AFGHANISTAN POLIO ERADICATION INITIATIVE ANNUAL REPORT 2021

This report is dedicated to those frontline workers who lost their lives while vaccinating children against polio in 2021

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Acronyms and Abbreviations

AFP	Acute flaccid paralysis
BPHS	Basic package of health services
CE	Community engagement
CVA	Complementary vaccination activity
cVDPV	Circulating vaccine-derived poliovirus
cVDPV2	Circulating vaccine-derived poliovirus type 2
EOC	Emergency Operation Centre
EPHS	Essential Package of Health Services
EPI	Expanded Programme on Immunisation
FMV	Female Mobiliser Vaccinator
H2H	House-to-house
HF2HF	Health facility to health facility
HRMP	High-risk mobile population
IAG	Islamic Advisory Group
ICN	Immunisation and Communication Network
IEC	Information, education and communication
IOM	International Organisation for Migration
IPV	Inactivated polio vaccine
LQAS	Lot quality assurance sampling
M2M	Mosque-to-mosque
MoPH	Ministry of Public Health
NEAP	National Emergency Action Plan
NID	National Immunisation Day
OPV	Oral polio vaccine
PEI	Polio Eradication Initiative
PEMT	Provincial EPI Management Team
PPO	Provincial polio officer
PTT	Permanent transit team
REMT	Regional EPI Management Team
REOC	Regional Emergency Operation Centre
RI	Routine immunisation
S2S	Site-to-site

SIA	Supplementary immunisation activity
SNID	Sub-national immunisation day
SWG	Strategic Working Group
TAG	Technical Advisory Group
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
VDPV	Vaccine Derived Poliovirus
WASH	Water, sanitation and hygiene
WHO	World Health Organisation
WPV	Wild Poliovirus
WPV1	Wild Poliovirus type 1

Executive Summary

2021 was year of dramatic change in Afghanistan, impacting all sectors including health and the Polio Eradication Initiative (PEI). The first half of the year saw an increase in the number of areas inaccessible to the programme as well as a rise in the number of security incidents severely impacting vaccination campaigns. On March 30, three female volunteers were shot dead by unknown gunmen in Jalalabad, Nangarhar province, while conducting house-to-house vaccination. On June 15, in the same province, four male volunteers were killed and six others were injured in Jalalabad, Khogyani and Surkhord districts in a series of targeted shootings. On August 15, the government of the Republic of Afghanistan collapsed and the de facto authorities assumed power.

The National Emergency Action Plan (NEAP) for 2021 outlined four National Immunization Days (NIDs) and two Sub National Immunization Days (SNIDs) for the year. Despite many challenges and uncertainties, the programme conducted four NIDs and one SNIDs. The NIDs planned for September could not be implemented on time and was instead conducted in November. In the first half of 2021 more than 3.5 million children could not be reached due to inaccessibility and bans on house-to-house vaccination campaigns in some areas. Despite improved access in the second half of 2021, more than one million children remained unvaccinated in each round because house-to-house vaccination could not be implemented nationwide. In some areas, mosque-to-mosque modality was adopted where house-to-house was previously used.

Polio epidemiology improved in 2021. Four cases were reported in two districts compared to 56 cases from 38 districts in 2020. Environmental surveillance detected only one wild polio virus isolate, in Helmand province, in 2021 compared to 35 in 2020. The number of cVDPV2 cases reduced from 308 in 118 districts in 2020 to 43 cases from 28 districts in 2021. The most recent case of cVDPV2 was reported in July 2021.

COVID-19 continued to burden the country's fragile health system. Afghanistan reported 105,520 cases and 5,145 deaths due to COVID-19 in 2021.

The PEI continued to implement the NEAP as its guiding document. As in the past, the NEAP was developed through a consultative approach with the regions to guide the implementation of polio eradication activities throughout the country.

The NEAP 2021 had twelve strategic objectives of which five were fully achieved and the remaining seven were partially achieved. The programme's major achievement in 2021 was to stop circulation of wild poliovirus in the main reservoir in the Southern and Eastern regions.

Despite challenges and political changes in the country, the AFP surveillance system continued to maintain high sensitivity for all key indicators and surpass global targets. In 2021, 1,708 active surveillance sites, 2,951 zero reporting sites and 45,029 reporting volunteers supported the system in reporting AFP cases. This network was also used in COVID-19 response activities.

Overall, polio vaccine acceptance remained high, with refusals below 1% nationally among all missed children. However, the percentage of refusals in Kandahar, Paktika and Khost were close to 3% among missed children. To this end, strengthening of advocacy, communication, and community engagement remained a priority in 2021. Efforts included continuous engagement of local authorities, community and religious influencers, continued social mobilisation through the Immunisation Communication Network

(ICN), increased female engagement in polio vaccine promotion, and proactive local media engagement. These efforts were also complemented by the activities of the Islamic Advisory Group (IAG) in the Southern and Eastern regions.

In order to continue strengthening engagement with communities at all levels, partnerships with local media channels at the national and regional levels were increased in line with regional communication plans, while social media remained a critical communication and advocacy tool. The polio programme also developed a website (https://poliofreeafghanistan.af/) to provide information and updates on polio eradication efforts in Afghanistan.

The programme collaborated with partners for the provision of essential maternal and child health integrated packages through different activities to ensure a consolidated approach for health service provision. Activities included producing and distributing polio-branded promotional materials (including hygiene kits, soap bars, and baby blankets) and providing services linked to education, WASH and nutrition in order to raise awareness about vaccines and build community trust. The ICN played its role by strengthening referral services outreach systems by referring mothers with children under five years of age to services for routine immunisation, malnutrition, measles, birth registration, pneumonia and diarrhoea.

Routine immunization in 2021 received a serious setback due to the ban on outreach activities in the first half of year and donors' withdrawal after the political changes of August. The lifting of the ban on outreach vaccination was secured by WHO in October. To further strengthen routine immunisation services, female mobiliser vaccinators (FMVs) were trained and deployed to conduct health education sessions and support routine immunisation at health facilities. In addition, WHO PEI field staff (Provincial Polio Officers and District Polio Officers) and ICN social mobilisers continued to provide monitoring and referrals support for immunisation and other health services during surveillance visits.

Despite security challenges, the ongoing COVID-19 pandemic and, in the first half of the year, bans on house-to-house vaccination, the polio programme ensured that polio vaccines in Afghanistan were neither delayed nor under or overstocked. Strategies were employed to ensure the vaccine wastage rate remained low.

1. Oversight, Coordination and Programme Management

1.1 Governance and leadership

Political changes in 2021 affected the level of commitment and support to the polio programme. With the country facing more serious humanitarian challenges, the focus on polio eradication has faded and the risk of losing critical achievements in eradication heightened. Following a review of the National Emergency Operations Centre (EOC) by a third party in in the first half of the year, the GPEI ceased all contracts with an objective of a leaner structure and a more responsible NEOC leadership

At the same time, PEI partners were alert to new opportunities to reach all children with polio vaccinations particularly in areas that had previously been inaccessible.

1.2 Implementation and coordination

Under the leadership of the MoPH, the National EOC has the overall responsibility for the stewardship of the national polio eradication programme. With technical help from partners, It defines the strategies, identifies the high-risk areas, develops the tools needed, evaluates the programme and tracks the performance of districts. The National EOC ensures that all strategies developed at the national level are shared with the provinces and undergo consultation before finalization.

The National EOC is supported by the Regional Emergency Operation Centres (REOCs) which manage the daily operation of the polio eradication programme, and coordinate and execute the strategies set at the national level. Currently, the REOCs are functional in Herat, Kandahar, Jalalabad and Gardez provinces, representing the Western, Southern, Eastern, and South-eastern regions respectively. In addition, provincial EOCs established in Helmand and Urozgan provides more focused PEI support in these epidemiologically important provinces.

2. National Emergency Action Plan Progress in 2021

The NEAP 2021 was developed through a bottom-up consultative approach with the regions and with partners. Preparation for developing the NEAP was initiated at the regional level through workshops conducted by the REOCs with the participation of provincial and district teams. Discussions were held on challenges faced, interventions implemented, and key lessons learned in 2020. The National EOC convened a NEAP workshop to finalise and consolidate the plans proposed by the regional teams into the draft NEAP. The Strategy Working Group (SWG) at the National EOC reviewed all the regional plans for technical and operational feasibility. After incorporating feedback from the regions and partners, the NEAP was shared with the Technical Advisory Group (TAG) for review and finalization.

The NEAP 2021 had 12 strategic objectives for achieving polio eradication in Afghanistan. Out of 12 objectives, six (50%) objectives were fully achieved and six (50%) were partially achieved (*see Table 1*).

Table 1: Status of implementation of NEAP 2021 objectives

#	**Goal/Objective in NEAP 2021**	**Status**
Objective 1	To stop ongoing WPV1 transmission in the South and East regions, with special focus to stop transmission in accessible areas in 2021	Achieved
Objective 2	To stop cVDPV2 transmission in accessible areas by end-2021	Achieved
Objective 3	To review, streamline and optimize the functioning of polio EOCs by Quarter 3, 2021	Partially achieved

