



NATIONAL EMERGENCY ACTION PLAN FOR POLIO ERADICATION 2020

پاکستان
انسداد
پولیو
پروگرام



PAKISTAN
POLIO
ERADICATION
PROGRAMME



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NATIONAL EMERGENCY OPERATIONS CENTRE
ISLAMABAD, PAKISTAN

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FOREWORD

Prior to 2019, Pakistan was closing in on zero cases of wild poliovirus type 1 (WPV1). Indeed, from January 2017 to mid-2018, the Polio Eradication Initiative (PEI) saw multiple months without a single case – a sign that the end was in sight. However, by late 2018, the picture was not so promising.

A few conditions contributed to what became a surge in polio cases. There were early indications that the programme had been set back: the knock at the door for delivering polio vaccines was increasingly met by resistance on the part of caregivers. Then, some communities in impoverished areas escalated their refusals, as polio immunization became their chance to be heard for a right to clean water and health services. From there, mistrust and misinformation about vaccine safety and the programme spread like wildfire via social media. In 2019, large cohorts of unvaccinated children resulted in 147 WPV1 cases. In addition to this, for the first time since 2016, circulating vaccine-derived poliovirus type 2 (cVDPV2) had also resurfaced in 22 cases in 2019.

The time had come for a major change. With President Dr. Arif Alvi and the Prime Minister Imran Khan personally taking stock of the situation, the country decided that the programme shall be forthcoming on what's not working, boldly address the underlying challenges, invest in people and systems, and rise above all affiliations, including political ones, to unite against this deadly virus.

The result was the commissioning of a National Strategic Advisory Group (NSAG). With Chief Ministers spearheading the effort and unprecedented commitment across all parties and sectors, the programme has clear resolve to place the country back on the path toward eradication. It is in the spirit of 'one team under one roof' that this Plan of Action has emerged through the oversight of the Prime Minister Khan, agency leads from the Global Polio Eradication Initiative (GPEI), partners from other health programmes (most notably, the Expanded Programme on Immunization [EPI]), and expert bodies such as the Technical Advisory Group (TAG), along with the Ministry of Health.

The year's *National Emergency Action Plan (NEAP) for Polio Eradication in Pakistan* doesn't proceed with a 'business as usual' approach. Rather, the 2020 NEAP offers bold innovations in health service delivery alongside carefully calibrated modifications that draw on sound operational research to put forward a plan that reflects a true emergency programme. Among the specific innovations introduced through this year's NEAP, the integration of polio eradication with EPI and integrated service delivery (ISD) through development projects related to maternal and child health, nutrition, and water, sanitation and hygiene (WASH) are truly transformative. The commitment on all fronts to strong partnerships, true community engagement, clear communication, and the capacity building, training and empowerment of the workforce from the ground up: these are elements that carry through each area of work. Importantly, they are also met with critical adjustments – such as the mapping of super high-risk Union Council (SHRUCs) and a revised campaign schedule – that will support the success of all who contribute to this effort.

The 2020 NEAP shares a strikingly similar approach to Prime Minister Khan's flagship poverty alleviation programme called 'Ehsaas' (Urdu for 'empathy'), which has more than 100 social protection policies. As many at the heart of the 'Ehsaas' programme hail from polio-affected areas, we have an exceptional window of opportunity to align the two programmes to help rebuild community trust.

Blessed with full commitment from the highest levels, including the Military and religious and social institutions, our message is clear: the people of Pakistan are best served when those in position to provide leadership unite in advocacy and action. I am confident this will be a transformative year for the Pakistan polio eradication programme. I am reaching out to everyone. Together Insha'Allah! we will make Pakistan and the world polio-free.

Dr. Zafar Mirza
Special Assistant to the Prime Minister
National Health Services, Regulation and Coordination

ACRONYMS AND ABBREVIATIONS

AAV	All age vaccination	DSC	Data support centre
AC	Assistant Commissioner	DSC	District Surveillance Coordinator
ADC	Additional Deputy Commissioner	DSRC	District Surveillance Review Committee
AFP	Acute flaccid paralysis	DTF	Divisional Task Force
AIC	Area in-charge	EI	Essential immunisation
AKU	Agha Khan University	eIFA	Electronic information for action
AoW	Area of work	EOC	Emergency Operations Centre
APM	Accountability and Performance Management	EPI	Expanded Programme on Immunization
BCG	Bacillus Calmette-Guérin	ER	Event response
BMGF	Bill & Melinda Gates Foundation	ERU	Emergency Response Unit
C4D	Communication for development	ES	Environmental surveillance
C4E	Communication for Eradication	ES+	Positive environmental sample
CBS	Community-based surveillance	FLW	Frontline worker
CBV	Community-based vaccination	GAPIII	Global Action Plan to minimize post-eradication poliovirus facility-associated risk, third edition
CDC	U.S. Centers for Disease Control and Prevention	GIS	Geographic information system
CDR	Comprehensive data review	GPEI	Global Polio Eradication Initiative
CE	Community engagement	HH	Household
CHW	Community health worker	HR&MP	High-risk and mobile populations
CM	Community mobiliser	IDIMS	Integrated Disease Information Management System
COMNet	Communications Network	IEC	Information, education, communication
cVDPV2	Circulating vaccine-derived poliovirus type 2	IFA	Information for action
CR	Case response	IHR	International Health Regulations
CSO	Civil society organisation	IMB	Independent Monitoring Board
DC	Deputy Commissioner	IPC	Interpersonal communication
DDM	Direct disbursement mechanism	IPV	Inactivated polio vaccine
DEOC	District Emergency Operations Centre	ISD	Integrated services delivery
DHO	District Health Officer	ITD	Intratypic differentiation
DHCSO	District Health Communication Support Officer	KPI	Key performance indicator
DHMT	District Health Management Team	LPUC	Low-performing Union Council
DPEC	District Polio Eradication Committee	LQAS	Lot quality assurance sampling
DQA	Data quality assessment	M&E	Monitoring and evaluation
DQSA	Data quality and system assessment		

MOA	Management, Oversight and Accountability	RRU	Rapid response unit
mOPV3	Monovalent oral polio vaccine type 3	RSP	Religious support person
MPQA	Microplan quality assessment	SE	Surveillance for Eradication
MT	Mobile team	SET	Surveillance for Eradication team
NA	Not available	SHRUC	Super high-risk Union Council
NAC	National Authority for Containment	SIA	Supplementary Immunisation Activity
NEAP	National Emergency Action Plan	SL2	Sabin-like type 2
NEOC	National Emergency Operations Centre	SM	Social mobiliser
NID	National Immunisation Day	SMT	Special mobile team
NIH	National Institute of Health	SNID	Subnational Immunisation Day
NNT	Neonatal tetanus	SOP	Standard operating procedure
NPMT	National Polio Management Team	TAG	Technical Advisory Group
NSC	National Steering Committee	ToRs	Terms of reference
NSAG	National Strategic Advisory Group	TT	Transformation team
NSTOP	National Stop Transmission of Polio	TTSP	Temporary tehsil support person
NTF	National Task Force	UC	Union Council
NVI	No virus isolated	UCCO	Union Council Communication Officer
ODK	Open data kit	UCMO	Union Council Medical Officer
OPV	Oral polio vaccine	UCPO	Union Council Polio Officer
PCE	Post-campaign evaluation	UNICEF	United Nations Children's Fund
PCM	Post-campaign monitoring	UPEC	Union Council Polio Eradication Committee
PEF	Poliovirus-essential facility	VDPV	Vaccine-derived poliovirus
PEI	Polio Eradication Initiative	VDPV2	Vaccine-derived poliovirus type 2
PEO	Polio Eradication Officer	VPD	Vaccine-preventable disease
PEOC	Provincial Emergency Operations Centre	WASH	Water, sanitation and hygiene
PID	Primary immunodeficiency disorder	WHO	World Health Organization
PMC	Persistently missed children	WPV	Wild poliovirus
PMI	Perception Management Initiative	WPV1	Wild poliovirus type 1
PTF	Provincial Task Force		
PTP	Permanent transit point		
RADS	Risk Assessment and Decision Support		
RRL	Regional Reference Laboratory		

EXECUTIVE SUMMARY

In recent years, Pakistan has made considerable progress in reducing wild poliovirus type 1 (WPV1) transmission. Following an explosive outbreak in 2014, the Pakistan Polio Eradication Initiative (PEI) shifted to a government-led, 'one team' approach, aligning partner support within the multidisciplinary, multi-agency initiative to transform it into a truly data-driven programme. What followed was a steady and successful reduction in the number of children paralysed by polio – from 306 in 2014 to just 12 in 2018.

However, in 2019 the programme witnessed a significant spread of the virus. In 2019, 147 polio cases across all provinces were reported. In addition, circulating vaccine-derived poliovirus type 2 (cVDPV2) was detected in the country for the first time since 2016, with the number of children it has paralysed in 2019 were 22.

In light of this recent upsurge, the programme faces critical, often interrelated challenges. At a fundamental level, there is a lack of trust in vaccination and the polio eradication programme by families and communities in Pakistan, many of whom are impoverished and underserved. Lacking basic needs, they view frequent visits from polio eradication workers with suspicion. Because immunity against poliovirus is built up through repeated rounds, and since vaccination must be coordinated across the entire country to ensure no child is left unprotected, frequent campaigns can produce 'polio fatigue' among caregivers and frontline workers (FLWs) alike. Additionally, many caregivers don't understand the risks of refusing the vaccine for their children, as the eradication effort's success at reducing cases is misunderstood and poliovirus is mistakenly deemed a low risk. Mistrust in vaccination from polio campaigns, combined with misperceptions around the true risk of polio to Pakistan, have unfortunately provided fertile ground for misinformation and propaganda, which in recent years have also been fuelled by social media. In April 2019, propaganda against vaccines and the polio programme spread quickly and widely through social media in Peshawar, ultimately leading to the immediate interruption of the April National Immunisation Day (NID).

The eradication effort is further challenged by weakened essential immunisation (EI) services, poor water and sanitation (WASH), and a high prevalence of malnutrition. These contribute to a natural environment rife for virus circulation, which can be tied to the outbreak of cVDPV2 as well as lowered immunity to WPV1. Massive population movement within the country and across the border with Afghanistan continues to play a leading role in virus transmission. Added to these challenges, leadership transitions in government at all levels (federal, provincial, divisional, and districts) can also present difficulties, as a potential lack of unity on the importance of eradication cast polio immunisation as a partisan or political issue that can divide communities – and further vex the encounter on the doorstep between vaccinators and caregivers.

To face these challenges, the programme must re-strategize. A management review performed by McKinsey, alongside meetings convened by the Prime Minister, the President of Pakistan, and Global Polio Eradication Initiative (GPEI) advisory groups, have all helped to identify key transformations in the delivery of life-saving vaccines that, alongside improvements in core objectives and activities, will once again place Pakistan firmly on the path toward becoming polio-free.

This *National Emergency Action Plan (NEAP) for Polio Eradication 2020* outlines bold strategies to ensure poliovirus transmission is interrupted. The Pakistan programme has aligned the 2020 NEAP with GPEI goals outlined in the *Polio Endgame Strategy, 2019 – 2023*, with a particular emphasis on building synergy with the Expanded Programme on Immunization (EPI) and Integrated Service Delivery (ISD).

Overall, the 2020 NEAP introduces a number of interventions, innovations and modifications to respond to both persistent challenges and new or unfolding epidemiological risks.

The following strategic decisions are offered as course corrections for the 2020 calendar year:

- The Pakistan programme has shifted to a more comprehensive approach. The structure of the Emergency Operations Centre (EOC) reflects an increased focus on communications to address community resistance and generate vaccine demand. New Communication for Eradication (C4E) activities have been developed to improve trust in the PEI and in vaccines. Strategies have been devised to engage stakeholders and influencers, dispel misconceptions around vaccine safety and efficacy, and address the root causes for refusals.

- The programme has added a dedicated area of work for building synergy with EPI to increase EI coverage across Pakistan, as well as building ISD capacities to address broader health needs through an expanded package of health, nutrition, and WASH services. These interventions will increase access to and utilisation of health services in communities affected by many types of deprivations.
- Modifications to the schedule, structure and spacing of supplementary immunisation activities (SIAs) will address community concerns about repeated campaigns; relieve FLW fatigue; ensure sufficient time for campaign preparation, including social mobilisation and community engagement (CE); and improve implementation through concerted capacity building.
 - Specifically, there will be three (3) NIDs and three (3) Subnational Immunisation Days (SNIDs) in 2020. Campaign duration for mobile teams (MT) will be a three-day campaign with a two-day catch-up (3+2). Campaign duration will remain the same for community-based vaccination (CBV) and special mobile team (SMT) areas, which is a five-day campaign with two-day catch-up (5+2). There will be no extended catch-up activities anywhere in the country.
 - Additionally, Pakistan's SIA schedule has been aligned with the SIA schedule in Afghanistan, as coordination between these two countries is critical to interrupting poliovirus within and across the epidemiological block.
- To refocus frontline efforts for maximum impact, a new district risk category has been introduced: super high-risk Union Councils (SHRUCs), those Union Councils (UCs) that have a dense and dynamic population where poliovirus circulates persistently. The programme has identified 40 SHRUCs in Tier 1 districts which will receive 'laser-focused' interventions.
- Additionally, the programme has refined the scope of CBV areas. To maximize vaccinator efficiency in SHRUCs and Tier 1 districts, the CBV model will be scaled down: the current 595 CBV UCs in Tier 1 and 2 will be reduced to 374 UCs in Tier 1 only. This will enable management teams to oversee the CBV workforce more efficiently and maintain focus on SHRUCs and core reservoir districts.

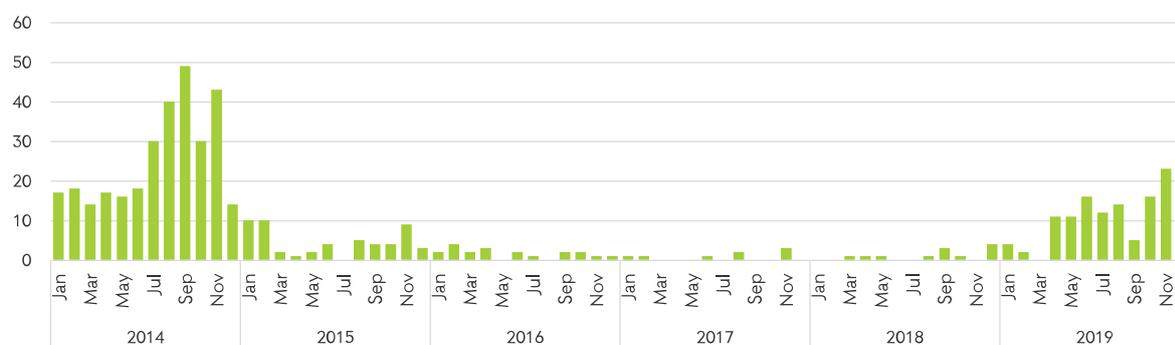
The 2020 NEAP also introduces transformations in structure, data, processes and human resources which have resulted from a comprehensive review of management and communication undertaken in 2019. The management review identified several challenges that included: human resource and accountability issues (multiple parallel lines of authority, overlaps and gaps in performance of roles, lack of clear ownership, evidence of overstaffing in some areas, ineffective performance management, lack of motivation); lack of critical thinking in campaign planning and execution (campaign processes follow a formulaic procedure rather than problem solving); inefficient data collection, reporting and use, as well as data misuse (used punitively to criticize lower management); and challenges in ensuring appropriate training delivery. The management review called for a revision of roles and responsibilities, organisational structures, operational processes, and data collection and use – and a realignment of the programme at all levels, particularly at the district and UC levels. All actions to address these challenges have been incorporated in this NEAP.

BACKGROUND

In recent years, Pakistan has made clear progress toward eradicating polio across the country. Efforts to stem an explosive outbreak in 2014 resulted in significant reductions in the number of children paralysed by the disease, reaching an all-time low of just eight cases in 2017 and 12 cases in 2018. Despite these efforts, however, Pakistan remains one of only two countries in the world still reporting wild poliovirus type 1 (WPV1), a position it holds alongside neighbouring Afghanistan. In 2019, community resistance to immunisation alongside intense circulation of virus, especially in the Khyber Pakhtunkhwa province, resulted in a substantial increase in the number of cases across the country (see Figure 1). In addition, circulating vaccine-derived poliovirus type 2 (cVDPV2) was detected in the country for the first time since 2016.

In 2019, a total of 147 WPV1 cases were reported from 43 districts/towns of Pakistan: 93 cases from Khyber Pakhtunkhwa Province, of which 67 are from Bannu division; 30 cases Sindh; 12 from Balochistan; and 12 cases from Punjab. Out of the total 147 cases, 93 (63%) are 'zero dose' for essential immunization. In addition to the increase in WPV1 cases in 2019, a cVDPV2 outbreak has been detected in the country for the first time since 2016. In 2019, there were 22 cases in the country: sixteen from Khyber Pakhtunkhwa, four from Gilgit-Baltistan; one from Islamabad; and one from Punjab.

Figure 1. Confirmed wild poliovirus type 1 cases in Pakistan, 2014 – 2019*



The Pakistan Polio Eradication Initiative (PEI) also monitors the potential presence of poliovirus through environmental samples from 60 strategically selected sites across the country – the largest environmental surveillance (ES) network established in any country. The overall percentage of positive environmental samples for the country has consistently increased since the third quarter of 2018, especially in key risk areas. In 2019, 371/783 (47%) of the assessed sewage samples were found positive for WPV1. Persistent positive environmental samples are being found in Karachi, Peshawar, Quetta, Lahore, Rawalpindi, Killa Abdullah, Hyderabad, Kambar, Dadu, and Sukkur districts (see Table 1). Also in 2019, 34 cVDPV2 isolates from the environment were detected from Rawalpindi, Islamabad, Karachi, Sukkur, Lahore, Peshawar, Kohat, DI Khan and from ad hoc ES sites established in Gilgit, Diamer, Gujranwala, Sheikhupura and Abbottabad.

Table 1. Number and proportion of WPV1 isolated from sewage samples, by quarter January 2018 - 2019, Pakistan.

Areas of concern	2018										2019									
	Qtr1		Qtr2		Qtr3		Qtr4		Total		Qtr1		Qtr2		Qtr3		Qtr4		Total	
Karachi	6	19%	4	13%	11	31%	6	18%	27	21%	20	61%	29	85%	30	88%	32	91%	111	82%
Quetta Block	2	10%	3	14%	5	23%	12	57%	22	26%	16	76%	11	50%	15	68%	16	73%	58	67%
Peshawar	3	43%	5	83%	7	78%	8	67%	23	68%	6	60%	1	10%	2	22%	2	25%	11	30%
Rwp/Isb	2	22%	4	40%	8	89%	8	89%	22	59%	4	44%	6	30%	2	17%	4	29%	16	29%
South Kp	1	10%	0	0%	0	0%	3	33%	4	11%	4	40%	6	60%	2	22%	4	40%	16	41%
Lahore	0	0%	1	7%	4	27%	7	47%	12	20%	13	81%	14	82%	15	94%	21	68%	63	79%
Hyderabad	1	33%	0	0%	0	0%	0	0%	1	8%	3	60%	3	75%	3	100%	3	100%	12	80%
Sukkur	1	14%	0	0%	0	0%	1	17%	2	8%	3	33%	2	29%	4	57%	5	83%	14	48%
Others	6	9%	4	6%	10	15%	6	9%	26	10%	14	19%	10	13%	17	22%	29	37%	70	23%
Pakistan	22	13%	21	13%	45	26%	51	29%	139	20%	83	44%	82	41%	90	47%	116	56%	371	47%

Epidemiologic evidence and genomic sequencing of both WPV1 cases and environmental samples confirm linkages between transmission in Afghanistan and Pakistan. Analysis of this data led the GPEI to realise the two countries constitute one epidemiological block: due to cross-border transmission, neither can achieve eradication within their borders without the other. This insight has led the programme to identify four distinct circulation zones relevant to programmatic planning for Pakistan (see Figures 2–4).

- **Karachi:** Core reservoir with both WPV1 cases and positive environmental samples; destination and starting point for many high-risk and mobile populations (HR&MP) to other parts of Pakistan and Afghanistan.
- **Northern corridor:** Core reservoir of Peshawar and relevant districts of Khyber Pakhtunkhwa in Pakistan, as well as the known transmission links with Nangarhar, Kunar and Nuristan Provinces in Afghanistan (which have had multiple WPV1 cases in 2018/2019).
- **Southern corridor:** Core reservoir of persistent transmission in Quetta block in Balochistan and the southern provinces of Helmand and Kandahar in Afghanistan (which have reported multiple WPV1 cases since January 2017).
- **Central corridor:** Southern Khyber Pakhtunkhwa districts and provinces in the southeast region of Afghanistan. Bannu division (comprises North Waziristan, Lakki Marwat and Bannu) that reported 66 polio cases in 2019 is part of southern Khyber Pakhtunkhwa districts.

Additionally, sporadic WPV1 cases have been reported in a wide geographic expanse of central Pakistan.

