Summary report on the

Technical consultation on polio eradication in Pakistan

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1. Introduction

The Technical Advisory Group on Polio Eradication (TAG) in Pakistan convened for a technical consultation meeting in Islamabad on 14–15 February 2015. The consultation took place upon the request of the Government of Pakistan to review implementation of the ‘low season’ plan halfway through the low polio transmission season 2014–2015. The meeting was chaired by Dr Jean-Marc Olivé, assisted by Dr Salah El Awaidy and Mr Sebastian Taylor,

In its June 2014 report the TAG clearly pointed out that without serious preparations for the next low transmission season Pakistan would not be in a position to interrupt wild poliovirus transmission by the end of 2015. These concerns were strongly echoed by the Independent Monitoring Board for the global Polio Eradication Initiative (PEI) in its October 2014 report. Both bodies independently pointed out that radical changes were required to put Pakistan’s polio programme back on course for eradication.

With 306 polio cases due to wild poliovirus (WPV) reported in 2014 (compared to 93 in 2013), Pakistan accounted for 86% of the global case count. This is in stark contrast to the situation in the other two remaining endemic countries: in Afghanistan the total case count for 2014 was 28; while Nigeria has not reported any cases for the past 6 months. Since January 2012 there have been a total of 33 recorded polio linked fatalities (ten in 2012, ten in 2013, nine in 2014 and four in 2015), while the polio link could not be determined in 41 fatalities. Most recent polio-linked fatalities occurred on 17 February 2015 when polio team members were abducted and killed near Zhob, Balochistan.

Forty-four districts (23 in 2013) in four major provinces: Khyber Pakhtunkhwa (KP), Balochistan, Punjab, Sindh and Federally Administered Tribal Areas (FATA) were infected in 2014. The majority of
cases due to WPV continue being detected from the known reservoir areas:

1. North and South Waziristan, and Khyber agencies in FATA
2. Greater Peshawar, southern and central areas districts of KP
3. Karachi, Sindh
4. Quetta block, Balochistan.

There was some spillover in all provinces with no or minimal viral establishment. WPV was detected in environmental samples in Peshawar and DI Khan (KP), Lahore and Rawalpindi (Punjab), Quetta block (Balochistan), Sukkur, Larkana, Hyderabad and Karachi (Sindh), and most recently Islamabad. To date in 2015, seven cases due to WPV1 have been reported in KP (Peshawar, Lakki Marwat, Nowshera, Tank), FATA (South Waziristan and Khyber Agency) and Kambar in Sindh.

The majority of the WPV cases continue to be from areas with barriers to immunization. The dominant epidemiological feature remains the ongoing outbreak of WPV in FATA, particularly in Khyber Agency. Due to both intense transmission and extensive population movements (conflicts), the virus has spread to other areas including main population centres in KP, Sindh and Punjab. At the same time, these population movements have allowed the programme to vaccinate large numbers of previously unreached children on the move. Other areas that have been inaccessible for years (e.g. South Waziristan) have opened up recently and are now largely accessible. Overall, the access situation in security-compromised areas has improved considerably when compared to one year ago. With the exception of Khyber Agency (Bara), parts of Karachi and central KP, all areas are now accessible for vaccination to varying extents, although a considerable degree of insecurity remains in many parts.
Against this background the Government of Pakistan and partners started intense preparations for the low transmission season in September 2014 resulting in formulation of national and provincial low season strategic plans. These plans were further detailed for the reservoir areas during a three-day consultative workshop in Bhurban in November 2014. The plans provide the milestones for the low season, focusing on key issues such as improving the quality of activities, increasing the security measures for protection of health workers, developing special strategies for reaching mobile populations and using inactivated polio vaccine (IPV) in areas with difficult or irregular access.

At the invitation of the Government of Pakistan, this consultation was held mid-way into the low transmission season 2014–15 to review the implementation status of the low season plans. Substantive discussions were held in both open and closed sessions to understand the issues and make recommendations to the Government of Pakistan and partners. The following questions were put to the consultation panel:

Are the low season plans being implemented as envisaged towards achieving the desired goals; what are the major gaps?  
What improvements must be made to implementation of the reservoir specific plans during the remaining low season?  
What would it take to make the reservoir-specific plans contribute effectively towards a national success?