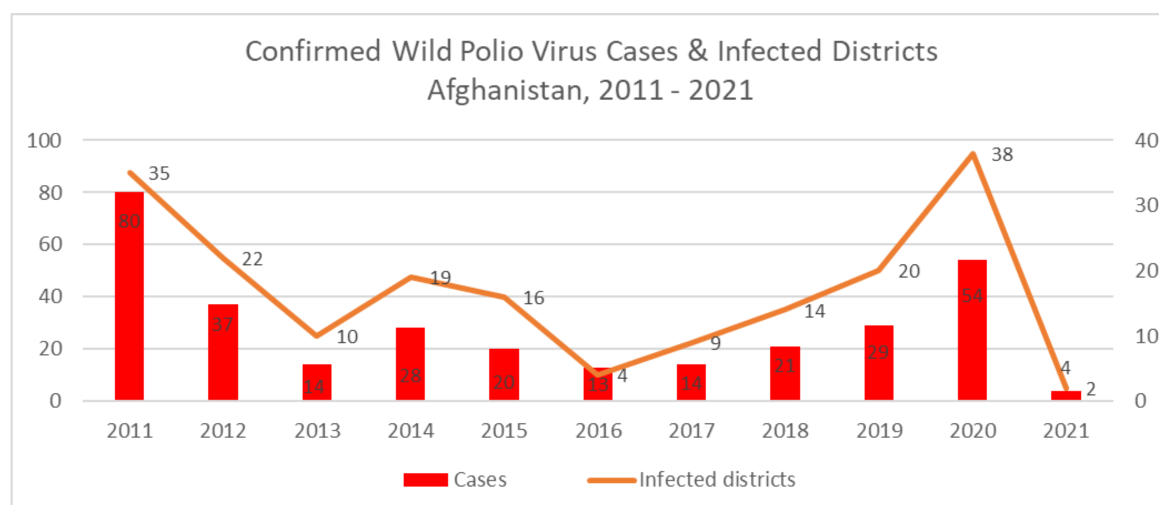
Objective 4	To rapidly and effectively respond to any of WPV1/VDPVs outbreaks in the polio free areas of Afghanistan, ensuring no secondary cases following any importation	Achieved
Objective 5	To ensure safety of frontline workers and communities through maintaining effective infection prevention and control for COVID-19 transmission during polio eradication activities	Achieved
Objective 6	To maintain a scenario-based approach to rapidly adjust to any possible/anticipated access and programmatic situations	Achieved
Objective 7	To improve community acceptance and demand for vaccination and address vaccine refusals through effective and locally appropriate communication strategies	Partially achieved
Objective 8	To integrate gender equity considerations at the programme planning and implementation level, appropriate to the Afghanistan context; and monitor adherence to these considerations at the EOC level	Partially achieved
Objective 9	To maintain effective access dialogue in coordination with all national and international partners with the aim of access for house- to- house polio campaigns across the country	Partially achieved
Objective 10	To achieve and maintain high population immunity among High-risk Mobile Populations (HRMPs)	Partially achieved
Objective 11	To enhance programme quality with focus on High-risk provinces/districts to uniformly reduce missed children to less than 3% at the sub-provincial level (especially in accessible areas), with special emphasis on effectively reaching new-borns and infants.	Partially achieved
Objective 12	To maintain sensitive and high-quality surveillance for polioviruses across the country with consideration for possible expansion of environmental surveillance, as per feasibility	Achieved

3. Epidemiology

The number of confirmed polio cases dropped from 54 cases in 38 districts in 2020 to four cases from only two districts in 2021. The first case of 2021 was reported from Andar district in Ghazni province in the South-

eastern regions while the remaining three cases were reported from Imam Sahib district in Kunduz. Figure 1 shows the trend of confirmed polio cases and infected districts from 2011 to 2021.

Figure 1: Confirmed Wild Poliovirus cases and polio infected districts, Afghanistan 2011-2021



The Southern region, the traditional wild polio reservoir, did not report any polio cases in 2021 compared to 38 cases in 2020.

Genetic lineage showed that the case reported in Ghazni was linked to cluster YB3C with linkage to an environmental virus in Quetta, Pakistan, while the three cases in Kunduz belonged to cluster YB3A linked to an environmental positive sample from Kunduz.

Afghanistan also reported 45 VDPV cases in 2021: 43 cases were cVDPV2, one case was aVDPV1 and one case was aVDPV2. The Western region reported 17 (39.5%) cVDPV cases, the Southern region reported 12 (28%) cases, the South-east reported 8 cases, (18.6%) with the remaining cases reported by the Central and Northern regions. This compares to 308 cVDPV cases reported in 2020.

Environmental surveillance reported only one positive wild poliovirus sample in 2021, from the Bolan Bridge site, Helmand province in February.

4. Surveillance

A sensitive surveillance system remains the cornerstone of polio eradication efforts, guiding all other aspects of the programme. Afghanistan's PEI is using both acute flaccid paralysis (AFP) surveillance and environmental surveillance to detect and confirm wild poliovirus cases and to monitor the circulation of WPV in the environment. Through designated field staff, the polio programme continues to conduct surveillance activities at all levels across the country.

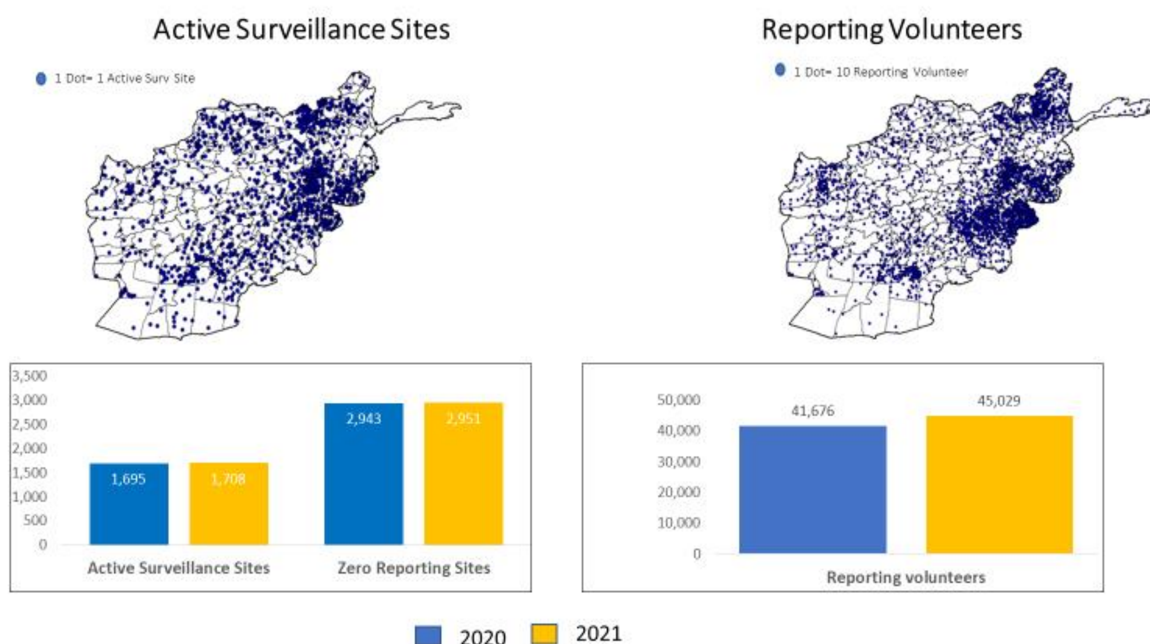
The AFP surveillance system in Afghanistan was established in 1997 and has continued to function through insecurity and conflict. The system is maintaining high sensitivity for key indicators and continues to surpass global targets. Since its inception, the surveillance system has been able to detect AFP cases including in the most remote and security-compromised areas of the country as well as report cases among nomad populations. The polio programme's AFP surveillance network was the only extensive surveillance system available in the country, particularly at the beginning of the pandemic, which helped report suspected COVID-19 cases.

Environmental surveillance in Afghanistan has been functioning since 2013 with reach across major regional centres and some polio-priority provinces.

4.1 AFP surveillance

Afghanistan's AFP network includes major national, regional and provincial level hospitals, district-level health facilities, private practitioners and hospitals, physical rehabilitation centres, pharmacies, mid-level health workers, traditional healers, shrine keepers and community volunteers. In 2021, the surveillance system network in Afghanistan consisted of 1,708 active surveillance sites, 2,951 zero reporting sites and more than 45,000 reporting volunteers (see Figure 2).

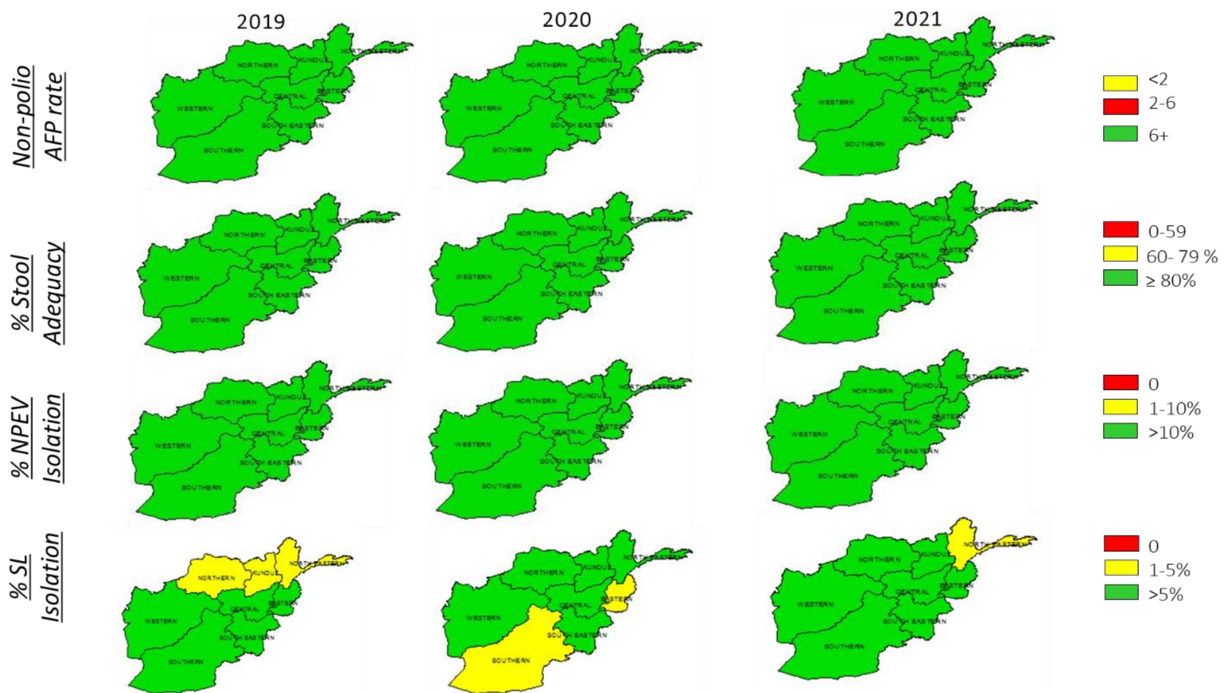
Figure 2: AFP surveillance network in Afghanistan, 2020 - 2021



The surveillance system reported 4,088 AFP cases with a non-polio rate of 18 per 100,000 population below 15 years of age in 2021. The male-to-female ratio of AFP cases in 2021 was 55:45. The system also reported 29 AFP cases among nomad populations compared to 27 cases in 2020. Male to female ratio among confirmed WPV1 cases was 75:25. No polio compatible cases were identified in 2021.

