



NATIONAL PRIMARY HEALTH CARE DEVELOPMENT AGENCY

2020 NIGERIA POLIO ERADICATION EMERGENCY PLAN

December 2019

NPHCDA

**Plot 681/682 Port Harcourt Crescent
Off Gimbiya street, off Ahmadu Bello Way
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Abuja

Abbreviations

AFP	Acute Flaccid Paralysis
AVADAR	Auto-Visual AFP Detection and Reporting.
bOPV	Bivalent oral polio vaccine
BMGF	Bill and Melinda Gates Foundation
CDC	Centers for Disease Control and Prevention
CJTF	Civilian Joint Task Force
cVDPV	Circulating Vaccine Derived Poliovirus
CIIA	Community Informants in Inaccessible Areas
DOPV	Directly observed polio vaccination
EOC	Emergency Operations Centre
ERC	Expert Review Committee on Polio Eradication and Routine Immunization
EPI	Expanded Programme on Immunization
FCT	Federal Capital Territory
FMOH	Federal Ministry of Health
FOMWAN	Federation of Muslim Women Associations in Nigeria
FRR	Financial Resources Requirements
GAVI	Global Alliance of Vaccines and Immunization
ICC	Inter Agency Coordination Committee
IDPs	Internally displaced populations
IPC	Inter-Personal Communication
IPDs	Immunization Plus Days
IMB	Independent Monitoring Board
LGA	Local Government Area
LQAS	Lot quality assurance sampling
mOPV2	Monovalent Oral Polio Vaccine type 2
NCC	National Certification Committee
NICS	National Immunization Coverage Survey
NIFAA	Nigeria Interfaith Action Association
NPEEP	National Polio Eradication Emergency Plan
NTLC	Northern Traditional Leaders Committee on Polio & PHC
NPHCDA	National Primary Health Care Development Agency
OIRIS	Optimized Integrated Routine Immunization Sessions
OPV	Oral polio vaccine
PEI	Polio Eradication Initiative
PTFoPE	Presidential Task Force on Polio Eradication
RES	Reaching Every Settlement

RI	Routine Immunization
RIC	Reaching Inaccessible Children
SIA	Supplemental Immunization Activities
STF	State Task Force on Immunization
UNICEF	United Nations Children’s Fund
VCM	Volunteer Community Mobilizer
VDPV2	Vaccine derived poliovirus type 2
WHO	World Health Organization
WPV	Wild Polio Virus

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EXECUTIVE SUMMARY

Nigeria marked 40 months as at December 2019, without a case of wild poliovirus (WPV) reported, due to the remarkable progress made by the Polio program. The progress was made possible with increased vaccination and surveillance reach in inaccessible areas in the northeast. The Buratai initiative, among others, were specially employed in Borno and Yobe states to address areas with security threat/risks. The program continued to implement innovative and impactful in-between round special interventions targeted at vaccinating more children potentially missed through the House-to-House campaigns.

These strategies included profiling and vaccination of children liberated from captivity in the security compromised areas, vaccinations at transit points, IDP camps, hospitals, markets, etc. The innovative strategies resulted in more settlements being accessed and thus more children vaccinated in security-compromised areas than the previous years. There has been tremendous progress in meeting the general goal of Reaching inaccessible communities (Buratai initiative). As at week 46, in 2019, 13 rounds of BI (RIC) have so far been completed in Borno, with over 18,216 children vaccinated per round. The Reaching Every Settlement (RES) has been transitioned to HH and still capturing children. The number of children vaccinated through the RES for the rounds of 2019 is 188,192.

Despite the remarkable progress made in PEI in 2019, there was persistent detection of cVDPVs from different sources (AFP cases, environment, and healthy child samples). For the first time in years, cVDPVs were detected from non-polio high-risk states across the river Niger. A total of 83 cVDPV2 were confirmed from ES (56), AFP Cases (18), AFP Contacts (1) and Healthy Children (8) in 2019. The latest cVDPV2 from human was from an AFP case in Surulere LGA/Oyo State, with date of onset of paralysis on 09/10/2019 while the latest ES confirmed virus is from Onitsha South LGA of Anambra State with date of collection on 19/12/2019. The positive cVDPV2 isolates were confirmed across 13 states: Anambra, Bauchi, Borno, Kano, Kogi, Kwara, Lagos, Niger, Ogun, Osun, Oyo, Sokoto and Yobe states. The outbreak spread to neighboring countries of West Africa.

The country programme responded swiftly to address these events. *Monovalent Oral Polio Vaccine type 2* (mOPV2) was deployed to control the cVDPV2 outbreaks in January, February, April, May, June and December 2019 outbreak responses. The use of mOPV2 after the withdrawal of trivalent OPV required approval of the DG WHO and strict vaccine accountability.

To ensure all the vaccines deployed were accounted for, mOPV2 accountability officers were engaged' whose responsibility was to reconcile and return all used and unused vials with all the teams, up to the state level.

One national supplemental immunization activity (SIAs), three subnational IPDs (SNIDs) as recommended by the 35th ERC and seven outbreak responses have been conducted between January and December 2019. The post campaign Lot Quality Assurance Sampling (LQAs) showed steady number of LGAs accepted as with => 90% coverage in the implementing states. Improved campaign outcome resulted from dogged strategies/ innovation that complemented the traditional house to house teams in addressing the barriers to OPV uptake by eligible children.

Emphasis was placed on improving the quality and sensitivity of surveillance in 2019 through training and sensitization of surveillance actors, surveillance peer reviews at state level and strengthening the accountability framework. This surveillance structure comprises of surveillance personnel, a network of 9,184 prioritized health facilities as surveillance focal sites and a total of 53,518 community informants in 2019. The surveillance structure is coordinated at national, zonal, state, LGA and health facility levels. The National Polio Committees (NCC, NTF and NPEC) in the country are functional and meet at least every quarter. These committees guide the entire PEI programme. The country has been able to achieve and sustain the required WHO standard targets of surveillance performance indicators for over a decade at both national and state levels even though some surveillance gaps do exist at LGAs. The NP-AFP and stool adequacy rates in 2019 were 7.7 and 94% respectively.

To improve the sensitivity of the surveillance system in the country, environmental surveillance (ES) was introduced in 2011 in Kano State to complement the AFP surveillance. As at December 2019, the country had 113 ES sites in 29 states and FCT. Environmental sample collection is supervised by senior surveillance officers. The proportion of ES sample collection supervised in 2019 was 1,732(83%) out of the 2,093 samples collected. The last time WPV was isolated from ES was in May 2014 in Kaduna State whereas cVDPV2 was last confirmed from ES in December 2019 in Anambra State. Stool and environmental samples collected for poliovirus isolation are analyzed in the two national polio laboratories in located in Ibadan and Maiduguri. These laboratories are part of the Global Polio Laboratory Network and are WHO accredited.

The major challenges faced in 2019 were the outbreak of cVDPV2 as well as the lack of access to remaining children in completely inaccessible areas in Borno especially Abadam, Marte and some islands on the Lake Chad. Sustaining the gains made through polio campaigns was also

threatened by potential immunity gaps as revealed by the upsurge in cVDPV2 cases and low coverage based on community surveys and RI LQAS data.

In 2020, the overall goal of the program will be to sustain the interruption of wild poliovirus transmission and to contain the current outbreak of cVDPV2. This will be done through quality campaigns, increasing the reach to inaccessible areas in Borno state, achieving reduction in number of unimmunized children in very high risk LGAs, and sustaining quality surveillance performance indicators in all LGAs

1.0 INTRODUCTION AND CONTEXT OF THE PROGRAMME

Context of Polio Eradication Efforts in 2019 – interrupting all poliovirus transmission

As at end of December 2019, Nigeria has marked its 40 months without a case of Wild Polio Virus (WPV) detected anywhere in the country. The last virus was detected in a healthy contact in Monguno LGA of Borno State.

Although successes have been recorded in curbing the spread of WPV, the country experienced an outbreak of cVDPV2 in 2016 with one case confirmed. There wasn't any cVDPV confirmed in 2017. However, in 2018 there was re-emergence with a total of 34 cVDPV2 cases that decreased to 18 in 2019. The downward trend in the incidence of cVDPV2 from 2018 to 2019 was as a result of innovative and intensified activities to improve population immunity.

In Nigeria, the AFP surveillance system detects, reports, investigates and verifies AFP cases in children below 15 years of age or in any person of any age when a clinician suspects poliomyelitis. This surveillance structure comprises of surveillance personnel, a network of 9,184 prioritized health facilities as surveillance focal sites and a total of 53,518 community informants in 2019. The surveillance structure is coordinated at national, zonal, state, LGA and health facility levels. The National Polio Committees (NCC, NTF and NPEC) in the country are functional and meet at least every quarter. These committees guide the entire PEI programme. The country has been able to achieve and sustain the required WHO standard targets of surveillance performance indicators for over a decade at both national and state levels even though some surveillance gaps do exist at LGAs. The NP-AFP and stool adequacy rates in 2019 were 7.7 and 94% respectively.

Surveillance reach in inaccessible areas expanded in Borno State through community informant network. Community informants submit weekly report including zero report and attend quarterly meetings at the health facility catchment area level. This tracking system has enhanced the reporting rate of the informants with more than 90% reporting. This has improved reporting of AFP cases from the community and reduced over reliance on campaigns. With the multiple surveillance strategies described above, the surveillance reach in Borno State exceeds the vaccination reach. The use of CIs from security compromised areas brought about a breakthrough in surveillance. Marte and Abadam LGAs which were silent in 2017 are now reporting AFP cases: - Marte: 12 and 8 AFP cases reported in 2018 and 2019 respectively - Abadam: 4 and 1 AFP cases reported in 2018 and 2019 respectively.

Innovative approaches to reach children in inaccessible areas were sustained and guided by settlement-based accessibility mapping and collaboration with security forces.

The implementation of interventions (Permanent Health Teams, firewalling, Market/Transit vaccination, international border vaccinations, IDPs, nomadic vaccinations, renewed efforts towards RIC strategy (Buratai Initiative etc.) vary from state to State depending on peculiarities. There were teams dedicated to the IDP camps, closely supervised, who conduct daily vaccinations in the camps while IDPs embedded into host communities were tracked for vaccination with the support of identified community focal points.

Although successes have been recorded in curbing the spread of WPV, in 2018 re-emergence with a total of 34 cVDPV2 cases, decreased to 18 in 2019. The downward trend in the incidence of cVDPV2 from 2018 to 2019 was as a result of innovative and intensified activities to improve population immunity. The last cVDPV2 was detected from an AFP case in Sokoto state, while the last positive cVDPV2 from the environment was isolated from a sample collected in December 2019 in Anambra state.

Despite the remarkable stride for PEI in 2019, progress was marred by the incessant detection of cVDPVs from different sources (AFP cases, environment, and healthy child samples). For the first time after many years, cVDPVs were detected from non-polio high-risk states across the river Niger.

The country responded aptly to address these events. Monovalent Oral Polio Vaccine type 2 (mOPV2) was deployed to control the cVDPV2 outbreaks in January, February, April, May, June and December 2019 outbreak responses. The use of mOPV2 after the withdrawal of trivalent OPV required approval of the DG WHO and strict vaccine accountability. To ensure all the vaccines deployed were accounted for, mOPV2 accountability officers were engaged' whose responsibility was to reconcile and return all used and unused vials with all the teams, up to the state level.

One national supplemental immunization activity (SIAs), three subnational IPDs (SNIDs) as recommended by the 35th ERC and seven outbreak responses have been conducted between January and December 2019. The post campaign Lot Quality Assurance Sampling (LQAs) showed steady number of LGAs accepted as with => 90% coverage in the implementing states. Improved campaign outcome resulted from dogged strategies/ innovation that complemented the traditional house to house teams in addressing the barriers to OPV uptake by eligible children.

Access to children in the North East remains a challenge due to insecurity. This is further complicated by other escalation in northwest and north central states coupled with criminal elements in spotted parts of the country. However, mitigating measures including special interventions have been deployed to address children that would have been missed from these

conflicts. Internally displaced person's (IDP) camps, use of community structures to identify IDPs in host communities, transit vaccination posts and vaccination teams with the support of security agencies have deployed to inaccessible areas.

Implementation in some rounds was staggered to facilitate close supervision and monitoring and attention was also availed to cross border collaboration with neighbouring countries, given the dynamic situation at the borders. These efforts were complemented by the intensified efforts of the Emergency Routine Immunization Coordination Centers at national (NERICC) and State (SERICC) levels to address the gaps in routine immunization.

The National and State EOCs continued to drive the programme, ensuring strong coordination of Government and partner efforts at all levels and strategic technical support, including close monitoring of performance.

GoN, through the resilient leadership of National Primary Health Care Development Agency (NPHCDA), with support of polio eradication partners and strategic planning through the Emergency Operations Centre (EOC) galvanized these efforts.

The oversight of polio eradication by H.E. the President through the Presidential Task Force on Polio Eradication (PTFoPE); enforcement of accountability at all levels, efficient and effective management of resources through the Emergency Operations Centers (EOCs) was unprecedented. Furthermore, implementation of annual NPEEPs; data driven planning and deployment of crack teams, rapid response and Management Support Teams (MSTs), including timely response to reported outbreaks and routine intensification with IPV/ fIPV enhanced programme performance.

The key achievements during the implementation of the 2019 NPEEP included:

- No detection of WPV1 from cases or the environment for 40 months.
- Increased surveillance reach in inaccessible areas of Borno state.
- Improved quality of surveillance at State level. Surveillance sensitivity was maintained with non-polio AFP detection rate at 9.6 per 100,000 under 15 population and stool adequacy at 96% in 2018. The proportion of LGAs meeting both indicators was 87% by December 2018.
- Prompt investigation and response to cVDPV2 outbreaks. As the programme continues to implement response activities in a wider scope. However, the latest cVDPV2 from Anambra was in December 2019.

- Strengthened vaccine accountability. All mOPV2 vials provided for the cVDPV2 outbreak response activities were accounted for. These measures are being extended to other antigens.

The major challenges in 2019 included:

- Evolving security situation in Borno. Frequent attacks by insurgents made accessibility to parts of Borno a challenge. Implementation of RIC slowed down due to engagement of the military in security operations.
- Low routine immunization coverage across northern Nigeria including IPV coverage fueled the emergence of cVDPV2 outbreaks
- Waning political support and commitment at the State and LGA levels. Release of counterpart funding for activities and timeliness of release continued to be a challenge at all levels.

1.0. Poliovirus Epidemiology

As at December 2019, Nigeria was 39 months without WPV; the last being reported in August 2016. Four cases of WPV1 were confirmed in three LGAs in Borno State after 23 months of no virus detected in Nigeria. Internal displacement and poor access to the programme were contributory.

Figure 1: Confirmed WPV1 cases, Nigeria, 2005-2019

There was a decline of number of cVDPVs from 2018. As at December 2019, 18 AFP cases were isolated from AFP in 2019 with most recent from Surulere LGA (Oyo State) with date of onset on 09 October 2019. cVDPV2 from environmental sample confirmed 56 cVDPV2 in 2019 in 7 states with latest case from Onitsha South, date of collection on 19 December 2019.

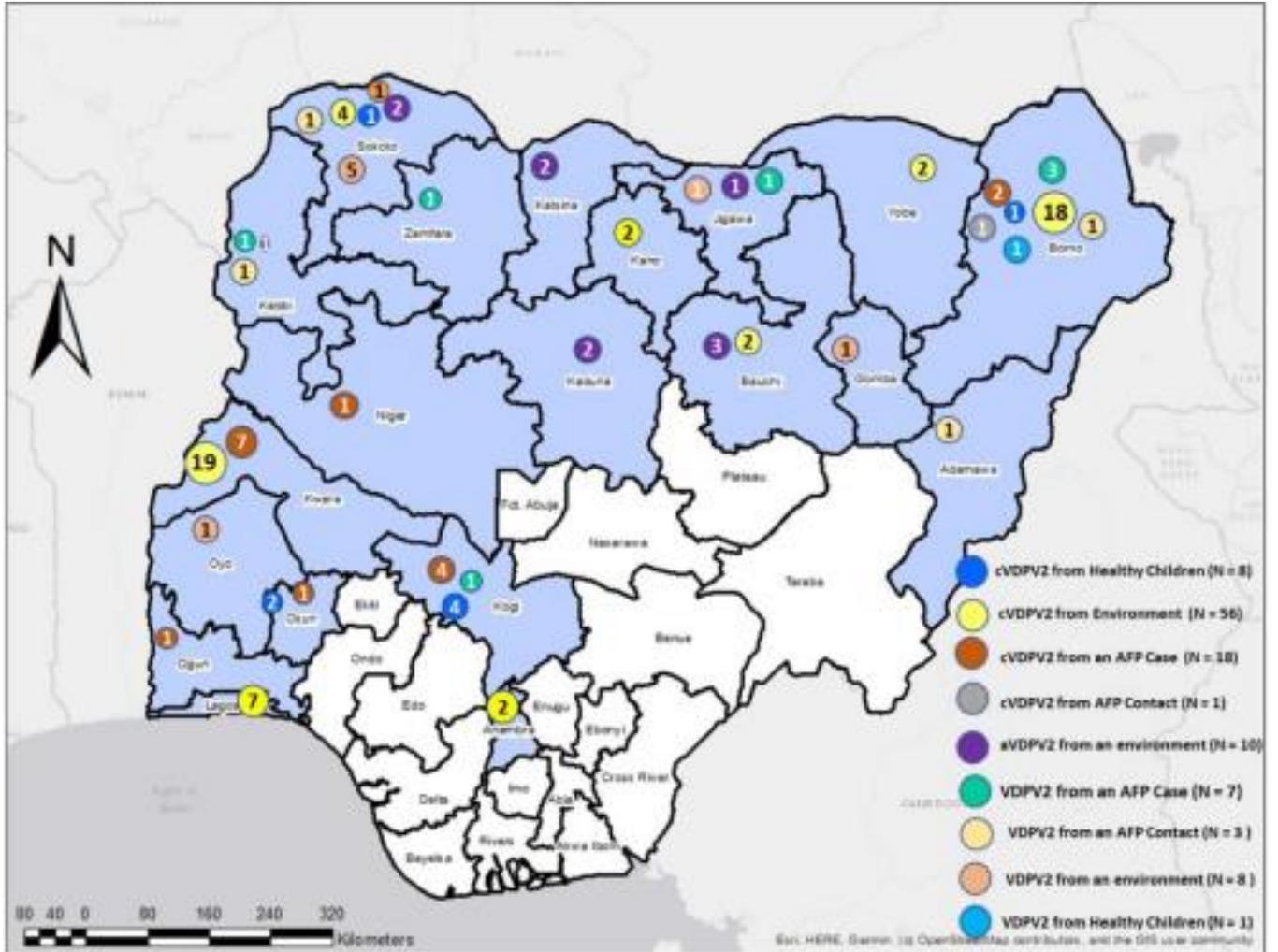


Figure 2: Location of VDPV2 isolates, 2019

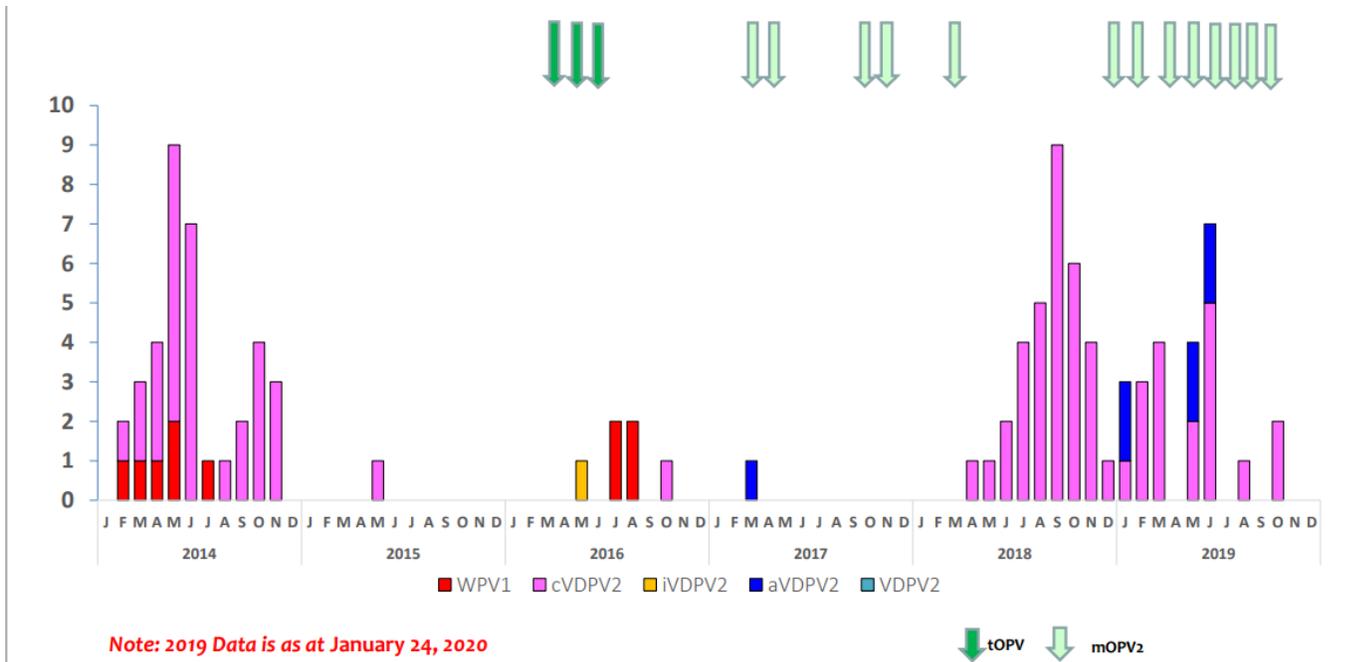


Figure 3: Trend in polioviruses from AFP cases, 2014-2019

The number of positive cVDPV2 isolates from contact was one, while a total of 8 positive isolate was from healthy children sample.

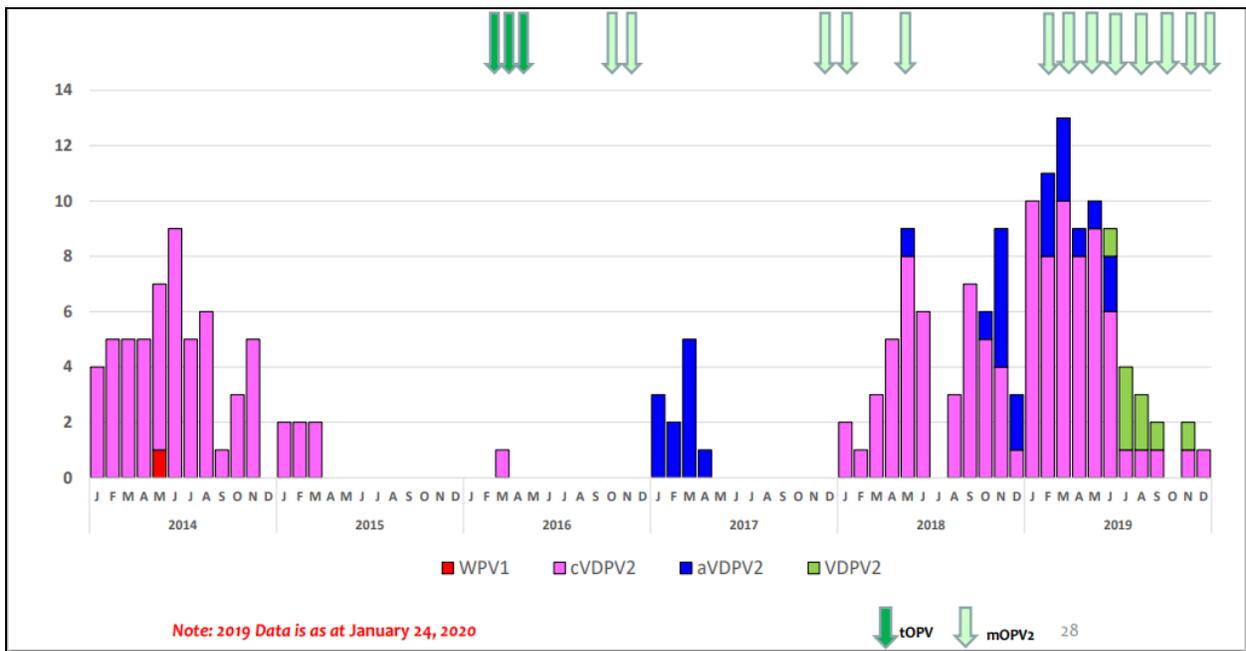


Figure 4: Trend in VDPV2 from the environment, 2014- 2019

1.1. Profile of VDPV2 and Genetic Data

Detailed outbreak investigation in the cVDPV2-infected wards in 2019, indicated the following:

- The OPV status of NPAFP from 0 to 4 doses with significant suboptimal doses.
- 24 out of the 31 cases (77%) as zero dose children.
- The vaccination coverage for IPV in the infected areas (based on community surveys conducted in 30 households in the area where the virus was picked up) was suboptimal (<80%).