2. Conclusions

The consultation panel pointed out that the consultation occurred at the height of a very critical low transmission season that may constitute a make-or-break situation for achieving polio eradication in the country and globally. The panel reiterated that virus transmission must be further reduced during the remainder of the low season if interruption of transmission by the end of 2015 is to remain a feasible goal.
The panel recognized the overall heightened commitment of the Government of Pakistan to eradicate polio in 2015 and acknowledged the formation of Prime Minister’s Focus Group, the Cabinet Committee on Immunization, and the Ministerial Committee.

The panel also recognized the meticulous planning process for the low transmission season and the Bhurban (II) workshop for finalizing the plans and for developing national consensus. It judged that the plans contain all necessary elements to stop transmission by the end of 2015 if they are fully implemented in letter and spirit. In this regard, the consultation panel also reminded Government and partners of the underlying assumption of the plans that “all children anywhere in the country can be reached” during the low season.

The panel commended the government on the recent progress made on accessing previously unreached children. The access situation in key areas with security challenges has improved considerably and all areas are now accessible to varying extent for vaccination with the exception of Khyber Agency (Bara).

The panel expressed concern about the number of supplementary immunization activities that have been staggered, delayed or cancelled due to security or other related concerns. This situation has led to a loss of synchronization between campaigns in key geographical areas. Given the high mobility of the Pakistani population, this loss facilitates further virus spread.

The panel also highlighted the low AFP surveillance indicators in key reservoirs and outbreak districts. The stool specimen adequacy for 2014 was 74% in Charsada, 75% Nowshera, 74% Peshawar, 76% Tank, 76% Gadap. The proportion of AFP cases notified within 7 days of onset for 2014 was 77% in Kabulah, 74% in Khyber, 67% in Charsada, 69% in Nowshera, and 63% in Gadap.
The consultation panel recognized the recent establishment of the Emergency Operations Centres (EOCs) at national and provincial levels as a significant step towards better programme oversight and accountability and strongly encouraged government and partners to further strengthen the “one-team” concept at all levels. The panel also recognized the important nomination by the Ministry of Interior of a Director General of National Crisis Management Cell as focal person to work in close coordination with the federal EOC and the provinces on security and access measures, and similar nominations in some of the provincial EOCs.

The panel commended the emergence of a systematic process for integrating communication strategies and plans into provincial operational planning, and the development and implementation of specific communication strategies in high-risk areas. It supports the notion of integrating the messages for PEI and the Expanded Programme on Immunization (EPI) to strengthen EPI and address health inequalities. The panel also expressed appreciation for the presence of NSTOP officers in the 32 high-risk districts and reiterated the importance of actively involving them.

On a general note, the panel felt that during this consultation all provincial presentations (except for FATA) lacked sufficient detail to evaluate concrete progress in the implementation of the plans. Moreover, the panel did not receive detailed provincial and district implementation plans. The panel expressed hope that this limitation will have been addressed when it meets again at the end of the low transmission season.

The panel expressed concern over the slow-paced implementation of the Bhurban (II) plan. It summarized the current implementation status of the plans as follows:
• Securing access for vaccinating all children: Conditions are slightly improving in KP while FATA and Sindh are making some initial encouraging steps; however, children are being missed consistently due to insecurity/inaccessibility in Khyber Agency (Bara), South Waziristan (Shakto belt), North Waziristan (Miran Shah and Datta Khel) and parts of Karachi and central KP. Balochistan and Punjab remain largely accessible from security perspective.
• Tracking of chronically missed children requires more focus and analysis.
• Programme monitoring: Good progress is being made in Punjab; there have been some initial steps in right direction in Sindh and KP making some progress. FATA remains a region without very effective monitoring in key areas/tribal agencies.
• Accountability: This is being well applied in Punjab. It is being partially implemented in KP, FATA and Balochistan, while it remains a concern in Sindh.
• Community ownership: More emphasis is required in FATA and Balochistan. Sindh is already on its way to achieve the goal. Punjab and KP did make some significant progress.
• Polio Plus: It is being partially implemented in all provinces/regions.
• Administering IPV through supplementary immunization activities: This has been introduced in all provinces but is not yet implemented in KP.

The panel reiterated that Pakistan has demonstrated the capacity, experience and tools to succeed if the remaining challenges are addressed.

3. Recommendations

Low season plans
1. The low season plans have all the necessary ingredients to stop poliovirus transmission by the end of 2015 if they are meticulously
followed and progress tracked – this is still not the case in many of the areas though. Only 6–8 weeks remain before the close of the low transmission season and all efforts must be undertaken now to ensure full implementation. Low season plan implementation should occur in a synchronized manner all over the country, especially in reservoirs and outbreak areas. Only such coordinated and simultaneous implementation can lead to nationwide success.

