

Summary report on the

# Technical Advisory Group meeting on poliomyelitis eradication for Pakistan

WHO-EM/POL/418/E

Islamabad, Pakistan  
4–5 June 2015



**World Health  
Organization**

Regional Office for the Eastern Mediterranean

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## Contents

1.	Introduction .....	1
2.	Conclusions .....	7
3.	Recommendations .....	9

## **1. Introduction**

The meeting of the Technical Advisory Group (TAG) on Polio Eradication in Pakistan was held on 4–5 June 2014 in Islamabad. The meeting, chaired by Dr Jean-Marc Olivé and assisted by the TAG members, was opened by Saira Afzal Tarar, Minister of National Health Services Regulation and Coordination, Pakistan, and was attended by the Pakistan Polio Eradication Initiative team led by Senator Ayesha Raza Farooq, the Prime Minister's Focal Person for the eradication activities. Local and international partners and donors were also represented at the meeting.

The TAG meeting occurred at a time when global attention is riveted on the progress of polio eradication in Pakistan and Afghanistan. Globally, of the 26 cases of wild poliovirus (WPV) reported in 2015, 24 (92%) were reported in Pakistan and 2 (8%) in Afghanistan. Even though the number of cases reported by Pakistan in 2015 has declined from the 84 reported over a similar period in 2014, the country remains one of only two nations that still report WPV. Nigeria, the other endemic country has not reported any case since July 2014. Outside the endemic countries, the last reported case was in Somalia in August 2014.

Cases of WPV were detected from poliovirus transmission reservoir areas in the Federally Administered Tribal Areas (FATA) (7 cases) and Khyber Pakhtunkhwa (10 cases), as well as from Quetta block (3 cases) and interior Sindh (4 cases). No cases have been detected from the Karachi reservoir areas since October 2014.

The security situation in Pakistan continues to improve and is gradually allowing the programme to reach more of the persistently missed children: South Waziristan is now fully accessible; in Khyber agency access has also steadily increased while North Waziristan remains

closed to regular vaccination efforts and still depends on *hujra* vaccination where possible. In Khyber Pakhtunkhwa the proportion of children that are truly inaccessible due to insecurity has also steadily declined. Despite these improvements, it is estimated that at the very least 60 000 children are still beyond the reach of the programme.

Insecurity as well as poor quality immunization campaigns, rather than inaccessibility, hampers vaccination efforts in Balochistan: half of the recent campaigns could not be carried out as planned because of inadequate security arrangements for vaccinators. In interior Sindh, where the presence of multiple genetic lineages points towards major immunity gaps, the main obstacle for interrupting virus transmission is poor quality supplementary immunization activity (SIA) due to operational shortcomings. In both Quetta block and interior Sindh, re-established persistent transmission remains a real threat.

The TAG meeting was held at the end of the low transmission season of 2014/2015, immediately following a year in which Pakistan reported one of its highest case numbers in recent times. The TAG was asked to review progress made since the beginning of 2015 and to evaluate the plans for the next low transmission season.

The objectives of the meeting were to assess the efforts made by the Pakistan programme towards the eradication of polio during the low transmission season 2014/2015 and the plan of work for the remaining months of 2015 and the beginning of 2016 and to identify gaps and develop technical consensus on the mechanisms for overcoming the remaining challenges to the eradication effort.

The Government of Pakistan and the Global Polio Eradication Initiative partners had a number of questions that they put to the TAG.

- Are we on track to interrupt transmission with our current strategy?
- Have we struck the right balance to interrupt transmission of WPV and circulating vaccine-derived poliovirus (cVDPV)?
- What is the extent of synchronization within Pakistan and with Afghanistan?
- Does the TAG endorse the allocation of additional inactivated poliovirus vaccine (IPV) to complete the current Pakistan IPV–SIAs plan?
- Should the Pakistan programme continue to implement targeted IPV–SIAs in 2016 and where?

