



صحت محافظ



NATIONAL EMERGENCY ACTION PLAN FOR POLIO ERADICATION

2017/2018

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We are grateful to the millions of Pakistani families who protected their children and the children of the world by participating in the monthly polio vaccination campaigns conducted in the past year. We are also grateful to the tens of thousands of Frontline Workers – the true heroes of polio – who every month help protect the children of Pakistan by leading the eradication effort from the front. This document is produced by the National Polio Emergency Operations Centre (EOC), Islamabad, Pakistan. The information presented is based on the most recent and best available data at the time of publication. The EOC may update and, where necessary, modify the analysis and data provided, in order to ensure the most current and accurate view is available to all.

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Abbreviations

AFP	Acute Flaccid Paralysis
AC	Assistant Commissioner
ADC	Additional Deputy Commissioner
AIC	Area in-Charge
AOW	Area of Work
APCR	Agency Polio Control Room
APEC	Agency Polio Eradication Committee
BMGF	The Bill and Melinda Gates Foundation
bOPV	bivalent Oral Poliovirus Vaccine
CBV	Community-Based Vaccination
CCPV	Continuous Community-Protected Vaccination
CDC	The Centers for Disease Control and Prevention
DC	Deputy Commissioner
DDM	Direct Disbursement Mechanism
DHO	District Health Officer
DPCR	District Polio Control Room
DPEC	District Polio Eradication Committee
DTFs	Divisional Task Forces
EOC	Polio Emergency Operations Centre
EPI	Expanded Programme on Immunization
ERC	Expert Review Committee
FATA	Federally Administered Tribal Areas
FLW	Front Line Worker
FRR	Financial Resource Requirements
GPEI	Global Polio Eradication Initiative
HRMP	High Risk Mobile Population
IDIMS	Integrated Disease Information Management System
IMB	International Monitoring Board
IPV	Inactivated Polio Vaccine
KP	Khyber Pakhtunkhwa
KPI	Key Performance Indicator
LQAS	Lot Quality Assurance Sampling
N-STOP	National Stop Transmission of Polio
NAC	National Authority for Containment
NEAP	National Emergency Action Plan for Polio Eradication
NID	National Immunization Days
NIH	National Institute of Health
NPAFP	Non-Polio Acute Flaccid Paralysis
NPCC	National Poliovirus Containment Committee
NPMT	National Polio Management Team
NTF	National Task Force
ODK	Open Data Kit
OPV	Oral Polio Vaccine
PA	Agency Political Agent

PC1	Planning Commission Form 1 PCM
PCM	Post-Campaign Monitoring
PEI	Polio Eradication Initiative
PMFG	Prime Minister's Focus Group
PMFP	Prime Minister's Focal Person
POB	Polio Oversight Board
PRI	Polio Rehabilitation Initiative
PTFs	Provincial Task Forces
PTPs	Permanent Transit Points
RRT	Rapid Response Team
RRU	Rapid Response Unit
SETT	Surveillance for Eradication Task Team
SIA	Supplementary Immunization Activities
SNID	Sub-National Immunizations Days
TAG	Technical Advisory Group
TORs	Terms of Reference
tOPV	trivalent Oral Polio Vaccine
UC	Union Council
UCCO	Union Council Communication Officer
UCMO	Union Council Medical Officer
UCPO	Union Council Polio Officer
UNICEF	United Nations Children's' Fund
UPAP	United Arab Emirates Pakistan Assistance Programme
UPEC	Union Council Polio Eradication Committee
USAID	United States Agency for International Development
VDPV	Vaccine-Derived Polio Virus
vLMIS	Vaccine Logistics Management System
WHO	World Health Organization
WPV	Wild Polio Virus

Executive Summary

The Pakistan polio programme has indeed come a long way. The performance improvements achieved since the beginning of 2015 is now clearly visible in the declining number of wild poliovirus (WPV) cases. From 306 in 2014, the number of cases declined to 54 in 2015, and 20 in 2016; as of June 2017, the total number of cases reported in Pakistan stands at 2.

Under the 2016/2017 NEAP, the surveillance system was enhanced through the implementation of a "Surveillance for Eradication" Work plan. Through the concerted implementation of the plan, surveillance systems have improved across the provinces and districts. The non-polio AFP rate has increased from 6.8 per 100,000 children less than 5 years in 2015 to 9.1 per 100,000 in 2016, and as of June 2017, stands at 10.5 per 100,000. In 2017/2018, the surveillance system will aim for an additional performance boost in multiple areas all geared towards increasing the probability of detecting transmission.

In the past 6 months, the programme conducted a systematic external review of surveillance in 7 of the 8 provinces or regions. While the performance in many districts was very good or satisfactory, one thing is abundantly clear – "green" is not always "green" and "red" is not always "red". That is to say, good surveillance indicators do not always correspond to good surveillance. The biggest surveillance challenge for the programme going forward is not from districts with "poor indicators"; these are known to the programme and action is always taken at provincial and/or federal level whenever required. The biggest challenge is the identification of "green" districts that are actually "red" and require additional support. The programme will continue to use targeted reviews and field supportive missions to meet this challenge.

In 2016/17, there were steady gains in the proportion of children vaccinated as assessed by the independent post-campaign monitoring coverage. Across Pakistan, the proportion vaccinated increased from 85% in August 2016 to 92% in May 2017. Consistent performance was observed in Punjab; coverage was mostly at or above 90% throughout the SIA season reaching 95% during the May NID. In Khyber Pakhtunkhwa, consistent performance gains improved coverage from 84% in August 2016 to 94% and 95% during the April and May 2017 NIDs. The highest performance gain was achieved in Sindh where coverage increased from 77% in August 2016 to 93% by May 2017. FATA was the only region to achieve the NEAP target of 95% in at least three SIAs; coverage for February, April and May 2017 was 96%, 95% and 97% respectively. Coverage consistently remained below the 90% mark in Balochistan, Islamabad, Azad Jammu and Kashmir (AJK), and Gilgit Baltistan.

The paradigm-shift from "coverage" to "no missed children" made in the preceding year continued to drive programme operations in 2016/2017. The focus on motivation and performance of vaccinators and other frontline workers including greater emphasis on training, timely payment and supportive supervision has contributed to improved performance. In the core reservoir districts, the implementation of the Community-Based Vaccination (CBV) approach has been a boon for the programme. However, the goal of decreasing the proportion of "still missed" children to <2% was not achieved. In fact, there has been a slight but consistent uptick throughout the low season. As of May 2017, the proportion of recorded missed children remaining unvaccinated after the campaign was 5.0%. Despite all efforts, substantial gains in microplanning improvement were not achieved by all districts. Additional work is needed to further improve microplanning, rationalize team workloads, and ensure aggressive follow up of recorded missed children.

The programme did review its high-risk and mobile population strategy. However, the focus has remained primarily on the delivery of vaccines at permanent transit points (PTPs). While the rationalization of PTPs that had animated the previous strategic review was achieved, the goal of ensuring vulnerable populations e.g. nomads, seasonal and economic migrants, and agricultural migrant labour are systematically mapped, incorporated in micro plans and vaccinated was not fully met. The programme will prioritize these activities in the NEAP 2017/2018.

Considering the high birth cohort in the core reservoirs, the inability of the programme to rapidly close the emerging immunity gap associated with a new birth cohort remains a challenge. Routine Immunization service delivery targets set by the programme in the previous NEAP has not been achieved. However, there was major progress in Peshawar district, and parts of Karachi. During the recent National Polio Management Meeting, a

joint decision was made by the polio programme and the Expanded Programme on Immunization (EPI) to accelerate the improvement of routine immunization service delivery in Tier 1 districts. The target remains the same – the achievement of 80% Penta 3 and IPV1 coverage by the first half of 2018.

In the last two years, the “One Team under One Roof” concept has worked very well. The EOC network now provides a strong platform for the programme. To achieve its strategic objectives, the programme has reconfigured districts into four distinct risk tiers and developed primary targets and key performance indicators for all three Areas of Work. The “all-government” approach used by the programme has solved problems and driven success. In almost all provinces, the leaderships of the Chief Ministers has driven outcomes at the grassroots level. At the divisional-level, commissioners have played an out-sized role especially in districts with persistent circulation.

Despite all the progress in the number of WPV cases, the SIA quality and the management and oversight of the programme, challenges persist and the programme has identified the pitfalls ahead. The overall proportion of environmental surveillance samples positive for wild poliovirus has remained remarkably high throughout the second half of 2016 and early 2017. The biggest challenge faced during 2016/2017 was “transnational transmission” in both the Central and Southern corridor. It was especially critical along the Southern Corridor linking the Quetta block with Greater Kandahar in South Afghanistan. In the second half of 2017, virus exported from districts with ongoing circulation, and from local South Afghanistan transmission will continue to pose the biggest challenge to eradication.

The key deliverables for 2017/2018 are:

- The implementation of 9 high-quality supplementary immunization activities (SIAs). Between July 2017 and June 2018, the programme will conduct at least 5 National Immunization Days targeting 100% of all under 5 children and 4 Sub-national Immunization Days covering approx. 54% of the target population.
- To increase the probability of stopping transmission along the common reservoir, programme will prioritize alignment of strategies, and closer coordination with the Afghanistan programme; special attention will be paid to the Southern Corridor.
- Continue focus on the core reservoirs of Karachi, Khyber, Peshawar, Quetta, Killa Abdullah and Pishin.
- In view of the decreasing geographic span of infection and narrowing of risk differential between districts, programme will ensure aggressive response plans to outbreaks outside Tier 1 and 2 districts is in place.
- In order to spur a major push towards improved microplanning especially in all Union Councils, the programme will make it a high priority to institute a mechanism for the external validation of microplans. Low-performing Union Councils will be prioritized.
- As the overall risk across the general population decreases, the relative risk posed by high-risk and mobile population groups continues to nudge up. With the aim of ensuring high coverage, programme will implement a revamped High-Risk and Mobile Populations strategy.
- A surveillance system detecting all AFP cases, not missing persistent transmission, meeting all KPIs, achieving an annualised non-polio AFP (NPAFP) rate of ≥ 3 per 100,000 in all tehsils.
- Improve routine immunizations service delivery in Union Councils conducting Community-Based Vaccination such that IPV-1 and Pentavalent 3 coverage in the Union Councils is raised to $\geq 80\%$.

Background

Overall Polio Situation

The Pakistan polio programme has indeed come a long way. The performance improvements achieved since the beginning of 2015 is now clearly visible in the declining number of wild poliovirus (WPV) cases. From 306 in 2014, the number of cases declined to 54 in 2015, and 20 in 2016; as of June 2017, the total number of cases reported in Pakistan stand at 3 (Figure 1). The core reservoirs of Peshawar-Khyber, and Karachi have not seen a case in the past 12 months, while only one case – in Killa Abdullah in December 2016 – was reported from the Quetta block. The two cases confirmed in 2017 were both isolated from Lodhran district in Punjab and Diamir district in Gilgit Baltistan (Figure 2).

Figure 1 – Confirmed wild poliovirus type 1 cases, Pakistan, January 2014 – June 2017

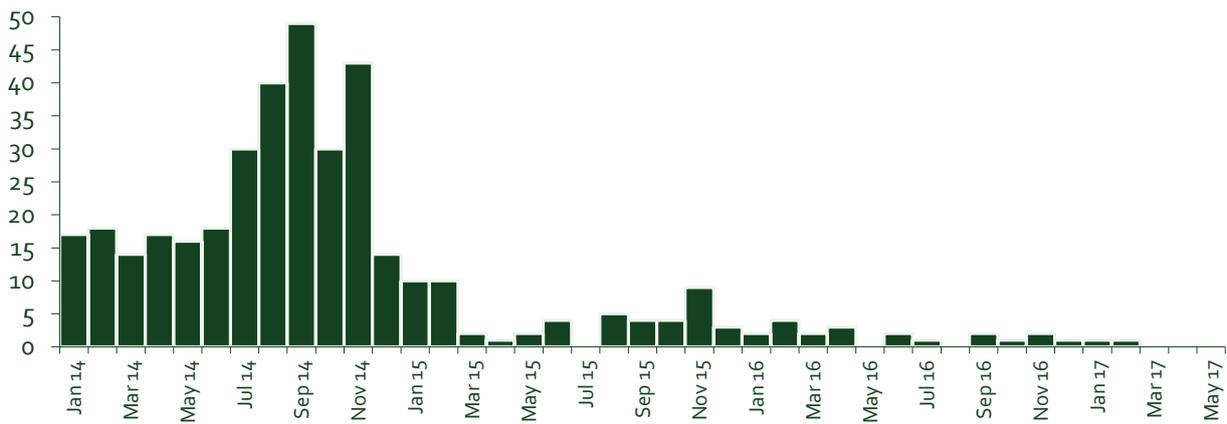
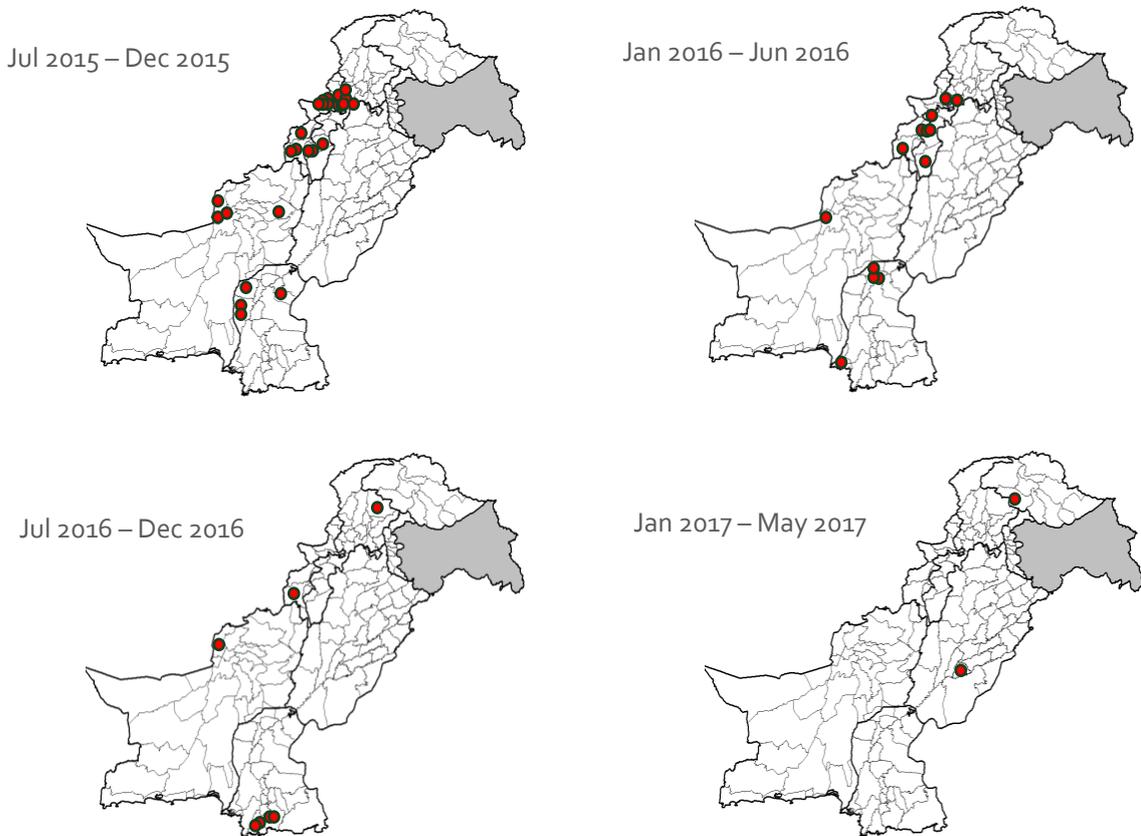
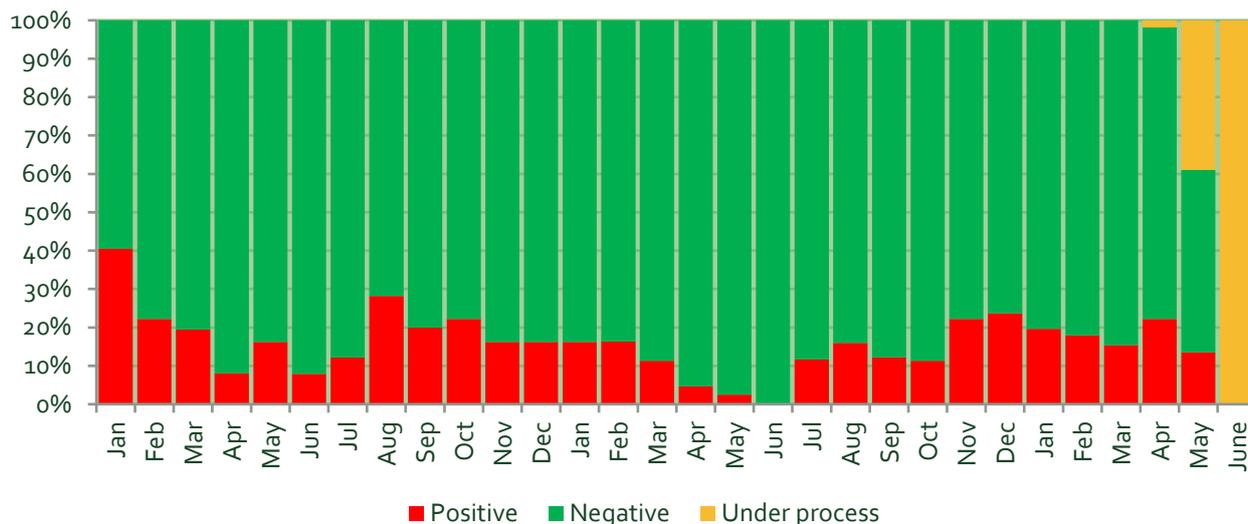


Figure 2 – Spatial distribution of wild poliovirus type 1 cases, Pakistan, July 2015 – Jun 2017



Despite all the progress in the number of WPV cases, the overall proportion of environmental surveillance samples positive for wild poliovirus has remained remarkably high throughout the second half of 2016 and early 2017 (Figure 3). The proportion of positive samples has increased from 9.3% in the first half of 2016, to 18.8% in the second half of 2016, and is at 24.1% in 2017. This increase was partly driven by persistent transmission in Quetta, Pishin, Killa Abdullah, Islamabad and Rawalpindi. In the second half of 2017, virus exported from these districts, and from local South Afghanistan transmission will continue to pose the biggest challenge to eradication. Unless transmission is stopped, there's a clear risk of reversal of gains through further spread to interior Balochistan, South Punjab and Sindh.

Figure 3 – Trends of the proportion of positive environmental surveillance samples, Pakistan, January 2015 – June 2017

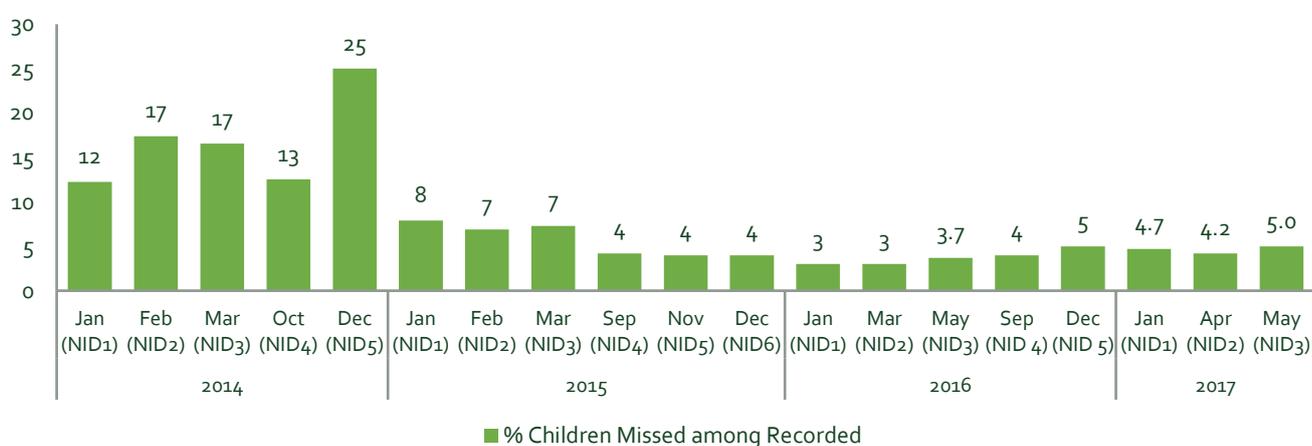


NEAP 2016/2017: Progress and Challenges

Despite falling short of the target to reach zero-polio by end of 2016, the Pakistan polio programme has made steady and systematic progress over the last year. The paradigm-shift from “coverage” to “no missed children” made in the preceding year continued to drive programme operations in 2016/2017. While the gains made in 2015/2016 were broadly sustained, the programme was unable to reach its Supplementary Immunization Activities (SIA) targets in 2016/2017.

Over the course of the year, Pakistan implemented nine campaigns: five national immunization days (NIDs) and four sub-national immunization days (SNIDs).

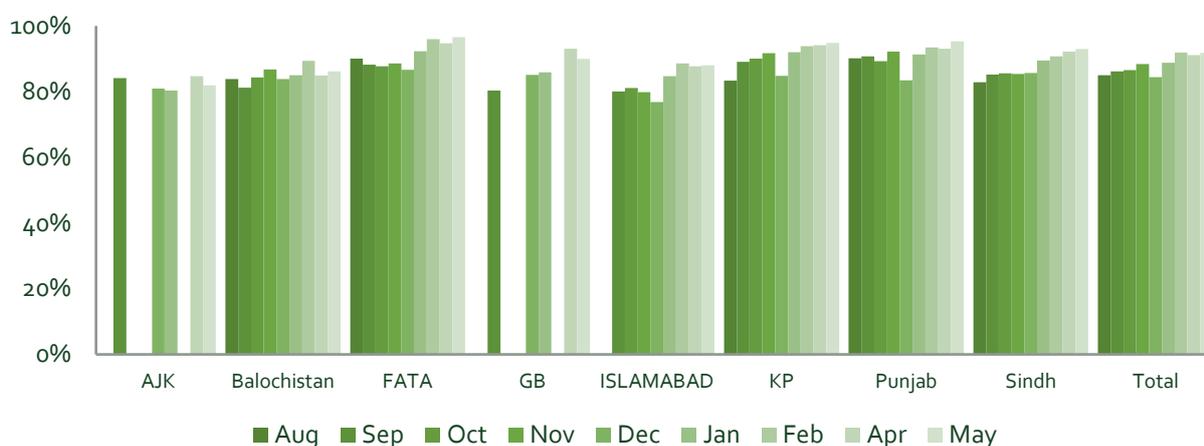
Figure 4 – Proportion of recorded missed children remaining unvaccinated at the end of each SIA, 2014/2017



The goal of decreasing the proportion of “still missed” children to <2% was not achieved (Figure 4). In fact, there has been a slight but consistent uptick throughout the low season. As of May 2017, the proportion of recorded missed children remaining unvaccinated after the campaign was 5.0% (Figure 4). Additional work is needed to further improve microplanning, rationalize team workloads, and ensure aggressive follow up of recorded missed children.

In 2016/17, there were steady gains in the proportion of children vaccinated as assessed by the independent post-campaign monitoring coverage. Across Pakistan, the proportion vaccinated increased from 85% in August 2016 to 92% in May 2017 (Figure 5). Consistent performance was observed in Punjab; coverage was mostly at or above 90% throughout the SIA season reaching 95% during the May NID (Figure 5). In Khyber Pakhtunkhwa, consistent performance gains improved coverage from 84% in August 2016 to 94% and 95% during the April and May 2017 NIDs (Figure 5). The highest performance gain was achieved in Sindh where coverage increased from 77% in August 2016 to 93% by May 2017 (Figure 5). FATA was the only province to achieve the NEAP target of 95% in at least three SIAs; coverage for February, April and May 2017 was 96%, 95% and 97% respectively. Coverage consistently remained below the 90% mark in Balochistan, Islamabad, Azad Jammu and Kashmir (AJK), and Gilgit Baltistan (Figure 5). The PCM results point towards uneven performance in many areas.

Figure 5 – SIA Coverage measured by Independent Post-Campaign Monitoring August 2016 – May 2017



Among the key transmission hotspots of Quetta block, Islamabad – Rawalpindi, Karachi, and Khyber – Peshawar, satisfactory performance was only achieved in Khyber – Peshawar corridor (Figure 6).