Figure 2. Spatial distribution of WPV1 confirmed cases, Pakistan and Afghanistan, 2019

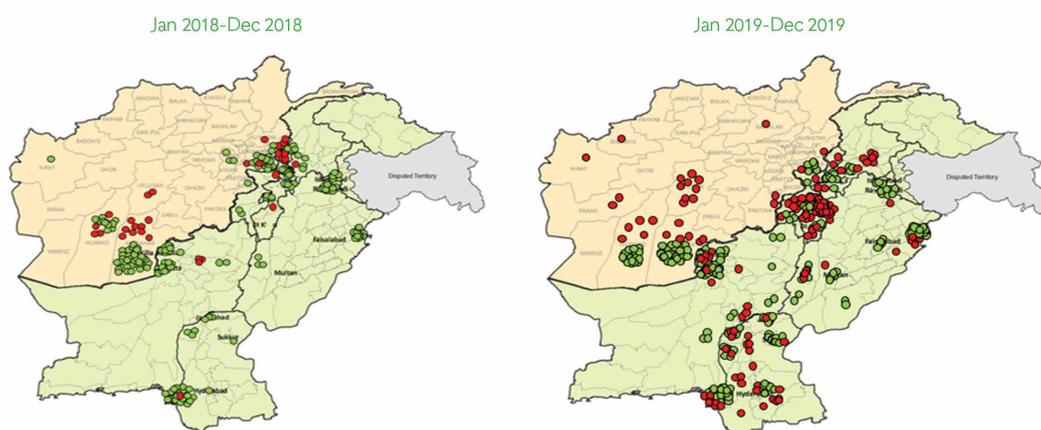


Figure 3. WPV1 cases and positive environmental samples, Pakistan and Afghanistan, by cluster, January - December 2019.

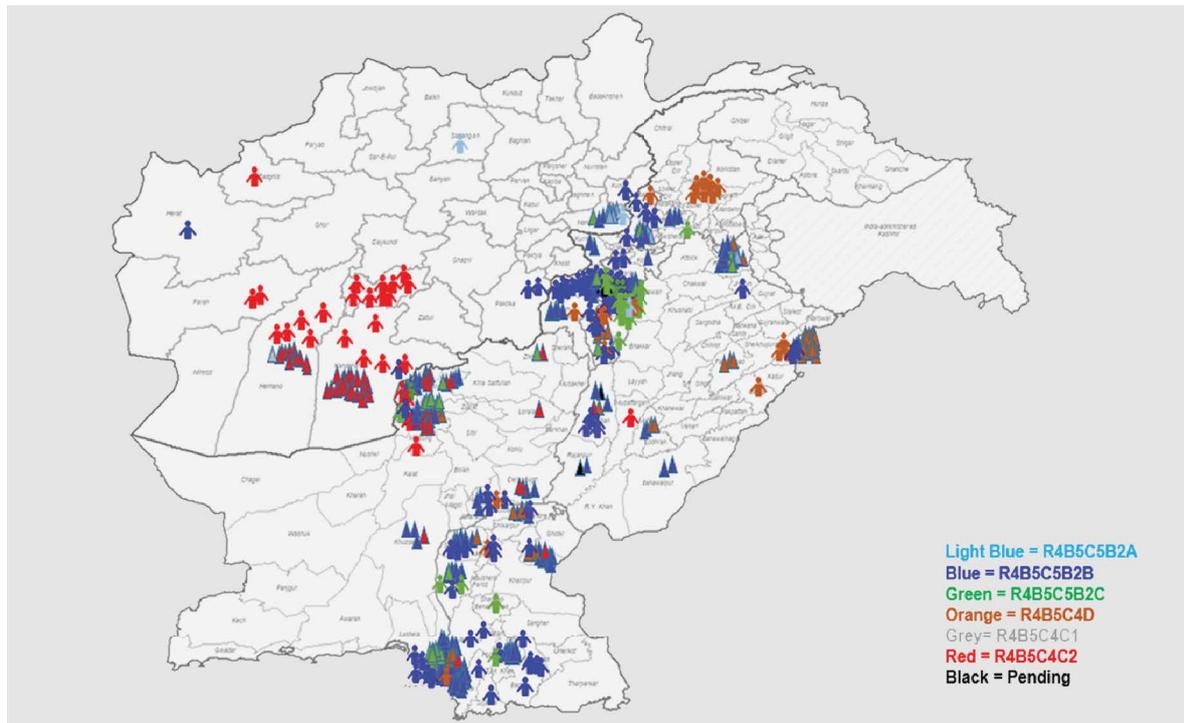
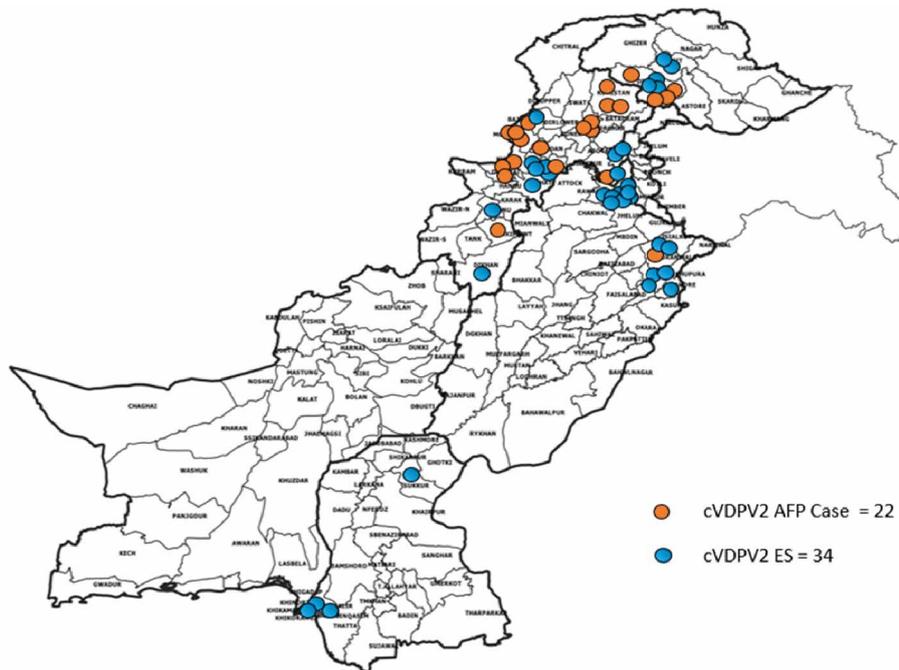


Figure 4: Map of cVDPV2 cases and positive environmental samples, January – December 2019



AFP= acute flaccid paralysis; ES+= positive environmental sample

The surge in the number of WPV1 cases and the continued reporting of poliovirus from environmental samples in many parts of the country provides sobering evidence of persistent transmission. The programme responded with immediate and detailed investigations to determine the characteristics of the virus and its transmission. Despite efforts to ensure all children are vaccinated, key challenges remain, including: children missed due to inconsistent and suboptimal campaign quality in some areas; massive population movement within Pakistan and across the border with Afghanistan; inadequate delivery of essential immunisation (EI)

services; and parent/caregiver refusal to vaccinate children during supplementary immunisation activities (SIAs). Analysis of such refusals indicates a growing mistrust in vaccination and the PEI, which has been exacerbated by community concern – wherein communities deprived of many basic services (e.g., health, nutrition, water and sanitation) grow weary of repeated knocks at the door for polio eradication activities. In particular, the spread of misinformation and anti-vaccine propaganda promoted through social media has materialized as real community resistance to vaccination. In April 2019, propaganda against the polio programme in Peshawar resulted in a record number of refusals across Pakistan, particularly in districts of Khyber Pakhtunkhwa, and the country as a whole decided to interrupt campaign activities for the safety of frontline workers (FLWs) and to revisit its strategy for more effective community engagement (CE) activities.

In light of these and other ongoing challenges, it has become imperative that the programme revisit its current strategy, re-evaluate the delivery of core eradication activities and pursue programmatic transformations that will enable the PEI to successfully interrupt poliovirus transmission in Pakistan.

This NEAP outlines the programme’s strategy for the period covering January to December 2020.

OVERVIEW OF THE 2020 NATIONAL EMERGENCY ACTION PLAN

Goal

To stop all wild poliovirus type 1 (WPV1) and vaccine-derived poliovirus type 2 (VDPV2) transmission in Pakistan.

Strategic objectives

1. Stop poliovirus transmission in all remaining WPV1 reservoirs through focused, intensified national efforts and coordinated strategies across international borders.
2. Rapidly detect, contain and eliminate all polioviruses from any newly infected area.
3. Protect the overall health of populations by maintaining and increasing immunity to poliovirus infection through implementing quality supplementary immunisation activities (SIAs) and strengthening essential immunisation (EI).

Challenges

- Address a lack of trust in vaccines and polio eradication efforts by families and communities who are often deprived of basic health needs.
- Raise the public risk perception of polio and counter negative propaganda about the programme.
- Identify and characterize population clusters not yet reached by immunisation efforts.
- Close gaps in SIA quality which lead to insufficient immunity among geographically accessible populations.
- Address persistent transmission throughout the epidemiologic block of Pakistan-Afghanistan.
- Interrupt intense poliovirus circulation, especially in Khyber Pakhtunkhwa province.
- Improve implementation of national recommendations within outbreak districts.
- Respond to systemic weaknesses in the Expanded Programme on Immunization (EPI).
- Sustain motivation and commitment to a long-running programme and build upon prior gains
- Maintain government commitment at all levels, amidst multiple national public health priorities.

Areas of work

For the 2020 NEAP, the Pakistan polio programme will shift to a more comprehensive approach, particularly through its collaboration with EPI and Integrated Service Delivery (ISD) and an increased focus on communications and community engagement (CE).

The functions of the Emergency Operations Centre (EOC) are classified into the following five areas of work (AoWs):

1. **Programme Operations:** Ensuring all vaccination activities reach all targeted children.
2. **Risk Assessment and Decision Support (RADS), including Detection and Response:** Ensuring rapid detection and response to any WPV1 or VDPV2 case and ensuring programme decisions are driven by the best available data.
3. **Synergy and Integrated Service Delivery activities:** Ensuring better integration of EPI and expanded delivery of additional services.
4. **Communications:** Ensuring provision of Social and Behaviour Change (SBC) communication support to enhance vaccine acceptance.
5. **Management:** Ensuring the programme is well-supported, managed and coordinated with oversight and accountability for all.

Each AoW is composed of two to four teams which have defined priorities for the 2020 NEAP period. A cross-cutting team is composed of two members from each AoW that will meet monthly to ensure close coordination between the various units.

Table 2. Areas of work and teams within the Emergency Operations Centre

Area of work	Teams
Programme Operations	<ul style="list-style-type: none"> Capacity building, mobile teams and community-based vaccination Vaccine management Pakistan-Afghanistan coordination
Risk Assessment and Decision Support (RADS)	<ul style="list-style-type: none"> Monitoring and evaluation Information management Innovation and operational research Surveillance for eradication (SE) Rapid response High-risk and mobile populations
Synergy and Integrated Service Delivery Activities	<ul style="list-style-type: none"> EPI-PEI synergy Integrated services delivery (ISD)
Communication for Eradication (C4E)	<ul style="list-style-type: none"> Communication for development (C4D) Media and advocacy, external communications and crisis communications
Management, Oversight and Accountability (MOA)	<ul style="list-style-type: none"> Emergency Operations Centre (EOC) management Oversight and accountability Resource management
All AoWs	Cross-cutting coordination

District risk categorization

The programme uses four distinct risk tiers: core reservoir districts (Tier 1), high-risk districts (Tier 2), vulnerable districts (Tier 3), and low-risk districts (Tier 4). A 'core reservoir' (Tier 1) refers to any clearly definable contiguous geographic zone spanning an area not more than a division, or up to four closely linked districts with proven persistent local WPV1 circulation for at least 18 months and a repeated history of reseeding the virus outside the immediate transmission zone. 'High-risk districts' (Tier 2) have detected intermittent transmission or sustained risk due to low levels of population immunity or other known risk factors. Districts in Tiers 3 and 4 are determined based on variabilities in both quantitative and qualitative risk assessments.

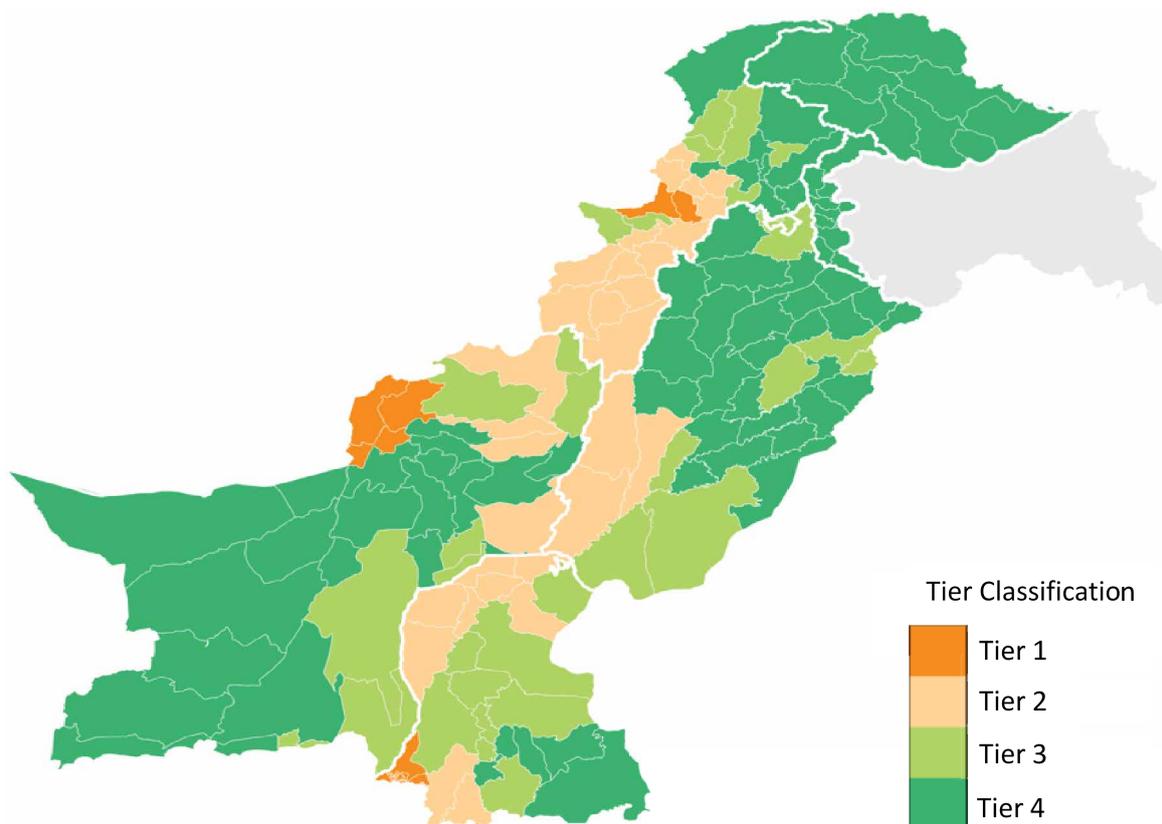
For the 2020 NEAP, several districts have been identified for an elevated tier classification period due to outbreaks, continued transmission or proximity to persistently infected districts or districts with programmatic gaps (see Table 3). In total, there are now 11 Tier 1 districts (covering 10% Vs target in the country, 34 Tier 2 districts (25% Vs target), 37 Tier 3 districts (28% Vs target) and 71 Tier 4 districts (36% Vs target).

Table 3. Revised district tier classifications, January – December 2020

Province	District(s)	Previous Tier	Revised Tier	Rationale
Khyber Pakhtunkhwa	o Kurram o Orakzai	3	2	Proximity to persistently infected districts and programmatic gaps
	o Shangla o Torgar o Kohistan, Lower o Kohistan, Upper o Kolai-Palas	4	3	Outbreaks and proximity to outbreak areas
Punjab*	o Lahore	3	2	Continued poliovirus transmission
Balochistan	o Mastung o Sohbatpur o Harnai	4	3	Outbreaks, proximity to persistently infected districts and programmatic gaps
Sindh	o Hyderabad	3	2	Continued poliovirus transmission
Gilgit Baltistan	o Diamer o Gilgit	4	3	Outbreaks
*Due to the current epidemiology in Punjab, 163 Union Councils in the district of Rawalpindi will be considered as Tier 2 by the programme while 27 Union Councils in Mianwali (17) and Bhakkar (10) will be considered as Tier 3.				

The final tier classification for January – December 2020 is illustrated in Figure 5. Risk classifications will be reviewed and updated based on evolving epidemiology by May 2020 (the end of the current low season).

Figure 5. Map of Pakistan's district tier classifications for 2020



Super high-risk Union Councils

In response to persistent transmission in a number of high-risk Union Councils (UCs), the programme has developed strategies to prioritize those UCs which represent the greatest risk because they are comprised of dense, underserved population groups with poor levels of immunisation against polio. The programme will provide a 'laser focus' on these super high-risk Union Councils (SHRUCs), a strategy endorsed during the August 2019 meeting of the Technical Advisory Group (TAG). The National and Provincial Emergency Operations Centres (NEOC and PEOCs) have identified 40 SHRUCs within Tier 1 districts (see Annex C, Figure C1).

The required services to be implemented in each SHRUC are as follows:

1. Structure, staff and accountability

- Emergency Response Unit (ERU) at the subdistrict level or a dedicated team for SHRUCs at the District Emergency Operations Centre (DEOC).
- Fit-for-purpose Union Council Polio Eradication Committee (UPEC) structure chaired by Union Council Medical Officer (UCMO), a medical doctor sourced specifically for PEI/EPI and deployed full-time.
- Super-performing government and GPEI partner staff in each SHRUC for leadership and management. These include: Assistant Commissioners (ACs), National Stop Transmission of Polio (NSTOP), Polio Eradication Officers (PEOs), District Health Communication Support Officers (DHCSOs), Union Council Communication Officers (UCCOs), and Union Council Polio Officers (UCPOs).
- All community-based vaccination (CBV) workers should be exclusively local women who speak the local language and possess competent interpersonal communication (IPC) skills.
- All PEI workers/staff in SHRUCs should be well-trained technically and managerially.

- Strong accountability framework and clear terms of reference (ToRs) implemented at all levels.
 - Quarterly reviews at district and provincial levels for EPI services; monthly supportive supervision activities conducted by district and provincial managers.
 - Ensured security of FLWs through enhanced support of Pakistan Army and law enforcement agencies (LEAs).
2. *Infrastructure*
- Appropriately equipped and supported team support centres.
 - Fully functional EPI centres with adequate staff and cold chain equipment.
3. *EPI service delivery*
- Optimum level of EPI service delivery through fixed, outreach and extended outreach sessions, according to microplan and in compliance with Reaching Every District (RED) / Reaching Every Community (REC) strategy to all target population in their respective catchment areas with focus on newborns, zero dose EI children, and defaulter tracking.
 - Align EPI microplanning with CBV registration book; area supervisors to work with EPI technicians to include zero dose children in EPI registers in the week following SIAs. Data support centre (DSC) data should also be shared with EPI for necessary action.
4. *Integrated service delivery (ISD)*
- Implemented in coordination with the Government's 'Ehsaas' programme for health, nutrition and water, sanitation and hygiene (WASH) services delivered to catchment area population.
5. *Communication strategy*
- Advocacy and orientation of key influencers, social profiling, missed children log book, challenge mapping, school/madrassa and mosque sessions, community engagement (CE) with multiple other stakeholders, and house-to-house IPC sessions with persistently missed children (PMC) and refusals through a uniform and comprehensive approach (greater number of social mobilisers [SMs] and parental activities).
6. *Missed children coverage*
- Maintain separate logbooks for still missed and PMC children, with active support of influencers so the first knock of each refusal house leads to vaccination during tracking
 - Implement a trigger for mop-up areas targeting missed children over an established threshold
7. *Surveillance*
- Strengthen acute flaccid paralysis (AFP) surveillance networks through both formal and community-based networks

Table 4 shows the number and geographical distribution of UCs. Please see Annex C for a map of SHRUC locations and the target population in SHRUCs by each district or town. This list will be reviewed and updated annually.

Table 4. Number of super high-risk Union Councils (SHRUCs) by province and district, 2020

Province	District	Number of SHRUCs
Khyber Pakhtunkhwa	Peshawar	18
Sindh	Karachi	8
Balochistan	Killa Abdullah	5
	Pishin	3
	Quetta	6

Supplementary immunisation activities

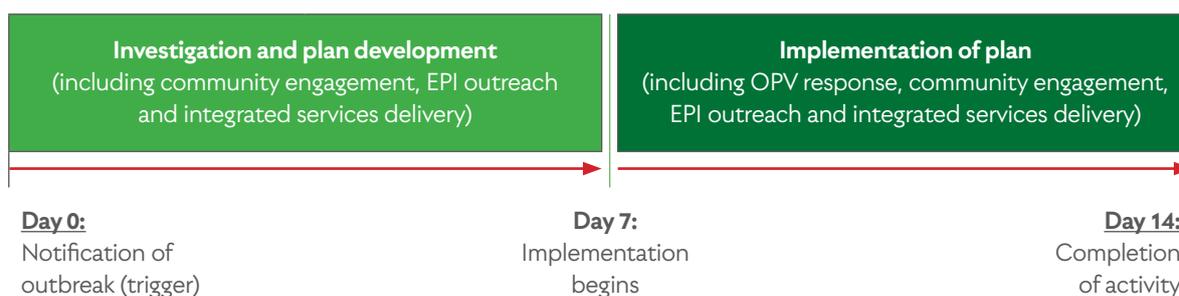
Between July and December 2019, the programme focused on strategies to address operational gaps, improve campaign quality and strengthen CE activities and demand creation. For the 2020 NEAP, SIAs planned from January to December 2020 will be conducted with six- to eight-week intervals. Campaign duration will be: five-day campaigns with two-day catch-ups (5+2) in community-based vaccination (CBV) and special mobile team (SMT) areas, and three-day campaigns with two-day catch-ups (3+2) in mobile team (MT) areas. No extended catch-up will be conducted anywhere in the country to alleviate extra knocks at the door that would result from a more protracted catch-up period. Longer campaign cycles and shortened campaign duration are intended to ensure sufficient time for campaign preparation, including activities to increase vaccine demand (e.g., ISD, CE, and social mobilisation).

The 2020 SIA calendar will focus on well-planned and executed national and subnational OPV campaigns targeting all eligible children under 5 years; no additional SIA strategies (such as inactivated polio vaccine [IPV] campaigns) are planned; however, due to the evolving epidemiological context may be employed if deemed appropriate for reducing transmission and/or case burden from either WPV1 or cVDPV2. See Annex B for the full SIA calendar.