Table 1: Summary Profile of VDPV2 isolates 2019

Zone	State	From AFP Cases				From other Sources (Human)				From other Sources (Environment)			
		2017	2018	2019	Most Recent date	2017	2018	2019	Most Recent date	2017	2018	2019	Most Recent date
NCZ	Niger	0	0	1	20-May-19	0	0	0		0	0	0	
	Kwara	0	1	7	20-May-19	0	8	0	31-Dec-18	0	0	19	27-Aug-19
	Kogi	0	0	4	02-Oct-19	0	0	4	24-Jul-19	0	0	0	
NWZ	Jigawa	0	4	0	13-Oct-18	0	5	0	25-Aug-18	0	8	0	20-Jun-18
	Kaduna	0	1	0	10-Sep-18	0	0	0		0	3	0	11-Dec-18
	Kano	0	0	0		0	0	0		0	1	2	06-Mar-19
	Katsina	0	16	0	22-Oct-18	0	36	0	10-Oct-18	0	0	0	
	Sokoto	0	0	1	20-May-19	0	0	1	20-Jun-19	0	14	4	11-Sep-19
NEZ	Bauchi	0	0	0		0	0	0		0	5	2	18-Mar-19
	Borno	0	6	2	20-Jun-19	0	7	2	25-Feb-19	0	5	18	25-Jun-19
	Gombe	0	0	0		0	0	0		0	1	0	09-Apr-18
	Taraba	0	1	0	02-Nov-18	0	0	0		0	0	0	
	Yobe	0	5	0	21-Nov-18	0	5	0	24-Oct-18	0	8	2	20-Feb-19
SWZ	Lagos	0	0	0		0	0	0		0	1	7	12-Apr-19
	Ogun	0	0	1	09-Mar-19	0	0	0		0	0	0	
	Osun	0	0	1	09-Jun-19	0	0	2	21-Jul-19	0	0	0	
	Oyo	0	0	1	09-Oct-19	0	0	0		0	0	0	
SEZ	Anambra	0	0	0		0	0	0		0	0	2	19/12/2019
Total		0	34	18		0	61	9		0	46	56	

2.0. ACTIVITIES IMPLEMENTED IN 2019 TO BOOST POPULATION IMMUNITY AND STRENGTHEN SURVEILLANCE

2.1. Routine Immunization Intensification in cVDPV2 Outbreak LGAs/ States

Further effort at improving population immunity to reverse the cVDPV included RI intensification using fractional IPV (fIPV). One fIPV SIAs was conducted in different locations and scope in 15 outbreaks states of Bauchi, Borno, Kaduna, Kano, Katsina, Kebbi, Kwara, Lagos, Niger, Ogun, Osun, Oyo, Sokoto, Yobe and Zamfara, July to August 2019. A total of 12,014,975 eligible children (14 weeks -59 months) were vaccinated with IPV in the 151 LGAs across 15 states (Figure 5).

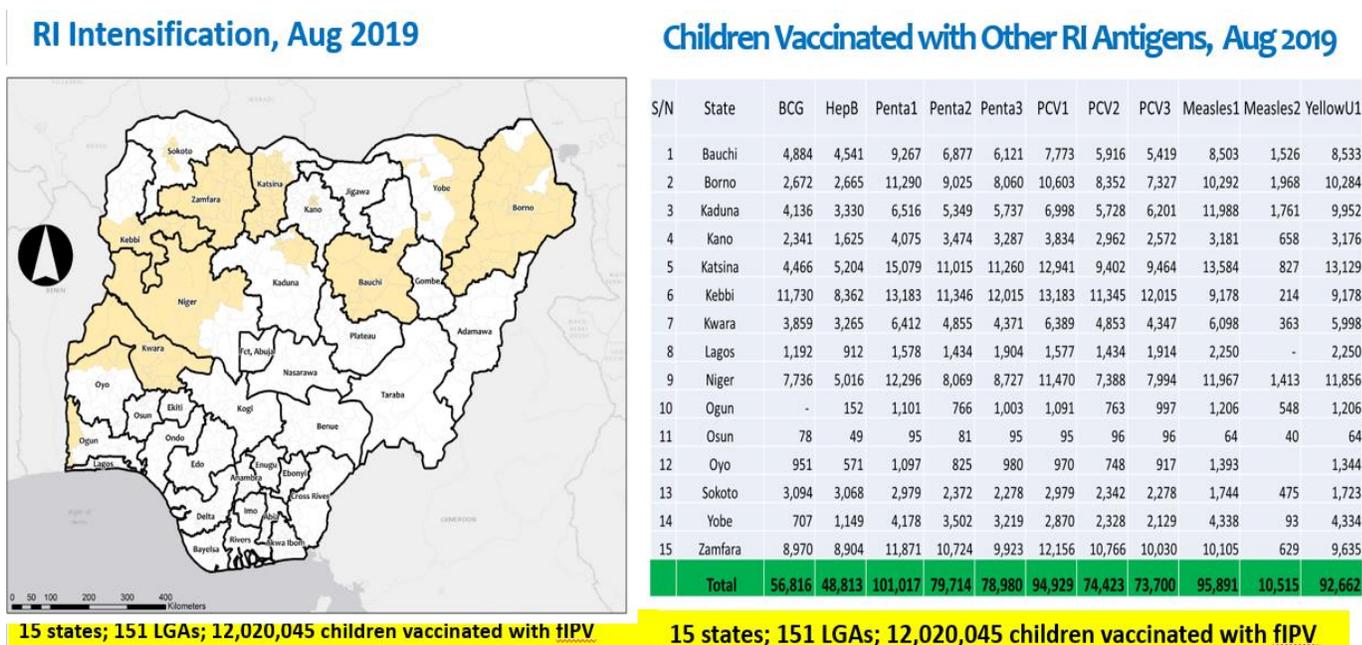


Figure 5: Scope of RI intensification, 15 States, July/ August 2019

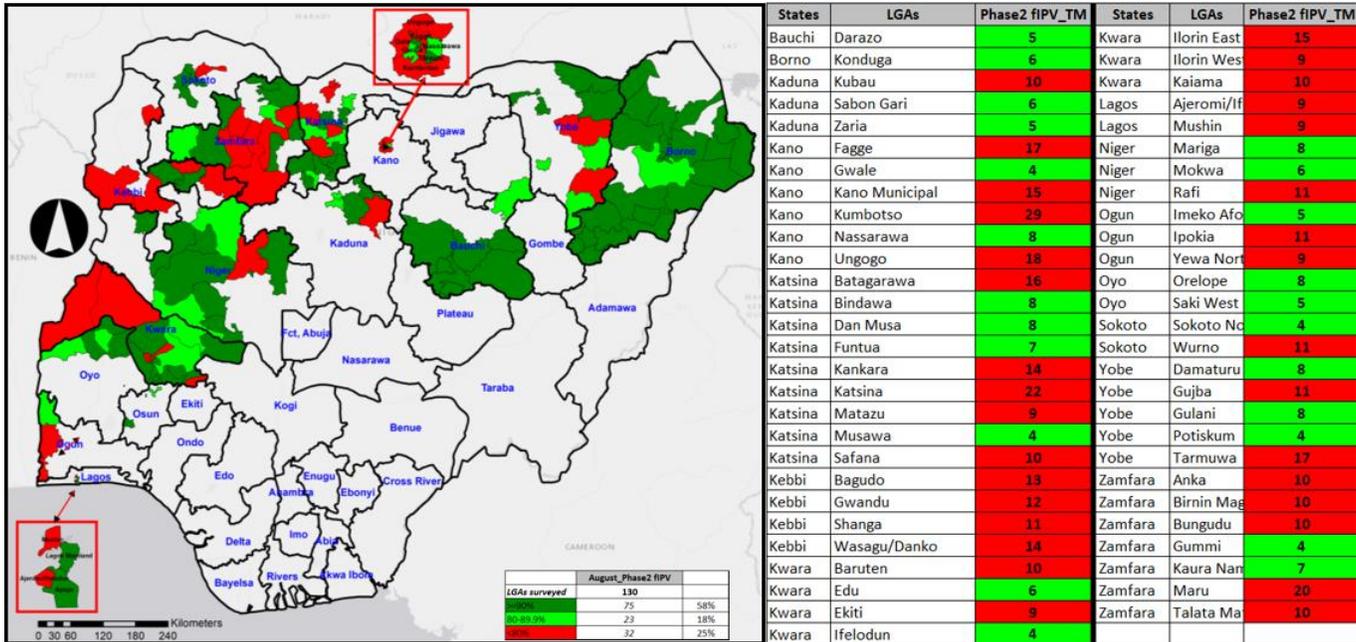


Figure 6: LQAs Results for fIPV Vaccination, August 2019

In the July/ August 2019 fIPV SIAs, 343/353 (76%) of the LGAs survey were accepted as with coverage at $\geq 90\%$. All LGAs (lots) with less than 90% coverage were made to repeat vaccination in poorly covered areas for 2 days (Figure 6). There was a decrease in the number of cVDPV cases detected after each fIPV campaign. The number of States infected in the last six months in 2019 has declined to seven, with declining number of reported cases in Nigeria (Figure 7)

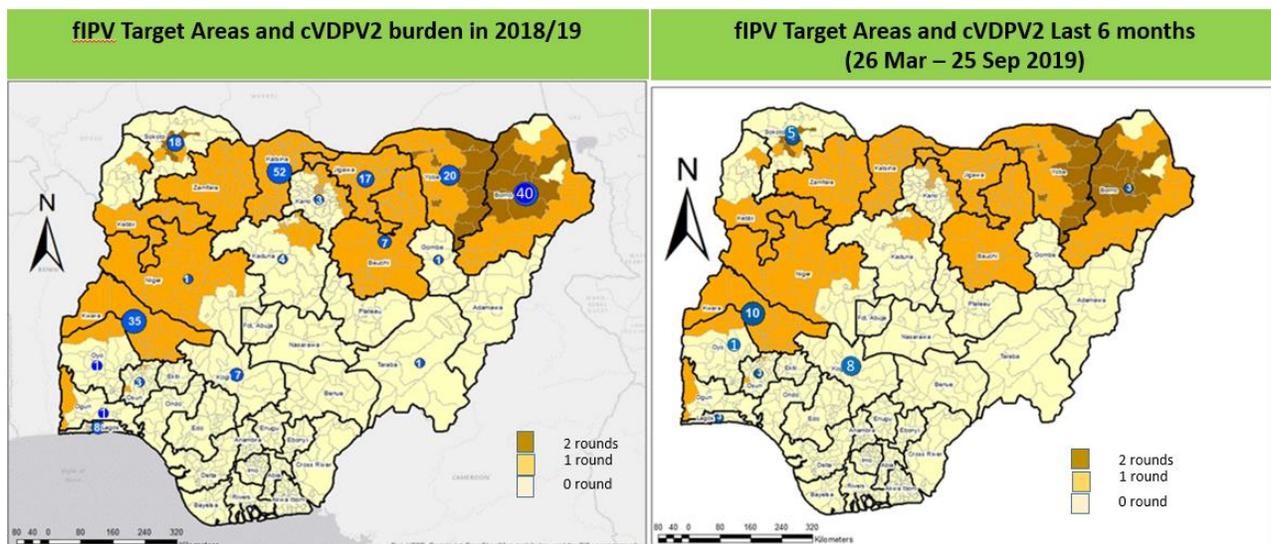


Figure 7: cVDPV2 burden in fIPV target areas (LGAs with IPV/fIPV campaign Vs number of cVDPV2)

2.2. Vaccination in Security Compromised areas and Internally Displaced Persons (IDP) camps.

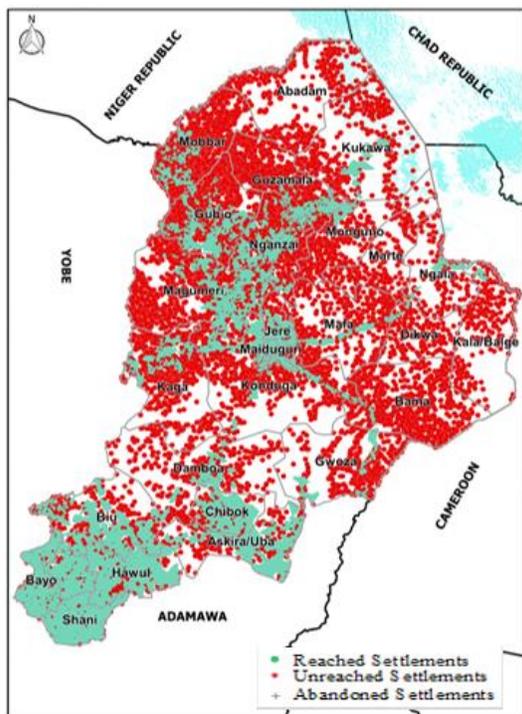
Nigeria has made progress in reaching children in security compromised areas through a host of strategies such as RES, RIC and Vaccination by Community informant from inaccessible (CIAs). In July 2018, regular monthly RES implementation was discontinued and synchronized with SIAs campaign implementation. However the RIC strategy has continued to be implemented. After 13 rounds of RIC, 115,613 children have been reached through the program in 4,827 (68%) of 7,078 planned settlements across 17 RIC implementing LGAs.

To expedite progress in accessing children in unreached settlements with Polio vaccines, the CIA vaccination strategy was adopted. CIAs primarily conduct AFP surveillance, with progress made by this intervention in AFP surveillance, the state leveraged on this opportunity to vaccinate in those areas reached by the CIAs. As at December 2019 an estimated 525 settlements which were previously unreached by any intervention were reached by CIAs.

A combination of H2H, RES, RIC and CIA vaccination intervention has improved vaccination reach from 7,926 settlements in December 2016 to 12,821 settlements by December 2019 (representing a 62% improvement in Vaccination reach relative to December 2016 vaccination reach) as shown in Figure 8.

Outcome of vaccination conducted by RES during the H2H campaign across Borno and Yobe State is shown in Table 2 and 3

Vaccination reach map (OBR, RES, RIC) as at December 2016



Source: Borno EOC data team analysis

Vaccination reach map (OBR, RES, RIC) as at December 2019

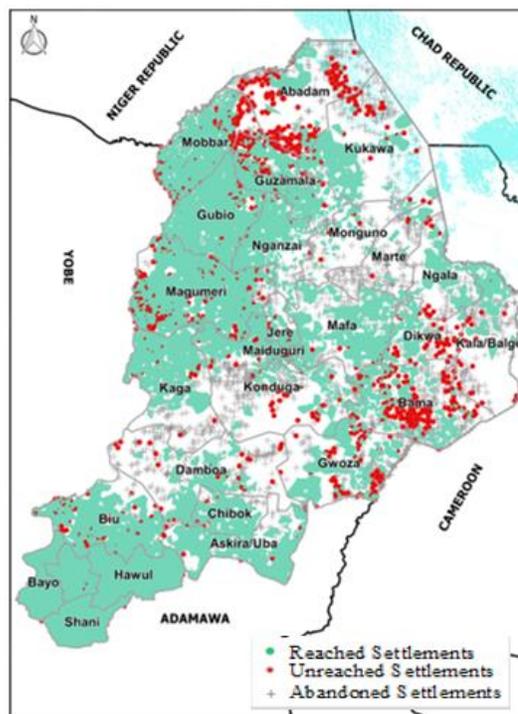


Figure 8: Vaccination Reach in Borno, Quarter 4 2016 – Quarter 4 2019

Table 2: Number of children vaccinated with OPV by RES during regular H2H campaign

Jan – Dec 2019 (Borno State)

Month of implementation	Total Number of settlements planned	Total number of settlements Reached	Proportion of Settlements reached	Children Immunized
Jan-19	200	198	99%	13,135
Mar-19	1,785	1,804	101%	37,391
Apr-19	2,260	2,169	96%	41,353
May-19	2,397	2,112	88%	39,831
Jul/Aug-19	2,592	2,264	87%	35,927
Oct-19	2,224	2,009	90%	31,138
Dec-19	2,208	1,588	72%	36,619
Total	13,666	12,144	89%	235,394

Table 3: Number of children vaccinated with OPV by RES during regular H2H campaign

Jan – Dec 2019(Yobe State)

Month of implementation	Total Number of settlements planned	Total number of settlements Reached	Proportion of Settlements reached	Children Immunized
Mar-19	383	378	99%	14,014
Apr-19	467	460	99%	17,379
May-19	464	452	97%	16,493
Jul/Aug-2019	352	349	99%	12,824
Oct-19	465	456	98%	15,288
Nov-19	492	491	100%	16,240
Dec-19	467	452	97%	15,069
Total	3,090	3,038	98%	107,307

2.3. Vaccination of Internally Displaced Persons (IDPs)

The country continues to conduct targeted vaccination activities amongst IDPs population. Specific IDP camp teams are recruited to ensure children entering the IDP camps are vaccinated with OPV and IPV. The teams also search for AFP cases among the IDP population. In Borno, seven special intervention strategies were deployed to vaccinate and profile new arrival internally Displaced Persons (IDPs) below the age of 5 years. In 2019, IDP camp immunization data was only received from three states namely Borno, Adamawa, and Taraba. 752,334 children were vaccinated with OPV in the three states with Borno contributing the highest number at 748,164 while Adamawa and Taraba contributed 1,963 and 2,204 respectively. A total of 75 AFPs were picked in the IDPs which are all from Borno.

Table 4: No. children vaccinated with bOPV in IDP camps by State and LGAs

State	LGA	Number of Children immunized with OPV
Adamawa	Fufore	1,584
	Girei	55
	Yola North	324
Borno	Askira Uba	4,297
	Bama	19,548
	Biu	3,996
	Damboa	54,156
	Dikwa	38,314
	Gwoza	60,468
	Jere	185,109
	Kaga	43,086
	Kala-Balge	19,509
	Konduga	21,181
	Mafa	2,696
	Magumeri	7,284
	Maiduguri	196,227
	Monguno	67,461
	Ngala	20,894
Nganzai	3,938	
Taraba	Bali	344
	Gassol	745
	Jalingo	1,118
Grand Total		752,334

Profiling Vaccinated Children

Internally displaced children coming out of inaccessible areas in Borno were targeted for vaccination with Polio vaccines at strategic locations such as transit/motor parks, market, IDP camps, Community IDPs Tracking Teams (CITT), nomadic, CMAM centers, and hospital vaccinations. These children were profiled to determine the LGA and Ward of origin. During January – December 2019, 195,964 children were vaccinated and profiled, of which 182,163 migrated from 27 LGAs with in Borno, 5,442 were from other states in Nigeria and 8,359 were from other countries (Cameroun, Chad and Niger Republic. A total of 25,088 children were vaccinated from Abadam, Guzamala, Kukawa and Marte LGAs.

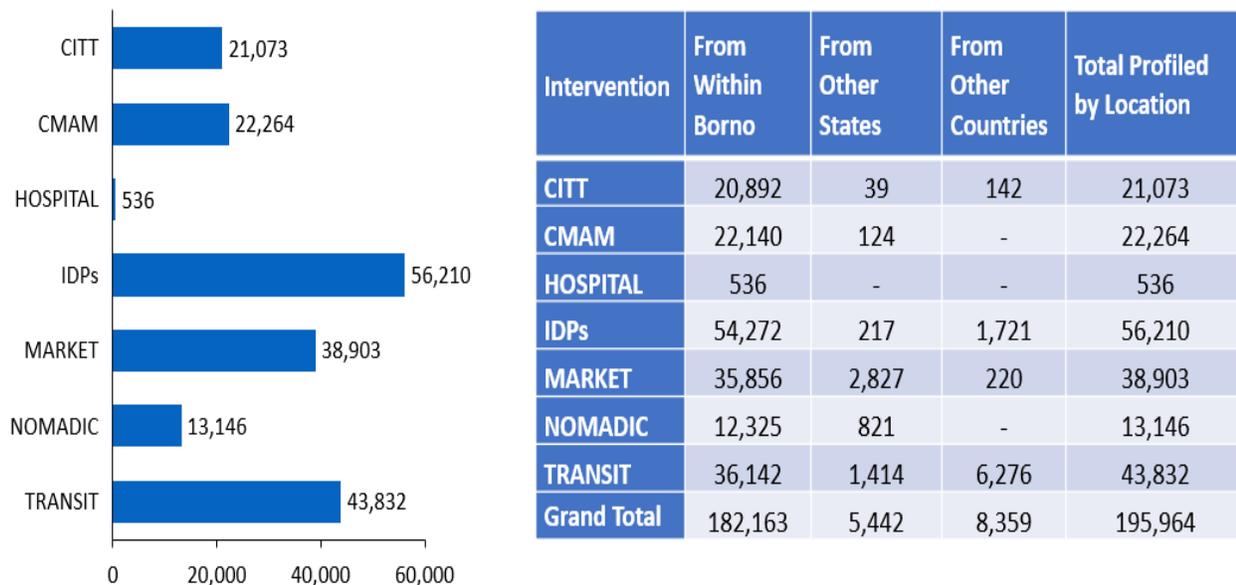


Figure 9: Profiling of children from inaccessible areas in Borno, January – December 2019

Remaining challenges for focus in 2020

- By December 2018, two LGAs (Kukawa and Guzamala) in addition to Abadam and Kukawa became inaccessible to regular IPDs team.
- CIAs reaching many settlements away from point of interest on the Geo data base and captured as invalid due to been within 300-500m from the location.
- Previously abandoned inaccessible settlements becoming inhabited, thus increasing the number of unreached inhabited locations

Strategic priorities for 2020

- Adequate funding to sustain the gains made by CIAs.
- Provide additional technology i.e. MB tiles with visual navigation to point of interest to support the CIAs program.
- Continued planning to access unreached inhabited locations through the exiting strategies.

2.3 Transit Vaccinations: Markets, Motor parks, Highways, Hospitals, CMAM sites

Children in transit from underserved and partially accessible areas with risk of poliovirus circulation pose a great risk of spreading the virus. Children in transit (highways, motor parks, markets, hospitals, nutrition centers) contribute to a good proportion of missed children during IPDs. Similarly, children going into polioviruses transmitting areas have to be administered OPV doses to ensure they are protected. Farmers with children coming to markets to trade pose a risk of “trading” polioviruses in markets. It is therefore important to vaccinate children in transit places. Transit vaccination activities were conducted in 2019 in Bauchi, Borno, Yobe, Gombe and Taraba states (Table 2).

As at week 52, 2019, through market/ transit vaccinations, 1,148, 642 children were vaccinated across the northeast zone, majority were from Borno state where 328,830 children were vaccinated. Table 5 shows the number of OPV doses administered through special interventions as at Week 52, 2019.

Table 5: Number of children vaccinated as at week 52, 2019 through the various special interventions in NWZ

Interventions	Category	Kaduna	Katsina	Jigawa	Kano	Kebbi	Sokoto	Zamfara	NW Total
Market/Transit	Total Immunized	23,556	58,637	9,702	325,927	2,732	12,799	136,504	569,857
	Zero Dose	554	2,277	387	3,634	599	813	1,994	10,258
IBPT	Total Immunized		14,965	15,795		2,766	7,030	7,175	47,731
	Zero Dose		344	349		523	158	116	1,490
CIIA	Total Immunized	1,102	5,400			5,739		3,174	15,415
	Zero Dose	207	185			1,212		132	1,736
IDPs	Total Immunized								
	Zero Dose								
Hospital	Total Immunized		12,362	33,903	217,435		4,223	31,940	299,863
	Zero Dose		636	3,498	6,640		133	1,486	12,393
Nomadic	Total Immunized	12,198		31,770					43,968
	Zero Dose	2,356		3,927					6,283
CMAM	Total Immunized		13,088	9,484	8,481			10,617	41,670
	Zero Dose		581	318	300			178	1,377
NW Total		39,973	108,475	109,133	562,417			193,316	1,013,314

Nomadic vaccination; The Nigeria government’s polio team has based on the suggested epidemiologic niche for polio transmission, established a Nomadic working group to try to track the situation and enhance essential immunization and oral polio vaccine rounds within the migrant and nomadic populations. The activities of the group have improved reach of the nomadic population (Figure 10 and 11).

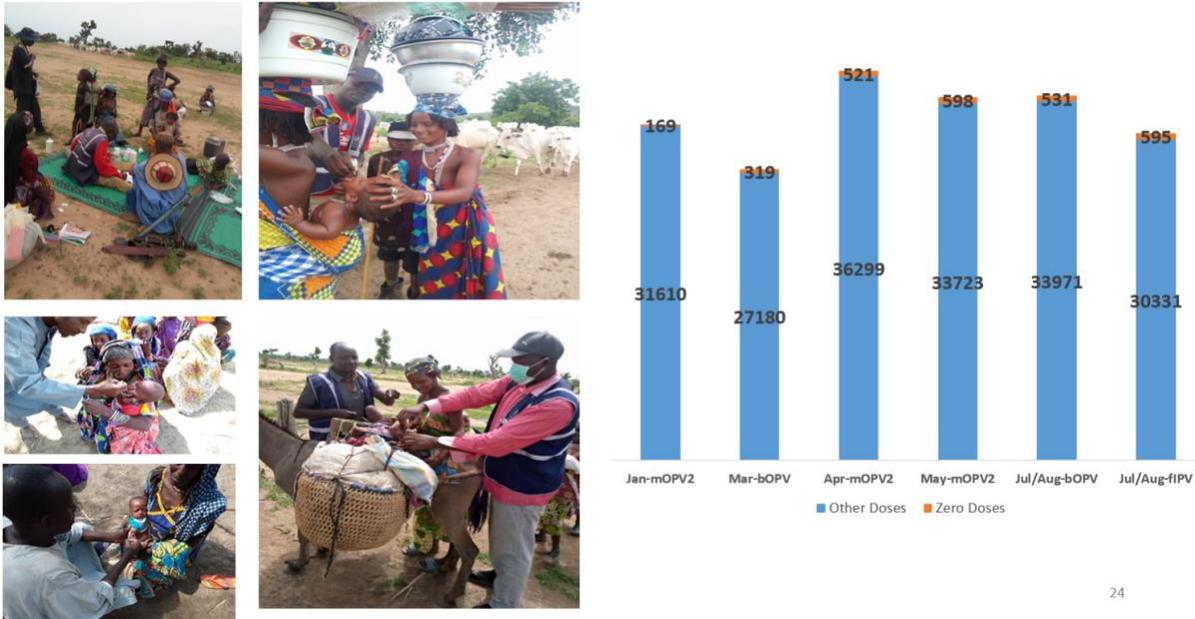


Figure 10: Nomadic Children vaccinated through SIAs/ Outbreak response rounds, Borno state, North east, 2019

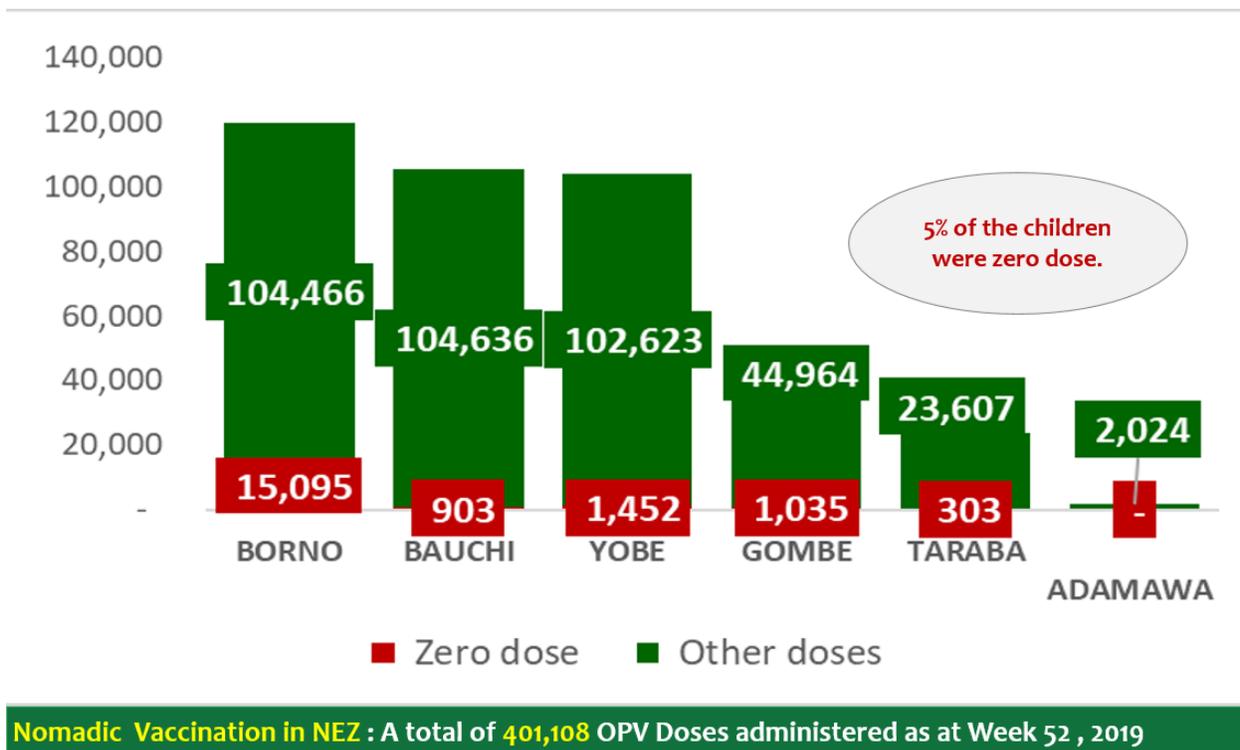


Figure 11: Children vaccinated through special interventions (Nomadic) in security-compromised areas in North east, 2019

2.4. Mobile Outreaches in Hard to Reach Areas

In the year 2019, the Hard to reach (HTR) mobile outreaches continued to provide support to PEI in high risk and vulnerable population that are potential reservoirs of the virus. The HTR project activities continued in Yobe and Borno throughout 2019, given the special nature of the states and the need to continue reaching underserved, partially accessible areas without health facilities and those liberated in IDP camps. In Borno state, 58 hard to reach teams were deployed to support recently accessible areas and target vulnerable populations in underserved IDP population and new arrivals from liberated settlements. As part of the humanitarian crises response, 35 additional teams supported by the humanitarian emergency, were engaged in Borno State to respond to the crisis in Northeast.