2. The panel hopes to see the concrete implementation status against each key component of the plans during its next meeting. In this consultation, it felt that the presentations fell short of this goal.

Continuously missed children

3. PEI in Pakistan needs to shift focus from “children covered” to “missed children” including those regularly not being accessed because of insecurity or operational failure and those outside any microplans. Detailed tracking and recording of these children through all possible means (e.g. permanent transit posts, health camps, AFP surveillance) and in-depth data analysis – including data disaggregation by location and reasons for missing children – are urgently needed. Local plans should be developed to reach continuously missed children between campaigns and coverage of zero-dose children included as a key performance indicator. Areas and the number of children missed because of insecurity or inaccessibility should be systematically tracked and reported for each planned supplementary immunization activity.

The panel reiterates that the Bhurban plan will not succeed unless complete access for house-to-house supplementary immunization activities is achieved in key areas of Khyber Agency, South Waziristan Agency, North Waziristan and parts of Karachi and central KP (Peshawar in particular).
Monitoring

4. The TAG recommends systematic monitoring of essential campaign elements at all levels:

- Immediately strengthen intra-campaign monitoring as per the national emergency action plan and Bhurban plan
- Expand post-campaign monitoring (standard and randomized lot quality assurance sampling, market surveys) to more high-risk areas
- Follow national guidelines on vaccination response to failed lot quality assurance sampling (LQAS) and document the results
- Select a subset of the most relevant indicators (e.g. 5–7) for preparation, implementation and post-campaign assessment, to be meticulously tracked and followed up at all levels
- Develop and make use of dashboards to aid with the monitoring of these indicators
- Establish key performance indicators for security planning and implementation in consultation with the relevant security agencies and add them to the dashboards of provincial and federal EOCs.

Quality of vaccinators

5. A more enabling environment should be created by front-line workers, particularly in high risk union councils (UCs):

- Recruit front line-workers from among culturally acceptable persons
- Establish retention, training and motivational plans for well-performing vaccinators and supervisors. The plans should also include local community volunteers (female community volunteers, lady health care workers, etc.)
- Implement a holistic communications strategy to elevate the status of polio workers in the community
• Ensure their timely payment. This will require an urgent thorough review of the current bottlenecks – perceived or real – and swift action to overcome them.

Security
6. PEI and law enforcement agencies have made great strides towards closer cooperation and coordination. The TAG feels though that operational and security plans are still being developed in relative isolation of each other. The panel recommends strengthening the integration of operations and security through early joint planning, resulting in feasible area-appropriate security plans to ensure access to all children.

Accountability
7. The role of EOCs at federal and provincial levels should be strengthened in the monitoring of accountability issues and their follow-up.

• Assign full-time EOC coordinators to provincial EOCs
• Assign full-time security forces/army representatives to EOCs
• Ensure close coordination between federal and provincial levels for developing an overarching security framework and its monitoring against a set of indicators.

Surveillance
8. More focus should be given to improving AFP surveillance.

• Conduct detailed and specific analysis of AFP data for the 4 known reservoirs
• Strengthen active surveillance and zero-reporting in priority one districts
• Include high-risk areas such as Town 4, which contributed to most of the polio cases in Peshawar, in the environmental surveillance sites.

*Khyber Pakhtunkhwa (KP)*
The panel recognized the commitment of the political leadership to reach previously unreached children and the recent collaborative effort between KP, FATA and the army to treat the region as one epidemiological block. The Apex committee, under the direct oversight of the Governor, Chief Minister and the Corp Commander, laid the foundations of “Sehat ka Ittehad” which provides the platform for synchronized implementation of activities with FATA. The opportunity to reach the population of North Waziristan was well coordinated through transit vaccination and targeted supplementary immunization activities.

The panel acknowledged that security challenges adversely affected campaign quality and schedules. In some parts of Peshawar, four campaigns were missed (19 000 target population), while in others parts campaigns had to be shortened due to the lack of security forces. KP has developed a security plan that is well integrated with operational, communication and social mobilization activities. This plan should be further built on.

The panel feels that since the beginning of the low transmission season KP has demonstrated progress with reaching persistently missed children, especially in Peshawar. However, there are still pockets of hard-to-reach areas in eight districts with an estimated target population of 75 000, including 20 000 in parts of Peshawar.

