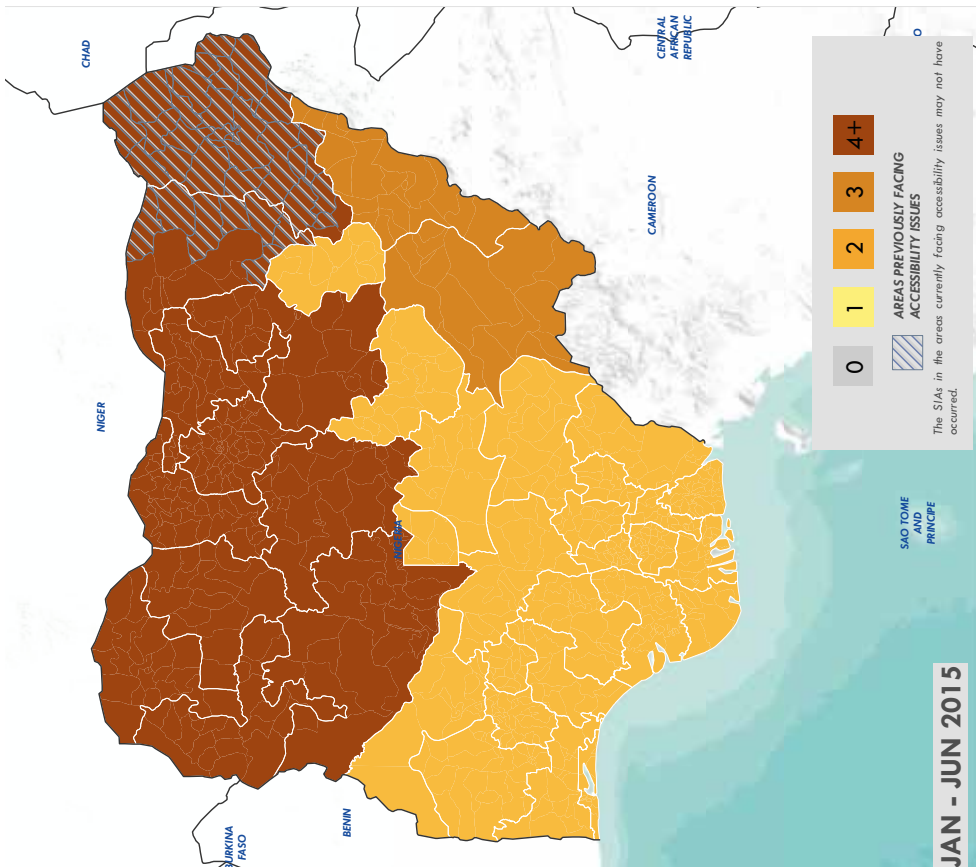
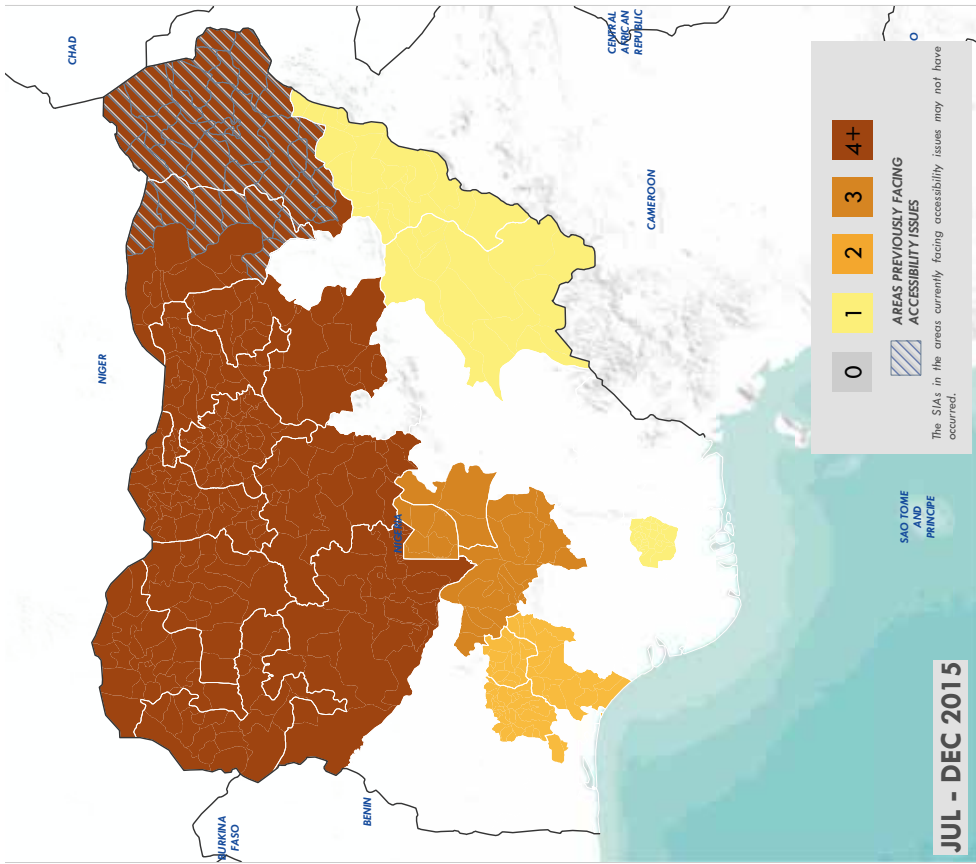