### *Epidemiology*

There has recently been a significant drop in the number of confirmed WPV cases in Pakistan. In addition, data from environmental surveillance indicate a decline in the proportion of samples that are positive for polioviruses. However, the TAG notes the country is still in the first low transmission season of a post epidemic year. The TAG also notes the evidence of ongoing transmission in key reservoir and high risk areas across Pakistan. The areas of special concern are:

- Peshawar/Khyber Agency enclave: this area forms a special niche of transmission. It is a critical hub of transmission and may be the biggest hurdle on the path towards a polio free Pakistan.
- FATA: populations in a number of districts continue to both harbour the virus and act as a conduit of transmission to Afghanistan and neighbouring provinces in Pakistan. As can be seen with the recent detection of a WPV case in unreached corners of North Waziristan, the virus continues to survive in small pockets of unimmunized and/or underimmunized population groups straddling the Pakistan/Afghanistan border.

- The riverine band of territory at the confluence of East Balochistan, North Sindh and South Punjab that together make up the Central Pakistan epidemiological block, and the greater Quetta area along the frontier with Afghanistan, is a re-emerging threat to the goal of eradication. A combination of ineffective surveillance and poor quality SIAs has led to the deterioration of conditions in this zone. There is now significant risk of re-establishment of sustained transmission in this area. As has been seen by the number of viruses isolated from environmental surveillance in parts of Punjab province that originated in these populations, these zones are exporting WPV to other provinces.

### *Access to populations*

The TAG is encouraged by the decline in the inaccessible populations in all major areas of concern, particularly FATA, Peshawar and Karachi, and commends the people and government of Pakistan. However, the TAG notes the stagnation in the rate of improvement of accessibility in FATA since the fourth quarter of 2014. The TAG highlights the fact that, while these numbers may generally provide a good projection of the trend in the situation in regard to the improvement in accessibility, the actual numbers of inaccessible populations are likely much higher than indicated.

### *Federally Administered Tribal Areas*

The TAG congratulates the FATA team on significantly improving access to children in South Waziristan, Frontier Region Bannu and parts of Khyber Agency, and commends the collaborative role played by the political, administrative and military leadership at all levels. However, the TAG observes the threat represented by the continued transmission of polioviruses in unreached pockets of the population or



amongst consistently missed children in the province. In 2015, WPV has been detected in seven cases in the Khyber Agency and North Waziristan Agency.

#### *Khyber Pakhtunkhwa province*

The reduction of consistently missed children in accessible areas of Peshawar is commendable. The improved access to Town 4 neighbourhood achieved since the last TAG consultation is encouraging. The use of different strategies including the *Sehat-ka-Itihaad* (United for Health) to reach previously unreachable children is welcome. However, the continued reporting of WPV cases and the positive samples from environmental surveillance in Peshawar and central Khyber Pakhtunkhwa province is a clear indication of ongoing active poliovirus transmission.

The TAG observes the lack of truly synchronized SIAs in Peshawar and between Peshawar and neighbouring Khyber Agency. The absence of simultaneously implemented SIAs in this critical niche of WPV transmission is concerning. The TAG also notes the large variations in SIA coverage estimates depending on methodology. Estimates from market surveys have been significantly lower than those obtained using administrative data, which may be an indicator of poor quality SIAs.

#### *Balochistan province*

The TAG notes the implementation of innovative strategies including continuous community protective vaccination (CCPV) in several high risk union councils in greater Quetta.

The TAG views with concern the postponement of more than half of planned SIAs, and the fluctuating quality of the implemented campaigns (as highlighted by the high proportion of failed lots in lot quality assurance sampling surveys).

It is important to remember that on the previous occasion when active transmission was interrupted in this area, it took sustained efforts from all stakeholders. Considering the insufficient political commitment, the difficult security environment, the inadequate coordination of activities with the security services, and the gaps in basic programmatic areas, including inappropriate vaccination teams, ineffective supervision, and faulty microplanning, the biggest worry now is the re-establishment of entrenched local transmission.

#### *Sindh province*

The female community volunteer initiative has been a needed shot in the arm for the programme in Karachi. This has helped increase access to chronically inaccessible territories. The epidemiological evidence is beginning to reflect the new developments in this area.