The panel noted with some concern that KP remains the only province with local WPV circulation that has yet to start implementing an IPV/OPV campaign.
The consultation panel recommends the following.

9. Utilize “Sehat Ka Ittehad” for:
   - Improving access to children still missed and/or inaccessible, and for gaining community trust
   - Tracking of missed children due to all reasons (insecurity, performance, etc.)
   - Introducing stringent accountability for performance.

10. Immediately streamline and maintain data tracking for all missed children.
11. Immediately implement OPV-IPV supplementary immunization activities in Peshawar and Bannu.

   - Include the displaced populations from North Waziristan before returning home
   - Include internally displaced populations (IDPs) from Bara before returning home or during their repatriation.

*Federally Administered Tribal Areas*

Polio remains in three tribal agencies (Khyber, North and South Waziristan) and adjacent FR areas. The panel recognized the programme’s resolve to reach children of FATA through intensified vaccination at transit posts, reactivation of EPI centres, engagement of law enforcement agencies through CMCC and engagement of local elders, ulema and schools, as well as the establishment of medical camps and rehabilitation services for paralysed children. Improved quality of campaigns was seen as a result of the hiring of local teams, increased financial incentives and revising the disbursement mechanism. The panel commends the efforts for accessing persistently missed populations. Recent resumption of door-to-door supplementary immunization activities in South Waziristan, Hujra vaccination in North Waziristan and
FR Bannu are encouraging signs. More than 70,000 children were reached for the first time in over 2 years in South Waziristan.

The panel noted with concern that the low season plan has still to be implemented in Khyber Agency (Bara and parts of Jamrud) and parts of North Waziristan. Infection from Bara has spread to Jamrud tehsil, Peshawar and Tank (2015) with a potential risk of further spread to adjoining Bajour and Mohmand Agencies, which have remained polio-free for the past two years.

Overall, the efforts are impressive in the face of the significant challenges faced in FATA. However, the ongoing outbreak cannot be controlled without further scale-up of current initiatives and population-wide administration of multiple doses of polio vaccine to children in Khyber agency and South and North Waziristan.

The panel recommends the following.

12. Develop and implement plans for door-to-door supplementary immunization activities in Bara and Jamrud in letter and spirit for avoiding the threat of spread to entire FATA, KP and rest of the country.
13. Conduct door-to-door supplementary immunization activities in North Waziristan and FR Bannu.
14. Continue house-to-house vaccination in South Waziristan with improved access ultimately reaching the entire tribal agency.
15. Urgently streamline the UAE–PAP payment mechanism for the frontline workers.
16. Plan IPV supplementary immunization activities in other parts of FATA with focus on North and South Waziristan and Khyber Agency.
The TAG endorses the plan for vaccination during repatriation and emphasizes its proper implementation and monitoring.

Karachi
The consultation panel views Karachi as an increasingly tenacious polio reservoir in Pakistan (and the world). With its 20 million population and the massive daily movement of people in and out of the city, the potential for amplification and export to other parts of Pakistan and internationally remains alarmingly high. Stopping poliovirus transmission in Karachi is of the highest priority.

The panel commended the Government of Sindh on the steps taken to strengthen programme oversight and accountability. The TAG was also pleased to see the very positive developments in involving local community members in the sensitive reservoir areas of the super-high risk union councils. It regards the implementation of the female community volunteer/mobilizers initiative as a milestone development and hopes that the initiative can be further expanded to other areas. Female community volunteers were able to vaccinate more than 64,000 children in areas previously unreached.

The panel expressed concern over the disabling environment for field workers, particularly with regard to security. Since November 2014, three supplementary immunization activities have been missed in parts of Karachi due to security-related issues. Recent efforts for closer coordination between PEI and security forces are encouraging but require full synchronization of the operational and security plans before such an enabling environment exists.

The panel stressed that the quality of campaigns in Karachi must be further improved. Since 2010, the non-polio AFP rate for Karachi has steadily declined and only one-third of the LQAS lots passed in the recent supplementary immunization activities.
Enhanced government accountability, social and community engagement, improved campaign quality, provision of Polio Plus and a secure environment for polio activities should be seen as the benchmarks for polio eradication activities in Karachi.

The panel makes the following recommendations.