Case and event response

The case response (CR) and event response (ER) framework sets out the standard operating procedures (SOPs) for programmatic response to transmission of virus. It states that an initial focused mop-up activity should be conducted within 14 days of an outbreak notification which triggers a response. The two-week timeline of mop-up activities will be divided and prioritized, whereby the first week will focus on investigating and developing a comprehensive and integrated plan (including CE, EPI outreach and additional service delivery), leaving the second week for implementation.

Figure 6. Timeline of mop-up activity in response to WPV1



For the mop-up, a limited target should be considered with a focus on ensuring maximum quality in the epicentre of transmission. For larger outbreaks spanning multiple districts, the scope must reflect the scale of transmission and, consequently, a larger target population will be required. The case response should be concluded within two weeks of lab confirmation and continue after every four weeks until three SIAs are implemented.

The triggers for mop-ups and CR/ER by tier are provided in Table 5. Where detection does not trigger response, the focus will be on investigation and enhanced preparation and support for the next SIA.

Table 5. Case and event response guidelines

Isolation of WPV1	Tier 1	Tiers 2-4
1-2 positive environment samples (ES+), genetically linked OR >1 ES+ in ≥1 site (NOT genetically linked)	Detection will NOT trigger response. Focus will be on investigation and enhanced preparation and support for next SIA.	
≥3 ES+ in 1 site (genetically linked) OR ES+ in ≥2 sites in the same district (genetically linked)	Detection will NOT trigger response. Focus will be on investigation and enhanced preparation/support for next SIA.	Detection will trigger focused mop-up response in select UCs within 14 days. Subsequent ER in six weeks or synchronised with next SIA.
≥1 AFP case(s)	WPV1 detection (genetically linked) will not trigger CR in Tier 1 districts.	WPV1 case will trigger focused mop-up response in select UCs within 14 days. Subsequent CR in four weeks or synchronised with next SIA.

AFP= acute flaccid paralysis; CR= case response; ER= event response; ES+= positive environment sample; SIA= supplementary immunisation activity; UC= Union Council; WPV1= wild poliovirus type 1

1. PROGRAMME OPERATIONS

Programme Operations' three teams are: (1) capacity building, mobile teams (MT) and community-based vaccination (CBV); (2) vaccine management; and (3) Afghanistan/Pakistan coordination. Each team has strategic priorities that reflect the programme's focus on greater campaign preparedness and coordination across all levels.

Community-based vaccination transition

The CBV strategy was initially introduced in selected UCs of Karachi in October 2014, later in Khyber Peshawar, Quetta block and parts of south Khyber Pakhtunkhwa, and finally the remainder of Karachi. By July 2018 the CBV programme reached approximately 4.1 million children every campaign through a workforce of more than 25,000 that included 19,000 community-based vaccinators, 86% of whom were female. The CBV modality was successful at reaching cohorts of previously missed children through micro-census household-level logs. However, negative media coverage and campaign fatigue from demanding vaccination schedules with short breaks between SIAs have contributed to an increasing number of refusals.

Beginning after April 2020, the CBV model will be scaled down to maximize CBV efficiency and maintain focus on super high-risk Union Councils (SHRUCs) and the core reservoir districts. The current 595 CBV UCs in Tier 1 and 2 will be reduced to 374 UCs in Tier 1 only. All CBV work will continue across Tier 1 districts with the exception of 89 UCs in Karachi and five UCs of Peshawar Cantt. There will no longer be CBVs in any Tier 2 district. All areas/UCs where CBV is scaled down will be transitioned to special mobile teams (SMT).

This revision to the CBV strategy will also address Programme Operations' scope, social mobilisation strategies and data collection forms, as well as FLW and supervisor capacity-building activities to ensure that all are equipped to perform their duties in the most efficient way. Greater focus will be placed on coordinating across and integrating operations and communications as AoWs, and data collection will be refined to capture key indicators to guide the programme.

Capacity building, mobile team and community-based vaccination team

Progress 2018/2019

- Conducted four NIDs, five SNIDs, and 30 CRs (including special IPV campaigns).
- Ensured all HR&MP settlements were included in microplans and represented in 10% of intra-campaign clusters for monitoring programme performance.
- Conducted more than 100 training activities for district- and field-level workers.

Priorities 2020

SIA transition, harmonisation and quality

- Align SIA schedule with a six- to eight-week campaign countdown activity cycle.
- Revise and harmonise SIA duration across MT, SMT and CBV areas.
- Ensure geographic scope and timelines for rollout of CBV/SMT/MT transition are clearly developed and well implemented, including strategies for reaching still-missed children.
- Refine basic standards for quality SIA implementation and ensure strong coordination with the Communications AoW.
- Simplify and improve microplanning to include only information that is essential to plan and implement a quality campaign, while ensuring all components reflect data and lessons from previous campaigns (e.g., campaign and social data is integrated in post-campaign review and development of social mobilisation plan; district and UC teams will jointly conduct post-campaign review and planning).
- Harmonise data recording and reporting tools to reflect revised SIA strategy.
- Pursue quality vaccination responses in regard to events or outbreaks.
- Build capacity according to monitoring and performance data collected at all campaign stages.

Focus on super high-risk Union Councils

- Rationalise work burden of SHRUC vaccination teams and area supervisors (AS)/area in-charges (AICs) based on SIA modality.
- Ensure sufficient workforce at the UC level for communications and operations in SMT/CBV areas.
- Facilitate empowerment of key functional roles and engagement of all stakeholders.
- Strengthen accountability through action plans, quarterly reviews, performance improvement strategies, supportive supervision and ongoing monitoring.
- Define and document frequency of vaccinations (SIAs/CRs), additional package of integrated services and continuous impact monitoring in coordination with the Synergy AoW.

Integration of trainings and reviews

- Build capacity of workers in MT, SMT and CBV areas to reach all children through on-the-job training and supportive supervision.
- Ensure proper training at UC- and district-level based on training needs assessment by using training materials and integrating Programme Operations and Communications at all levels.
- Provide data analysis and feedback during pre-campaign trainings to improve planning.

Capacity building

- Develop training SOPs on campaign planning, implementation and monitoring in all provinces.
- Monitor training data used for quality improvements through collection, collation and analysis; provide feedback to DEOC for trainings of FLWs and their supervisors.
- Build capacity of federal and provincial monitors through revised monitoring tools for microplan quality assessment (MPQA) and implementation.
- Conduct orientation of all DEOC members, including deputy commissioners (DCs), on the Accountability and Performance Management Framework for Tier 1 and Tier 2 districts.
- Train district partner staff on management and leadership in Tier 1 and 2 districts.
- Implement simplified planning, recording and reporting tools countrywide through a cascaded training plan.
- Conduct induction training of newly recruited staff.
- Train FLWs on improved communication strategies in CBV areas.
- Focus training in SHRUCs on enhanced/integrated microplanning for PEI-EPI synergy, communication and social mobilisation.

Vaccine management team

Progress 2018/2019

- Ensured 100% vaccine availability for immunisation and improved OPV vaccine management. Pakistan's average OPV vaccine wastage rate remains 7.6%.

Priorities 2020

- Review and update the target population on a quarterly basis for 2020 vaccine forecasting in accordance with the NEAP and TAG-recommended SIA schedule.
- Ensure timely supply of vaccine to support NEAP 2020 SIA schedule and all other activities.
- Facilitate timely distribution to the field as per vaccine management SOPs (in coordination with supply division, finance and EPI).
- Ensure basic programme trainings at all levels (PEI/EPI) includes vaccine/cold chain management and regular monitoring of stocks as part of training agenda.
- Strengthen vaccine management at HR&MP vaccination sites; facilitate stronger vaccine management at the district level through regular reports on vaccine utilisation and leftovers.

Afghanistan/Pakistan coordination team

Progress 2018/2019

- Synchronised a majority of the planned SIAs before the April incident in Peshawar. The NIDs held in December 2018 and January 2019 were synchronised for campaign dates and vaccine use, as monovalent oral polio vaccine type 1 (mOPV1) was used in most bordering districts.
- Increased cross-border coordination at regional/provincial level, with active action tracking of Northern, Central and Southern Corridor Plans.
- Successfully introduced and maintained all-age vaccination (AAV) since 25 March 2019 at both the Torkham border and Friendship Gate. AAV has been operational on a 24/7 basis at Torkham since 2 September 2019.
- Increased coordination between rapid response units (RRUs) of both countries by sharing investigation summaries and lesson learnt.

- Coordinated regularly between both countries' communication teams for joint implementation of communication strategies and uniform messages at bordering points.
- Jointly monitored permanent transit points (PTPs) and regularly shared supervisory findings.

Priorities 2020

- Continue synchronising 2020 SIA schedule and aligning expected CR along shared corridors.
- Review and update existing corridor action plans (for the northern and southern corridors) and develop action plan for the central corridor due to current epidemiology.
- Review and strengthen communication strategies at all three corridors; enhance district-to-district local coordination along shared corridors.
- Review and strengthen AAV International Health Regulations (IHR) initiative at Torkham and Friendship Gate; expand to major crossing points in the central corridor.
- Strengthen overall coordination through regular exchange of information, data and strategies with a focus on bordering corridors.
- Drawing on identified religious, community and tribal leaders, build a cadre to champion polio vaccination and build trust within communities on both sides of the border.

2. RISK ASSESSMENT AND DECISION SUPPORT

Risk Assessment and Decision Support (RADS) includes six teams:

- Surveillance for eradication (SE), including laboratory and containment
- Rapid response
- High-risk and mobile populations
- Monitoring and evaluation (M&E)
- Information management
- Innovation and operational research

Monitoring and evaluation team

Progress 2018/2019

- Aligned the administrative units of post-campaign monitoring (PCM) with all other collected data and updated the sampling frame.
- Provincial-, division- and district-level key performance summaries prepared on a monthly-basis (including social data) and in coordination with Programme Operations. Summaries made available on the EOC dashboard.
- Reviewed the 2018/2019 microplan assessment protocol and developed three microplan benchmark indicators to flag UC performance.
- In coordination with third-party monitors, developed a monitoring strategy for parts of Khyber Pakhtunkhwa, Balochistan and other provinces with areas not continuously accessible to external monitors.
- Completed data quality assessments (DQAs) in Killa Abdullah and Peshawar.
- Prepared lists of low-performing Union Councils (LPUCs) after every National Immunisation Day (NID) and Subnational Immunisation Day (SNID) for dissemination to provinces by the NEOC.
- Started to define criteria for classifying newly created districts and SOPs to address potential gaps and improve supervision (in process).
- Conducted the third annual survey regarding essential immunisation services in high-risk districts.
- Developed framework outlining all data collected in the pre-, intra-, and post- campaign phases with initial recommendation on the usefulness of the indicator and whether to eliminate, modify or keep the indicator.

- Conducted a workshop in September 2019 for all M&E and information management staff to facilitate team building and strengthen capacity at the provincial level with regard to data analysis (introduction to R-data analysis software) and risk assessment.

Priorities 2020

Improve accountability

- Review the current lifecycle of pre- and intra-campaign monitoring (federal and provincial) including staffing, monitoring tools, data entry mechanisms and feedback review practices to determine campaign readiness.
- Conduct federal facilitators' workshop biannually to improve facilitative supervision of federal monitors and ensure high-quality monitoring feedback. Provincial M&E officers to cascade workshop in respective provinces. Continue federal refresher briefings prior to each SIA on a regular basis.
- Implement district and UC scorecards to evaluate campaign performance, share with relevant staff and take corrective action.

Improve data quality, dissemination and use

- Conduct a comprehensive data review (CDR) on all data collection tools to simplify and streamline incoming data. All indicators collected will undergo a critical evaluation by all relevant programme units in order to reduce redundancies in data collection and prioritize the most valuable/need-to-know indicators.
- Support increased customization of microplans to facilitate effective campaign planning (in coordination with other AoWs).
- Develop SOPs to train M&E staff on updated data collection tools and methodology, in consultation with Programme Operations.
- Implement biannual data quality and system assessments (DQSA). These DQSA will identify data-related issues and support the formulation of corrective action. DQSA tools for CBV areas have already been developed and implemented.
- Implement a routine post-campaign DQA, to be led by provincial M&E officers (data accuracy only); training will be provided in advance of implementation.
- Implement data analysis triangulation in priority areas and in consultation with the data team to support data-driven decision-making.
- Design a single post-campaign evaluation (PCE) methodology which will provide both a district- and UC-level assessment that includes campaign quality and coverage information.
- Conduct the annual survey regarding the status of EI services in high-risk areas.

Improve campaign planning and quality

- Update the microplan quality assessment (MPQA) methodology and tool to improve utility and facilitate data-driven updates based on review of past campaign performance (also linked with campaign monitoring lifecycle review).
- Implement a mechanism to systematically track data on inaccessible areas.

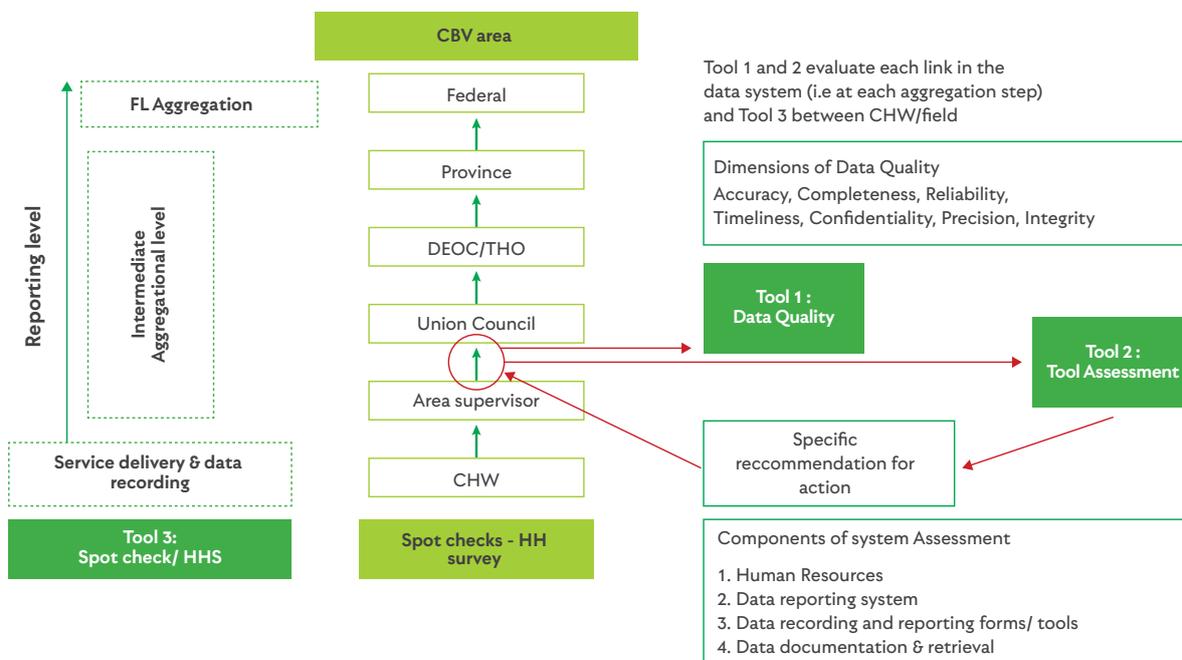
Improve collaboration with provincial M&E team using the 'one team' approach

- Improve communication among all M&E staff.
- Update M&E team standard operating procedures (SOPs).
- Conduct monthly/bi-monthly video conferences with provincial M&E teams.
- Conduct quarterly progress review meetings between national and provincial M&E teams.
- Actively solicit provincial M&E officer feedback during the CDR and other M&E initiatives spearheaded at the national level.

Improve M&E capacity at the district/UC level

- Design and implement a training module for district/UC-level staff with M&E responsibilities who do not currently receive training (e.g., programme data assistant, UC Polio Officer [UCPO], UC Communication Officer [UCCO], and temporary tehsil support person [TTSP]).
- Train staff at UC level and above on the use of UC profiles in the dashboard to improve campaign planning and implementation.

Figure 7. Data quality and system assessment (DQSA) framework



CBV= community-based vaccination; CHW= community health worker; DEOC= District Emergency Operations Centre; FL= final level; HH= household; HHS= household survey; THO= Tehsil/Town Health Office

Information management team

Progress 2018/2019

- Conducted a review of Integrated Disease Information Management System (IDIMS) and EOC dashboard for functionality and ease of use. Designed and implemented new modules and reports for all phases of campaign operations and developed real-time data extraction and automation at each programme layer (pre-, intra-, post-campaign) linked with the EOC dashboard. Specifically, the following were achieved:
 - MPQA data through open data kit (ODK) is automated in real time and linked to EOC dashboard; additional modifications will be incorporated after M&E review.
 - Intra-campaign monitoring through ODK is automated on EOC dashboard; household cluster data will be automated after M&E review.
 - Ongoing management of the IDIMS database system and GIS mapping is underway to continue enhancing utilisation of already available data.
 - Data triggers developed and implemented in IDIMS and EOC dashboard; awaiting finalisation and operationalisation.

Priorities 2020

Data integration, visualisation, evaluation and analysis to support RADS and NEAP strategic priorities

- Introduce additional data and modalities into ODK and/or IDIMS to facilitate data availability, access and analysis (e.g., surveillance indicators through web-based information for action [eIFA], religious support persons [RSPs] feedback forms, DQSAs, MPQAs, training monitoring checklists, campaign and campaign monitoring data, district storyboards, and data triangulation capabilities). New ODK forms developed on an as-needed basis to respond to programme requests.
- Build automated data triggers system in IDIMS with real-time syncing to the EOC dashboard to flag data quality issues at the UC level. District-level authorities will be notified of data issues and required to verify data accuracy.
- Continuously update dashboard structure to facilitate data analysis and data-driven decision-making by implementing user-based profiles and pages (e.g., a page designed to address information needs for pre and intra-campaign meetings at the district level). The new business intelligence platform will support enhanced visualisation capabilities, including on mobile devices.
- Implement a data digitization pilot to identify the feasibility of digitized data collection at the UC level or below. The pilot will be cross-sectional and designed to identify impediments to implementation (e.g., human capacity, network access), impact on data entry workload and impact on data accuracy. Findings will be used to make recommendations on broader implementation of data digitization.
- Provide updates and trend analyses to surveillance team, campaign units and AoW leads on a regular and ad-hoc basis.
- Provide continuous IDIMS support and updates to all levels (district, provincial, national, regional and headquarters).

Build capacity to analyse, interpret and use data

- Conduct regular capacity-building workshops and countrywide trainings on new modules and databases. Additional trainings on data tools, usage and quality will be conducted in coordination with the M&E unit for staff at the provincial and district levels.
- Develop a data user manual (SOPs) of all current data systems; ensure that regular updates are incorporated and disseminated to all data staff and that requisite training is provided.

Promote and support knowledge management

- The EOC Cloud (a central repository of all key programme documents to promote institutional knowledge and information sharing) was established during the 2018/2019 NEAP year. It has been successfully tested among small groups. Full implementation and access across all teams, provinces, and partners is planned for completion by December 2019.
- Develop and maintain a tracker of all changes to data systems and electronic data collection mechanisms (e.g., the additional or deletion of a campaign indicator) to promote knowledge management, in coordination with M&E and Operations units.

Complete and maintain ongoing systems improvements

- Complete installation and configuration of new web server for IDIMS & eIFA, currently underway.
- Start installation of ODK server machine to replace the cloud drive and enhance submission capacity. Backup server will be prepared following successful installation of the new server.
- Enhance web APIs for real-time data syncing from IDIMS to the EOC dashboard
- Develop new admin-level settings panel into IDIMS for securing control over central database, as well as other module-based databases.
- Perform ongoing updates and enhancements to all PEI databases per changing requirements.
- Continue ongoing development and maintenance of databases for human resources (HR), protocol and procurement, and electronic direct disbursement mechanism (eDDM) for EPI.

Support GIS & mapping strategies

- Develop a GIS operational plan with a survey of Pakistan for 2020.

Innovation and operational research team

Progress 2018/2019

- Conducted a survey on vaccinator and parent attitudes toward jet injectors during the February 2019 IPV campaign; drafted a manuscript to submit for publication.
- Finalised and disseminated proposal submission guidelines for programme staff and external applicants.
- Collaborated with the National Institute of Health (NIH) and Agha Khan University (AKU) to conduct sero-surveys in selected districts; results from round three of seroprevalence survey in Khyber (Landhi Tehsil) were finalised in September 2019.
- Collaborated with AKU to support primary immunodeficiency disorder (PID) surveillance work in selected areas; AKU study on poliovirus type 1 mucosal immunity in Bin Qasim, Karachi is underway to compare immunity of children above and below the age of 5 years.
- Provided inputs on survey tool for April 2019 HR&MP guest assessment of 24 drainage UCs in Quetta to determine guest movements and vaccination status.
- Held regular meetings with the Sindh Province Research Team to identify areas of interest for research and training.
- Held regular meetings with AKU researchers to discuss research collaboration within the PEI; linked AoWs with AKU researchers as appropriate (e.g., findings on SMS messaging techniques to promote EI shared with Communications team).

Priorities 2020

Perform operational research to support informed decision making

- Finalise and publish 2019 research.
- Perform additional research on reasons for failure to vaccinate as reported in the annual EI survey.
- Assist other teams with developing reports based on surveys and operational research, as required (e.g., UNICEF research on refusals).
- Meet with research institutions (e.g., AKU) to discuss research and facilitate collaboration.
- Review external research proposals to ensure alignment with programmatic objectives, in coordination with the GPEI.

Promote institutional knowledge and information sharing

- Integrate a polio research repository in the EOC Cloud, composed of global research.
- Establish a tracker of all current polio research being performed in Pakistan.