The AFP surveillance performance in 2021 shows the stool adequacy rate was 94% (93% in 2020), ranging from 89% in the Southern region to 98% in the Central region. The non-polio enterovirus isolation rate was 19% (18% in 2020), and the sabin-like virus isolation rate was 8% (6% in 2020) at national level. Figure 3 shows AFP surveillance indicators from 2019 to 2021.

Figure 3: AFP surveillance quality indicators in Afghanistan, 2019–21



4.2 Environmental surveillance

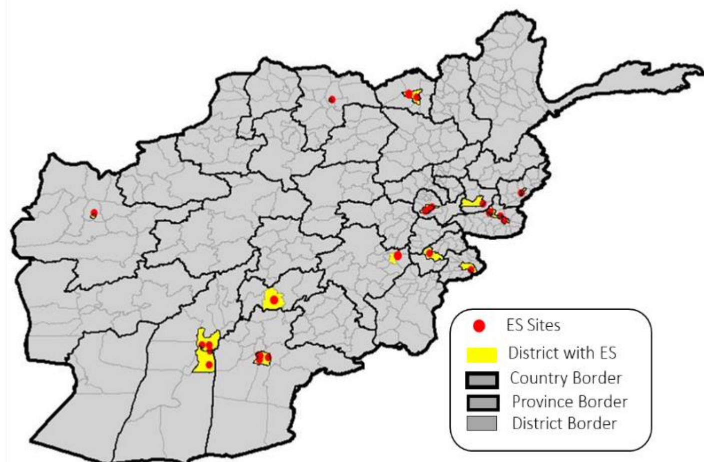
Afghanistan began environmental surveillance in 2013 to supplement AFP surveillance with the aim of detecting wild polio viruses and vaccine derived polio viruses in sewage and determining possible routes of transmission in the environment. In 2021, the number of samples collecting sites increased from 23 in 2020 to 26 sites.

During 2021, 478 environmental samples were collected from 26 sites and sent to the Regional Reference Laboratory in Islamabad for testing. Only one sample was positive for WPV1 compared to 35 samples in 2020. Figure 4 shows a summary of environmental laboratory results and locations of environmental surveillance sites.

Figure 4: Environmental surveillance lab results and site locations, 2021

Province	District/Sites	Samples collected 2021	Sample Collection timetable																							
			Jan-1	Jan-2	Feb-1	Feb-2	Mar-1	Mar-2	Apr-1	Apr-2	May-1	May-2	Jun-1	Jun-2	Jul-1	Jul-2	Aug-1	Aug-2	Sep-1	Sep-2	Oct-1	Oct-2	Nov-1	Nov-2	Dec-1	Dec-2
			21		21		21		21		21		21		21		21		21		21		21		21	
Kandahar	1. KDH-Khandak	21																								
	2. KDH-Rarobat	21																								
	3. KDH-Loya Wiala	21																								
	4. KDH- Karwan Kocha	21																								
Helmand	1. LSK - Bolan Bridge	21																								
	2. LSK - Radio Mahalie	21																								
	3. Nahr-e-Saraj Zirat Bagh	21																								
	4. Nahr-e-Saraj Baran Sarai	21																								
Urozgan	1. Trinkot - Sahibzadakhel	6																								
Nangarhar	1. J-abad - Radar Br	24																								
	2. J-abad - Sangi Qala	24																								
	3. J-abad - Ulfat Mena	24																								
	4. Behsud - Hada Farm	24																								
	5. Batikot - Manz Kalay	24																								
Kunar	1. Asadabad - Mandacool	24																								
Laghman	1. Mehtarlam - Gumeen	24																								
Kabul	1. Kabul - Qial-e-Zaman K	15																								
	2. Kabul - Kart-e-Naw	15																								
	3. Kabul - Khwaja Bughra	15																								
Khost	4. Matun - Hindu Kot	18																								
Paktia	5. Gardez - Dawlatzai	18																								
Ghanzni	1. Tarkary Market	11																								
Herat	1. Herat - Payan Aab	18																								
Balkh	2. Mazar - Dawlatabad	12																								
Kunduz	3. Kunduz - Noormahal	13																								
	4. Kunduz - Asia Shirkat	1																								
Afghanistan			**478**																							
WPV +ve			**1 (1%)**																							

Province	District	Site. Name	Start Date	Date Recent WPV1 Isolate
Kandahar	Kandahar	Khandak	Sep-13	9-Jul-20
		Rarobat	Sep-13	27-Sep-20
		Loya Wala	Oct-15	25-Feb-20
		Karwan Kocha	Dec-16	6-Dec-20
Hilmand	Lashkargah	**Bolan Bridge**	**Feb-14**	**23-Feb-21**
		Radio Mahallie	Feb-14	6-Sep-20
	Nahr-e-Siraj	Zarat Bagh	Sep-14	24-Aug-20
		Baran Sarai	May-15	27-Apr-20
Uruzgan	Tirinkot	**Sahibzada Khel**	**Oct-21**	**None**
Nangarhar	Jalalabad	Radar Bridge	Mar-14	11-Dec-19
		Sangi Qala	Mar-14	8-Jan-20
		Ulfat Mena	Jan-17	6-Oct-20
	Behsud	Hada Farm	Aug-15	25-Oct-18
	Batikot	Manz Kalay	Jul-19	25-Jul-20
Kunar	Asadabad	Mandacool	Dec-14	25-Sep-18
Laghman	Mehterlam	Gumeen	Jul-20	None
Kabul	Kabul	Qila-e-Zaman Khan	Jan-14	26-Jun-18
		Karta-e-Naw	Jan-14	26-Jun-18
		Khwaja Bughra	Jan-14	26-Sep-20
Paktia	Gardez	Dawlatzai	Feb-20	None
Khost	Matun	Hindu Kot	Jan-17	25-Apr-20
Ghazni	Ghazni	Tarkary Market	Jul-21	None
Herat	Herat	Payen Aab	Jun-17	25-Jul-20
Balkh	Mazar-e-Sharif	Dawlatabad	Jul-17	None
Kunduz	Kunduz	Noormahal	Aug-17	27-Sep-20
	Kunduz	Asia Shirkat (Nahia 3)	Dec-21	None



4.3 Review of surveillance

Afghanistan's surveillance system - AFP and environmental – continues to meet international standards. To ensure this, the programme monitors the performance of the system on a regular basis and via weekly surveillance update meetings. The programme also undertakes external and internal, field/desk reviews of the system, based on need. In November and December 2021, an international desk review of the surveillance system was conducted by assessing five years of country surveillance data.

The key findings of the review team were that the poliovirus surveillance system in Afghanistan continues to meet and exceed main surveillance indicators at national and sub-national level. The country programme has a representative network of reporting sites and surveillance focal points supported by a large and well-established network of community reporting volunteers. The detection of wild poliovirus isolates in Kunduz province, after a long quiet period, underscores the need to broadly maintain and monitor surveillance functions across Afghanistan and act in areas of chronic or emerging concern. Environmental surveillance provides critical information on poliovirus detection and monitors levels of transmission. There is evidence of surveillance gaps in the Southern region, notably Helmand, Kandahar and Uruzgan provinces. The reliance on large sites for AFP reporting necessitates travel of cases to regional and provincial level hospitals in Kandahar and Helmand. There are instances where cases are not being identified at the first contact by the system and are late notified. This, together with the historical high-risk of transmission, access challenges and low routine immunization, necessitates special focus.

Some impact of COVID-19 on AFP case detection during first half of 2021 was seen. However, AFP case detection rebounded quickly and, despite the political turmoil and transition in 2021, most indicators related to the performance and timeliness of AFP surveillance in all locations have not deteriorated. From desk analysis, the review team concluded that the reduction in poliovirus detection and the current low level of transmission seems to be an accurate reflection of the situation despite the broadening immunization gaps as demonstrated in reported dose histories of non-polio AFP cases.

5. Supplementary Immunisation Activities

The NEAP 2021 planned four NIDs and two SNIDs for the year. The TAG approved the proposed Supplementary Immunisation Activities (SIA) calendar. During the first half of 2021, three rounds of planned SIAs were conducted, while the September round of NIDs could not be implemented in the immediate aftermath of the events of August and instead took place in November. The SNIDs planned for December was upgraded and implemented as a full NIDs.

The COVID-19 pandemic, inaccessibility to some areas of the country in the first half of 2021 and bans on house-to-house vaccination in some areas were major challenges in achieving a higher number of vaccinated children during SIAs. Bans on house-to-house vaccinations imposed in May 2018 in some areas

could not be fully removed despite multiple attempts through local and high-level negotiations both before and after the political events of August.

The house-to-house modality was implemented in government-controlled areas and a small number of areas controlled by the Taliban in the first half of 2021. After August, the new de facto authorities did not fully support the house-to-house modality. The resumption of full house-to-house campaigns did not occur, and mosque-to-mosque modality was implemented in a large number of areas. Table 2 summarizes the campaign modality during 2021.