However, the TAG notes with concern the poor surveillance in many areas of Karachi and other parts of Sindh province, the continuous evidence of possible local poliovirus transmission (both cVDPV and WPV positive in environmental samples), and the suboptimal quality of SIAs in many of the high risk union councils.

#### *Central Pakistan region*

The TAG is concerned by the continued circulation of different genetic clusters of WPV in North Sindh and neighbouring areas of

Central Pakistan. This is a clear indication of multiple introductions and sustained transmission of poliovirus. The TAG notes the attempts at establishing parameters for a successful response plan through a coordinated Central Pakistan strategy. The TAG emphasizes that only through the actualization of that coordination mechanism can the programme tackle the challenges presented in Central Pakistan. The primary risks in this area are clear: continued inadequate surveillance, poor interprovincial coordination and suboptimal SIA quality.

### *Punjab province*

The TAG recognizes the continued commitment of the Punjab provincial government towards the eradication of polio and the improvement of childhood immunization. Through robust monitoring and accountability frameworks, Punjab has ensured high quality immunization activities throughout the province. The outcome is plainly visible in the good results observed in the routine immunization programme. This has markedly contributed to the maintenance of high population immunity – a factor that has prevented the establishment of sustained WPV transmission despite evidence of multiple importations from reservoir areas. The main risk Punjab faces today is complacency. The threat of polio to Punjab will be over only after the last transmission chain in Pakistan and Afghanistan is broken. The programme also has some weaknesses in the South, where it is part of the Central Pakistan high-risk zone.

## **2. Conclusions**

The TAG recognizes the significant progress made by the programme towards the full implementation of the recommendations of the February consultation. The TAG especially commends the speedy

implementation and the increased focus on missed children. The TAG appreciates the use of innovations, including IPV–oral polio vaccine (OPV) SIAs, CCPVs and health camps.

The TAG commends the programme for the formulation and finalization of the National Emergency Action Plan. Implementation of this crucial plan will require the full attention of all involved. The progress made towards the realization of strong emergency operations centres at national and provincial levels is encouraging. The TAG emphasizes that such strong coordination mechanisms are essential to the full implementation of the National Emergency Action Plan at all levels.

There are a number of risks to the programme. Any break in the funding pipeline will adversely affect the full implementation of the National Emergency Action Plan. It is therefore vital that the commitment and the efforts of the government, the partners and the community be sustained. Any deterioration in their capacity to meet their obligations will constitute a new risk to the full implementation of the action plan.

As highlighted by the multiple surveillance reviews conducted in various high risk districts across the country and the detection of multiple lineages of WPV (some orphan) in Central Pakistan, poor quality surveillance for acute flaccid paralysis in key areas could lead to false confidence about the absence of WPV cases and breed complacency, and ultimately result in the non-detection of ongoing poliovirus transmission. An additional risk to be wary of is entrenchment of transmission in the Quetta block and Central Pakistan.

The TAG believes that eradication in Pakistan is within reach. A clear-cut plan has been presented. High quality programme

implementation is now essential if the goal of stopping WPV circulation is to be achieved before the end of the next low transmission season in early 2016. This is, however, dependent on all plans being fully operationalized by July 2015, preparatory campaign activities completed by August, and all activities implemented to the highest quality starting September. Only then will it be possible to get 100% of the children of Pakistan accessible and adequately vaccinated.

### **3. Recommendations**

#### *Overarching recommendations*

1. Eradication efforts should be at their peak by September 2015. Considering the critical importance of every scheduled mass immunization day between September 2015 and May 2016, the TAG urges the programme to complete all planned activities (including operational planning and preparatory campaign activities, e.g. micro-planning) aimed at ensuring high quality campaigns by August, and the programme should be at full implementation by the start of the September national immunization days (NIDs). In this regard it is vital that the government put all efforts into reaching the still inaccessible children.
2. Roll out the National Emergency Action Plan 2015/2016 – the TAG urges the implementation of the plan at all levels and the finalization of the work plans by the end of July. At the same time, the TAG recommends the establishment of effective oversight processes that include close monitoring at meetings of oversight bodies at national and provincial levels. The programme should develop and implement a holistic accountability and performance

management framework at all levels of implementation. The TAG noted the considerable delays in the payment to vaccinators and reiterates the significance of ensuring all monies owed to frontline workers be fully paid before the end of Ramadan.