Build capacity at the provincial level

- Implement trainings for provincial-level research staff on research methodology and data analysis.
- Support provincial staff in developing and executing research proposals.

Surveillance for eradication team

Detecting every poliovirus transmission in a timely manner is an essential activity of the Pakistan PEI. As Pakistan now faces concurrent cVDPV and WPV1 outbreaks, surveillance activities for the NEAP 2020 period will be enhanced, where necessary, based on the changing epidemiology, programmatic needs or other contextual challenges that affect effective monitoring of surveillance activities on ground.

Progress 2018/2019

- Surveillance systems continue to improve through the 'Surveillance for Eradication' (SE) Work Plan initiated in the 2016/2017 NEAP. SE Work Plan implementation increased reporting of AFP (acute flaccid paralysis) cases. The non-polio AFP (NPAFP) rate increased from 14 per 100,000 children under 15 years of age in 2018 to 16.2 per 100,000 in 2019.

- Stool adequacy improved from 87% to 88%.
- The number of environmental surveillance (ES) sites increased from 55 to 60 sites.
- The number of silent UCs has reduced by 30% in the last 12 months.
- External surveillance field reviews led by the federal surveillance team have been conducted in 37 districts across Pakistan, followed by extended field support.
- 100% of District Surveillance Coordinators (DSCs) have been notified, with 85% trained.
- The programme managed a full rollout of the web-based integrated Information for Action (IFA) system – called eIFA.

Priorities 2020

Strengthen capacity, oversight and accountability for an effective surveillance system

- Strengthen surveillance infrastructure and workforce capacity.
 - Maintain DSCs and dedicated partner surveillance officers at the district level and/or at divisional level.
 - Hold annual orientations on AFP surveillance for formal and informal health care providers at the district level.
 - Conduct quarterly surveillance trainings to guarantee training of newly hired staff.
- Reinforce surveillance oversight and guidance through granular data analysis and evaluations at the national level by the Surveillance for Eradication team (SET).
 - SET to oversee implementation of the NEAP 2020.
 - Develop an accountability framework outlining key responsibilities and expected deliverables on surveillance by key surveillance staff at the national, provincial and district levels.
 - Conduct quarterly audits of the progress made on NEAP work plan implementation.
 - Conduct quarterly risk assessments and joint reviews of districts with surveillance gaps.
- Strengthen oversight and support of surveillance activities at the district and divisional levels
 - Conduct monthly District Surveillance Review Committee (DSRC) meetings under the chairmanship of Deputy Commissioner (DC) or District Health Officer (DHO).
 - Maintain surveillance as an agenda item in all District Polio Eradication Committee (DPEC) and Union Council Polio Eradication Committee (UPEC) meetings in every district.

Acute flaccid paralysis surveillance

The foundation of a functional and sensitive surveillance system is timely detection of all AFP cases followed by investigation, stool sample collection and transportation to the Regional Reference Laboratory (RRL). In 2020, the programme will focus on improving surveillance in districts that have struggled to meet set benchmarks and explore alternative approaches to complement formal AFP surveillance networks.

- Ensure good AFP surveillance indicators reflect a good surveillance system.
- Conduct targeted external reviews in areas where surveillance performance is a concern, or as requested by the PEOC, NEOC or AoW lead.
- Rectify weaknesses or gaps highlighted in surveillance reviews. Where necessary, federal and provincial surveillance teams will provide extended support to districts to address persistent gaps.
- Conduct a bi-annual review and rationalisation of the AFP surveillance network at the district level, informed by identified changes in health-seeking behaviors.
- Enhance community-based surveillance (CBS) in areas with poor health infrastructure. Track proportion of community reporting through CBS for all hard-to-reach areas and populations.

Environmental surveillance

The ES system, consisting of 60 sites across 40 districts/towns, provides critical information on the changing epidemiology of poliovirus in Pakistan and insights on SIA campaign quality through early detection of low-level WPV1 and cVDPV2 transmission. The impact of ES surveillance on the programme was clearly demonstrated in NEAP 2018/2019 period and its importance will increase in the next year.

Under the 2020 NEAP, the programme will intensify opportunities to optimise the quality and sensitivity of ES networks, particularly by using the ES network to detect cVDPV2 outbreaks in new areas or to detect SL2, breakthrough transmission and new cVDPV2 following the use of monovalent oral polio vaccine type 2 (mOPV2) in case or event response.

- The national SET will ensure that at least 25% of ES sites in every province are reviewed during the NEAP period and, where deemed necessary, relocated and repositioned or recommended for closure as per guidelines. Reviews will also focus on capacity building of staff to ensure adherence to protocols on ES processes.
- Site review and monitoring of sample collection in sites where no virus isolated (NVI).
- The programme will maintain its flexibility to set up ad-hoc environmental surveillance in identified high-risk districts across the country.
- A guidance note will be developed by January 2020 to guide prioritization of areas for ad-hoc ES setup and their duration in this context.

Vaccine preventable diseases and primary immunodeficiency disorder surveillance

Under NEAP 2018/2019 period, the programme initiated VPD (measles and neonatal) surveillance through the AFP surveillance network across the country. This data is analysed and shared on a weekly basis as part of the weekly surveillance updates and with the EPI teams at the national and provincial levels. Information on EI zero dose for AFP cases is also shared with the EPI teams. In NEAP 2020, the programme will maintain this practice and strengthen information sharing and coordination especially at the district level with support from synergy teams.

Under the NEAP 2018/2019 period, primary immunodeficiency disorder (PID) surveillance was initiated in Lahore and Karachi. A database for children with PID has been created and guidelines for routine follow up are in place. In NEAP 2020, the programme will conduct initial trainings with specialists in Quetta, Peshawar and Islamabad to set up PID databases in these districts, in addition to maintaining the PID databases from Lahore and Karachi. PID surveillance will also be incorporated into field activities through developed guidelines and an orientation of staff.

Laboratory

The Regional Reference Laboratory (RRL) at the National Institute of Health (NIH) in Islamabad, Pakistan is the cornerstone for both Pakistan and Afghanistan's polio surveillance activities. The laboratory has consistently provided timely diagnostic results, including genetic sequencing of all WPVs and VDPVs, for both stool and environmental samples. Under the 2018/2019 NEAP period, the RRL was able to adequately meet programmatic demands from the increase in ES sites and enhanced surveillance following the cVDPV2 detection in 2019.

Progress 2018/2019

Increased laboratory capacity by procuring additional equipment and recruiting additional support.

- Installed and configured an electronic information management system.
- Enhanced security and communication systems within the RRL.

Priorities 2020

Under the NEAP 2020 period, the RRL will work to maintain capacity, specifically through:

- Maintaining use of the newly installed full-fledged electronic information management system, ensuring availability of both quality data and analysis.
- Strengthening management and stocks levels of essential laboratory supplies through an electronic system.
- Maintaining the capacity of the serology lab and prioritize the testing of samples directly contributing to polio eradication efforts in Pakistan and Afghanistan.

Containment

The purpose of containment is to reduce the risk of releasing polioviruses into the community from a laboratory or facility that may handle the virus for the purposes of vaccine production, quality control, diagnostic testing or research. The *WHO Global Action Plan to minimize poliovirus facility-associated risk (GAPIII)* outlines safe handling and containment measures to minimize the risks of reintroducing the virus into a polio-free environment.

While there are facilities in Pakistan that store specimens which may potentially contain polioviruses, the RRL at the NIH is the country's only laboratory that has met GAPIII requirements for handling materials known to contain poliovirus. The RRL has implemented and achieved the required levels of biosafety and biosecurity measures through its strict adherence to globally-defined containment practices.

Progress 2018/2019

In preparation for certification of the RRL as a poliovirus-essential facility (PEF), a pre-audit was conducted to identify recommendations to be implemented prior to application for PEF certification.

- Completed the notification for the National Authority for Containment (NAC) process.

Priorities 2020

Implement GAP III recommendations

- Document and report progress to NEOC on GAPIII Phases I, II, and III implementation.
- Hold regular National Poliovirus Containment Coordinator (NPCC) meetings; schedule at least half-yearly meetings.
- Participate in a pilot of validation studies on use of the newly developed strain for poliovirus serology testing (when available).
- Develop an annual work plan to guide implementation of activities.

Rapid response team

The programme established rapid response units (RRUs) at the National and Provincial EOCs in 2016/2017, and RRUs have since provided immediate capacity to respond to programme performance or poliovirus events that threaten the programme's capacity to interrupt WPV transmission or manage VDPV outbreaks. In the 2018/2019 NEAP period, RRUs shifted their focus to support investigation of cases and virus events. In addition, through revised terms of reference (ToRs) for the National RRU, more focus was placed on the development of comprehensive response plans to address gaps and institute follow-up visits and assessments at 90- and 180-days to track implementation of recommendations. RRU members are multidisciplinary and multi-agency, working under the 'one team under one roof' concept that was introduced through the Accountability and Performance Management (APM) Framework.

Progress 2018/2019

- Conducted 88 investigations and 79 support missions across all provinces by the National RRU.

- Fortified response capacity through extended field deployments in critical geographic areas, including central Khyber Pakhtunkhwa, northern Khyber Pakhtunkhwa, Gilgit Baltistan and central Pakistan.
- Developed comprehensive action plans with the district teams to ensure that outbreaks were managed in a timely manner by outlining specific and measurable priority actions for the district, division, PEOC and NEOC.
 - A total of 55 RRU officers & RRU teams' representatives from the entire country were trained on field epidemiology, risk assessment and follow-up as per global guidelines on outbreak assessment and response support from the U.S. Centers for Disease Control and Prevention (CDC).

Priorities 2020

Control ongoing outbreaks

- Review investigation reports and conduct follow-up visits to identify issues contributing to the continued circulation.
- Identify essential priority actions that need to be implemented at the UC and district level to address gaps.

Update the SOPs to standardize RRU structure, functions and management, including clear lines of reporting. The revised SOPs will provide guidance for investigations and response to WPV1 and VDPV2 outbreaks aligned to the most up to date global guidelines.

Respond to events within the stipulated timelines; manage outbreaks within a 180-day period

- Conduct investigation and responses as per the revised RRU SOPs.
- Include a communication and social profile/analysis component in all investigations and in consultation with the concerned DEOC.
- Provide guidance (in coordination with RADS) on the scope of response based on risk assessments and various contextual factors, as identified in the investigation.
- Provide extended field support, from the National RRU, where resources permit, to address persistent gaps in locations identified by risk assessments, as and when directed by the NEOC coordinator or deemed necessary by the RRU team or AoW lead.

Strengthen national and provincial RRU teams (including all AoW personnel)

- Bring multidisciplinary, multi-organisational RRU teams at the provincial level under respective EOC core groups for increased coordination and oversight.
- Review and revise RRU team's ToRs to improve clarity on roles and expected outputs.
- Share quarterly progress reports among national and provincial RRU teams. Where outbreaks have not been managed, revise risk assessments, investigate reasons for persistent circulation and recommend course correction action.

Strengthen RRU response capacity and establish Incident Management Team(s)

- Incident managers identified through a rigorous and competitive process and trained on outbreak investigation, managing case response and other aspects as articulated in the RRU SOPs.

Poliovirus type 2 surveillance and risk management

The Pakistan polio eradication programme is currently dealing with concurrent cVDPV2 and WPV1 outbreaks. In 2019, 22 cVDPV2 cases were reported in the country: sixteen from Khyber Pakhtunkhwa, four from Gilgit-Baltistan, one from Islamabad and one Punjab. In addition, cVDPV2 has been isolated from the environment in the provinces of Punjab, Sindh, Khyber Pakhtunkhwa, Gilgit-Baltistan and Islamabad. In response to the confirmation of cVDPV 2 circulation, IPV campaigns in three districts followed by two rounds of mOPV2 have been conducted in affected and high-risk districts in Gilgit-Baltistan, Khyber Pakhtunkhwa, Punjab and Islamabad. Current and future VDPV outbreaks will be responded as per the global SOPs, including:

enhancement of AFP surveillance and ES; intensification of EI with IPV; an immediate SIA and at least two expanded SIAs with mOPV2 as per the risk assessment; and advocacy, communication and social mobilisation to increase immunisation demand and acceptance by the communities. The NEOC will closely monitor the progress of the response and assess the needs of additional SIAs or mop-up in selected and new areas with cVDPV outbreaks.

High-risk and mobile populations team

Assessments conducted during the 2017/2018 NEAP period provided a granular profile of high-risk and mobile populations (HR&MPs) and demonstrated that these populations are not being missed by the programme. Where these populations were under-vaccinated, it was clear that operational issues also affected the settled populations. Building upon this analysis, the programme has refined HR&MP definitions to bring to the fore those populations identified as contributing significantly to the current poliovirus epidemiology and therefore critical for eradication efforts. Persistent transmission of WPV1 between Pakistan and Afghanistan underscores that each country's challenges to eradication and organising efforts are intertwined. Additionally, exportation of WPV1 to Iran from Karachi demonstrates the need to strengthen implementation of International Health Regulations (IHR).

As defined by the programme, HR&MP has two priority populations:

- a) **High-risk mobile populations:** This addresses people who regularly move to and from core reservoir or high-risk districts for economic or social reasons and who reside within communities they visit. These are the populations that present the highest risk to exportation and importation of poliovirus.
- b) **Vulnerable Populations:** These are populations that due to socio-economic factors are vulnerable to polio introduction through frequent movement to areas with established circulations. It also includes populations whose risk is increased due to living conditions (with poor sanitation, for example) or those who are likely to be missed in EI due to weakened health systems or delivery issues.

Additionally, an operational shift was proposed to ensure that all children in transit – including those marked not available (NAs) or guests – are vaccinated, wherever they are. Pilots were implemented for Quetta, Karachi and Peshawar. As per IHR protocols, all age vaccination (AAV) was initiated at Torkham Gate (Khyber Pakhtunkhwa) and Friendship Gate (Baluchistan) on 25 March 2019, and this initiation was coordinated with Afghanistan. A total of 632,723 people vaccinated at Torkham and 921,164 people were vaccinated at Friendship Gate in Killa Abdullah in Balochistan from 25 March to 31 December 2019.

Assessments were conducted to better understand different HR&MP movement trends and ensure vaccination operations are prepared to identify and vaccinate high-risk and mobile children. These assessments included:

- Guest children in Quetta District. Information on the magnitude of guest populations, movement patterns, vaccination status and attitudes towards vaccination were gathered and analysed to guide operations toward improving HR&MP coverage during each campaign.
- An assessment to understand movement patterns and magnitude of people crossing the Friendship Gate was done in February 2019 to guide AAV roll out at this Pakistan-Afghanistan border crossing point. The assessment showed an influx and outflux of 0.9 million people per month and highlighted that many of the people crossing the border move back on same day.

Progress 2018/2019

- Increased programme focus on mapping and vaccinating HR&MP children during SIAs.
 - 8,358,621 HR&MP children were vaccinated during SIAs from July 2018 to June 2019.
 - 30,446,068 HR&MP children were vaccinated at permanent, transit and special seasonal points from July 2018 to July 2019.
- Continued ongoing vaccination of children under 10 at cross-border permanent transit points (PTPs).

Priorities 2020

Strengthen vaccination of HR&MP children, including those in-transit

- Ensure a clear, uniform understanding of the refined definition of HR&MP at the provincial, district, and field levels, including operational implications for staff.
- Update PEI training materials, orient HR&MP teams and DEOCs, and develop follow-up action plans to integrate and monitor coverage of HR&MP during SIA activities.
- Ensure full implementation of the HR&MP operational shifts developed in 2019 to ensure that all moving children – both NAs and guests – are fully vaccinated during each SIA in Peshawar, Quetta and Karachi.
- Conduct a comprehensive review of the PTP strategy. Assessments on HR&MP demonstrate that the most effective mechanism to vaccinate HR&MP children is during SIAs at the household level. Informed by this, the programme will aim to redirect resources to the most strategically effective approach to vaccinate children on the move.
- Focus on identification, tracking and effective response of seasonal migration between Afghanistan and Pakistan.

Strengthen operational preparedness through improved analysis, availability and use of programme and assessment data

- Develop an electronic platform to consolidate all HR&MP data routinely collected by the programme and facilitate regular analysis.
- Conduct assessments to ensure detailed demographic information and vaccination status of HR&MP are available to strengthen operational preparedness and coverage.

Strengthen cross-border (international and inter-provincial) coordination and communication

- Strengthen AAV effectiveness through joint reviews and assessment with Afghanistan teams.
- Maintain regular cross-border coordination meetings between Afghanistan and Pakistan bordering districts to ensure synchronised SIAs and improved surveillance.
- Hold interprovincial and bordering district coordination meetings to review available data and SIA quality and track the progress and effectiveness of HR&MP strategies every quarter.
- Hold quarterly inter-provincial coordination meetings with participation of national HR&MP team.

Strengthen oversight, monitoring and accountability of HR&MP activities at all levels

- Update HR&MP strategy with a focus on monitoring and accountability to track progress of all HR&MP activities.
- Nominate HR&MP focal persons at the district level and ensure delivery of HR&MP priorities by DEOC according to the accountability framework.
- Ensure inclusion of HR&MP-related indicators and strengthened coordination across all AoWs, particularly Programme Operations, RADS, Synergy, and Communications.

3. SYNERGY AND INTEGRATED SERVICE DELIVERY

Community resistance remains a persistent challenge to the eradication of WPV1, particularly in the highest-risk districts. To build community trust and generate community demand for the polio vaccine, an integrated package of health services will be implemented in collaboration with partner agencies. Given the importance of collaboration with the Expanded Programme on Immunization (EPI) and integrated services delivery (ISD), Synergy is now established as its own AoW.

Synergy's overarching priority for the 2020 NEAP period will be better integration with EPI delivery to address weakened health infrastructures found particularly in super high-risk Union Councils (SHRUCs), and expanded delivery of additional services with the support of the PEI programme.

Synergy comprises two teams that focused on distinct sites of collaboration:

1. **PEI-EPI synergy:** Immunisation strengthening is a priority for the Pakistan polio programme, particularly in the core reservoirs. Components of the current PEI-EPI synergy framework require ongoing and effective collaboration through synchronizing outreach activities, child health days, integrated campaigns, and FLW data quality assessments (DQAs), to cite a few areas of coordination.
2. **Expanded services through ISD:** The focus of ISD synergy will be on establishing collaboration and partnerships with partners, donors, local government authorities, private agencies and community-based or civil society organisations (CSOs) that are actively involved in providing water, sanitation and hygiene (WASH), nutrition and health-related services.

PEI-EPI synergy team

Progress 2018/2019

- Conducted annual EI coverage assessment in CBV UCs in Tier 1 districts to measure progress against NEAP targets.
- Updated EPI targets from CBV registry and biannual enumeration in all Tier 1 districts.
- Integrated activities in Punjab, Sindh and Khyber Pakhtunkhwa by utilising PEI workforce for support in improving EI coverage (e.g., UC evaluation, EPI session and store visits, and house-to-house clusters).
- Regularised enhanced reporting, referral, and follow-up of zero dose children between PEI and EPI in Sindh, Khyber Pakhtunkhwa and Punjab.
- Established EPI-PEI Synergy teams with EPI management at the national and provincial levels and functionalised the teams with enhanced coordination and data sharing.
- Utilised polio resources including the surveillance network for other vaccine preventable disease (VPD) surveillance, including measles and neonatal tetanus (NNT).
- Established deeper collaboration and sharing of EI-related data from SIAs, surveillance, post-campaign evaluations between the NEOC with National EPI (including provincial EPI teams and other relevant stakeholders).
- Coordinated with national and provincial EPI as the entire Pakistan PEI workforce supported the planning, implementation and monitoring of the national measles SIA and typhoid vaccination campaign in Sindh.
- Supported enhanced EI outreach activities implementation through operational planning and monitoring performed by PEI staff.

Priorities 2020

Ensure a well-functioning system for the PEI-EPI synergy at district and provincial levels

- Implement a well-functioning system for PEI-EPI synergy at district and provincial levels, with focal persons and teams guided by SOPs and ToRs linked with new PEI management structure; accountability issues will be addressed through PEI-EPI oversight mechanisms.
- In coordination with PEOCs, provincial EPI, GPEI partners, and CSOs will develop the work plan to improve EI for SHRUCs; incorporate activities related to the GAVI additional Health System Strengthening grant proposal; resources available from other sources for EI (i.e. infrastructure, human resource availability) and mobilise GAVI funding for implementation.
- Conduct special EI fixed and outreach sessions in SHRUCs to reach newly arrived and resident HR&MPs.

Deepen the involvement of PEI management and oversight structures with EPI at all levels

- Integrate PEI and EPI management and oversight structures at the division, district and UC levels (e.g., District Immunisation Committee) to improve EPI service delivery and accountability.
- Track and discuss EPI performance and activities as a part of all PEI management and oversight structures, particularly at the provincial, divisional, and district level (e.g., Provincial Task Force [PTF], PEOC, Divisional Task Force [DTF], DEOC to provide effective support and accountability regarding poor EPI performance).

- Formally dedicate working hours of PEI staff at all levels to EI activities; all UC, district, divisional, and provincial level meetings should include time dedicated to strengthening EPI activities.

Coordinate with partners for EPI strengthening in core reservoirs

- Actively identify and support local and national partners to strengthen implementation of EPI in selected core reservoir districts with very low EI coverage.
- Foster PEI-EPI collaboration in all Tier 1 districts, with particular focus on trainings in SHRUCs to support capacity-building for microplan preparation and EI activities.
- Leverage influencers, community-based structures, and civil society networks established through PEI, especially in SHRUCs, to generate demand for essential immunisation and contribute to tracking defaulters and drop-outs.

Support the ongoing Urban Health Initiative with a focus on immunisation

- Continue to provide PEOC oversight of EPI synergy activities and support activities developed under the ongoing Urban Health Initiative, with a focus on the Urban Immunisation Plan in slums and underserved areas in nine cities of Pakistan, including Karachi, Peshawar, Quetta, and Lahore.