NIGERIA

Recently Endemic Country	State/Area	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Nigeria	North Central (Kano, Katsina, Jigawa, Kaduna)	Interrupt transmission	Number of cases (WPV1 and cVDPV2)	0 case	0	0
		High population immunity	% 0-dose	<10%	0.35%	0.15%
			LQAS	>= 90%	98 start 94 end	88 start 97 end
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	2 NIDs, 3 SNIDs	4 SNIDs
		% children missed due to no visit/child absent	N/a	1% start 1% end	1.2% start 1.4% end	
		% children missed due to refusal	N/a	0.3% start 0.2% end	0.2% start 0.3% end	
		AFP rate	> 2 per 100 000	21.28	24.2	
		Stool adequacy	> 80%	98	97.17	
		Lab receipt to virus isolation result (median)	< 14 days	11	10	
	RI improvement: % reduction in unimmunized children	>10%	N/a	N/a		
	High virus detection	Number of cases (WPV1 and cVDPV2)	0 case	0	0	
		% 0-dose	<10%	1.56%	0.00%	
		LQAS	>= 90%	86 start 86 end	100 start 100 end	
% inaccessible		<5%	56.3 start 54.2 end (Borno only)	50.3 start 50.6 end (Borno only)		
High population immunity	Number and type of activity	per plan	2 NIDs, 2 SNIDs	4 SNIDs		
	% children missed due to no visit/child absent	N/a	0.3% start 0.3% end	2.9% start 2.5% end		
	% children missed due to refusal	N/a	0.01% start 0.01% end	1.2% start 1.1% end		
	AFP rate	> 2 per 100 000	21.59	14.4		
High virus detection	Stool adequacy	> 80%	100	99.21		
	Lab receipt to virus isolation result (median)	< 14 days	10	11		
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	N/a		

Recently Endemic Country	State/Area	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015	
Nigeria	Rest of North (Sokoto, Kebbi, Zamfara)	Interrupt transmission	Number of cases	0 case	0	0	
		High population immunity	% 0-dose	<10%	0%	0%	0%
			LQAS	>= 90%	95 start 89 end (Kebbi not incl.)	98 start 96 end	
			% inaccessible	<5%	N/a	N/a	N/a
			Number and type of activity	per plan	2 NIDs, 2 SNIDs	4 SNIDs	
			% children missed due to no visit/child absent	N/a	0.2% start 0.1% end	1.2% start 1.3% end	
			% children missed due to refusal	N/a	0% start 0% end	0.2% start 0.2% end	
			AFP rate	> 2 per 100 000	37.32	28.3	
			Stool adequacy	> 80%	100	99.6	
		Lab receipt to virus isolation result (median)	< 14 days	10	9		
	Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	N/a		
	Rest of country	Interrupt transmission	Number of cases (cVDPV2 only)	0 case	1	0	
		High population immunity	% 0-dose	<10%	0.40%	0.19%	
			LQAS	>= 90%	100 start 93 end	100 start 100 end	
			% inaccessible	<5%	N/a	N/a	
			Number and type of activity	per plan	2 NIDs, 2 SNIDs	6 SNIDs	
			AFP rate	> 2 per 100 000	14.13	15.3	
High virus detection		Stool adequacy	> 80%	99.29	99.52		
Low risk of reintroduction	Lab receipt to virus isolation result (median)	< 14 days	10	10			
All of country	All of country	Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	6.5% reduction [2014 vs 2013]	
			Number of polio cases from families refusing OPV	0 case	N/a	N/a	
			IPV introduction	intro by 2015	N/a	Yes (Feb-15)	