3. Ensure funding gaps do not disrupt National Emergency Action Plan priorities. The global eradication efforts cannot afford delays in Pakistan due to lack of resources. The TAG recommends that the Government of Pakistan together with international partners immediately find a way to fill the current funding gap for 2015 and 2016–2018.
4. Build capacity of and improve coordination in all emergency operations centres. In order to ensure that all of these centres (national and provincial) can meet their institutional functions, the TAG recommends that federal and provincial governments, with full backing from the international partners, continue strengthening their capacity by providing adequate staff and other needed support.
  - The TAG also recommends that the national and provincial emergency operations centre coordinators continue to meet on a monthly basis as the National Polio Management Team.
  - Considering the importance of close collaboration between the FATA and the Khyber Pakhtunkhwa emergency operations centres, and the proximity of their physical locations, the TAG recommends the establishment of close coordination mechanisms between the two provincial centres.
  - To enhance the authority of the emergency operations centres and their capacity to deliver, the TAG recommends monthly meetings of the Prime Minister’s Focus Group, and monthly meetings between the chief secretaries, district deputy

commissioners and the provincial emergency operations centre coordinators. The TAG also recommends quarterly National Task Force and Provincial Task Force meetings in line with National Emergency Action Plan requirements.

5. For the overall SIA strategy for 2015/early 2016, the TAG endorses the schedule as proposed in the National Emergency Action Plan 2015/2016 and welcomes the focus on quality SIAs targeting continuously missed children as the best means to achieve eradication.
  - The TAG advises the programme to remain flexible and able to take advantage of any emerging epidemiological situation that may allow for accelerated eradication through targeted, high quality, mop-up campaigns.
  - Considering the possibility of interruptions or delays in the vaccine supply pipeline and the need to ensure the required continuous availability of OPV doses within the country, the TAG encourages the Government of Pakistan to pursue a waiver for the use of OPV from currently non-licensed but WHO pre-qualified manufacturers.
  - Considering the evidence suggesting persistent presence of cVDPV2 and the timeline for the global shift from trivalent (tOPV) to bivalent (bOPV) vaccine in April 2016, the TAG endorses the use of tOPV in subnational immunization days (SNIDs) in October 2015 and NIDs in March 2016. The TAG agrees with the utilization of tOPV in targeted campaigns in the eight super high risk union councils in Karachi in June/July 2015. The TAG also supports the use of tOPV during IPV–OPV SIAs planned for 49 high risk union councils of Karachi in June 2015.

- The TAG requests that the programme consider conducting a thorough assessment of the general epidemiological situation regarding cVDPV after the SNIDs in October 2015, and subsequently to put in place a plan that addresses the recommendations of the assessment.
6. Follow a carefully calibrated IPV/OPV strategy. The TAG notes existing programme plans for IPV–OPV SIAs in the second half of 2015. Given the current limitations in global IPV supply, the TAG stresses the importance of following global guidelines for IPV use, with priority being given to areas of inaccessibility as they become accessible and/or to interrupt the final chains of transmission in the remaining key reservoir areas. All efforts should be made to achieve a high coverage of OPV during the introduction of IPV in the routine immunization programme starting July 2015.
7. Auxiliary strategies must be targeted and dynamic.
- The TAG advises that the use of innovative auxiliary strategies be tactical and flexible. Such strategies should augment the primary mechanism of intervention of the polio eradication initiative. The use of health camps, combined IPV–OPV SIAs, CCPV, and other innovative ways of either directly enhancing overall population immunity or increasing OPV acceptance should remain highly targeted to areas with maximal potential benefit and ensure no accessible children remain unvaccinated.
  - To ensure these strategies remain dynamic, the TAG recommends that a process of continuous impact assessment be established and the first such evaluation be done by August 2015.