Table 2: SIAs and their implementation modality in 2021

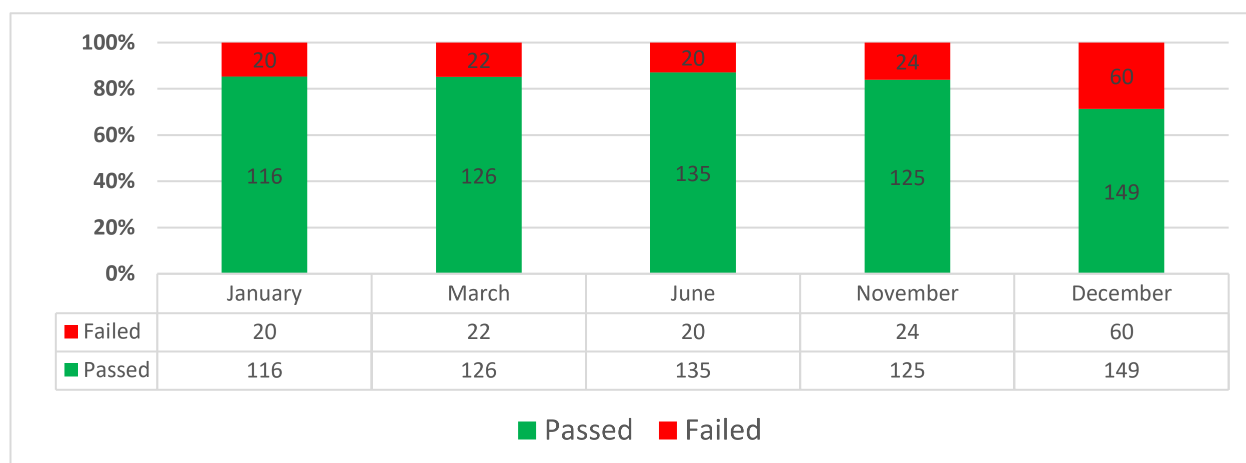
Round	Children vaccinated	Total Clusters	Modality (%)						
			H2H	M2M	S2S	HF2HF	Mix	Cold	Inaccessible
January 2021	6,631,946	6,380	53	0	2	10	1	0	35
March 2021	6,649,242	6,402	54	0	2	12	1	6	25
June 2021	6,413,673	6,473	58	0	2	14	1	0	26
November 2021	8,572,717	5,175	64	36	0	0	0	0	0
December 2021	8,686,351	5,017	74	14	0	0	8	4	0

5.1 SIA quality

Improving the quality of SIAs is a key factor in decreasing the number of missed children and addressing HRMPs and refusal challenges particularly in high-risk areas. The NEAP 2021 paid considerable attention to the quality of SIAs and the programme identified major challenges including inaccessibility in the first half of 2021, the inability to implement nationwide house-to-house vaccination campaigns, sub-optimal campaign quality, refusals, high population mobility, chronically low routine immunisation coverage in high-risk provinces and the COVID-19 pandemic.

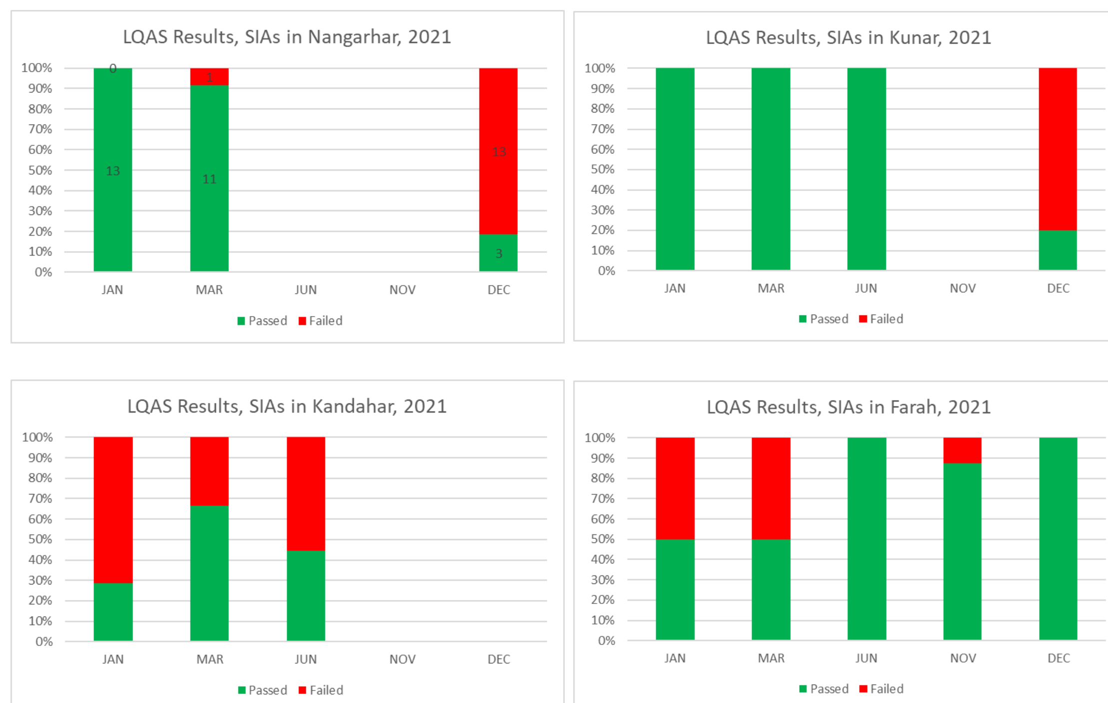
The programme continued to conduct lot quality assurance sampling (LQAS) in campaign areas where house-to-house modality was implemented. National LQAS results showed that the proportion of failed lots increased from 15% in the January SIAs to 29% in December 2021, indicating campaigns quality issues (see Figure 5).

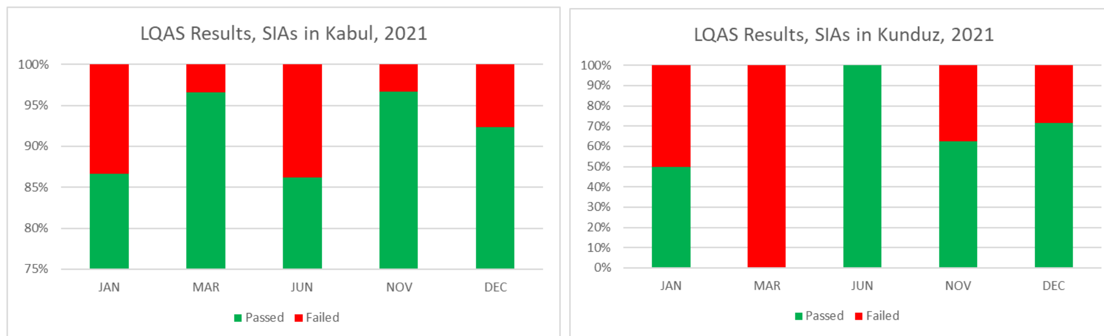
Figure 5: LQAS results of SIAs, Jan–Nov 2021



In the polio priority provinces of Nangarhar and Kunar, the proportion of failed lots increased from 0% in January to 80% in the December round in both provinces as result of implementing mosque-to-mosque modality. In Kandahar, SIAs implemented during first half of 2021 were showing steady improvement in quality since the proportion of passed lots increased from approximately 30% to close to 45%, but no LQAS were conducted in the second half of 2021 in Kandahar. The proportion of passed lots in Farah province increased from 50% in the January round to 100% in December. The quality of SIAs in Kabul fluctuated during rounds with 87% of lots passed in January to 93% passed in the December round (*see Figure 6*).

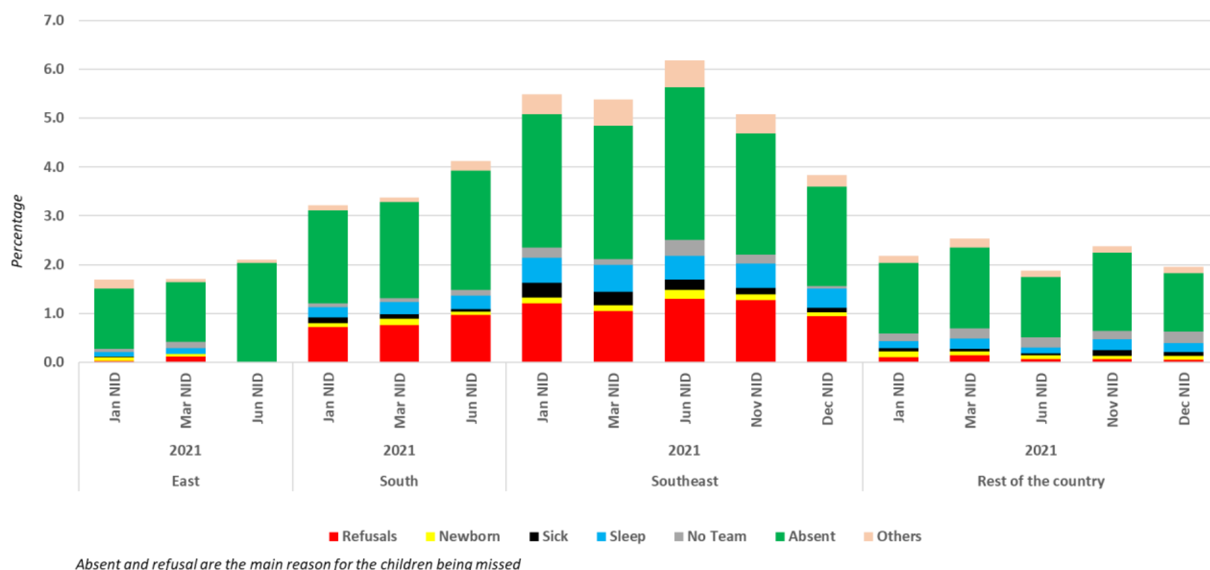
Figure 6: LQAs results in focus provinces during 2021 SIAs





Where possible, post campaign monitoring was conducted after each round of SIAs. The results in 2021 showed that the proportion of missed children nationally ranged from between 3.1% in June and 2.2% in the December round. Absent children were the main reason for missed children in 2021 followed by refusals. The South-eastern region reported the highest proportion of missed children compared to other regions, but this was a declining trend from the January round to the December round. The highest proportion of missed children was reported in the South-east region. Figure 7 demonstrates the reasons for missed children in 2021.