SIA in Nigeria



Annex 3 – Outbreak monitoring

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015	
Central Africa	Cameroon (Most recent case 9 July 2014)	Interrupt transmission within 6 months of confirmation of outbreak	Number of cases	0 case after 6 months	0	0	
			% 0-dose	<10%	2.60%	2.98%	
		High population immunity	LQAS or IM out-of-house result	>= 90% or <5%	6.8% (IM O-H)	8% (IM O-H)	
			% inaccessible	<5%	N/a	N/a	
			Number and type of activity	per plan	2 NIDs, 2 SNIDs	2 NIDs, 1 SNID	
			AFP rate (national)	>2	4.87	6.00	
		High virus detection	AFP rate (sub-national)	>2 (% of states/provinces meeting indicator)	100%	100%	
			Stool adequacy (national)	>=80% (% of states/provinces meeting indicator)	89.17	86.05	
			Stool adequacy (sub-national)	>=80% (% of states/provinces meeting indicator)	100%	90%	
			Lab receipt to virus isolation result (median)	< 14 days	9	9	
			Environmental surveillance	Yes or No	Yes (May-15)	Yes (May-15)	
			RI improvement: % reduction in unimmunized children	> 10%	N/a	16% increase (2014 vs 2013)	
		High population immunity	Equatorial Guinea (Most recent case 3 May 2014)	IPV introduction	intro by 2015	N/a	Yes (Jul-15)
				Number of cases	0 case after 6 months	0	0
% 0-dose	<10%			0%	0%		
LQAS or IM out-of-house result	>= 90% or <5%			9.0% (IM O-H)	4.4% (IM O-H)		
% inaccessible	<5%			N/a	N/a		
Number and type of activity	per plan			2 NIDS	1 NID		
AFP rate (national)	>2			3.28	3.87		
AFP rate (sub-national)	>2 (% of states/provinces meeting indicator)			43%	50%		
Stool adequacy (national)	>=80% (% of states/provinces meeting indicator)			60	66.67		
Stool adequacy (sub-national)	>=80% (% of states/provinces meeting indicator)			14%	33%		
Low risk of reintroduction	Equatorial Guinea (Most recent case 3 May 2014)	Lab receipt to virus isolation result (median)	< 14 days	11	11		
		Environmental surveillance	Yes or No	No	No		
		RI improvement: % reduction in unimmunized children	> 10%	N/a	25% decrease (2014 vs 2013)		
		IPV introduction	intro by 2015	N/a	No (Apr-16)		