Translating the third-party PCM vaccination coverage data to estimates for missed children reveals previously unnoticed patterns and sheds more light on the potential challenges ahead. Figure 7 below shows the spatial distribution of missed children (average per-campaign) for SIAs conducted between August and December 2016 (Figure 7a), and compares that with the distribution for SIAs conducted after January 2017 (Figure 7b). A positive shift in performance was observed in almost all districts (Figure 7). The highest numbers of unvaccinated children were in some districts in Interior Sindh and Central Punjab (Figure 7). Looking at the estimated number of missed children per Km², the density of unvaccinated children was highest in parts of Central Khyber Pakhtunkhwa, North Punjab, and North Sindh (Figure 8). There are implications that can be derived directly from this data. Of specific note is the high density of missed children in an area facing resurgent transmission. Further SIA quality improvement is required in this zone in order to stamp out transmission and minimize additional programmatic risk.

Figure 6 – SIA Coverage measured by Independent Post-Campaign Monitoring August 2016 – May 2017

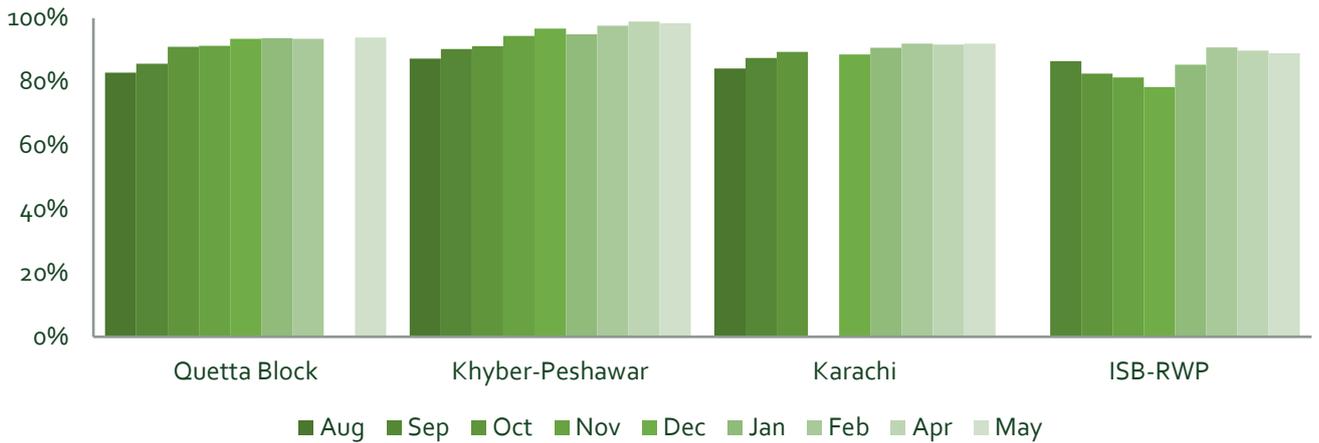


Figure 7 – Comparison of average number of unvaccinated children for SIAs between August and December 2016, and January – May 2017. Data derived from the independent Post-Campaign Monitoring.

(a) August – December 2016

(b) January – May 2017

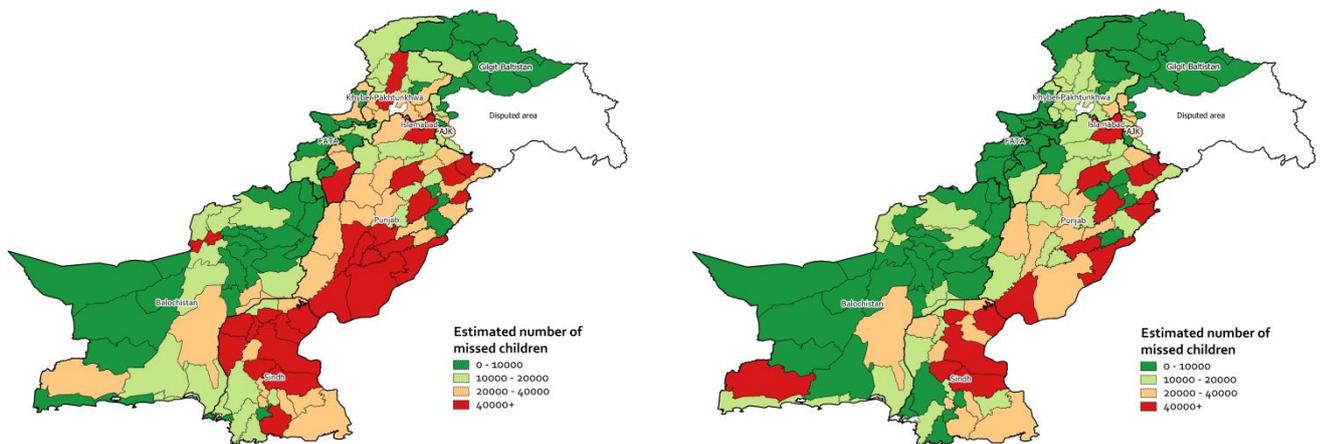
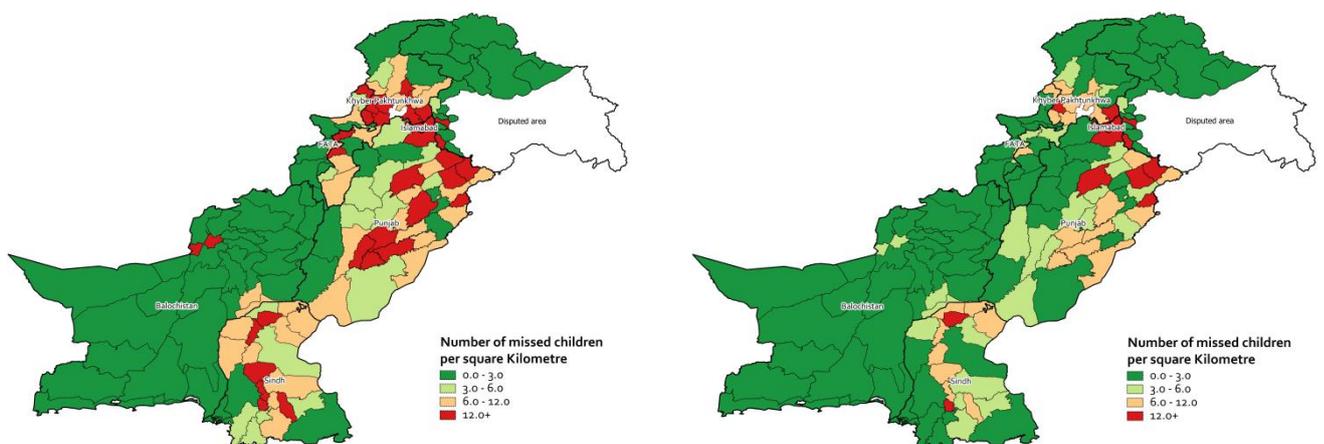


Figure 8 – Comparison of the density of unvaccinated children in SIAs conducted between August – December 2016, and January – May 2017. Data derived from the independent Post-Campaign Monitoring.

(a) July – December 2016

(b) January – May 2017



The programme developed a composite NEAP indicator index to assess performance at the sub-district level. Through this index low performing Union Councils (LPUCs) were flagged to the provinces and districts. Table 1 below shows the trend of LPUCs and LQAS pass rates by province. Heterogeneity in SIA performance is of special concern in Balochistan, FATA, and Sindh; the proportion of LPUCs has mostly remained $\geq 15\%$ (Table 1).

Table 1 – Proportion of Union Councils flagged as low-performing by province, and proportion of Union Councils passing Lot Quality Assurance Sampling, 2016 – 2017, Pakistan

	Province	Aug SNID	Sep NID	Oct SNID	Nov SNID	Dec NID	Jan NID	Feb SNID	April NID	May NID
Low-performing Union	AJK	ND**	6%	ND	ND	0%	20%	ND	17%	21%
	Balochistan	ND	31%	31%	26%	21%	38%	33%	34%	31%
	FATA	ND	20%	25%	25%	34%	28%	38%	26%	23%
	Gilgit Baltistan	ND	1%	ND	ND	0%	14%	ND	10%	7%
	Islamabad	ND	14%	10%	19%	12%	32%	27%	22%	28%
	Khyber Pakhtunkhwa	ND	15%	10%	7%	7%	12%	12%	10%	9%
	Punjab	ND	6%	3%	6%	2%	8%	10%	8%	7%
	Sindh	ND	31%	12%	15%	17%	16%	17%	18%	15%
	Pakistan	ND	15%	15%	13%	9%	14%	17%	13%	12%
Lot-Quality Assurance	AJK	ND	ND	ND	ND	ND	ND	ND	0	100%
	Balochistan	82%	85%	83%	89%	78%	76%	75%	71%	82%
	FATA	96%	95%	95%	96%	92%	96%	95%	96%	95%
	Gilgit Baltistan	ND	ND	ND%	ND%	ND%	ND%	ND%	ND	100%
	Islamabad	0%	100%	88%	50%	50%	33%	33%	67%	17%
	Khyber Pakhtunkhwa	80%	81%	88%	74%	77%	85%	83%	90%	88%
	Punjab	86%	92%	94%	96%	86%	95%	94%	91%	94%
	Sindh	81%	78%	73%	86%	67%	83%	79%	81%	80%
	Total	84%	86%	86%	87%	78%	87%	86%	88%	88%

*NEAP Target for LQAS pass is 90%. While there was no target for low-performing Union Councils in 2016/2017, this NEAP sets a 10% threshold for LPUCs

NEAP 2016/2017: Lessons Learned

- We are all intertwined.
 - Without close and tightly bound coordination between Afghanistan and Pakistan, overcoming the challenge of transnational transmission is not possible.
 - Without close and tightly bound coordination between the provinces, mitigating the risk associated with high-risk and mobile populations is difficult.
 - Without district-level, tehsil-level, Union Council level, area-in-charge level joint microplanning exercises with special focus on border demarcation, missing populations along the borders is inevitable.
 - Without the establishment and utilization of consistent and clear channels of communication, coordination and collaboration between countries, provinces, and districts, the virus will continue to find all the little cracks and survive.
- Microplanning, microplanning microplanning...
 - Despite all efforts, substantial gains in microplanning improvement were not achieved by all districts; new strategy to finally address this is needed.
- Current high-risk and mobile population strategy has done what it was supposed to do, however, a course correction is needed to ensure special population groups that pose elevated risk are specifically mapped and targeted.
- Well-selected, trained, supervised and monitored **Frontline Workers (FLWs)** remain the key to success.

- The focus on **motivation and performance of vaccinators** and other frontline workers including greater emphasis on training, timely payment and supportive supervision has contributed to improved performance.
- In the core reservoir districts, the implementation of the **Community-Based Vaccination (CBV)** approach has been a boon for the programme. However, emerging challenges especially in the Quetta block need to be addressed.
- The role of **Areas-in-Charge (AICs)** is vital and NEAP 2017/18 must focus on their selection, training and performance as a means to improve the performance of mobile teams.
- Community acceptance and demand are the bedrock for success.
 - The communication strategy has delivered on the goal of increasing acceptance within the community and improving trust of vaccinators at the doorstep.
 - Balancing the response to the epidemiological risk posed by cVDPV2 with the monthly bOPV SIA schedule against a backdrop of campaign fatigue by communities and caregivers requires careful judgment.
 - Calibrating the performance pressure for 'zero' with voluntary coverage and conversion rather than punitive measures to avoid transgressing social boundaries and promoting more complex forms of resistance to the programme remains a must.
 - More needs to be done to improve acceptance in small population pockets where community acceptance is suboptimal.
- When it comes to surveillance quality, "green" is not always "green", and "red" is not always "red".
 - Good surveillance indicators NOT the same as good surveillance.
 - Sustained investment in surveillance through the identification, training, and deployment of adequate staff critical to ensuring positive gains in surveillance quality.
 - Sustained external surveillance review and supervisory visits can catalyse grassroots level chains of activities which result in better surveillance.
 - Data quality integral to good surveillance.
- Routine Immunization services matter.
 - The highest under-immunized fraction remains amongst children younger than 6 months. Considering the high birth cohort in the core reservoirs, the inability of the programme to rapidly close the emerging immunity gap associated with a new birth cohort remains a challenge.
 - The programme needs to work closely with the Expanded Programme on Immunization (EPI) to improve routine immunization service delivery in Tier 1 districts.
- **Government ownership** of the programme solves problems and drives success.
 - **Poor oversight and management** in parts of the country where endemic circulation persisted were not always identified early enough.
 - Surfacing issues and problems must be encouraged and not sanctioned.
 - Addressing these gaps in oversight and management, and instituting enhanced accountability mechanisms through the empowerment of key Divisional Task Forces is a priority.
- The "One Team under One Roof" concept works. The EOC network now provides a strong platform for the programme. The "One Team" concept must function better at some districts and Union Councils.
- Good data drives quality.
 - While tremendous progress has been made in improving pre-, intra-, and post-campaign monitoring, there has been an overreliance on post-campaign data at the expense of pre- and intra-campaign information.
 - We should not only rely on data but listen carefully to the observations of monitors and field teams on the ground. Sometimes it is an astute observation that identifies the problem, and often well in advance of data analysis.

The National Emergency Action Plan 2017/2018

Goal

The overall goal of the National Emergency Action Plan for Polio Eradication is to stop Wild Poliovirus (WPV) transmission within the next low transmission season.

Strategic Objectives

1. Stop poliovirus transmission in all reservoirs.
2. Detect, contain and eliminate poliovirus from newly infected areas.
3. Maintain and increase population immunity against polio throughout Pakistan.
4. Stop the international spread of WPV by closely coordinating strategies and response across the common transnational reservoirs.
5. Sustain polio interruption through increased routine immunization coverage in core reservoirs.

Guiding Principles

Reaching and vaccinating persistently missed children and detecting and responding rapidly to the presence of poliovirus have been the keys to success in the past two years. In order to sustain gains and finally finish the job, the 2017/2018 NEAP sets forward the following 11 guiding principles.

1. **Effective Collaboration** – We operate and communicate as “one team under one roof.”
2. **Reaffirm Open Communication** – We promote honest, open communication and easy access to information.
3. **Active & Continuous Improvement** – We surface challenges—both big and small—to actively learn lessons and pursue creative approaches, leading to continuous improvement in our work.
4. **Dedication** – We are proudly committed to providing outstanding quality in everything we do to reach every child.
5. **Integrity** – We hold the highest ethical standards, investigating all data discrepancies.
6. **Commitment** – Our frontline workers are our most valuable asset, and we are dedicated to attracting, retaining and supporting the highest quality workforce.
7. **Agility** - We constantly innovate to find fast, effective and sustainable solutions to real-time field problems.
8. **Tenacity & Boldness** – We resolutely focus on results to ensure a healthy future for all of Pakistan’s children.
9. **Individual and Team Recognition** – We have a performance and learning culture that promotes listening to field teams and recognition of performance.
10. **Organisational and Individual Responsibility** – We are all accountable to the highest personal and professional standards and ensure responsible practices that will ensure short- and long-term success.
11. **National & Organisational Oversight on Accountability**– We provide fair and robust oversight and “checks and balances” to deliver quality services of the best value, to effectively meet the needs of the communities and children we serve.

Specific Deliverables and Targets

The NEAP 2017/18 will be implemented through three main **Areas of Work (AOWs)**:

1. **Programme Operations**: Ensuring that all vaccination activities reach all targeted children.
2. **Risk Assessment and Decision Support**: Ensuring that programme operations are driven by the best available data.

3. **Management, Oversight and Accountability:** Ensuring that the programme is well-supported managed and coordinated with oversight and accountability for all.

Key Programme Deliverables

- Conduct 5 NIDs and 4 SNIDs with the following key performance indicators achieved:
 - Remaining unvaccinated ('still missed') children <0.75% of target population and <5% of recorded missed children.
 - Reaching ≥90% pass rate in the independent microplanning desk and field validation
 - Less than 10% in number of Union Councils flagged as low-performing and achieving an LQAS pass rate ≥90%.
 - ≥95% coverage by third-party post-campaign monitoring (PCM) in all districts.
- In order to spar a major push towards improved microplanning especially in all Union Councils, programme will make it a high priority to institute a mechanism for the continued external validation of microplans. Low-performing Union Councils will be prioritized.
- With the aim of ensuring high coverage, programme will implement a revamped High-Risk and Mobile Populations strategy.
- Ensure the smooth transition of operational management of CBV Union Councils in Quetta block.
- To increase the probability of stopping transmission along the common reservoir, programme will prioritize alignment of strategies, and closer coordination with the Afghanistan programme; special attention will be paid to the Southern Corridor.
- In view if the decreasing geographic span of infection and narrowing of risk differential between districts, programme will ensure aggressive response plans to outbreaks outside Tier 1 and 2 districts is in place.
- Improve routine immunizations service delivery in Union Councils conducting Community-Based Vaccination such that IPV-1 and Pentavalent 3 coverage in the Union Councils is raised to ≥80%.
- A surveillance system detecting all AFP cases, not missing persistent transmission, meeting all KPIs, achieving an annualised non-polio AFP (NPAPF) rate of ≥6 per 100,000 in all districts, and ≥3 per 100,000 in all tehsils, and reaching a stool adequacy rate >80% (with adequate stool defined in line with global guidelines—i.e., as two stool specimens arriving in good condition and collected from an AFP patient 24-48 hours apart and within 14 days of onset of paralysis).
- The response to type 2 events in early 2017 continuous to pose a potential risk for the new emergence of circulating VDPV2 within the country. While WPV1 eradication remains top priority for the country, in close consultation with partners, the programme will continue to explore response options to type 2.
- Conduct a NEAP orientation Workshops for all Senior Leadership involved in the direct management and oversight of the polio programme.

District Risk Categorization

Even though the goal of interrupting WPV transmission by end of 2016 was not achieved, the programme made steady progress towards the goal. The overall national risk profile of the programme has steadily reduced. Given the current epidemiology, an aggressive, but more flexible approach is being pursued for NEAP 2017/18. The aim is to ensure virus transmission in current hotspots is halted, and any emerging immunity gap in otherwise polio-free areas is quickly closed. Sustaining performance gains and improvement where necessary is key to finally delivering on the promise of polio-free Pakistan.

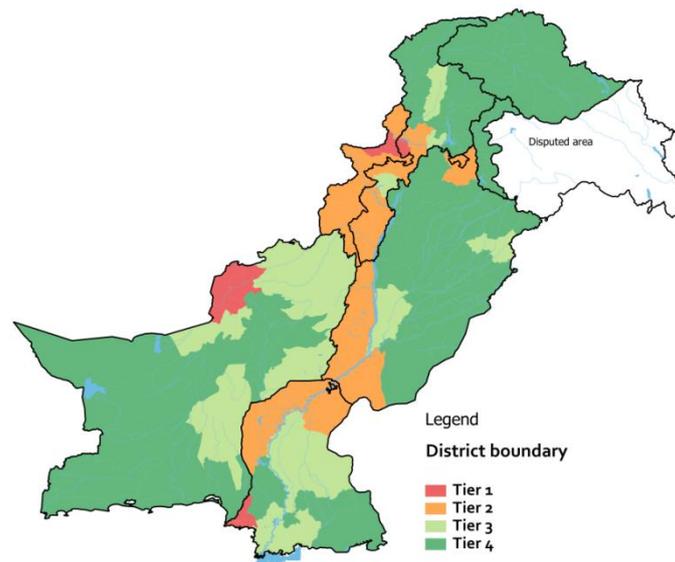
To achieve its strategic objectives, the programme has reconfigured districts into four distinct risk tiers (Figure 9, Table 2), and developed primary targets and key performance indicators for all three AOWs (Panel 1, Table 3, and Annex 1). These are core reservoir districts (Tier 1), high-risk districts (Tier 2), vulnerable districts (Tier 3), and low-risk districts (Tier 4). The tier classification of districts was completed after detailed consultation with the Provincial EOCs and the GPEI partnership and was supported by risk modelling carried out by the Institute for Disease Modelling (Figure 9, Table 2).

The programme **defines a "core reservoir"** as any clearly definable contiguous geographic zone spanning an area that's not more than a division or up to four closely linked districts and/or agencies with proven persistent local WPV1 circulation for at least 18 months and repeated history of reseeding virus outside the immediate

transmission zone. Using this definition, the programme has homed in on the areas of Pakistan that are the primary in-country source of infection for all other districts. The programme has identified the city of Karachi, the districts of Quetta block (Quetta, Pishin and Killa Abdullah), and the Khyber-Peshawar corridor (Khyber agency and Peshawar district) as the “core reservoirs” within Pakistan. In addition, even though not currently meeting our criteria for Tier 1 districts, there has been extended local circulation of WPV (for 10 months now) in Rawalpindi and Islamabad. The two cities are now classified as tier 2 districts.

Regardless of the tier, all regions of Pakistan will be expected to meet the overarching goal of the NEAP 2017/18. However, each tier will have specific goals, objectives and strategies.

Figure 9 – Map of Pakistan showing the different district tier classifications for 2017/2018.



Panel 1 – District Tier Classifications for NEAP 2017/2018

Tier 1* – Core reservoir districts

Number of Districts, 11; Target population 4,035,740 (11%)

Goal: Interrupt persistent local transmission using multiple strategies

Strategy: NID + SNID+ CBV in selected UCs + Priority 1 for combined bOPV/fIPV SIA + Routine immunization service delivery support and other auxiliary support

Tier 2 – High-risk districts

Number of Districts: 35; Target population 8,320,167 (22%)

Goal: Interrupt transmission if transmission is ongoing, decrease vulnerability. Special focus on Islamabad-Rawalpindi zone.

Strategy: NID + SNID + CBV in selected UCs only under very specific and special consideration + Priority 2 for bOPV/fIPV SIA + Routine immunization service delivery support + other auxiliary support

Tier 3 – Vulnerable districts**

Number of Districts: 28; Target population 8,432,090 (22%)

Goal: Decrease vulnerability

Strategy: NID + SNID

Tier 4* – Low risk districts**

Number of Districts: 81; Target population, 16,961,904 (45%)

Goal: Maintain high population immunity

Strategy: NID only

*In Karachi, SNIDs will be limited to approx. 80% of target population;

**Tehsil hub of Lasbella, and Afghan Refugee camps in Chagai will be included in all SNIDs; all Tier 3 districts, provinces will have the option of micro-targeting campaign to specific high-risk Union Councils, areas and/or populations.

***Under exceptional circumstances, and with the approval of the National EOC Coordinator, specific high-risk Union Councils, areas and/or populations may be included in the SNID.

Table 2 – Tier classification by district, 2017/2018, Pakistan

Tier	Province	District
Tier 1	BALUCHISTAN	KABDULAH, PISHIN, QUETTA
	FATA	KHYBER
	KP	PESHAWAR
	SINDH	KARACHI
Tier 2	FATA	BAJOUR, FR BANNU, FR DIKHAN, FR KOHAT, FR LAKKI, FR PESHAWAR, FR TANK, KURRAM, MOHMAND, ORAKZAI, WAZIR-N, WAZIR-S
	ISLAMABAD	CDA, ICT
	KP	BANNU, CHARSADA, DIKHAN, HANGU, KOHAT, LAKKIMRWT, MARDAN, NOWSHERA, TANK
	PUNJAB	DGKHAN, RAJANPUR, RAWALPINDI, RYKHAN
	SINDH	DADU, GHOTKI, JACOBABAD, KAMBAR, KASHMORE, LARKANA, SHIKARPUR, SUKKUR
Tier 3	BALUCHISTAN	BARKHAN, DBUGTI, JAFARABAD, KHUZDAR, KSAIFULAH, LORALAI, MASTUNG, MUSAKHEL, NOSHKI, NSIRABAD, SHARANI, ZHOB
	KP	KARAK, SWABI, SWAT
	PUNJAB	LAHORE, MULTAN, MUZFARGARH, SHEIKHUPURA
	SINDH	BADIN, HYDERABAD, KHAIRPUR, MATIARI, NFEROZ, SANGHAR, SBENAZIRABAD, SUJAWAL, THATTA
Tier 4	AJK	BAGH, BHIMBER, HATTIAN, HAVELI, KOTLI, MIRPUR, MUZAFFARABAD, NEELUM, POONCH, SUDNUTI
	BALUCHISTAN	AWARAN, BOLAN, CHAGHAI, GWADUR, HARNAI, JHALMAGSI, KALAT, KECH, KHARAN, KOHLU, LASBELA, PANJGOUR, SIBI, WASHUK, ZIARAT
	GBALTISTAN	ASTORE, DIAMER, GHANCHE, GHIZER, GILGIT, HUNZA, KHARMANG, NAGAR, SHIGAR, SKARDU
	KP	ABOTABAD, BATAGRAM, BUNER, CHITRAL, DIRLOWER, DIRUPPER, HARIPUR, KOHISTAN, MALAKAND, MANSEHRA, SHANGLA, TORGHAR
	PUNJAB	ATTOCK, BAHAWALPUR, BAHWLNAGAR, BHAKKAR, CHAKWAL, CHINIOT, FAISALABAD, GUJRANWALA, GUJRAT, HAFIZABAD, JHANG, JHELMUM, KASUR, KHANEWAL, KHUSHAB, LAYYAH, LODHRAN, MBDIN, MIANWALI, NANKANASAHIB, NAROWAL, OKARA, PAKPATTEN, SAHIWAL, SARGODHA, SIALKOT, TTSINGH, VEHARI
	SINDH	JAMSHORO, MIRPURKHAS, T.ALLAHYAR, THARPARKAR, TMKHAN, UMERKOT

Quarterly Milestones

Quarter 1 – July to September 2017

- Common risk assessment and alignment of strategies to decrease transnational risk and deliver “zero polio” across the common reservoirs is achieved.
- Complete the transition of operational management for Community-Based Vaccination areas in Quetta block.
- Revise all microplans in all districts with special attention to mobile team areas; develop strong external microplan validation monitoring system to assess quality of microplans; complete the training of all UC-level staff, Areas-in-charges and teams.
- Work Plans for all activities developed and presented to respective EOC Coordinators. Surveillance including deployment of dedicated staff and realignment of environmental surveillance sites fully implemented and surveillance targets met.
- A targeted routine immunization improvement plan for community-based vaccination areas in Tier 1 districts is jointly developed by PEI-EPI.
- National and Provincial Certification Committee Meetings held.
- Conduct a NEAP orientation Workshops for all Senior Leadership involved in the direct management and oversight of the polio programme.
- Complete July and September SIAs; appropriately respond to any poliovirus event.