17. Ensure that the Sindh EOC has the required political support from all stakeholders and parties, to enforce accountability.
18. Fully synchronize operational and communication plans with those of the law enforcement agencies to create an enabling environment for vaccinators and their supervisors.
19. Implement IPV-OPV supplementary immunization activities in the remaining high-risk union councils.

The panel endorses the supplementary immunization strategy for the 8 super high risk union councils and the 49 high-risk union councils in Karachi (February–March 2015). The TAG stresses the importance of reaching chronically missed children during these campaigns.

**Quetta block**

The panel commends the Government of Balochistan for the implementation of all supplementary immunization activities as per plan and for its persistence with the successful introduction of IPV in high-risk union councils of Quetta block – despite the severe deterioration in security. The TAG recognized the good local initiatives (permanent polio teams), but recommended providing better evidence of their impact on access and coverage. The TAG also noted that accountability has improved since actions are regularly taken against poor performers by DPECs and the Health Department.

Available data indicate that pockets of missed children persist due to operational failures and refusals, particularly in Kila Abdullah, the
epicentre of the current outbreak. Challenges with team selection (lack of females, high turnover) and morale (delayed payments, repeated campaigns, deteriorating security) contribute to suboptimal campaign quality.

In the past, Balochistan has demonstrated its capacity twice to stop WPV transmission; the panel is hopeful that this capacity will be demonstrated again.

The panel recommends the following actions.

20. Strengthen accountability at all levels.
21. Re-establish and maintain cross-border coordination with southern Afghanistan to ensure that all communities in the border areas will be reached.
22. Focus activities in the high-risk union councils/tehsils for the remainder of the low transmission season.

_Central Pakistan_

The flood-prone districts in north Sindh, south Punjab, and south-east Balochistan (Central Pakistan) must be considered as one epidemiological block sharing many characteristics such as weak AFP surveillance, low routine immunization, high population movement (daily, temporal and seasonal within and between the 3 provinces.), poor sanitation and malnutrition. Since September 2014, WPV was confirmed in 7 AFP cases in central Pakistan, with most recent case on 7 January 2015. More worrisome, genetic sequencing of positive environmental samples in 2014 demonstrated orphan viruses undetected for at least 2 years. Circulation of orphan viruses in this region warrants serious programmatic attention.
The consultation panel makes the following recommendations.

23. Launch a coordinated initiative to identify and resolve the gaps in vaccination activities and AFP surveillance in Central Pakistan.
24. For all three provinces – Balochistan, Sindh and Punjab – engage in a consultative session for defining and addressing the issue.

The panel endorses the suggestion for a coordination process.

Punjab
The panel congratulated the Government of Punjab on its continuing strong commitment to PEI. Punjab has put in place robust coordination mechanisms involving both administration and health. Strong monitoring systems exist that are raising the bar for poor performers. The electronic tracking of vaccinators and supervisors (E-vacc and Health Watch as part of the Chief Minister’s roadmap initiative) has introduced a high level of accountability. The panel also commended Punjab for its strong focus on routine immunization using standalone as well as the available PEI structures and resources, the use of innovative approaches to reach a maximum number of children and its enhanced focus on migrant/mobile populations during the supplementary immunization activities.

Environmental samples in Lahore have shown persistent virus circulation for 7 months indicating that pockets of missed populations still exist, especially among migrants. While the District Government of Lahore has taken many initiatives to improve campaign quality, disaggregated data on missed children among migrants and mobile populations and for other high-risk communities have yet to be expressed.

The panel recommends the following.
25. Take urgent steps to ensure that all high-risk migrant communities are included in the microplans of Lahore and Rawalpindi and systematically document all such steps.

26. Find solutions for establishing adequate numbers of language-appropriate and culturally appropriate teams of vaccinators and supervisors with focus on high-risk areas/populations (particularly Rawalpindi and Lahore).

27. Disaggregate and report data on missed children among migrant and displaced populations and among settled host communities.

28. Implement Punjab’s mobile population strategy in the entire province, especially in South Punjab (in addition to Rawalpindi and Lahore).

29. Continue efforts to improve routine EPI, particularly in high-risk union councils.

**Evaluation**

The consultation panel reiterated that there are 8–10 weeks left before the low transmission season draws to a close. Maximum efforts must be undertaken now to fully implement the plans and the recommendations from this consultation.

The panel recommends the following actions.

30. Document progress from now.

31. Evaluate progress in implementation of the low season plans in 8 weeks (national EOC).

32. Conduct a review of the implementation at the end of the low season (TAG).