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Horn of Africa	Somalia (Most recent case 11 August 2014)	Interrupt transmission within 12 months of confirmation of outbreak	Number of cases	0 case after 12 months	0	0
			% 0-dose	<10%	16.06%	13.19%
		High population immunity	LQAS or IM out-of-house result	>= 90% or <5%	N/a	N/a
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	3 NIDS, 6 SNIDS	2 NIDS, 3 SNIDS
			AFP rate (national)	>2	6.33	3.9
	High virus detection	AFP rate (sub-national)	>2 (% of states/provinces meeting indicator)	100%	90%	
		Stool adequacy (national)	>=80%	98.78	98	
	Ethiopia (Most recent case 5 January 2014)	High virus detection	Stool adequacy (sub-national)	>=80% (% of states/provinces meeting indicator)	100%	95%
			Lab receipt to virus isolation result (median)	< 14 days	11	9
		Low risk of reintroduction	Environmental surveillance	Yes or No	No	No
			RI improvement: % reduction in unimmunized children	> 10%	N/a	2% increase (2014 vs 2013)
			IPV introduction	intro by 2015	N/a	Yes (Nov-15)
			Number of cases	0 case after 6 months	0	0
Horn of Africa	Ethiopia (Most recent case 5 January 2014)	Interrupt transmission within 6 months of confirmation of outbreak	% 0-dose	<10%	4.74%	0.00%
			LQAS or IM out-of-house result	>= 90% or <5%	12.0% (IM O-H)	N/a
		High population immunity	% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	1 NID, 2 SNIDS	4 SNIDS
			AFP rate (national)	>2	2.99	2.5
			AFP rate (sub-national)	>2 (% of states/provinces meeting indicator)	73%	73%
	High virus detection	Stool adequacy (national)	>=80%	95.23	93.5	
		Stool adequacy (sub-national)	>=80% (% of states/provinces meeting indicator)	100%	100%	
	Low risk of reintroduction	Lab receipt to virus isolation result (median)	< 14 days	9	9	
		Environmental surveillance	Yes or No	No	No	
		RI improvement: % reduction in unimmunized children	>10%	N/a	20% decrease (2014 vs 2013)	
		IPV introduction	intro by 2015	N/a	Yes (Dec-15)	

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015	
African region	Madagascar (Most recent case 29 May 2015)	Initial Response	Initial responsiveness	Emergency declared + plan drafted within 10 days	N/a	N/a	
			Timing of 1st response	=<4 weeks	≤11 weeks	≤11 weeks	
		Follow-on response	SIAs plan execution	=>3 campaigns within first 3 months	No (1 SIA)	No (1 SIA)	No (1 SIA)
			Interim assessment	Conducted at 3 months	No	1st & 2nd OBRA (Jul- & Oct-15)	
			Final assessment	Conducted at 12 months	N/a	N/a	
			Number of cases (cVDPV1 only)	0 case after 6 months	8	2	
		High population immunity	% 0-dose	<10%	3.64%	2.80%	
			LQAS or IM out-of-house result	>= 90% or <5%	9.0% (IM O-H)	6.8% (IM O-H)	
			% inaccessible	<5%	N/a	N/a	
			Number and type of activity	per plan	1 NID	4 NIDs	
		High virus detection	AFP rate (national)	>2	3.37	5.00	
			AFP rate (sub-national)	>2 (% of states/provinces meeting indicator)	64%	90%	
			Stool adequacy (national)	>=80%	79.03	68.52	
			Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	32%	40%	
			Lab receipt to virus isolation result (median)	< 14 days	8	8	
			Environmental surveillance	Yes or No	No	Yes	
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	5.8% increase (2014 vs 2013)			
	IPV introduction	intro by 2015	Yes (May-15)	Yes (May-15)			

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
West Africa	Guinea	Initial Response	Initial responsiveness	Emergency declared + plan drafted within 10 days	N/a	No
			Timing of 1st response	=<4 weeks	N/a	Yes (Sep-15)
			SIAs plan execution	=>3 campaigns within first 3 months	N/a	Yes
		Follow-on response	interim assessment	conducted at 3 months	N/a	N/a (Feb-16)
			final assessment	Conducted at 12 months	N/a	N/a
		Interrupt transmission within 6 months of confirmation of outbreak	number of cases (cVDPV2 only)	0 case after 6 months	N/a	4
			% 0-dose	<10%	N/a	9.09%
		High population immunity	LQAS or IM out-of-house result	>= 90% or <5%	N/a	6.8% (IM O-H)
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	N/a	1 NID, 2 SNIDs
			AFP rate	>2 (national)	N/a	3.38
			AFP rate	>2 (% of states/provinces meeting indicator)	N/a	75%
		High virus detection	stool adequacy	>=80% (national)	N/a	76.3%
			stool adequacy	>=80% [% of states/provinces meeting indicator]	N/a	62%
			lab receipt to virus isolation result (median)	< 14 days	N/a	10
Environmental surveillance	Yes or no		N/a	No		
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	> 10%	N/a	25% increase (2014 vs 2013)		
	IPV introduction	intro by 2015	N/a	Yes (Nov-15)		