Share zero dose data with EPI to improve coverage

- Develop SOPs defining the responsibilities of concerned PEI and EPI staff in CBV and non-CBV areas, and processes for EI zero dose data recording, reporting, coverage and validation.
- Continue to share EI zero dose data of SIAs (i.e., DSC, EOC dashboard, district compilation) and AFP surveillance data with EPI at the district, provincial, and national level. PEI-EPI management and oversight structures will monitor progress and provide support to ensure maximum coverage of these children.
- EPI/PEI jointly planning on social mobilisation and EPI activities for fixed and outreach activities in all CBV areas to ensure coverage of zero dose and defaulters before next pre-campaign activity week

Support non-polio SIAs and new vaccine introduction in EI schedule

- Support the EPI team in planning, operational implementation and monitoring of vaccination campaigns for VPDs.
- Also provide support in demand creation, developing a communication strategy for VPDs and introducing new vaccines in the EI schedule.

Enhance vaccination activities through improved coverage of birth doses

- CBV workforce to support coverage improvement of 'OPV birth dose' in Tier 1 districts.
- CBV workforce and PEI staff to refer all newborns for Bacillus Calmette-Guérin (BCG) and hepatitis B (where applicable) in Tier 1 districts.

Continue support for monitoring and evaluation for strengthening EI

- Conduct annual survey on the status of EI services in CBV UCs of Tier 1 districts by the end of June 2020.
- Share estimates from post-campaign evaluation (i.e., lot quality assurance sampling [LQAS] and post-campaign monitoring [PCM] for zero dose children, zero dose and OPV3 data from surveillance, and other antigens from household cluster data.
- Strengthen and expand PEI-EPI data-sharing on SIA and EPI activities; provide support on data sharing from SIAs and EPI activities to complement each other in determining the denominators; provide trainings in SHRUCs to support capacity-building for microplan preparation and EI activities.
- Ensure IPV coverage is monitored at all levels; identify the reasons for difference in IPV, Penta 3/OPV3 coverage; support the EPI team to close the gap and achieve the same coverage for IPV as for Penta 3/OPV3.
- Continue to provide PEOC support and engage all PEI staff for implementation and monitoring of enhanced outreach activities as planned by EPI.

Enhance utilisation of polio surveillance network and resources for other VPD surveillance

- Strengthen community-based surveillance for VPD in Tier 1 districts with a special focus on measles.
- Incorporate operational case definition for measles and NNT in CBV training manuals.
- Improve notification of suspected measles and NNT cases in Tier 1 districts by CBV workforce and PEI staff.

Integrated service delivery team

ISD synergy will be implemented using a phased approach to best leverage available resources. One of the key preparatory activities will be a mapping of interventions and activities by existing partners. Coordination with existing health and development policy and programmatic forums is integral to success. ISD will be delivered in collaboration with the government's flagship programme 'Ehsaas' – to address issues such as poverty elimination and community resistance. The Pakistan PEI will assist the 'Ehsaas' team in designing implementation and evaluation plans and measuring outcomes. The PEI team will also help in providing basic services such as health education, growth monitoring, referral of target population to health facilities, and follow-up of treatment / defaulters at the community level.

Progress 2018/2019

Although this is a newly developed team, progress that is underway by different partners provides the ISD team with opportunities for further development. Some of this work includes:

- UC 4 Gadap – Gujro action plan is a good example of integration by different partners where interventions include: eight EPI centres with two Model EPI centres in place and functional (BMGF); soap distribution to fill the gap between community and CBV and hygiene purpose (UNICEF); garbage lifting (Sindh Solid Waste Management Board and UNICEF); provision of Human Resource and Medicine to Jannat Gul Hospital (Department of Health, Sindh); OTP (nutrition desks) established at eight health facilities (UNICEF); labor room establishment with EPI Centre renovation at Laasi Goth (UNICEF); provision of essential equipment to make labour room functional (UNICEF); detailed water and sanitation assessment (UNICEF); cleaning and disinfection of water storage tanks (UNICEF); cleaning of the solid waste dumping (Sindh Solid Waste Management Board and UNICEF); installation of two water filtration plant at health facilities (Rotary International) and monthly expenses for two team support centres (Rotary International).
- In addition, some other relevant work includes: the establishment of 13 new health facilities; the refurbishment of 11 communal water schemes; the replacement of 48,000 feet of pipes for drinking water; better access to maternal and child health services; and delivery of soap, chlorine, vitamin A, and deworming treatment.

Priorities 2020

Improve coordination and collaboration among stakeholders to deliver integrated interventions in SHRUCs

- Ensure community need assessment / baseline survey.
- Develop ISD national action plan for collaboration of partners in intervention areas.
- Identify and map potential partners.
- Prioritize areas within SHRUCs for ISD intervention.
- Advocacy with government and donors to invest in ISD interventions.
- Develop and implement monitoring framework for ISD at UC, district, and above as per PEI transformation management structural reforms.
- Ensure mid- and end-term evaluations on pre-defined outcomes and processes to identify achievements and areas for improvement.

Engage and coordinate with the current government's flagship programme ('Ehsaas') and with relevant sectors for the delivery of minimum service package agreed by partners for increased utilisation of quality integrated social services (like WASH, nutrition and health) in polio endemic SHRUCs.

This will include engagement of PEI workers without direct involvement of FLWs and will include in activities:

- Distribute information, education and communication (IEC) material and messages for service delivery package through PEI frontline workers.
- Provide and use existing available recorded and reported data for planning and implementation of interventions in SHRUCs.
- Identify a strategy of documentation and knowledge management options for programme coverage improvement and impact on the polio response.
- Undertake operational research/study for evidence-based lessons learned to inform strategy for scaling up (e.g., designing a study to demonstrate the impact of the integrated approach on polio vaccine acceptance).
- Reviewing lessons learned at the provincial level from similar, previous interventions.
- Involvement of FLWs in community / social mobilisation / communication / messaging for implementation of ISD, where needed.

Coordinate with WASH to increase utilisation of social services in polio-endemic SHRUCs

- Identify a strategy of documentation and knowledge management for programme coverage improvement and impact on polio response.
- Review lessons learned at the provincial level from similar, previous interventions.
- Undertake operational research to inform evidence-based strategies for scaling-up ISD interventions.
- Engage in advocacy with the government to invest in integrated platforms.
- Strengthen capacity of staff at targeted health facilities.
- Implement interventions at fixed and outreach sites by using existing health and nutrition departments.

4. COMMUNICATION FOR ERADICATION

Serious challenges must be addressed to build public confidence in the polio programme and OPV. Refusals, which remain in the hundreds of thousands, are impacting overall coverage and immunity levels. While CBV in the core reservoirs has resolved up to three out of four refusals (based on data from July 2018 - March 2019), and recent initiatives such as 'challenge mapping' have also helped, these successes have been overshadowed by increasing refusal rates. Research demonstrates most refusals are based on a low-risk perception, yet the drivers for refusals range from repeated rounds, multiple doses, and multiple knocks on the door, to a lack of confidence in vaccine safety and efficacy or a lack of trust in FLWs.

To better understand vaccine hesitancy and caregiver refusals, the programme conducted technical and management reviews, including two independent communication reviews in April and May 2019. Both reviews acknowledged key interrelated findings:

- Intense SIA schedules between 2018 and early 2019 impacted the implementation of communication plans, particularly those involving sustained, evidence-based community-engagement (CE) activities.
- FLWs have limited time to develop rapport or cultivate trust with parents. Their interaction has been focused on the polio vaccine: beyond refusal and missed child conversion, they have insufficient time and training to build support for vaccination.
- Multiple knocks on the door throughout the SIA schedule contributed to anger with the programme on the part of parents and caregivers.
- The spread of anti-vaccination and anti-polio propaganda increased considerably, particularly through the power of social media platforms.

The spread of propaganda remains a top concern that must be met with localized strategies and global activities. The Peshawar incident in April 2019 not only spotlighted growing anger and mistrust of communities; it also demonstrated that the polio programme stands very much alone in relation to Pakistan society.

The PEI needs strong partnership building, advocacy and management to transform how it is perceived by the public. The programme made considerable progress in developing communication and social media

strategies for managing negative influence and responding to crises. The PEI increased its presence and ability to influence online and social media content. With the support of Facebook, it was also able to flag or take down misinformation before it spread further.

In the 2020 NEAP, the programme has shifted to a more comprehensive and integrated approach, with the EOC structure reflecting an increased focus on communication and CE activities. Therefore, a separate AoW for Communication for Eradication (C4E) has been established with an overarching priority of building trust in the polio eradication programme and in vaccines, more broadly. Priority will be given to approaches adapted for local contexts, ensuring that all community engagement actors (CBV, ComNet, RSPs, etc.) are better integrated and coordinated.

Community Mobilisers

Community Mobilisers (CMs) are critical resource at the street level in the SHRUCs. CMs are selected for their communication skills and local knowledge. Each CM visits 300 to 500 households before and during a polio immunisation round. In the pre-round visits, the CM provides information about vaccination, counters arguments against OPV, and collects basic information (names, ages, and immunisation history of all children under five) in a field notebook. They also counsel pregnant women on the importance of exclusive breastfeeding and colostrum feeding and help to integrate newborns into the EPI system. During an SIA, the CM goes house to house to ensure no child is missed. If a child is not at home or a parent refuses the vaccine, the team will mark the house and the CM will return to the house next week. The CM works with a network of influential local people, like medical practitioners, (retired) school teachers or religious leaders, who are encouraged to attend refusal houses with the vaccination teams to assuage the concerns of parents and caregivers. CMs are part of an improved human resource structure starting at the districts with the District Communication Manager, then Union Council Communication Manager, and finally Area Communication Manager.

Media and advocacy team

Progress 2018/2019

- Reached on average 88% of target populations in high-risk districts through mass and outdoor media campaigns. Campaigns were focused on raising the risk perception of polio and reinforcing the need for repeated vaccination.
- Enhanced proactive social media presence and engagement through a dedicated social media cell (SMC), social media buy (boosting), and partnerships for regulation of propaganda (with Facebook).
- Refreshed SOPs on crisis communication and training of national and provincial spokespersons.
- Launched initiatives to encourage an enabling environment post-Peshawar incident and in preparation for 2019-2020 low season, including the Perception Management Initiative (PMI), advocacy and high-level partnerships (e.g., Pakistan Polio Ambassador Wasim Akram) and the establishment of a call centre.

Priorities 2020

Implement Perception Management Initiative (PMI)

- Establish Coordination Management Cell for PMI: an initiative which is fully integrated into the programme's communication strategy with inputs vetted by communication teams.
- Enhance partnerships and alliances with key stakeholders with capacity for mass public engagement and shaping of public opinion.
- Plan high-visibility events and FLW engagement with public opinion shapers and influencers.
- Disseminate high-quality content information through various channels, focused on building public confidence in PEI and OPV.
- Direct engagement with the public through a 24/7 call centre. The objective of the call centre is to quickly address community members' questions related to the programme. It will also help parents in reaching out to the programme and reporting missed children. The type of questions asked by callers will be monitored and basic data about the callers gathered, which will give important insights on community attitudes and programme quality.

Fortify partnerships and advocacy strategies to generate broader support via policies and actions in relevant sectors at all levels

- Hold meetings with the Ministry of Health (Health Minister, Director General, Secretary) for integrating and promoting polio vaccination through other health programmes.
- Hold meetings with Information Ministry on areas of key support, including public awareness and social media regulation.
- Hold advocacy meetings with Pakistan Paediatric and Pakistan Medical Associations.
- Hold orientation sessions with multi-party Parliamentarians Forum to ensure coalition building among parties.
- Engage top universities: Agha Khan, Quaid-i-Azam, Allama Iqbal, Punjab University and others.
- Form a high-level influencer platform at the national and subnational level.

Strengthen crisis communication to manage risks to the programme

- Review and revise SOPs (including roles, responsibilities, focal persons etc.)
- Undertake crisis communication scenario planning and simulate key, credible implementation plans
- Conduct campaign cycle-wise crisis communication preparedness

Communication for development team

Progress 2018/2019

- Conducted influencer, community engagement (CE) and interpersonal communication (IPC) activities focused on restoring trust in the polio programme and in the efficacy of polio vaccines during all 2019 SIAs. Activities were enhanced after the Peshawar event in April.
- Conducted 'challenge mapping' processes with granular analysis and solutions to local-level issues in high-risk areas. Such processes contributed to resolving refusals, with generally three out of four refusals resolved in CBV areas.
- Developed and rolled out 'Interpersonal Communication Plus' training package, building the capacity of FLWs in effective communication, polio eradication messaging and key integrated family health practices.
- Developed and rolled out microplanning and UC profiling tools, aimed at enhancing data usage and integration of communication and operations personnel and resources.

Priorities 2020

Foster social mobilisation and community engagement through social/influencer and media outreach

- Form key influencer alliances at the national and district levels.
- Initiate mapping, capacity building, and CE activities with district- and UC-level influencers.
- Implement mosque-based activities (e.g., announcements and Khutbahs).
- Implement school-based activities and other info entertainment activities.
- Generate community goodwill and public favour through compelling media outputs and social media campaigns.

Build caregiver and family knowledge, awareness and confidence in the PEI and OPV

- Engage parents and caregivers through focus group sessions on the PEI and OPV
- Conduct individual parent counselling sessions in cases of refusals or persistently missed children by FLWs and others (e.g., community influencers)
- Identify and mobilise role model parents to mobilise other parents

Develop communication strategies to reach mobile populations and travellers within the country and those crossing the Pakistan/Afghanistan border

- Maintain regular communication with Afghanistan PEI to share and synchronise communication interventions to reach targeted populations
- Map key influencers in border areas and engage in community-led activities on respective sides of the Pakistan and Afghanistan border
- Synchronise communication activities and disseminate high-quality multimedia content during the campaign and special events
- Carry out CE sessions and specific targeted activities with Pashtun communities in Sindh
- Carry out engagement sessions and visibility activities targeting HR&MP in Punjab

Improve motivation and capacity-building of FLWs

- Engage top-level motivational speakers to build morale of FLWs
- Develop and roll out other incentives: medals, certificates, TV and other media appearances.
- Focus capacity building with DHCSOs, UCCOs and RSPs on communication management (planning, implementation, M&E).
- Focus capacity building of FLWs on enhanced IPC skills
- Develop mobile phone app for FLWs to provide key programme updates and IEC material

Develop and disseminate compelling and context-specific content on C4E strategy

- Develop evidence-based multimedia content and IEC for specific target groups

Coordinate and communicate within and across the management structure

- Strengthen national and provincial teams, DEOC and UPEC
- Review and revise communication cadres within SHRUCs and CBV areas to include clear communication accountabilities and reporting structures, based on management review recommendations.
- Review and revise communication cadres within high-risk UCs to include clear communication accountabilities and reporting structures, based on management review recommendations and specific needs of those areas
- Enhance integration and coordination of communication cadres at implementation level, with focus on COMNet and RSPs integration, and coordination between communications and operations teams.

5. MANAGEMENT, OVERSIGHT AND ACCOUNTABILITY

The function of Management, Oversight and Accountability (MOA) structures are to facilitate NEAP implementation; develop and track data-driven action plans; work to address programme challenges; and integrate recommendations and guidance provided by the Technical Advisory Group (TAG), the Independent Monitoring Board (IMB), and the Emergency Committee for Polio Eradication under the International Health Regulations (IHR). The oversight bodies established through the 2020 NEAP will regularly review programme progress and ensure polio eradication remains a top priority of the Government through well-conducted coordination, high-quality performance management, and the timely allocation of support and resources.

Priorities 2020

During the 2020 NEAP period, MOA will redouble its efforts to improve the effectiveness of all oversight, management and implementation structures through increased coordination, consistent reviews and good governance. The programme will revitalize management to implement high-quality SIAs across each district with laser-sharp focus on SHRUCs, an extra focus on core reservoirs (Tier 1) and followed by focus on high-risk districts (Tier 2); maintain and improve the sensitivity of the polio surveillance system; ensure the children of Pakistan are protected through enhanced coverage of OPV vaccine, especially in SHRUCs and urban slums;

and build community trust through C4E, the delivery of additional services (e.g., Ehsaas, the Benazir Income Support Programme (BISP), health, nutrition and WASH).

The overarching priority for MOA will be to capitalize on current country leadership and regain the 'one team' approach at all levels, whereby everyone works effectively as one team under one roof. To take full advantage of the personal leadership of Prime Minister, Minister of Health, Provincial Chief Ministers, and Army Leadership, the key action areas will be to:

- Conduct quarterly reviews by the National Task Force (NTF), Provincial Task Forces (PTFs) and Pakistan Army Leadership.
- Work with the Pakistan Army in a sustainable and context-specific way.
- Ensure ownership by the highest leadership with specific roles and responsibilities of the administration and Pakistan Army in SHRUCs.

Transformation team

Transformation is an overarching dynamic for the Pakistan programme during the 2020 NEAP period, with an underlying objective throughout to make the programme fit-for-purpose. The major thrust of transformation is to achieve top-quality operational delivery at the National, Provincial and District EOCs and UC level, with special focus on SHRUCs.

Given the large-scale transformations identified through the 2019 management review and TAG recommendations, the NEOC coordinator has notified the formation of a transformation team (TT) that will report to the NEOC coordinator. This team will perform consultations with PEOCs and other relevant structures to detail and track implementation of the approved transformations, innovations and interventions.

TT activities will include:

- Supporting transformation initiatives through, for example, strengthening collaboration across levels or between partners, debottlenecking issues, managing risks or interdependencies, or facilitating joint problem solving to accelerate impact.
- Tracking the impact of these initiatives and regularly reporting to NEOC core group.
- Ensuring effective internal communications and change management across the programme.
- Ensuring that change is sustained in organisational focus, operational behaviour and team mindsets beyond the formal existence of the transformation team.

The Accountability and Performance Management (APM) Framework will be revised and aligned to transformation initiatives to include SOPs for structures, key performance indicators (KPIs) for process, quality standards for data, and ToRs for people and teams. Orientation and capacity-building trainings and workshops are an integral part of transformation and change management and will be implemented with an emphasis on team building and the cultivation of healthy working environments.

Importantly, the TT will not:

- Own any core activities and initiatives, in particular campaign activities. Ownership of these remains with relevant teams.
- Take responsibility for developing recommendations on technical topics, such as the SIA schedule or calendar, microplan templates, HR&MP strategies, or surveillance.
- Become an ongoing part of the NEOC structure. The TT should be time-bound for the duration of the implementation of the transformation initiatives.

The transformation initiatives outlined in the 2020 NEAP are fully supported by programme leadership at the highest level. The TT collaborates closely with and includes members based in the PEOCs. The TT will work on interventions approved by the NEOC core group on the basis of findings from the district and EOC reviews. Weekly review meetings are held with the NEOC core group, chaired by the NEOC coordinator. Monthly progress meetings are also held with the Minister of National Health Services, Regulation and Coordination (NHSR&C), the NEOC core group, country representatives of WHO and UNICEF and the GPEI Hub.

ANNEXES

Annex A – Key performance indicators

Programme Operations

Objective	Indicators
No child is left unvaccinated because of poor planning.	<ul style="list-style-type: none"> • ≥ 80% of assessed UCs pass desk review & ≥ 90% pass field external microplans validation with HR&MP population fully incorporated. • Still missed children: ≤0.75% of children missed against target population, and ≤5% against recorded missed children remaining unvaccinated at end of each campaign. • Still and persistent refusal children: ≤5% against recorded refusal children. • Verifying covered 'NAs: 0% unvaccinated children among covered NAs. • 0% unvaccinated children in locked or 0/0 houses. • 100% of first-line supervisors should only focus on supportive supervision (not monitoring). • 100% AIC/AS (first-line supervisors) should supervise all teams at least once per day. • 10% of intra-campaign household clusters targeted at HR&MPs and bordering areas.
Team composition supports the greatest possible access to all households.	<ul style="list-style-type: none"> • 100% of both members of each team must be adults. • 80% of teams have at least one local team member in each campaign. • 80% of teams have at least one female member or one female support in each campaign • ≥ 80% area in-charges and ≥ 50% of TTMs/TTSPs are females.
Workload of teams is rationalised in such a manner that revisits to vaccinate missed children are possible.	<ul style="list-style-type: none"> • All vaccination teams are able to revisit HHs with recorded missed children and vaccinate at least 40% of them on the same day. • ≥90% of UCs pass the 'team workload rationalisation' by UC-level MP evaluation vetted by external monitor.
Overall campaign quality ensures high population immunity.	<ul style="list-style-type: none"> • >90% of districts should have ≥95% of PCE coverage based on finger marking. • Less than 10% of UCs in any division or province are flagged as low-performing Union Councils (LPUCs). • At divisional, provincial and district level – at least 90% of UCs pass LQAS. • In sero-surveys, at least 90% of children are seropositive for poliovirus type 3.

All infants in all divisions obtain full protection from poliovirus as soon as possible.	<ul style="list-style-type: none"> For SHRUCs: ≥95% of zero dose recorded children at UC level to be linked with EPI (recorded in EPI permanent register) within two weeks after its recording as zero dose.
SIA's are synchronised with Afghanistan.	<ul style="list-style-type: none"> All NIDs and SNIDs and joint case responses for bordering areas are synchronized with Afghanistan.