Quarter 2 – October to December 2017

- First NEAP Quarterly Review conducted by October 2017.
- All performance targets and indicators outlined in the NEAP are achieved.
- Complete October, November, and December SIAs; appropriately respond to any poliovirus event.

Quarter 3 – January to March 2018

- Second NEAP Quarterly Review conducted by January 2018.
- Complete January, February, and March SIAs; appropriately respond to any poliovirus event.

Quarter 4 – April to June 2018

- Third NEAP Quarterly Review conducted by April 2018.
- Complete April and May SIAs; appropriately respond to any poliovirus event.
- Fourth NEAP Quarterly review and planning for NEAP 2018/2019 conducted by end of June 2018.

Table 3 – Primary Targets by Area of Work for the 5 Programme strategic objectives of the NEAP 2017/2018

Strategic Objectives	Activities	Scope	Primary Targets Programme Operations	Primary Targets Risk Assessment and Decision Support	Primary Targets Management Oversight and Accountability
Interrupt polio transmission in all core reservoirs	5 NIDs, 4 SNIDs	Area: Tier 1 districts	<ul style="list-style-type: none"> • ≤0.75% of missed children against target, and ≤5% against recorded missed children remaining unvaccinated at end of campaign. • <10% of Union Councils in any district flagged as an LPUC, ≥90% of Union Councils passing external microplan validation, ≥90% of Union Councils passing LQAS. • 95% coverage in third-party post-campaign monitoring in all districts. • All key performance indicators met 	<ul style="list-style-type: none"> • Annualized non-polio AFP rate of ≥6 per 100,000 at the district level in all districts. • ≥80% of stool specimens adequate (using GPEI definitions of stool adequacy). • All isolated WPV have VP1 divergence of ≤1% from closest genetic relative. • All key performance indicators met 	Frequency <ul style="list-style-type: none"> • PMFG: quarterly • NPMT: quarterly • PTF: quarterly • PEOC: post campaign • Divisional: post campaign • District: pre, intra and post-campaign • DSRC: monthly • 100% of UCs with UCMOs • 100% of Districts have District Surveillance Coordinators
Detect, contain and eliminate poliovirus from newly infected areas	5 NIDs, 4 SNIDs. Big cities, and Tier 3 districts, SNIDs may be micro-targeted to high-risk areas	Area: Tier-2, 3 districts plus any other district facing a declared poliovirus event.			
Maintain and increase population immunity against polio	5 NIDs	Area: Tier 4 districts			
Strengthen routine immunization coverage in core reservoirs	Monthly RI outreach delivering all antigens including IPV1	Area: Tier 1 districts to be prioritized	<ul style="list-style-type: none"> • Routine immunization coverage for IPV-1 and Penta 3 in areas covered by Community-Based Vaccination is more than 80%. • In districts not meeting the 80% coverage, a year-on-year reduction in the proportion of children not receiving IPV-1 and Penta 3 of at least 33% in districts. • In areas conducting sero-prevalence surveys, at least 70% of children remain seropositive for poliovirus type 21. • All key performance indicators met 	<ul style="list-style-type: none"> • All surveillance sites report on their AFP cases on a weekly basis, including “zero reporting” when no AFP cases were identified during the previous week. • All key performance indicators met 	Frequency <ul style="list-style-type: none"> • PMFG: quarterly • NPMT: quarterly • PTF: quarterly • Divisional: post campaign • District: pre, intra, and post-campaign
Stop the international spread of WPV by closely coordinating strategies and response across the common transnational reservoirs	SIA synchronisation Joint risk assessment and alignment and coordination of risk management	Area: North, Central, and South Corridor; All major metropolis, and districts with substantial Afghan populations	<ul style="list-style-type: none"> • 100% coordinated, strategically aligned response to major poliovirus events. 	<ul style="list-style-type: none"> • 100% joint risk assessment following major poliovirus events. • All isolated WPV across both countries have VP1 divergence of ≤1% from closest genetic relative. 	Frequency <ul style="list-style-type: none"> • 100% Monthly Coordination VCs • 100% Quarterly physical meeting • 100% Monthly VC/physical meeting between provinces and regions

¹ Following the tOPV to bOPV switch, type 2 vaccine can only be delivered via IPV either via combined bOPV/IPV SIAs or routine immunization.

Priorities by Area of Work 2017/18

The goals and objectives of NEAP 2017/18 will be delivered across the programme's three key Areas of Work (AOWs): Programme Operations, Risk Assessment and Decision Support, and Management, Oversight and Accountability. These AOWs will be reflected in the functional management structures of the Emergency Operations Centres (EOC) at both the National and Provincial levels.

Reaching these goals and objectives will require that all levels of the programme generate specific deliverables through the implementation of specific series of high-priority tasks and activities. These deliverables, tasks and activities will be tracked through NEAP Implementation Work Plans and Quarterly NEAP Reviews. In addition, they will be monitored with specific reference to team and individual accountability.

Programme Operations

Programme operations include all protection activities which aim to reach and vaccinate all target children across Pakistan. The primary activities include supplementary immunization activities (SIAs) and support to routine immunization service delivery. These primary activities are complemented by targeted strategies to reach and vaccinate children in transit both within Pakistan and moving across international borders. To enable effective programme operations, communities are engaged to maintain high levels of acceptance and trust in the programme to support access to children in a safe environment for vaccinators to work. Vaccine management systems are in place to support the timely delivery of safe and effective vaccines. Each of these activities are the key pillars for effective and efficient programme operations.

Supplementary Immunization Activities (SIAs)

The core programme strategy remains the conduct of **house-to-house campaigns** to reach and vaccinate each and every child under five years of age with the bivalent Oral Polio Vaccine (OPV) during each campaign. The purpose of these multiple vaccinations is to fully protect each individual child and to contribute to the protection of every child within the community by building and maintaining 'herd immunity' to stop transmission of the wild poliovirus.

The number of SIAs required is determined by the assessed wild polio virus risk for children living in a particular district. Children living in districts assessed as risk tiers 1-3 will receive nine vaccinations during the course of 2017/18 whilst children living in districts assessed as risk tier 4 will receive five vaccinations. One campaign will be conducted in July and thereafter each month from September 2017 to May 2018. The spacing of campaigns has been specifically designed to ensure adequate time for preparation, and implementation and monitoring of the 4-7 day campaign and the subsequent follow up needed to vaccinate children who may have been missed.

In 2017/18, this equates to the vaccination of 279 million children through 5 national (NID) and 5 sub-national (SNID) campaigns reaching between 10 and 37 million children per campaign (Annex 2). These campaigns include:

- 1 SNID in July targeting Tier 1 districts and HRMP high risk districts + Event response districts (25%)
- 4 SNIDs in October, December, March and May targeting all tier 1-3 districts and
- 5 NIDs in September, November, January, February and April targeting all districts

These SIAs will be implemented using two strategies – community-based vaccination in districts assessed as tier 1 and selected tier 2 districts and mobile team vaccination in all other districts.

Community-Based Vaccination

Community-based vaccination (CBV) is the core strategy implemented to stem virus circulation in the polio-endemic areas of Pakistan categorised as the core reservoirs and assessed as risk tier 1 – Karachi, Khyber-Peshawar and the Quetta block. CBV was initially rolled out in Karachi with effect from October 2014, Khyber-Peshawar with effect from August 2015 and in the Quetta block from July 2015. It has been further expanded in the interim – Karachi (January and August 2016), Khyber-Peshawar (August 2016) and Quetta block (August 2016). The total CBV workforce inclusive of supervisory tiers is 18,429; the female proportion achieved to date is 81%. The workforce reaches and vaccinates over 3.7 million children every campaign. CBV implementation has both improved access to children and vaccination coverage and decreased the requirement for security support thereby allowing more efficient security provision for “mobile team” areas. This has been especially evident in Karachi where CBV expansion supported the transition from multi-phased campaigns to a single-phase campaign. Regarding the population immunity, all evidence points toward a steady increase in the immunity profile of the population. The most recent WPV case in Karachi was in January 2016, in Khyber-Peshawar in February 2016 and in the Quetta block in December 2016. However, data from environmental surveillance continues to highlight the difficulty the programme continues to face in completely shutting down circulation in these most fertile grounds for poliovirus transmission.

Table 4 – Results of the poliovirus seroprevalence survey conducted among children between 6 and 11 months old in Tier 1 districts, and other high risk districts, Pakistan, November 2016 – March 2017.

Area	Total number of children sampled	Number and proportion seropositive for poliovirus serotypes		
		Type 1 n (%)	Type 2 n (%)	Type 3* n (%)
Karachi Zone 1†	317	313 (98.7)	211 (66.6)	297 (93.7)
Karachi Zone 2†	344	342 (99.4)	207 (60.2)	333 (96.8)
Karachi Zone 3†	341	336 (98.5)	235 (68.9)	327 (95.9)
Larkhana Division	341	338 (99.1)	203 (59.5)	323 (94.7)
Sukkur Division	300	297 (99)	158 (52.7)	286 (95.3)
Quetta District	309	293 (94.8)	229 (74.1)	287 (92.9)
Pishin District	309	284 (91.9)	138 (44.7)	268 (86.7)
K. Abdullah District	311	274 (88.1)	190 (61.1)	250 (80.4)
Peshawar Town 1 & 2	316	314 (99.4)	202 (63.9)	310 (98.1)
Peshawar Town 3 & 4	308	302 (98.1)	201 (65.3)	286 (92.9)
Rawalpindi District	299	298 (99.7)	250 (83.6)	297 (99.3)

*NEAP 2016/2017 was 90% Type 3 seropositivity;

†Union Councils in Karachi were divided into three zones. Zone 1: Baldia, Gadap, G. Iqbal, Gulberg, Kamari and Orangi; Zone 2: Bin Qassim, Korangi and Landhi; Zone 3: other towns

Progress 2016/2017

- CBV expansion was successfully completed ahead of the start of the low season in all Tier 1 districts.
- Updated and validated the micro-census to ensure new-borns, visiting guest and nomadic children, still missed and persistently missed children are recorded accurately and in a timely manner to support reach and vaccination of these children.

- Strengthened supervision and monitoring of recorded missed children patterns and missed children vaccination during same day coverage, campaign catch-up days and extended catch up with a special focus on unpacking silent refusals and any geographical and social clusters of missed children.
- High quality SIAs implemented; the average LQAS pass rate was 91% and the average PCM coverage was 94%. Same-day missed children coverage was 31% increasing to 83% by the end of the extended catch up period.
- Improved understanding of high risk mobile children movement patterns and timings to and from the core reservoirs both within Pakistan and along each of the three cross-border transmission corridors to strengthen the reach to and vaccination of these children by CBV and HRMP transit teams. In addition to all the registered children, the programme vaccinated approx. 116,865 guest and nomadic children every campaign.
- From the serosurveys conducted among children between 6 and 11 months in all Tier districts except Khyber Agency, the proportion seropositive for Type 1 was more than 95% in all areas except the three districts of Quetta block. The districts not meeting the NEAP target of >90% seropositivity for Type 3 were Killa Abdullah and Pishin (Table 4).
- Established a more granular focus on community and household acceptance and trust of vaccination and vaccinators to identify and address more complex forms of community resistance to vaccinating children during each or every campaign.
- Recalibrated supervision and monitoring approaches and methods to better measure performance inside the household whilst reducing the frequent 'knocks on the door' and community fatigue particularly where campaign frequency is increased to more than one campaign per month.
- Built capacity of the overwhelmingly female work-force through training sessions and on the job mentoring. Whilst increasing the proportion of females at each of the supervisory levels remains critical, strong motivation must be maintained through timely payments and expansion of accidental injury and life insurance cover.

Priorities for 2017/2018

- With persistent WPV circulation – linked both to local circulation and to transnational transmission from South Afghanistan – throughout the campaign season and the confirmation of one WPV₁ case and one cVDPV₂ case, **the Quetta block** will be the top programme operations priority in the 2017/18 NEAP. A detailed review – bottom-up and top down – will need to be conducted with a view to expedited improvement of the lessons learnt highlighted above. In addition, careful alignment of strategy and event response with South Afghanistan critical to stemming transmission across the Southern Corridor.
- Transition of the Quetta and Killa Abdullah CBV to new operational management, and the rollout of CBV in the Deobandi tehsil of Killi Abdullah district.
- Following the lull in transmission in **Karachi** during the second half of 2016, there are signs that circulation is getting re-established in Karachi. Programme will work towards reversing this trend and ensure the nucleus of the country does not get permanently re-infected.
- In **Khyber-Peshawar**, **programme has sustained high SIA quality for close to two years now; maintaining high immunity** across the two districts will be needed to ensure sustained polio-free status in 2017/2018. A key priority in this reservoir will be to prevent the re-establishment new chains of transmission imported from Islamabad-Rawalpindi, and/or other areas. Strengthening of the transit vaccination strategy will be critical.
- In the absence of environmental sampling, strengthened supervision and monitoring of CBV and mobile team performance in the more remote **North and South Waziristan Agencies** to ensure that gaps are quickly identified and closed along the central cross border transmission corridor

- Extend micro-census planning, targeted social mobilisation and monitoring support to the planned measles SIA in Q1/Q2 2018 and to **planned routine immunisation outreach activities** in the core reservoir districts.
- Develop contingency plans for IPV SIAs where assessed as needed.

Mobile Team Vaccination

While the CBV strategy is deployed in the core reservoirs and a few other high risk Union Councils outside the core reservoirs, for more than 90% of the target population, house-to-house vaccination during SIAs are conducted using the “mobile team” strategy. The strategy has successfully ensured high immunity for most of the population and minimized the risk of outbreaks and persistent transmission outside Tier 1 districts.

During the implementation of NEAP 2016/17, the aim was to address final challenges to the polio eradication program including any untoward event such as VDPV emergence post switch through the implementation of:-

- focus on pre campaign monitoring
- A focused approach in improving the work rationalization of teams & supervisors.
- Increasing the female workforce of teams.
- Focus on identifying & supporting the low performing union councils.
- Reaching missed children and the mobile team action plan were carried out.

While the overall performance of mobile teams improved across the country (as indicated by PCM and LQAS data), a number of UCs implementing campaigns using mobile teams continue to perform poorly. These UCs have been systematically identified, and action has been taken to improve microplanning, as well as team selection, training and supervision.

Progress 2016/2017

- MTAP exercise resulted in improving rationalization of the work load in the teams. Work rationalization improved especially in tier 2 districts; more teams deployed and workload per team decreased.
- The proportion of teams with at least one female has increased slightly in Tier 2 districts from 71% to 75% and remained steady at approx. 80% in Tier 3 and 65% in Tier 4 districts.
- The proportion of missed children reached during the same day of the campaign has improved in most areas and especially in Tier 2 districts from 28% in Jan 2016 to 45% in Apr 2017.
- Improved timeliness of payments to frontline workers (FLWs): over the course of the implementation of the NEAP 2016/2017; almost all districts submitted the payments timely

Priorities for 2017/2018

- A focused approach to improving microplanning especially in all mobile team areas.
 - A revised training plan for AICs to be implemented. The goal will be to ensure all AICs have a good microplan at the end of their two-day training.
 - All will be expected to ensure new settlements, HRMP, are included in updated microplans.
 - All recording, compilation and reporting tools will be reviewed. Special focus will be given to capturing HRMP populations, ‘zero’-dose or under-immunized children, persistently missed children.
 - An internal and external Quality of microplanning assessment to be conducted
- Identification, registration, inclusion in the microplans and vaccination of high-risk and mobile population to be considered top priority for all Union Councils.

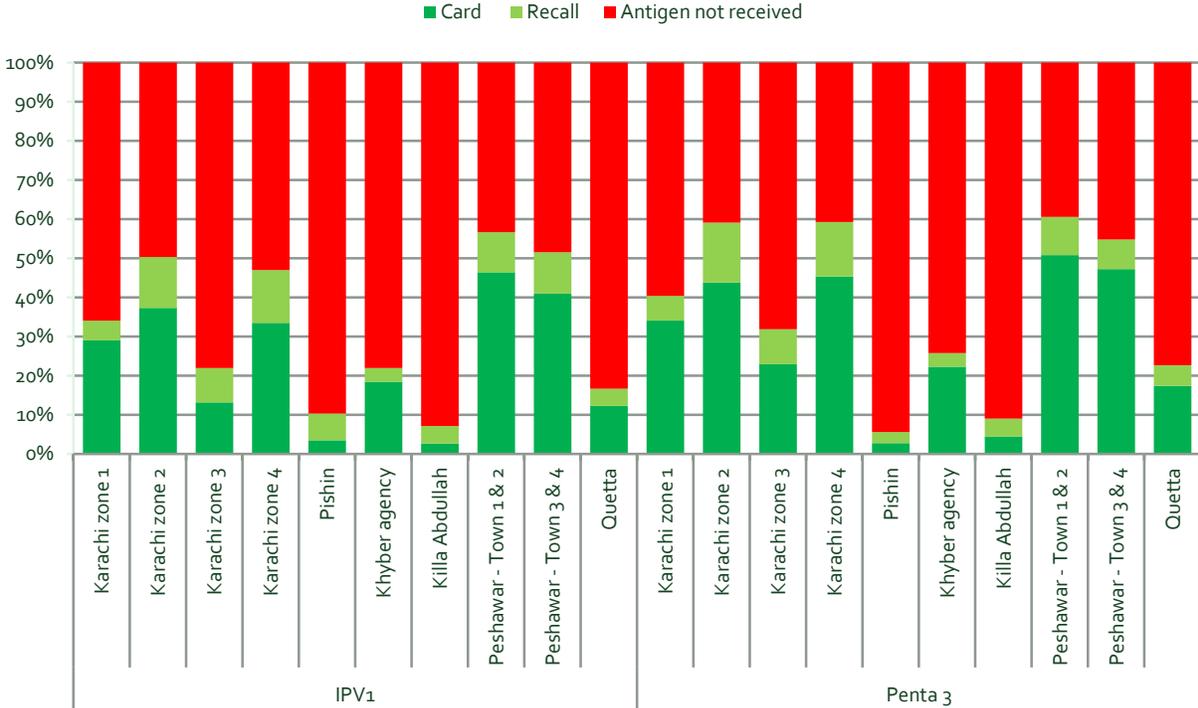
- With the goal of reducing the true number of children remaining “unvaccinated” at the end of each of campaign, increased focus will be given to the recording, tracing, and vaccinating of missed children in mobile team areas.

Coordination and Collaboration with Expanded Immunizations Programme

Routine immunization is one of the 4 basic strategies for polio eradication. Today polio is closer to being eradicated than ever before. The goal is to interrupt Pakistan’s circulation of wild poliovirus within the next low season is very achievable. To sustain the gains made towards Polio eradication, there is a critical need for strengthening routine immunization. In the absence of strong routine immunization program, any reintroduction of the virus would inevitably lead to a catastrophic and rapid spread. At its most recent meeting in May 2017, the GPEI Independent Monitoring Board emphasized that strengthening routine immunization will provide “an immediate and major boost” to the programme and help deal a decisive blow to the virus.

The Government of Pakistan considers routine immunization the cornerstone of its public health strategy. At both federal and provincial levels, the governments continue to prioritize allocations for EPI; efforts are underway to address gaps in human resources and other areas.

Figure 10 – Routine Immunization status survey in Tier 1 districts*, Pakistan, March – May 2017. NEAP 2016/2017 target was at least 80% penta 3 and IPV1 coverage.



*Only Union Councils implementing the community-based vaccination strategy were assessed. For Karachi, the zones were divided as follows: Zone 1, Baldia, Kamari and Orangi; Zone 2, Korangi, Landhi and Bin Qassim; Zone 3, Gadap only; Zone 4, other CBV Union Councils.

The Pakistan polio program endorsed and included in the NEAP 2014 and 2015/2016 the PEI-EPI synergy component as one key area of focus. In NEAP 2016/17, the target was to achieve >80% Penta 3 and IPV coverage in the CBV Union Councils of the tier 1 agencies and districts of Karachi, Khyber-Peshawar and the Quetta block where the virus risk is highest (Figure 10). The deployment of almost 15,000 full-time community-based vaccinators on polio campaigns supports the release of both EPI vaccinators and Lady Health Workers to focus on essential immunization and other primary health care services.

In 2017/2018, the programme will continue to provide as support as possible across all districts. However, in order to minimize the potential risk with over-extension and dilution of efforts, primary focus shall remain on the CBV Union Councils in Tier 1 districts.

Progress 2016/2017

- Some progress has been made in districts in Punjab, and Peshawar, however, all data continues to point towards weak routine immunisation service delivery in the core reservoir districts. For IPV1, coverage ranged between 3 and 46% and for Penta 3 from 3 to 51%.
- The number of children reported with no routine antigen (0-dose) from Karachi and Khyber-Peshawar during SIAs increased from 20,790 in September 2016 to 31,923 in May 2017. Between 10-15% of these children were reported to have received an injectable vaccination during this period suggesting over-reliance on visits by caregivers with children to the available fixed sites and insufficient planned outreach to vaccinate children closer to their homes.

Priorities for 2017/2018

- Enhanced oversight by Divisional Task Forces and District Polio Eradication Committees of essential immunisation activities against NEAP 80% coverage target.
- Develop an integrated work plan on routine immunization improvement in UCs implementing CBV strategy in **Tier 1 districts** that includes:
 - EPI outreach plans for each district updated and submitted for implementation.
 - Updating EPI targets from CBV registry and biannual enumeration that includes all children below 18 months of age by antigen specific immunization status
 - Strengthen reporting, referral and follow-up – zero dose for all antigens and IPV
 - Ongoing mobilization for RI during HH visits and targeted mobilization and strengthened outreach activities.
- National EOC Monitoring and Evaluation team to conduct an annual routine immunization coverage assessment in CBV UCs in **Tier 1 districts** to measure progress against NEAP targets.
- With close collaboration with the EPI at national and provincial levels, and support by the PEI-EPI synergy team, conduct an assessment of routine immunization service delivery infrastructure for all UCs implementing CBV strategy in **Tier 1 districts** by September 2017.
- Synchronisation of the PEI and EPI SIA schedules to include a nationwide measles SIA in March/April 2018 and contingency plans for bOPV-IPV SIAs in selected districts.
- Continue to recognize PEI-EPI Synergy as an area of work necessary for Polio Eradication – depending on the Tier, risk of WPV circulation, availability of polio resources and degree of RI service delivery weakness, the following synergy activities will be implemented accordingly:
 - Support for developing Integrated UC micro-plans for routine immunization and polio activities.
 - Capacity building for frontline workers and polio staff.
 - Integrated communication for routine immunization.
 - Increased delivery of routine immunization services during SIAs.
 - Monitoring routine immunization through polio oversight and accountability mechanisms.

- In line with GPEI recommendations, conduct a second nationwide verification of withdrawal of tOPV and absence of mOPV2 through further systematic searches.

Complementary Strategies

In addition to the planned OPV SIAs, a number of complementary strategies will be implemented to boost population. Core and complimentary strategies will be closely aligned and monitored. As with core strategies, complementary strategies will be increasingly focused to ensure maximum impact, adequate supervision, monitoring and return on investment.