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015		
Middle East	Syria (Most recent case 21 January 2014)	Interrupt transmission within 12 months of confirmation of outbreak	Number of cases	0 case after 12 months	0	0		
			% 0-dose	<10%	4.41%	0.00%		
		High population immunity	LQAS or IM out-of-house result	>= 90% or <5%	N/a	N/a		
			% inaccessible	<5%	N/a	N/a		
		High virus detection	Number and type of activity	per plan	2 NIDs, 1 SNID	1 NID		
			AFP rate (national)	>2	3.18	2.8		
			AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	57%	50%		
			Stool adequacy (national)	>=80%	93.39	93.6		
			Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	79%	87%		
			Lab receipt to virus isolation result (median)	< 7 days	12	12		
		Low risk of reintroduction	Environmental surveillance	Yes or No	No	No		
			RI improvement: % reduction in unimmunized children	>10%	N/a	3% decrease (2014 vs 2013)		
		Middle East	Iraq (Most recent case 7 April 2014)	Interrupt transmission within 12 months of confirmation of outbreak	IPV introduction	intro by 2015	Yes (<2015)	Yes (<2015)
					Number of cases	0 case after 12 months	0	0
High population immunity	% 0-dose			<10%	0%	2.72%		
	LQAS or IM out-of-house result			>= 90% or <5%	N/a	N/a		
High virus detection	% inaccessible			<5%	N/a	N/a		
	Number and type of activity			per plan	3 NIDs	2 SNIDs		
	AFP rate (national)			>2	3.58	3.7		
	AFP rate (sub-national)			>2 [% of states/provinces meeting indicator]	79%	80%		
	Stool adequacy (national)			>=80%	91.57	83.7		
	Stool adequacy (sub-national)			>=80% [% of states/provinces meeting indicator]	79%	68%		
Low risk of reintroduction	Lab receipt to virus isolation result (median)			< 14 days	11	11		
	Environmental surveillance			Yes or No	No	No		
Low risk of reintroduction	RI improvement: % reduction in unimmunized children			>10%	N/a	12% increase (2014 vs 2013)		
	IPV introduction			intro by 2015	N/a	No (Jan-16)		

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
European region	Ukraine	Initial Response	Initial responsiveness	Emergency declared + plan drafted within 10 days	N/a	N/a
			Timing of 1st response	=<4 weeks	N/a	No (Oct-15)
			SIAs plan execution	=>3 campaigns within first 3 months	N/a	No (2 SIAs)
		Follow-on response	interim assessment	conducted at 3 months	N/a	Yes (Dec-15)
			final assessment	Conducted at 12 months	N/a	N/a
			number of cases (cVDPV1 only)	0 case after 6 months	1	1
		High population immunity	% 0- dose	<10%	0.00%	0.00%
			LQAS or IM out-of-house result	>= 90% or <5%	N/a	N/a
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	N/a	2 NIDs
			AFP rate	>2 (national)	2.31	2.83
		High virus detection	AFP rate	>2 [% of states/provinces meeting indicator]	65% (15/23)	65% (15/23)
			stool adequacy	>=80% (national)	97%	99%
			stool adequacy	>=80% [% of states/provinces meeting indicator]	100%	100%
			lab receipt to virus isolation result (median)	< 14 days	11	11
Environmental surveillance	Yes or no		Yes	Yes		
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	1% decrease (2014 vs 2013)		
	IPV introduction	intro by 2015	N/a	Yes		