AIC= area in-charge; AS= area supervisor; CBV= community-based vaccination; EPI= Expanded Programme on Immunization; HH= household; HR&MP= high-risk and mobile population; LQAS= lot quality assurance sampling; MP= microplan; NA= not available; NID= National Immunisation Day; PCE= post-campaign evaluation; SIA= supplementary immunisation activity; SNID= Subnational Immunisation Day; TTM= temporary tehsil monitor; TTSP= temporary tehsil support person; UC= Union Council

Risk Assessment and Decision Support

Objective	Indicators
Ensure the scope and scale of monitoring activities are sufficient to detect performance shortfalls in a timely manner.	<ul style="list-style-type: none"> A pre-campaign, intra-campaign, and post-campaign monitoring plan for 100% of SIAs (NIDs and SNIDs) is designed, implemented, and overseen by RADS. 100% of monitoring tools have measurable indicators and are submitted electronically into a centralised database by March 2020. 100% of other key field activity findings (e.g., RRU investigations) are submitted electronically into a centralized database by May 2020. TPM exclusively used during pre-campaign MPQA, intra-campaign monitoring, and post-campaign evaluation in inaccessible areas and as required for accessible area monitoring activities.
Provide detailed UC- and district-level data and analysis across multiple data streams to highlight areas of concern.	<ul style="list-style-type: none"> 100% of district and UC scorecards (highlighting areas of weakness and overall performance to assist with targeted capacity building) updated after each SIA and available on UC and district profiles in dashboard by February 2020. 100% of UC performance profiles (including scorecard, campaign performance, monitoring feedback, etc.) updated after each campaign on EOC dashboard for review at all levels. 100% of district performance profiles updated after each campaign on EOC dashboard for review at all levels. 100% of campaign facilitators (federal, provincial, district) access UC profile reports to prepare for campaign monitoring (effective April 2020).

<p>Develop and implement a systematic way to assess the quality of incoming campaign data</p>	<ul style="list-style-type: none"> Automated data quality cross-checks using multiple triggers in IDIMS are run on campaign data after 100% of NIDs and SNIDs by December 2020. Routine data quality assessment mechanism (RDQA) utilised at provincial level in all SIAs in 2020. Perform two data quality and system assessments (DQSA) in 2020, with the goal of: <ul style="list-style-type: none"> 95-105% acceptable accuracy level (+/-5% between verified and reported results). 2.5-3.0 score indicating strong components of data management and reporting system. >95% of households with matched child level information with registration book (CBV areas).
<p>Develop capacity to collect, analyse, interpret indicators, and visualise data for decision making at provincial and district level</p>	<ul style="list-style-type: none"> Develop SOPs/ training manual on data compilation, analysis, interpretation of indicators, visualisation, and utilisation of data in decision making. Completion of SOPs/training manual by March 2020 Training schedule: <ul style="list-style-type: none"> 100% of designated SHRUCs staff by April 2020 100% of district-level staff in Tier 1 districts by June 2020 80% of district-level staff in Tiers 2, 3 and 4 by December 2020

CBV= community-based vaccination; DQSA= data quality and system assessment; EOC= Emergency Operations Centre; IDIMS= Integrated Disease Information Management System; MPQA= microplan quality assessment; NID= National Immunisation Day; RADS= Risk Assessment and Decision Support; RDQA= routine data quality assessment; RRU= rapid response unit; SHRUC= super high-risk Union Council; SIA= supplementary immunisation activity; SNID= Subnational Immunisation Day; SOPs= standard operating procedures; TPM= third-party monitor; UC= Union Council

Surveillance for Eradication

Objective	Indicators
<p>Ensure a robust surveillance system; fundamentally strong.</p>	<ul style="list-style-type: none"> 100% of all required staff trained and deployed. DSC investigates at least 30% of AFP cases and makes at least 30% of active sites visits. All Tier 1 and Tier 2 districts and all divisions in Tiers 3 and 4 have dedicated surveillance officers deployed. At least 30% of cases to be re-validated by area coordinator and/or divisional / district surveillance officer. 100% of the lists of facilities in the database carefully reviewed and all critical data updated correctly. 100% compliance in electronic submission of active surveillance site visits. Completed original hard copies to be carefully filed and stored. 100% compliance in electronic submission of weekly zero-reporting. Completed original hard copies to be carefully filed and stored.
<p>Surveillance and reporting of cases are improved at the lowest administrative levels.</p>	<ul style="list-style-type: none"> All standard surveillance indicators are met (see Surveillance Guide for details). 33% reduction in the number of silent UCs over 12 months in all provinces, Islamabad, Azad Jammu Kashmir and Gilgit Baltistan. All tehsils in all provinces have reported at least one case of AFP in the preceding 12 months.

<p>AFP surveillance sensitivity is improved such that all poliovirus transmission in Pakistan is detected in a timely manner.</p>	<ul style="list-style-type: none"> • At least 75% of all AFP cases are reported by the first health provider (1st contact); and at least 90% are reported by the first or second health care provider (1st or 2nd contact). • AFP cases are reported within seven days of onset of paralysis: ≥80%. • In line with the revised contact sampling protocol, >90% of expected number of contact samples are collected and shipped to the laboratory in a timely manner. • 100% of inadequate cases reviewed by ERC, and 80% classified within 90 days of onset. • <10% of isolated polioviruses from any source is divergent from its closest genetic relative by >1%. • 0% of isolated polioviruses from any source is divergent from its closest genetic relative by >1.5%. • 0% of type 2 isolates is divergent by more than 10 nucleotides from its closest genetic relative.
<p>Environmental surveillance reporting is strengthened.</p>	<ul style="list-style-type: none"> • 100% of environmental surveillance results report either a poliovirus or a non-polio enterovirus; 100% of sites reporting NVI are thoroughly evaluated. • Preliminary lab results for all environmental surveillance samples are provided to the NEOC within 28 days of collection and ITD/sequencing results provided within 35 days of collection.
<p>The programme monitors and responds to all poliovirus type 2 transmission.</p>	<ul style="list-style-type: none"> • Lab to maintain and share on a monthly basis a database with 100% of all SL2 and VPDV2 isolated. Database must include all required data for careful risk analysis including divergence from Sabin (nucleotide difference from Sabin).
<p>Poliovirus events are investigated in a timely manner.</p>	<ul style="list-style-type: none"> • 80% of all cases and 100% of newly emerging poliovirus events are investigated jointly by the National and Provincial EOCs • All outbreaks are controlled within 180 days

AFP= acute flaccid paralysis; DSC= District Surveillance Coordinator; ERC= Expert Review Committee; ITD= intratypic differentiation; NEOC= National Emergency Operations Centre; NVI= no virus isolated; SL2=Sabin-like type 2; UC= Union Council; VDPV2= vaccine-derived poliovirus type2

Synergy and Integrated Service Delivery

Objective	Indicators
<p>Enhance management, oversight, and accountability by deepening the involvement of PEI management and oversight structures at all levels.</p>	<ul style="list-style-type: none"> • % of provincial/divisional reviews and DPEC/DEOC meetings with documented agenda item of EPI performance and support by PEI. (Target: 100%) • % of districts with notified and functional District Immunisation Committee / District Synergy Committee or team. (Target: 100%) • % of PEI staff submitted PEI/EPI synergy reports (EPI centers visits, outreach sessions observed).

<p>Ensure completion and timely sharing of EI or RI zero dose children data with the district EPI focal person for maximum coverage.</p>	<ul style="list-style-type: none"> • All polio staff trainings, SIAs and CBV trainings include definition and reporting mechanism of EI zero dose children 0-23 months. (Target: 95% or above) • % of UCs / DEOCs in non-CBV areas formally sharing the EI zero dose children 0-23 months with district EPI focal person/ DHMT within a week after completion of each SIA. (Target: 90% or above) • % of UCs in CBV areas sharing the EI zero dose line list with EPI focal person / DHMT within a week after completion of each SIA. (Target: 100%)
<p>Enhance vaccination activities through improved coverage of birth doses.</p>	<ul style="list-style-type: none"> • Number of newborns referred for 'OPV birth dose' in Tier 1 districts by CBV workforce and PEI staff. • % of newborns who receive 'OPV birth dose' in Tier 1 districts through CBV/PEI workforce referral. • Number of referrals of newborns for BCG/hepatitis B in Tier 1 districts by CBV workforce and PEI staff. • % of newborns who receive BCG/hepatitis B in Tier 1 districts through CBV/PEI workforce referral.
<p>Enhance utilisation of polio resources for other VPD surveillance.</p>	<ul style="list-style-type: none"> • Number and % of CBV staff trained on community surveillance for measles and NNT. • Number of suspected measles and NNT cases reported by PEI staff through zero reporting and active surveillance. • Number of suspected measles and NNT cases reported in Tier 1 districts by CBV workforce after completion of training on measles/NNT case reporting.
<p>Develop a partnership with the 'Ehsaas' programme at the doorstep of underserved community to address concerns surrounding repeated campaigns, community resistance.</p>	<ul style="list-style-type: none"> • Number of coordination meetings with 'Ehsaas' management at different levels.
<p>Improved coordination mechanism with WASH Nutrition and Health programmes for support from PEI in implementation, monitoring and reporting of delivery of integrated interventions</p>	<ul style="list-style-type: none"> • Number of functional ISD teams at PEOCs (meeting frequency, # of endorsed meeting minutes shared). • Number of coordination meetings with WASH, nutrition and health programmes at different levels (e.g., NEOC, PEOC, DPEC and UPEC).

BCG= Bacillus Calmette–Guérin; CBV= community-based vaccination; DEOC= District Emergency Operations Centre; DHMT= District Health Management Team; DPEC= District Polio Eradication Committee; EPI= Expanded Programme on Immunisation; ISD= integrated service delivery; NEOC= National Emergency Operations Centre; NNT= neonatal tetanus; PEI= Polio Eradication Initiative; PEOC= Provincial Emergency Operations Centre; SIA= supplementary immunisation activity; UC= Union Council; UPEC= Union Council Polio Eradication Committee; WASH= water, sanitation and hygiene

Communication for Eradication

(Baselines and targets of some of the indicators to be determined during implementation.)

Objective	Indicators
Media and Advocacy Team	
Implement Perception Management Initiative (PMI).	<ul style="list-style-type: none"> • Weekly coordination meeting held with meeting minutes. • # of high-visibility public opinion shapers engaged. • # of events and/or media appearances made by high-visibility influencers. • Operational 24/7 call centre.
Fortify partnerships and advocacy strategies to generate broader support for the polio programme via policies and actions by relevant sectors at all levels	<ul style="list-style-type: none"> • # of pledges signed. • # of endorsements given. • Proportion of positive media stories. • # of positive polio mentions online, including Pakistani websites, blogs, etc.
Strengthen crisis communication to manage risks to the programme.	<ul style="list-style-type: none"> • Revised crisis communication SOPs. • # of crisis communication simulation activities conducted.
Communication for Development Team	
Foster social mobilisation and community engagement through community/influencers' support and media outreach.	<ul style="list-style-type: none"> • # of alliances formed. • # of alliance partners' budgeting own resources for activities. • # of district-/UC-level plans with activities involving mapped influencers. • # of influencers participating in community engagement (CE) and refusal conversion activities. • # of parents, teachers, children and community members reached with CE and interpersonal communication activities. • # of announcements and khutbahs. • % of caregivers expressing trust in polio vaccination. • % of refusals resolved through community influencer engagement.
Build caregiver and family knowledge, awareness and motivation to enhance public confidence in PEI and OPV.	<ul style="list-style-type: none"> • # of sessions held with mothers, fathers and grandparents' groups. • # of individual interpersonal communication (IPC) sessions held. • # of parents who intend to uptake repeated polio vaccination. • % refusal parents converted. • % of overall refusals resolved following implementation of communication activities.

<p>Synchronise and create synergy of communication strategies to reach mobile populations and travellers within the country and crossing the Pakistan-Afghanistan border.</p>	<ul style="list-style-type: none"> • Cross-border communication coordination meetings held with meeting minutes. • # of influencers in border communities engaged. • # of high-risk and mobile populations (HR&MP) related multi-media content produced and disseminated. • Action plan for targeted communication activities with Pashtun communities in Sindh. • Action plan for targeted communication activities with HR&MP populations in Punjab.
<p>Improve motivation and capacity building of FLWs.</p>	<ul style="list-style-type: none"> • # of motivational speakers engaged. • # of motivational sessions organised and held. • # of medals/certificates awarded. • % of FLWs indicating improved morale after participation in motivation sessions (based on survey). • % of trainees showing improved knowledge after participating in IPC plus training sessions.
<p>Develop and disseminate compelling and context-specific content on the C4E strategy.</p>	<ul style="list-style-type: none"> • # of radio, TV, social media products developed and aired • # of media monitoring reports • % of mass media exposed audience's motivation towards polio vaccination
<p>Coordinate and communicate within and across the PEI management structure.</p>	<ul style="list-style-type: none"> • Provincial Communication Teams operational with ToRs endorsed by National Teams. • Provincial, district, UC, and community level communication structures implemented and functional.

C4E= Communication for Eradication; CE= community engagement; FLW= frontline worker; HR&MP= high-risk and mobile population; IPC= interpersonal communication; OPV= oral polio vaccine; PEI= Polio Eradication Initiative; PMI= Perception Management Initiative; SOPs= standard operating procedures; ToRs= terms of reference; UC= Union Council

Management, Oversight and Accountability

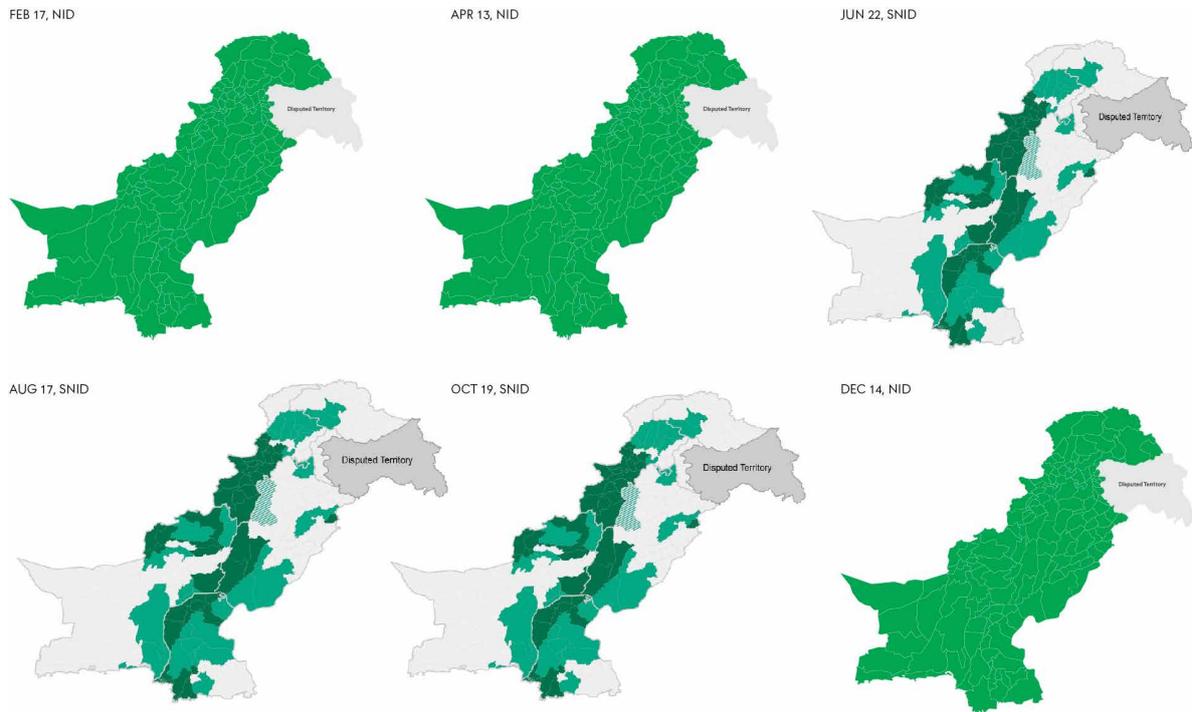
Objective	Indicators
<p>Overall NEAP implementation is closely monitored and supported.</p>	<ul style="list-style-type: none"> • The National Task Force (NTF) meets every quarter to oversee and support NEAP implementation across each province. • The Provincial Task Force (PTF) meets every quarter to oversee and support NEAP implementation across each district. • One month before each task force meeting at the national and provincial levels, the National or Provincial EOC provides a report to the Task Force Chair, updating on progress and challenges against agreed action items from the last meeting. • The Divisional Task Force meets after every SIA to oversee and support NEAP implementation across each Union Council, during which meeting the UC- and district-level post-campaign reviews are presented and discussed, with a focus on process, planning and outcomes. Each of these reviews has a particular review of performance in the SHRUCs. • The District Polio Eradication Committee meets pre-, intra-, and post-campaign to oversee and support preparations for SIAs and debottleneck any issues, review performance during SIAs (on both outcomes and process / planning), review the independent monitors' reports on quality and coverage in each UC, and align on changes for subsequent campaigns based on SIA experience. • The Union Council Polio Eradication Committee meets pre-, intra-, and post-SIAs to review preparations, progress and achievements at area level, provide necessary support where needed, debottleneck any issues at area / team level, and to align on changes for subsequent campaigns based on SIA experience.
<p>NEAP implementation is effectively managed in a coordinated and coherent way.</p>	<ul style="list-style-type: none"> • National Polio Management Team (NPMT) meets every quarter to solve problems, address management bottlenecks and coordination issues. • NPMT meetings have a dedicated review of progress in the SHRUCs. • National Steering Committee (NSC) meets every fortnight (via video-link) to assess the progress on agreed actions and address any issues. • Daily morning meeting of core group happens in each EOC to discuss progress, highlight any emerging issues and assign daily priority tasks. 75% of these meetings are rated 'effective' by participants. • Regular pre-, intra-, and post- campaign feedbacks are given by NEOC to PEOC, and from PEOCs to DEOCs. Feedback is also collated by the UCs, districts, and provinces, and shared with level above.

<p>Ministry of Health and Provincial Health Departments fully own and lead polio eradication activities.</p>	<ul style="list-style-type: none"> • Federal Minister chairs the NSC meeting every two weeks. • Post-campaign review meetings are held regularly under the chairmanship of respective Provincial Health Minister / Secretary • District Health In-Charge (CEO (Health), DHO, or equivalent) fully support and facilitate polio eradication activities in their respective districts. • EPI Managers are permanent members of respective EOC core group, regularly attend the EOC morning meetings, participate in planned activities and are part of decision-making process • All UC Polio Manager positions are filled in respective province; any position falling vacant is filled within two weeks.
<p>Performance Management System is working optimally.</p>	<ul style="list-style-type: none"> • Each individual is monitored and evaluated against the assigned / agreed / notified roles and responsibilities at regular intervals. • Accountability decisions (rewards and sanctions) are taken by joint committees with representation of Government and partners, respecting the obligations of individual organisation.

CEO (Health)=Chief Executive Officer (Health), DHO= District Health Officer; EOC= Emergency Operations Centre; NEAP= National Emergency Action Plan; NEOC= National Emergency Operations Centre; NPMT= National Polio Management Team; NSC= National Steering Committee; NTF= National Task Force; PEOC= Provincial Emergency Operations Centre; PTF= Provincial Task Force; SHRUC= super high-risk Union Council; SIA= supplementary immunisation activity; UC= Union Council

Annex B – Supplementary immunisation activities calendar, 2020

Figure B1. Supplementary immunisation activity calendar, 2020



NID= National Immunisation Day; SNID = Subnational Immunisation Day

Activities to accomplish during six- to eight-week interval between SIAs will include: comprehensive CE support, EPI outreach, capacity building, and integrated service delivery (e.g., WASH, nutrition and health). These activities will be ongoing throughout the interval by their respective units. In addition, at least one week during each campaign cycle will be dedicated to capacity building with motivational sessions, CE, and EPI strengthening/ISD coordination, where full PEI staff support will be provided as required. Capacity-building activities will include both PEI- and EPI-related components.