Priorities 2017/2018

- Implement at least one targeted combined IPV/bOPV SIA in the first quarter of 2018. Targeted areas will be determined during the fourth quarter of 2017 and will be depend on risk assessment at that time. Considering the limitations in the global supply of IPV, the programme will explore the feasibility of using a fractional IPV strategy in as many places as possible.
- Special additional “mop-up rounds” targeted at high-risk and mobile populations especially in high-risk districts or areas with ongoing transmission.
- Where necessary continue to build or maintain community trust with implementation of planned health camps in areas facing demand challenges and of critical importance to the programme.

Social Mobilisation

The communications approach integrates support with the operations strategy through promotion of all vaccination, including polio, as a social norm that builds acceptance and trust for health workers by humanising them in all of our communication. The *Sehat Muhafiz* strategy also reinforces the missed children paradigm shift by ensuring mass media efforts continue to promote an overall enabling environment which is reinforced by targeted social mobilisation efforts towards the caregivers of still and persistently missed children and strengthened inter-personal communication by frontline vaccinators on the doorstep. Overall ‘still missed children’ averaged 220,000 children per campaign nationally with ‘still refusals’ in the order of 40-45,000 (with the largest concentration is in Karachi).

The Harvard Opinion Research Program (HORP) at the Harvard T.H. Chan School of Public Health and the Pakistan Programme have developed a collaboration for knowledge, attitudes and practices (KAP) polling to support polio eradication and routine immunization. The collaboration designed and conducted a poll in select Tier 1 and Tier 2 districts of Pakistan in order to guide strategic communications for polio eradication efforts. Districts included Killa Abdulah, Pishin, Quetta, FR Bannu, Khyber, Bannu, Peshawar, Tank, Lakki Marwat, Karachi Baldia, Karachi Gadap, and select UCs in Karachi with the highest rates of missed children in recent campaigns. The 2017 poll mirrors and extends the design of our 2016 poll by including the same districts and adding two new areas: Lakki Marwat and the selection of UCs in Karachi.

While this poll is not a true evaluation study and changes in the data cannot be directly attributed to Programme interventions, this data nonetheless provides indirect evidence that recent Programme communication efforts are effectively aligned with community sentiments, norms and values. Efforts in these areas should be maintained and enhanced to protect against backsliding. Given these positive findings, it is perhaps not surprising that momentum has been maintained in self-reported coverage, with 95% of caregivers saying their child has received drops in the last round, and, separately, 95% saying their child has received drops during every campaign in the past year. At the same time, data from the poll also suggest the Programme vulnerabilities (Panel 2).

Panel 2 – Results of the Knowledge Attitude and Practice Survey, Pakistan, 2017.

Possible Positive Shifts.

- **Perceptions of the vaccinators has improved:** Views of vaccinators – overall improvements continue and perceived knowledge increases; 74% trusted vaccinator a great deal.
- Vaccinator gender profile – 82% prefer women included in team.
- **Destructive rumor circulation has decreased**– particularly in Balochistan; 44% heard destructive rumour down from 59%. In Baluchistan proportion was down from 95% to 61%. There was a slight increase in FATA slight increase to 69%.
- **Local embeddedness has improved:** – Caregivers largely perceive vaccinator efforts as being locally embedded, with 85% saying that a local health organization is responsible for the vaccinations. .
- **Perceptions of supportive community norms has improved:** The fraction of caregivers saying all their neighbours give drops to their children every time drops are offered is 90%, with only 9% saying not all neighbours do.

Momentum and Possible Pushback

- **Momentum has been maintained in self-reported coverage:** with 95% of caregivers saying their child has received drops in the last round, and, separately, 95% saying their child has received drops during every campaign in the past year.
- **The programme is on the edge of overstepping bounds with its repeated knocks and extended campaigns,** as nearly half of caregivers (48%) say there have been “too many” visits from vaccinators in the past year. Such perceptions are particularly high in Balochistan, where there were extensive campaigns earlier in the year; nearly two-thirds of caregivers there (65%) say there are “too many” such visits

There is a slight decline in commitment to take the vaccine “every time” it is offered: 97% in 2016; 86% in 2017 overall. This shift may reflect a reasonable interpretation that keeping up with so many vaccination rounds and knocks on the *door is* infeasible for caregivers, but it may also portend frustration and backlash.

New Insights and Challenges

- **Pockets where key metrics are relatively low.** For example, assessments of vaccinators tend to be weaker in Karachi Gadap, Tank and Khyber, with fewer caregivers there than in neighboring districts saying vaccinators are “better” this year than last. Rumor circulation is high in Pishin, FR Bannu and Tank.
- **Even where metrics are reasonably high, there is room for improvement in order to protect against erosion during the transition phase.** For example, while the perception that some neighbors are against polio drops has declined from 31% in 2016 to 21% in 2017 (35% to 22% in overlapping UCs), addressing those caregivers who have lower commitment, or demonstrate lower support remains as critical in 2017 as it did in 2016.

Progress 2017/2018

- Completed the 2017 Knowledge Attitudes and Practice Survey. The 2017 Knowledge Attitudes and Practice Survey indicates that whilst household acceptance of OPV in Pakistan remains high, fatigue around ‘repeated visits’ and the intent to vaccinate each time vaccine is offered is starting to emerge as

an issue across the core reservoirs and high risk districts. Quantitative and qualitative data from Tier 1 and Tier 2 districts show that negative rumours around the vaccine and the programme have gone down across the board but pockets unsupportive of polio vaccination still remain in critical areas. These are the last bastions to focus trust building. Overall compliance – although high - is fragile. In the face of negative media, a negative experience with a health-worker, circulating rumours or disapproving social pressure, individual compliance may easily be put at risk without a consistently supportive social environment that reinforces vaccination.

- Misconception, demand, vaccine safety, fatigue and religious refusals are key reasons for remaining refusals. Field observations suggest that there are complex interlinkages between these reasons with often one reason for refusal leading to another. As the programme moves ever closer to interruption of transmission – tonality of messaging must keep both risk perceptions high whilst being clear about progress made.
- Balancing the response to the epidemiological risk posed by cVDPV2 with the monthly bOPV SIA schedule against a backdrop of campaign fatigue by communities and caregivers requires careful judgment.
- Calibrating the performance pressure for 'zero' with voluntary coverage and conversion rather than punitive measures to avoid transgressing social boundaries and promoting more complex forms of resistance to the programme remains a must
- Demand for services other than polio in under-served areas is an ongoing challenge for the programme – the planned revitalising and strengthening of EPI in the core reservoirs will help to address some of these demand issues
- Continued granular and systematic triangulation of data in the reservoirs and high risk areas is essential to better identify pockets of geographical and social clusters of silent refusals and the most appropriate influencers to effectively engage and convert
- The local, female profile of the vaccinator remains the cornerstone in building trust with caregivers and the community. There is a need to continue motivating vaccination teams, building their capacity to sustain pressure and negotiate with the community and households whilst maintaining a supportive environment within which to work so that problems may be quickly surfaced for action

Mass Media – Enabling Environment

Stages of the Journey to Contact: Mass communications, Interpersonal Communications Social Mobilization



Mass media is integrated with the operational strategy. The Sehat Muhafiz approach is designed to present vaccination as a social norm against the backdrop of the interconnectedness of family, children and the traditions that define a place and culture. The Strangers no More Campaign seeks to directly support the building of acceptance and trust for the Sehat Muhafiz. Vaccinators are presented as fathers, mothers and community members with lives and contributions not limited to their role in the polio programme whilst balancing positive tonality of the strides made by the programme with heightened risk perception to keep awareness levels high.

Mass media campaigns tightly align with the virus risk assessment with 75% of the focus on districts assessed in risk tiers 1 and 2 and 25% on districts assessed in risk tiers 3 and 4. District localized

approaches are managed through targeted channel selection and messaging reaching out to caregivers of the persistently and still missed U5 children. Key mass media outlets include TV, radio, radio adaptations, cable channels, print and outdoor media for NIDs, SNIDs, case response and IPV SIAs. Messaging focused on repeated vaccination, vaccine efficacy and safety, disease awareness and raising risk perception via personalities, paediatricians, popular polio songs. All materials bear the Sehat Muhafiz branding.

Mass media impact reports indicate an overall positive trend. In terms of mass media effectiveness, polio awareness was 97.6%, the need for regular vaccination each time offered was 96.3%, knowledge of polio impact was 84.9% and knowledge of whether polio is curable was 71.3%. Of those interviewed, 56% were without education or had basic literacy, 5.35% had no access to any mass media. Focus group discussions indicate that mosque announcements, community meetings, engagement of religious leaders, schools and shopping malls are good communication channels.

Priorities 2017/2018

- The 'Strangers No More' approach will continue with a change in tonality to better balance heightened risk perception to support vaccination each time whilst also recognizing the progress achieved to date with the contribution of health workers, caregivers and the community with a call to action for caregivers
- Subject to epidemiology, routine immunization may be included as the programme supports strengthened routine immunisation in the core reservoir districts and
- Regardless of scenario, the adapted and localized approach will continue with targeted channel selection and messaging with the primary focus on districts assessed as tiers 1 and 2 together with prioritised high risk mobile populations

Targeted Community Engagement

Stages of the Journey to Contact: Mass communications, Interpersonal Communications Social Mobilization



As popular support to polio eradication has grown, targeted community engagement has become increasingly important to reach and vaccinate the diminishing pockets of still and persistently missed children. Community and household engagement activities were primarily targeted towards the caregivers and parents of still missed and persistently missed children focusing on repeated campaigns and vaccine safety. A field work-force of CBV and almost 2,000 ComNet and Religious Support Persons maintained an ongoing engagement to increase coverage and conversion of recorded missed children in tier 1-3 districts. Community engagement was prioritised on the basis of analysis of the geographical concentrations of still and persistently missed children. Key activities included community meetings, jirgas, mosque announcements, household visits by a range of influencers, specific engagement in 'posh areas', information education and communications (IEC) material

dissemination, interactive voice response (IVR), automated SMS and fatwas from key religious leaders in support of the programme.

The 2017 KAP data tells us that the overall view of vaccinators in the core reservoir and high risk districts continued to improve. Caregiver assessment of better performance by vaccinators, trust in their vaccinators "a great deal", vaccinator "very knowledgeable" about children's health and visit was "very pleasant" each

improved. 82% of caregivers also indicated a clear preference for a female vaccinator in the team. The vaccinator profile, knowledge, behaviour and attitude remains the foundation towards effective interaction with caregivers on the doorstep and to the successful vaccination of each and every child within the home. Where caregivers do not fully trust the vaccinator who knocks on their door, they are simply less likely to support vaccination. The programme will continue to strengthen the recruitment, retention, supervision, motivation and capacity building of local, female vaccinators. KAP data disaggregated to district level will be utilised to inform targeted capacity building interventions in particular.

Priorities 2017/2018

- Intensified focus on community acceptance and trust of vaccination and vaccinators to identify the underlying issues around refusals, silent refusals and campaign fatigue in the core reservoirs and prioritised high risk mobile populations in general and the Quetta block in particular
- Targeted community and household engagement activities with the appropriate governmental, medical, religious and community influencers to further strengthen voluntary coverage and conversion
- Strengthen ComNet and RSP/PSTF structures to ensure the right people are in the right place to support catch-up of still and persistently missed children before, during and after campaigns
- Continue to strengthen the recruitment, retention, capacity building and performance of front-line vaccinators in districts assessed as tiers 1 and 2 to achieve successful vaccination with a special focus on the KAP data disaggregated by district.

Access and Security

The primary objective of the programme is to reach and vaccinate all children under 5 across Pakistan. As part of the missed children paradigm shift, the approach is to predict, track and find solutions to vaccinate children inaccessible to the programme. Throughout 2016-17, the programme sustained the access gains earlier achieved and focused on reaching the remaining small pockets of missed children in a number of agencies in FATA. The issue is not a structural one but rather one that is linked to more systematic access with regular programme supervision and monitoring.

The campaign season continued to be characterised by a sustained reduction in security incidents involving polio workers and a general reductions in levels of fear especially in areas that were previously seen as insecure. The provision of a secure environment in which vaccination teams and other programme staff could operate was a major feature of NEAP 2015/16. Careful and coordinated security planning involving security services at district, provincial and national level played a significant role in creating a safe environment for our frontline workforce during SIAs. These gains were sustained through 2016/2017. Over the course of the low season, the security forces protected more than 200,000 frontline workers during each campaign. Critically for the programme, single phase campaigns have remained the norm and through close coordination the conduct of the nationwide census between March and May resulted in minimal disruption.

Nonetheless, security remains a standing concern and while recognising the massive commitment of the security services to the polio programme, these coordinated efforts must be maintained into 2017/18.

Priorities 2017/2018

- Maintain access to all children in areas with fragile security and/or ongoing security operations through sustained engagement and coordination with security agencies.
- Continue to closely track and verify "inaccessibility" with stand-by readiness to immediately reach any inaccessible children as soon as they become accessible or move out of that area.
- Continue security planning and coordination before SIAs at UC, district and provincial levels to ensure single-phased SIAs are maintained

- Continue real time security monitoring and assessment by Provincial and National EOC with rapid incident management when required according to Standard Operating Procedures.

Vaccine Management System

The principal purpose of the vaccine management system is to ensure that quality vaccine is effectively and efficiently delivered and utilised in support of the approved SIA schedule. The bOPV forecast is prepared on a calendar year basis and includes provisions for all SIAs, case response and mop-up activities together with PTP and transit vaccination. The programme benefits from the ongoing strengthening of cold chain systems

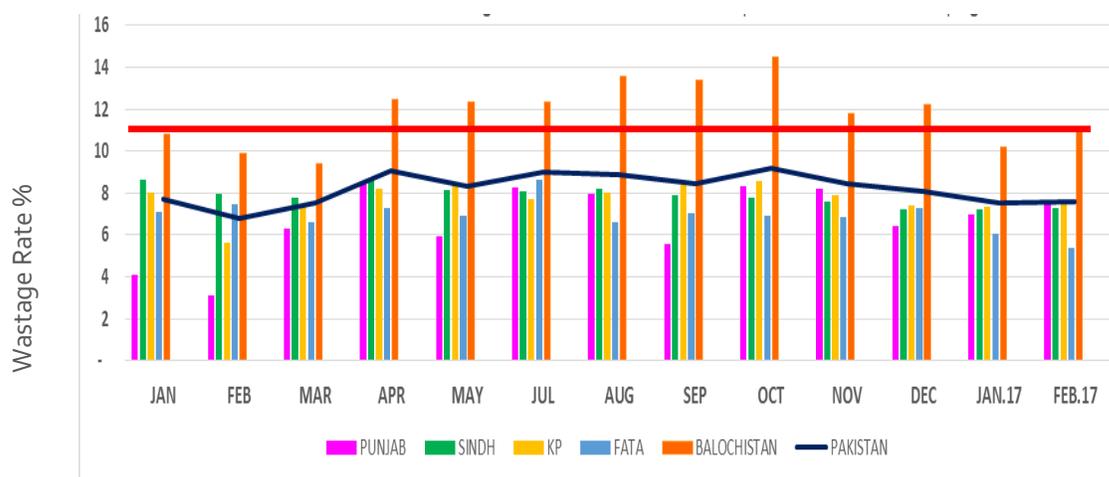
The bOPV forecast is subject to periodic review based on the evolving epidemiology with proposed changes subject to endorsement by the GPEI Technical Advisory Group. The revised bOPV target is 357 million doses for 2017. The provision of IPV to support the conduct of IPV SIAs is subject to review and endorsement by the Polio Oversight Board given the shortage of stocks globally, Pakistan benefited from the priority allocation of 3.9 million doses to support SIAs in 2016/17. The provision of mOPV2 to support the conduct of cVDPV2 SIAs in the Quetta block and Balochistan in Quarter 1 of 2017 was subject to review and recommendation by the global mOPV2 Advisory Group.

Utilisation of vaccine has also continued to improve with wastage rates below acceptable levels in all provinces (Figure 11). Good practice was observed during the mOPV2 SIAs in Balochistan in accordance with the SOPs relating to recording, reporting, documentation and destruction of disposable vials in accordance with the vaccine management protocols

Priorities for 2017/18

- Timely supply of vaccine to support the 2017/18 SIA schedules and all other required activities
- Strengthened management and oversight by Provincial Vaccine Management Committees to ensure efficient bOPV, IPV and mOPV2 utilisation and
- Support the EPI one year post-switch tOPV containment exercise.

Figure 11 – Oral Polio Vaccine wastage rates by province, Pakistan, 2016 - 2017



Risk Assessment and Decision Support

Risk Assessment and Decision Support includes all activities focused on ensuring that programme operations are driven by the best available data and operational research, with information reaching decision makers and frontline staff in a timely manner and in a format that helps drive programme priorities, performance and accountability.

Risk Assessment and Decision Support activities include:

- Surveillance
- Laboratory services
- Containment
- High-risk and mobile populations
- Monitoring and Evaluation
- Information Management Systems
- Emergency operations
- Rapid Response Units
- Innovation and Operational Research

Surveillance

A Surveillance System for Eradication

Detecting every poliovirus transmission chain in a timely manner is an objective of the programme. To achieve this, surveillance must – at a minimum – meet global standards in all districts.

Under the 2016/2017 NEAP, the surveillance system was enhanced through the implementation of a “Surveillance for Eradication” Work plan. Through the concerted implementation of the plan, surveillance systems have improved across the provinces and districts (Figures 12, 13). In 2017/2018, the surveillance system will aim for an additional performance boost in multiple areas.

Considering the potential programmatic impact of priorities outlined below on laboratory, the programme will review the lab’s capacity and subsequently ensure it can meet the needs of the programme for the next year.

Progress 2016/2017

- Hiring, training and deployment of dedicated surveillance officers at the district-level in all Tier 1 and Tier 2 districts, and divisional-level in all Tier 3 and Tier 4 districts as per the requirements of NEAP 2016/2017.
- Hiring, training and deployment of additional laboratory staff to the Regional Reference Laboratory; due to increasing workloads, more staff still required.
- Shift to electronic data collection system for active surveillance site visits and zero-reporting sites completed. In Sindh province a novel health-care provider AFP notification systems was developed and deployed.
- Conducted external surveillance reviews in districts in AJK (10), Balochistan (6), GB (9), KP (7), and Punjab (6). Reviews are led by Federal Surveillance Officers and are conducted once every 5 weeks. Following, each review, extended Field Support is provided for two to three weeks at a time to help address gaps and improve the surveillance system.

- The concerted implementation of the “Surveillance for Eradication Plan”, increased the reporting of AFP surveillance; NPAFP rate increased from 7 per 100,000 children less than 15 years old in 2015 to 10 per 100,000 in 2017.
- The total number of monthly environmental surveillance samples collected increased to 53 samples per month from 43 as of end of June 2016. Total collection sites now at 65.

Figure 12 – Number of Acute Flaccid Paralysis cases reported, Pakistan, 2013 – 2017

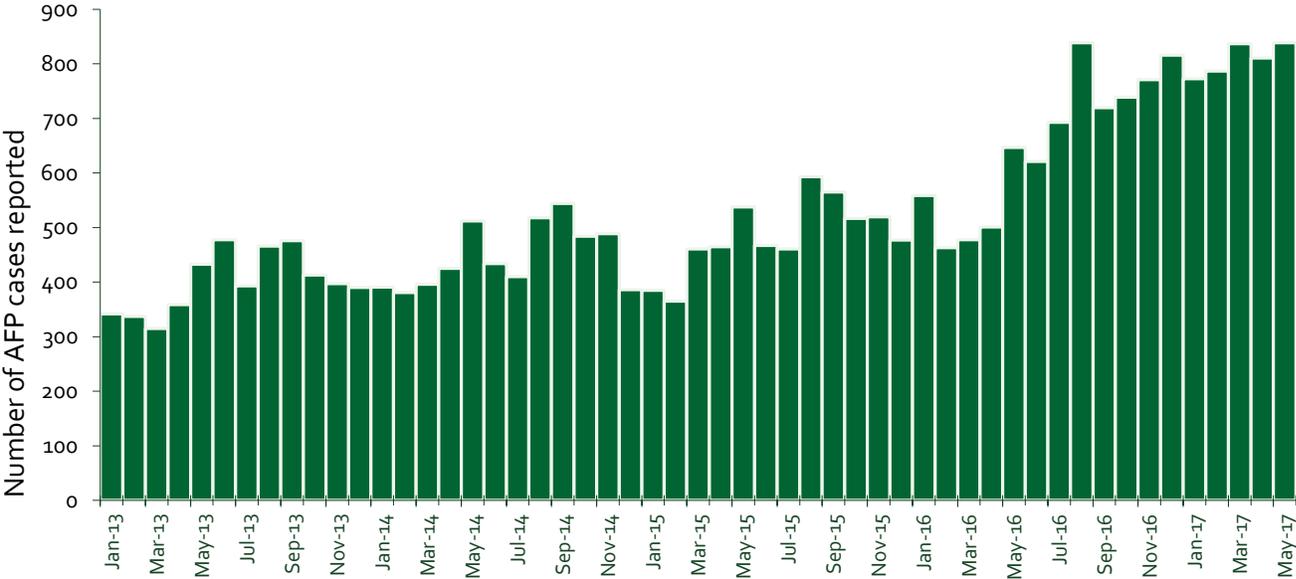
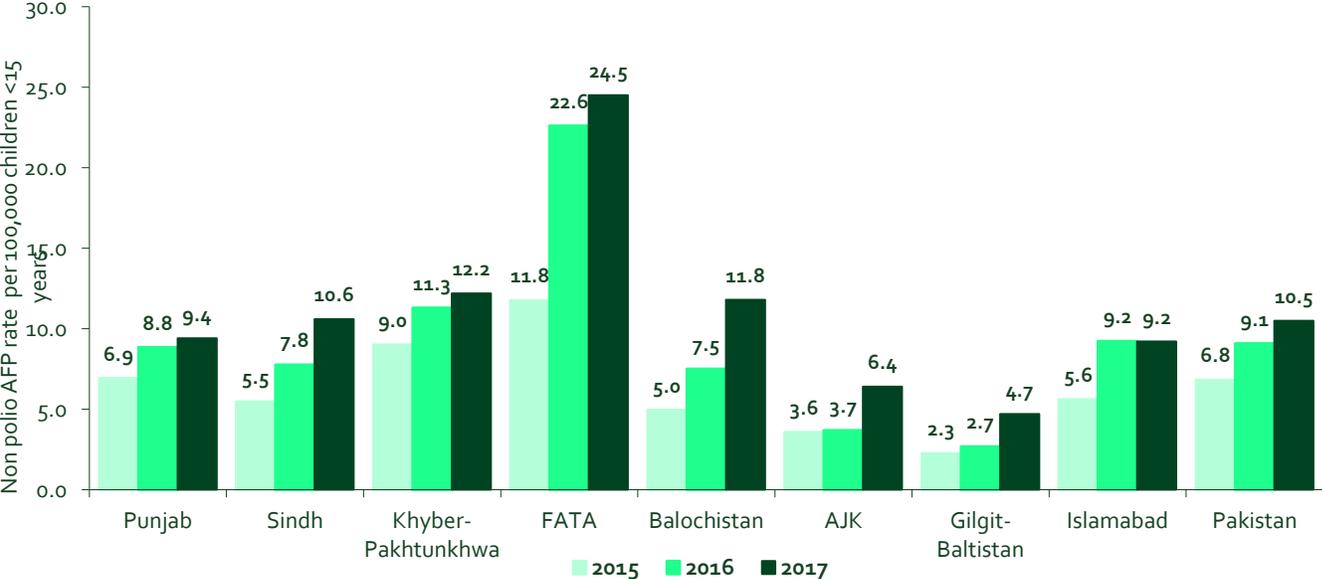


Figure 13 – Non-polio AFP rate by province or region, Pakistan, 2015 – 2017



Overarching surveillance priorities for 2017/18

- Conduct a thorough audit of the performance of 2016/2017 and publish an annual report on the “Status of poliovirus surveillance in Pakistan, 2016/2017”.
- Under the National EOC’s Risk Assessment and Decision Support Team, the Surveillance for Eradication Task Team (SETT) will oversee the development and implementation of a revised **National Surveillance Work Plan for 2017/2018** in line with priorities outline by the 2017/2018 NEAP.
- Conduct a monthly audit of the progress made on the implementation of the Work Plan.
- Conduct a quarterly review of deliverables and tasks, and update the work plan in order to ensure adjustments needed are made in time to affect progress towards achieving goals and objectives.
- Utilise new technology to improve the collection, collation and analysis of all surveillance data
- Update the Pakistan AFP Surveillance Guide and, where necessary, all protocols and Standard Operating Procedures derived from the Surveillance Guide.
- Switch from the current archaic Surveillance Data Management System to new system while ensuring a smooth transition process that maintains data sharing mechanisms already in place.
- Further enhancement of oversight of the surveillance system at all levels; at the district level, all districts are expected to have District Surveillance Review Committee chaired by the District Health Officer or equivalent.

