Report on the

Meeting of the Technical Advisory Group on Poliomyelitis Eradication in Afghanistan and Pakistan

Islamabad, Pakistan
24–25 March 2011
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1. INTRODUCTION

The Technical Advisory Group (TAG) on poliomyelitis eradication in Afghanistan and Pakistan held a meeting in Islamabad, Pakistan on 24 and 25 March 2010. The objective of the meeting was to review progress towards poliomyelitis eradication in the two countries, one year into the new global initiative strategic plan 2010–2012 for polio eradication. The programme and list of participants are attached as Annexes 1 and 2, respectively.

The meeting was opened by Dr M.H. Wahdan, Acting Chair, who congratulated the people and Government of Pakistan on Pakistan Day, which had been celebrated the day before. He congratulated Dr Robert Scott, Chairman Global Polio Plus Committee and Mr Aziz Memon, Chairman Polio Plus Pakistan for their decoration by the President of Pakistan in recognition of the support of Rotary International for polio eradication in Pakistan. He also congratulated Dr Bruce Aylward for taking up his new position as WHO Assistant Director-General.

Dr Guido Sabatinelli, WHO Representative in Pakistan, welcomed the participants and delivered a message from Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean. In his message, Dr Gezairy acknowledged the efforts being made to achieve the target of polio eradication and referred to the development of the national emergency action plan launched by the President of Pakistan and the efforts being made to ensure its implementation at all levels. He also referred to the continued efforts of the Government of Afghanistan and the innovative approaches being made to improve access and ensure quality, particularly, in the high risk areas of southern Afghanistan.

The meeting was then addressed by Dr Assad Hafiz, the Federal Director-General of Health, Pakistan, who noted that the TAG was meeting at a very crucial time and reiterated the strong commitment of the Government of Pakistan to success in achieving eradication.

Dr Mashal, Director-General of Preventive Services, Afghanistan, highlighted the achievements of Afghanistan since the last meeting of the TAG, which were reflected in a reduced number of cases and in keeping circulation restricted to the southern region. The fact that Afghanistan did not see any cases as a result of the severe outbreak that occurred in neighbouring Tajikistan was a reflection of the strength of the programme.

Dr Bruce Aylward, Director, Global Polio Eradication Initiative, thanked the participants and reaffirmed that polio eradication remained his first priority. He highlighted the latest developments in polio eradication globally, and referred to the successes as well as to the challenges facing the programme during the past year. He drew attention to the profound drop in wild poliovirus type 3 (WPV3) which might be on its way to be eradicated. He referred to the decrease in the biodiversity of the wild viruses and to the success achieved in rapidly controlling outbreaks which appear as a result of introduction of WPV in polio-free areas and highlighted the remarkable success in India and Nigeria. He also referred to the major risks in various parts of the world and the operational priorities to deal with them. Dr Aylward indicated that Pakistan was now in the spotlight globally, since it was the only
endemic country which had witnessed an increase in the number of cases in 2010 and also 2011.

Dr Tahir Mir, Regional Adviser, Polio Eradication, presented the regional achievements with respect to the Global Strategic Plan 2010–2012. He indicated that although the implementation of the milestones related to surveillance appeared to be on track, this was not the case with respect to reaching the required level of immunization in Pakistan coverage in many of the priority areas such as in Federally Administered Trial Areas, some towns of Karachi and some of the high risk districts of Khyber Pakhtunkhwa and Baluchistan provinces. He said that in Afghanistan, surveillance is on track and the supplementary immunization activity milestone is progressing but with issues of concern in the south. Re-established transmission in south Sudan had stopped since June 2009. However, three of 10 states still have not met the target of < 10% missed children during each supplementary immunization activity.