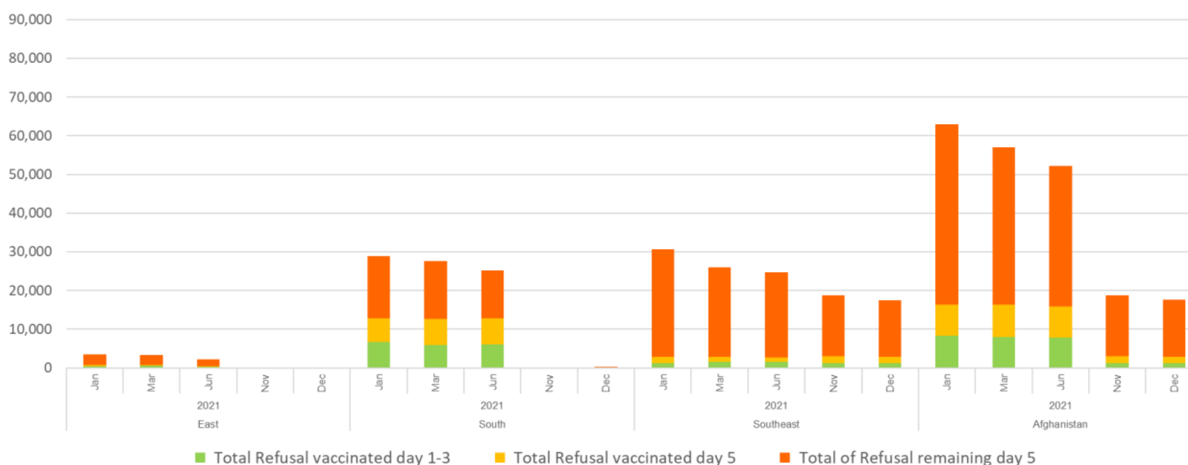
Figure 7: Reasons for missed children accessible via H2H, via post-campaign assessment in SIAs, 2021



The programme continued to identify clusters of refusals and of chronically missed children and ensured that communications and operational plans were aligned at cluster level. The main reasons for refusals were religious reasons (vaccine is *haram*), lack of trust in vaccination, western conspiracy and lack of other health services.

Clustering of refusals in Kandahar and surrounding districts in the Southern region as well as in the South-eastern region is a matter of concern for the PEI in Afghanistan. Kandahar in the South and Paktika in the South-east region have reported the highest number of refusals. However, the number of refusals in these regions and in the whole country is showing a reduced trend as shown in Figure 8.

Figure 8. Reported, covered, remaining refusals by region, by campaign – 2021



Source: *Reported Administrative data*

6. Complementary Vaccination Activities

Complementary vaccination activities (CVAs) include vaccination of populations moving between districts, provinces and regions; vaccination of populations at crossing border points; and vaccination of straddling populations along the Afghanistan/Pakistan border, and HRMPs.

The objective of CVAs is to bridge the gap in immunity and seize the chance to vaccinate children on the move, thus preventing WPV transmission from infected areas.

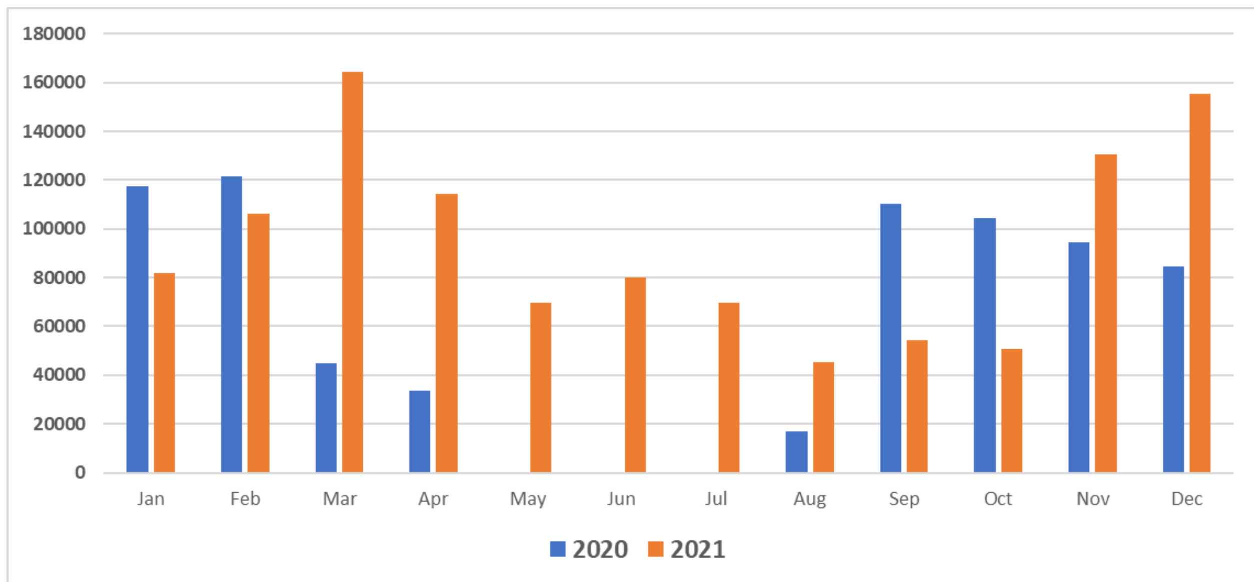
CVAs were implemented by special vaccination teams operating at border crossing points and by permanent transit teams (PTTs) and vaccinated 9,076,182 children and adults.

6.1 Cross-border teams

Cross border population movement between Afghanistan and Pakistan increased in 2021 as did the number of vaccinations. Cross border vaccination at the Torkham border point with Pakistan has been mandatory for all ages since 2019. The process remains voluntary at the Chaman border point with Pakistan.

In 2021, cross border vaccination teams vaccinated 1,015,884 travellers compared to 728,216 travellers in 2020 (*see Figure 9*).

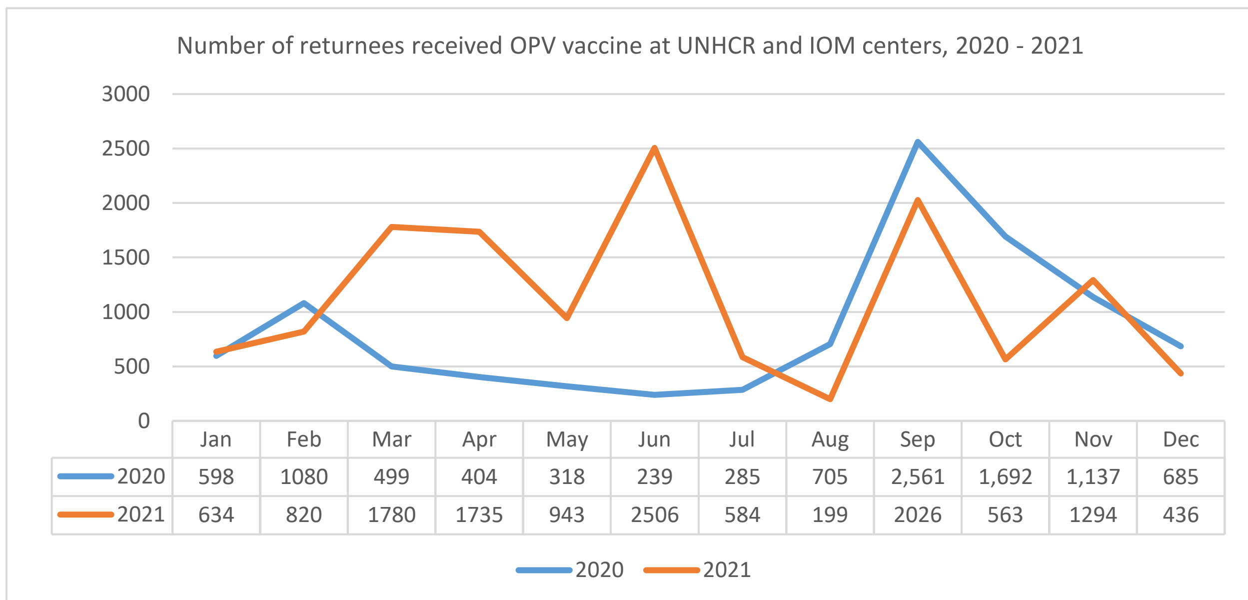
Figure 9: Vaccination at border points with Pakistan, 2020 -2021



6.2 Vaccination of returnees at UNHCR/IOM sites

Pakistan and Iran continue to host large numbers of Afghan refugees. No substantial increase in the number of vaccinations was observed in 2021. 13,520 returnees received OPV compared to 10,266 returnees in 2020 (*see Figure 10*).

Figure 10: Vaccination of returnee children, 2020 - 2021



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	598	1080	499	404	318	239	285	705	2,561	1,692	1,137	685
2021	634	820	1780	1735	943	2506	584	199	2026	563	1294	436

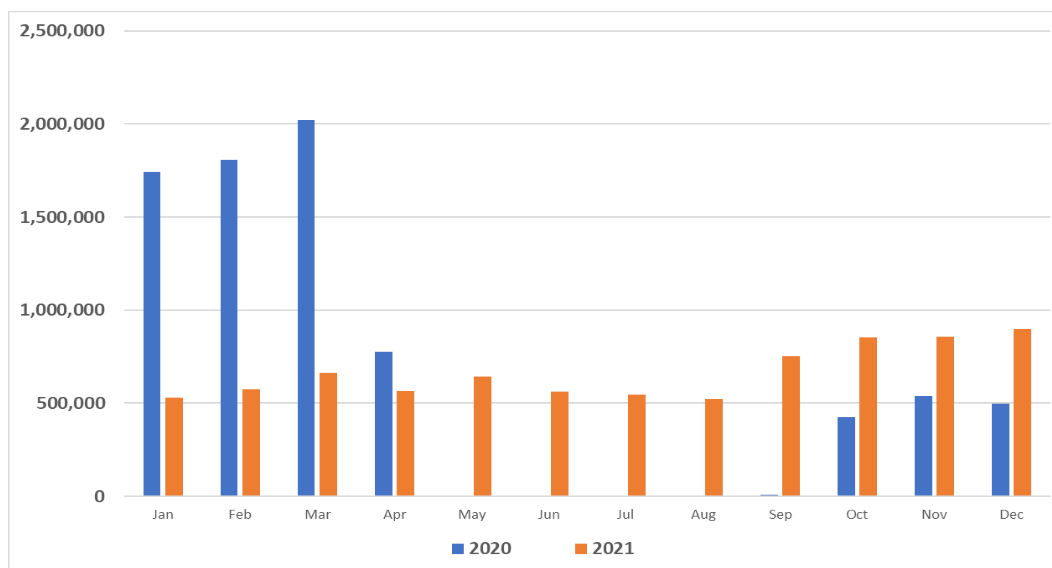
6.3 Permanent transit teams

PTTs were established at strategic points where large numbers of people pass, both adult and children. These included unofficial border points, bus stops, central marketplaces, busy hospitals and health facilities,

and the entry and exit points of inaccessible areas. Due to political changes, in 2021 approximately 698,000 displaced people settled in the East, North, West and Central regions. PTTs were instrumental in vaccinating many displaced children while they were on move.