Acute Flaccid Paralysis Surveillance

The surveillance infrastructure in all districts must be capable of detecting all cases of acute flaccid paralysis (AFP) in a timely manner. In addition, the system should be able to investigate all cases, as well as collect and appropriately store, ship, and test stool specimens at the WHO-accredited, NIH-established Regional Reference Laboratory to confirm the presence or absence of polioviruses.

Priorities for 2017/2018

- Strengthening of the surveillance infrastructure and work force capacity by maintaining well-trained, capable dedicated government and partner surveillance staff in all districts.
 - Notification, training, deployment, and facilitation of District Surveillance Coordinators in all districts.
 - Maintaining dedicated partner Surveillance Officers at district-level in all Tier 1 and Tier 2 districts, and at the divisional-level in Tier 3 and Tier 4 districts. A transition plan for districts previously in Tier 2 but reclassified as Tier 3 or 4 will be put in place.
 - Quarterly trainings will be scheduled. This will guarantee the availability of training opportunities for all newly-hired staff.
 - Enforce proper documentation and filing practices at all levels.
- Ensure timely detection, reporting, and investigation of all AFP cases. In addition to meeting standard surveillance indicators, the programme will aim to ensure at least 70% of all cases are reported by the first health-service provider contact or from the community
 - Fully implement electronic reporting systems from active and zero-reporting sites and ensure compliance, timeliness, and completion at the lowest level.
 - With the aim of exploring possible roll-out in other provinces in 2018, review the novel health-care provider AFP notification systems in Sindh province.
 - Review the number and distribution of reporting sites for all “districts-of-interest”. Districts will be flagged for closer performance review by the National EOC and/or Provincial EOC Surveillance Teams.

- Enhance community surveillance in all districts especially in areas with poor health-infrastructure. Proportion of community reporting will be closely tracked for all remote districts, and all other districts-of-interest
- Ensuring “green is green”. “Good surveillance indicators” is not always equivalent to “good surveillance” and detecting districts with poor surveillance system is especially difficult if indicators all point to a “strong system”. Programme will look beyond the indicators and ensure good quality surveillance in all districts.
 - A risk-based review, verification, and support mechanism will be established by the National EOC SETT.
 - Targeted external surveillance reviews will be conducted by the National EOC
 - Quarterly National and Provincial Joint Surveillance Review will be conducted
 - AFP verification mechanisms will be enhanced.
- Review and update AFP surveillance guide and protocols
 - Criteria for detailed case investigation and 30 household cluster investigations to be reviewed; data collection, collation, and analysis systems to be centralized
 - Provide additional avenues for the assessment of “adequate AFP cases” by the Provincial Expert Review Committees through the inclusion of additional criteria for review
 - With the goal of improving probability of case detection in areas of concern, review contact sampling, and healthy-children protocols
 - Develop a “Community-surveillance field guide”
 - Review and update AFP surveillance strategies targeted at high-risk and mobile populations.
- Enhance communications strategy through greater collaboration with the communication task team
 - In close collaboration with the “Communications Task Team”, development of a *Communication for Surveillance* strategy.
 - Explore avenues of enhancing the recording and circulation of short video messages of renowned Paediatricians.
 - Surveillance weekly update is shared with all Pakistan Paediatric Association and Paediatric Medical Association members.
 - Using social media tools to circulate the messages about AFP surveillance.
 - Sending regular SMS messages to healthcare providers. A systematic creating of a contact database needed.
- In accordance with global guidelines, establish a National Expert Review Committee (ERC)

Environmental Surveillance

Samples collected from the environment have played a critical role in providing insight into the transmission dynamics of the poliovirus in Pakistan. As the programme nears the goal of finally interrupting transmission, and as the case-to-infection ratio continues to decline, the importance of environmental surveillance in the timely detection of transmission cannot be under-estimated.

Under the 2017/2018 NEAP, a complete review and rationalization of all existing environmental surveillance sites was conducted. In addition, the total number of monthly samples collected increased to 53 samples per month from 43 as of end of June 2016. Considering the impact already observed, opportunities for optimization of system and enhancement of quality and sensitivity will be explored. The programme will also continue to use new sampling techniques (e.g., BMFS) to further improve probability of detection in areas of concern.

Priorities for 2017/2018

- Ensure maintenance of high quality through the continued implementation of strict supervisory protocols.
- With the aim of rationalizing surveillance network through modification of site location (adjusting location, and/or shifting to composite site collection), or changes in site (closure of low-sensitivity sites) conduct an annual review of sensitivity of all surveillance sites through careful analysis of data, coupled with field visits to selected sites.
- Expand surveillance network by at most 2 new sites. By July 2018, total number of grab samples submitted and tested at the National Institute of Health to increase from current 53 to 55.
- Expand the use of BMFS by at least 3 sites to 15 sites by end of 2017; develop new protocols for the temporary deployment of BMFS in areas of concern.
- Conduct a joint quarterly review (surveillance team member and a person from the lab) of the sample collection procedures of at least 20% of environmental surveillance sites. Provide field workers with onsite training on sample collection.
- Further improve quality of data by using technology to collect and submit additional data.

Poliovirus type 2 surveillance and risk management

Following the successful transition from tOPV to bOPV, the country stopped using tOPV in all routine immunization activities. Surveillance systems were enhanced to ensure circulation of type 2 virus is detected quickly and appropriate level of response is carried out. Between September 2016 and June 2017, 13 VDPV2 isolates were identified including 1 case of cVDPV2 and 1 of iVDPV2. The detection of isolates was especially high in the Quetta block where 6 separate emergencies were detected. In response to the confirmation of circulating VDPV2, the programme conducted 2 rounds of mOPV2 vaccinations in Quetta, and 1 round in the rest of Balochistan. In addition, 1 round of IPV campaign was implemented in Quetta block. Outside the Quetta block, fIPV response was conducted in Hyderabad division of Sindh following the detection of aVDPV2 in the sewage system.

Priorities for 2017/2018

- Update **poliovirus type 2 protocol** taking into account the lessons learnt from 2017/2018 by September 2017. As much as possible an alignment with the revised Global Protocol will be ensured.
- Include all type 2 viruses isolated from a case or the environment in the surveillance team's weekly report, starting with the implementation of the 2016/2017 NEAP in July. In addition to tables and/or graphs, a month-by-month map of all type 2 viruses isolated will be included.
- Provide the VP1 nucleotide variations of all poliovirus type 2, starting September 2016.
- Make the status of type 2 circulation a standing agenda item at every SETT meeting.
- Carefully investigate and develop a calibrated response plan for all type 2 virus events.

Laboratory Services

The Regional Reference Laboratory (RRL) at the National Institute of Health (NIH) in Islamabad, Pakistan is the cornerstone for both Pakistan and Afghanistan polio eradication activities. The lab has consistently provided timely laboratory results, including genetic sequencing results of all WPVs and VDPVs for both stool and environmental samples. Senior virologists regularly brief the National EOC and provide detailed interpretation of the laboratory results. The lab also reports on the quality and timeliness of delivery for all samples received.

The increasing number of samples continues to push the lab to its utmost capacity (Table 5). Environmental samples from Pakistan tested by the laboratory increased from 438 in 2015 to 531 in 2016. Similarly, the lab

processed 24,783 samples stool specimens from AFP cases and contacts of AFP cases compared 13,509 in 2016. The lab also tested 2,337 isolates for intratypic differentiation in 2016, compared to 1,636 in 2016.

Table 5 – Laboratory indicators for 2015/2017, Pakistan

Indicator	2015	2016	2017*
Total No. AFP cases	5649	7652	3492
Total No. contacts	1876	2616	1139
Reported within 14 days (culture Reporting)	97%	98%	93%
ITD Results reported (within 07 days)	97%	99%	99%
Accreditation Results	Accredited	Accredited	Awaited
Sent to lab within 72 hours	85%	87%	89%
NPEV isolated	23%	21%	16%

**Data as of end of May 2017*

For the 2016/2017 NEAP, in line with the requests from the laboratory, the programme focused on increasing the capacity of the laboratory to meet the increasing demands arising from the push to improve surveillance sensitivity. In this aspect, the laboratory requested for increase in the number of staff, and supplies of all consumables; these were provided. An additional 7 laboratory staff including technicians and engineers were hired, trained and deployed. However, following an additional critical needs assessment conducted by the team, additional infrastructural, human resources and other gaps were identified.

Priorities for 2017/2018

- In order to permanently address the space requirement, obtain permission from the government for, and secure funds to construct a new laboratory; programme aims to have new lab in place by 2019.
- Hire, train and deploy new human resources to increase the capacity of the laboratory to handle anticipated increase in stool and environmental samples.
- Institute systematic stock analysis and monitoring system; with the aim of ensuring the laboratory has supplies and reagents needed for 6 months or, has the capacity to obtain them within a short-time if storage of supplies and reagents is not desirable due to short shelf-life.
- Provision of IPV vaccination to all laboratory staff with low type 1, 2 or 3 titres.
- Full review and configuration of the laboratory computer network and installation of new reporting data system for AFP surveillance. Programme will ensure adequate storage and recovery systems for programme data is in place. Programme will also ensure all necessary power back-up systems; air-conditioners needed are installed and functional.
- Communication systems to be enhanced through the installation of local landlines in all rooms.
- Required security guard post and support to be provided.
- Submit a detailed annual Work Plan for 2017/2018 that provides exact timelines for the implementation of laboratory activities with special emphasis on the priorities for 2017/2018

Containment

The purpose of containment is to reduce the risk of reintroduction of poliovirus into the community. The global strategic plan for containment of polioviruses requires implementation of poliovirus safe handling and containment measures to minimize the risks of a facility-associated reintroduction of the virus into the polio-free community. There are facilities in Pakistan that store specimens that may potentially contain polioviruses. However, it is important to note that, with the exception of the Regional Reference Laboratory (RRL) for Polio Eradication Initiative established at the NIH, Pakistan does not have any other laboratory that handles poliovirus containing specimens. RRL has achieved and implemented required levels of biosafety and biosecurity measures with strict adherence to the containment practices required for poliovirus non-essential facilities.

Progress 2016/2017

- The **National Poliovirus Containment Committee (NPCC)** was duly notified in January 2017; two meetings of NPCC chaired by the NPCC Coordinator were conducted in February and April 2017.
- As part of the GAPIII phase 1a and phase 1b processes:
 - Laboratory inventory survey was conducted throughout Pakistan; a total of 6,936 facilities were assessed, and at least 5% of data from each district was verified.
 - 19,009 potentially poliovirus containing samples were discarded as per SOPs.
 - In line with laid down procedures, remaining mOPV2 vials from the case responses rounds in Balochistan were appropriately incinerated.
 - Final report submitted by the National Poliovirus Containment Coordinator (NPCC) through NCC to the RCC.
- Identify full-time national and provincial focal persons to support the RLL in accelerating the implementation of containment requirements.

Priorities 2017/2018

- Notify the National Authority for Containment (NAC).
 - Membership of the NAC will be duly constituted to ensure the team can collectively deliver on their specific roles and responsibilities outlined in the Global Action Plan III.
 - All members will be provided requisite training.
- Work towards meeting all requirements needed to secure a globally recognised Polio-essential facility status for RRL.
- Maintain inventory of targeted biomedical facilities with a view to updating the list of facilities storing materials that contain or potentially contain WPV or VDPV, and work to ensure a **biosafety level 2 in all enterovirus laboratories**. NPCC may visit and ascertain measures taken to ensure compliance with containment requirements.
- In line with GPEI recommendations, conduct a second nationwide verification of withdrawal of tOPV and absence of mOPV2 through further systematic searches.
- NPCC to provide final phase 1 report.
- Continue to document and report to the National EOC on the status of the implementation of Phase I, Phase II and Phase III containment requirements.
- Establish a quarterly coordination mechanism with relevant stakeholders at National, Regional and/or Headquarters.
- Ensure regular meetings of NPCC; while NPCC might meet as frequently as needed, at least half-yearly meetings will be scheduled.

- Submit a detailed annual Work Plan for 2017/2018 that provides exact timelines for the implementation activities.

High-Risk and Mobile Populations

The Programme has recognised the importance of reaching and vaccinating high-risk populations. The majority of these high-risk populations are settled and disproportionately live in districts ranked as Tier 1 or 2. Outside these districts, this population are concentrated in specific Union Councils or areas. The whole NEAP revolves around identifying high-risk populations and driving programme activities towards ensuring these populations are reached consistently.

Outside the settled, there are high-risk and mobile populations in need of special attention. These include:

- Vulnerable special populations that move regularly for economic reasons or due to weather conditions e.g. nomads, seasonal migrants, brick kiln workers, agricultural migrant labour, other vulnerable economic migrants.
- Displaced populations (internally-displaced, Afghan refugees, or returnees).
- Guests who are visiting from outside the province or from a core reservoir district.
- Populations who live along the borders between Pakistan and Afghanistan, and along inter-provincial boundaries.

In 2016/2017, the programme focused on the “vaccination at PTPs”. From July 2016 to May 2017, a total of 15,854,636 children were vaccinated at the PTP sites, including the PTPs at the Pakistan –Afghanistan International border. The proportion of zero-dose children vaccinated at the PTPs, from July 2016 to May 2017, has been 0.7 %. A total of 4,935,825 children were vaccinated at the SIA transit sites from July 2016 to May 2017.

In 2016/2017 the focus for the HRMP team will shift from administering the PTP system to collecting actionable information on HRMP groups for the districts and provinces. In order to help districts and provinces address the HRMP challenge in totality, and to ensure the Operational Planning is appropriately updated, in the NEAP 2017/2018, the programme will focus on the collection, collation and analysis of appropriate data and the presentation of that data to the districts and provinces in an actionable manner.

Progress 2016/2017

- Reviewed strategy with the primary focus on optimizing the permanent transit point (PTPs) vaccination strategy.
 - Emphasized focus on the transit vaccination at the international border, interprovincial border and the core reservoirs.
 - Reviewed the PTPs along the Afghanistan-Pakistan border in-line with changing cross-border risk assessments.
- Conducted an extensive exercise to understand and map the major movement patterns across the country; this significantly complemented the epidemiological picture across the region.
- Identified and mapped high-risk and mobile populations; with partial success. Translating the outcomes of the exercise to improved microplans at UC-level remains a challenge.
- Developed a revised supervision and monitoring framework for the PTPs.

Priorities for 2017/2018

- As the overall risk across the general population decreases, the relative risk posed by this population continues to nudge up. In this regard, complete and thorough review of current strategy with the

specific aim of addressing challenges posed by all major HRMP groups a priority. A key objective of the new strategy will be to:

- Ensure full understanding of the true risk posed by HRMP groups on the move especially between transmission hotspots.
- Inclusion of all HRMP populations in microplans, and the external validation of this process. Considering the need to continuously update the microplans, explore opportunities for the enhanced engagement of communities and the encouragement of community reporting.
- Further optimization of the PTP and transit vaccination strategy to ensure mitigation of current risks.
- Integration of all critical HRMP concepts and pillars into all aspects of the programme including surveillance, social mobilization, and communication.
- Achieve capacity for continuous calibration by establishing a comprehensive data collection, collation, and analysis system designed with utilitarian considerations.
- Build the commensurate staffing structure required to deliver on the priorities outlined in the NEAP and in the revised HRMP strategy.
- Publish a final up to date revised strategy document by September 2017.
- Establish an inter-EOC National Working Group on High Risk and Mobile Populations with the explicit responsibility for ensuring coordination in all aspects of HRMP operational planning and risk mitigation.
- As much as possible, align tools and strategies with Afghanistan.
- Notify HRMP focal persons at district and UC level and include specific HRMP deliverables in the terms of reference of all partner staff at divisional, district and/or union council level.
- In the implementation of new strategy, prioritize districts and UCs with the highest concentration of HRMP groups.
- Implement the supervision and monitoring framework.

Monitoring and Evaluation

The programme has made tremendous progress in ensuring thorough monitoring of SIA performance. Tools used for pre-campaign, intra-campaign and post-campaign monitoring have been standardized. Third party post-campaign monitoring has been and will continue to be held as an independent estimate of campaign coverage in each district, providing assessment and analysis for any missed children. Post campaign LQAS monitoring has been continually expanded in scope in 2015, however, in 2016/17, a push to shift away from LQAS and re-balance monitoring has resulted in the overall number remaining constant and/or decreasing. Pre- and intra-campaign monitoring has been expanded with provision of real-time data to provinces and districts; further enhancement of analytic procedures likely to increase utility of data.

Progress 2016/2017

- Partial progress on the shift from LQAS/PCM-centric performance evaluation to an “all data” based system with the development of a low-performing Union Council algorithm.
- Implementation of third-party post-campaign evaluations based on LQAS methodology during NIDs
- Revision of all pre-campaign, and intra-campaign tools and the use of these tools in the field. All data collected and submitted using handheld electronic devices.
- Linkages of validated LQAS and PCM data to the EOC Online Dashboard
- Completion of serosurveys across all Tier 1 districts, North Sindh, and selected reference districts.
- Piloting of microplan improvement exercises in three districts in KP and Punjab.
- Completion of a routine immunization survey in Tier 1 districts Continue to rebalance SIA performance measurement away from LQAS and PCM towards pre-campaign and intra-campaign monitoring with real-time provision of actionable data to implementers at provincial, district and UC levels

Priorities for 2017/2018

- Continue to rebalance SIA performance measurement away from LQAS and PCM towards pre-campaign and intra-campaign monitoring with real-time provision of actionable data to implementers at provincial, district and UC levels
- Programme will decrease the number of partner staff deployed to conduct LQAS by a third; the staff will instead be deployed ahead of campaigns to carry out pre-campaign assessments of targeted districts.
- The successful use of post-campaign evaluation during NIDs means the programme can afford to start using third-party persons to conduct LQAS. Starting September 2017, all PCEs will be converted to LQAS.
- Programme will review the pre-campaign and intra-campaign tools and enhance utilization of collected data through the establishment of systematic analysis process for all data. Currently, focus is given primarily to the "household cluster" data.
- A systematic quality of microplan assessment protocol will be developed and implemented. Ahead of every NID and SNID, microplans from a selected fraction of districts will be externally assessed. Priority will be given to Tier 4 districts during NIDs.
- Develop a comprehensive monitoring and evaluation toolbox to measure SIA and surveillance performance among high-risk and mobile populations; pilot and deploy these tools by August 2017.
- Together with the Operational Team, the M&E team will be tasked with the preparation of province-wise, division-wise, and district-wise key performance summaries on a monthly-basis including social data.
- Low-performing Union Council lists to be shared after every NID and SNID by the National EOC.
- Carryout at least one survey regarding the status of routine immunization services in CBV UCs of Tier 1 districts by end June 2018.
- Continue to implement the third-party post-campaign monitoring; to enhance utility and provide possibilities for sub-district level analysis, team will be expected to update the sampling frame and ensure PCM admin-levels are aligned with current administrative units used in all other monitoring systems including the IDIMS, AFP system, and LQAS. Completion of alignment is expected to by the start of NID in September 2017.
- Establish a framework for monitoring of the implementation of the Accountability and Performance Management Framework (APMF).
- Conduct two rounds of serosurveys in selected high-risk Union Councils in Tier 1 and Tier 2 districts. In addition, the use of facility-based serosurveys to assess the quality of vaccination among high-risk and mobile populations along the Afghanistan-Pakistan border will be explored. This will provide a composite indicator on the programme's capacity to close the immunity gap using the outlined SIA strategy. A good performance indicator will be a type 3 sero-positivity of $\geq 90\%$ among children between 6 and 12 months of age.
- Draft manuals for district-level staff on the proper of use and interpretation of SIA and Surveillance data and conduct trainings of staff on M&E priorities at all levels.
- Submit a detailed annual Work Plan for 2017/2018 that provides exact timelines for the implementation of M&E activities with special emphasis on the priorities for 2017/2018.

Information Management System

During the implementation of NEAP 2016/17, the programme built on the progress made in the previous year and further improved the utility of the EOC online platform and the Integrated Disease Management Information System (IDIMS). As of June 2017, pre-campaign, intra-campaign, and post-campaign data is fully accessible to the programme through the online platform. These platforms have ensured the

availability of data when and where it is needed. However, the growing needs of the programme require further refinement of the available tools.

For the development and support of NEAP 2017/2018 goals, Information Management shall continue to respond to the growing needs of the programme by developing time-bound milestones for each quarter. Step-by-step continued integration of all programmatic data into IDMIS and the EOC online platform will be pursued. All data will be continually accessible and available in a meaningfully usable format to all who need it.

One area where the programme has truly lagged behind its peers across the globe is in the use of 21st century public health mapping techniques to hone a spatial understanding of disease epidemiology and more effectively monitor vaccination strategies. With the full functionalization of the EOC server, unleashing the full potential of these tools may now be a possibility. The programme will work with the Prime Minister's office to get all special approvals for the use of these public health tools at the National and Provincial EOCs.

Progress 2016/2017

- As part of the IDMIS system, reporting for SIAs and surveillance enhanced, and all new modules linked to the EOC online platform.
 - New components for IPV campaigns, permanent transit points (PTP) vaccination developed and implemented.
 - Active surveillance site visits and weekly zero reporting enhanced through the development of electronic reporting tools.
 - Target populations for all admin-levels now made available.
 - QAQC tool (used for management of LQAS data) developed and deployed.
- EOC server installed and is supporting information systems such as dashboard platform, PCM (ODK-based), ftp cloud (shared drives), and data support centre.
- Completed GIS mapping of 6 districts in North Sindh; 201 UCs provided with area-in-charge level maps.
- Developed ODK-based lab survey questionnaire for containment phase 1, and routine immunization survey; data shared on a regular basis throughout the survey period.

Priorities for 2017/2018

- Shift from the archaic AFP surveillance data system to a new integrated surveillance reporting system.
- Provision of UC-level, tehsil-level, district-level, and divisional-level shapefiles with all new UCs, districts, and divisions included.
 - Alignment of admin data for all datasets; priority to be given to third-party post-campaign monitoring
- Continue the process of improving the functionality and utility of the EOC online platform, IDIMS and data support centre data.
 - Complete the development of the alert system for the rapid response unit.
 - Development of new modules for microplan validation, and HRMP assessment.
 - Enhance the utility of data support centre data through careful review of available data and triangulation with other data sources.
 - Develop new systems for environmental surveillance data collection.
- Completion of GIS mapping in all remaining districts of Sindh.
- Improvement of internal EOC file-sharing mechanisms through the operationalization of the cloud server in terms of shared drive/ftp.
- Ensure full compliance with reporting systems through capacity building of all that are expected to submit data

- training of all data assistants on surveillance and surveillance data systems
- training of all DPCRs on data management and reporting tools
- Submit a detailed annual Work Plan for 2017/2018 that provides exact timelines for the implementation of Information Management activities with special emphasis on the priorities for 2017/2018

Emergency Operations

The National EOC Emergency Operations Team (Ops Team) is at the heart of the daily operations of the programme. The Ops Team reviews all incoming information and presents a daily brief for the National EOC Coordinator.

Progress 2016/2017

- Tracked SIA data from all sources including and prepared daily summaries for National EOC; prepared reports for the EOC Coordinator at the end of each SIA. Feedback shared with the provincial EOCs on a daily basis.
- Tracked low-performing Union Councils and communicated details to the DPCRs via the provincial EOCs.
- Reviewed all official letters and other formal communications from the government and/or partners and prepared appropriate response.
- For security related issues, served as bridge between the security agencies including Pak Army and concerned entities.
- Ensured timely provision of vaccines and logistics required for NIDs, SNIDs and other immunization activities to all districts.
- Facilitated and coordinated high-level meetings including from Foreign Governments, donors and partners.
- Tracked electronic and print media for all incidents related to PEI and followed up with relevant entities for appropriate response and/or action.
- Closely coordinated with Afghanistan counterparts on aspects requiring coordination between the two countries.

Priorities for 2017/2018

- Provide additional analytic support and share pre-campaign, and intra-campaign data through the daily morning briefing.
- In order to ensure further utilization of admin data, support the PCM team in updating the admin data in the PCM sampling frame.
- Support all aspects of cross-border coordination in line with outcomes of the cross-border interactions.
- Supporting in the mapping of HRMP communities ahead of the September NID.
- Continue to provide all other activities required by the EOC Coordinator.
- Submit a detailed annual Work Plan for 2017/2018 that provides exact timelines for the implementation of Information Management activities with special emphasis on the priorities for 2017/2018.