Dr Altaf Bosan, EPI Manager, Pakistan, presented a follow-up of implementation of previous TAG recommendations. It was clear that many of the recommendations were and or are still being implemented. The programme followed the TAG recommendations concerning the schedule of supplementary immunization activities and the type of vaccine to be used. He referred to the improvements being made to ensure government and political oversight and steps to be taken to address the ongoing transmission in high-risk districts, including efforts to access and vaccinate children in security-compromised areas. He concluded by stating that although there has been some success, no real breakthrough has been achieved yet.

2. **PAKISTAN**

2.1 **Epidemiological situation**

*Dr Nima Abid, WHO Team Leader, Pakistan*

The history of polio eradication in Pakistan reflects a period of significant progress in interrupting wild poliovirus circulation from the beginning of the programme until 2005, resulting in the gradual reduction in the number of cases from an estimated 20,000 a year when the programme was launched to only 28 confirmed cases in 2005. Progress stagnated in 2006 and 2007, followed by an upsurge of cases starting in 2008 to the present. In 2010, Pakistan reported 144 cases (120 WPV1 and 24 WPVs) from 40 infected districts, which was the largest number of cases reported since 2000. The majority of cases during the past 3 years were reported from the known transmission zones of FATA and associated areas of the central Khyber Pakhtunkhwa (KP) province, Quetta Block (Quetta, Pishin and Killa Abdullah) in Baluchistan province and Karachi, as well as, from the repeatedly infected central Pakistan zone of south Punjab, north Sindh and east Baluchistan. The significant spread in the second half of 2010 was exacerbated by the devastating floods that swept through Pakistan resulting in significant population movement from transmission zones to other areas in Pakistan including main population centres in KP, Sindh and Punjab. In 2011 as of 23 March, 23 WPV1 cases were reported again from the same known transmission zones. It is noted that spread outside the 33 high districts in the transmission zones is usually short lived and is
contained within few months. It is also noted that Gilgit–Baltistan and Azad Jammu Kashmir (AJK) have not reported any polio cases for more than 10 years.

The main epidemiological characteristics of polio cases include the following:

- The majority are under 2 years of age with predominance in males.
- More than 70% are from rural areas and almost all are from poor families.
- More than half the cases are inadequately immunized, some having not received any doses of OPV. At the same time, the vaccination status of non-polio AFP cases shows the receipt of much higher doses of OPV, with the exception of non-polio AFP cases from high-risk areas, which showed that they received less than the number of doses which were provided in their areas of residence through supplementary immunization activities.

2.2 Seroprevalence data

The TAG noted data from a survey of the seroprevalence of antibodies to poliovirus types 1, 2, and 3 carried out in Khyber Pakhtunkhwa (Peshawar), Sindh (Karachi) and Punjab (Lahore) in children 6–11 months and 36–47 months of age. High levels of seroprevalence to poliovirus type 1 were found in children sampled in all three sites, ranging from 91.4% in 6–11 month old children in Karachi, to 99.6% in children 36–47 months of age in Peshawar. Seroprevalence to poliovirus type 2 was over 93% in all except the 6–11 month age group in Karachi (71%); and to poliovirus type 3 was above 80% in all groups but lowest in the 6–11 month age groups in Karachi (80.3%) and Lahore (85.4%). In all three sampled sites, children in the age group 36–47 months had high levels of seroprevalence (over 90%) to all three poliovirus types. The study found a clear relationship between seroprevalence and immunization status, with children having received 5 or more doses of OPV having levels of protective antibody ranging from 99% to type 1, to 93.3% to type 3. While these data are specific to the study population and cannot be easily extrapolated to the general population in these age groups, they do demonstrate that immunization with OPV in the context of Pakistan results in high levels of immunity to poliovirus.

2.3 Surveillance quality

Dr Obaid Ul Islam, National AFP Surveillance Coordinator

The key surveillance indicators continued to be at international standard at both the national and provincial levels as well as in the majority of districts. However, they are sub-optimal in some key areas like Pishin in Baluchistan and Khyber Agency in Federally Administered Trial Areas (FATA).