The HTR teams in Borno and Yobe States surmounted the security and logistics challenges in these hard to reach areas. They provided services such as RI, treatment of minor ailments, antenatal services as well as Surveillance for AFP and other IDSR priority diseases.

By December 2019, the HTR teams had administered 578,767 OPV doses to children 0-59 months old; 46,986 children under one reached with measles vaccine; 46,338 children with

yellow fever vaccine and 19,328 reached with menA vaccine. HTR session plans have been integrated with the strategy of engaging informants from insecure areas by providing services at strategic locations for persons from insecure areas seeking services in secure areas.

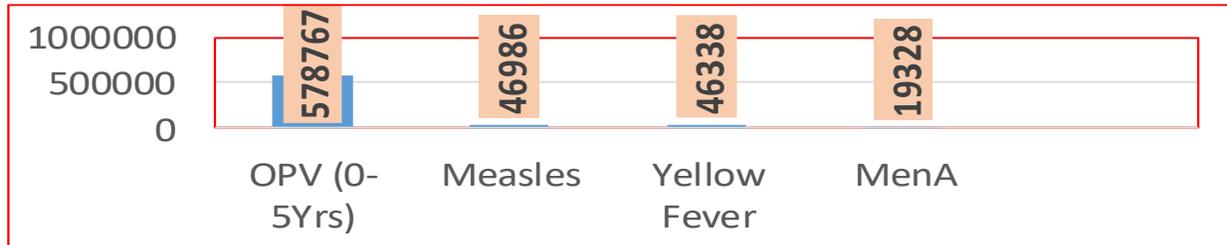


Figure 12: Number of Children, 5years and under 1 reached with OPV and RI by HTR teams, Borno state, 2019

International Border Activities

Nigeria has 16 States, 60 LGAs and 201 wards along the international border. Prominent among these are states that share borders with Niger and Cameroon. In other borders vaccinations continued as an in between round activity. In 2019, 202,953 children were vaccinated through international border activity in the Northeast and a total of 47,731 in the Northwest and through special interventions.

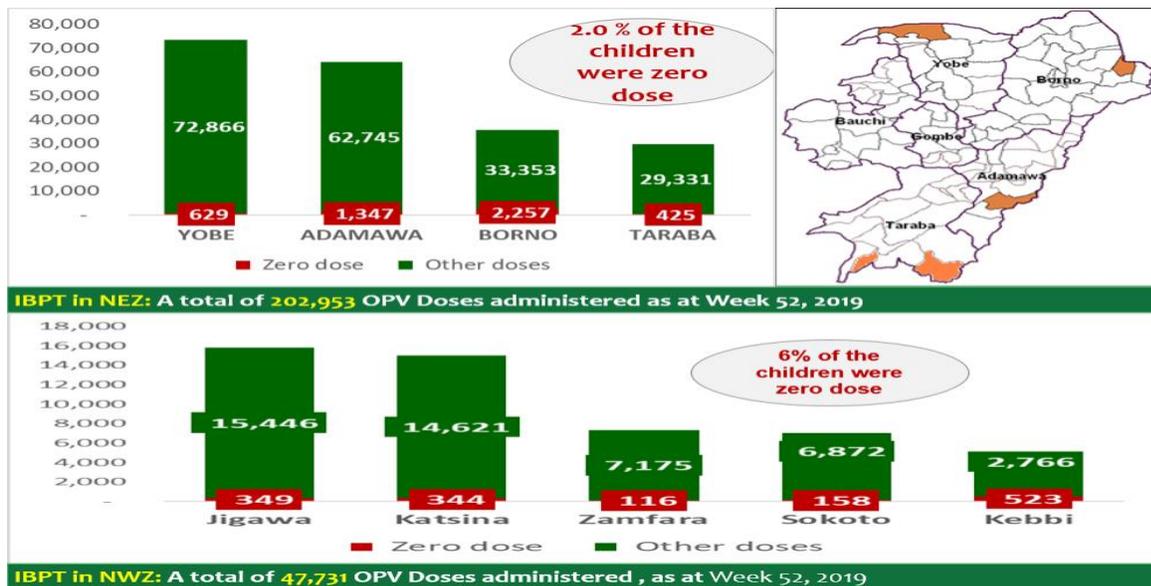


Figure 13: Number of Children, 5years reached with OPV, international border, 2019

2.5. Routine immunization intensification in polio vulnerable LGAs using polio infrastructure.

Special focus was availed to the VDPV2 affected States/LGAs as well as high risk LGAs identified through the risk analysis. Using a combination of risk criteria related to population immunity, security and other factors. NERICC will expand to provide support to these LGAs

Harmonization of high risk LGAs was done with the NERICC in order to coordinate joint support. NERICC led the convening of a two-day meeting with vulnerable LGAs in phases. Feedback on RI performance was provided and discussed in detail, as well as strategies to improve performance such as Optimized Integrated Routine Immunization Strengthening (OIRIS). The LGAs developed action plans and were followed up through NERICC. The polio infrastructure in the affected states was used to support planning, implementation and monitoring of action plans to improve performance, including participation in the State Emergency Routine Immunization Coordination Centers (SERICC).

Some of the key interventions conducted to improve routine immunization services in the high-risk states/LGAs included: implementation of OIRIS, implementation of daily fixed sessions in tertiary and secondary health facilities, intensification of outreach services, REW micro planning and implementation of intensified integrated RI services/local immunization days (LIDs) and IMO.

2.6. Mobile Outreaches in Hard to Reach Areas

This strategy is to improve RI reach to hard-to-reach (HTR) settlements through the use of mobile health outreach sessions. These teams provide integrated RI services with other health interventions such as treatment of minor ailments, antenatal care and nutritional services. There is steady increase in the contribution of HTR teams to the state OPV coverage from 2016 to 2019. Similarly, the intervention has provided other services to over 450,000 clients in 2019.

Table 6: Children reached with OPV, HTR, 2019

Year	Absolute number OPV3 immunized	LGAs specific OPV3 Hard-to-reach Contribution to Routine Immunization		Focused anti-natal care by skilled birth Attendance (FANCSBA)	Nutritional screening of children 6moth to 59month	Treatment of Minor Ailment using Essential Drugs	
		Hard-to-reach contribution to OPV3 state routine immunization	Hard-to-reach OPV3 contribution to specific LGAs			Total clients seen during session	Total clients referred to next HFs for management
2016	30,748	16%	35%	78,240	91,565	197,473	4,110
2017	61,367	24%	33%	207,696	486,681	365,805	5,291
2018	67425	25%	34%	337,126	542,408	448,296	5,663
2019	53131	21%	31%	303,324	471,706	442,885	6,201

2.7. Directly Observed Polio vaccination (DOPV)

In polio high-risk states, the directly observed polio vaccination (DOPV) is the vaccination of children under the direct supervision of an independent supervisor to ensure compliance. Attractive incentives (pluses) are used to make parents / caregiver willingly submit their children for vaccination or the children are attracted to the vaccination teams outside the houses. In 2019, DOPV was implemented across the 11 high-risk states during each IPD, and the five outbreak responses conducted.

2.8. Strengthening Surveillance

- Strengthening surveillance:

As Nigeria comes closer to being a polio-free nation, having a very sensitive surveillance for timely detection of poliovirus transmission cannot be overemphasized. The challenge for the country is to improve access to population in inaccessible areas especially in Borno where the programme doesn't have sufficient information on the population and whether or not poliovirus transmission in these areas can be sustained.

During the reporting period (as at week 52, 2019), a total of 7,333 AFP cases were reported. The Non-Polio AFP (NP-AFP), stool adequacy and Non-polio enterovirus rates were 7.6 (target $\geq 3/100,000$ of population under 15 years), 94% (target $\geq 80\%$) and 14% (target $\geq 10\%$) respectively. The corresponding figures during the same period in 2018 were 9.5, 96% and 14%. All the 36 states and the Federal Capital Territory (FCT) achieved the two AFP surveillance core indicators (NP-AFP and stool adequacy rates). In addition, the proportion of Local Government Areas (LGAs) that achieved the two core indicators in 2018 was 83% (target $\geq 80\%$) and 82% in 2019. The drop in the Non-Polio AFP rate from 2017 to 2019 is not unconnected with measures taken by the country to improve surveillance data quality including training and sensitization of surveillance focal points including DSNOs, health facility focal persons and community informants, training of AFP verifiers, introduction of data quality check templates, data harmonization meetings, peer review in high performing LGAs; and accountability among others. The proportion of AFP cases verified in 2018 and 2019 was 98% (target $\geq 90\%$) and 96% respectively. Most ($\geq 80\%$) AFP cases in 2019 were reported by health workers (32%), health facility surveillance focal persons (20%), community informants (14%), Vaccination teams (5%), DSNOs (5%), AVADAR informants (5%), community member (5%), parents (5%) and others (5%). All the 774 LGAs in the country have reported at least one AFP case in 2019. The number of polio compatible cases so far in 2019 was five as against 13 in 2018.

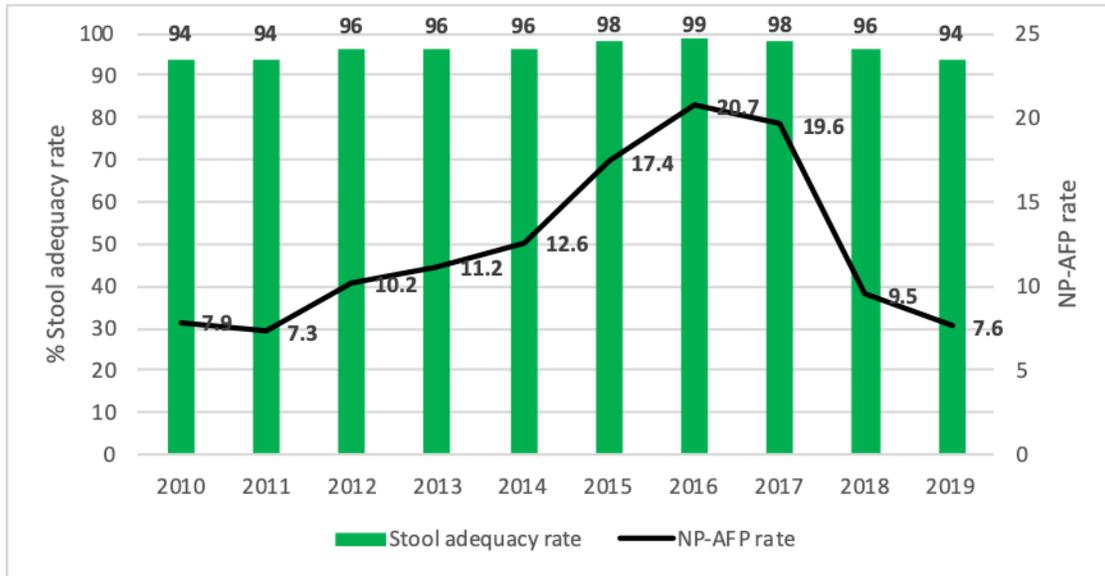


Figure 14: Trend of Core AFP Surveillance Indicators (2010-2019)

One of the key drivers of quality surveillance performance in the country is the sheer number, spread and categories of surveillance personnel that are formally trained every year. This formal training is in addition to on the job training that takes place during other surveillance activities such as supervision, active surveillance and meetings among others. The number of key surveillance personnel trained and sensitized in 2019 was 123,264 as against 102,718 in 2018. These trained personnel include the Disease Surveillance and Notification Officers (DSNOs) and their assistants (ADSNOs), State Epidemiologists, Clinicians, community informants and partner agency staff among others.

In 2019, the poliovirus surveillance guideline was updated to include innovations being implemented and other guidance received from both regional and global bodies. In addition, an abridged version of the guidelines for health facility surveillance focal points was also developed. Copies of both the abridged (11,000) and the main guideline (4,000) were printed and distributed to surveillance officers at all levels.

On the road to being polio-free:

As at the end of 2019, Nigeria has not reported any case or isolate of wild poliovirus for over three years. In this light, The African Regional Certification Commission (ARCC), invited the country to present its complete documentation for a polio-free status in June 2020 and has also planned two field verification visits to Nigeria: Southern States: 9-20th December 2019 and Northern States: 2-13th of March 2020. In preparation of planned ARCC field visits, the country implemented a PEI peer review documentation in August 2019 to support the states, LGAs and health facilities to have adequate documentation that will ensure a polio-free status. In all, 36 states plus FCT, 765 LGAs and 14,552 health facilities were visited by 1,970 reviewers. At the

end of the exercise and after implementing corrective actions, the overall assessment score for the state, LGA and facility levels were 93%, 95% and 94% respectively. A mock review was also conducted in prioritized states ((high population: Kano and Lagos, affected by insurgency: Adamawa, Borno and yobe, High burden of cVDPV: Jigawa, Sokoto, Katsina and Kwara, States with polio laboratory: Borno, and Oyo).) and follow up assessment was conducted in all the 17 southern states to ensure recommendations from the previous exercise have been implemented and gains sustained.

Table 7: Performance of PEI peer review documentation by state, LGA and health facility in August 2019

Level	Components	Proportion per categories		
		YES	No with corrective action	No without corrective action
State	Routine immunization	63%	29%	8%
	Surveillance	76%	18%	6%
	Overall score	72%	21%	7%
LGA	Routine immunization	79%	21%	0
	Surveillance	87%	9%	4%
	Overall score	82%	13%	5%
Health facility	Routine immunization	77%	15%	8%
	Surveillance	82%	13%	5%
	Overall score	80%	14%	6%

First phase of ARCC verification visit:

In the final stage of the country being declared polio-free, the ARCC visited the Federal Capital Territory (FCT) and six Southern states (Abia, Delta, Ebonyi, Edo, Lagos and Oyo) from 9th to 20th December 2019 to conduct a critical analysis and verification of the certification documents prepared by the Nigerian Government. In each of the states visited, routine immunization, cold chain, surveillance activities and documentation were assessed, including those at the LGA and health facility levels. All three levels of health facilities; primary, secondary and tertiary were assessed for validity and accuracy of their documents and the polio eradication processes carried out at those levels.

At the end of the verification visit, a debriefing session was organized with the Honourable Minister of Health, Dr Osagie Ehanire. During the debriefing, The ARCC Chair, Professor Rose Leke, represented by a member of the ARCC, Dr Allen King, expressed confidence that Southern Nigeria is on course to being polio-free. She recommended that “updated preparedness and

response plans must be available in all states, and government must ensure all levels of the health system maintain and strengthen AFP and environmental surveillance systems.”

In addition, she called for an increase in local funding in view of declining donor support and stated that “concerted efforts should be made to improve access to primary health facilities through improvements of roads, power supply, communication and transportation. This infrastructure should be prioritized for all health facilities. In addition, Nigeria needs to fast track the implementation of e-patient records with unique identification numbers at all levels and provide appropriate training to enhance capacity of health workers at all levels.”

To fully verify and consider Nigeria polio free, the ARCC will reconvene in March 2020 for a final verification visit to states in Northern Nigeria. Based on the team’s recommendations, Nigeria may receive polio free status, while the African Region could be certified to have eradicated polio by June 2020 should the final documentation be accepted.

Validation of Surveillance Data and Peer Reviews:

Quality surveillance information is crucial for certification. Several surveillance reviews have recommended the improvement of surveillance data. To this end, the country has introduced a quarterly peer review of states with high AFP surveillance performance and has as well introduced trigger criteria (LGAs with ≥ 10 times AFP detected than the expected or LGAs with ≥ 10 AFP cases with 100% stool adequacy) of peer review for states to use as part of self-assessment. In 2019, States like Adamawa, Taraba, Nasarawa, Jigawa, Bauchi, Borno, Ondo, Edo, Niger, Bayelsa, Kaduna, Katsina, Kebbi, Oyo, Plateau and Benue have successfully used the trigger criteria to conduct local peer reviews. The peer review started in August 2017 and by May 2019, the review was conducted in a total of 15 states and the Federal Capital Territory (FCT). The average true AFP and stool adequacy concordances were 77% and 79% respectively. The state with the least True AFP and stool adequacy concordance was Bayelsa with 56% for both scores.

At the end of each peer review, surveillance improvement plans are developed by the states with the support of reviewers. Implementation of such plans are expected to be monitored and the results shared with the national level. Experience from the reviews conducted so far shows that the most common reasons why cases are ruled out as Not True by reviewers are Spastic Paralysis, Malnutrition, Sickle Cell Disease, Trauma and Injection Pains/abscess. The main causes of inadequate stools on the other hand were collection of two samples less than 24 hours apart, failure to ask parents when the second stool was collected in relation to the first one, inadequate communication between the investigator and caregiver, inadequate interview skills of the investigator to elicit exact date of onset of paralysis and attitudinal problems.

One of the main conclusions of surveillance peer reviews so far conducted was that AFP case definition was not strictly applied by field personnel including verifiers. Training of 348 AFP verifiers (CCs, LGAFs, Stoppers, ZCs, STCs) was conducted in order to further improve

surveillance data quality and guide strict application of AFP case definition as well as improve capacity on neurological examination and differentiating AFP from other common local diseases and conditions (e.g. Malnutrition, Sickle Cell Disease).

AFP verification is an added advantage to the Nigerian surveillance system in that it acts as a filter to sieve out all cases that are Not True AFP cases. Trainers in this regard included senior personnel from teaching hospitals and other institutions (Pediatricians, Hematologists, Nutritionist), WHO and government personnel. State Coordinators, Zonal Coordinators and Monitoring and Evaluation officers are expected to validate at least 5-10% of verified AFP cases. While AFP verification data is used to update the AFP surveillance database, validation data on the other hand is used to among others assess the quality of verification and build capacity of the verifiers as well as give feedback.

Table 8: True AFP and Stool Adequacy Rate Concordance by State, 2017-2018

Period	States	AFP Concordance	Average AFP Concordance	Stool Adequacy Concordance	Average Stool Adequacy Concordance
Aug-17	Nasarawa	92%	73%	89%	81%
	Kebbi	70%		74%	
	Jigawa	69%		79%	
	Sokoto	59%		81%	
Nov-17	Ekiti	100%	84%	95%	81%
	Edo	92%		88%	
	FCT	75%		68%	
	Plateau	69%		72%	
Apr-18	Adamawa	85%	73%	68%	74%
	Gombe	73%		84%	
	Yobe	72%		69%	
	Taraba	63%		73%	
May-19	Bayelsa	56%	78%	56%	80%
	Benue	80%		90%	
	Enugu	86%		84%	
	Kogi	88%		91%	

Expansion of Environmental Surveillance:

Environmental surveillance (ES) is the regular collection of sewage or wastewater contaminated with faecal matter in identified high risk areas and testing the sample in the laboratory for the presence of poliovirus. This provides complementary information to strengthen the AFP surveillance system and further guide Nigeria's polio eradication program with targeted interventions. In 2018, Environmental surveillance was being implemented in 20 states and the Federal Capital Territory (FCT) and in 78 collection sites. Additional environmental sites were established in 2019 based on poliovirus epidemiology as well as the capacity of the laboratory

to accommodate expansion. By December 2019, the country had 113 (88 routine and 25 Adhoc) ES sites in 29 states and FCT. There are only seven states (Abia, Akwa-Ibom, Bayelsa, Ebonyi, Ekiti, Nasarawa and Ondo) in the country that are yet to initiate environmental surveillance. Prior to 2019, all ES samples were tested in Ibadan Polio laboratory; however, in March 2019, Maiduguri laboratory started independent ES testing of ES samples from Borno state only following a successful ES sample parallel testing (in four selected ES sites from Borno) with Ibadan polio laboratory from December 2018 to March 2019. In 2020, after a comprehensive review of ES performance, the country intends to have all the 36 states and FCT implementing ES with an average of three ES sites per state. In Addition, The ES sites will be redistributed among the two national polio laboratories such that each laboratory analyzes ES samples from states that traditionally submit their AFP samples to the laboratory for analysis.

Innovative approaches to increase surveillance reach in security-compromised areas:

One of the main challenges to completion of the job of polio eradication in Nigeria is the presence of areas with trapped populations that have not been reached for several years with either surveillance or immunization activities. Despite these security challenges, surveillance continues to be strong due to multiple innovative strategies such as engagement and sensitization of community informants from inaccessible areas and partnership with security personnel including the Military and civilian Joint Task Forces (cJTF) in order to access areas that are ether partially or totally inaccessible. Some of the key activities that are being conducted to specifically increase surveillance reach in security-compromised areas include the following:

a) Surveillance through Reaching Every Settlement (RES) and Reaching Inaccessible Children (RIC) Strategies:

The RES strategy has been implemented with the military, civilian Joint Task Force (cJTF) and immunization personnel to reach partially accessible settlements with immunization services as well as surveillance activities including active case search, case investigation and identification and engagement of community informants. The RIC strategy has been conducted by the military alone following training of personnel to provide immunization services and search for AFP cases among populations they liberated in inaccessible areas. In 2018, six AFP cases were reported in Borno state through this partnership. In 2019, four suspected AFP cases were reported however after investigation: 3 were not true AFP cases and 1 was a previously investigated AFP case (NIE-BOS-KDG-19-001) which was positive for cVDPV2 reported earlier in 2019

b) Stool sample collection from healthy children:

During Phase 1 healthy children sampling in Borno state from January to October 2017, a total of 242 stool samples were collected from Under 10 years old healthy children from 12 inaccessible/partially accessible LGAs of Borno and from one LGA each from Yobe (Gujiba) and

Adamawa (Madagali) states. In addition, one stool sample was collected from a healthy child coming from Niger republic. No WPV, cVDPV or VDPV was isolated in any of the samples.

Phase 2 of the healthy children sampling was continuous as opposed to the targeted phase 1 strategy. Stool samples were collected from new arrivals of nomadic children, RIC/RES strategy whenever they visited non-reporting Wards since 2017 and new arrival IDPs entering IDP camps. Samples were collected within 7 days of entry into IDP camps or arrival in a Borno LGA for nomads, all in children less than 10 years.

An additional strategy for healthy child sampling was introduced in 2019; Stool sampling from not true AFP cases evacuated by community informants from inaccessible areas (CIIA). This involves collection of one stool sample from children evacuated from insecure areas as suspected AFP cases, but after investigation by LGA surveillance officers were classified as not true AFP (i.e. not meeting AFP case definition)

In 2018, 723 stool samples from healthy children were collected: 521 from trapped IDPS entering IDP camps, 81 Nomadic populations and 121 RES/RIC. No WPV nor VDPV were detected from these stool samples, four of the stool samples were positive for Sabin 2. In 2019, 308 stool samples from healthy children were collected: 138 from trapped IDPS entering IDP camps, 131 from Nomadic populations, 11 RES/RIC and 28 from “not true AFP” cases from insecure areas. As at week 52 2019, a total of 301 out of 308 healthy child stool samples collected had been processed: no WPV were detected from these stool samples, one cVDPV2 was detected from a stool sample collected from a “not true AFP” from insecure areas, seven of the stool samples were positive for Sabin 2.