Rapid Response Unit

In view of programme needs particularly at this critical stage—where the programme must have a timely and aggressive response to any epidemiologic or programmatic risk and ensure multidimensional investigation of problems (addressing epidemiologic, programmatic and social aspects)—the programme established Rapid Response Units (RRU) at the National and Provincial EOCs. RRUs provide immediate capacity to respond to “virus” or “performance” events that threaten the programme’s capacity to interrupt wild poliovirus transmission. The RRU members are multi-disciplinary, multi-agency members working under the

“one team under one roof” concept that was introduced through the Accountability and Performance Management Framework.

Under the 2017/2018 NEAP, the RRUs will be further strengthened with an expanded workforce, more in-depth training and better tools for tracking events and action plans.

Progress 2016/2017

- Required staff hired, trained and deployed; as a result, the RRU investigated 75% of all WPV₁ and VDPV₂ events since July 2016.
- Extended field support deployments employed during major events requiring federal RRU support. Between August 2016 and May 2017, in part due to extended response missions to outbreaks in South Sindh, and Quetta block, and detailed investigations of missed areas in FATA (NWA, SWA, FR Tank, FR DI Khan), KP (DI Khan, Tank), Punjab (DG Khan), Balochistan (Barkhan, Musakhel), the 4 Federal RRU Officers spent an average 25.3 weeks in the field.
- Country-specific programme performance triggers identified.

Priorities for 2017/2018

- Following one-year of programme implementation, conduct a review of performance against expectations for Federal and Provincial RRUs
- Provide response capacity through extended field deployment in areas critical to the programme.
 - A Federal RRU Officer deployed to a district for extended periods of time will be expected to perform responsibilities as determined jointly by the National and Provincial EOC.
 - Joint Federal and Provincial RRU response will be encouraged.
- Track and monitor data from all sources in order to detect events with potential epidemiologic or programmatic risk
- To Conduct event assessment and coordinate joint investigation if requested and/or deployed by the National EOC or Provincial EOC incident manager.
 - Provide actionable recommendations to the provinces and the national EOC. The implementation, and the tracking of the implementation of any recommendation is the responsibility of the National and Provincial EOC Coordinators and respective Technical Team and/or Area of Work Leads
- Provide immediate capacity to assess and respond to any event of high importance as determined by the EOC Coordinator and respective Technical Team and/or Area of Work Leads
- Maintain high technical capacity through coordinated training with Programme Operations, Surveillance, Monitoring and Evaluation, and Information Management Teams.
- Update **national guidelines** for detection and response to poliovirus events
- Finalize the web-based trigger identifier and event tracking system
- Build the surge capacity of the RRT by identifying and developing surge rapid response rosters.
- Submit a detailed annual Work Plan for 2017/2018 that provides exact timelines for the implementation of RRU activities with special emphasis on the priorities for 2017/2018

Innovation and Operational Research

In order to ensure the best available data is fully utilised for all decision making, the National EOC formed an Innovation and Operational Research Working Group. The goal of the group is two-fold: 1) to ensure the programme efficiently harnesses appropriate, significant (consequential) and operationally feasible innovations, and 2) to research findings in support of its efforts to eradicate polio in Pakistan.

Progress 2017/2018

- Completed the first comprehensive serosurveys of the Tier 1 districts and high risk districts in North Sindh
- Conducted multiple “modelling” work with various international institutions.
- Expanded use of BMFS techniques in environmental surveillance.
- Implemented fractional IPV evaluation in rural and urban Sindh.
- Implemented KAP survey in early 2017.
- Continued to enhance the use of technology to improve efficiency in the programme.

Priorities for 2017/2018

- Closely work with the Agha Khan University to conduct multiple **serosurveys** in selected high risk UCs in Tier 1 and 2, and selected districts, and any other targeted population. The outcomes will provide a composite indicator on the programme’s capacity to close the immunity gap. This will provide programme data on the impact of the SIA strategy and allow for course correction if required
- Work with scientists at the Institute of Disease Modelling, Kid’s Risk, and the Imperial College, to use various **modelling techniques** for monitoring risk and testing the potential value of various strategies
- .
- Collaborate with any other institution on research activities of benefit to the programme.
- Continue to review innovative proposals from field staff and partners with the aim of identifying potential tools to complement or improve operations and surveillance.

Management, Oversight and Accountability

The objective of the Management, Oversight and Accountability function is to ensure that NEAP goals, objectives and targets are met through effective management support and coordination, transparent oversight at the appropriate level, real-time performance management and clear accountability.

During the implementation of the 2016/2017 NEAP, Management, Oversight, and Accountability achieved the following goals:

- Oversight mechanisms were fully established across the national, provincial and district levels with the creation of important divisional oversight mechanisms and task forces in all divisions of Sindh, Khyber Pakhtunkhwa and Balochistan.
- The Prime Ministers Focus Group became an important oversight mechanism working to implement and track the recommendations of the Prime Minister led National Task Force.
- Provincial Task Forces benefitted from the sustained engagement of Chief Secretaries/Governor and key District Polio Eradication Committees (DPECs) and Agency Polio Eradication Committees delivered high performance under the leadership of Deputy Commissioners and Agency Political Agents respectively.
- The EOC network became fully functional under the guidance of the National Polio Management Team consisting of the National EOC Coordinator and Provincial EOC Coordinators.
- The Accountability and Performance Management Framework was rolled out with tracking and monitoring of accountability measures taken by both Government and GPEI partners. Due to poor performance, the Punjab has penalized 170 government staff and 70 partner staff. Sindh has taken action against 7 DHOs, 4 THOs and around 80 partner staff. Khyber Pakhtunkhwa has taken action against 273 government staff and 82 partner staff. Balochistan government has issued displeasure letters to 11 DCs, terminated 241 CBVs and warning letters to 160 staff in Quetta Block. FATA has also issued 70 warnings, 96 explanation calls, and has terminated 7 staff members. Appreciation has been

given in all provinces to the good performing areas and Khyber Pakhtunkhwa government and FATA have given reward money to good performing districts and agencies

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- Financial planning and donor management was managed effectively by a multi-disciplinary, multi-agency Resource Management Task Team. Systematic coordination was established with the Afghanistan Programme at every level (national, provincial, and district).

However, significant lapses in management and oversight were noted, in particular at the district level in high-risk districts and at the divisional level in the unwelcome turn-over of leadership. More specifically, lapses in management and oversight in Quetta division contributed to poor programme performance and persistent of transmission.

For NEAP 2017/18, Management, Oversight and Accountability will redouble its efforts to sustain professional management and oversight where it is adequate and focus primarily on improving management, oversight and accountability where it is weak or absent. The principles guiding this process are outlined in Panel 3.

Panel 3 – Principles Driving the Oversight, Management, and Accountability Process

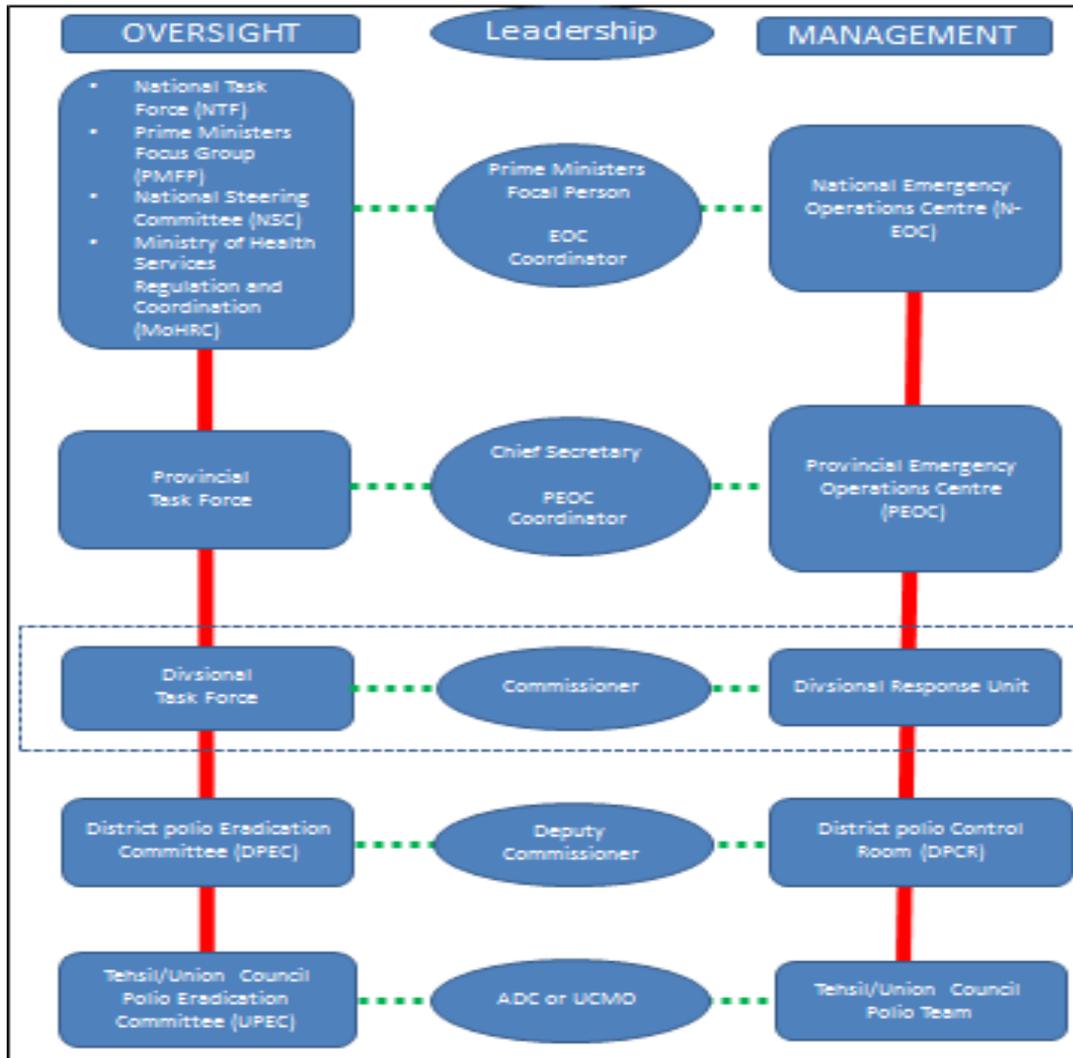
- **“One team under one roof”**
 - The Government and GPEI partners have come together to ensure that—across the National, Provincial and District levels—all activities are planned, coordinated and evaluated using a single operational platform.
 - At the National and Provincial levels, **Emergency Operations Centres (EOCs)** have become fully functional and provide the operational platform for all.
 - **District Polio Control Rooms (DPCRs)** have been strengthened in Tier 1 and Tier 2 districts to provide a similar platform.
 - These platforms provide management and coordinate support to all aspects of NEAP implementation
- **“What gets measured gets done”**
 - “Risk Assessment and Decision Support” drive “Programme Operations.”
 - The Programme is focused on key deliverables and performance indicators rather than rigid structures.
 - Performance management is the key to success.
- **“All operational phases matter”**
 - The Programme measures performance in all operational phases: pre, intra and post-campaign.
 - The Programme seeks to immediately implement corrective action before and during campaigns.
 - The Programme ensures that post-campaign monitoring drives corrective actions.
- **“Accountability for all”**
 - Individual and team accountability has been placed at the heart of the programme.
 - An “Accountability and Performance Management Framework” has been developed and implemented.
 - Everyone and every team in the programme is accountable to deliver their assigned tasks and ensure that performance targets relevant to them are reached.
 - Operational accountability is to the Polio Programme with administrative accountability resting with the relevant Government Department or partner organisation.

Essential Management and Oversight Structures

The oversight and management objective for NEAP 2017/18 is that each level of the system will have:

- A functioning **oversight mechanism** with comprehensive oversight from the levels above (Figure 14).
- A defined **operational centre** that has adequate resources and workforce to deliver on NEAP implementation
- Effective **leadership** that will manage the operational centre and provide the essential link to oversight mechanisms

Figure 14 – Pakistan Polio Eradication Initiative (PEI) Oversight and Management Structures



Priorities for 2017/2018

- Maintain strong management structures with clear priorities and fine tune, where required
- Maintain effective programme oversight at all levels
- Quality work planning and implementation, focusing on fixing the remaining gaps
- Ensure implementation of the Accountability and Performance Management Framework in letter and spirit
- Timely financial planning, resource mobilisation and payments to FLWs
- Sustained engagement with international oversight bodies
- Maintain focus on Afghanistan – Pakistan strategic and risk management coordination
- Conduct a NEAP orientation Workshops for all Senior Leadership involved in the direct management and oversight of the polio programme.

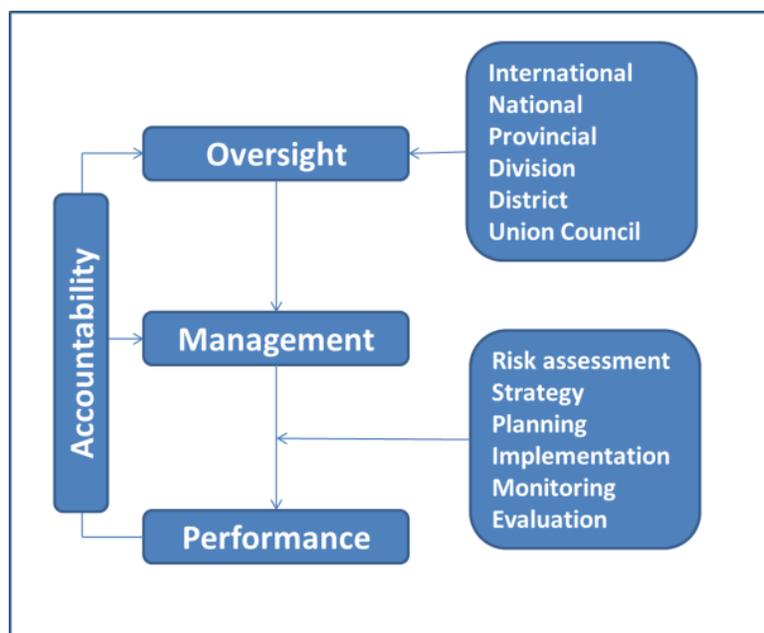
Programme Oversight

The objectives of oversight in PEI are to:

- Review and approve strategy, implementation work plans and SIA microplans

- Ensure that adequate resources (e.g., financial, human resources, security) are available for implementation
- Drive individual and team performance and accountability (Figure 15).
- Advocate and communicate on behalf of the Polio Eradication Initiative (PEI)

Figure 15 – Linking Oversight and Management to Performance



The key oversight bodies with Terms of Reference (TORs, functions and membership are detailed in Annex 3.

Priorities for 2017/2018

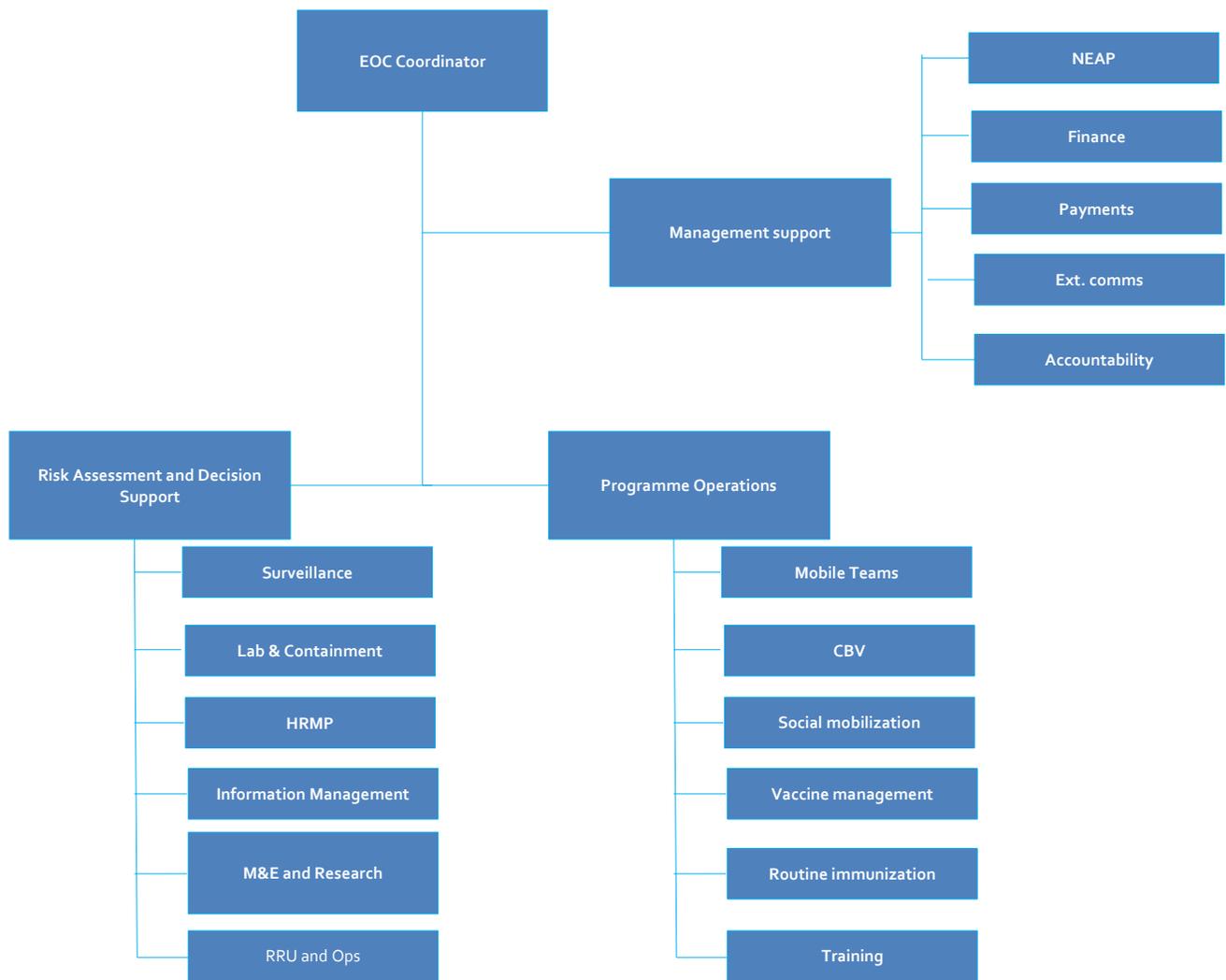
Each oversight body will have:

- Specific TORs with “notification” from appropriate administrative authority
- Designated leadership to provide patronage to the polio Emergency program
- Regularly scheduled meetings with clear action oriented agendas
- Written minutes with clear action points, signed off by the Chair and disseminated timely to all the concerned
- A tracking mechanism to follow up on agreed actions/tasks with designated focal points

Programme Management

Overall management of the PEI rests with the Prime Minister’s Focal Person (PMFP) who serves on behalf of the Prime Minister. The PMFP oversees the management of a network of six Emergency Operations Centres (EOCs): one at the national level and five others across the four provinces of Pakistan and FATA.

Figure 16 – Functional Structure of Emergency Operations Centre



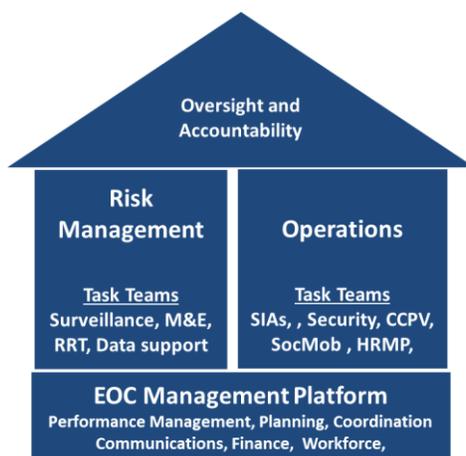
Role, Structure and Functions of Emergency Operations Centres (EOCs)

The EOCs (National and Provincial) will provide a platform for all Government and GPEI partner activities. As such, they effectively house the “one team under one roof” concept that drives coordination across vaccination activities and eradication efforts. Each EOC will be managed by an EOC Coordinator who will have day-to-day responsibility for management and implementation. The PMFP and the six EOC Coordinators will form the National Polio Management Team (NPMT), and together they will be primarily responsible for delivering the objectives and targets in NEAP 2016/17.

EOCs will have a functional management structure (see Figure 16) that is focused on the three NEAP 2016/2017 Areas of Work (AOWs) that include:

- **Programme Operations** that plans and delivers quality immunization activities
- **Risk Management and Decision Support** that detects and assesses epidemiological and programmatic risks and provides support to risk management
- **EOC Management Support** which integrates key strategic management and support functions (Figure 17)

Figure 17 – Core Functions of Emergency Operations Centres (EOC)



Each EOC will have a minimum of three multi-disciplinary, multi-organisational teams that focus on planning, implementation and tracking of the key tasks and activities required for NEAP 2016/17.

Each of these Area-of-Work Teams will be supported by a number of existing “Task Teams” and “Working Groups,” some of which are time-limited in nature and others of which have ongoing functions and tasks.

Priorities for 2017/2018

- **Assess** epidemiological and operational risks as well as the programme performance on an ongoing and real-time basis.
- **Plan** for implementation of all the NEAP components, including the SIAs, surveillance and PEI/EPI synergy
- **Implement** planned activities in an efficient and effective manner with respect to performance and timelines.
- **Support** divisions, Districts, Tehsils and Union Councils as they implement work plans and activities
- **Monitor** the performance of all individuals and teams with respect to performance targets and key performance indicators and institute appropriate response in areas with under-performance
- **Evaluate** the implementation of all SIAs after each round as well as overall NEAP implementation on a quarterly basis and ensure that all recommendations/actions points are implemented and tracked
- **Communicate** within and outside the programme effectively

District Management Structures

At district level, the District Polio Control Room (DPCR) is the critical platform for NEAP implementation. Under the leadership of the Deputy Commissioner (DC) and District Health Officer (DHO), the DPCR is responsible for all aspects of campaign planning and implementation.

During 2015/2016 NEAP implementation, DPCRs in Tier 1 and Tier 2 districts were strengthened with upgrades of the working environment. Through the deployment of more than 250 additional staff to high-risk districts, a focused surge in human resources was undertaken by the GPEI partnership.

However not all DPCRs are functioning at the level required to deliver high-quality rounds in all Union Councils. For example, during the May NID, 64 (38%) of the 167 districts, agencies or towns that were evaluated had a third-party PCM coverage less than the NEAP target of 90%. There are still issues regarding clarity of roles and responsibilities between partners. It is critical that the “one team under one roof” concept be fully implemented at this level.

For NEAP 2017/18 to be effective, and in order to reach the endgame of zero immunity and the interruption of transmission, further efforts will be made by DCs, DPECs and Provincial EOCs to improve DPCR performance.

Priorities for 2017/18

- Ensure execution of the agreed / endorsed Standard Operational Procedures for DPCRs
- Ensure that DPCR provides a platform for all the members to act as a well-jelled one team, with clearly assigned roles / responsibilities and accountability
- DC, Additional Deputy Commissioner (ADC) and DHOs/CEO-H to perform their notified management and support roles with regard to DPCRs with a core management team being defined with regular review meetings to ensure work plan implementation. Ensure that "Surveillance for Eradication" is clearly defined as a priority function of DPCRs, with regular monthly surveillance reviews chaired by DC
- Ensure strong support for comprehensive UC and area level microplanning, with special focus on high risk and mobile populations and persistently missed children.
- Maintain the attention on DPCRs of Tier 1 and 2 with PEOCs continuing to provide technical and managerial support

Tehsil and Union Council Management Structures

Management structures for PEI needs special attention at the Tehsil and Union Council levels. The role of the AC / ADHO and UCMO is central to success at tehsil and UC levels respectively. However, it has been noted during the implementation of NEAP 2016/17 that the capability and commitment of UCMOs in some UCs is below par. As well, the tehsil level administrative and health management are yet to be effectively engaged for polio eradication emergency.

Despite good team coherence in general, it is noted that in many instances staff at the UC level have not fully come together to work as true "one team" with clear responsibilities, regular meetings, and joint implementation of the key tasks at UC level—SIA planning and implementation. While Community-Based Vaccination (CBV) addresses many of the management shortcomings in targeted areas, it is not a feasible solution for the vast majority of UCs. The programme is therefore still heavily reliant on mobile teams and on the quality of the "basics" at this level. It is therefore of utmost importance to ensure appropriate UC teams' functioning in the mobile team areas.

The leadership and support of the UC Polio Team is central in all phases of campaign planning and implementation.