The recommendations of the last Pakistan/Afghanistan TAG and the Regional TAG with respect to surveillance were closely followed up and implemented, especially in relation to quality issues in surveillance for migrants and mobile populations and for conflict-affected areas with evidence of improvement.
Special subnational field surveillance reviews were conducted in 18 districts. The majority were found to have decent surveillance quality and solid surveillance indicators. A few districts revealed some operational issues affecting sensitivity among migrant and mobile populations and in insecure areas. Time-bound action plans were developed and are being closely followed up to address sensitivity and quality issues.

It is planned to conduct a desk review of surveillance in the second quarter of 2010 followed by targeted and focused surveillance reviews at subnational level and an international review all over Pakistan in the third quarter of 2011.

The national polio laboratory has maintained a high standard of performance despite the high workload of testing stool samples from AFP cases and contacts from Pakistan and Afghanistan as well as testing environmental samples. The discovery of a wild virus from the environment, particularly in areas without polio cases, triggers epidemiologic investigation including review of surveillance data and active case search in these areas as well as appropriate response.

2.4 Campaign monitoring data quality

Dr M. T. Iqbal, National Campaign Coordinator

Pre-campaign planning, campaign implementation and outcome are monitored regularly to judge campaign quality. Pre-campaign and campaign implementation data are regularly collected by campaign support persons and UN staff while post campaign (outcome) monitoring is carried out by independent monitors. In addition, market surveys are carried out on day 5 of the campaign and have been helpful in identifying areas missed or poorly covered.

It has been observed that there is some mismatch between coverage data through independent monitoring and poliovirus epidemiology. A quality check on independent monitoring, the lot quality assurance system (LQAS), was introduced and conducted on day 6 of the campaign, particularly in all high risk districts/towns/agencies.

Examination of the 3 monitoring data sets (market surveys, independent monitors and LQAS) for the last 3 campaigns showed 64%–72% concordance when considering 5% difference in the data set as permissible. When considered in the light of other epidemiological data, it was found that LQAS is more helpful in identifying areas with poor performance.

To address the discordance in monitoring data, the programme initiated several steps to make independent monitoring more reliable including randomization in sample selection, reduction in surveyor team workload, improved training and enhanced field supervision/monitoring.
2.5 Salient features of the national and provincial emergency action plans  
*Dr Altaf Bosan, National Manager EPI, Pakistan*

In response to the epidemiologic situation, the President of Pakistan advised the development of a national emergency action plan for polio eradication. The Ministry of Health supported by Partners developed the plan in December 2010. The plan was endorsed by the Prime Minister, Governors, Chief Ministers and Chief Secretaries of the provinces and was launched by the President of Pakistan on 24 January 2011.

The plan aims at stopping circulation of WPVs before the end of 2011 through achieving consistent government oversight, ownership and accountability for the performance of the polio eradication programme at each administrative level in Pakistan, with the aim of ensuring consistent access to children in security-compromised areas and consistent immunization of all children, particularly, in the districts/agencies and populations that are at highest risk of sustaining transmission of the poliovirus.

This plan brings new elements to the polio eradication programme.

- Defining polio eradication as a national emergency.
- Ensuring that all arms of government are engaged in polio eradication, particularly, District Coordination Officers (DCOs), political agents and deputy commissioners and line departments other than health.
- At delivery level, ensuring:
  - Preparation of microplans for all union councils in consultation with the local community;
  - Proper selection and training of vaccination teams and involvement of government workers to ensure accountability.
- Developing and sustaining oversight at district, province and national levels through task forces and committees and developing process and outcome indicators.
- Concentrating efforts on the highest risk areas and populations and ensuring that all children in these areas are reached with polio vaccine at every immunization round.

Secretaries of health from all the provinces presented their provincial action plans in line with the national emergency action plan and highlighted action taken relevant to the priorities in their provinces.