Variables	Categories	HC sampling strategies in 2018				HC sampling strategies, Jan-Dec 2019					Grand Total
		HC	NC	RES HC	Total	HC	NC	RES HC	CIIA HC	Total	
Total number of recruited HC	#	521	81	121	723	138	131	11	28	308	1031
	Processed	521	81	121	723	134	128	11	28	301	1024
Total number of samples	Yet to be processed	0	0	0	0	4	3	0	0	7	7
Laboratory results	Negative	282	65	105	452	86	117	6	19	228	680
	NPENT	70	12	12	94	10	9	2	6	27	121
	WPV	0	0	0	0	0	0	0	0	0	0
	cVDPV2	0	0	0	0	0	0	0	1	1	1
	aVDPV2	0	0	0	0	0	0	0	0	0	0
	Unclassified VDPV2	0	0	0	0	0	0	0	0	0	0
	Sabin 2	3	0	1	4	3	0	2	0	5	9
	Sabin 2&3	0	0	0	0	2	0	0	0	2	2
	Sabin (all other)	167	4	3	174	32	1	1	2	36	210
	Sabin + NPENT	0	0	0	0	0	0	0	0	0	0
	VDPV1	0	0	0	0	0	0	0	0	0	0
	VDPV3	0	0	0	0	0	0	0	0	0	0
	NEV	0	0	0	0	1	1	0	0	2	2
	Pending ITD	0	0	0	0	0	0	0	0	0	0
Other (specify)	0	0	0	0	0	0	0	0	0	0	
Isolation Rate	NPENT %	13%	15%	10%	13%	7%	7%	18%	21%	9%	12%
	Sabin %	33%	5%	3%	25%	26%	1%	27%	7%	14%	21%

Figure 14: Healthy children sampling in 2018-2019

c) Environmental Surveillance ‘Sweep’

The 34th ERC held in September 2017 recommended that the ES ‘sweep’ be reviewed, modified and continue to be implemented. The second phase of ES ‘sweep’ was conducted from 19 February to 7 March 2018. This time around, in addition to ES sample collection (as in Phase 1), sample collectors also took pictures of the sites and geo-coordinates using mobile phones and sent the data in the ODK platform. In this phase, 42 samples from security compromised LGAs were collected. The results of these samples showed that 35 samples were negative, and seven samples isolated non-polio enteroviruses

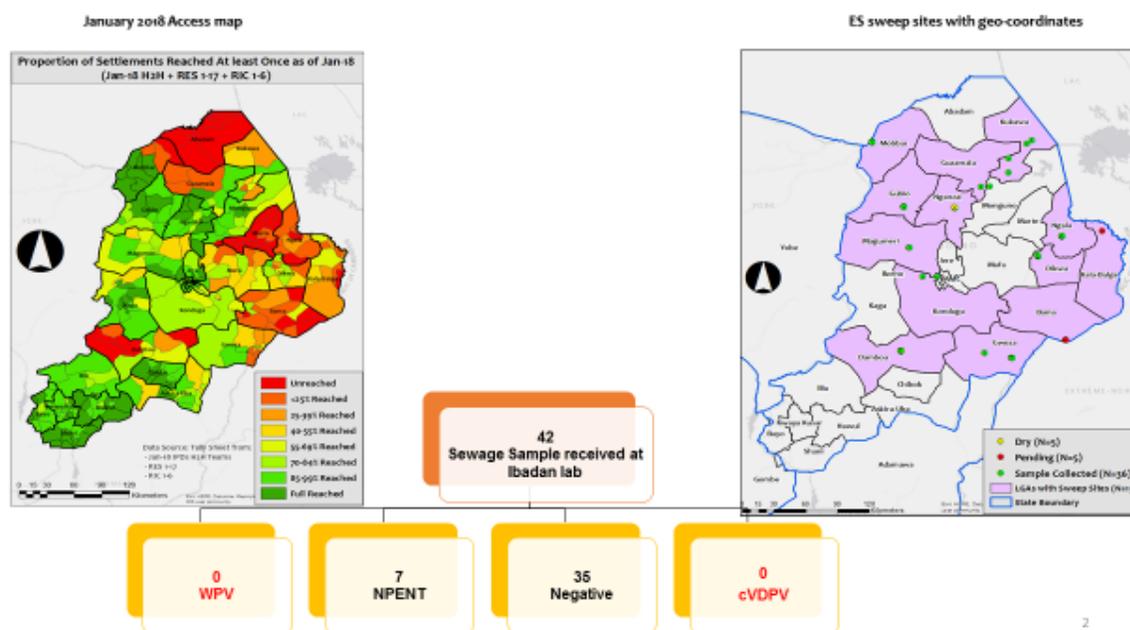


Figure 15: Outcome of Borno environmental surveillance sweep samples, 2018

d) Engaging Community Informants from Inaccessible settlements:

Informants from inaccessible areas are **any persons** residing in inaccessible settlements with regular contact (weekly, fortnightly or monthly contacts) with secure areas. Contact with secure areas is usually to utilize basic services like health care, market or visitation of relatives. Such community informants include persons like lamidos, hunters, drivers, fishermen, cJTF, informal health care providers (TBA, drug retailers/hawkers). Informants are engaged through LGA Community Informants Focal persons in collaboration with the LGA DSNO. LGA Community Informant Focal Persons include Nomadic/Miyetti Allah or Lamido, Bulamas, Market leaders. Each informant engaged uses his “circle of influence” to engage other informants who also have regular contact with secure areas and link them with LGA Community Informants Focal Persons.

As at December 2019, 1,241 of these informants were recruited. Of the 162 AFP cases reported from inaccessible areas in Borno, 156(96%) were reported by informants from the inaccessible areas. The NPENT rate of these cases was 21.2%, stool adequacy 80.9% and Sabin detection 5.8% compared with performance over the same period as at as at December 2018 where NPENT rate was 23.5%, Stool adequacy of 61.6% and Sabin detection of 13.0% for the 127 cases reported from inaccessible areas.

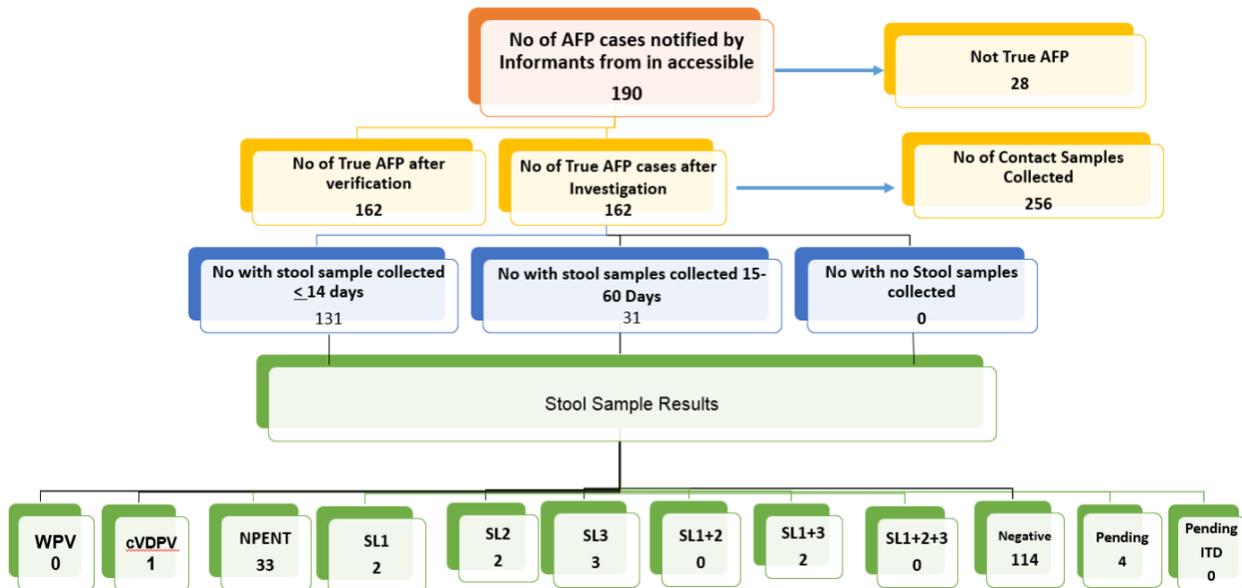


Figure 16: Outcome of AFP cases reported by community informants from inaccessible areas in 2019

e) Stool samples from AFP Contacts reported from inaccessible areas in 2019

With the introduction of community informants from inaccessible areas, the number of inadequate AFP cases in Borno states increased in 2018. To this special category of AFP cases, it was not always easy to systematically get contacts stool samples as it had to also involve evacuating the healthy children from same security compromised settlements. In all 212 contact stool samples were collected in 2018, one of whom turned out to be cVDPV2 and 6 Sabin 2. In 2019, a total of 256 (53%) contact samples from a possible 486 contact samples were collected, cVDPV2 was isolated into two contact samples and 8 Sabin 2.

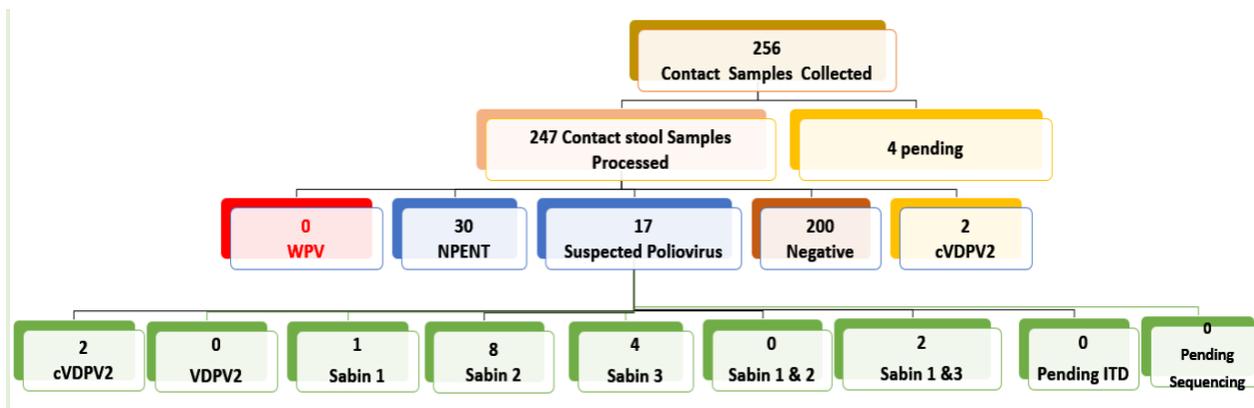
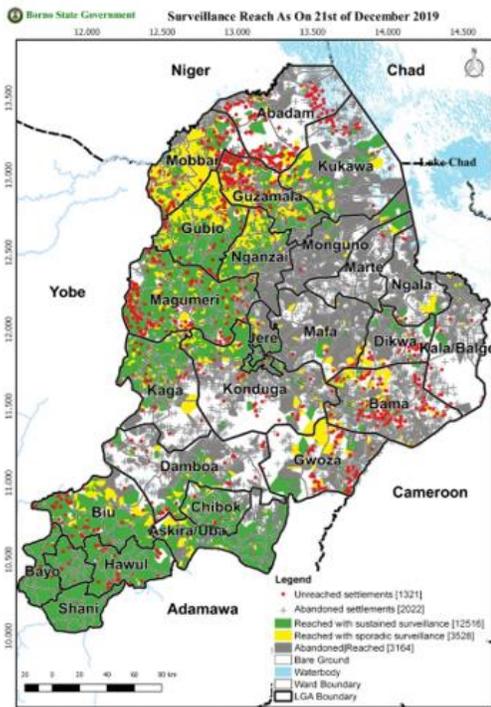


Figure 17: Outcome of Borno stool samples from AFP contacts from inaccessible areas in 2019

f) Surveillance reach

In 2019, a total of 12,516 settlements have been reached with sustained surveillance while 3,528 were reached with sporadic surveillance (RES/RIC vaccination teams only). An estimated 1,321 geo locations/settlements remain unreached by surveillance as at December 2019. CIIA have reached 3,409 security compromised geo locations with valid geo evidence; 563 of these geo-locations have not been previously reached by any other intervention for surveillance or vaccination activities. 525 of the previously unreached security compromised location were reached with polio vaccines in addition to polio surveillance by CIIA.

Map showing geo-locations reached by surveillance through various intervention in Borno as at December 2019



Map showing geo-locations reached by surveillance only (CIA) in Borno as at December 2019

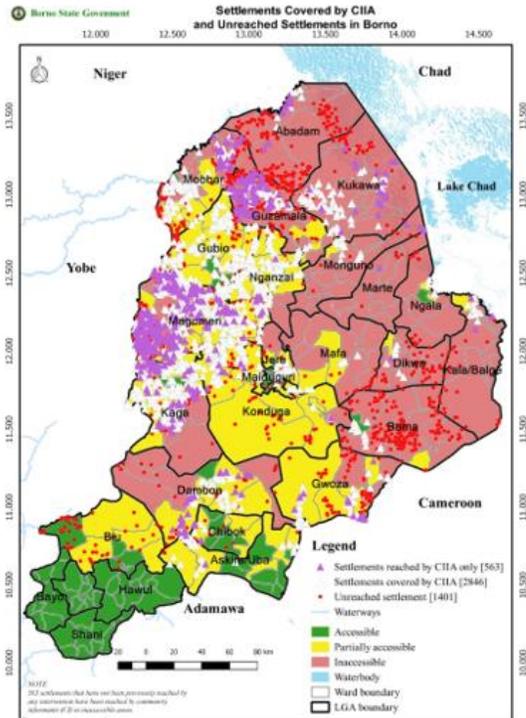


Figure 18: Borno Surveillance reach maps as at 21st December 2019

National Polio Committees:

National Certification Committee (NCC); National Task Force on Containment (NTF); and National Polio Expert Committee (NPEC) in the country are functional. The committees hold regular meetings (at least quarterly) and provide guidance to the polio eradication programme in the country. As at December 2019, NPEC classified five cases of polio compatibles from five states (Bauchi, Borno, Kaduna, Kebbi and Lagos).

National Polio Laboratories:

There are two national polio laboratories in Nigeria (Ibadan and Maiduguri). The two polio laboratories After the last accreditation of 2018, Ibadan and Maiduguri National Polio Laboratories have again in November and December 2019 achieved full WHO accreditation respectively.

Auto-Visual AFP Detection and Reporting (AVADAR):

An initiative to strengthen surveillance through a mobile phone based reporting system, the Auto-Visual AFP Detection and Reporting (AVADAR), that sought to improve the detection and reporting of AFP cases and raise awareness of AFP surveillance among health workers and key community informants was introduced in 2016. Following pilots (in Kuje and Oyun LGAs of FCT

and Kwara respectively) in September and October 2016, AVADAR was found to be a high impact innovation that enabled timely AFP detection, investigation and verification, while at the same time improving ‘zero’ reporting of cases. From this pilot, the project as at December 2019 was being implemented in 10 States (Abia, Adamawa, Borno, Enugu, Imo, Kano, Kwara, Lagos, Sokoto and Yobe) and FCT. As at week 52, 2019 the proportion of AFP cases reported by AVADAR informants in implementing States was 68% (508/748).



AVADAR National Performance 2019 (National Summary)



States prioritized for AVADAR Expansion 2018/2019
Current AVADAR Implementing States

States	Period of reporting	Total Alerts	Alerts Investigated	% of Alerts Investigated	Pending Alerts	Total false AFP Alerts	Total AVADAR AFP	Total Non AVADAR AFP	Total AFP In LGA	% of AFP Reported by AVADAR
Borno	Week 1-52	222	211	95	11	136	75	116	191	39
Sokoto	Week 1-52	208	200	96%	8	148	60	12	72	83%
Adamawa	Week 1-52	253	248	98%	5	142	106	60	166	64%
Yobe	Week 1-52	387	367	95%	20	271	96	24	120	80%
Kano	Week 1-52	197	158	80%	39	138	20	11	31	64%
Kwara	Week 1-52	162	139	86%	23	102	37	0	37	100%
FCT	Week 1-52	44	43	98%	1	33	10	0	10	100%
Enugu	Week 6-52	108	107	99%	1	78	29	4	33	88%
Imo	Week 7-52	27	27	100	0	22	5	0	5	100
Abia	Week 16-52	60	60	98%	0	49	11	2	13	85%
Lagos	Week 19-52	1552	1409	91%	143	1350	59	11	70	84%
National		3220	2969	92%	251	2344	508	240	748	68%

Figure 19: Performance of AVADAR by States in 2019

Temperature monitoring of sample transportation:

The World Health Organization collaborated with CDC in 2017 to pilot temperature tracking of AFP and environmental samples from ten pilot states. The main objective of temperature tracking was to track temperature of AFP stool specimens from the point of specimen collection (caregivers’ homes or health facility) to delivery at the national polio laboratories (Ibadan and Maiduguri) using logtags. Results of the temperature tracking showed that the quality of reverse cold chain can be improved through effective interventions when the underlying factors of poor performance are known. The temperature tracking gave insights into the causes of poor reverse cold chain in the homes of AFP cases and on transit and has enabled appropriate actions to be taken to improve the non-polio enterovirus rate in the states and the country at large.

The temperature tracking continued through 2019 with expansion in 2018 to include all LGAs Adamawa, Borno and Yobe States to bring the number of implementing states to 27 and 151

LGAs from 86 LGAs and 25 States in 2017. This was made possible through acquisition of additional LogTag trackers from CDC. Samples with temperature excursions are investigated by states using a standard template in order to understand the reason/s for such excursions and for appropriate interventions to be taken. In 2019, 100% of tracked samples were transported to the laboratory by trained couriers (either DSNO, ADSNO or health facility surveillance focal person). The major reasons for temperature excursions (>8°C) include difficulty in sourcing well frozen icepacks by DSNOs and vehicle breakdown on the way to the laboratory. Other reasons include inappropriate storage of sample carriers in the homes and frequent opening of sample carriers by caregivers. The Figure below compares the performance of temperature tracking in the period Jan- Dec 2018 and 2019.

Since the start of temperature tracking to the end of 2019, a total of 1,041 AFP samples have been tracked out of which 220(21%) samples had temperature excursion.

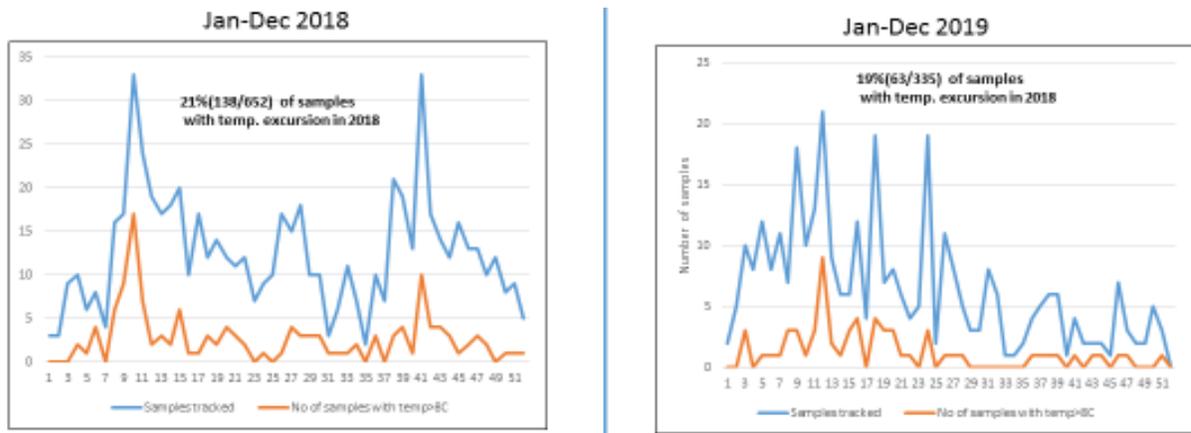


Figure 20: Performance of temperature. tracking January-December 2018/2019.

2.9 Cross Border Collaboration

Cross-border AFP surveillance activities have continued to be given priority, especially following the current cVDPV2 outbreak in northern Nigeria which started since 2018. A single cVDPV2 emergence (designated JIS-1) first detected by environmental surveillance in Jigawa State in January 2018 later spread to 13 other States (Bauchi, Borno, Gombe, Kaduna, Kano, Katsina, Kwara, Lagos, Ogun, Osun, Oyo, Taraba and Yobe) within the country and then internationally to Niger, and subsequently to Benin, Cameroon, Ghana, Cote d'Ivoire, Chad and Togo. States that conducted cross-border activities in 2019 include Adamawa (with Cameroon), Borno (with Niger Republic), Niger (with Benin Republic), Ogun and Oyo (with Benin Republic). Additional efforts were increased to enhance cross border collaboration and coordination with Cameroun due to the influx of refugees following civil unrest and agitations in that country.

In addition, a cross border surveillance meeting was held in September 2019 between Borno State and Niger Team (Diffa Region) to enhance cross border detection and reporting of AFP cases following the confirmation of a cVDPV2 case in Niger from a nomadic family that moved between the two countries highlighting the need for strengthening of coordination of surveillance activities along the borders. In addition, a cross-border cVDPV2 outbreak investigation and response were conducted between Toumour, Bosso-Niger area and Malam Fatouri, Abadam LGA of Borno state. Other cross-border activities conducted by concerned states include the following:

- Review and sensitization of border community informants
- Enhance active surveillance and retroactive case search in health facilities along the borders
- Review of focal sites along the border areas
- Community active case search for AFP cases
- Sharing of contacts and standard tool for cross-border notification

2.10 Strengthening of Vaccine Accountability

The implementation of the mOPV2 campaigns provided an opportunity to pilot and scale up best practices in vaccine accountability.

The following measures were instituted to ensure vaccine accountability for SIAs:

- A Vaccine Accountability Management (S-VAM) framework was developed with guidance notes to explain the expected roles and responsibilities of all stakeholders. This ensured that cold chain and vaccine management systems and mechanisms were in place at different levels before, during and after a campaign
- The logistics requests from States to National level, were based on agreed population figures arrived at by the National EOC based on the latest enumeration

outcomes and other program data. Strategic buffer was stored at zonal level to address any eventual additional requirements from States.

- Cold Chain Officers and Senior Supervisors were trained on the guidelines for management of polio vaccines (bOPV/mOPV2) which included the rigorous implementation of the accountability process, deployment of vaccine management tools such as the tally sheets and summaries, the form A and S-VAM to all levels.
- Daily call in data for vaccine accountability was reinforced, while returns of empty vials was closely monitored to ensure full accountability for doses deployed. From State to teams, documentation of number of vials given out and returned were available. At the end of a campaign or OBR round, reconciliation of vaccines deployed and utilized was done and reported using S-VAM form.
- Senior Logisticians from national and zonal level were deployed as part of the MST deployment during mOPV2 and all other OPV campaigns. To further strengthen management and accountability of mOPV2 vaccines, Ward Vaccine Accountability Officers were engaged in all implementing wards and this strategy paid off as all mOPV2 vaccine vials were accounted for throughout the year.
- Documentation at all levels was strengthened by ensuring that all arrival procedures at the national level were strictly adhered to. The arrival procedures at national level were modified for State and LGA levels and the necessary documentation was put in place.
 - I. State LWGs were required share their distribution plans with the National LWG for proper tracking, guidance and accountability. The same process was encouraged at the state level for the LGAs.
 - II. For in between rounds: thorough stock reconciliation was conducted by the national and zonal logistics teams with the support of the National EOC. Records of OPV vaccine deployed to each state were compared with available data on stock received, number of vials dispatched to the field, number of vials returned opened or unopened, number of vials held in storage. Any identified gaps were closed to ensure that activities continued to be implemented.
 - III. At vaccination team level: The correct use of the tally sheets continued to be encouraged while also ensuring that all vaccine vials were kept in Ziploc bags in the vaccine carriers. When mOPV2 vaccine was used, the Ziploc bags were labelled with stickers indicating “mOPV2 only” to ensure segregation from other vaccines.
- At the LGA level, small bags were provided for packaging used vials in predetermined numbers for easy accountability. Bigger sacks were provided for the safe storage of the returned used vials before transportation to final disposal sites. The use of these bags was to prevent spillage especially from used vials thereby contaminating surfaces and posing risk to the programme in terms of incidences of VAPPs and cVDPV2s.

There was great improvement in vaccine management and accountability especially after the deployment of Ward Vaccine Accountability Officers for mOPV2 campaigns and ensuring the implementation of the S-VAM framework.

3.0. REMAINING CHALLENGES FOR FOCUS IN 2020

3.1 *Reaching the remaining children still trapped in very insecure areas of Borno State*

As at May 2020, an estimated 29,376 children remain trapped in very security challenged settlements in Borno¹. In 2019, Community informants were able to reach several Island settlements in Lake Chad with vaccines and surveillance activities. However, some settlements have not been reached. The evolving insecurity too has hampered the pace of implementation of other special interventions like RIC/Buratai initiative. The push of these interventions will be a key priority in 2020

3.2 *Interrupting cVDPV2 transmission in 2020*

As the country prepare for polio free status certification, control of cVDPV2s is a key priority for the Polio program. From January 2018 until Dec 2019, a total of 7 lineages of cVDPV2 were in circulation in Nigeria. Several innovative strategies were deployed interrupting 6 lineages. The remaining lineage needs to be interrupted in 2020. The National EOC has developed several strategies to improve population immunity in areas with vulnerable populations. The summary of such initiatives is:

- a) Development of a SIA continuity plan post COVID 19 Pandemic lockdown
- b) Strategic use of fractional IPV in areas with low Population immunity

3.3 *Intensify In-between round activities (IBRA)*

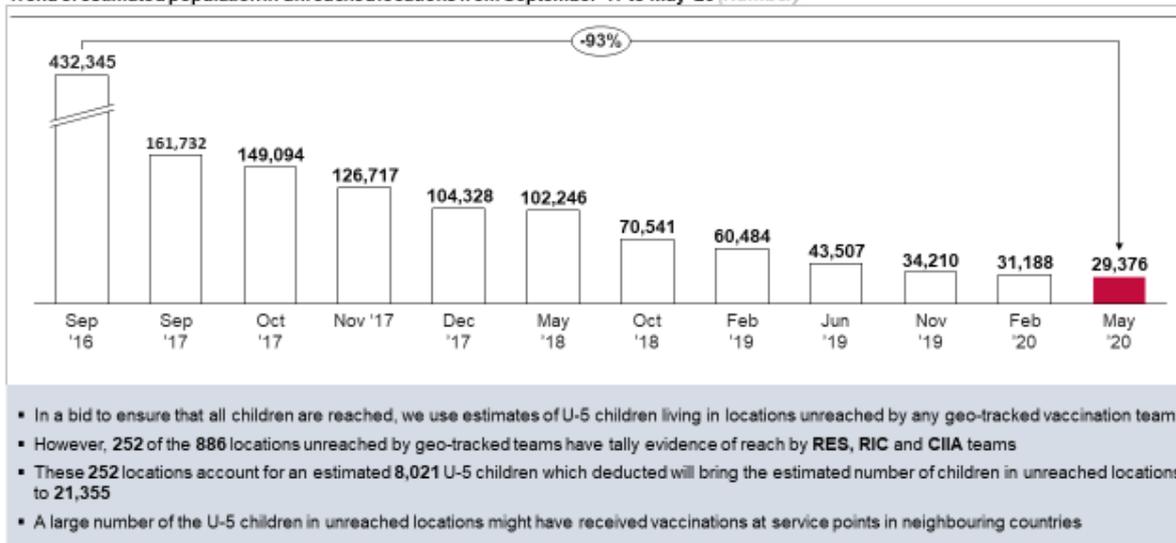
To maintain population immunity, the Program will intensify in between round activities in high risk areas that are traditional potential polio sanctuaries. These activities include:

- a) Weekly market vaccinations
- b) Hospital vaccinations
- c) International Border vaccinations
- d) CMAM vaccinations
- e) Vaccinations in settlements with security challenges
- f) Nomadic route vaccinations
- g) IDP camp vaccinations

¹ Based on aggregated data from satellite imagery, vaccination tracking, and vaccination through special interventions

Decrease in estimated U-5 children in unreached location in Borno State from September 2016 to May 2020

Trend of estimated population in unreached locations from September '17 to May '20 (Number)



3.4 Mobile populations

Fully extending program reach to the mobile and nomadic populations remains a challenge due to their dynamic movement typically in security compromised, hard-to-reach, scattered, and border settlements. Insecurity due to insurgency in the northeast of the country and the lake Chad basin countries and farmer/herder conflicts in several states impact the migratory routes, duration, and period of movements. Besides, insecurity impedes the delivery of services to these populations. The latter is also constrained by the hard to reach terrain which poses physical accessibility and higher logistic requirements in the bigger context of diminishing program funds

Other challenges include limited data on the movements particularly of nomadic pastoralists or when known are not readily available to programs for use in the planning of Polio Supplementary Immunization Activity (SIAs) and outbreak response.