- The TAG commends the rationalization of permanent transit-point vaccination sites, with priority being given to informal crossing points along the border with Afghanistan, those making inter-provincial journeys or are on transit during SIA campaigns, seasonal workers, pilgrims, and populations displaced by natural or manmade events.
  - The TAG recommends the programme closely monitor the permanent transit-points and provide supportive supervision. The TAG urges the programme to assess the effect of permanent transit-points on the broader objective of reaching children not reached by regular SIAs.
  - The TAG recommends that the programme actively identify and monitor children who have not received any dose of OPV in previous campaigns (zero-dose children).
8. Target communications and social mobilization efforts towards campaigns.
- The TAG recommends that the programme ensures communication resources be primarily focused on preparing for campaigns that commence in September. In this regard, mass media, branding and programme communication activities should reinforce, not distract from, improved operational performance of vaccinators.
  - The TAG recommends that a clear plan should be made available by the end of July outlining the roles and activities of all communications and social mobilization units (COMNet, female community volunteers, other health workers) in supporting front-line workers during the preparatory (end of September) and the deployment (September 2015 to May 2016) phases.

- The TAG recommends the communication plan include clear measurable strategies to support localized, community-led recruitment of vaccinators (with the right profile) for effective OPV delivery. The plan should also enhance vaccinator training, and be able to provide feedback on post-campaign community perceptions that can be used for fast programme course correction if and/or where required.
9. Speedily implement recommendations from cross-border meetings: the TAG considers the implementation of all recommendations from the Pakistan–Afghanistan cross-border meetings critical to the successful eradication of polio in both countries. Both the Pakistan and the Afghanistan governments are urged to speedily endorse the plan presented and facilitate the implementation (in letter and spirit) of the agreed action items by September 2015. In particular, the TAG recommends that at least one regional/provincial cross-border meeting be held by August 2015 and that the programmes of the two countries develop a mechanism for monitoring and reporting the implementation of agreed actions to the national oversight bodies and to the TAG.
  10. Report on vaccine utilization and stock levels. The TAG acknowledges the efforts being made to improve vaccine management. In order to optimally manage vaccine supplies and minimize wastage, the TAG recommends that Pakistan initiate regular reporting on vaccine utilization and stock levels at all storage facilities in line with global standard operating procedures.
  11. Refine Poliomyelitis Eradication Initiative–Expanded Programme on Immunization synergy plans and accelerate implementation: repeated reintroduction of WPV in previously polio-free areas highlights the need for high quality campaigns and strong routine immunization. Without compromising the thrust of polio

eradication efforts, the TAG recommends that government and international partners continue refining the Poliomyelitis Eradication Initiative–Expanded Programme on Immunization synergy plans and accelerate implementation across the country.

12. Measure quality using good benchmarks.

- The TAG urges emergency operations centres to systematically track and use improved SIA monitoring capacity (this includes intra-campaign and third party post-campaign monitoring data from support centres and the expanded lot quality assurance sampling) to ensure no children are missed.
- The TAG recommends that all microplans in Tier 1 (reservoir) districts be reviewed prior to September 2015, validated by third party monitoring and regularly updated before and after every campaign round.
- The TAG urges the programme to follow up diligently on the recommendations of recent surveillance reviews in reservoir and high risk areas; the emergency operations centres should ensure gaps are systematically addressed.

*Federally Administered Tribal Areas*

13. Eradication in Pakistan is conditional on WPV interruption in North Waziristan and Khyber agencies; the TAG recommends that unreached population pockets in all FATA be identified, added to microplans and consistently targeted during the SIAs. In order to achieve this, the support of the Pakistan Army is critical.
14. Notwithstanding the recommended SIA schedule, the TAG recommends that any opportunity to reach previously inaccessible

children that may present itself at any time (even during the high transmission season of July and August or Ramadan) be utilized speedily and appropriately.