Figure B2. PEI-supported activities during the six-week interval between SIAs



Annex C – Super high-risk Union Councils

Figure C1. Geographical spread of super high-risk Union Councils

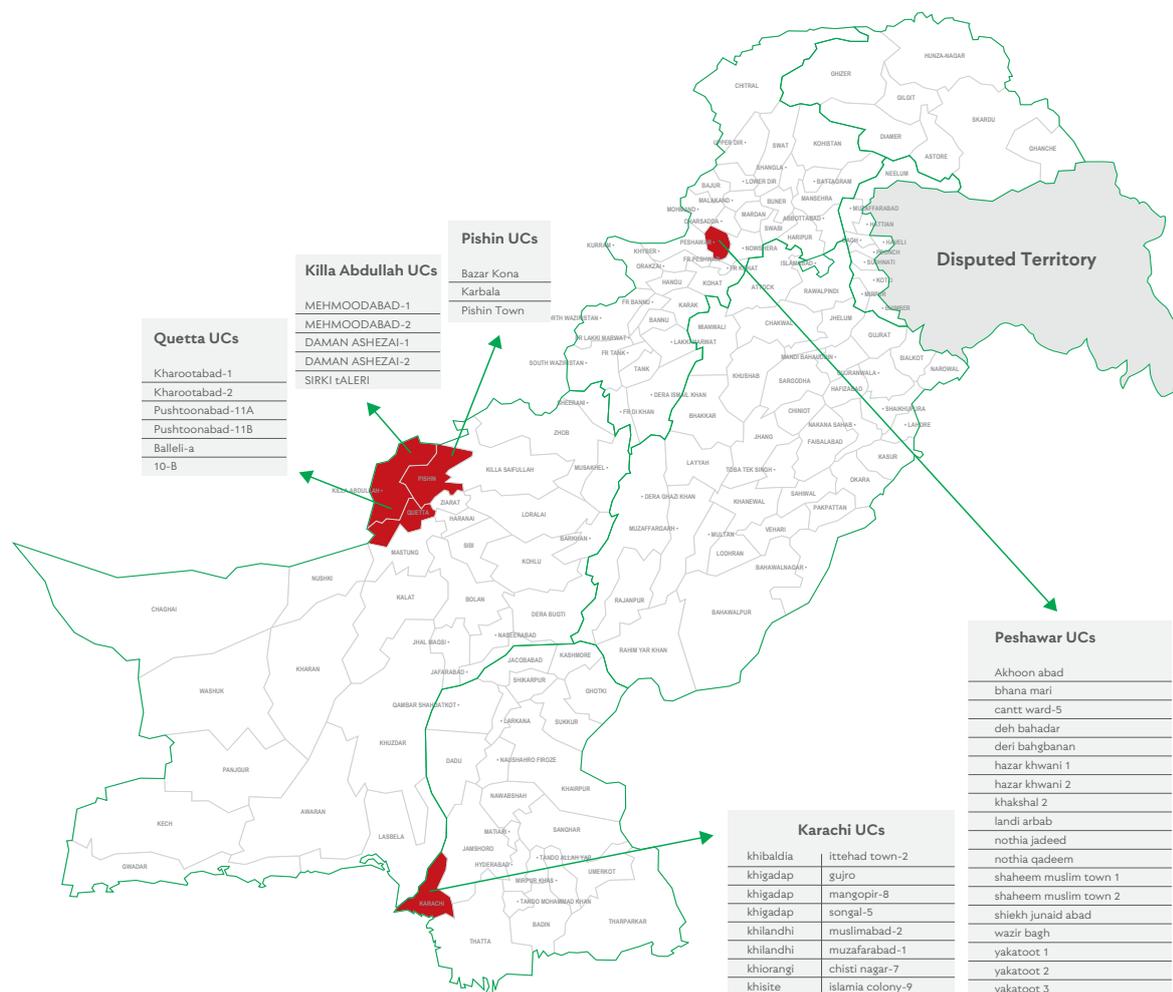
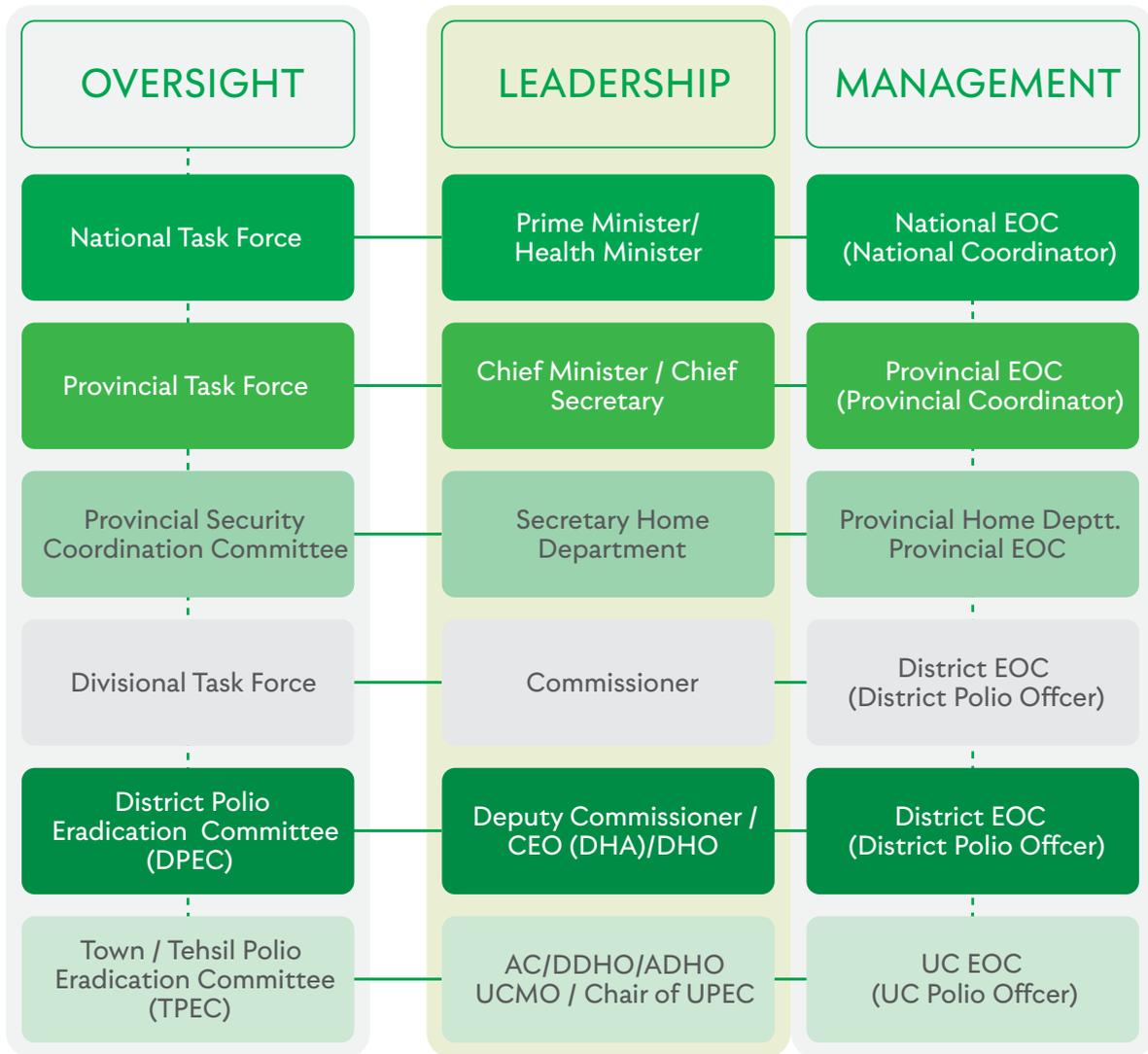


Table D1. Target population of super high-risk Union Councils by province and district

Province	District/Town	Number of SHRUCs	Population	
			<5 years	Total
Khyber Pakhtunkhwa	Peshawar	18	139,286	773,811
Sindh	Karachi/Baldia	1	30,086	167,144
	Karachi/Gadap	3	194,228	1,079,044
	Karachi/Landhi	2	38,682	214,900
	Karachi/Orangi	1	14,390	79,944
	Karachi/SITE	1	16,950	94,167
Balochistan	Killa Abdullah	5	38055	211417
	Pishin	3	9435	52417
	Quetta	6	66125	367361
		40	547,237	3,040,205

Annex D – Essential committees for polio eradication

Figure D1. Pakistan Polio Eradication Initiative (PEI) oversight and management structures



AC= Assistant Commissioner; ADHO= Assistant District Health Officer; EOC= Emergency Operations Centre; DDHO= Deputy District Health Officer; DHA= District Health Authority; DHO= District Health Officer; DPEC= District Polio Eradication Committee; NPMT= National Polio Management Team; TPEC= Tehsil Polio Eradication Committee; UCMO= Union Council Medical Officer; UPEC= Union Council Polio Eradication Committee

National level

National Task Force for Polio Eradication

Pakistan declared polio as a public health emergency in 2011. At that time, the country constituted the National Task Force (NTF) for Polio Eradication, headed by the Prime Minister. As per agreed-upon and standard practice, the following composition and ToRs of the NTF committee (in line of previous notification) is being placed here for endorsement:

1. Prime Minister Islamic Republic of Pakistan (Chairman)
2. Chief Ministers of all provinces
3. Prime Minister, Azad Jammu and Kashmir
4. Minister In-Charge, Ministry of National Health Services, Regulations & Coordination
5. Minister In-Charge, Ministry of Interior
6. Minister In-Charge, Ministry of Social Protection and Poverty Alleviation Coordination
7. Secretary to the Prime Minister
8. Representative of Chief of Army Staff
9. Secretary, Ministry of National Health Services, Regulations & Coordination
10. Secretary to Government of Pakistan, Ministry of Interior
11. Chief Secretaries of four provinces
12. National Coordinator NEOC (Secretary)
13. National Technical Focal Person NEOC
14. National Programme Manager EPI
15. National Team Leads from WHO, UNICEF, NSTOP, Rotary, BMGF

The task force shall meet at least once every quarter and perform the following functions:

- a) To oversee and monitor the progress on NEAP implementation in each province, approve any mid-course correction strategy and issue necessary instructions or directives.
- b) To ensure polio eradication remains top priority across the National and Provincial Governments.
- c) To provide platform for interprovincial and inter-sectoral coordination.
- d) To ensure adequate resources are secured for NEAP implementation.

Importantly, the NEOC will ensure that follow-up on agreed action points from the NTF continues between meetings, and that updates are provided to the Chair and members of the NTF ahead of each meeting, in order to ensure that each meeting is as effective as possible.

National Strategic Advisory Group

The GPEI Independent Monitoring Board (IMB), in a report on their October 2019 meeting, highlighted the urgent need for measures to depoliticize the Pakistan polio eradication programme and to achieve political neutrality and cross-party support for this high-priority national agenda. The Pakistan PEI responded by constituting a National Strategic Advisory Group (NSAG) comprised of the Members of Parliament (MPs) representing all mainstream political parties with the objective to build consensus around polio eradication and immunisation.

The NSAG shall meet on quarterly basis to review the progress and provide guidance and support to the PEI & EPI programme.

NSAG Members:

- | | |
|---|--------|
| 1. Dr. Zafar Mirza, Special Assistant to the Prime Minister / Minister of State for NHR&C | Chair |
| 2. Ms. Shahnaz Wazir Ali, Former Prime Minister's Focal Person on Polio Eradication | Member |
| 3. Senator Ayesha Raza Farooq, Former Prime Minister's Focal Person on Polio Eradication | Member |
| 4. Mr. Khalid Magsi, MNA, Chairman Standing Committee on Health | Member |
| 5. Dr. Nosheen Hamid, MNA, Parliamentary Secretary for NHR&C | Member |
| 6. Prof. Dr. Qibla Ayaz, Chairman, Council of Islamic Ideology | Member |
| 7. Mr. Zamir Akram, Former Pak Ambassador to UN | Member |
| 8. Dr. Sanjay Gangwani, Member Provincial Assembly, Sindh | Member |

National Polio Management Team

The National Polio Management Team (NPMT) is directly responsible for the day-to-day management of the Pakistan Polio Eradication Initiative. It is responsible for continually monitoring and reviewing programme performance and implementation against targets set forth in the NEAP.

The Health Minister is the chair of the NPMT, while the National EOC Coordinator is the co-chair. Other members include the National EPI Manager, PEOC Coordinators, Provincial EPI Managers and team leads of WHO, UNICEF, BMGF and N-STOP.

The NPMT works to the following terms of reference:

- a) The NPMT will lead, guide and follow-up on NEAP implementation, decisions of the NTF, recommendations and action points advised by the Technical Advisory Group (TAG) and the Independent Monitoring Board (IMB) for the Global Polio Eradication Initiative;
- b) The NPMT will meet at least once every six months and on an as-needed basis;
- c) The NPMT will review progress against each area of work (AoW) in each province, performance of each district, with laser focus on SHRUCs/Tier 1 and other outbreak zones, against the critical indicators, and discuss / approve any action points proposed by Provinces;
- d) Progress against RRU recommendations will also be integral part of NPMT meetings;
- e) EPI Manager will report on EPI performance, especially in Tier 1 and Tier 2 districts, and provide updates on the vaccine supply situation for both PEI and EPI, as well as on other VPD outbreaks.

National Emergency Operations Centre

The Ministry of National Health Services issued notification vide No: F.2/2014/EOC/NHSRC dated 25 November 2014. The National Emergency Operations Centre (NEOC) works as Secretariat for polio emergency and a technical arm of the National Task Force on Polio Eradication. Accordingly, the NEOC for Polio Eradication has been established with the following ToRs:

- a) To act as national hub for planning, coordinating, information gathering, conducting surveillance, and monitoring polio emergency activities in accordance with the current NEAP.
- b) To provide technical inputs and situation analysis, as well as the other information, on regular basis to:
 - 1) The Prime Minister's office,
 - 2) The Ministry of National Health Services Regulations and Coordination,
 - 3) All relevant stakeholders.

- c) To coordinate and develop an effective liaison with all Provincial Task Forces for Polio Eradication on a regular basis, with a view to monitor progress against set targets;
- d) To instill a sense of urgency in the implementation of polio eradication activities and thereby stopping poliovirus transmission;
- e) To review monitoring and surveillance data and give feedback to the provinces for remedial measures to improve the quality of polio immunisation campaigns to stop transmission of polioviruses
- f) To act as apex body at the national level, coordinating amongst the provinces to ensure standardized immunisation service delivery for Polio Emergency and sustained availability of technical and material resources.
- g) To prepare forecasts of project requirement for the Ministry of National Health Services, Regulations and Coordination to generate resources and provision of security for polio teams in high-risk areas.
- h) To ensure all measures required for integration of PEI with essential immunisation in the longer term and review the progress of essential immunisation regularly along with advising relevant offices for prompt action.

In addition, the following actions are being exercised by the NEOC:

- To monitor SIA quality through third party and NEOC officers.
- To highlight issues and challenges for information and required interventions.
- To provide technical support to the provinces in external evaluation of surveillance system, investigation of polio outbreaks and periodic assessment of EPI coverages in Tier 1 districts.
- To prepare and circulate province-specific SIAs report within two weeks of a campaign clearly underlining the gaps and remedial measures.
- To facilitate bi-annual audit of programme funds by external auditor and submit financial reports to Ministry of National Health Services Regulation and Coordination.

The daily morning meeting of the NEOC

The National Coordinator chairs daily meetings at 9.30 am, which are attended by team leads of partner agencies (WHO, UNICEF, BMGF & NSTOP) and senior technical staff housed at the NEOC. The ToRs of daily morning meetings are to track progress of the assigned tasks and share the details / status of ongoing and planned activities, as well as review updates on surveillance, SIAs, communications and social mobilisation, EPI activities and other important activities coordinated by different teams.

National Steering Committee

The National Steering Committee (NSC) is chaired by the Minister In-Charge, Ministry of National Health Services Regulation and Coordination. NEOC and PEOC Coordinators, representative of General Headquarters, National and Provincial EPI Managers, team leads of partner agencies, and National and Provincial Technical senior officers are also members of this committee.

Terms of Reference

- a) The Committee shall meet every two weeks – all PEOCs taken on video link.
- b) To share surveillance updates and discuss actions required.
- c) To review preparation, implementation and post-campaign monitoring results of SIAs.
- d) To review the progress on the communication and social mobilisation activities.
- e) To agree on new initiatives.
- f) To share updates of ongoing and upcoming activities.
- g) To discuss ongoing issues and deliberate and agree on solutions to these issues.

Provincial and divisional level

Provincial Task Force

The Chief Minister/Chief Secretary leads the Provincial Task Force (PTF) for Polio Eradication and oversees implementation of the NEAP in the respective province.

The PTF comprises of the members/representatives from home Department, law enforcement agencies, Education department, Information department, Local Government, Auqaf, Chief Minister Office, Health department, EPI, EOC, and partner agencies (WHO, UNICEF, BMGF, N-STOP), as well as commissioners and deputy commissioners of all divisions and districts. All meetings of the PTF are facilitated by the PEOC Coordinator, while the Health Secretary acts as the Secretary of the PTF. Importantly, the PEOC should ensure that follow-up on agreed action points from the PTF continues between meetings, and that updates are provided to the Chair and members of the Task Force ahead of each meetings, in order to ensure that each meeting is as effective as possible.

The PTF reviews and monitors overall progress and challenges against quarterly milestones and key performance indicators against each area of work:

- a) Progress made in the province against NEAP targets and guidance on challenges faced by each district.
- b) Dedicated review of the strategy and progress achieved in the super high-risk Union Councils (SHRUCs) in each province.
- c) Involvement of the district and sub-district levels to assume the responsibility of ensuring implementation of district-specific plan.
- d) Involvement of the line departments and assigning specific roles and tasks to each department for successful campaign implementation.
- e) The plan for advocacy and social mobilisation activities at provincial and sub-provincial levels and ensure availability of adequate resources and their optimal use.
- f) The plan and progress for surveillance at provincial, district, and sub-district levels and ensure availability of adequate resources.

The Prime Minister, in his August 2019 meeting, requested all Chief Ministers to chair preparedness meetings in their respective province before every nationwide campaign during this low transmission season.

Subcommittees of the PEOC

There are several subcommittees that report to the PTF. These include:

- The Provincial Security Coordination Committee of the PTF reviews the security situation of all districts before implementation of campaigns. This committee takes appropriate action to ensure safe implementation of polio immunisation campaigns.
- Provincial Vaccine Management Committees, headed by EPI Managers, improve their functioning to maintain all stock positions at the provincial stores and to gather information from the districts, provide feedback to them, and present input to the Federal Vaccine Management Committee. These committees review the available vaccine stocks in the province on a regular basis and monitor vaccine distribution versus utilisation on a daily basis during the campaign. The committees take corrective action to address any discrepancies while ensuring adherence to vaccine distribution based on microplan requirements, avoiding any vaccine wastage, and accounting for all doses distributed in the field.

Provincial Emergency Operations Centre

Provincial Emergency Operations Centres (PEOCs) are established with the concept of 'one team under one roof' and are led by the government. A full-time dedicated senior government officer is deputed in each province to lead the PEOCs with the assistance of partner agencies (WHO, UNICEF, BMGF & N-STOP). The coordinator is the main facilitator of the PTF and reports directly to the PTF chairperson.

Following the NEOC structure and functions, PEOCs have also been established by Provincial Governments with the following ToRs:

- a) To act as the provincial hub for planning, coordinating, information gathering, conducting surveillance, and monitoring polio emergency activities in accordance with the NEAP.
- b) To provide technical inputs and situation analysis, as well as the other information, on a regular basis to the PTF and all relevant stakeholders, highlighting issues and challenges for information and required interventions.
- c) To coordinate and liaise effectively with the divisions and District EOCs on regular basis with a view to monitor the progress against set targets.
- d) To instill a sense of urgency in the implementation of polio eradication activities and thereby control poliovirus transmission.
- e) To review monitoring and surveillance data and give feedback to the districts for remedial measures to improve the quality of polio campaigns and to control poliovirus circulation.
- f) To act as apex body at the province level, coordinating amongst the divisions and districts to ensure standardized immunisation service delivery and sustained availability of technical and material resources.
- g) To review regularly the progress of essential immunisation and advice relevant offices for prompt action.

Divisional Task Force

The Divisional level structure has been fundamental in ensuring that the progress is made on oversight and management deficiencies. The Commissioners chair Divisional Task Forces (DTF) and have regular meetings with the Deputy Commissioners who are responsible for the programme implementation at district level. The DTF meets under the leadership of the Commissioner and with participation of the respective Deputy Inspector General, Deputy Commissioners, CEOs-H/DHOs, EPI Coordinators, and partners (WHO, UNICEF, BMGF, N-STOP and Rotary International) of all districts within the division. The DTF is the primary organ with oversight responsibility and meets after every SIA to monitor performance against KPIs for each area of work.

District and Union Council structures

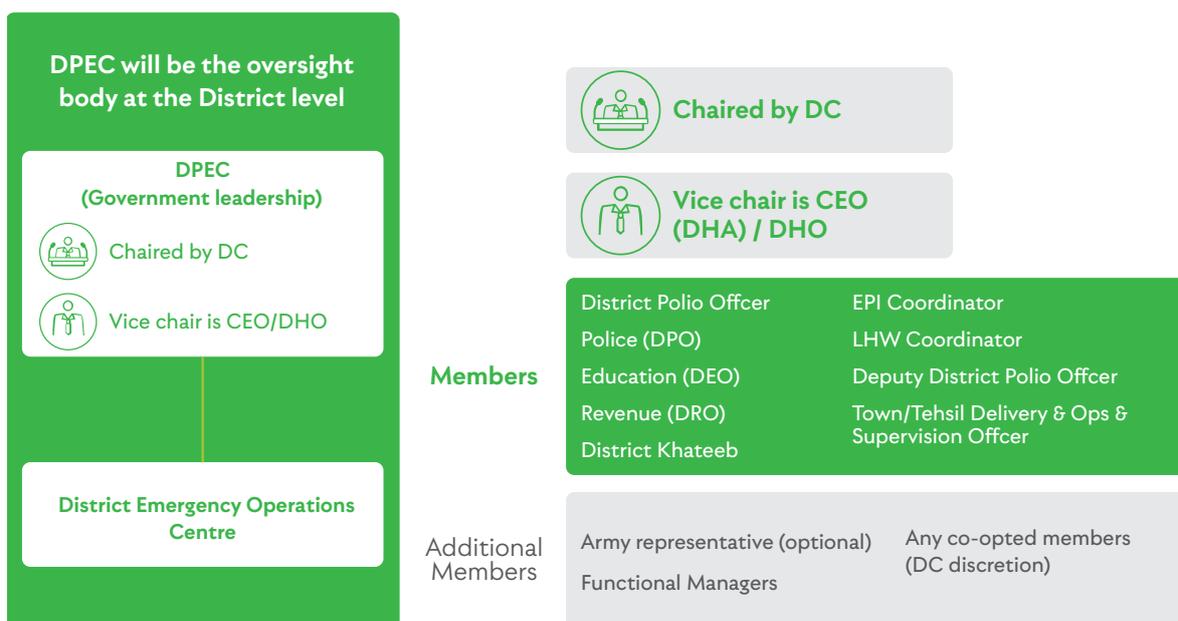
The Pakistan polio eradication programme has decided to introduce a transformation in the district-level structures. The transformation is based on following principles: Ownership (dedicated lead person at District and UC levels duly supported by GPEI technical expert), Clarity (each task is performed by one responsible officer), Accountability (clear reporting lines with no overlap in performance of roles / functions, standard way of working within district team, clear performance based accountability), and Timelines (drive new functions using current available resources).

District Polio Eradication Committee

Each district has a District Polio Eradication Committee (DPEC) to oversee polio eradication activities and essential immunisation activities at the district level and coordinate with all line departments and local partners to ensure high-quality implementation of vaccination campaign strategies and plans to achieve all targets set out against NEAP KPIs.