Further, the closure of the GPEI Lake Chad Basin Task Team based in N'djamena has created a short-term challenge in coordinating efforts between Nigeria and the neighbouring countries. To sustain the implementation of planned cross border activities, the country will engage the countries bilaterally focusing particularly at sub-national levels.

Population Immunity Gaps

Population immunity profile analysis indicates a waning type 2 population immunity in the southern states and type 1 immunity in some of the Northern states, posing a potential risk for continued transmission of wild poliovirus particularly in Northcentral (especially Kogi and Kwara) and North western states. Figure 21 below illustrates gaps of type 1 and 2 immunity profile across the states by July, 2019. However, it does not take into account all eight reactive mOPV2 campaigns held in 24 Northern and Southern states (some states had > 3 campaigns) as well as IPV RI intensification in 15 states, which would have boosted both type 1 and 2 immunities to some extent by end of December 2019 and beyond).

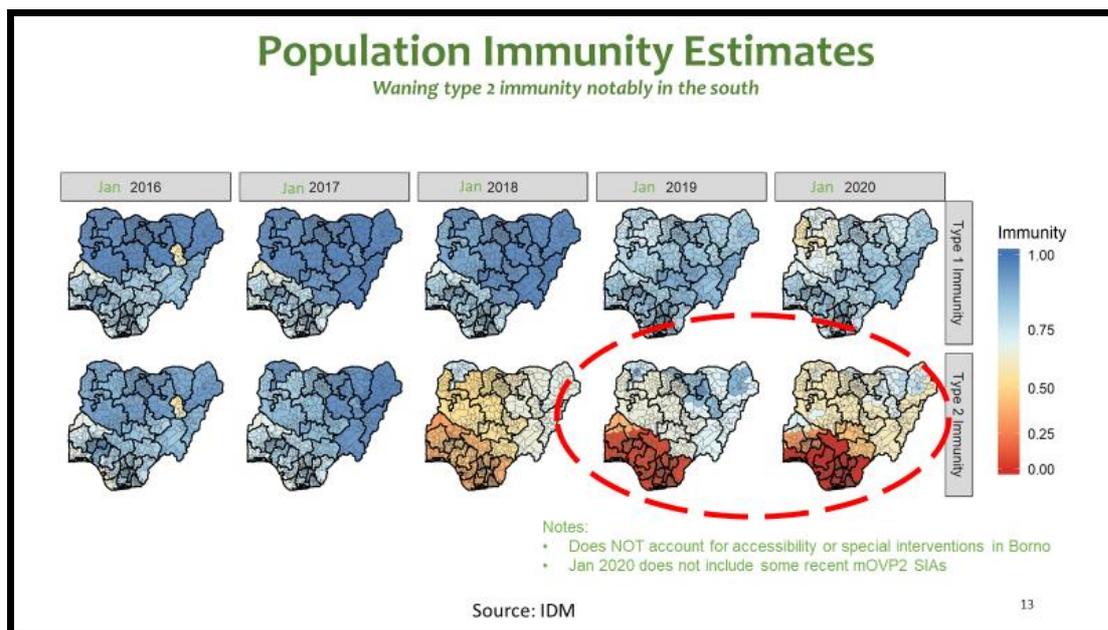
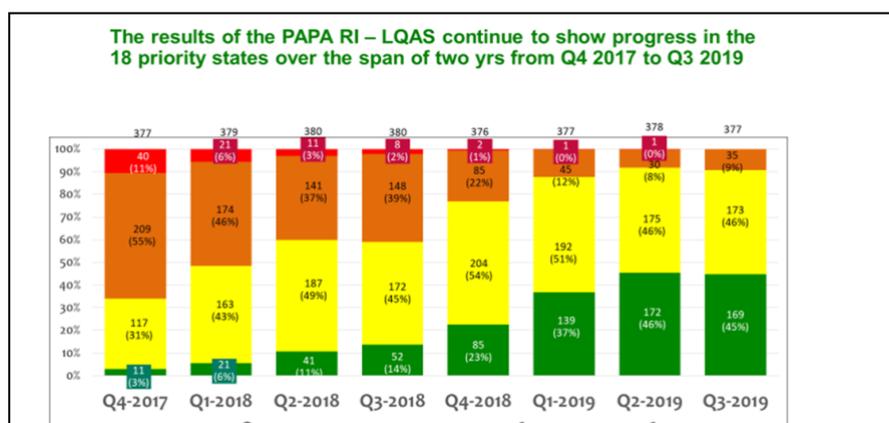


Figure 21: Type 1 and 2 population immunity profile, Nigeria, July 2019 (Source: Institute of Disease Modelling (IDM)).

The cVDPV2s detected from the environment (54) and AFP cases (18) in 16 states in northern and Southern states in Nigeria further indicated gaps in population immunity. Quarterly RI LQAs data in the high-risk states (377 LGAs) shows some progressive improvement in LGAs that pass at 80% (Figure 22, however, several LGAs remain below expectation.



80%: means only 0-8 of 60 sampled children in 377 LGAs were not fully immunized for age 70-79%: means 9-32 of 60 sampled children in 377 LGAs were not fully immunized for age 50-69%: means 33-56 of 60 sampled children in 377 LGAs were not fully immunized for age <50%: means 57-60 of 60 sampled children in 377 LGAs were not fully immunized for age

Figure 22: Trend in RI LQAs performance in 18 high risk states, 2019

3.5 Complacency

The prolonged duration of non-detection of WPV in several states (outside Borno) has created a sense of complacency that the “job is finished” resulting in challenges to the programme: wavering political support, reduced counterpart funding, and ‘fatigue’. There was non-fulfillment of financial commitments and lack of release of counterpart funding in several states. The tracking of Abuja commitments indicated all the tracked indicators were below 50%. Personal involvement of the Governors however had increased from 16% in quarter 1 to 44% in quarter 4 of 2019. Counterpart funding stagnated between 35 to 44% in 2019. There was improvement in the indicator tracking the governors meeting with chairmen from 22% in quarter 1 to 38% in quarter 4 while the indicator tracking the Deputy Governors chairing Task Force meeting increased from 15% to 29% as shown in Figure 23.

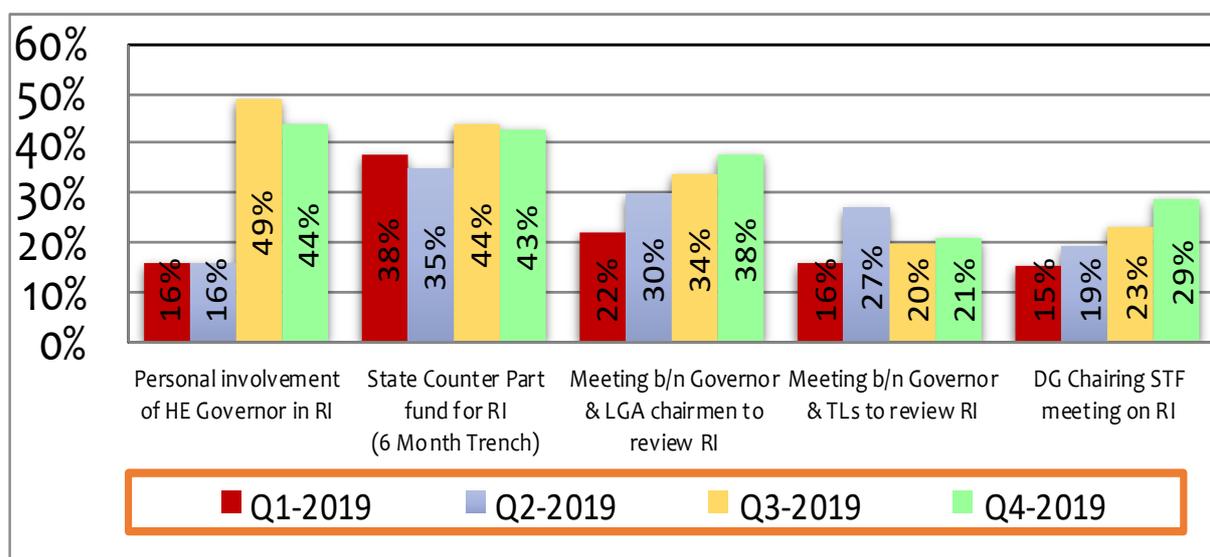


Figure 23: Trend in Abuja Commitments for polio eradication, Q1-Q4 2019, Nigeria

3.6 Surveillance gaps

Despite the high surveillance performance in Nigeria, several challenges remain to be surmounted before polio is finally eradicated. Areas of inaccessibility still exist in the security challenged state of Borno. In addition, surveillance gaps have been identified during peer reviews and supervision. These gaps include an element of poor surveillance data quality, inadequate active surveillance, and knowledge gaps among surveillance personnel, presence of polio compatible cases; and inadequate documentation; among others.

3.7 Vaccine Management

Challenges still prevail with data accuracy, completeness and timeliness especially at the last mile. State Governments have not uniformly embraced the system of empty vial retrieval for RI vaccines. Several states still report shortage of giostyle vaccine carriers.

4 GOAL, TARGETS, AND MILESTONES FOR 2020

4.1 Goal

The overall goal of the NPEEP 2020 is to achieve and sustain interruption of all poliovirus transmission.

4.2 Targets

Target 1: Receive WPV1 polio free certification by June 2020

Target 2: Increase reach of inaccessible areas in Borno by June 2020

Target 3: Interrupt cVDPV2 transmission by March 2020

Target 4: Achieve and sustain surveillance performance indicators in all LGAs by June 2020

Target 5: Achieve 50% reduction in number of unimmunized children in VVHR LGAs by December 2020

Target 5: Polio Transition Business Case finalized and approved by March 2020

4.3 Major Milestones

- 1) Scale up special interventions (RIC scale up, RES others) to reach trapped populations (in security compromised areas) of Borno and Yobe States by June 2019
- 2) Polio certification documentation prepared and presented to ARCC by November 2019
- 3) High quality outbreak and mop-up responses to cVDPV2 implemented timely
- 4) Expand environmental surveillance to at least three additional states by December 2019
- 5) Expand the surveillance reporting network of health facilities and community informants by at least 10% from 2018 figures
- 6) All high risk and vulnerable LGAs have routine immunization strengthening plans (as developed by NERICC) implemented throughout 2019 with joint close monitoring by EOC and NERICC
- 7) Finalize Polio transition business case by March 2020

5. STRATEGIC PRIORITIES FOR 2020

The global Coronavirus Disease 19 (COVID-19) pandemic has greatly impacted on the activities that will help achieve the NPEEP 2020. The Federal Government on the 24th of March restricted non-essential staff to work from home. The above development underscores the need to develop a contingency plan allowing some activities that will sustain the gains in the polio eradication initiative in the states, especially the high-risk states. The plan is to ensure the continuity of essential polio supplementary immunization activities (SIA) and in between round activities within the context of measures taken by the government to control the COVID-19 pandemic. The strategic priorities for 2020 within the context of COVID-19 as identified by the National EOC in consultation with immunization partners and local stakeholders include:

- 1) Increasing access to vaccination in security challenged areas and IDPs (particularly in Borno, Yobe and Lake Chad islands).
- 2) Identification of emerging security issues in States outside Borno and Yobe and apply strategies to reach children in these areas
- 3) Interrupting any cVDPV2 outbreak and ensuring robust outbreak response across all states
- 4) Sustaining resilience towards certification.
- 5) Enhance quality and sensitive surveillance
- 6) Enhancing SIA quality in prioritized vulnerable areas
- 7) Enhancing routine immunization in polio high risk LGAs
- 8) Strengthening cross border collaboration
- 9) Improving and strengthening quality assurance of all Polio data and
- 10) Complete polio transition planning

These strategies will aim to achieve the country's set goal, targets and milestones and will be underpinned by strict adherence to the accountability framework.

5.1 Increasing access to vaccination in security challenged areas and IDPs:

Insecurity and lack of access remain the most significant risk factor to achieving interruption WPV circulation and eradication of Polio. In 2020, the program will continue to focus attention in security compromised areas and ensure it is able to penetrate, reach and vaccinate eligible children and conduct surveillance activities, as much as possible. The north-eastern states of Borno, Yobe and Adamawa will continue to be special areas of focus in addition to other hot spots in north central and north-western zones.

Key Activities

1. **Vaccination in completely inaccessible areas (Borno, Yobe and Adamawa States):**

Sustaining implementation of RIC, RES and vaccination by CIAs are critical to accessing the remaining security challenged areas.

As at the end of 2019 in Borno state, the number of settlements reached were 12,821 representing a 62% improvement in Vaccination reach relative to December 2016 vaccination reach of 7,926 settlements. Furthermore, 81 islands in the Lake Chad have been reached with surveillance and vaccination, using community informants

The goal in 2020 is to intensify implementation of these strategies to make inroads to reach the remaining inaccessible settlements by July 2020. These strategies will be extended to reach the 175/256 Lake Chad Islands on the Nigeria side in five LGAs (Abadam, Kukawa, Marte, Monguno and Ngala) that have not been visited. The community informants' network in security compromised areas of Borno State, though used primarily for surveillance activities will be expanded and further explored to reach more inaccessible areas with vaccination.

In Yobe State, since the discontinuation of RIC in 2017, RES which was transitioned in 2018 to house to house vaccination continued in 2019. This intervention was conducted in five LGAs namely: Damaturu, Geidam, Gujba, Tamuwa and Yunusari. RES will continue alongside enhanced routine immunization and special interventions in 2020.

In 2019, Adamawa had two security compromised LGAs namely Michika and Madagali owing to insurgency. These LGAs shares border with Borno state along the Gwoza axis. However, security deteriorated in other LGAs related to communal clashes, armed banditry and kidnaping in a number of LGAs that includes Temsa, Noman, Gombi, Fufore, Girei, Song, and Hong.

The program will continue to use satellite imagery to determine habitation to inform microplanning for vaccination activities in insecure areas. The special intervention strategy will continue to be implemented in 2020, permanent transit teams will be deployed with vaccines, (OPV and IPV including routine antigens) at all potential routes from the Islands and other security challenged areas for profiling and vaccination of these children from trapped populations. The mobile hard to reach (HTR) teams will also be deployed to geographically difficult areas as well as vulnerable population like the Nomads. In addition, the program will continue with military and CJTF including to provide information on potential movement or displacement of trapped population for better planning and anticipation of response activities.

2. Validation of inaccessibility data:

The program will continue to rely on geo-evidence as a proxy indication of activity conducted in insecure areas. In 2019 accessibility activities and data generated were tracked, reviewed and analyzed regularly used to monitor progress in surveillance and vaccination reach. The program hopes to deploy Geospatial Tracking system (GTS) which is a

lightweight version of vaccination tracking system (VTS) by end of quarter one 2020 for capturing of geo-evidence by community informers from inaccessible areas

3. Deployment of National and State EOC personnel:

In 2020, deployment of personnel to support PEI activities in Borno and Yobe States will continue with focus on high risk LGAs. These personnel will conduct integrated supportive supervision not only for SIAs but other PEI activities like Routine immunization, Surveillance and special interventions. The State EOC in conjunction with the National EOC will align deployment plans that will ensure all the LGAs with special needs are assigned supervisors from national level on a rotational basis. This will ensure liberated LGAs as well as those that are recently liberated are supervised by personnel deployed from national level and within the State

4. Expand and strengthen Routine Immunization Services in IDP camps:

Currently most IDP camps have clinics or health facilities where in addition to provision of basic health services they also routine immunization and surveillance. Defaulters will continue to be tracked using FVs, VCM and Community leaders using the current community engagement strategy. The cards will also be used to provide other child survival interventions in the camp. In the event of the camps being closed and populations moving back to their former locations, a deliberate policy to re-establish RI services within a 30-day period will be facilitated starting with provision of cold chain equipment as well as staffing. IDPs in host communities will continue to be reached with routine vaccines by the Community IDP tracking teams as well as outreach services from catchment health facilities.

5. Scale up permanent vaccination sites at all major transit points:

In 2019, the program deployed different special intervention vaccination strategies aimed at vaccinating eligible children in transit as well as those internally displaced. Borno state engaged about 427 permanent vaccination teams to immunize children coming out from inaccessible areas. These teams are located in strategic locations in markets, military check points, nomadic routes, CMAM sites and IDPs camps. Profiling was also done in all these vaccination points and 25,088 children vaccinated. The profiling guides the state to evaluate by proxy the immunity status of the inaccessible areas of origin as well as track defaulters for completion of 5 dose of OPV in short intervals.

Though the inaccessible LGAs increased from two to four, with Kukawa and Guzamala becoming inaccessible in December 2018, the special intervention continued to vaccinate children from these LGAs. 180 and 5,820 children were vaccinated from Abadam and Marte LGAs respectively while 9,454 and 9,634 children were vaccinated in Guzamala and Kukawa respectively. The permanent vaccination sites will be continuing to be reviewed based on the evolving security situation and regularly supervised and monitored to assess their impact at the deployed location.

6. Reaching other Insecure States:

Some states in the north-western region of Nigeria have been contending with the challenge of insecurity due to kidnapping, armed robbery and cattle rustling. This has made some wards and LGAs in 5 States, including Bauchi (Toro, Darazo, and Ganjuwa LGAs); Kano (Tudun Wada and Doguwa LGAs); Kaduna (Birnin Gwari, Igabi, Chikun, Kachia, Kajiru, Jamar and Giwa LGAs); Katsina (Batsari, Safana, Dan Musa, Kankara, Fasakri, Sabuwa and Jibia LGAs); and Zamfara (Maradun, Bungudu, Maru, and Birnin Magaji) inaccessible for SIAs. Special interventions will continue to be implemented in these insecure areas based on accessibility. Taraba had a different type of security challenge which involved mainly communal clashes and constant clashes between herdsmen and farmers. These clashes usually disrupt immunization activities. In 2020, special emphasis will be made to vaccinate in the affected areas.

Key Activities in 2020:

Surveillance

- Continue to expand the CIAs network to reach the remaining 1,401 unreached locations as at December 2019
- Pilot and expand the deployment of GTS in the CIAs intervention
- Continue to implement Surveillance during implementation of RIC and RES
- Continue Healthy child stool sample collection for New arrival IDPs, false AFP evacuated by CIAs, new arrival nomads and Healthy child stool sampling in silent wards during RES.
- Expand AVADAR network to newly liberated LGAs with restored mobile network.
- Continue AFP surveillance by special intervention and HTR mobile teams
- Strengthen community surveillance through close tracking of community informants Zero reports
- Sustain implementation of e surveillance with regular feedback on program performance
- Continue to use Polio structure to implement IDSR at all levels

SIAs and Special intervention

- Continue to advocate and implement the revised 'RIC' strategy of dedicated RIC teams across the 17 LGAs in the state to reach 80% of remaining inaccessible settlements by end of December 2020
- Intensify use of VTS and ODK by military, cJTFs and CIAs during vaccination in insecure areas.
- Continuous tracking of trapped population using satellite imagery

- Sustain the regular high-level advocacy to military and the agreed monthly briefing of RIC/RES with the Governor and Theater Commander
- Sustain permanent team vaccination in special places and IDPs in Camp as well as host communities
- Sustain vaccination in Nomadic routes and CMAM centers
- Sustain the innovation of profiling and tracking with tickler cards for all new arrivals to camps and host communities
- Maintain quality SIAs among IDPs and special places
- Ensure vaccine and other commodities availability for special interventions in security compromised areas
- Sustain all innovations that improve quality of SIA - DOPV, HC, DC, Mock LQAS, VATA, and expand Mock LQAS to partially accessible LGAs

Routine Immunization

- Continue to expand RI to partially accessible areas through the current RI expansion strategy using cJTFs.
- Intensify the current strategy of 'Community Engagement' using traditional leaders (birth registration/line-listing, referral of newborn to HF for vaccination, tracking of defaulters)
- Strengthen the ongoing Intensified Outreach Strategy (IOS) to bring routine immunization closer to the caregivers
- Ensure availability of at least 2 technical personnel per HF for RI in newly liberated LGAs.
- Sustain integration of RI in special interventions (Transit, markets, CMAM, and Nomadic routes)
- Provide accurate and timely of vaccine utilization reports using the approved templates to the national
- Advocate to the government to increase skilled manpower for RI

Targets, Milestones and Indicators:

- Cover and vaccinate 80% of remaining unreached 1,401 locations by December 2020.
- Cover and vaccinate 80% of the lake Chad Islands by December 2020
- Vaccinate all children including those who possibly missed vaccination from newly liberated areas by December 2020

- 5 contact vaccination by SIAD within 10 weeks of new arrivals by the Special intervention teams January to December 2020
- All new arrivals assumed to have suboptimal immunity to vaccine preventable diseases to have penta3/OPV3 within 3 months of arrival.
- Deploy GTS application to 70% of LGAs with CIAs by September 2020

5.2 Interrupt cVDPV2 outbreak and ensure robust outbreak response

Stopping the cVDPV2 outbreak:

The reverberation of three years without detecting any case of wild poliovirus in Nigeria was attenuated by the continued transmission of cVDPV2 with potential for moving to non-polio high risk states of the south and international spread. The mounted outbreak response efforts yielded significant success in halting the outbreak in most of the outbreak states but with tendency for spread to the southern states. Also, the polio sanctuary of Sokoto state, where intractable number of cases of cVDPV continued to be isolated from both the environment and AFP cases in 2019 remains to be of concern.

Furthermore, lack of adequate quantity mOPV2 vaccine affected both the timeliness and scope/ scale of mounting outbreak response in 2019.

The plan for 2020 is to review risk factors and develop mitigating measures to address incessant cases in cVDPV sanctuaries, maintain strong and responsive OBR teams to provide quality support for activities across all levels, ensure timely availability of mOPV2 and vaccine accountability; and RI intensification with IPV.

In January 2020, the remaining outbreak response to Oyo cVDPV will be completed, while RI intensification with fIPV, will be conducted to boost population immunity in areas where mOPV2 SIAs were completed in Kogi state. In addition, the review of the 2019 OBRs activities will be done and lessons learned applied to improve quality of subsequent OBR.

Maintaining strong and responsive outbreak response teams across all levels

Strengthening resilience to achieve better quality campaigns, political commitment and right level of counterpart funding. The program in 2020 will remain alert to respond to any outbreak and or event as they may occur. Key to this is having an active and responsive outbreak response team with highest level of political will at both LGA, State and National levels.

In depth review of risk factors/ determinants to transmission in cVDPV sanctuaries/ potential sites

NPEOC will review the approach and strategies to vaccine derived poliovirus outbreaks, especially in states with continued transmission of cVDPVs with well-developed operation plans/ standard operating procedures and accountability framework enshrined.

Vaccine Accountability

The country will continue to monitor and validate the strategy of vaccine accountability, during and after each mOPV2 campaign to ensure no left-over vials in the field to avoid misuse or accidental use and the possible effect of VAPP and cVDPV2. Already, checking for tOPV and mOPV2 vials is captured into routine support supervision system to ensure no mOPV2 or tOPV vial is left out.

Responsibility is given to States for accounting of all vaccines deployed to them. The ward accountability officers are held accountable for retrieval for all vials used during the campaigns. Monitors will be trained and deployed to states to monitor disposal of all used or unused vials after campaign completion, based on global guidelines.

A report of the validation, including number of vials disposed will be shared with AFRO and the Advisory Group. After the validation, surveillance for vials that could possibly have been missed during the implementation will continue during each supportive supervision visit to the field.