2.6 Communication activities  
*Ms Cathy Williams, UNICEF Pakistan*

In response to the recommendations of the last meeting of the of the Pakistan/Afghanistan TAG calling for a review of the national communication system and developing it to give particular emphasis on sustaining community engagement and developing strategies for demand creation among communities, a new comprehensive strategy was developed to address the above recommendations and, at the same time, provide support to the national emergency action plan.
The new strategy envisages a significant increase in the number of communication officers, particularly in high-risk areas (100 District Health Communication Support Officers and between 150 to 400 union council level communication officers. The new strategic plan equally ensures a focused engagement with the media to ensure that the objectives of the national emergency action plan are clearly communicated.

There is special focus on KP/FATA and Baluchistan in the new strategic plan with communication strategies designed to improve access through the development and communication of localized information, education and communication materials and messages, engaging more local influencers and building new partnerships with non-governmental organizations and community-based organizations, particularly through a dedicated polio communication network at union council level. This measure will also provide a framework for future integration of communication messages such as promoting routine immunization.

2.7 Discussions and conclusions

The TAG expressed alarm at the intense transmission of WPVs in Pakistan and feels that Pakistan is still in danger of being the last polio-endemic country in the world.

Transmission of WPV in Pakistan remains essentially restricted to 33 high-risk districts in known transmission zones. Transmission persists in these zones due to inability to access children for immunization because of conflict and continued problems with the quality of supplementary immunization activities resulting in the consistent failure to reach children with vaccine. As well, the high level of population movement in and out of these zones and the existence of large migrant and mobile populations in many areas are responsible for the spread of wild viruses in polio-free areas, as shown from environmental monitoring. However, experience has shown that outbreaks outside the transmission zones have largely been possible to control within a few months through mop-ups and planned supplementary immunization activities.

The TAG noted the following.

- The most recent case due to WPV3 was in November 2010 in FATA. This is the same as the situation in Afghanistan, where WPVs has not been detected since June 2010. This is the most positive aspect of the epidemiology of polio in Pakistan and the TAG feels that WPV3 may be on its way to disappearing from Pakistan. However, access problems in FATA mean that this observation does not necessarily apply to areas of inaccessibility.
- The sero-survey results showing high seroprevalence rates in the studied populations demonstrate that immunizations with OPV in Pakistan result in high levels of immunity.
- The performance of the national AFP surveillance system is generally adequate in most areas while it is still suboptimal in some of the high-risk districts. Actions taken to improve sensitivity of surveillance in these districts and among migrant and mobile populations were noted with satisfaction, and together with the targeted field
surveillance reviews and the continuation/further extension of environmental monitoring, it is hoped that all wild poliovirus circulation will be detected.

- The fact that most of the isolated viruses from environmental monitoring are genetically linked to the viruses known to be circulating in FATA and KP indicates the importance of migrant and mobile populations in the spread of wild virus around the country.

- Routine immunization in Pakistan has not been able to reach the 201 090/80 goal. The review conducted in Punjab revealed a number of issues that have been hampering the programme. The TAG again emphasized that raising routine immunization will be critical for eradication and also for keeping Pakistan polio-free in the future.

- The TAG was pleased to note the new communication strategy aimed at providing support to national emergency action plan with particular focus on ensuring access in areas of insecurity and high quality performance, especially in high-risk districts.

- The TAG noted with satisfaction a positive climate for progress. Several steps are being taken by the federal and provincial authorities as well as polio partners over the past months to support the national polio eradication programme to recover from its setback of the past 3 years and resume progress in eradicating polio.
  - The development of the national emergency action plan with its clear indicators.
  - The formation of a national emergency task force on polio eradication which, together with the inter-provincial committee on polio, provides a suitable forum for regular review of progress under the national emergency action plan and addressing any constraints.
  - The formation of provincial emergency plans for polio eradication for each province under close oversight of provincial chief secretaries and secretaries of health. As well, provincial task forces or steering committees have been formed to oversee implementation of provincial plans.
  - Formation of polio monitoring cells at both national and provincial levels to monitor implementation of the emergency plan and identify issues requiring action.
  - In FATA, the establishment of civil and military coordination committees (CMCC) in all seven agencies, offering the hope of improving access to some populations that may not otherwise be reached.
  - Development of district/town/agency specific plans for all the 33 high risk districts.
  - Development of a strategy to access mobile and migrant populations.
  - Development of a new communication strategy in support of the national emergency action plan and responding to the regional TAG recommendations emphasizing community engagement and demand creation among committees.