PTTs delivered 7,970,730 doses of OPV to eligible children in 2021 compared to 7,826,439 in 2020. Figure 11 shows the number of vaccinations delivered monthly by PTTs in 2020 and 2021.

Figure 11: PTT coverage, 2020 - 2021



6.4 High-risk mobile populations

Given the large population movement within the country and between the Afghanistan and Pakistan border, HRMPs continued to be a key focus of the programme. These include straddling populations, returnee refugees, displaced populations, nomads (seasonal migrations) and long-distance travellers. Based on need, the programme deployed transit teams on key nomad routes, conducted mapping of displaced populations, ensured their inclusion in micro plans, and strengthened inter sectoral collaboration with Afghan Red Crescent Society, IOM, UNHCR and other relevant agencies. HRMP focal points were also deployed in the West, South-east and Eastern regions.

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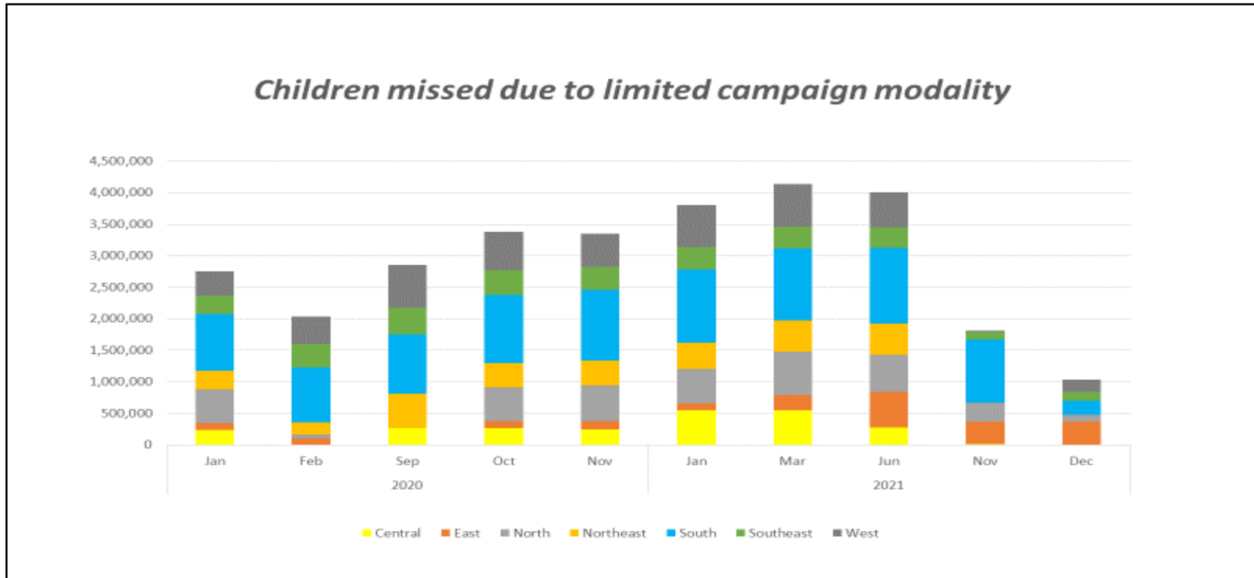
7. Inability to conduct house-to-house SIAs.

Due to bans in some areas access in the first half of 2021, access was a major hurdle in reaching children by any modality including house-to-house, mosque-to-mosque or site-to-site. After August, it was anticipated that access would improve and SIAs would be conducted nationwide using house-to-house. However, this did not happen and only mosque-to-mosque was allowed in some areas. NIDs in the first half of 2021 missed 3.5 million children and during November and December NIDs 4.5 million children were missed. Three million of these children were in the Southern and Eastern regions, the two historically endemic regions of WPV.

Figure 12 shows the number of children missed due to campaign modality.

Figure 12: Number of children missed due to campaign modality, 2021



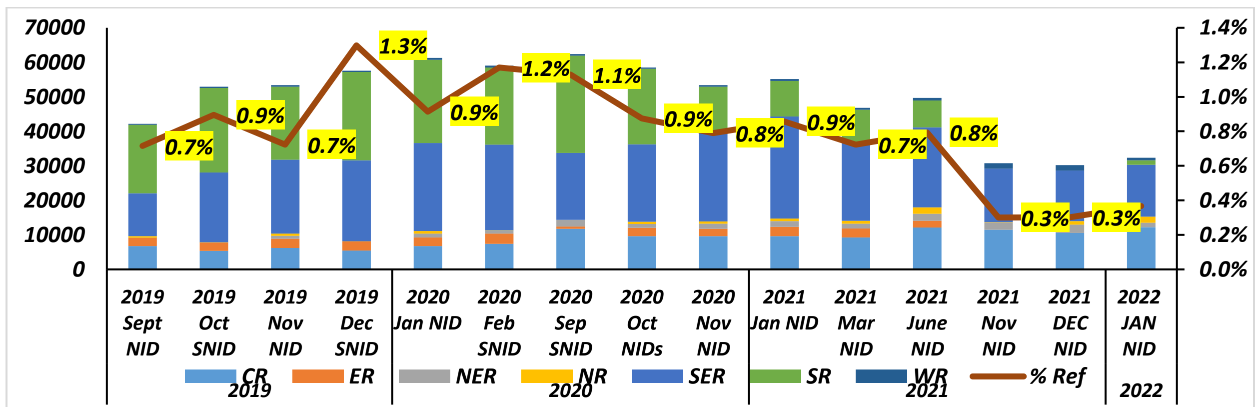
8. Communication, Community Engagement and Mobilization

8.1 Community engagement to increase vaccine acceptance and reduce refusal

Overall, vaccine acceptance is high across the country with the national refusal rate less than one percent (<1%). However, there are areas in the districts of Paktika and Khost provinces in the South-east region where refusal rates are approximately 3%. The change of campaign modality from house-to-house to mosque-to-mosque after November limited the programme's ability to track and follow-up on vaccine refusals and conduct catch up activities.

Figure 13 below shows the trend of vaccine refusals from 2019-2021, with the proportion of remaining refusals <1% during the December 2021 campaign. It is important to note that campaign refusal numbers could not be established in areas with mosque-to-mosque modality.

Figure 13: ICN catch-up data on covering refusals in priority districts, 2019-2021



Local surveys from the field indicate the reasons for refusals include religious objections, suspicion of vaccine content, fear of potential side effects, and demand for additional services, among other reasons.

The programme continued interventions to address refusals through community engagement, communications and advocacy interventions, and by involving the Islamic Advisory Group (IAG) and other influencer groups such as media and women.

Communication engagement initiatives included:

- Mobilising communities to raise awareness of polio, increase vaccine uptake, address refusals, and track missed children. Following the shift in campaign modality from house-to-house to mosque-to-mosque in some districts in November, campaign-based social mobilisers were recruited and trained to encourage the community to bring children to mosques.
- Prioritising female recruitment, in line with TAG recommendations. As of January 2021, of the 2,631 ICN workers, 947 (36%) were female. For Kandahar city, 49% were female. 480 Female Mobiliser Vaccinators were trained and deployed at health facilities in the South, South-east, East, and West regions in polio high-risk provinces to conduct health education sessions and support routine immunisation as well as promoting polio messages.
- Engaging around 8,000 religious and community influencers (including village elders, nomadic and refugee leaders) in polio high-risk areas to ensure community ownership and more effective work with refusal families. Around 10,369 local authority members—*Wakili Guzar, maliks* and village elders—were engaged in different capacities and helped endorse vaccines as well as strengthen local government involvement in mobilising communities for vaccine uptake.
- Engaging elderly women by conducting consultation sessions and discussions in local communities as well as public health promotion sessions to increase vaccine demand. Grandmothers play a role in influencing decision-making on health issues including immunisation and polio.
- Packaging and disseminating Maternal, Newborn and Child Health messages, and polio and hygiene messages to vaccinators and mobilisers to facilitate dialogue with caregivers and increase the efficiency of information sessions on polio and integrated messages. COVID-19 prevention materials were also developed and shared with communities by social mobilisers to promote positive hygiene practices.

- Conducting community-led campaign inaugurations at regional and provincial levels with the participation of local authorities and local media to raise awareness about campaigns and maintain community ownership.
- Conducting a gender analysis to better understand gender related factors affecting polio vaccine uptake and to develop gender transformative interventions to increase women's participation in the programme and increase vaccine uptake.

While access to communities greatly improved after August, challenges in campaign modality resulting in cultural and logistical barriers and increased restrictions on the movement of women have reduced the coverage of caregivers.

8.2 Communications and advocacy interventions

Development and implementation of evidence-driven communication strategies played a key role in addressing various polio communication needs at national, regional and community level including media engagement, media monitoring, social media reach and content production.

Media engagement: in order to increase polio awareness, the programme strengthened media partnerships through regular meetings with media owners aimed at addressing challenges and identifying solutions. Prior to August, 170 radio stations and 67 television stations were engaged through media buy contracts to broadcast polio materials including Public Service Announcements, spots and videos. After August, the number of media partners reduced to 144 radio and 45 television stations.

Media monitoring was carried out across in the country during every campaign to ensure polio-related media products were aired at the right time for effective reach to target audiences.