- Microplanning, including micro-census/target population adjustment, resource estimation and planning, work load assignment
- Selection, training and supervision of Areas in Charge (AICs)
- Selection training and supervision of frontline workers (FLWs)
- Community mobilisation
- Vaccine management

Over the implementation of NEAP 2016/17, the critical importance of the AIC in delivering vaccines to every child has emerged time and time again. While major efforts have been made to improve AIC training, issues have emerged in every campaign regarding the quality of microplans, the absence of route maps, poor team selection, inappropriate or uneven workloads, inadequate supervision, sub-optimal same-day follow up and 14-day catch up.

Therefore, implementation under NEAP 2017/18 will seek to specifically address AIC performance as a particular priority, especially high-risk districts and Low Performing Union Councils (LPUCs). In circumstances such as these, Tehsil-level management and oversight structures are very useful. Where there are clusters of low-performing UCs and where UC management is sub-par, a Tehsil-based management structure led by the Assistant Commissioner (AC) may provide for better accountability, oversight planning and implementation.

Priorities for 2017/18

- Implement a mechanism to consistently and continuously **identify and track low-performing UCs**
- Develop and implement comprehensive **District Action Plans** to improve SIA performance in Low-Performing UCs through revision of microplans, as well as selection, retention and training of UCMOs, AICs and FLWs.
- Increased **DPCR supportive supervision** to campaign preparation and implementation through specific assignment of UC support functions across the DPCR with the same DPCR staff providing ongoing support to performance improvement in one or more UCs
- Focus on ensuring that the **Union Council Polio Team** is clearly defined with assigned responsibilities and accountability
- Extend the work cycle at UC level by reviewing and modifying the payment duration for field workers (e.g., AICs) as necessary to reflect the additional time needed to ensure adequate pre-campaign preparations, including microplan revision and validation
- Improve mobile team composition by forming a “team selection task team” at the UC level. The task team will consist of the UCMO, AICs, UCPWs, UCCOs, and community representatives.
- Each province and district will determine whether a **Tehsil management structure** would provide a boost in planning, supervision and performance, especially where there is clustering of low performance. These Tehsil Units will be led by ACs and report to the DPCR.

Work Planning, Implementation and Evaluation

NEAP 2016/17 was implemented through the translation of the strategic document into dedicated NEAP Work Plans at National, Provincial and District Levels. The implementation of these plans was then tracked through a network of NEAP focal points established by the National EOC. In addition, quarterly reports on NEAP implementation were developed and reviewed at meetings of the National Polio Management Team.

However, despite the positive impact of these activities throughout the 2016/2017 NEAP this process was not implemented systematically at the district level due to weaknesses in management capacity as well as other overriding priorities, such as SIA planning and implementation..

Priorities for 2017/18

- Convert the 2017/2018 NEAP strategy into **NEAP Implementation Work Plans** at the national and provincial levels and track them regularly for implementation status
- The **NEAP implementation focal point** should continue to function and assist the provincial coordinator. Focal points from the National and Provincial EOCs will coordinate this process to ensure that implementation planning is done in a timely manner and that the plans are tracked for implementation.
- Review NEAP implementation quarterly with the NPMT publishing a formal report that outlines and tracks key actions

- Conduct a comprehensive review, for NEAP 2017/18 at the end of the annual period, which will feed into the subsequent planning process. All actions emerging from NEAP reviews will be tracked to implementation.

Accountability and Performance Management

Accountability is a process by which responsibilities are upheld and roles are aligned in order to ensure support, supervision, and success on the ground and through all levels of work in the fight against polio in Pakistan. In a fundamental sense, the work of creating a polio-free Pakistan is one that is dedicated to—and, as such, accountable to—the children of Pakistan, their parents, and the communities that nurture them.

The implementation of the Accountability and Performance Management Framework was fine-tuned and rationalized with clear objective of “accountability for all” and with special focus on district and sub-district level and ensure that the programme reaches its objectives and delivers on NEAP Work Plans. The framework was particularly aligned to support the frontline workers. The Framework also served for bridging across the roles and responsibilities of a multi-level programme that is also multi-disciplinary and multi-organisational.

The Framework supported the NEAP by effectively building on the “one team under one roof” concept. It did so by defining the accountability of individuals, teams, districts, provinces, federal-provincial government, and partners to each other—and by providing a basis for oversight, measurement, evaluation feedback, and performance improvement. Its overall aim was to drive accountability through the identification of both good and bad performance with associated mechanisms for recognition, rewards, and sanctions, as required.

In this Framework, everyone in the programme is accountable and the programme itself is accountable to the Government, the Nation and its people.

The Accountability and Performance Management Framework (APMF) operates under three guiding principles.

- Accountability: everywhere and for everyone.
 - All levels: Union Council (UC), district/agency, provincial, national, and international
 - All Individuals and Teams: Political, managerial, and operational
 - All Partners: Government, GPEI, and donors
- Performance must be regularly monitored, measured, and evaluated.
 - Both quantitatively and qualitatively
 - For individuals, teams, and the programme as a whole
 - In real time and through analysis of key performance indicators (KPIs)
 - With progress measured toward completion of agreed tasks and activities, KPIs, and NEAP implementation objectives and targets
- Responsive feedback processes must be put in place to ensure accountability.
 - Performance evaluation will be fed back in a systematic way.
 - Rewards for good performance will be the backbone of the system.
 - Poor performance will be first subject to investigation and assessment, with a performance improvement process put in place before sanctions are applied.
 - Such responsive processes will be administered with full transparency.

Progress with implementation of the Framework has been satisfactory thus far, with programme and GPEI partners now tracking accountability measures taken with staff at all levels. Oversight bodies have taken on the responsibility of ensuring accountability, which is supported by regular reports and performance data.

Linking measured performance to accountability has improved transparency within the programme and has allowed problems and risk to be surfaced in a timely fashion.

Key Performance Indicators (KPIs) will remain under constant monitoring and available across the whole programme on the upgraded EOC Dashboard for timely response to emerging risk or poor performance. However, the balance of such measures remains on punitive actions for poor performance and not on recognition and rewards for excellence. The provincial and district level program management is encouraged to also focus on recognizing the performance, particularly that of frontline workers, to maintain their motivation towards the cause.

Priorities for 2017/18

- Better processes for performance monitoring, evaluation, and feedback for both individuals and teams
- Better recognition mechanisms, rewards, and incentives for good performance
- Better processes for investigation and intervention (support and sanctions) for poor performance
- Improvements to available online tools for monitoring performance against NEAP Objectives (PEI Online Dashboard)

Resource Mobilisation and Management

Polio eradication is managed and supported through the Government's PC-1 framework for 2016-18 and the GPEI's Financial Resource Requirement framework (FRR) for 2016-19. Resource requirements are determined through the annual NEAP planning and quarterly review process. Resource mobilisation is being updated monthly and more regularly if required to identify and quickly close funding and cash gaps that would impede programme implementation. No such impediment was recorded in 2016/17. Budget utilisation is tracked and reported quarterly to both the Economic Affairs Division through the National Ministry of Health Regulation and Coordination and to the GPEI Strategy Committee through its financial management task team.

Polio partners (BMGF, Canada, Dfid, Islamic Development Bank, Japan/JICA, Rotary International, UAE UPAP, UAE Crown Prince Court, UNICEF Executive Director Set-Aside Fund, USAID, US Centre for Disease Control) who generously support the programme are briefed quarterly on the polio situation and emerging priorities at the National EOC and participate at the GPEI TAG and IMB in addition to compliance with bilateral grant reporting requirements. Timely front-line worker payments is now the norm with payments now processed within 21 days.

Priorities 2017/18

- Monthly or more regular tracking and follow up of funding and cash gaps against programme requirements to ensure no delays, postponements or cancellation of any activities
- Compliance with the quarterly review and reporting of resource requirements, mobilisation and utilisation to Government and GPEI
- Regular situational updates to Polio Partners and the GPEI Pakistan Task Team.

External Communications

The External Communications Strategy continued to support the operational priorities of the NEAP 2016-2017 by engaging Pakistan media to continue the sensitization of key jour journalist and local media outlets to provide updates on the programme. Public engagement sought to build on the image of the polio programme's honest, responsive and transparent communication that has guided relations with the media throughout 2016-2017. The programme narrative continued to provide updates acknowledging the

challenges of the programme, whilst highlighting the solutions being worked on and progress the programme has made.

During the 2016-17 NEAP intensive media engagement of 1, 200 reporters, producers, senior media manage and spokesperson in a series of orientation sessions, training and media filed trips resulted in large scale media coverage amounting to approximately 10,580 print and electronic media stories. As a result the tone of the media coverage throughout the low transmission season has been 97% positive and neutral, conducive to public awareness of the importance and progress of polio eradication in Pakistan as well as creating an enabling environment shaping social norms, perceptions and expectations to support vaccinators achieve repeated, successful campaigns in the polio high risk areas.

The English and Urdu 'End polio Pakistan' website has become a credible source of information in Pakistan. 123,000-plus page views, visits from 140 countries and 1,800 plus cities. The content of Facebook and Twitter received almost 1.3 million impressions, providing an opportunity to communicate regularly with a vast pool of followers.

Key Challenges and Lessons Learned

- Existing tools and products have been effective and are adjusted as required by the programme.
- There is an ongoing requirement for spokespersons to be nominated for provinces and be briefed on crisis communication protocols.
- Good coordination between stakeholders is key to good crisis management to establish facts as quickly as possible and disseminate factual information as received to media outlets through designated media focal points and spokesperson/s.
- Coordination on AEFI investigations with EPI is critical given their lead.
- Media orientation and briefings have given in-depth knowledge about the programme to local media/ journalists in provinces.

The external communications strategy will enable these public perceptions of trust and credibility in the programme at all levels of the community: from vaccination supporters, detractors, health-workers and parents to media, government officials and global donors. This is the focus of the 2017-2018 communications strategy, which continues to build on the paradigm shift for communications.

Priorities 2017/18

- Maintain financial and political commitment towards interruption of WPV transmission;
- Manage and contextualize risks/threats to the achievement of programme goals;
- Lead and coordinate communication in crisis, ensuring a coherent, rapid and effective response;
- Maintain programme reputation (neutrality, equity and service to the people of Pakistan).

Coordination with Afghanistan

Polio epidemiology over the years indicates that there is intertwined transmission along the common border of Afghanistan and Pakistan. This is due to the close culture-linguistic ties in the two common WPV reservoirs i.e. Greater Peshawar / Khyber – Greater Nangarhar and Quetta Block - Greater Kandahar.

Torkham (in the northwest) and Friendship Gate (in the southwest) are the main border crossing points within the WPV common reservoirs. Ongoing significant scale population movement at these two points has been leading to cross-pollination of polioviruses and it's to and fro transmission. Under the respective National Emergency Action Plans, Pakistan and Afghanistan significantly enhanced the program coordination since late 2015. This includes synchronizing major program activities like SIAs and case response vaccination campaigns, improving coordination on surveillance for polioviruses as well as focusing

on micro-synchronization of the program implementation in the bordering areas. The two National EOCs are now interacting on weekly basis through designated national focal points while the highest level leadership convenes regular face-to-face meetings and video conferences. The teams of the bordering districts and union councils are meeting before and/or after each round of SIAs.

Following the meetings of the Pakistan and Afghanistan Technical Advisory Groups during March / April 2017, there was a careful strategic joint program review by the two country teams. A clear joint action plan has been formulated, which remains a live document and is being regularly updated. The two national programs are closely coordinating while updating the respective National Emergency Action Plans, to ensure that the program strategies are mutually aligned in the bordering areas.

Priorities 2017/18

- Further build on the agreements for joint risk assessment and risk management / mitigation strategies in the adjoining provinces / regions (e.g. scale / scope of scheduled and case response SIAs).
- Ensure continuity for regular meetings / interactions at the national, provincial and district levels. There will be particular focus on ensuring regular interactions between the teams of East and South East Afghanistan with Great Peshawar / Khyber and South FATA / KP teams respectively. There is a need to improve the quality of these interactions, ensuring that each meeting has an agreed and clear agenda as well as documented clear actionable outcomes.
- Streamline and enhance joint strategies to reach all the high risk mobile populations moving across the border, for supplementary immunization activities as well as AFP surveillance. The provincial teams will consolidate local information on population movement and share with the national level on monthly basis for compilation and review. Necessary information will then be shared with Afghanistan team at the national level using an agreed common format.
- Continue coordination on implementing the mitigation measures recommended by the Emergency Committee under the International Health Regulations
- Continue sharing with Afghanistan, the communications materials and media mapping relevant for common reservoirs. Ad-hoc engagement around particular communication issues should continue with focus (i.e. engaging influencers to resolve a communication issue).

Polio Legacy Transition Planning

The Pakistan Polio programme has demonstrated steady progress towards the interruption of transmission in Pakistan. To achieve this, the country deployed thousands of health workers, social mobilizers, and volunteers to carry out various polio eradication activities. There is strong evidence that the programme supported other efforts to deliver other health benefits, including health systems strengthening; outbreak investigation of other vaccine-preventable disease and vaccine logistics. As Pakistan moves towards eradication, it becomes critical to document and transition the knowledge, lessons-learned, assets, and infrastructure accumulated by the programme to address other current and future health goals and priorities. This goal of this process (Polio Legacy Transition Planning) is to sustain a polio-free Pakistan and to ensure that the long years' of investments in polio eradication contribute to the delivery of a better public health system.

As the Polio Eradication Initiative approaches its completion in Pakistan and without distracting from the focus on completing the task of stopping all wild poliovirus transmission in the country as soon as possible, it becomes critical for the country to initiate a transition process. A key outcome of the transition plan should to ensure the anticipation and circumvention a potentially ruinous fiscal cliff.

There are three main aspects of the polio legacy work.

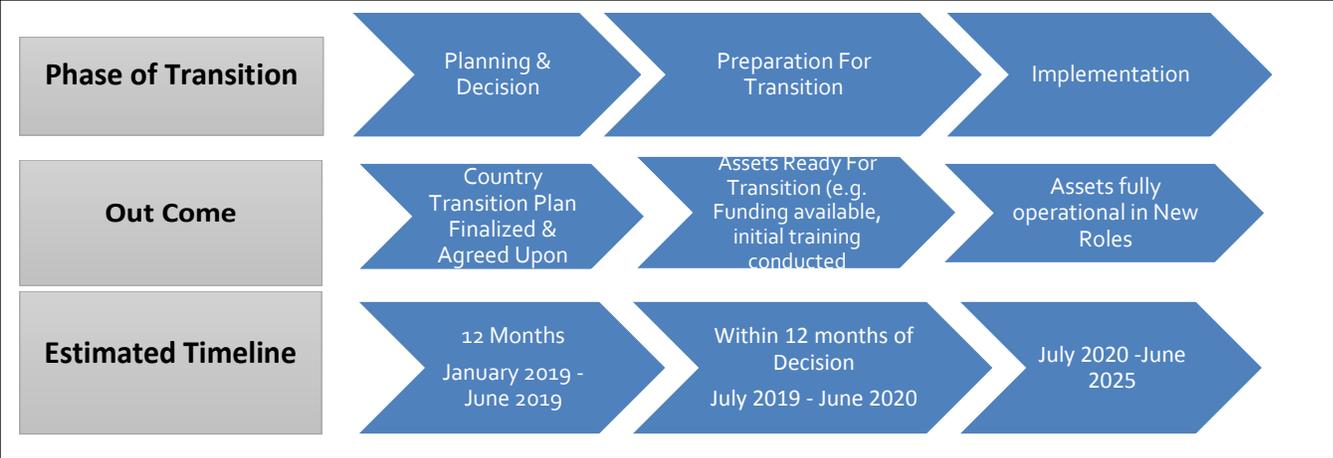
- Maintaining and mainstreaming essential polio eradication activities into ongoing public health programs in a polio free Pakistan following the end of the initiative. These functions will still be required to continue after Pakistan is certified Polio-free. The Country and GPEI partners must ensure that these functions continue and are mainstreamed into ongoing public health programmes.
- Ensuring that the knowledge generated and lessons learned during more than two decades of polio eradication activities are documented and shared with other functioning health initiatives.
- Transitioning the capacities, assets and processes—including human resources that the initiative has created and engaged for polio eradication—to support other health priorities, where feasible, required, and appropriate. This activity is important to ensure the sustainability of the program established by the initiative and to build on its success.

As Pakistan is still in the phase of polio eradication, the planning for the polio legacy transition is expected to start in the first quarter of 2019 at the earliest.

Priority 2017/2108

- In order to ensure complete focus on eradication, there will be no specific actionable priorities for the NEAP year 2017/2018. A more nuanced and detailed priorities to be included in the NEAP 2018/2019. Below is the suggested timeline for the whole PLTP in Pakistan.

Figure 18 – Proposed timeline for the Polio Legacy Transition Planning.



Engagement with International Polio Oversight Bodies

Over the last year the Programme has enhanced engagement with important international polio management and oversight bodies. These include:

- The Independent Monitoring Board for Polio (IMB)
- The Technical Advisory Group (TAG) on polio eradication for Pakistan
- The Polio Oversight Board (POB)
- The WHO Regional Committee (RC) and World Health Assembly (WHA)
- The Emergency Committee for polio eradication under the International Health Regulations (IHR)

The programme has prepared carefully for each engagement and engaged transparently surfacing key challenges and risks as well as proposing innovative solutions. The Programme is grateful to these bodies for their continuous advice and input and looks forward to similar engagements in the coming year.

Annexes

Annex I – Key Performance Indicators

Programme Operations

Objective	Indicator
No child is left unvaccinated because of poor planning.	<ul style="list-style-type: none"> ▪ Microplanning: ≥90% of UCs pass desk and field external microplans validation with HRMP 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 campaign. ▪ 0% unvaccinated children among covered recorded missed children. ▪ 0% unvaccinated children in locked or o/o houses. ▪ 0% intra-campaign household clusters conducted by area in-charges and/or supervisors. Direct supervisors of teams must be left to do their supervisory duties. ▪ 10% of intra-campaign household clusters targeted at high-risk mobile populations and/or major transit points
Team composition supports the greatest possible access to all households	<ul style="list-style-type: none"> ▪ 100% of teams have at least one adult team member in each campaign. ▪ 100% of teams have at least one local team member in each campaign. ▪ 80% of teams have at least one female member in each campaign; in areas with facing special cultural obstacles, a 25% reduction in the number of all-male teams ▪ At least 25% decrease in number of non-female Area-incharges, TTMs, and TTSPs.
Workload of teams is rationalized in such a manner that revisits to vaccinate missed children take place as quickly as possible.	<ul style="list-style-type: none"> ▪ All vaccination teams are able to revisit households with recorded missed children and vaccinate at least 40% of recorded missed children on the same day. ▪ ≥90% of UCs pass the “team workload rationalization” evaluation in the external microplans validation.
Overall campaign quality ensures high population immunity	<ul style="list-style-type: none"> ▪ At district-level – as measured by third-party post-campaign monitoring, all districts reach vaccination coverage above 95%. ▪ As measured by third-party post-campaign monitoring, Market Surveys and other post-campaign indicators, at least 95% of districts in each province and FATA have vaccination coverage ≥95%. ▪ Less than 10% of Union Councils in any division, or province are flagged as Low-Performing Union Councils ▪ At Divisional and Provincial level – at least 90% of Union Councils pass LQAS.

Objective	Indicator
	<ul style="list-style-type: none"> ▪ At Union Council level – UC passes post-campaign LQAS assessments. ▪ In serosurveys, at least 90% of children are seropositive for poliovirus type 3².
<p>All infants in Tier 1 and Tier 2 districts obtain full protection from the poliovirus as soon as possible.</p>	<ul style="list-style-type: none"> ▪ Routine immunization coverage for IPV-1 and Penta 3 in areas covered by Community-Based Vaccination is more than 80% by end of February 2018. ▪ A half-yearly reduction in the proportion of children who have not received IPV1 and Penta 3 of at least 33% from current baseline measurement. ▪ In areas conducting sero-prevalence surveys, at least 70% of children remain seropositive for poliovirus type 23.

² Since type 1 seroconversion can also be as a result of WPV type 1 transmission (the only wild poliovirus still circulating), the programme will use type 3 seroconversion as a proxy measure for good vaccine delivery. In the most recent serosurvey from Faisalabad, the seroprevalence for type 3 was 95.4%.

³ Following the tOPV to bOPV switch, type 2 vaccine can only be delivered via IPV either via combined bOPV/IPV SIAs or routine immunization.

Risk Assessment and Decision Support

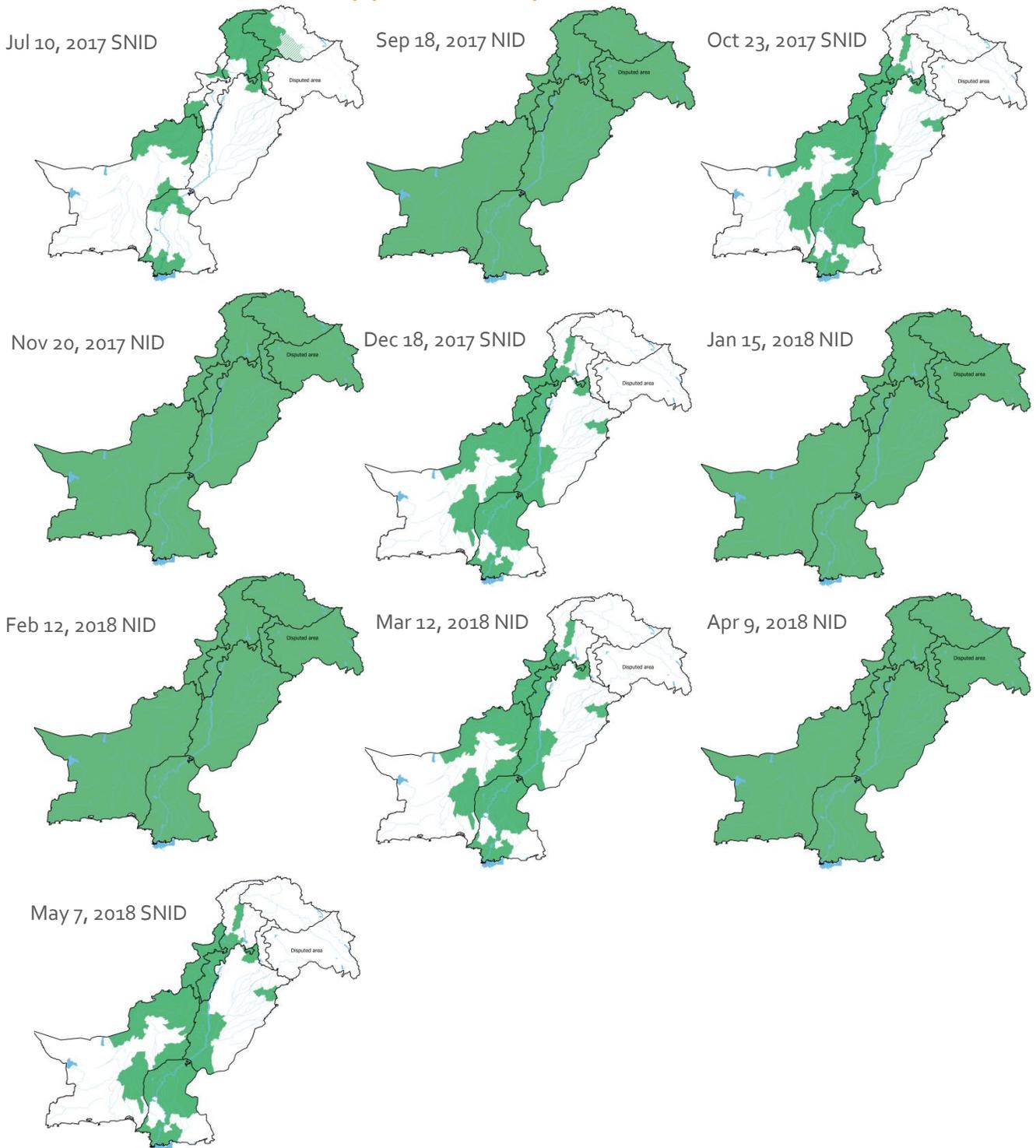
Objective	Indicator
That the surveillance system as a whole is made fundamentally strong	<ul style="list-style-type: none"> ▪ 100% of all required staff trained and deployed <ul style="list-style-type: none"> ○ All districts have a formally notified District Surveillance Coordinator; all DSCs are trained and fully participate in AFP surveillance activities. ○ 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 hired. ○ At least 30% of cases to be re-validated by Area Coordinator, and/or Divisional Surveillance Officer. ▪ 100% of all Detail Case Investigations including all previously conducted investigations for the calendar year 2017, and all 30 household cluster data, entered electronically into a centralized national database ▪ 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.
Surveillance and reporting of cases is improved at the lowest administrative levels	<ul style="list-style-type: none"> ▪ All standard surveillance indicators are met (see Surveillance Guide for details). ▪ 33% reduction in the number of silent Union Councils over 12 months in all provinces, Islamabad, and Azad Jammu Kashmir; in FATA, a 33% reduction in the number of silent tehsils over 12 months. ▪ All tehsils in all provinces have reported at least 1 case of AFP in the preceding 12 months.
AFP surveillance sensitivity is improved such that all chains of poliovirus transmission in Pakistan are detected in a timely manner	<ul style="list-style-type: none"> ▪ At least 70% 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 provider (1st or 2nd contact). ▪ 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. ▪ 100% of 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.
Environmental surveillance reporting is strengthened	<ul style="list-style-type: none"> ▪ 100% of Environmental sampling is verifiably sampled ▪ 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 is provided to the National EOC within 28 days of collection and ITD/sequencing results

Objective	Indicator
	provided within 35 days of collection
Poliovirus type 2 transmission	<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).
Ensure the scope and scale of monitoring activities is good enough to detect performance shortfalls in a timely manner.	<ul style="list-style-type: none"> ▪ An external pre-campaign, intra-campaign, and post-campaign monitoring plan for all SIAs (NIDs and SNIDs). ▪ All pre-campaign tools are collectable and/or can be submitted electronically into a centralized database.
Timely investigation of poliovirus events	<ul style="list-style-type: none"> ▪ 80% of all and 100% of newly emerging poliovirus events are investigated jointly by the Federal and Provincial EOCs.