These developments, in addition to the deep understanding of management issues demonstrated by Provincial secretaries of health and their rigorous follow-up of the implementation of the national emergency action plan were very encouraging and offer the prospect of a revived improved polio eradication programme at all levels.
The TAG is well aware that it is only the full and effective implementation of these plans and strategies that will lead to programme improvement.

2.8 Risks

The TAG considers the following as significant risks to polio eradication in Pakistan.

- Inadequate implementation of the national and provincial emergency plans. As noted above, the plans offer a solid platform to address programme shortcomings and to improve quality. The indicators of implementation included in the plans can be easily monitored at district, provincial, and national levels. While there is evidence that progress is being monitored and issues identified, there is not yet adequate evidence that monitoring is systematic, and that identified issues are being addressed in key provinces and at national level. If implementation of emergency plans is not forcefully and thoroughly carried out, quality will not improve, children will continue to be missed, and wild poliovirus will continue to circulate in Pakistan.

- Inadequate district specific plans for high risk districts. While all 33 high risk districts have specific plans, the quality of these plans is very variable, as reported to the TAG by provincial delegations.

- Access to children in FATA, and the quality of immunization campaigns in accessible areas. Failing to reach children in FATA, either due to lack of access or due to inadequate campaign quality in accessible areas, continues to be major risk which poses significant risks to the whole country.

- The continued mobility of populations in and out of the transmission zones. Migrant communities outside their own area are frequently underserved and under-immunized, missing both routine immunization and being inadequately covered during supplementary immunization activities, and these communities constitute a risk both for persistence of transmission and for spread of WPV within and beyond the transmission zones.

2.9 Recommendations

The recommendations below should be taken in the context of the strategies and actions detailed in the national emergency action plan.

Supplementary immunization schedule and choice of vaccine

1. The TAG endorses the national programme’s proposed schedule for supplementary immunization activities for the remainder of 2011 as follows.

   - NIDs in May using bOPV
   - SNIDs in June covering the 33 high risk districts (and other areas if epidemiologically appropriate) using bOPV
   - NIDs in July using bOPV
   - SNIDs in September covering the 33 high risk districts (and other areas if epidemiologically appropriate) using bOPV
• NIDs in October using tOPV
• SNIDs in December covering the 33 high risk districts (and other areas if epidemiologically appropriate) using bOPV

In any of these rounds, if adequate supplies of the vaccine of choice are not available, an alternative vaccine appropriate to the epidemiology should be used.

2. The configuration of the SIA schedule may be changed depending on epidemiology; the TAG may be convened in person or electronically to provide advice on this.

3. For 2012, the Government of Pakistan and partners should plan to conduct up to four national immunization rounds, and up to four subnational rounds. If four NIDs are conducted, 2 should be with tOPV and 2 with bOPV. Vaccine of choice for the SNIDs should continue to be bOPV.

Mopping up in response to wild poliovirus

4. In addition to the planned supplementary immunization activities, large scale, intensive mop-ups should be carried out in response to detection of:

• Any wild poliovirus type 1 outside the known high risk districts/transmission zones;
• Any wild poliovirus type 3 detected anywhere in the country.

5. The vaccine of choice for mop-ups should be the appropriate monovalent vaccine, or bOPV. An appropriate buffer stock of vaccines for mop-ups should be maintained at national level in accordance with previous TAG recommendations.