A total of 252 media roundtable discussions with key influencers on polio vaccinations and related issues were conducted across the country. These media efforts contributed significantly towards vaccine uptake and in the reduction of refusals especially in Kandahar city and the Eastern region.

a. **Social media engagement:** intensification of online debate and engagement on popular digital platforms (Facebook, Twitter, Instagram, YouTube) was crucial in driving the digital polio narrative in the country. The polio messages disseminated through social media platforms increased awareness notably the importance of vaccinating children under the age of five. At the same time polio rumours and misinformation were tracked and countered. By the end of November, social media engagement and reach hit a peak of 22 million and surveys conducted through U-report and Vimeo showed 49% of people learned about polio campaigns via social media.
b. **Capacity building:** training/orientations for 286 journalists on basic principles of journalism, polio vaccine knowledge, how to develop health related stories and verify information before broadcasting or printing were conducted in polio high-risk regions.
c. **Polio content:** media products were developed to continuously educate, create awareness, and address issues contributing to missed children and refusals including advocacy videos, public radio announcements photographs, infographics and IEC materials. The materials produced were disseminated through media channels/social media to amplify key messages around the risk of polio among unvaccinated children.

9. PolioPlus Activities

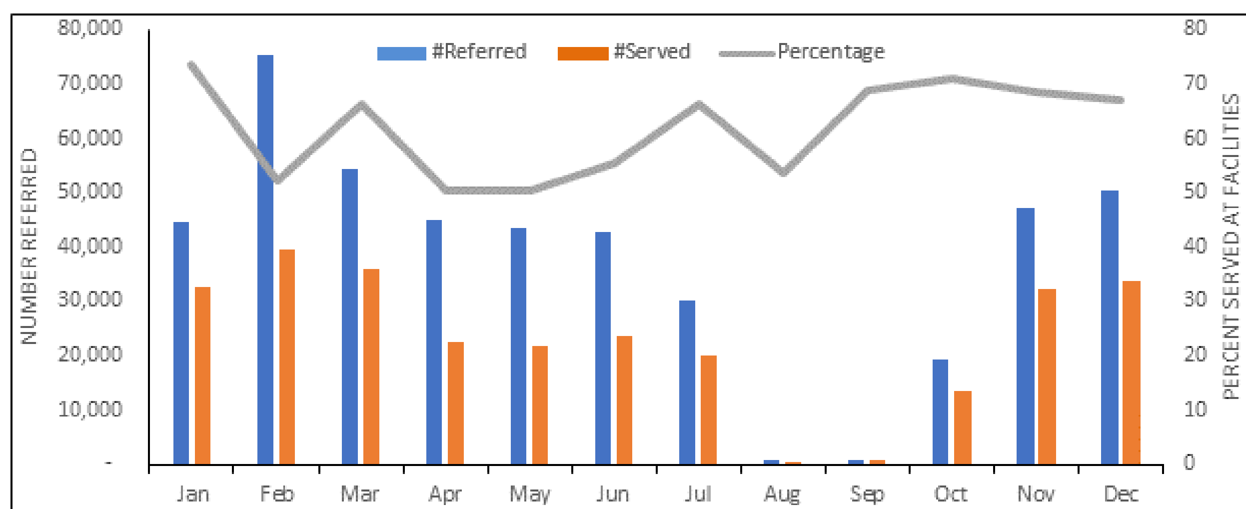
The polio programme collaborated with partners to provide essential maternal and child health integrated packages through different activities to ensure a consolidated approach for service provision. Polio branded baby soaps were distributed at health facilities during routine immunisation sessions to improve perception around polio vaccines and build trust among mothers for vaccinations. This helped in reducing refusals and increasing uptake of vaccinations.

- Baby blankets were given to mothers who gave birth at health facilities to promote safe delivery and polio birth dose.

- 21 mobile health teams or health camps were deployed to cater to underserved communities in the Southern region.
- ICN strengthened referral service outreach systems by referring mothers with children under five years of age to services for RI, malnutrition, measles, birth registration, pneumonia and diarrhoea.

During 2021, polio communication frontline workers referred 454,348 caregivers and children for services including vaccination and essential health services at health facilities with 277,353 (61%) of these referrals receiving care (*see Figure 14*). Of these, 428,539 referrals (94%) were in the southern region.

Figure 14: Monthly Referrals by Polio Communication network workers in 2021



The programme collaborated with education, nutrition, WASH, and broader health sectors to increase access to basic social services in polio high-risk areas in the Southern region including:

Education:

- In Kandahar, Helmand, and Uruzgan provinces, 680 community-based education schools were established providing basic education to 17,904 children (12,557 boys and 5,347 girls). These community-based schools are also community education stations on polio and health promotion.
- Trained and deployed 482 teachers (11 female and 471 males)

WASH:

- Supported the establishment of 22 WASH facilities in polio high-risk communities in Kandahar and Uruzgan improving access to safe water and sanitation to community members

- Established solar powered WASH services (handwashing, water system for maternity unit, toilet) in nine health facilities in Kandahar and Helmand.
- An estimated 409,700 community members and health facility attendees benefited directly and indirectly from these improved WASH facilities.

Nutrition

- All 21 mobile health and nutrition teams provided basic nutrition services (screening and referral)
- 215 nutrition counsellors and 199 nutrition assistants were trained on the provision of nutrition services in emergencies.
- 95,124 children under 5 years were screened and 23,038 referred and treated for severe and moderate acute malnutrition
- Adequate supplies of ready-to-use supplementary foods, therapeutic foods and equipment provided to all nutrition service points.

Health

- 2,145 pregnant mothers received antenatal care services in hard-to-reach and polio high-risk communities through services provided by mobile health teams.
- Community education and health promotion education provided to six communities in polio high-risk areas.
- District and provincial level polio workers conducted monitoring and supportive supervision to health facilities to support routine immunization and facilitate outreach services.

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10. Islamic Advisory Group for polio eradication

The IAG for polio eradication started its activities in Afghanistan in 2016 through raising awareness among Islamic scholars in support of eradicating polio. The objectives of the IAG are to address misconceptions on polio vaccination which result in depriving children of polio vaccinations, and to promote a healthy lifestyle and practices in the light of Islamic teachings including routine vaccinations, mother and child health, and hygiene.

Despite limitations, in 2021 the IAG continued its efforts to support polio eradication and the response to COVID-19 at national and provincial level in Kunar, Nangarhar and Kandahar in coordination with the PEI, the MoPH, partners and the community.

Throughout 2021, the IAG conducted more than 408 sessions with religious scholars, Madrassas, schools, and community elders to a total of 27,760 attendees. The IAG focal points participated in 142 training sessions for 5,314 individuals including WHO and UNICEF field staff and frontline workers. In August, the IAG also took part in online training of more than 40 graduates of Al-Azhar University.

IAG members and focal points participated in 21 live and recorded media sessions at national and provincial level. To address the concern of Islamic scholars on polio vaccinations, the existing Fatwa book was updated and 14,050 copies printed and distributed to the regions.

In areas where it has a presence, the IAG actively supported the MoPH in the monitoring of COVID-19 vaccination drives during October and November 2021, and group members were among the first to receive COVID-19 vaccinations.

11. Vaccine and Cold Chain Management

11.1 Vaccine procurement and management

The PEI mobilised resources and procured vaccines necessary for all campaigns and complementary vaccination activities as per the NEAP 2021. UNICEF did not procure bivalent OPV because there were already 30 million doses carried over from 2020 stock. The programme also kept 1.1 million doses of monovalent OPV during the year. Because of the twin outbreak of WPV and VDPV-2, 45 million doses of trivalent OPV was delivered in country for four campaigns conducted in January, March, November, and December. There was no stock out of OPV during the year and all vaccine arrival reports were completed within three days of arrival.

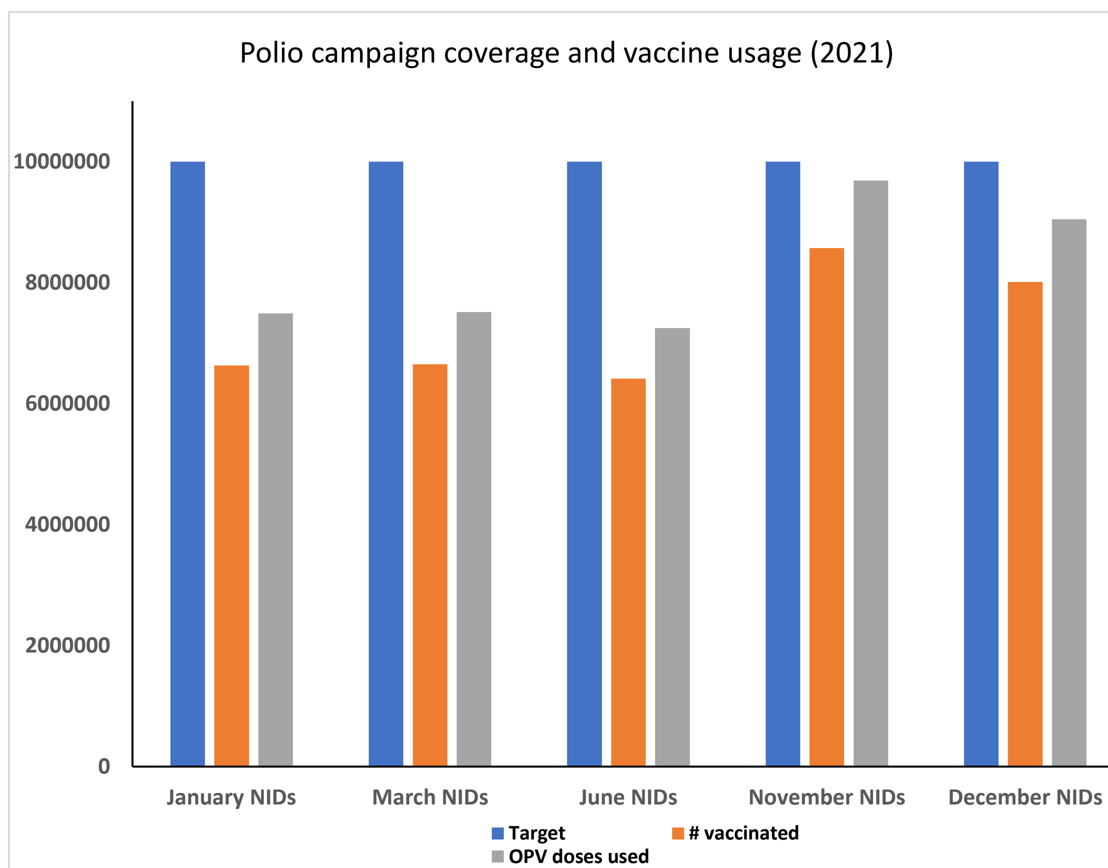
The concurrent outbreaks of WPV1 and cVDPV2 since early 2020 through to the middle of 2021 warranted the use of tOPV vaccine for four out of five campaigns conducted in 2021. The last case of cVDPV-2 was reported in July 2021.