In 2020, special attention will be given to:

- Vaccine request and timely deployment for OBR
- Strengthening vaccine arrival processes (with appropriate documentation) at all levels to ensure accountability of vaccines.
- Continue strengthening knowledge and skills of cold chain officers and senior supervisors on the management and accountability of polio vaccines
- Reinforcing the ward accountability officers (WAO) in all SIA activities to strengthen vaccine accountability. Strengthening the deployment of the S-VAM framework to all states, LGAs and ward levels
- Support NERICC in the institutionalization and sustenance of monthly empty vial retrieval for all RI vaccines including triangulation of data (vaccine utilization data, number of children vaccinated, and empty vials retrieved) in priority LGAs

Targets, Milestones and Indicators:

- Complete pending OBR rounds RI intensification in OBR states by January 2020
- Review the approach and strategies to vaccine derived poliovirus outbreaks, especially in states with continued transmission of cVDPVs with well-developed operation plans by February 2020

- Review, Reactivate and share names of National, State and LGA Outbreak teams by March 2020
- State Outbreak Response Plans developed and shared with National EOC by March 2020
- National Outbreak Management Team deployed to outbreak states within 24 hours of non-Sabin ITD notification
- The first response to all poliovirus outbreaks conducted within 2 weeks of non-Sabin virus notification and the responses completed within 4 months. Timeliness of the outbreak responses to be monitored using the Outbreak dashboard
- mOPV2 released from global stock within 2 weeks of report of type2 virus
- Vaccine utilization report compiled within 2 weeks of completion campaign
- mOPV2 destroyed systematically based on global standards

5.3 Sustaining resilience towards Certification

Sustaining resilience beyond certification

As at end of December 2019, Nigeria has marked its 39 month without a case of Wild Polio Virus (WPV) detected anywhere in the country. Having achieved this critical milestone, the African Regional Certification Committee for Polio Eradication Certification (ARCC) has commenced field verification and reviewing documentation of interruption of wild WPV-1. If the ARCC is satisfied with its field verification and national documentation, Nigeria will be declared WPV-free and Africa certified to have eradicated WPV1.

This milestone will need to be cautiously communicated to the populace as the country is still transmitting cVDPV2. Also, all stakeholders will be intensely engaged to guide against complacency which can derail the gains that have been made. Concerted effort will be made to review the history of Polio eradication in Nigeria, acknowledge the achievements and document good practices and lessons learned.

In 2020, communication and advocacy efforts will therefore focus on sustaining and strengthening resilience beyond certification and until the country is free from all types of polio virus. An updated communication plan will be developed based on the EPI Communication Strategy for Expanded Programme on Immunization in Nigeria (“EPI Communication Strategy”)- an overarching guideline for overall polio and RI communication activities. Dissemination of the strategy to polio and RI communication actors at all levels through cascaded workshops will be prioritized in early 2020 to ensure harmonization of interventions and messaging.

Guided by the EPI communication strategy, a new and nuanced message framework will be developed. This framework will support PHC communication agenda of the country - to announce a wild polio virus free Nigeria, and address any rumours and false information, while emphasizing the importance of the continued polio campaigns and benefits of routine immunization. Targeted approach will be implemented for all key audiences --- political leaders, donors, community influencers as religious and traditional leaders, frontline workers and family and caregivers - to address the cVDPV2 transmission in the context of the WPV free status and seek their continued support for polio vaccination. States will be supported to produce customized behavior change communication (BCC) materials to suit their peculiarities.

The framework will also play a role in raising visibility of the polio programme. It will capture the journey of polio eradication in Nigeria and formally document all programme strategies, innovations, standard operating procedures, events as reference materials. An Online 'library' will be created as a repository of these documents, polio communication materials, tools and case studies to document and disseminate good practices and lessons learned. Intensive Advocacy commenced in 2019 will continue and be expanded in scope and reach. Political leaders and donors will be sensitized regularly on the need to remain committed to the polio programme post certification, to sustain the country's Polio free status and improve RI services.

Most donors and partners in the polio landscape, will commence their human resource ramp down in 2020. The programme will sensitize the leadership of partners and donors on how to effectively communicate the ramp down to avoid any negative impact on personnel attitude and behaviour.

Governors' Abuja commitment indicators will be reviewed and harmonized with the Governors' 2019 Seattle Declaration tracking indicators. The governors' performance will be tracked regularly, and feedback given to them through multiple channels such as during PTFoPE meetings, NGF meetings, ES quarterly meetings, NTLC quarterly meetings, social media and newspaper publications.

In line with the recommendation of the 37th ERC meeting, the Communication Working Group will support the Nomadic and Mobile Population Working Group to develop a communication strategy for mobile and nomadic populations including collaboration with EPI communication teams of neighbouring Lake Chad countries to leverage on each other's strength.

Traditional and religious leaders have continued to play a pivotal role in sustaining community trust for the programme and in managing rumours and other misconceptions. The programme will continue to engage traditional and religious leaders, document and showcase their role and achievements as best practices. Integrated community engagement structures like CHIPS will be sensitized on trained on integrated messaging to promote polio vaccination in the context of the broader PHC

Regular and timely social data analysis is one of the hallmarks of the Nigerian PEI. The programme will sustain and intensify evidence-based communication and advocacy by conducting KAPs, Rapid surveys, risk perception surveys and Behavioral Surveillance Survey (BSS), to complement routine social data analysis within and in-between rounds.

Key Activities

1. Communicating WPV certification

- Develop a message framework to guide all stakeholders in communicating the achieved milestone being declared WPV-free
- Develop and implement a communication plan for announcing Nigeria's WPV-free status and Africa's certification in June 2020
- Develop integrated messages to reflect the country's post certification status, promoting continued polio vaccination within the context of RI and broader PHC

2. Enhancing quality of Communication Interventions

- Conduct cascaded dissemination workshops for the Communication Strategy for Expanded Programme on Immunization in Nigeria;
- Conduct communication workshop with State Health Education Officers and support in-state cascade workshops in collaboration with NERICC
- Review relevant SOPs in line with the EPI Communication Strategy
- Develop new print and audio-visual materials, including TV and radio Public Service Announcements (PSAs) to announce the WPV-free status of Nigeria and certification of Africa as Polio free.
- Engage and deploy H2H mobilizers prior to every SIAs to raise visibility and build household and community trust

3. Advocacy for political leaders and donors sustained commitment

- Advocate for integration of Abuja Commitment indicators with that of Seattle Declaration and track regularly and report at NEC and NGF meetings as well as ALGON meetings
- Track and report on Abuja Commitment through conventional and social media channels and platforms
- Produce and circulate quarterly immunization 'score card' for states and LGAs to facilitate ED/NPHCDA regular briefing of the Nigerian Governors' Forum & ALGON
- Conduct zonal sensitization meetings on immunization with ALGON executives
- Conduct retreat with LGA chairmen of low performing States (polio high risk and RI low coverage)
- Hold a high-level donor meeting with existing and new donors to explain the Polio Business Case and request their funding support.

4. Raising visibility of Polio Programme

- Develop online library/repository to showcase polio materials (written, photographic, audio, video)
- Document good practices and case studies to disseminate the achievement and innovation in polio programme
- Develop documentaries to tell the story of polio eradication in Nigeria
- Develop infographics with latest information on polio eradication for social media platforms.

5. Media engagement

- Conduct media sensitisation workshops at national and sub-national levels with Journalists Against Polio (JAP) in strategic geopolitical locations.
- Maintain streamlined messaging on media to check rumours and misinformation

- Sustain the Rumour Rapid Response teams at all levels
- Organize special media appearances by key stakeholders to keep polio issues on the front burner of national discourse
- Conduct field trips to specific locations with journalists to document efforts being made to sustain the achievements made.
- Support States to systematically engage the mass and traditional media

6. Communication for Mobile and Nomadic population

- Conduct a KAP research on nomads' health seeking behaviour to guide communication planning
- Develop a communication plan to engage the leadership and sensitize them on the benefits of vaccination
- Develop and publish/broadcast BCC materials in local languages, targeting mobile and nomadic population

Target, Milestone and indicators

- Communication Plan for communicating the country's certification developed and implemented by June 2020
- Governors' Abuja Commitment indicators harmonized with the Seattle Declaration Indicators and tracked quarterly from Q2 2020
- Communication Strategy for Expanded Programme on Immunization in Nigeria rolled out by end March 2020
- New message framework for post certification developed and rolled out by June 2020
- High level advocacy to political, military, traditional and religious leaders conducted by end 2020
- At least two social Surveys conducted by end 2020
- New messages and entertainment-education packages in place by June 2020
- Online Polio library developed and functional by June 2020
- Proportion of States providing State & LGA counterpart funds for IPDs increased by 25% from 2019 level by end 2020
- Proportion of missed children due to non-compliance in high risk states reduced by 50% from the 2019 level by end 2020
- 30% increase in the proportion of States achieving at least 80% of Abuja Commitment indicators for PEI & RI by end 2020
- Increased proportion of LGA chairmen providing counterpart funds and attending ERMs by end 2020
- Annual Polio Communication Report available by end of Q1 2021

5.4 Enhance Quality and Sensitive Surveillance

Remaining challenges for focus in 2020

- Surveillance gaps:

The very sensitive nature of poliovirus surveillance in Nigeria notwithstanding, gaps and challenges do exist especially at subnational levels. These gaps and challenges constitute a risk to missing poliovirus transmission especially in the security challenged States. This situation calls for a concerted effort to identify these gaps and challenges with a view to taking effective measures to address them. The following are some of the key surveillance gaps and challenges and some of the measures that are being implemented to address them. As the situation is dynamic, new gaps and challenges keeping propping up that require additional and sometimes novel ways of intervention.

Table 9: Addressing surveillance gaps, 2020

Theme	Identified gaps/challenges	Key interventions
Key Surveillance Gaps	Polio compatible cases	Building capacity of surveillance personnel including DSNO, ADSNOs, health facility focal persons, clinicians, community informants and vaccination teams
		Improving frequency and quality of active surveillance
		Temperature tracking to improve reverse cold chain
	Missed AFP cases	Capacity building of surveillance personnel
		Improving frequency and quality of active surveillance
		Conduct of supportive supervision
		Expansion of surveillance reporting network
	Silent LGAs	Surveillance efforts to improve AFP case detection including retroactive case search, active case search in community, capacity

		building of surveillance personnel, review and expansion of reporting network and motivation of health workers and informants to report AFP cases among others
	Inadequate active surveillance	Introduction of electronic surveillance
		Provision of additional logistics support to DSNOs including provision of motorcycle
		Expansion of reporting network
		Introduction of accountability
	Suboptimal surveillance data quality	Capacity building of surveillance personnel including training on AFP case verification
		Peer review and use of trigger criteria
		Data harmonization meetings
		Introduction of data quality assessment tools
		Accountability framework
Key Surveillance challenges	Insecurity	Partnership with security agents including the Military and civilian Joint Task Forces (cJTF)
		Engagement of Community Informants from Inaccessible Areas (CIIA)
		Use of technology and innovation to overcome challenges (e.g. AVADAR, eSurve)
		Collection of contact and healthy children stool samples
		Environmental sweep
	Inadequate ownership	Advocacy at all levels to improve funding and leadership
	High burden of ES samples in Ibadan polio laboratory	Introduction of ES in Maiduguri polio laboratory
		Redistribution of ES sites in the country among the two national polio laboratories

II. Strategic priorities for 2020

- Quality surveillance and certification

The Strategic surveillance priorities for 2020 are in line with current peculiarities of the country, the AFRO certification framework as well as the Polio Endgame Strategy 2019-2023. These priorities aim at achieving the following:

- Enhancing Management and Oversight of surveillance including improved coordination through development and implementation of a comprehensive annual

surveillance work plan with particular attention to inaccessible and other high risk areas, mapping of the surveillance structures (focal and non-focal sites, focal persons, informants, DSNOs/ADSNOs), strengthening and weekly meeting of the Surveillance Working Group. In addition, as part of the integration of poliovirus surveillance with other VPD surveillance, a fortnightly coordination meeting with WHE, NPHCDA and NCDC will commence in 2020.

- Strengthening poliovirus surveillance and integration with other vaccine preventable disease (VPD) surveillance through the Integrated Diseases Surveillance and Response (IDSR) strategy. The main focus here is to improve the reach (to *special populations: hard-to-reach, border area and migrant populations*) and sensitivity of surveillance to timely detect AFP, other cases of VPDs, outbreaks and other emergencies. This focus will be achieved through implementing such activities as setting up of strong surveillance teams at all levels, capacity building of surveillance personnel, provision of logistics support to state epidemiologists and DSNOs, conduct of quality active surveillance, strengthening community involvement in surveillance, implementing other complementary surveillance activities (retroactive case search and community active case search) in silent and other poor performing LGAs and conduct of supportive supervision, use of technology and innovations and implementing IHR (2005) among others.
- Sustaining, expanding and intensifying surveillance in areas with chronic or dynamic insecurity. Surveillance strategies in Borno (e.g. RIC, RES, CIIA, healthy children sampling) will be maintained and improved upon. Replication of these strategies in other states with insecurity will be explored and surveillance performance in insecure areas will be monitored closely. Quarterly risk assessment will be conducted in these areas with security challenges and training to share experience with other states with insecurity as Borno will be conducted.
- Expanding Environmental Surveillance to cover all the 36 states and the Federal Capital Territory. Currently, seven states (Abia, Akwa-Ibom, Bayelsa, Ebonyi Ekiti, Nasarawa and Ondo) of the federation are yet to initiate ES. Expansion of ES will greatly enhance the sensitivity of poliovirus surveillance at a time when poliovirus transmission is very low and considering the very low paralysis to infection ratio of the poliovirus. In this regard, a comprehensive review of all the 113 ES sites in the country will be conducted in January 2020 to identify and close down poor performing sites with or without replacements. At the end of the review, there is going to be on the average three ES sites per state. The ES sites will be redistributed among the two national polio laboratories such that states that send their AFP stool samples to a particular laboratory will also send their ES samples to be analysed in that particular laboratory. Adequate logistics support for sample collection and transportation will be provided and sample collection supervision will be enhanced. The ES performance of ES sites will be monitored every six months through process

indicator analysis. In addition, the national ES review meeting will continue to be conducted annually.

- Maintaining the capacity and efficiency of the Polio laboratories through capacity building and provision of logistics support. The laboratories will be supported to continue to achieve and sustain accreditation. Advocacy to the government to shoulder the burden of human resource in the laboratories will be conducted as part of the efforts to alleviate the impact of the upcoming ramp down. The laboratories in the long run will also analyse for other VPDs as well as conduct sero-prevalence and serum protein analyses.
- Establishing surveillance to detect poliovirus among patients with primary immunodeficiency disorders (PID). Healthy persons, when infected with poliovirus, excrete the virus for a period of about one six weeks (in stool, and for a shorter period through pharyngeal spread) and then clear the infection. Persons with primary immune-deficiencies (PIDs) affecting B-cells or combined primary immune-deficiencies, in rare circumstances, may excrete polioviruses for a longer period of time (prolonged excretion: 6 months – 5 years and chronic excretion: >5 years); and in some instances, Sabin (vaccine) poliovirus develops into VDPV, in this case referred to as iVDPV. iVDPV excretion is not compatible with global poliovirus eradication. The two major risks from iVDPV excretion are: risk of progression to paralysis and death (individual patient) and risk of community spread and seeding of outbreaks. The focus here is to seek technical guidance from AFRO on the establishment of PID surveillance including training, site selection, sample analysis and management of cases.
- Enhancing surveillance data management system. Timely and accurate data is instrumental to any surveillance system and it is important that efforts to have secure database systems in place along with proper data management and quality control procedures. Data should be periodically evaluated for accuracy, consistency and completeness using standard data management procedures. Systems and procedures should be in place to protect data integrity as well as safety and security from natural disasters, computer virus attack, theft and other threats. In this regard, the zonal data management should be maintained considering the size of the country and for ease of coordination. Every state should have a surveillance data manager and regular data harmonization meetings and capacity building should be conducted. In addition, regular feedback to stakeholders, use of electronic surveillance and AFP case verification and accountability will go a long way in improving data quality.
- Strengthening of polio certification processes. Efforts will be intensified to ensure that the country is declared polio-free in 2020. In this regard, the national polio committees (NCC, NTF and NPEC) will be supported to achieve optimal functionality. There will be a quarterly combined national polio committee meeting and at least

two NPEC standalone meeting in 2020. The complete documentation for certification will be finalized by February 2020. The country annual progress report for the year 2019 will be finalized before April 2020. The phase I containment for Northern states and repeat for southern states will be conducted by May 2020. As Nigeria has no intention of having a polio essential facility (PEF), all polioviruses will be destroyed according to the GAP III protocol.

In the spirit of integration, the National Measles Verification Committee (MVC) will also be supported to function optimally. The committee will meet at least twice a year and annual measles progress report will be produced.

- Increasing efficiency and sustaining performance of sentinel surveillance sites (Rota, PBM and CRS). A sentinel surveillance system is used when high-quality data are needed about a particular disease that cannot be obtained through a passive system. Selected reporting units, with a high probability of seeing cases of the disease in question, good laboratory facilities and experienced well-qualified staff, identify and notify on certain diseases. Data collected in a well-designed sentinel system signal trends, identify outbreaks and monitor the burden of disease in a community, providing a rapid, economical alternative to other surveillance methods. Nigeria has five (*Edo, Lagos, Ilorin, Enugu and Bauchi*) and four (*Enugu, Ilorin, Zaria and Bauchi*) sentinel sites located in teaching hospitals for PBM and Rota virus respectively. These sites will be supported with TSA, logistics, capacity building and other technical assistance. In addition, two review meetings per year for Rota, PBM and CRS sentinel sites will be organized.
- Conducting operational research in such areas as KAP of surveillance officers, health workers and caregivers on identification of AFP cases and sero-prevalence (SPS) surveys. With regards to the SPS, historically Polio SPS has proved very useful in assessing population immunity and guiding polio eradication activities especially in polio endemic countries. Polio sero-prevalence surveys started in Nigeria in 2011 in Kano state and by 2016, under the recommendations of the Expert Review Committee (ERC), similar studies were conducted in Borno/Yobe, Sokoto/Kebbi and Katsina.

All sero-surveys in Nigeria mentioned above were cross-sectional surveys and implementation was health facility based. Health facility based implementation was considered operationally feasible and convenient in the security challenged areas. It also had an advantage that both vaccine acceptors and refusers were captured in the data because in the hospital set up, there was hardly any refusal to participate in sero-prevalence. But there were some limitations like that the results reflected only the health seeking populations. Nigeria ERC in its 29th meeting recommended that the future sero-surveys in Nigeria be community based. The country has developed a community based study design, which is representative of high risk areas, is operationally feasible to implement and has been approved by the WHO ethical

review committee. This community sero-prevalence survey is to be conducted in Sokoto state in 2020.

- Supporting Measles and Yellow Fever laboratories through provision of logistics support, supporting accreditation exercise, capacity building and conduct of supportive supervision. This is of paramount focus as the country is persistently affected with measles outbreak that result in high morbidity and mortality. In addition, Since Sept 2017 till date, the country is recording yellow fever outbreaks. From the 1st of January 2019 to the 5th of December 2019, 3947 suspected cases have been reported from all 36 States and the FCT. Of the suspected cases, 154 have been confirmed positive (IP Dakar = 78; In country PCR = 76) in 36 States and the FCT. Current yellow fever risk categorization has shown 6 (Anambra, Oyo, Delta, Benue, Osun and Rivers), 27 (Katsina, Ondo, Nasarawa, Imo, Bauchi, Akwa Ibom, Cross River, Kano, Ogun, Ebonyi, Taraba, Gombe, Niger, Abia, Zamfara, Edo, Kaduna, Kwara, Sokoto, Yobe, Kebbi, FCT, Ekiti, Plateau, Kogi, Adamawa and Enugu), 3 (Bayelsa, Jigawa, Lagos) and 1 (Borno) States as high, medium, low and no risk. Although the analysis is showing Borno as a NO risk state, insecurity in the area may result to an increased risk of outbreaks and other public health issues.
- Enhancing and sustaining AEFI surveillance. The goal of immunization is to protect the individual and the public from Vaccine Preventable Diseases. Immunization is also a core component of the human right to health. Although modern vaccines are safe, no vaccine is entirely without risk. In addition to the vaccines themselves, the process of immunization is a potential source of adverse events. Adverse events following immunization (AEFI) range from mild to rare serious events. Vaccines rarely cause serious adverse reactions, and common reactions are minor and self-limiting. In majority of serious cases these events are merely coincidences. To increase immunization acceptance and improve the quality of services, the surveillance of AEFIs must become an integral part of immunization programmes. Monitoring of adverse events following immunization (AEFI) is an essential strategy for ensuring the safety of vaccines. Immunization safety /AEFI surveillance is a collaborative venture between the National Primary Healthcare Development Agency (NPHCDA) and the National Regulatory Authority (NRA) which is the National Agency for Food and Drug Administration and Control (NAFDAC), with the Federal Ministry of Health having overall oversight. The NPHCDA is the National focal point for AEFI surveillance. It receives AEFI case reports from sub-national levels, leads investigations and ensures regular analysis and feeds results back down the system. It provides support to the states and share all reports and communications with NAFDAC, the NRA. NAFDAC is the technical point of contact for vaccine testing, vaccine licensing and regulation. It receives vaccine samples or initiates collection of samples and advises on vaccine quality and testing. AEFI surveillance in the country can be improved through capacity building of health workers and sensitization of

caregivers, regular meeting of the AEFI National Expert Committee to conduct AEFI case review and causality assessment; and close monitoring and evaluation of AEFI reporting and sharing of quarterly feedback.

Key Activities

- Development of annual surveillance work plan at all levels (national, states, LGA) with participation of all key stakeholders and monitoring of the status of implementation of work plans.
- Development of surveillance strategic plan 2020-2023 taking into account polio ramp down
- Identify, engage and train surveillance teams at national, state and LGA levels.
- Integrate poliovirus surveillance (AFP and ES) with other Vaccine Preventable Disease (VPD) Surveillance through the IDSR strategy.
- Initiate Surveillance for Primary Immuno-Deficiency Disorders (PID).
- Provide weekly and monthly surveillance feedback to states and other partners.
- Implement regular capacity building of personnel involved in surveillance including surveillance site focal points, DSNOs, State Epidemiologists, surge capacity and others involved in surveillance through supportive supervision, on-the-job training, peer exchanges and refresher trainings.
- Continue to prioritize security challenged states to implement key activities aimed at improving access to populations in inaccessible areas through innovations, partnership with communities, the Military and other security agents. In addition, capacity building of surveillance personnel, healthy children stool sample collection, enhanced surveillance in IDP camps and host communities, use of technology to improve AFP reporting, expansion of reporting network as well as enhancing other complimentary surveillance activities especially environmental surveillance will be prioritized.
- Improving surveillance data quality through such activities as peer reviews, capacity building of surveillance personnel, conduct of data harmonization meeting and conduct of case verification and validation.
- Creation of community awareness and sensitization including in the local media (TV and radio) through discussions Jingles using local language and provision of posters in both English and local languages.
- Targeted sensitization of special populations such as nomadic groups and selection of informants and focal persons among nomadic populations.
- Conduct quarterly polio risk assessments with mapping.
- Review Environmental Surveillance performance by site and close down underperforming sites.
- Redistribute states implementing ES among the two national polio laboratories.
- Ensure optimal functioning of environmental surveillance and initiate ES in Oyo and Cross River states

- Finalize phase 1 containment activities (polioviruses infectious and potentially infectious materials) documentation according to revised GAP III guidelines.
- Update the list of health facilities and informants in the country and prioritize these facilities for active surveillance. Prioritized facilities should be reviewed every six months
- Monitor LGA DSNO active surveillance and AFP zero reporting
- Conduct regular surveillance data analysis and monitoring to identify areas with surveillance gaps for focused intervention (e.g. supportive supervision).
- Strengthen coordination and quality of feedback through monitoring of monthly DSNOs review meetings, quarterly zonal review meetings and national review meetings.
- Monitor the implementation status of recommendations of key bodies, reviews and teams such as the ERC, OBRA, IMB, ARCC, data quality review and the National Polio committees.
- Monitor quality of active surveillance and performance of the AFP surveillance network through supportive supervision, teleconference, monthly and quarterly surveillance review meetings at LGA, State, zonal and national level as well as implementation of regular surveillance reviews especially in high risk states and other states based on risk analysis.
- Continue to motivate vaccination teams to report AFP cases.
- Conduct timely Investigation of confirmed poliovirus isolation, Sabin type 2 isolation, OPV zero dose and polio compatible cases following standard guidelines.
- Conduct retroactive AFP case search in wards that have not reported AFP cases for two to three years.
- Support the conduct of rapid surveillance assessments in states with surveillance gaps.
- Continue to support the national polio laboratories to achieve and sustain WHO accreditation
- Continue to support the National polio committees (NCC, NPEC, NTF) to function effectively
- Organize cross border surveillance meetings between states sharing international border and their counterparts.

Targets, Milestones and Indicators

- Build capacity of at least 90% of key surveillance personnel (e.g. DSNOs, ADSNOs, health facility focal persons, clinicians, informants) through refresher training by June 2020.
- Attainment of the two main AFP surveillance performance indicators at national, state and LGA levels by June 2020.

- At least 90% of all reported AFP are verified and geo-coordinates collected in 100% of verified cases as at June 2020.
- Validate at least 5-10% of verified AFP cases
- Collect at least 80% of contact samples of all AFP cases from Adamawa, Borno, Sokoto and Yobe states and from inadequate AFP cases of the remaining states and the Federal Capital Territory (FCT).
- Conduct at least 80% planned monthly active surveillance activities (including to community informants) by June 2020.
- Implement at least 80% of the surveillance annual work plan by December 2020
- At least 25% reduction in polio compatible cases by December 2020.
- Initiate ES in the remaining seven states (Akwa-Ibom, Abia, Bayelsa, Ebonyi, Ekiti, Nasarawa, Ondo) that are yet to start implementing ES by June 2020.
- Conduct timely (within 48 hours of notification) investigation of all confirmed poliovirus outbreaks.
- Conduct community polio sero-prevalence survey in Sokoto by June 2020.
- National Polio Laboratories maintain WHO accreditation in 2020.
- Achieve at least 80% implementation of ARCC, ERC and OBRA recommendations by June 2020.
- Conduct and complete the phase 1 Polio containment in Northern states and repeat in Southern States by May 2020.
- Complete and submit the 2019 country annual progress report to ARCC by April 2020.
- Country complete documentation for certification finalized by February and accepted by ARCC by June 2020

5.5 Enhancing SIAs Quality with special focus to vulnerable/special areas

Based on risk categorization algorithm (combined EOC and Institute of Disease Modelling-IDM), a total of 78 LGAs across 18 States have been prioritized and will be specially focused in 2020. The program will still pay attention to the remaining 691 LGAs across all the States and FCT. The special attention to these unique 78 LGAs include increased supervision and support, increased high level engagement with the political, Religious and Community leadership, improved planning, implementation and evaluation of polio related activities (including campaigns).