In each district, the Deputy Commissioner is the chair of the committee while District Health Department Officer (CEO-H/DHO) will act as Vice Chair of the Committee. Other members of the committee include District Police Officer, District Education Officer, District Revenue Officer, District Khateeb, District EPI Manager, District LHW Manager, District Polio Manager, District Polio Deputy Manager, and the members of the DEOC (see below). Pakistan Army representative shall be part of the DPEC in districts where the Army is assisting the District Administration in maintaining law and order. The Chair of the committee can also co-opt any officer / individual (who can be effective / supportive in polio eradication activities) as member of DPEC.

Figure D2: District Polio Eradication Committee (DPEC) structure



CEO=Chief Executive Officer (Health); DC= Deputy Commissioner; DEO= District Eradication Officer; DHA= District Health Authority; DHO= District Health Officer; DPEC= District Polio Eradication Committee; DPO= District Polio Officer; DRO= District Revenue Officer; EPI= Expanded Programme on Immunization

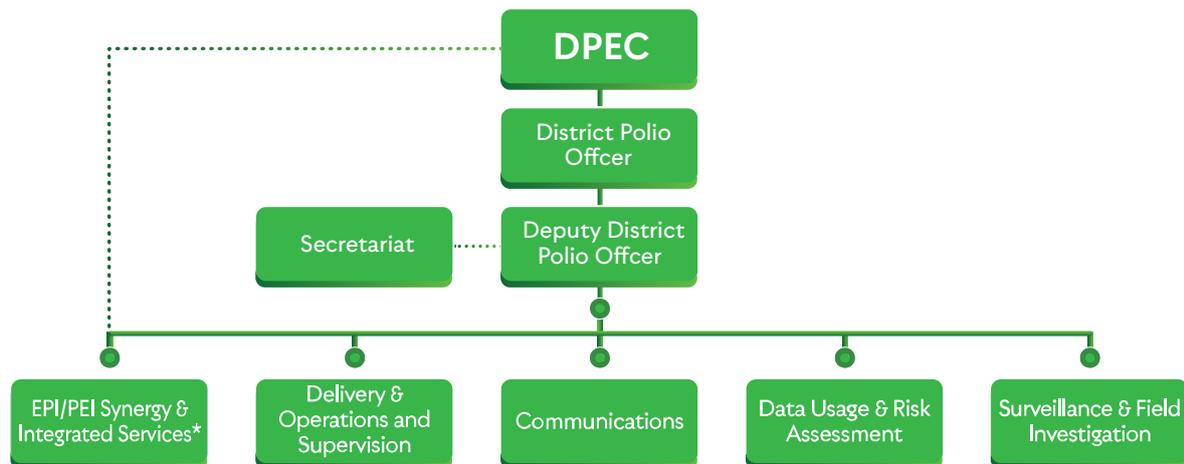
District Emergency Operations Centre

The District Polio Control Room has been renamed as the District Emergency Operations Centre (DEOC). As the PEI management body at the district level, each DEOC shall be led by one dedicated Government Officer (ADC or DHO/DDHO Preventive or other as nominated by the respective PEOC). The District Polio Lead shall be responsible for quality implementation of SIAs in the district. Each District Polio Lead shall be assisted by a District Polio Deputy Lead (GPEI Coordinator), who will take responsibility for technical management. The performance management system will be defined to ensure accountability and clear deliverables from staff, in addition to their organisational affiliation. The other functional areas of DEOC are: Delivery and Operations; Communication; Monitoring, Surveillance and Risk Assessment; Data Usage; and EPI–PEI Synergy; and Integrated Services.

Integrated Services will be present in all districts in the form of PEI/EPI synergies but will be particularly important in districts with SHRUCs, given the importance of integrated services to the programme’s strategy for the SHRUCs. ISD will be implemented in SHRUCs only.

All functional areas shall have clearly nominated individuals who take responsibility for that area in all districts, irrespective of Tier classification. However, depending on the human resources available, especially in lower Tier districts, the same individual can perform multiple functional roles, or some roles can be covered by staff at a divisional level. The DEOC functional structure may be replicated in larger urban areas at a town level (e.g., Karachi) due to increased population density.

Figure D3: District Emergency Operation Centre (DEOC) structure



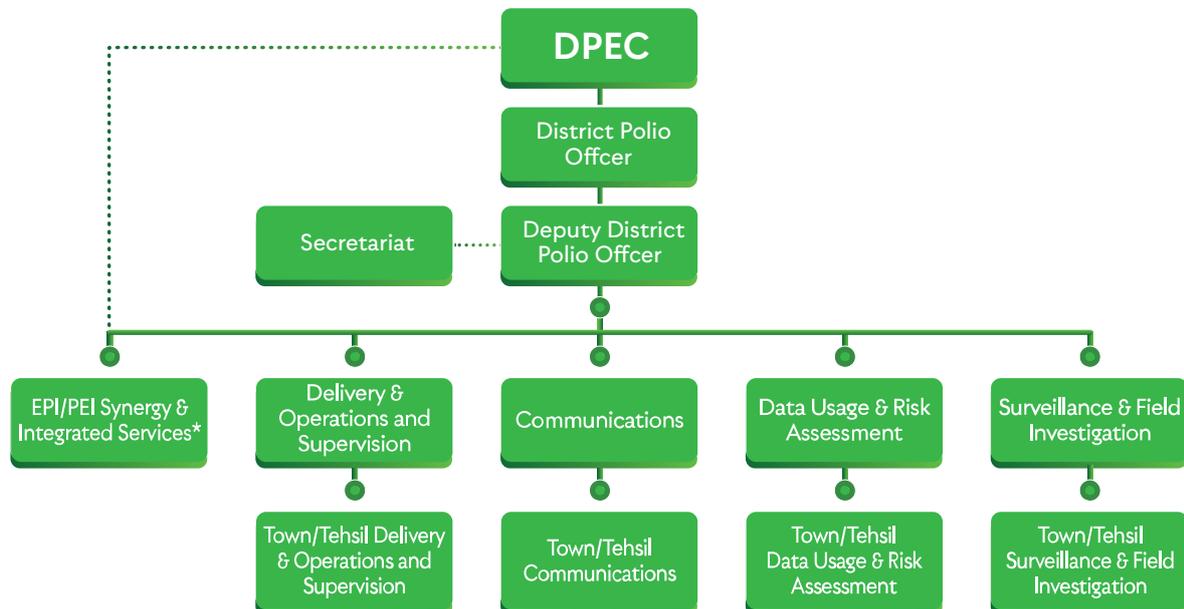
* Integrated Services in SHRUCs only

DPEC= District Polio Eradication Committee; EPI= Expanded Programme on Immunization; PEI= Polio Eradication Initiative

Town or Tehsil Polio Eradication Committees

Because there are occasionally management gaps between the district and UC level, the programme has proposed to fill such gaps with the involvement of town/tehsil/taluka administration and health departments to ensure closer supervision and monitoring support for the UCs. It is therefore imperative that the Town/ Tehsil Polio Eradication Committee (TPEC) is fully functional at town/tehsil/taluka level.

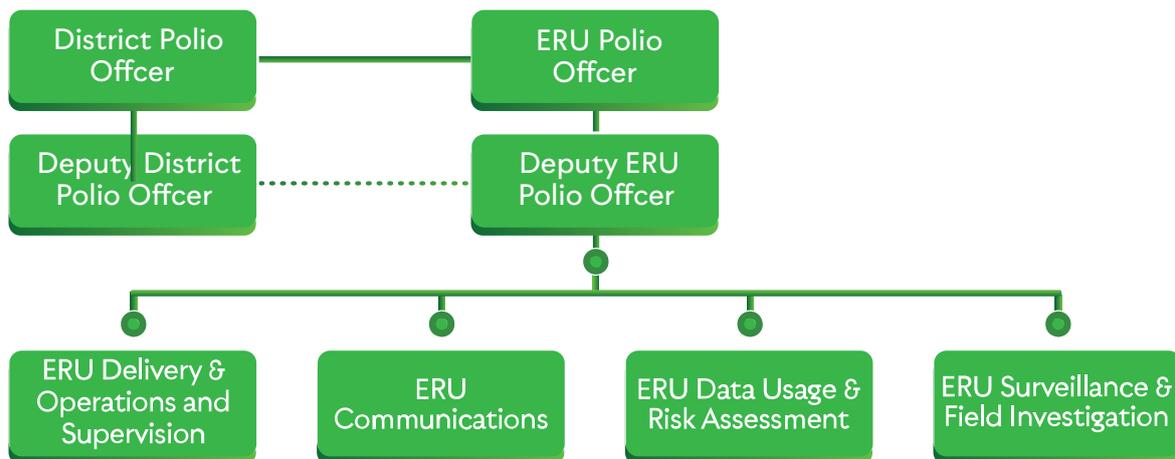
Figure D4: District and town/tehsil structure



* Integrated Services in SHRUCs only

DPEC= District Polio Eradication Committee; EPI= Expanded Programme on Immunization; PEI= Polio Eradication Initiative

Figure D5: Emergency Response Unit (ERU) structure*

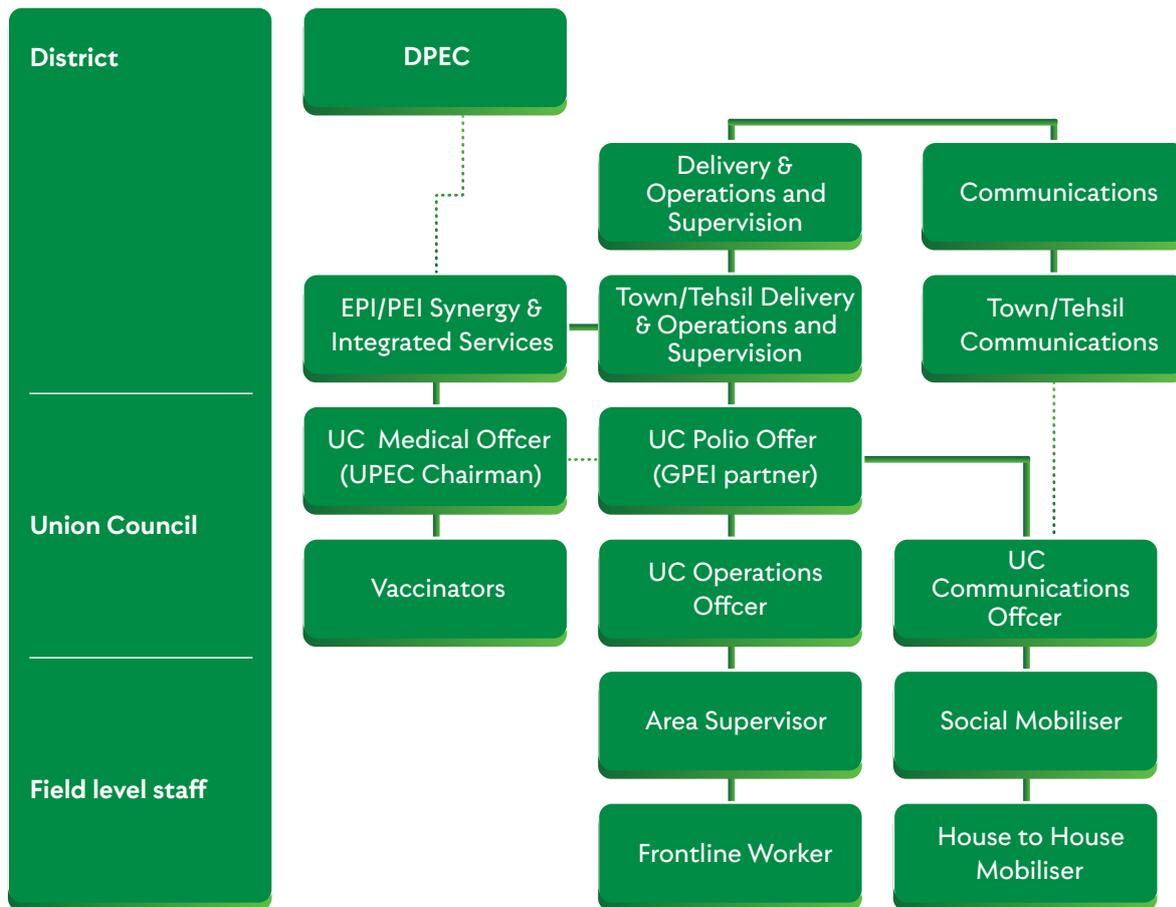


*This functional structure will apply to towns/tehsils with well-defined boundaries and an existent administrative structure

Union Council Polio Eradication Committees

The Union Council Polio Eradication Committee (UPEC) is the implementation body at the UC level. The Government shall nominate a full-time Health Department representative (Medical Officer, In-Charge of the Health Facility, Lady Health Supervisor) as UC Polio Manager. The UC Polio Manager shall be assisted by UC Polio Deputy Manager in technical management of polio eradication activity implementation and achieving the quality standards in Tier 1 & 2 districts. Each UC Polio Manager shall be assisted in performing the assigned tasks by DC office extension at the UC level, Education Department UC level In-Charge (Principal / Headmaster of Government Schools), representative of Station House Officer (SHO), local government representative, staff of the Health Facility, all area in-charges / area supervisors, and partners' UC-level staff. The UC Polio Manager can also co-opt other stakeholders as members of UPEC after approval of DPEC. The UC Polio Manager will be responsible for ensuring that SIAs and other polio eradication activities are well planned and carried out effectively, and progress toward achieving the targets are measured against all indicators.

Figure D6: Union Council level structure



* Integrated Services in SHRUCs only

DPEC= District Polio Eradication Committee; EPI= Expanded Programme on Immunization; GPEI= Global Polio Eradication Initiative; PEI= Polio Eradication Initiative; SHRUCs= super high-risk Union Councils; UPEC= Union Council Polio Eradication Committee; UC= Union Council

Annex E – Activity calendar

Activity	Schedule	Responsibility
NEOC decides scope of SIA (SNID, synchronised CR/ER)	45-40 days before SIA	NEOC AoWs heads/ co-chairs
PEOC reviews previous SIA, sets calendar of activities, and assigns responsible officers	39-35 days before SIA	PEOC coordinator
Divisional Task Force (DTF) coordination meeting: Divisional Commissioner call all DCs, DHOs, and partner staff to review previous campaign and plan for next campaign	34-30 days before	DTF chair
Tally sheet analysis: review monitoring data from previous campaign and identify training needs	29-25 days before SIA	UCMO/DEOC
DPEC meeting: review previous campaign, set calendar of activities, and assign responsible officers	24-22 days before SIA	DPEC chair
Train AICs/AS and UCMOs at tehsil/town/taluka level (2 days for NIDs and 1 day for SNIDs). PEOC and NEOC monitor training	21-18 days before SIA	DPCR and district master trainers
Microplan preparation (NID) / updating (SNID) during training	21-18 days before SIA	UCMOs/UC-level partner staff
AIC microplan (MP) review and field validation by UC staff	17-15 days before SIA	UCMO
UC-level MP preparation: review and revise influencer mapping, complete social profiling, and update social mobilisation template.	15-12 days before SIA	UCMO
UPEC meeting: approve AICs microplans, plan team trainings, develop social mobilisation plan, assign responsibilities where possible.	11 days before SIA	UPEC chair
Community engagement, refusal conversion and influencer mobilisation	10 days before SIA	UPEC Chair
MP submission to DEOC, desk review by DEOC and feedback provided to UPEC Chair at the same time	10 days before SIA	UPEC Chair
District-level MP field validation	10-7 days before SIA	DEOC
National/provincial-level MP quality assessment	6-5 days before SIA	NEOC/PEOC

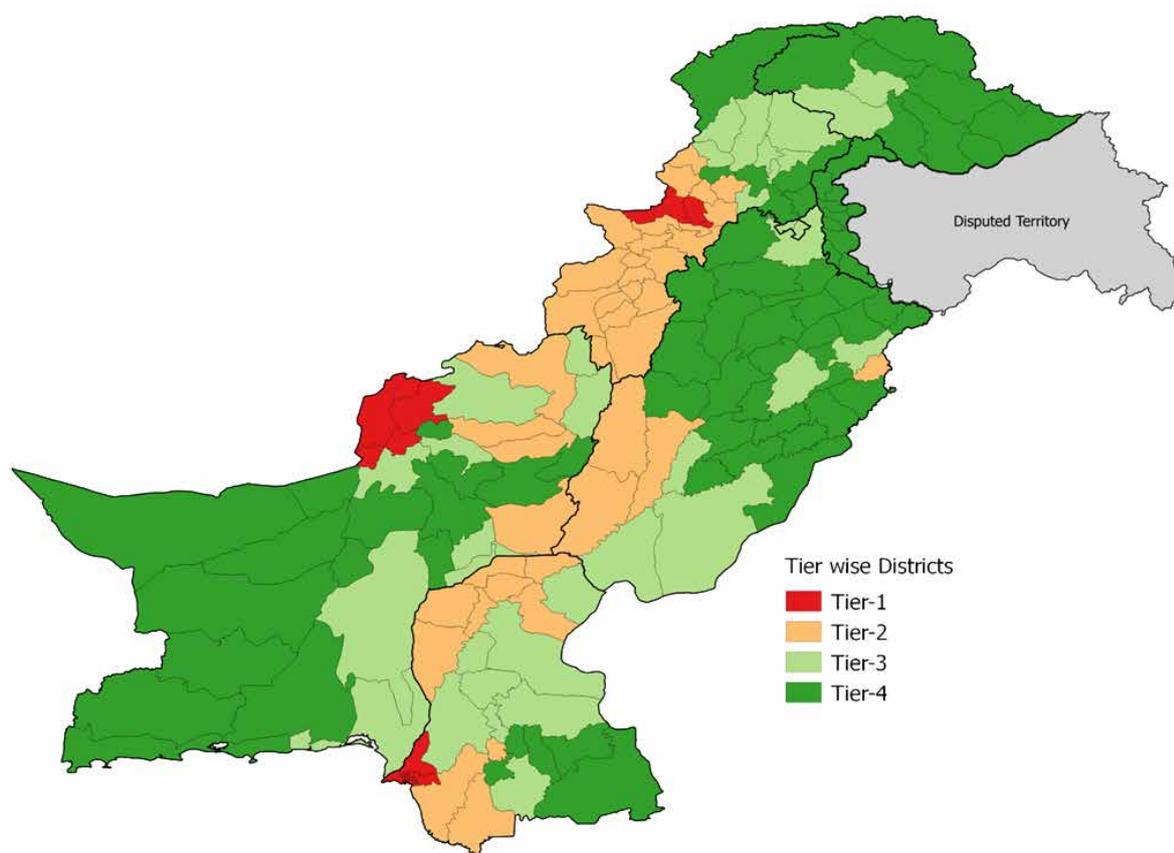
Implement team trainings, monitored by DEOC using ODK	6-5 days before SIA	UCMOs/UC-level partner staff/AIC and DEOC
Logistics distribution to team support centers	5 days before SIA	UCMO
Readiness meeting: review of pre-campaign activities with feedback from assigned person	5-4 days before SIA	DPEC chair
PEOC chairs preparedness meeting in the respective province	3 days before SIA	PTF/PEOC
Campaign implementation	3+2 days for MT areas; 5+2 days for CBV/SMT areas; including catch up	All
Same day coverage of recorded missed children	1-3 days for MT areas; 1-5 days for CBV/SMT areas	All
Missed children coverage	During same-day revisit & catch-up days	All
Community engagement refusal conversion and influencer mobilisation	During same-day revisit & catch-up days	DPEC Chair/ UCMO/ AIC/UC-level partner staff
AIC/AS chairs daily evening meetings with FLWs; compile tally sheet data	1-5 days	AIC
UCMO chairs evening meeting: discuss issues, compile daily coverage, submit data to DEOC	1-5 days	UCMO
AC/ADC chair evening meeting at tehsil-/town-/taluka-level: review coverage of each UC and discuss issue with UCMOs	1-5 days	AC/ADC
DC/ADC chairs daily evening meetings at district level, review IDIMS data and discuss issues identified by monitors	1-5 days	DC/DEOC chair
Market survey	1 day after completion of SIA	DEOC
Lot quality assurance sampling	Within one week after completion of SIA	NEOC M&E / third party
Submission of catch-up report and filled DDM CARDS	Within one week after completion of SIA	UCMO/DDM focal persons at all levels

UC members led by revenue staff review and record any new settlements construction/new family arrivals until the next MP preparation day	Until the next MP preparation is completed	UCMO/DEOC
Validation of missed children coverage (CBV areas)	After catch-up days	DPEC chair/UCMOs
Vaccine utilisation report submission	Within two weeks after completion of SIA	UPEC/EOC/PEOC coordinator, NEOC VMT team lead

AC= Assistant Commissioner; ADC= Additional Deputy Commissioner; AIC= area in-charge; AoW= area of work; AS= area supervisor; CBV= community-based vaccination; CR= case response; DC= Deputy Commissioner; DDM= direct disbursement mechanism; DEOC= District Emergency Operations Centre; DHO= District Health Officer; DPEC= District Polio Eradication Committee; DTF= Divisional Task Force; ER= event response; FLW= frontline worker; IDIMS= Integrated Disease Information Management System; M&E= monitoring and evaluation; MP= microplan; MT= mobile teams; NEOC= National Emergency Operations Centre; NID= National Immunisation Day; ODK= open data kit; PEOC= Provincial Emergency Operations Centre; PTF= Provincial Task Force; SIA= supplementary immunisation activity; SMT= special mobile teams; SNID= Subnational Immunisation Day; UC= Union Council; UCMO= Union Council Medical Officer; UPEC= Union Council Polio Eradication Committee; VMT= Vaccine Management Team

Annex F – Tier Classification 2020

Province	Tier-1	Tier-2	Tier-3	Tier-4	Total Districts
AJK				10	10
BALUCHISTAN	3	4	10	16	33
GILGIT BALTISTAN			2	8	10
ISLAMABAD			1		1
KP	2	16	10	6	34
PUNJAB		4	6	26	36
SINDH	6	10	8	5	29
Grand Total	11	34	37	71	153



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