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Western Pacific region	Lao PDR	Initial Response	Initial responsiveness	Emergency declared + plan drafted within 10 days	N/a	Yes
			Timing of 1st response	=<4 weeks	N/a	Yes (Oct-15)
			SIAs plan execution	=>3 campaigns within first 3 months	N/a	Yes
		Follow-on response	interim assessment	conducted at 3 months	N/a	N/a (Jan-16)
			final assessment	Conducted at 12 months	N/a	N/a
		Interrupt transmission within 6 months of confirmation of outbreak	number of cases (cVDPV1 only)	0 case after 6 months	N/a	7
			% 0-dose	<10%	N/a	N/a
		High population immunity	LQAS or IM out-of-house result	>= 90% or <-5%	N/a	N/a
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	N/a	1 NID, 2 SNIDs
			AFP rate	>2 (national)	N/a	4.93
		High virus detection	AFP rate	>2 (% of states/provinces meeting indicator)	N/a	44%
			stool adequacy	>=80% (national)	N/a	47%
			stool adequacy	>=80% (% of states/provinces meeting indicator)	N/a	33%
			lab receipt to virus isolation result (median)	< 14 days	N/a	N/a
			Environmental surveillance	Yes or no	N/a	No
RI improvement: % reduction in unimmunized children	>10%		N/a	8% decrease (2014 vs 2013)		
IPV introduction	intro by 2015		N/a	Yes (Oct-15)		

Outbreak	Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
South East Asian region	Myanmar	Initial Response	Initial responsiveness	Emergency declared + plan drafted within 10 days	N/a	Yes
			Timing of 1st response	= <4 weeks	N/a	Yes (Dec-15)
			SIAs plan execution	=>3 campaigns within first 3 months	N/a	Yes
		Follow-on response	interim assessment	conducted at 3 months	N/a	N/a (Mar-16)
			final assessment	Conducted at 12 months	N/a	N/a
		Interrupt transmission within 6 months of confirmation of outbreak	number of cases (cVDPV2 only)	0 case after 6 months	1	1
			% 0-dose	<10%	N/a	16.00%
		High population immunity	LQAS or IM out-of-house result	>= 90% or <5%	N/a	N/a
			% inaccessible	<5%	N/a	N/a
			Number and type of activity	per plan	N/a	2 SNIDS
			AFP rate	>2 (national)	N/a	3.2
			AFP rate	>2 [% of states/provinces meeting indicator]	N/a	N/a
		High virus detection	stool adequacy	>=80% (national)	N/a	96.7%
			stool adequacy	>=80% [% of states/provinces meeting indicator]	N/a	N/a
			lab receipt to virus isolation result (median)	< 14 days	N/a	N/a
			Environmental surveillance	Yes or no	N/a	No
		Low risk of reintroduction	RI improvement: % reduction in unimmunized children	> 10%	N/a	0.6% decrease (2014 vs 2013)
IPV introduction	intro by 2015		N/a	Yes (Dec-15)		

Annex 4 – High-risk country monitoring

Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Angola	High population immunity	% 0-dose	<10%	0.81%	0.93%
		LQAS or IM out-of-house result	>= 90% or <5%	no SIA	N/a
	High virus detection	% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	no SIA	2 NIDs
		AFP rate (national)	>2	3.95	3.4
		AFP rate (sub-national)	>2 (% of states/provinces meeting indicator)	94%	94%
		Stool adequacy (national)	>=80%	94.76	97.31
		Stool adequacy (sub-national)	>=80% (% of states/provinces meeting indicator)	100%	90%
		Lab receipt to virus isolation result (median)	< 14 days	9	8
		Environmental surveillance	Yes or No	Yes (2014)	Yes (2014)
Benin	High population immunity	RI improvement: % reduction in unimmunized children	>10%	N/a	65% increase (2014 vs 2013)
		IPV introduction	intro by 2015	N/a	No (after Apr-16)
	High virus detection	% 0-dose	<10%	2.22%	0.00%
		LQAS or IM out-of-house result	>= 90% or <5%	4.5% (IM O-H)	3.9% (IM O-H)
		% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	2 NIDS	2 NIDs
		AFP rate (national)	>2	3.52	5.00
		AFP rate (sub-national)	>2 (% of states/provinces meeting indicator)	58%	92%
		Stool adequacy (national)	>=80%	98.75	96.55
		Stool adequacy (sub-national)	>=80% (% of states/provinces meeting indicator)	92%	83%
Low risk of reintroduction	Lab receipt to virus isolation result (median)	< 14days	8	8	
	Environmental surveillance	Yes or No	No	No	
	RI improvement: % reduction in unimmunized children	>10%	N/a	1.8% decrease (2014 vs 2013)	
	IPV introduction	intro by 2015	N/a	Yes (Aug-15)	

Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Central African Republic	High population immunity	% 0-dose	<10%	6.67%	0.00%
		LQAS or IM out-of-house result	>= 90% or <5%	9.8% (IM O-H)	10% (IM O-H)
		% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	1 NID, 2 SNIDs	4 SNIDs
	High virus detection	AFP rate (national)	>2	3.64	4.01
		AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	71%	86%
		Stool adequacy (national)	>=80%	88.24	92.5
		Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	71%	71%
		Lab receipt to virus isolation result (median)	< 14 days	8.5	9
		Environmental surveillance	Yes or No	No	No
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	43% decrease (2014 vs 2013)	
	IPV introduction	intro by 2015	N/a	Yes (Sep-15)	
Chad	High population immunity	% 0-dose	<10%	0.71%	3.25%
		LQAS or IM out-of-house result	>= 90% or <5%	5.5% (IM O-H)	6% (IM O-H)
		% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	2 NIDS, 1 SNID	2 NIDS, 1 SNID
	High virus detection	AFP rate (national)	>2	6.93	5.9
		AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	100%	100%
		Stool adequacy (national)	>=80%	93.75	96.89
		Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	100%	100%
		Lab receipt to virus isolation result (median)	< 14 days	10	11
		Environmental surveillance	Yes or No	Yes (Jun-15)	Yes (Jun-15)
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	5.6% increase (2014 vs 2013)	
	IPV introduction	intro by 2015	N/a	Yes (Aug-15)	

Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Congo	High population immunity	% 0-dose	<10%	3.33%	3.03%
		LQAS or IM out-of-house result	>= 90% or <5%	no data	5.3% (IM O-H)
		% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	1 NID	2 NIDs
	High virus detection	AFP rate (national)	>2	5.28	4.9
		AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	100%	100%
		Stool adequacy (national)	>=80%	96.15	93.88
		Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	100%	100%
		Lab receipt to virus isolation result (median)	< 14 days	8	8
		Environmental surveillance	Yes or No	No	No
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	>10%	N/a	47% decrease (2014 vs 2013)	
	IPV introduction	intro by 2015	N/a	No (Feb-16)	
	% 0-dose	<10%	4.29%	5.04%	
	LQAS or IM out-of-house result	>= 90% or <5%	7.0% (IM O-H)	6.4% (IM O-H)	
Côte d'Ivoire	High population immunity	% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	1 NID	1 SNID
		AFP rate (national)	>2	3.26	4.6
		AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	65%	86%
	High virus detection	Stool adequacy (national)	>=80%	90.78	92.61
		Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	76%	100%
		Lab receipt to virus isolation result (median)	< 14 days	9	8
		Environmental surveillance	Yes or No	No	No
		RI improvement: % reduction in unimmunized children	>10%	N/a	40% increase (2014 vs 2013)
		IPV introduction	intro by 2015	Yes (Jun-15)	Yes (Jun-15)

Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Democratic Republic of the Congo	High population immunity	% 0-dose	<10%	4.26%	3.58%
		LQAS or IM out-of-house result	>= 90% or <5%	8.0% (IM O-H)	7.2% (IM O-H)
	High virus detection	% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	1 SNID	3 SNIDs
		AFP rate (national)	>2	5.30	6.06
		AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	100%	100%
		Stool adequacy (national)	>=80%	89.81	92.08
		Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	100%	100%
	Low risk of reintroduction	Lab receipt to virus isolation result (median)	< 14 days	8	9
		Environmental surveillance	Yes or No	No	No
		RI improvement: % reduction in unimmunized children	> 10%	N/a	27% decrease (2014 vs 2013)
		IPV introduction	intro by 2015	Yes (Apr-15)	Yes (Apr-15)
Gabon	High population immunity	% 0-dose	<10%	5.56%	7.14%
		LQAS or IM out-of-house result	>= 90% or <5%	no data	4% (IM O-H)
	High virus detection	% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	1 NID	1 NID
		AFP rate (national)	>2	8.42	8.00
		AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	100%	90%
		Stool adequacy (national)	>=80%	92.86	88.89
		Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	80%	90%
	Low risk of reintroduction	Lab receipt to virus isolation result (median)	< 14 days	11	8
		Environmental surveillance	Yes or No	No	No
		RI improvement: % reduction in unimmunized children	> 10%	N/a	31% increase (2014 vs 2013)
		IPV introduction	intro by 2015	N/a	Yes (Dec-15)