Key Activities

1. Identifying vulnerable areas

The classification of LGAs as vulnerable is conducted by the National EOC in conjunction with the Institute of Disease Modelling (IDM). This process is repeated every 6 months. For

the 2019 high-risk categorization, out of the 774 LGAs a total of 83 LGAs across 13 States + FCT as indicated in the Table 17 and Fig 18 below will be given special attention and focus.

Table 10: 2020 High Risk LGA Categorization

Zone	state	VHR	Special	Total
NCZ	<i>Kogi</i>	2		2
	<i>Kwara</i>	7		7
	<i>Niger</i>	2		2
		11		11
NEZ	<i>Bauchi</i>	2		2
	<i>Borno</i>		27	27
	<i>Gombe</i>	1		1
	<i>Taraba</i>	1		1
	<i>Yobe</i>		6	6
		4	33	37
NWZ	<i>Jigawa</i>	7		7
	<i>Kaduna</i>	5		5
	<i>Kano</i>	1		1
	<i>Katsina</i>	5		5
	<i>Sokoto</i>	5		5
		23		23
SEZ	<i>Enugu</i>	1		1
		1		1
SWZ	<i>Lagos</i>	2		2
	<i>Ogun</i>	1		1
	<i>Osun</i>	1		1
	<i>Oyo</i>	2		2
		6		6
Total		45	33	78

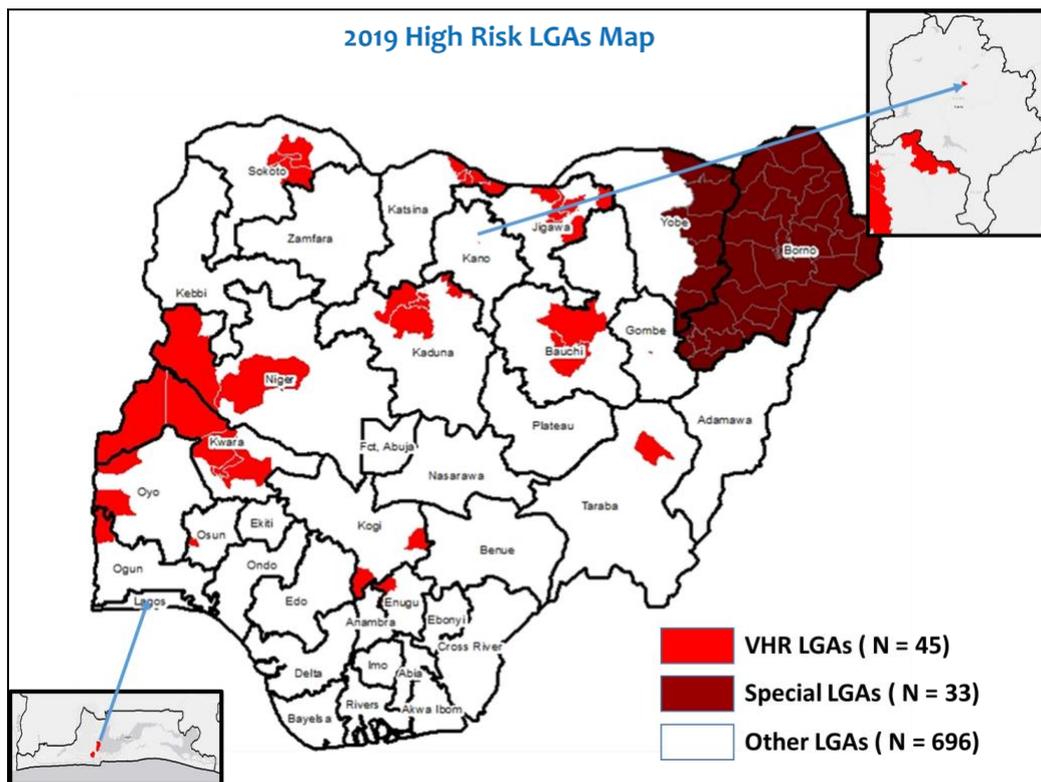


Figure 24: Polio Highrisk LGAs

As indicated in figure 24, 33 of the 78 LGAs are special LGAs comprising all the 27 LGAs from Borno, six of the LGAs are from Yobe. Only one LGA in Enugu State was included from the southern states.

Strengthening support and supervision on High risk/weak performing areas

Continuous review of campaign quality and identification of weak performing areas, through high-risk analysis and HROP will continue to guide prioritization. Government and partners will regularly review performance of their respective state, LGA, ward staff, and ensure that stronger hands are redeployed to poor performing LGAs. This would result in quality implementation of planned activities. The periodic review and re-deployment of LGA and ward level staffs will be done as the situation demands based on available performance data. Management support teams will also be deployed based on these assessments.

Improving team performance

Team performance is mainly assessed through child absent households and households not being visited during the IPDs. Other parameters of measure include, knowledge of VVM, 5 key household questions and knowledge of the daily implementation plans. To improve team performance in 2020, the critical activities will include:

Strengthening and sustaining data-driven ward level team selection

LGA Task Forces should review the appointments/retention of ward focal persons and vaccination in all LGAs but primarily focusing on the priority ones after every round of campaign. A team made up of Government and partners at LGA level should review WFP and team performance, and measure it against set campaign outcome indicators. Any ward with LQAs results of <90% (and where this is established to be due to team performance) should have the WFP account fully for that. On the other hand, very good performing wards (>90% LQAs performances) should have their respective WFPs rewarded (in form of incentives such as commendation letters, public recognition, capacity building opportunities, promotions etc). Team selection should align with the national guidelines and all partner agencies at the LGA level should be active members in the selection process, and in the review of performance process. These will form part of their performance and accountability measure within their respective partner organizations.

Plans to extend enumerations in 2020:

Considering the importance of microplanning and enumeration, the program plans to continue with enumeration in states that have not completed enumeration. However, the NERICC would buy into it based on the added advantage and benefits which include:

- Obtaining best estimates of the population denominator with resultant savings in the financial resource requirements especially vaccines and devices,
- Rationalized workload for house to house and transit teams during SIAs

Innovative ideas to improve and maintain the quality of micro Plans in 2020:

- Tracking of enumeration teams and Ward Focal Persons using vaccinator tracking system (VTS)
- Compulsory use of ODK by all Senior Supervisors including MSTs
- Weekly triangulation of ODK and VTS data as part of accountability
- Use of Security Vigilantes in security compromised settlements escorting enumeration teams
- Comprehensive validation process of at least 40% of the micro plans up from the previous 10%

Continuous micro planning review

Micro-plans of all LGAs will be reviewed after each SIA round through a detailed tally-sheet analysis, LQAS and Independent Monitoring data from the concluded IPDs. Revised household-based enumeration with an inbuilt validation processes be used in identified poor performing LGAs with questionable denominators will be conducted.

Enhancing quality of team members training

Training modules for major components of the IPDs will be reviewed to ensure consistency of the trainings and in line with adult learning approach. The training will be adapted to be within the context of post Covid 19 implementation. In addition, audio-visual training

materials will be produced and emphasis will be made for trainings at all levels to be conducted by senior programme officers, and particularly at ward levels, the trainings will be led by the PHCC along with partners. The IPD guideline will be reviewed and updated in 2020 to incorporate experiences with innovative approaches to improve the quality of SIAs within the context of Covid 19 disease.

Enhancing supervision

The national EOC will deploy management support teams (MST) to states based on risk / performance concerns. Crack team will also be deployed to states based on the challenges encountered, especially with political commitment. The State EOCs / State Task Forces will deploy the MSTs, state level and partner agency staff to the identified high risk LGAs and wards based on the high risk operational plan for that round. There will be stringent monitoring of the completed supervisory checklist submitted by staff deployed by each agency to ensure adherence and accountability. The analysis of completed supervisory checklists by agency will be presented to the state EOC/State Taskforce and National EOC during/after each round. Use of an electronic supervisory checklist on an ODK platform will be scaled up to facilitate monitoring, tracking, analysis and storage. During SIAs ODK and VTS data will be triangulated and shared during evening review meetings for action. The accountability framework will be enforced on poor performing government and agency staff.

Improve SIAs monitoring

In an effort to improve enhanced independent monitoring and LQAS processes, the National EOC revised the standard operating procedures (SOPs) of conducting independent monitoring in 2017. The SOP has spelt out verification processes of the LQAS to ensure the integrity of data collected by surveyors. The implementation of the SOP is key to ensuring concordance between all sources of monitoring data and improvement on the quality and veracity of the data. This has re-established confidence in the process while generating quality data that will guide program interventions.

In areas with reported rejection of lots after LQAS, the state/ LGA will be mandated to conduct repeat vaccination to ensure that all eligible children are reached.

Vaccine Management and Accountability

The gaps identified from the previous sweeps conducted in the country, showed clearly that vaccine management and accountability needs to be strengthened at all levels. To address the issue, ward vaccine accountability officers were introduced at the wards level during each round of SIAs. Introduction of LGA and Ward Vaccine Accountability forms and Introduction of Logistics Management Support Team (MST) support from Government and Partners in each implementing State/ LGA to address all logistics issues and account for all vaccines.

Targets, Milestones and Indicators

- Share line lists of 83 HR LGAs to States by February 2019
- Develop an inter-agency Supportive supervision plan and start implementation by June 2020
- Review and share ward level performance (LQAS) after every round and use that to assess WFP starting March 2020
- Achieve at least 90% LGAs at 90% pass per round
- Ensure S-VAM report is shared by States and LGAs 5-days post campaign
- Repeat vaccination conducted in All LGAs that failed LQAS

5.6 Enhancing Routine Immunization

To ensure sustained interruption of all polioviruses, it is important that RI is rapidly strengthened, and coverage improved. The ARCC at its most recent meeting indicated concerns about the low population immunity in most countries including Nigeria and the risk of emergence and transmission of cVDPV2. ARCC recommended that countries should: Assess the causes of low routine immunization coverage.

Urgently implement plans to improve routine immunization, especially IPV and OPV.

Improve quality of SIAs

Conduct catch-up campaigns with IPV to close immunity gaps caused by delayed introduction. Furthermore, the Global Certification Commission in a recent meeting also noted that “Inadequate routine immunization levels coupled with subnational gaps in surveillance in high-risk countries continue to be the main risk factors for the emergence or continuation of cVDPVs.” Thus, both risk factors must be addressed. Strengthening routine immunization across board is an important and strategic component for PEI.

Therefore, following the establishment of National Emergency Routine Immunization Coordinating Center (NERICC) on July 4, 2017, several innovations continues to be implemented on improving RI coverage.

The National Emergency Routine Immunization Coordination Centre (NERICC) has been implementing strategic activities to revamp routine immunization in the country. In 2019, results from the PAPA RI – LQAS showed improvements in routine immunization performance from 36% of children appropriately immunized in Q4, 2017 to 76% of children appropriately immunized in Q3, 2019.

Key priorities for 2020 by NERICC:

In 2020, the following strategies will be implemented to further improve routine immunization coverage while continuing previous key interventions to sustain the gains achieved. A key focus will be on low performing LGAs who have low immunization coverage and history of cVDPV2. The EOC conducted a risk analysis of Southern states and identified 48 high risk LGAs in southern states in addition to the 78 very high risk LGAS in 13 Northern states. The NERICC interventions will be emphasized in these states and LGAs

A. Strengthening accountability and responsiveness for routine immunization

SERICCs/LERICCs have been established in 18 Northern states and 6 Southern states while Routine Immunization Working Groups (RIWG) are being strengthened in remaining states to coordinate the RI activities in the states with special focus on strict implementation of the accountability framework. SERRIC/ LERICCs will be held accountable if interventions are not done.

B. Improving uptake for routine immunization

- Conduct of Optimized Integrated Immunization Sessions (OIRIS) will continue in 2020 whereby National support the states in joint supervision and monitoring of RI services in LGAs and HFs and ensuring optimization of RI sessions by integrating other services during immunizations

C. Integrated Medical Outreaches (IMOs) to strengthen Primary Health Care:

Primary Health Care in Nigeria is bedeviled with low service delivery with survey results showing sub optimal performance in core PHC indicators. The recent 2018 National Demographic Health Survey (NDHS) further corroborates this with an increase from 128 deaths per 1000 live births to 132 deaths per 1000 live births. This increase in childhood mortality rate is a marked deviation from the previous steady decline in under – 5 mortality rate observed in the last decade. Suboptimal delivery of primary health care services with gaps in human resources for health is also a significant contributor to the challenges with access. While there are over 30,000 primary health care facilities in the country, a significant number of them are largely ineffective with very poor service delivery.

To address these gaps in immunization and primary health care, a strategy of Integrated Medical Outreaches (IMOs) for communities is being implemented. The IMOs will be conducted for three monthly rounds of 5 days. The main aim of the IMOs is to improve immunization and primary health care service delivery in targeted low performing LGAs. The specific objectives of it are to strengthen the PHC outputs by high impact immunizations, PHC interventions in targeted underserved communities to increase and sustain demand for immunization. It is believed that it will result into

- Reduce incidence of cVDPV transmission
- Increase reach and access to vaccines and PHC services
- Improve awareness and demand creation for routine immunization and other PHC services
- Mobilize children for vaccinations and other PHC services

408 LGAs have been selected for intervention including XX polio high risk LGAs.

A four-pronged strategic approach will be deployed to provide services through

- **Fixed Post (PHC)**

- Provision of all services previously rendered in the health facility
 - All health facilities are to be opened and providing services throughout the 5 days of RISP to target age group 0-23 Months
 - Provision of Health Talks
 - Provision of Immunization services (all antigens)
 - Treatment of minor ailments
 - Nutrition Counselling – Measurement of Mid Upper Arm Circumference (MUAC)
 - Screening (hypertension, weight - body mass index)
 - Referral Services
- **Temporary Fixed Post**
- One outreach is to be conducted per ward
 - Provision of Health Talks
 - Immunization (all antigens) to target age group 0-23 Months
 - Nutrition Counselling – Measurement of Mid Upper Arm Circumference (MUAC)
 - Referral Services
 - All antigens are to be provided after screening (vaccines are only to be administered relative to the immunization history of the child)
- **Mobile Teams**
- Conducted in hard to reach communities, nomadic populations, migrant/displaced people
 - Provision of Health Talks
 - Immunization (all antigens) to target age group 0-23 Months
 - Nutrition Counselling – Measurement of Mid Upper Arm Circumference (MUAC)
 - Referral Services
 - All antigens are to be provided after screening (vaccines are only to be administered relative to the immunization history of the child)
- **Medical Missions**
- In collaboration with key associations (NMA, association of Nursing and Midwives, Pharmacist associations, specific NGOs)
 - Provision of immunization services (all antigens)
 - Conduct of Minor surgeries in limited numbers
 - Screening, Testing, Referrals, Treatment of minor ailments
 - Maternal services
 - Counselling
 - Family Planning

- Nutrition Counselling – Measurement of Mid Upper Arm Circumference (MUAC)
- Screening (hypertension, Diabetes, weight - body mass index)

At least one medical Mission in each Senatorial District in all states of Nigeria will be conducted during the implementation of these IMOs.

The indicators for success will be based on the outcome of the NICs/ MICs 2020 and subsequent LQAs results.

D. Strengthening data quality through the implementation of the DQIP

- Data management training for frontline health workers
- Conduct of data validation and review meetings at LGA level
- Deployment of apps for facility level data entry
- Strengthening data quality use and supervision exercises regularly
- Mentoring of the data teams and improvement in behavior

E. Monitoring routine immunization performance

- Conduct of PAPA LQAS
- Conduct of NICS/MICS

F. Improving demand creation through the implementation of:

G. Innovative demand strategies including scaling up of the community engagement framework

H. New vaccine introductions

- MCV2 introduction in the Northern Cluster
- Rota introduction

I. Improve and sustain Vaccine financing and availability

- Update the vaccine forecasting in the NSIPSS document
- Strengthen last mile delivery of vaccine

J. Monitoring for Action

- Assess the NICs/ MICs 2020 data on coverage of RI in all states
- RI LQAs Trend data to see if improvement after RISP intervention
- The SMS pilot project for real time RI data that was scaled up to 18 states will monitor fixed and outreach sessions that are held, number of children immunized, vaccine wastage, utilization and stock outs
- Government and partners to participate and monitor the fixed and outreach sessions carried out in these prioritized areas using the routine immunization session monitoring checklist and during the OIRIS visits which occur once every three months
- Provide Polio EOC data from high-risk LGAs to State desk officers at NERRIC, who are also following up and monitoring each state weekly and requesting improvements using information provided by DHIS2 data and RISS
- Utilize DHIS2 monthly data to assess coverage, vaccine utilization, wastage and other indicators for reviewing improvement in RI programming

- Conduct high-risk LGA analysis using IDM for WPV and cVDPV2s and merge the data with RI HR LGAs to determine where they overlap and use this for program action.

Targets, milestones and indicators

- Achieve greater than 50% immunization coverage for all antigens by 2020 in line with NERRIC's vision and the NSIPSS document. (NICs/ MICs data)
- Implement RISP and assess outcome
- Develop/Update RI REW plans based on GIS maps & population estimates and walk-through micro-plan data and session plans available by October 2020
- Data tools for capturing and monitoring routine immunizations performance available in priority LGAs by March 2020
- National and State EOCs/NERICC to continue monthly monitoring of RI performance
- Conduct monthly RISS from the national to State/LGAs/HFs. Target of $\geq 80\%$ of planned visits conducted by 2020
- Improve polio vaccine coverage for type 2 through quality SIA campaigns and intensification using fIPV/ IPV

5.6 Mobile populations and Cross Border Collaboration

5.6.1 Mobile populations

5.6.1.1 Background

Underserved populations refer to groups that are collectively sub-optimally reached by the program. These population groups include nomadic, IDPs, traders, migratory fishermen and are typically found in scattered settlements in hard-to-reach, security compromised and border areas.

The migratory underserved populations transect outbreak zones and areas with accessibility challenges and may contact other vulnerable populations (including trapped and displaced populations). This may enable an increased risk of exposure and spread. Though the polio program has made progress in reaching underserved populations, these populations could still serve as a reservoir/sanctuary of virus transmission in the country.

Reaching underserved populations remains a priority for the polio program.

5.6.1.2 Justification

As noted by the Expert Review Committee (ERC) on Polio Eradication and Routine Immunization during its 37th session in December 2019, the migrant population plays a key role in the spread of polio across Africa and noted that the same pattern is playing out with cVDPV2 transmission in Nigeria. Further, the ERC noted that the presence of mobile and nomadic populations poses a major risk to ongoing efforts to interrupt cVDPV2 transmission in Nigeria.

The mobile populations' movements are very dynamic. As a result, extending the program reach fully to the mobile populations within Nigeria and across international borders remains challenging due to their movement typically in security compromised, hard-to-reach scattered, and border settlements.

Besides the existing data on these movements when known are not readily available or accessible to programs for use in the planning of Polio Supplementary Immunization Activity (SIAs) and outbreak response.

5.6.1.3 Goal and objectives

The overall goal of the program is to build and sustain high population immunity in underserved communities to interrupt and prevent outbreaks of cVDPV2 and other Vaccine-Preventable Diseases in these populations.

The objectives will include:

- Extending the polio vaccination and other antigens to all eligible children in the underserved nomadic populations
- Update the geo-mapping of nomadic populations
- To establish a database of mobile populations and their leaders, for effective program linkages and integration
- To detect and report AFP cases and other VPDs in these communities

5.6.1.3 Activities

Coordination and collaboration

- Strengthen and mainstream effective coordination and planning of interventions to the mobile populations under the state Polio EOCs/state technical team
- Identify and engage mobile population stakeholders to explore leverage opportunities. The stakeholders include the Veterinary department and Fisheries department under the Ministry of Agriculture, National Commission for Nomadic Education (NCNE), Community Based Organizations such as Miyetti Allah Organization and Food and Agriculture Organization (FAO)
- Strengthen linkages between the NEOC, states, and LGAs on mobile populations
- Identify the mobile populations: nomadic populations, migrant fishing populations, refugees
- Identify program gaps and required support/intervention to address them
- Granulate underserved populations data to ensure close performance monitoring
- Closely track SIA/OBR activities (at pre-, during, and post-implementation stages)

Update the geo-mapping of nomadic, fishing, and other mobile populations

- Identify and geo-code nomadic and migrant settlements including their accessibility status

- Update mapping the GIS map to display nomadic settlement, population, routes, markets near routes, camping/sites for seasonal campaigns, water points, grazing areas.
- Update seasonality (temporal) mapping of the mobile population movement
- Establish a database of the mobile population and their leaders, to ensure effective community linkages

Conduct Risk assessment prior to the implementation of OBRs and SIAs

- Review performance of previous OBR/SIAs (Low coverage, LQAs, independent monitoring, missed settlements and sites) reflecting the population status as at and during the planned OBR/SIAs
- Review missed children data (vaccination hesitant and child absent data)
- Analyze vaccination dose status of AFP cases (<3doses)
- Low routine immunization coverage

In-between rounds and special Interventions to target mobile and nomadic population

- Leverage on animal vaccinations and integrate polio and other vaccination
- Organize Special nomadic vaccination campaigns

Strengthen surveillance among the mobile population

- Identify surveillance informants within the mobile populations (e.g. Leaders, traditional healers, traditional barbers, TBAs)
- Conduct sensitization on AFP surveillance
- Conduct analysis and tracking surveillance reach among nomadic communities (NP-AFP rate and stool adequacy)

Routine Immunization among mobile and nomadic populations

- Update REW Microplans to capture all mobile pop
- Review RI performance among the mobile and nomadic populations
- Conduct defaulter tracking to ensure coverage during outreach and mobile planning and implementation

Communication and Social Mobilization targeting nomads and mobile population

- Conduct advocacy visits and sensitization meetings with nomadic leaders (state, LGA, wards, settlements levels)
- Enhance reach to the mobile and nomadic populations through radio, IEC materials (to be used at selected sites such as markets, Traditional leader's houses, and telephone and word of mouth)
- Identify health workers among mobile populations (nomadic settlements, focal persons in markets and mobile groups)

Monitoring and data management of mobile and nomadic population vaccination and surveillance activities

- Ensure monitoring tools capture of disaggregated data on nomadic populations on all program areas including surveillance, vaccination (RI and SIAs, communication and social mobilization, special interventions
- Desegregate RIC Vaccination data to identify the number of nomadic settlements in inaccessible areas

5.6.2 Cross Border Collaboration

5.6.2.1 Background

About 4% of states in Nigeria have an international border four countries: Cameroon, Chad, Niger, and Benin republics. The borders are comprised of 201 wards in 60 LGAs. Except for the Chad republic, Nigeria is linked to these countries through land borders. About 56% of the international border LGAs in Borno state border with Chad republic via the Lake Chad waters.

The border areas are associated with active population movement driven by social, economic, and humanitarian reasons. Most of these movements are temporary and include those to major commercial centers in various states. In addition, a complex pattern of diverse nomadic populations' seasonal movements in search of pasture and water is a common feature.

5.6.2.2 Justification for intensified cross border activities in Nigeria

The spread of cVDPV2 within Nigeria and beyond the border underscores the need to strengthen the coordination efforts to address surveillance and population immunity gaps in the Lake Chad basin countries. Of the 17 states with confirmed cVDPV2 in 2018 and 2019, 11 (65%) share an international border with neighbouring countries. The cVDPV2 outbreaks that occurred in Benin Republic, Togo, Ghana, and Cote d'Ivoire were genetically linked and originated in Jigawa state and spread was facilitated by population movements

The country has major commercial centers that draw local and international populations along major road networks and crossing points. Additionally, the major nomadic migratory routes are well established in the international border areas. The migration is regular and seasonal. However, insecurity due to rustling in the northwest, interethnic conflicts in the north-central, and insurgency in the NE have influenced changes to the migratory routes. Besides, these populations usually have poor access to health services, and by transecting through outbreak zones, and areas likely populated by vulnerable communities (including trapped and displaced populations) increases the risk of exposure and spread of the virus.

Consequently, Nigeria will continue to strengthen cross border collaboration focussing on all border areas with special emphasis on states that reported cVDPV2 cases and the Lake Chad basin priority LGAs in Adamawa, Borno, and Yobe states.