The programme trained frontline workers on effective management and accountability of type-2 containing vaccines and, as a result, accountability and handling of vaccines during campaigns and SIAs improved significantly. Vaccine utilization reports from provinces indicate average wastage rates of 13.2%, less than the <15% recommended. Empty and unusable vaccine vials returned from the field were counted, validated and incinerated, and reports were shared.

The distribution of vaccine and non-vaccine supplies to respective zones and provinces, districts, clusters, and service delivery points was completed as per the national schedule, maintaining optimum temperature. A strategy to decrease vaccine wastage was followed which involved OPV distribution according to a micro plan and return of remaining OPV vials after each SIA to the Regional EPI Management Team or Provincial EPI Management Team.

Despite security challenges and bans in the first half of the year, vaccines were neither delayed nor understocked but there was overstocking because of backlog of bOPV from 2020.

Figure 15: OPVs used vs. children vaccinated during SIAs in 2021



11.2 Cold chain management

The programme strengthened the cold chain system through quarterly inventories at all levels and the provision of cold chain equipment as per gap analysis. In 2021, the National Expanded Programme on Immunisation procured 300 vaccine carriers and 20,000 icepacks for use during SIAs and routine vaccinations.

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12. Routine EPI Strengthening

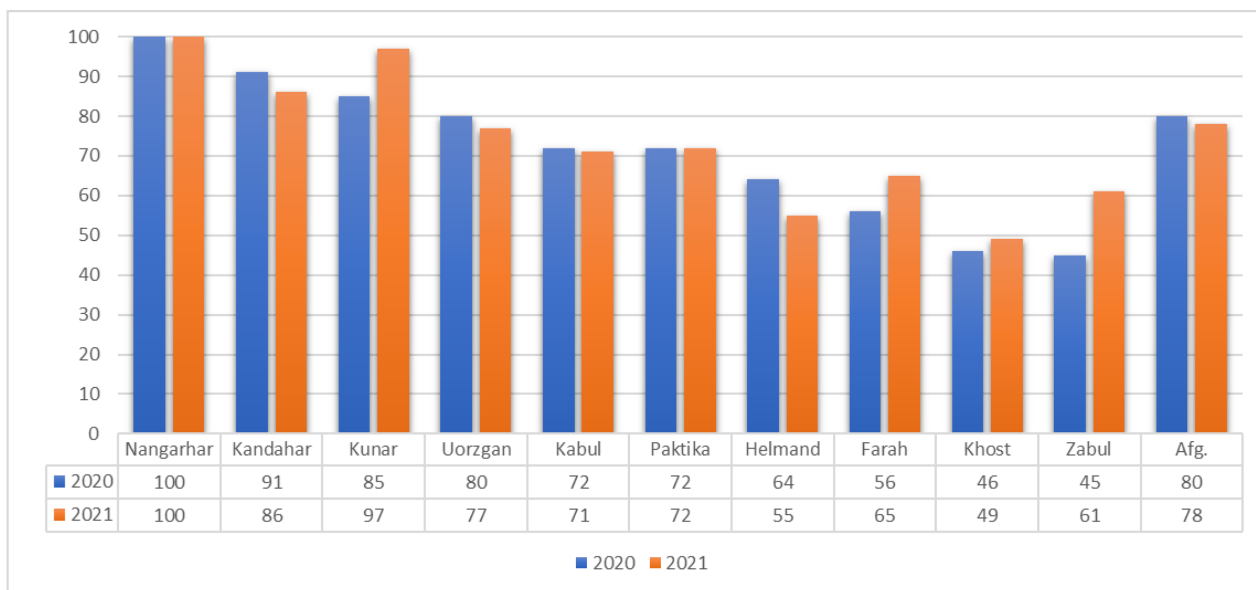
12.1 EPI activities and immunisation coverage

Routine EPI activities in Afghanistan were conducted through BPHS partners in most parts of the country, and through the government via strengthening mechanisms in a few provinces. Due to political changes in the country in August, many donors including the World Bank withdrew their financial support to basic health services leaving the health care system, including routine vaccinations, on the verge of collapse. Outreach services ceased to function across the country with only a few fixed centres remained open using available resources. In response to this crisis, WHO and UNICEF stepped forward to bridge the gap with UNICEF assuming responsibility for support to the Basic Packages of Health Services (BPHS) and WHO supporting

the Essential Package of Health Services (EPHS) component. By the fourth quarter of 2021, health services, including routine immunization, had resumed.

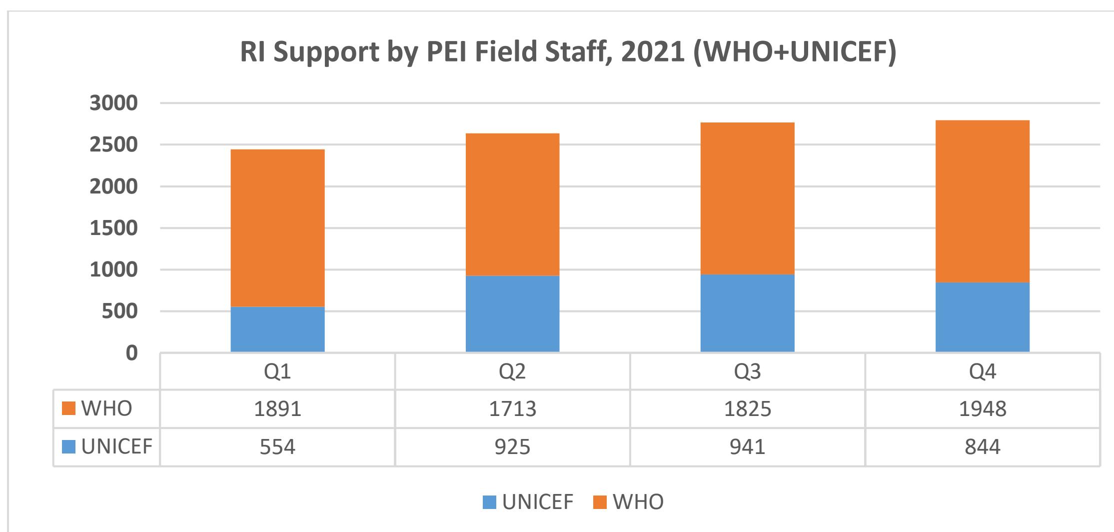
2,796 public and private health facilities (including mobile teams) provided EPI services in Afghanistan during 2021. The total under one target for RI was 1,901,247 children, BCG coverage was 93% (95% in 2020) and measles 71% (72% in 2020). OPV3 coverage among the target children was 78% (80% in 2020). Figure 16 shows OPV3 reported routine immunization coverage in polio priority provinces in 2020 - 2021.

Figure 16: OPV-3 RI coverage in polio-priority provinces, 2020-2021



As part of support to EPI, PEI field staff supported the monitoring of RI activities at both fixed sites and outreach and mobile stations. In 2021, WHO Provincial Polio Officers and District Polio Officers and ICN field staff supported by UNICEF performed 10,641 monitoring and supportive visits to RI activities (compared to 10,936 in 2020).

Figure 17: RI support from WHO and UNICEF field staff, 2021



12.2 Challenges in 2021

PEI in Afghanistan faced multiple strategic and programmatic challenges in 2021. Political instability, increased military activities and declining security impacted all public health services at every level including routine EPI and the polio programme. One security incident in Jalalabad in March resulted in the deaths of three polio volunteers and, in June, six volunteers were shot dead by unidentified gunmen in the same province. One PTT worker was also killed at the Spinboldak border point in Kandahar province. Four volunteers were seriously injured in June in Nangarhar and one female polio volunteer received a bullet injury in Balkh province in northern Afghanistan in December 2021.

Access limitations in the first half of the year and implementation of mosque-to-mosque modality in some areas in the second half of 2021 after the Taliban authorities assumed control were challenging. Sudden withdrawal of financial support to the health system by donors after August, the collapse of the banking system and devaluation of local currency, and overall economic crisis affected all aspects of life in Afghanistan.

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13. Way Forward

13.1 Key strategies

The Afghanistan PEI will use the NEAP 2022 as the main guiding document for polio eradication in Afghanistan with the goal of stopping wild polio virus transmission and all cVDPV2 outbreaks by the end of 2022. The programme will effectively respond to and stop any WPV1 outbreaks in non-reservoir areas and prevent its spread to polio-free areas.

The implementation of the NEAP 2022 will be monitored on a quarterly basis by the National EOC and REOCs. The programme will also conduct functional reviews of the National EOC and REOCs.

To mitigate the risk of cVDPV2, with support from partners, the programme will introduce nOPV2 in SIAs. The PEI will continue to focus on improving the quality of SIAs and increasing its reach to children through implementation of SIAs using the house-to-house modality. The programme will continue to advocate for the use of house-to-house modality with the defacto authorities to ensure the polio eradication goal is met. The PEI will intensify communications and social mobilisation approaches to improve vaccine acceptance and increase community demand for vaccination including interventions through IAG. A focus on HRMPs will also be maintained, particularly in the Eastern and Southern regions. Local religious influencers, community leaders, civil societies and media will be engaged to support the programme.

As one epidemiological block, the Afghanistan programme will continue efforts to synchronise SIAs schedules with Pakistan, including focus on HRMPs.

Integrated health services will continue and further expanded in high-risk areas to ensure the population is well-covered with other health services. PEI field staff will continue supporting routine EPI through monitoring, training and micro planning.

The programme will use the reported coverage and assessment data including Post Campaign Monitoring and LQAS to improve the quality of SIAs. Process indicators will also be closely monitored to address the gaps in quality.

Maintaining sensitive WPV surveillance (AFP and environmental) will remain a top priority. Desk/field reviews and field monitoring will be conducted to ensure the sensitivity and continued quality of surveillance.

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