Country	Outcome	Indicator	Target	Jan-Jun 2015	Jul-Dec 2015
Mali	High population immunity	% 0-dose	<10%	0%	0%
		LQAS or IM out-of-house result	>= 90% or <5%	3.0% (IM O-H)	5.15% (IM O-H)
		% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	2 NIDS, 1 SNID	1 NID, 3 SNIDs
	AFP rate (national)	>2	1.77	4.18	
	AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	44%	88%	
	Stool adequacy (national)	>=80%	98.33	84.05	
	Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	78%	75%	
	Lab receipt to virus isolation result (median)	< 14 days	10	9	
	Environmental surveillance	Yes or No	No	No	
Low risk of reintroduction	RI improvement: % reduction in unimmunized children	> 10%	N/a	22% decrease (2014 vs 2013)	
	IPV introduction	intro by 2015	N/a	No (Mar-16)	
	% 0-dose	<10%	0.95%	5.17%	
	LQAS or IM out-of-house result	>= 90% or <5%	4.5% (IM O-H)	N/a	
Niger	High population immunity	% inaccessible	<5%	N/a	N/a
		Number and type of activity	per plan	2 NIDS, 1 SNID	1 NID, 2 SNIDs
		AFP rate (national)	>2	2.92	1.58
		AFP rate (sub-national)	>2 [% of states/provinces meeting indicator]	86%	57%
	Stool adequacy (national)	>=80%	92.14	87.01	
	Stool adequacy (sub-national)	>=80% [% of states/provinces meeting indicator]	86%	71%	
	Lab receipt to virus isolation result (median)	< 14 days	36	9	
	Environmental surveillance	Yes or No	Yes (2014)	Yes (2014)	
	RI improvement: % reduction in unimmunized children	> 10%	N/a	0.6% decrease (2014 vs 2013)	
	IPV introduction	intro by 2015	N/a	Yes (Jul-15)	

Annex 5 – Analysis of OPV costs by region, January-June 2015 vs July-December 2015

Operational cost (\$) per child (to reach and vaccinate 1 child with 1 dose)	Jan – June 2015	Jul – Dec 2015
Global	0.38	0.35
Regional Office for Africa	0.50	0.35
Regional Office for the Eastern Mediterranean	0.19	0.34
Regional Office for South-East Asia	0.10	0.10
Regional Office for Europe	0.30	0.30

Annex 6 – Global monitoring

Outcome	Indicator	Target	July – December 2015
All	Financing: 12-month cash gap		N/a
	Financing: Strategy funding gap		N/a
	Staffing: Vacant approved posts	<10%	N/a
High population immunity	Vaccine supply: Weeks forecast below buffer in next 6 months	<10%	0 weeks
Low risk of virus reintroduction	Number of OPV-using countries introducing IPV	Per IMG	All countries committed to IPV introduction ahead of the switch from trivalent OPV to bivalent OPV in April 2016. However, due to a global IPV supply constraint, some low-risk countries will experience delays in receiving supply.
	Plan in place to support routine immunization strengthening in 10 priority countries	Per IMG	Six countries (Chad, Democratic Republic of Congo, Ethiopia, India, Nigeria and Pakistan) have developed annual national immunization plans that leverage polio assets to improve broader immunization goals.
	Reduction in the international spread of polio		The declared PHEIC continues; countries extend the implementation of the Temporary Recommendations including to countries affected by cVDPVs.
	Containment	Per GAPIII	GAPIII is aligned with the Polio Endgame Plan timelines.
	Certification		WPV2 eradication declared by the Global Commission for the Certification of Poliomyelitis Eradication (GCC) in September 2015.
Legacy planning	Consultations inputs into plan		Consultations with countries and stakeholders ongoing.



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