15. The TAG also recommends that planned IPV–OPV SIAs be implemented urgently.

*Khyber Pakhtunkhwa province*

16. The importance of maintaining accessibility in newly accessible areas in Peshawar and Tank cannot be denied. The TAG recommends that improving accessibility be a top priority for the Government of Pakistan, with any undiscovered or hitherto unreached pockets targeted with rapid, high-quality campaigns.
17. The TAG reiterates the importance of high quality coverage in Peshawar and Central Khyber Pakhtunkhwa; a consistent, true coverage (validated) of over 90% will be required to interrupt transmission. The TAG therefore discourages reliance on administrative coverage estimates and recommends the use of more robust mechanisms to assess quality at the lowest possible geographic unit.
18. The TAG endorses the targeted use of CCPV in Peshawar and other parts of Khyber Pakhtunkhwa whenever required due to security considerations.
19. The TAG also endorses the proposed 4-day campaign strategy (3 campaign days and 1 catch-up day to vaccinate missed children) in the Khyber Pakhtunkhwa programme, however, this approach must be provided with the same level of security as for the previously used 1–2-day campaigns.

20. The TAG firmly endorses plans to maximize female vaccinator involvement and strongly recommends that all SIAs in Peshawar and Khyber Agency (FATA) be fully synchronized.
21. The TAG recognizes that the risk in south Khyber Pakhtunkhwa remains, and recommends the sustained implementation of high quality SIAs to maintain or increase population immunity.
22. The TAG understands that there are a large number of temporarily displaced persons currently in and around Khyber Pakhtunkhwa. The TAG recommends that a process of closely monitoring and documenting the status of these displaced persons be instituted and their full vaccination ensured before repatriation.

*Sindh province*

23. Achieving and maintaining high population immunity through quality SIAs is essential for Karachi. The TAG welcomes the female community volunteers initiative but would like to remind the programme not to see this initiative as a substitute for high quality SIAs. The TAG recommends that vaccination data from female community volunteers be analysed to assess the effectiveness of the strategy; any deficiencies in quality identified should be addressed.
24. The TAG also recommends that contingency plans for this area be drafted before the flood season between July and September.

*Balochistan province*

25. The TAG urges the programme to take immediate steps to strengthen management and accountability at the district level.
26. In agreement with the National Emergency Action Plan and based on previous positive experiences in Balochistan, the TAG

recommends that high risk union councils and *tehsils* be immediately prioritized for microplan revision; all plans should be fully up to date by the end of August 2015.

27. The TAG recommends that a civil-military coordination mechanism be established and campaign security be fully integrated into the operational planning process.
28. The TAG recommends that CCPV be rolled out as rapidly as possible in those areas where this strategy offers genuine benefits; the strategy should be closely and continuously monitored and evaluated for its impact on population immunity.

*Punjab province*

29. The work to eradicate polio from Pakistan and the world will not be over until it is completed; the TAG urges the Punjab team to be wary of any complacency.
30. The good work done by Punjab must be maintained and further strengthened. The TAG recommends that renewed focus be placed on migrant and mobile populations and areas within Punjab that receive high levels of such populations.
31. The continued focus on improving the quality of routine immunization is encouraged; the TAG recommends additional focus be placed on key areas in Lahore, Rawalpindi and South Punjab.

*Central Pakistan*

32. The ongoing events in Central Pakistan pose a high risk to the programme in North Sindh, East Balochistan and South Punjab, and could lead to a potential reversal in gains across Sindh and

other parts of the country. The TAG therefore endorses the plan of initiating CCPV in selected parts of central Pakistan, and recommends the validation and updating of all microplans across the riverine (*kacha*) band at the confluence of the three provinces.

33. To overcome the challenges faced in Central Pakistan, an effective close coordination between the governments and the emergency operations centres of Balochistan, Punjab and Sindh is important; the TAG recommends the appointment of focal persons within each provincial centre to coordinate activities among themselves and with the Central Pakistan Response Unit based in Sukkur.



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