Management, Oversight & Accountability

Objective	Indicator
Overall implementation of the Emergency Plan is closely monitored.	<ul style="list-style-type: none"> ▪ The Prime Minister’s Focus Group meets and reviews the NEAP on a quarterly basis. ▪ The National Polio Management Team meets and reviews the NEAP on a quarterly basis.
That the frontline and supervisory workforce is supported and held accountable at all levels.	<ul style="list-style-type: none"> ▪ Provincial Task Force meetings to review performance are held on a quarterly basis. ▪ The Divisional Task Forces under the Commissioner’s leadership review performance after every campaign
That District level leadership and oversight is active before and during all campaigns.	<ul style="list-style-type: none"> ▪ Deputy Commissioner chairs and carries out pre- and intra-campaign performance reviews at district levels. ▪ 100% of Union Councils have a qualified UCMO ▪ ADC chairs 100% DPCR meetings during pre- campaign phase ▪ 100% UCs readiness presented by respective AC during DPEC.
That the surveillance system as a whole is made fundamentally strong	<ul style="list-style-type: none"> ▪ District Surveillance Review Meeting Chaired by District Health Officer or equivalent is held every month; a copy of the signed minutes is shared with the Provincial EOC.

Annex 2 – 2017/2018 Supplementary Immunizations Calendar



**The combined bOPV/IPV SIA will be conducted in two phases. Tier 1 districts and depending on availability of IPV vaccine, selected Tier 2 districts will be targeted.*

Annex 3 – Essential Committees for Polio Eradication

National Level

National Task Force for Polio Eradication

In pursuance of the Prime Minister's Office U.O No. 881/M/SPM/2014 dated 18th April 2014, the Prime Minister has approved the National Task Force for Polio Eradication with the following composition;

- i. Prime Minister Islamic Republic of Pakistan (Chairman)
- ii. Governor Khyber Pakhtunkhwa
- iii. Chief Ministers of all provinces
- iv. Prime Minister, Azad Jammu & Kashmir
- v. Minister Incharge, Ministry of National Health Services, Regulations & Coordination (MoNHSRC)
- vi. Prime Minister's Focal Person for Polio Eradication (Secretary)
- vii. Secretary to the Prime Minister
- viii. Secretary, Ministry of National Health Services
- ix. Chief Secretaries of four provinces
- x. Additional Chief Secretary, FATA
- xi. Representative of Chief of Army Staff

The task force shall meet two times a year and perform the following functions;

- a) To oversee and monitor the progress made against the National Emergency Action Plan for Polio Eradication and direct necessary remedial measures.
- b) To ensure Inter-provincial and inter-sectoral coordination and give direction on issues.
- c) To ensure adequate resources are secured for the implementation of National Emergency Action Plan for Polio Eradication.

Prime Minister's Focus Group on Polio Eradication

The Prime Minister Office constituted the Focus Group on Polio Eradication to review progress of the Polio Emergency Programme on quarterly basis and take remedial measures to implement quality polio campaign activities in the country. Following are the members of the Focus Group.

- i. Minister of State, Ministry of National Health Services, Regulations & Coordination (MoNHSRC)
- ii. Prime Minister's Focal Person for Polio Eradication
- iii. Secretary to the Prime Minister
- iv. Federal Secretary Ministry of National Health Services
- v. Additional Secretary, Prime Minister's Office
- vi. Joint Secretary, Prime Minister's Office
- vii. Director General, Ministry of National Health Services

- viii. Deputy Secretary Prime Minister Office
- ix. Emergency Coordinator, National EOC
- x. National Technical Consultant, National EOC

National Polio Management Team for the Polio Eradication Initiative (PEI) and Expanded Programme on Immunization (EPI)

The National Polio Management Team (NPMT) is directly responsible for the day-to-day management of the Pakistan polio eradication efforts. It is responsible for continually monitoring and reviewing the Programme performance and implementation of the NEAP 2016-17.

The Chair of the NPMT is the Prime Minister's Focal Person. The National EOC Coordinator is the secretary. Additional members include, the Provincial EOC Coordinators, EOC Coordinator FATA, Federal and provincial EPI managers and heads of polio partners (WHO, UNICEF, BMGF, N-STOP, CDC, Rotary International, USAID etc.) are the core members. The chairperson of the NPMT can determine membership as per need of the time.

Terms of reference

- NPMT will guide the programme implementation based on decisions of the National Task Force and advice of Technical Advisory Group (TAG) and Independent Monitoring Board (IMB) for Global Polio Eradication Initiative
- It will periodically report on the current epidemiological status of Polioviruses
- Will be responsible for all the activities under Polio Eradication Initiative including development and implementation of oversight
- Calculate the need, location and frequency of Supplementary Immunization Activities (SIAs) in the country based on surveillance data review
- Review logistics requirement and procurement for the forthcoming campaigns
- Endorse the communication plan
- NPMT will also be responsible for campaign evaluation results and feedback to the provinces
- EPI Manager will report on EPI performance, especially in Tier 1 and Tier 2 districts.
- EPI Manager will also give regular updates on the vaccine supply situation for both Polio campaigns and EPI
- EPI Manager will provide updates on other vaccine preventable disease outbreaks

National Emergency Operations Centre

Pursuant to decisions of the National Task Force on Polio Eradication meeting chaired by the Prime Minister on November 5, 2014 in the Prime Minister's Office, Islamabad the National Emergency Operations Centre (EOC) for Polio Eradication has been established with the following

Terms of Reference

- a) To act as national hub for planning, coordinating, information gathering, surveillance and monitoring of Polio Emergency activities in accordance with National Emergency Action Plan for Polio Eradication.
- b) To provide technical inputs, situation analysis as well as the other information on regular basis to the Prime Minister's office, Ministry of National Health Services, Regulations and Coordination and all relevant stakeholders highlighting issues and challenges for information and required interventions.

- c) To coordinate and develop effective liaison with all Provincial Task Forces for Polio Eradication on regular basis with a view to monitor the progress against set targets.
- d) To instil a sense of urgency in the implementation of polio eradication activities and thereby control Poliovirus transmission by the end of 2016.
- e) To review monitoring and surveillance data and give feedback to the provinces and districts for remedial measures to improve the quality of polio campaign and control the poliovirus.
- f) To act as apex body at national level coordinating amongst the provinces to ensure standardized immunization service delivery for Polio Emergency and sustained availability of technical and material resources.
- g) To prepare forecast 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 through Cabinet Committee on Immunization.
- h) To review the progress of the routine immunization regularly and advise relevant offices for prompt action.

Led by the Prime Minister's Focal Person and under the daily management and leadership of the National EOC Coordinator, the National EOC is a central point for all activities of polio eradication and brings together the government and the partnership (WHO, UNICEF, BMGF, CDC, N-STOP, Rotary International etc.). The National EOC will continue its assistance to the Prime Minister's Focal Person and will be responsible for monitoring the NEAP indicators and tracking effective implementation of the strategic decisions and guidance provided by the National Task Force and the National Technical Advisory Group.

In addition, the National EOC coordinator chairs daily morning meetings at 9.30am and attended by team leads of partner agencies and senior technical staff placed in the National EOC. The ToRs of daily morning meetings are to share the current activities held and planned for the day. Review updates of ongoing activities of surveillance, SIAs as well as planning for future activities through its different task teams such as surveillance, SIAs, training, Transit Points, Finance and Oversight & Accountability. These Task Teams are responsible to work assigned to them in this morning meeting and will present for endorsement.

National Steering Committee meetings through Video link with provincial EOCs

The NSC chaired by the PM Focal Person on weekly basis. The National EOC Coordinator is a Secretary of the NSC and All Provincial EOC Coordinators, team leads of partner agencies as well as National and Provincial Technical senior officers are the member of this committee.

Terms of Reference

- a) To share surveillance update and discuss on actions required
- b) To review preparation, implementation and post campaign monitoring results of SIAs
- c) To agree on new initiatives such as CCPV, Health camps etc
- d) To share updates of important activities held and in next week plan.
- e) Any other issue require consensus

Provincial and Divisional level

Provincial Task Force

The Chief Secretary must lead the Provincial Task Force for Polio Eradication and s/he will fast-track implementation of the National Emergency Action Plan in the respective province.

The Provincial Task Force will ensure oversight to the programme and accountability based on low performing areas as well as take necessary steps for motivating the DCs/DCOs/PAs of the districts/agencies consistently performing well during all the phases of the campaign and in surveillance.

The Health Secretary will act as a Secretary of the PTF representative of senior official from line departments (Home/law and enforcement agencies, Education, Information, Local Government, Auqaf and Chief Minister Office). Pakistan Army representative, DG Health, EPI Manager and provincial representatives of partner agencies (WHO, UNICEF, BMGF, CDC, N-STOP, Rotary International etc.). All meetings of the PTF will be facilitated by the Provincial EOC Coordinators.

All Commissioners, Deputy Commissioners/ District Coordination Officers of the province / Political Agents (PA) of FATA will attend the meeting of the PTF.

Functions of the PTF

The PTF shall review and monitor overall progress against quarterly milestones and key performance indicators against each area of work:

- a) Progress made in province against National Emergency Plan of Action for eradication of Polio and provides guidance on challenges being faced by each district.
- b) Involvement of district and sub-district level arm of government to assume the responsibility of ensuring implementation of District Specific plan.
- c) Involvement of the line departments and assigning specific roles and tasks to each department for the successful campaign implementation.
- d) The plan and progress for advocacy and social mobilisation activities at provincial and sub-provincial levels and ensure availability of adequate resources and their optimal use
- e) The plan and progress for surveillance at provincial, district and sub-district levels and ensure availability of adequate resources

There are several sub-committees to report to the Provincial Task Force including the following:

- a) The Provincial Security Coordination Committee of the PTF will review the security situation of all districts before implementation of campaigns. This committee will take appropriate action to ensure safe implementation of the polio immunization campaigns.
- b) Provincial Vaccine Management Committees headed by EPI Managers should 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 will 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. They will 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.
- c) Provincial Emergency Operations Centres established with the concept of one team under one roof led by the Government. A full time dedicated senior government officer is deputed in each province and in FATA to lead the provincial EOCs with the assistance of partner agencies. The Coordinator is the main facilitator of the Provincial Task Force and will report directly to the chairperson of the Provincial Task Force.

Provincial Emergency Operations Centre

Pursuant to decisions of the National Task Force on Polio Eradication meeting chaired by the Prime Minister on November 5, 2014 in the Prime Minister's Office, Islamabad the Provincial Emergency Operations Centre (EOC) for Polio Eradication has been established with the following

Terms of Reference

- a) To act as the provincial hub for planning, coordinating, information gathering, surveillance and monitoring of Polio Emergency activities in accordance with National Emergency Action Plan for Polio Eradication.
- b) To provide technical inputs, situation analysis as well as the other information on regular basis to the Provincial Task Force and all relevant stakeholders highlighting issues and challenges for information and required interventions.
- c) To coordinate and develop effective liaison with all Provincial Task Forces for Polio Eradication on regular basis with a view to monitor the progress against set targets.
- d) To instil 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 campaign and control the poliovirus.
- f) To act as apex body at province level coordinating amongst the divisions and districts to ensure standardized immunization service delivery for Polio Emergency and sustained availability of technical and material resources.
- h) To review the progress of the routine immunization regularly and advise relevant offices for prompt action.

Divisional Task Force

The Divisional level structure has been fundamental in ensuring progress is made on oversight and management deficiencies in Karachi, Larkana, Sukkur, Peshawar, and Islamabad. The Commissioners chair Divisional task forces and have regular meetings on polio with the Deputy Commissioners who are responsible to provide leadership to polio eradication in their respective districts.

The DTF is the primary organ with Oversight responsibility and will meet after every SIAs to monitor performance against KPI for each area of work. The DTF will meet under the leadership of the Commissioner and with participation of respective DIG, Deputy Commissioners, DHOs, EPI Coordinators and partners (WHO, UNICEF, BMGF, NSTOP) of all districts within the Division.

District, Tehsil and Union Council level

District Polio Eradication Committee

Each District/Agency has a District Polio Eradication Committee (DPEC/APEC) to oversee Polio eradication and routine immunization activities at district/agency level and coordinate with all line departments and local partners including NGOs to ensure high quality implementation of vaccination campaign strategies and plans to achieve all targets set out against KPIs in the National Emergency Action Plan.

The District PEC headed by the DC/DCO and Agency PEC headed by the Political Agent meets:

- 5-10 days before the campaign to review preparedness and take course corrective actions
- Daily during the campaign days to review the campaign implementation and troubleshoot challenges
- 2-5 days after the end of catch-up to review the outcome of the campaign against the set of standard indicators and review the progress of the actions taken for the poor performance in the last campaigns

The participation of the Chairperson and the Secretary of Committee is mandatory with binding attendance of all concerned departments – Health, police, education, Revenue, local government as well as representatives of partner agencies, district heads of public health programs and private sector organisations. In addition, the community representatives (parliamentarian), district Khateeb (Religious preacher). Head of the DPEC can extend membership on need basis.

The meetings of DPEC is to review the status of surveillance and campaign preparations/implementations, in addition to reviewing the results of UPEC meetings (completeness and timeliness) and consider specific requests from the UPECs and any interventions required to make corrections at the UC level.

The meeting of the DPEC must have in its agenda:

- a) The follow-up of actions / decisions from the last meeting and person(s) to be held accountable in case of faltering; review of performance indicator trends (process and outcome)
- b) Appropriateness for plans for pre-SIA, during-SIA and post-SIA phases with focus on comprehensiveness of microplans, including transit strategy with supervision plan, training quality and effective house to house visits to all families with follow-up of those having absent children.
- c) Specific tasks assigned to the DPEC members in relation to the next SIA
- e) The Secretary of the DPEC must maintain record of all approved meeting minutes for sharing, when required.
- f) The health department and local law enforcement must submit a jointly prepared district security plan, for implementation of the campaign, to the DC and reviewed in the DPEC. It is the responsibility of the DC to authorize whether or not a campaign can proceed with the necessary security arrangements for vaccination teams. The DC and local law enforcement should seek advice of community influencers and religious leaders about security plans and measures. If necessary, the DC may approach to the Chairman of the Provincial Security Coordination Committee for additional support.

Tehsil Polio Eradication Committees

There is occasionally a management gap between the district and UC level, therefore it is proposed to fill such gaps with the involvement of Tehsil/taluka administration and health departments in supervision and monitoring support of the UCs. Therefore, it is proposed to establish Tehsil Polio Eradication Committees (TPEC). Four member teams, headed by the Assistant Commissioner (AC), is being proposed wherever required, to assist the UCMOs in implementation of polio campaign activities as well as monitor progress. The AC may also represent the tehsil in the DPEC meetings.

The functionality of the TPEC must be ensured with designation of the Assistant Commissioner (AC) as chairman, Deputy District Health Officer (DDHO) as its secretary and the police officer in charge of the Tehsil as an integral part.

The meeting of the TPEC will be conducted the next day after the last day of UPEC meeting and at least 1-2 days before the DPEC meeting. The DDHO will hold a meeting with the TPEC chairman in Tehsil/taluk of his / her assignment before the DPEC meeting and present information on their Tehsil/taluka during the DPEC meeting including UC wise information/data of their assigned Tehsil. The partners' staff will ensure training

of the DDHO (Tehsil focal person). A review meeting chaired by the TPEC chairman should be held with all chairpersons of UCs and will bring the particular challenges to the DC for resolve.

Union Council Polio Eradication Committees

The UPECs formation, composition and functionality have been variable in all of the provinces. The functionality of the UPEC must function with the designation of the full time Union Council Medical Officer as Chairman and the Revenue Officer as Secretary, with binding membership of important UC level stakeholders. Each UPEC is expected to develop UC specific campaign and surveillance work-plans.

The meeting of the UPEC should be 15 days before the campaign with an agenda including,

- the review of the implementation status of the previous meeting's decisions;
- the review and endorsement of the integrated microplans including composition and quality of vaccination teams and transit team strategy with supervision plans;
- the engagement of the community influencers for information and motivation of the community;
- plans for quality training, supervision and real time process data transmission on a daily basis

The UCMO will ensure that all Area In-Charges in the UC meet their teams daily at the end of each day's assignment. The Area In-Charges will collate and compile the data/information from the tally sheets of the teams and report to the UC MO; who will collate and compile all of the data for the UC and report to the District Control Room. The Area In-Charges and the UCMO will critically analyse the tally sheets of the teams on a daily basis and strategize the interventions accordingly. The partners UC level staff (where available) will assist with the tally sheet analyses, strategizing field interventions.

Office bearers of the local bodies at the Union Council

Local Bodies are a system of Government that provides the facilities to the people in specific areas to solve people's problems at local level, allow public participation in decision - making. It has three levels district, tehsil and union council in every district under the administrative control of provincial local government. The essence of this system is that the Local Governments would be accountable to the citizens for all their decisions.

The lowest tier, the Union Council is a corporate body covering the rural as well as urban areas across the whole District. It consists of Chairman, Vice Chairman, 8 – 13 members (general council members and representatives of ladies, farmers / labourers and minorities).

In every union council, the local government has placed the Union Council Secretary to coordinate and facilitate to the elected body of the union council in community development, functioning of the Union Committees and delivery of municipal services. The UC Secretary is also responsible to manage work of births, marriages and deaths registration and security system through chowkidars.

The UC Secretary has been assisting the health department in routine vaccination of children by providing list of registered births to vaccinators as well as playing role as the Secretary of Union Council Polio Eradication Committee. They can also bridge the gap between UPEC and local police for security arrangement in security risk areas, monitor the campaign activities and assist in vaccination of missed children especially refusals.

There is a need to establish official agreement with the local government to use the services of the UC level Secretaries for Routine Immunization and Polio Eradication.

Annex 4: Union Council-level Score Card

	Area of Work	Task and Indicator	Outcome
1.	Oversight and Management	UPEC Planning meeting occurs 15 days before each SIA (Y/N)	
	Oversight and Coordination	UPEC review meeting occurs after each SIA (Y/N)	
3.	SIA – Preparation	Area in Charge microplans revised and validated by responsible UC staff before each SIA (Y/N)	
4.	SIA – Preparation	UC microplan revised before each SIA (Y/N)	
5.	SIA – Preparation	Number of vaccinators completing training with standardized national Interpersonal Communication (IPC) Module before each SIA (# and %)	
6.	SIA- Preparation	Vaccination Teams with at least one female member (# and %)	
7.	Access and Security	Security plan completed with local law enforcement and integrated with microplan (Y/N)	
8	SIA – Missed Children	Missed children tracked and vaccinated (# and %)	
9.	Communications – Refusals	Refusals Converted (# and %)	
10.	Information Management/M&E	Low-performing UC (Y/N)	
11.	Information management/M&E	SIA report sent to DPCR within one week of campaign (Y/N)	
12.	Surveillance- AFP	AFP Zero reporting completed weekly (Y/N)	
13	NEAP Overall	All NEAP key performance indicators reviewed	

Annex 5: District-level Score Card

	Area of Work	Tasks and Indicators	Outcome
1.	Oversight & Coordination	UCs completing UPEC Meetings 15 days before SIA (# and %)	
2.	Oversight and Coordination	DPEC meets 5 days before SIA	
3.	SIA – Preparation	UCs with revised microplan before SIA (# and %)	
4.	SIA – Preparation	UCs where microplan validated by responsible district staff (# and %)	
5.	SIA – Preparation	UCs completing vaccinator training using standardized national IPC module before	
6.	SIA – Preparation	Number of vaccination teams with at least one female vaccinator (# and %)	
7.	SIA – Vaccine &Logistics	Number of UCs receiving vaccine supplies at least 4 days before SIA (# and	
8.	Access & Security	District security plan completed before each SIA (Y/N)	
9.	Access & Security	UCs with security plan completed before each SIA (# and %)	
10.	SIA – Missed Children	Missed children tracked and vaccinated at district level in each SIA (# and %)	
11.	SIA – Missed Children	UCs tracking and vaccinating 90% of missed children (# and %)	
12.	Communications – Refusals	Refusals Converted each SIA (# and %)	
13.	Information Management/M&E	Low-performing UCs (# and %)	
14.	Information Management/M&E	Still missed children against target, and against recorded missed children	
15.	Information Management/M&E	District vaccination Coverage by PCM in each SIA where applicable (%)	
16.	SIA – CBV	Number of CHWs selected and trained	
17.	Information Management/M&E	CBV UCs flagged as low-performing LQAS (# and %)	
18.	SIA – Payments	Vaccinators paid within 14 days of campaign completion (# and %)	
19.	Oversight & Coordination	DPEC review meeting within one week of SIA (Y/N)	
20.	Information Management/M&E	District SIA report sent to P-EOC within one week of SIA (Y/N)	
21.	Surveillance –AFP	Number of active surveillance site visits (# and %)	
22.	Surveillance – AFP	Number of weekly zero reports submitted (# and %)	
23.	Surveillance – AFP	Number of silent Union Councils in past 36 months (# and %)	
24.	NEAP Overall	All NEAP key performance indicators	

	Area of Work	Tasks and Indicators	Outcome
		reviewed	

Annex 6: Divisional and Provincial-level Score Card

	Area of Work	Tasks and Indicators	Outcome
1.	Oversight & Coordination	UCs meetings before SIA (# and %)	
2.	Oversight & Coordination	DPECs meeting before SIA (# and %)	
3.	Oversight & Coordination	Task Force meets as per guideline (Y/N)	
4.	SIA – Preparation	UCs with revised microplan before SIA (# and %)	
5.	SIA – Preparation	UCs where microplan validated by responsible district staff (%)	
6.	SIA – Preparation	UCs completing vaccinator training using standardized national IPC module before	
7.	SIA – Preparation	Vaccination teams with at least one female vaccinator (# and %)	
8.	SIA – Vaccine & logistics	UCs receiving vaccine supplies at least 4 days before SIA (# and %)	
9.	Access & Security	Districts completing security plan before each SIA (# and %)	
10.	Access & Security	UCs in with security plan completed before each SIA (# and %)	
11.	SIA – Missed Children	Missed children tracked and vaccinated in each SIA (# and %)	
12.	SIA – Missed Children	Districts tracking and vaccinating 90% of missed children (# and %)	
13.	Communications	Refusals Converted each SIA (# and %)	
14.	IMM&E	Low-performing UCs (# and %)	
15.	Information Management/M&E	Districts with greater than 95% coverage by PCM in each SIA where applicable (# and %)	
16.	Information Management/M&E	Low-performing UCs in CBV areas (# and %)	
17.	SIA – Payments	Vaccinators paid within 14 days of campaign completion (# and %)	
18.	Oversight & Coordination	Districts carrying out DPEC review meeting after SIA (# and %)	
19.	Information Management/M&E	Provincial SIA report sent to N-EOC within two weeks of SIA (Y/N)	
20.	Surveillance – AFP	Number of active surveillance site visits (# and %)	
21.	Surveillance – AFP	Number of weekly zero reports submitted (# and %)	
22.	Surveillance – AFP	Number of silent Union Councils in past 36 months (# and %)	
23.	NEAP Overall	All NEAP key performance indicators reviewed	