5.6.2.3 Key Activities

Coordination with post-closure of the Lake Chad Coordination Task Team:

- Broadly, the program will continue to strengthen coordination and mainstreaming the planning, implementation, and monitoring of activities

- The country will liaise with the international border states to ensure a strong corroboration link with the state and LGAs' counterparts in the neighbouring countries to facilitate rapid decision-making, deployment of resources, and problem-solving across the neighbouring countries. The country will leverage on the former Lake Chad Task Team focal persons and representatives some of whom have transferred to the WHO AFRO headquarters in Brazzaville
- Establish bilateral linkages with individual countries including the Benin Republic, which has not been part of the regional coordination effort
- The state and LGAs mobile and nomadic working groups will regularly provide the counterpart teams (and vice versa) with information and data required to facilitate rapid analysis and identification of gaps in areas that influence cross-border surveillance, OBRs, SIAs, and in-between SIAs activities
- and inform risk assessments.
- Ensure adequate preparedness for potential further spread of the ongoing cVDPV2 outbreak within Nigeria and into other uninfected areas and other countries.
- The NEOC will collaborate with the states on review evolving risk and prepare contingency support plans for all areas at risk of an outbreak
- Conduct regular coordination cross-border state/LGA meetings to enhance collaboration on the identification and vaccination of high-risk and mobile populations including nomads. These for a will enable the gathering of information and mapping of the nomadic groups' migratory routes across international borders. Specific information will include location, routes, and time of the movements in order to understand where and when populations move, variables impacting historic movements (e.g. insecurity), and how to reflect this information in the response activities.
- Update work-plan to ensure synchronization, efficient use of resources and maximum impact and incorporate monitoring feedback from NEOC/state EOCs/Technical teams
- Continue political advocacy and to ensure engagement and program ownership at all administrative levels across the neighbouring countries.
- Strengthen country program management and administration and strictly implement the accountability framework at all levels

Sustaining cross-border activities in the Lake Chad Basin countries

The program will ensure cross-border coordination and synchronization, communication, notification, and implementation of activities at local border LGA/district levels through:

- Updating and geo-referenced mapping of all the major crossing points along the international borders
- Conduct functional border/transit point vaccination is established and all eligible children are immunized while coming and going outside Nigeria.
- Conduct border synchronization meetings attended by officials from across the borders leading to inform the generation of joint implementation plans

- Conduct synchronized border vaccinations in settlements and transit points along the borders
- Quality planning for each round of SIA (TSA, HRA/HROPs, pre-implementation dashboard, schedule of activity)
- Implement EIM and LQAS with corrective actions after each SIA/OBR
- Provide additional resources to conduct quality revisit/mop-up with documentation in each of the priority LGAs that failed LQAS
- Develop an Integrated Communication Plan and assessment tools to inform the health-seeking behaviour of mobile populations
- Ensure adherence to the reporting formats and guidelines on cross border AFP notification
- Ensure prompt cross-border on all AFP cases detected along the borders to ensure timely investigation and plan for response activities.
- Conduct analysis, and feedback of active surveillance visits by DSNOs of priority LGA using the standardized tool including silent wards analysis, tracking of zero reporting by informants and review during monthly /quarterly meetings
- Expand AVADAR to all state with international borders
- Conduct timely investigation of polio cases (WPV, cVDPV, Compatibles, AFP zero dose) and activate OBR SOPs as per the guidelines

Identify priority LGAs in other international border states for targeted program interventions

to strengthen surveillance, planning, and implementation of OBR/SIAs

- Engage states to identify priority border LGAs at national and state levels
- Conduct vaccination in Transit point, IDPs camp, Markets, Nomadic, CMAM sites, busy hospitals, International Border posts, and integrating livestock vaccination including AFP active case search.
- Intensification of routine immunization in specified transit points along with the priority LGAs
- Conduct profiling and vaccination of children vaccinated in-between rounds (special interventions)
- Enhance collaboration with other stakeholders to promote the integration of services
- Expand surveillance reporting network to include informants, VCMs, private and public health facilities including humanitarian partners
- Identify, train, and engage mobile population focal points (nomadic, IDPs, fishermen) in AFP surveillance
- Integrate the vaccine management accountability framework into the broader operational accountability framework

Sustain program performance in 15 Lake Chad priority LGAs (including Lake Chad islands) plus MMC and Jere LGAs to strengthen planning, and implementation of OBR/SIA and surveillance in insecure areas

- Update accessibility status of settlement including the mobile populations’
- Corroboration with relevant agencies and use of satellite imagery, to determine population estimates of the high-risk population groups across borders.
- Sustain the engagement with the military authorities to continue the Reaching Inaccessible Children (RIC) with vaccinations and conduct AFP active case search (Borno and Yobe)
- Sustain the Reach Every Settlement (RES) with vaccination during IPDS /SIAs/ OBR and conduct AFP case search
- Explore the expansion of Routine Immunization to RES vaccination areas

5.6.2.4 Targets, milestones, and indicators

These parameters will be measured based on the standard indicators used to measure all PEI activities (including process indicators for vaccination, surveillance, and social mobilization).

a. Coordination with the neighbouring countries

- Updated work plan by end of February 2020
- Updated database of settlements by end of March 2020
- Updated maps of border settlements, crossing points, IDPs/Refugee camps by March 2020
- Monthly reports to be shared with the key stakeholders
- AFP cross-border notification according to reporting formats and guidelines
- Sharing of line lists of AFP detected along borders on a weekly basis
- Updated map of border crossing points by end of February 2020
- Weekly border vaccination reports to NEOC

b. Strengthening cross-border activities in the Lake Chad Basin countries

- An updated database of settlements categorized by accessibility by end February 2020
- Updated maps of border settlements, IDPs/Refugee camps and crossing points by February 2020
- Monthly reports to Lake Chad TT
- AFP cross-border notification, reporting formats, and guidelines shared by March 2020
- Line lists of AFP detected along borders shared on a weekly basis

c. Maps and work plan

- Update the State master list of settlements identifying nomadic and fishing settlements by end of February 2020
- Updated maps nomadic routes, grazing reserves, and major watering points
- Line listing of nomadic community leaders by end of March 2020
- Updated work plan for intensifying RI and surveillance in the nomadic community by end of January 2020

d. Border vaccinations in other states

- Updated map of border crossing points by end of January 2020
- Border vaccination reports – monthly

5.6 Improving and strengthening quality assurance of all Polio data

The quality of Polio related data is an important concern for both the program and the country. The program can only be able to better review, plan and implement its activities driven by data, if such data are of highest quality, timely and complete. Hence the focus for 2020 is to consolidate and improve upon the program data generation, data analysis, data transformation and feedback. In 2017, the National EOC embarked on a critical data reform strategy that culminated into signing of a Data protocol sharing agreement between Government and all PEI partners. In addition, the Polio EOC data team was reactivated and the process to develop a Polio portal began. In 2018, the program finalized and launched the Polio EOC portal which has provided both the general public and Immunization partners regulated access to Polio Information, reports, plans and data in a timely manner possible to ensure better understanding of actual polio performance for informed decision making. The portal will also improve transparency in matters related to data.

Key Activities

- Support State EOCs and other State data team to improve quality and delivery of data generated from SIA activities
- Conduct data review meetings with State EOCs
- Use of ODK by supervisors and analysis/feedback by data team.

Targets, Milestones and Indicators

- Quarterly Supportive supervision visit carried out in 2019
- Periodic uploading of program data on the data portal

5.7 Transition Planning

Nigeria commenced the transition planning process in 2015 to sustain the gains made by the Polio Eradication Initiative (PEI) in over 30 years in line GPEI objective 4: Transition planning.

Transition planning is a process of analyzing the infrastructure, knowledge, and functions of the polio programme, and managing their scale down or transfer to other health programmes for future gains and also to support a country's entire health system.

With support of the Federal Ministry of Health and other government and non-government stakeholders and Development Partners, the National Primary Health Care Development Agency set up two country-led committees (National Polio Transition Planning Committee, NPTPC; and the Polio Transition Technical Task Team PT4) to drive polio transition coordination and technical activities. While the National Transition planning committee provides general oversight and guidance, the task team is responsible for planning and executing transition technical activities. Membership of both the national steering committee and the technical task team includes wide representation from the Federal Ministry of Health, Ministry of Budget and National Planning, Federal Ministry of Finance, other MDAs like the Nigerian Center for Disease Control (NCDC), Civil Society Organizations, Rotary International, Development Partners like WHO, UNICEF, CORE Group Partners Project (CGPP), BMGF, CDC-AFENET, CHAI, and many others.

So far, several milestones have been achieved which include: Conducting comprehensive polio asset mapping and validation; Documentation of Lessons Learnt from the Polio Programme; Simulation exercise to identify 3 core priority areas for transition (PHC Revitalization, RI & Disease surveillance and OBR); Development and finalization of the Polio Business document which has been approved by the Expert Review Committee on Polio and Routine Immunization (ERC).

Nigeria's transition strategy is aimed at strengthening three top priorities: Routine immunization coverage to greater than 80% for Penta 3 at national, state and LGA levels before the end of 2028; Disease Surveillance by facilitating integrated disease case detection and reporting; as well as PHC revitalization through improved governance and leadership to directly impact service delivery quality and coverage. These three priority areas represent value for money in terms of return on investment for the Nigerian Government and people.

Presently, the PT4 is working with key public and private stakeholders to source money to fund the Polio Transition Plan (PTP). Many resource mobilization activities have been planned and will continue after the COVID-19 pandemic. State engagement activities which include advocacy to and through the Nigerian Governors' Forum (NGF) to all states of the Federation will also continue as soon as the pandemic is over.

There are many potential risks to the Polio transition process. These include: The current ravaging COVID-19 pandemic which has stalled implementation of planned transition activities, Economic instability and insecurity in the country; Political will to prioritize and allocate resources required for transition by the different tiers of government; Shortage of

qualified human resource at all levels of the government tier system to support implementation of transition activities in the 3 identified areas, etc.

Despite all the challenges, Nigeria remains on course for polio transition and is optimistic that with the goodwill and support of its partners and transition stakeholders, transition activities will continue as soon as the COVID-19 pandemic is over.

Key Activities

- Complete development of Business case
- Endorsement of Business case and transition planning cost/ financial requirements by NPTPC and ICC
- Resource mobilization and funding commitment by partners/donors for transition plan implementation
- Communication and advocacy on transition planning in Nigeria
- Endorsement and signing of MOU on transition planning by Government and Partners
- Transition plan implementation scheduled for June-September-2020

Targets, Milestones and Indicators

- Resource mobilization by partners/donors for transition plan by June 2020
- Communication and advocacy on transition planning completed by June 2020
- Finalization of transition plan by April 2019.
- Transition plan implementation scheduled for June –September 2020

6. MONITORING AND EVALUATION

6.1. Background

Nigeria EOC strictly monitors and assesses the implementation of the surveillance and immunization activities in the polio eradication emergency plan. Through its four working groups and based on evidences generated through data analysis, it tracks the progress made, identifies observed gaps, and outline mitigation plan to address them.

6.2. *Monitoring Process*

The overall guiding principle for monitoring of planned immunization and surveillance activities for polio eradication are:

- Increased quality of all polio eradication activities including campaigns, AFP Surveillance and routine immunization
- Increased programmatic access and reach with a focus on continuously missed children in security compromised areas
- Integration and coordinated planning and implementation of Operations, Security and Communications through national and state EOCs.

- Provision of timely and quality information, including spatial analysis, for decision making.
- Documentation of the polio eradication activities for polio free certification status and lesson learnt

Priority activities to improve quality of immunization services, particularly scheduled SIA activities, and special rounds targeting cVDPV2 outbreak response immunization activities as well as underserved populations will be monitored using:

- Specific plans with detailed activities and monitoring indicators for prioritized LGAs, that have been flagged using prioritization which is updated every year.
- Regular and periodic feedback to VVHR and VHR LGAs with special emphasis to LGAs of Borno and other states from north east zone on implementation status of identified special activities.
- Monitor using data analysis feedback on a weekly basis on the implementation of surveillance, in-between round activities and implementation of scheduled and outbreak SIAs at national and state EOC.
- Enhanced/real time monitoring of performance and increased accountability at all levels.
- Standard pre-implementation and implementation monitoring checklists and presentation of information in the polio SIA dashboard.
- Supportive supervision, including concurrent monitoring, using real time data collection on the Open Data Kit (ODK) platform.
- Enhanced independent monitoring.
- LQAs implementation of settlement selection using GIS.
- Systematic analysis and triangulation of available data sources including LQAS, EIM, VTS, etc.
- In-depth analysis and feedback on vaccination tracking system.
- Programme audits and reviews.
- Monitoring of performance and increased accountability at all levels
- Avail data assistance to better capture, analyze and use the data at the point where data is generated to improve program performance. Strengthen the data management support in Borno through coordination of data managers in the state under the state EOC.

Specific activities that will be undertaken to monitor surveillance and polio laboratory activities will include:

- Weekly and monthly review of standard surveillance and laboratory performance indicators focusing on ward level performance

- Monitor the utilization of new initiatives in surveillance, implementation of AVADAR to strengthen sensitivity of surveillance in Borno state.
- Rapid surveillance appraisals, targeting areas with sub-optimal performance indicators.
- Documentation including polio free certification documentation.
- Annual laboratory accreditation missions.

The information collected from the monitoring processes will be analyzed by EOCs and State Operations rooms and regular monitoring reports prepared for use by:

- Presidential and State Task Forces
- High Level Advocacy Team (HiLAT)
- Nigerian Governors' Forum
- ALGON
- ERC and other oversight bodies
- Quarterly PEI review meetings

7.0 OVERSIGHT AND MANAGEMENT

7.1 *National, State, LGAs and Traditional Forum*

The Presidential Task Force on Polio Eradication and Routine Immunization (PTFoPE) will continue to provide oversight to the PEI program in Nigeria. The PTFoPE will monitor progress at the State and LGA levels through quarterly meetings.

The National EOC, which is the operational/programme management secretariat of the Presidential Force, will continue to provide an enabling environment for key government and partner staff to continue to work as a team with the aim of improving decision making, information sharing, conducting joint planning and programming, and implementing new strategies. This is aimed at increasing the effectiveness of the polio programme. The State EOCs and State Task Forces on Immunization will replicate the functions of the national EOC.

The LGA Task Forces on Immunization will meet at least once monthly to review the progress in achieving PEI and RI targets in LGAs, identify remaining challenges as well as appropriate strategies to address them. In 2020, LGA Task Forces will continue to be an important forum to bring together key political leaders, Traditional and Religious leaders as well as health workers, to oversee critical activities implemented at LGA level and in all wards, particularly the Very High Risk and High-Risk wards.

Traditional leaders play a very important role in the PEI programme. They have been incorporated in all the taskforces from Presidential to the LGA. Aside from their involvement

in various task forces, the traditional authorities in northern Nigeria have an organization called the Northern Traditional Leaders Committee on PHC Delivery (NTLC) whose mandate among others is to lead the process of achieving PEI and RI goals through the systematic involvement in activities for Polio eradication. They have established committees at Emirate and District levels that coordinate activities in the LGAs, wards and settlements. These committees are involved in advocacy, micro planning, vaccination team selection, supervision of IPDS activities, resolution of non-compliance and promotion of community demand for vaccination services. NTLC as well as the religious leaders through established structures such as the Nigeria Inter-Faith Action Association (NIFAA) and Federation of Muslim Women Associations in Nigeria (FOMWAN) will be expected to participate in the national coordination committees (PTFoPE, ICC, and ICC Working Groups) and thereby support planning, implementation and evaluation of priority activities in the 2020 NPEEP. In 2020, continued focus will be placed on the engagement of Daawah Coordination Council of Nigeria (DCCN) together with the NTLC.

7.2 Independent Advisory Bodies and Global Partners

a) GPEI Partners:

GPEI partners and donors are expected to support the national authorities to effectively implement the key activities included in the 2020 NPEEP. The GPEI partners are also expected to support in resource mobilization.

b) Expert Review Committee on Polio Eradication and Routine Immunization (ERC):

The ERC is expected to meet 2-3 times a year to provide technical guidance on programme implementation in improving SIAs quality, strengthening routine immunization as well as strengthening surveillance activities.

c) National Polio Expert Committee (NPEC):

The NPEC supports virological classification of AFP by meeting quarterly to review and classify AFP cases from adequate and inadequate stool specimens. They will continue meeting on a quarterly and on Adhoc basis.

7.3 Accountability framework

Accountability mechanisms and rewards:

Enforcement of accountability continues to underpin all aspects of Nigeria's polio eradication programme and has contributed to the game changer since 2013. The EOC will continue to ensure that all programme officers are held accountable while delivering on their assigned mandates. Increased accountability across all levels is needed to ensure campaigns and other activities are carried out with a high degree of quality. Programme officers in the high-risk polio LGAs will also be held accountable for performance of routine immunization. The Accountability Framework is an evidence-based tool used to promote

accountability, evaluate staff performance and increase inter-agency transparency. It is based on several key principles:

a) Promoting individual accountability at every level:

People have been hired to achieve specific terms of reference for the polio eradication programme. This framework helps to identify those who are performing and those who are not, and to consider rewards and consequences accordingly.

b) Rewards for strong performance: The individuals who demonstrate strong performance should be recognized through a reward programme. The programme has developed a reward scheme to recognize top performers in wards, LGAs and states. An award certificate will be issued to winning LGAs. However, these rewards may include public recognition, a congratulatory meeting with a senior leader, a mention in the media, enrollment in training of choice, etc.

c) Consequences for weak performance: All weak performance will be documented and reported to appropriate policy makers and stakeholders. Furthermore, demonstrated weak performance will be sanctioned (e.g., including warnings, withholding of allowances and/or disengagement from the programme).

d) Evidence based decision making: Assessments of critical impediments, their solutions, staff performance and progress will be evidence based.

e) Independent assessments every month: The programme will conduct random independent assessments of critical impediments, solutions and performance at LGA and state levels throughout the year.

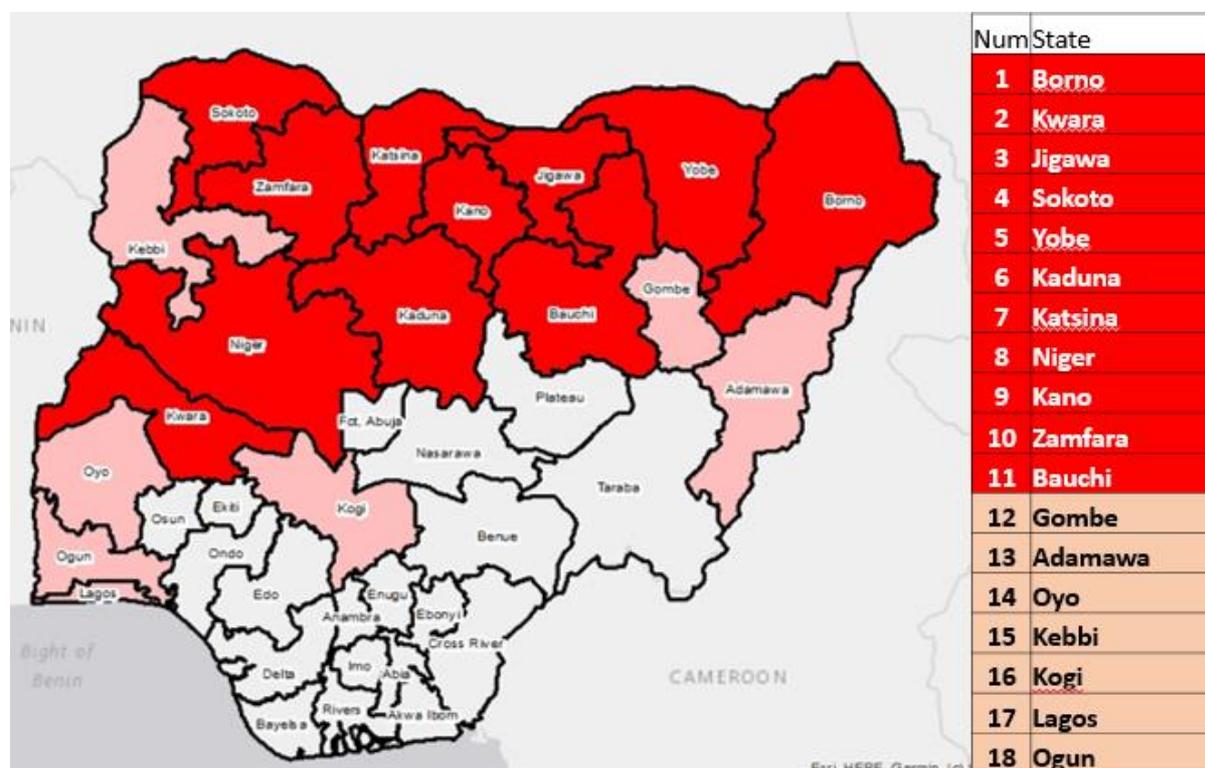
f) Feedback to all levels: Constant feedback loops are critical to ensure a coordinated response and common understanding of challenges and progress. Feedback loops between wards, LGAs, state, Core Group and Presidential Task Force will be in place.

g) Accountability of MSTs and supervisors: Through the use of harmonized supervisory checklist and tracking on ODK platform, with provision of feedback. This will be instituted, and outcome documented.

The Accountability Framework will continue to be instrumental in evaluating staff performance by Government and partners with management actions taken based on staff performance.

8.0 ANNEXES

Annex 1: High Risk LGAs, EOC, January 2020, High risk states



Annex 2: High Risk LGAs, by Zone, EOC, January 2020

Zone	state	LGA	AMAP	HR Status
NCZ	Kogi	Ibaji	NIE KGS NDG	VHR
NCZ	Kogi	Ankpa	NIE KGS KPA	VHR
NCZ	Kwara	Baruten	NIE KWS KSB	VHR
NCZ	Kwara	Ilorin East	NIE KWS KEY	VHR
NCZ	Kwara	Ilorin West	NIE KWS LRN	VHR
NCZ	Kwara	Ilorin South	NIE KWS FUF	VHR
NCZ	Kwara	Kaiama	NIE KWS KMA	VHR
NCZ	Kwara	Moro	NIE KWS BDU	VHR

NCZ	Kwara	Ifelodun	NIE KWS SHA	VHR
NCZ	Niger	Mashegu	NIE NIS MSG	VHR
NCZ	Niger	Borgu	NIE NIS NBS	VHR
NEZ	Bauchi	Bauchi	NIE BAS BAU	VHR
NEZ	Bauchi	Ganjuwa	NIE BAS GJW	VHR
NEZ	Borno	Maiduguri	NIE BOS MAG	Special
NEZ	Borno	Monguno	NIE BOS MNG	Special
NEZ	Borno	Konduga	NIE BOS KDG	Special
NEZ	Borno	Nganzai	NIE BOS NGZ	Special
NEZ	Borno	Damboa	NIE BOS DAM	Special
NEZ	Borno	Bama	NIE BOS BAM	Special
NEZ	Borno	Guzamala	NIE BOS GBL	Special
NEZ	Borno	Gwoza	NIE BOS GZA	Special
NEZ	Borno	Mafa	NIE BOS MAF	Special
NEZ	Borno	Gubio	NIE BOS GUB	Special
NEZ	Borno	Jere	NIE BOS JRE	Special
NEZ	Borno	Kukawa	NIE BOS KWA	Special
NEZ	Borno	Marte	NIE BOS MAR	Special
NEZ	Borno	Mobbar	NIE BOS MBR	Special
NEZ	Borno	Dikwa	NIE BOS DKW	Special
NEZ	Borno	Kaga	NIE BOS KGG	Special
NEZ	Borno	Magumeri	NIE BOS MGM	Special
NEZ	Borno	Kala/Balge	NIE BOS KBG	Special
NEZ	Borno	Ngala	NIE BOS NGL	Special
NEZ	Borno	Abadam	NIE BOS ADM	Special
NEZ	Borno	Askira/Uba	NIE BOS ASU	Special
NEZ	Borno	Biu	NIE BOS BBU	Special

NEZ	Borno	Bayo	NIE BOS BAY	Special
NEZ	Borno	Hawul	NIE BOS HWL	Special
NEZ	Borno	Kwaya Kusar	NIE BOS KWY	Special
NEZ	Borno	Shani	NIE BOS SHN	Special
NEZ	Borno	Chibok	NIE BOS CBK	Special
NEZ	Gombe	Gombe	NIE GMS GME	VHR
NEZ	Taraba	Ardo-Kola	NIE TRS ARD	VHR
NEZ	Yobe	Geidam	NIE YBS GDM	Special
NEZ	Yobe	Damaturu	NIE YBS DTR	Special
NEZ	Yobe	Tarmua	NIE YBS TMW	Special
NEZ	Yobe	Yunusari	NIE YBS YUN	Special
NEZ	Yobe	Gujba	NIE YBS GJB	Special
NEZ	Yobe	Gulani	NIE YBS GLN	Special
NWZ	Jigawa	Hadejia	NIE JIS HJA	VHR
NWZ	Jigawa	Miga	NIE JIS MGA	VHR
NWZ	Jigawa	Malam Maduri	NIE JIS MMR	VHR
NWZ	Jigawa	Kafin Hausa	NIE JIS KHS	VHR
NWZ	Jigawa	Kaugama	NIE JIS KGM	VHR
NWZ	Jigawa	Maigatari	NIE JIS MGR	VHR
NWZ	Jigawa	Guri	NIE JIS GRR	VHR
NWZ	Kaduna	Zaria	NIE KDS ZAR	VHR
NWZ	Kaduna	Giwa	NIE KDS GKW	VHR
NWZ	Kaduna	Igabi	NIE KDS TRK	VHR
NWZ	Kaduna	Ikara	NIE KDS KAR	VHR
NWZ	Kaduna	Sabon Gari	NIE KDS SBG	VHR
NWZ	Kano	Tarauni	NIE KNS TRN	VHR
NWZ	Katsina	Baure	NIE KTS BRE	VHR
NWZ	Katsina	Daura	NIE KTS DRA	VHR

NWZ	Katsina	Zango	NIE KTS ZNG	VHR
NWZ	Katsina	Sandamu	NIE KTS SDM	VHR
NWZ	Katsina	Mai'Adua	NIE KTS MDW	VHR
NWZ	Sokoto	Sokoto North	NIE SOS SKK	VHR
NWZ	Sokoto	Wurno	NIE SOS WRN	VHR
NWZ	Sokoto	Sokoto South	NIE SOS SRZ	VHR
NWZ	Sokoto	Goronyo	NIE SOS GRY	VHR
NWZ	Sokoto	Rabah	NIE SOS RBA	VHR
SEZ	Enugu	Uzo-Uwani	NIE ENS UMU	VHR
SWZ	Lagos	Lagos Mainland	NIE LAS LND	VHR
SWZ	Lagos	Ajeromi/Ifelodun	NIE LAS AGL	VHR
SWZ	Ogun	Imeko Afon	NIE OGS MEK	VHR
SWZ	Osun	Irewole	NIE OSS KRE	VHR
SWZ	Oyo	Saki West	NIE OYS SHK	VHR
SWZ	Oyo	Iwajowa	NIE OYS WEL	VHR

Annex 3: Polio SIA Schedule, 2020

S/No	Month	Dates	Scope	Antigen	Status
1	January	26 th January-29 th January	2nd OBR to Bauchi/Kaduna cVDPV2 in 16 states --Kaduna, Kano, Katsina, Kebbi, Sokoto, Zamfara, Adamawa, Bauchi, Borno, Gombe, Taraba, FCT, Benue, Nasarawa, Niger and Plateau, Kwara (Asa, Baruten, Edu, Kaiama and Moro LGAs) , Oyo (Shaki East, Shaki West, Irepo, Olorunsogo and Orelope LGAs)	mOPV2	Pending
2	March	9 th - 12 th	SIPDs (Borno + 6 high risk states)	bOPV	Pending
3	March - April	30 th March - 2 nd April	SIPDs in 18 states (Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto, Zamfara, Adamawa, Bauchi, Borno, Gombe, Taraba, Yobe, FCT, Benue, Nasarawa, Niger and Plateau)	bOPV	Pending
4	April	27 th - 30 th	NIPDS	bOPV	Pending
5	May	25 th - 28 th	NIPDS	bOPV	Pending
6	September	25 th -28 th	SIPDs (8 high risk states)	bOPV	Pending