Implementing and monitoring the national emergency action plan

6. At the national level, in order to enable effective and consistent monitoring of implementation:

• The National Polio Monitoring Cell should immediately develop a format/template for district and provincial reporting on key indicators under the national plan. This format should be used for monthly reports to the Prime Minister, the national emergency task force and provincial steering committees.
• The first meeting of the national emergency task force in April should review progress in implementing the national plan, based on the key indicators reports referred to above. Inputs that can be made from national and provincial level to address issues and quality gaps should be provided. It is recommended that the situation in FATA should be given special attention.
• At the task force meeting the Government should clearly define how polio eradication is to be managed in the context of devolution in Pakistan, to ensure that the maximum benefit is derived from provincial responsibility for delivering the programme, and that key issues such as vaccine supply and the movement of funds are addressed.
7. At the provincial level:

- The IPCP should continue to meet quarterly to review progress and to identify key actions that must be taken by provincial governments in implementation of the national and provincial emergency action plans.
- Provincial steering committees should receive a report on implementation of provincial emergency plans every month. At their bi-monthly meetings the committees should concentrate in particular on issues of implementation in high risk districts to ensure that all children in these areas are consistently reached with vaccine.

**Improving quality in the highest risk districts and populations**

8. All high risk districts should review and update their district-specific plans immediately following the April SNID round. A major focus of the planning process should be on identifying the highest risk union councils/localities and identifying specific actions to be taken to improve quality in these areas. Implementation of the district specific plans in all high risk districts must continue to be vigorously pursued; at district and provincial levels progress should continue to be reviewed every month, in particular progress in the highest risk union councils/localities. The TAG emphasized that there are also high risk union councils outside the 33 high risk districts which deserved similar attention and inclusion in all supplementary immunization activities.

9. District polio eradication committees and agency civil military coordinating committees must be active in all high risk districts to ensure that plans can be implemented and that they are closely monitored. At subdistrict level, local committees should be formed wherever possible to obtain local commitment and accountability for the delivery of high quality campaigns.

10. The 33 highest risk districts and the key highest risk union councils in these districts should continue to be prioritized by provincial and federal government and partners, to ensure that the best possible district leadership and technical support is in place, that teams in these districts are fully up to strength, and that the full range of inputs included in district plans can be carried out.

3. ADDITIONAL SPECIFIC RECOMMENDATIONS

3.1 FATA and Frontier Region areas

- Progress in FATA and Frontier Region areas is vital to the eradication of polio in Pakistan. The national government and partners are urged to provide the highest possible level of technical, operational, and management support to FATA and frontier region areas in the implementation of FATA’s emergency plan.
- The programme in FATA and Frontier Region areas should retain the utmost flexibility in reaching children with vaccine and not be restricted only to implementation of planned supplementary immunization rounds; in particular the following approaches should be introduced/continued.
− Short interval additional dose (SIAD) strategies should be implemented in any area where it is necessary to rapidly increase immunity, in particular in areas where access is intermittent or where windows of opportunity exist to access children. The TAG, however, emphasizes the need for elaborate and comprehensive arrangements, social mobilization and monitoring.
− Permanent immunization sites should be established at every appropriate transit point to and from inaccessible areas to maximize the chances of reaching children; in addition to OPV, other interventions aimed at boosting immunity or increasing compliance may be considered at these sites.
− All organizations, whether government, nongovernmental, or military, carrying out delivery of health services in parts of FATA and Frontier Region areas should ensure that part of the service is immunizing with OPV all children less than five years of age who come into contact with the service; the FATA government and partners should ensure that these organizations have the necessary training and logistics to do this.
− Movement of IDPs out of restricted access areas should be addressed by rapid special SIAD activities to reach children as they become accessible, recognizing that the opportunity to reach them may be very brief.
− Specific communications strategies and approaches should be developed immediately for populations in FATA, in the context of the new national strategy, to raise awareness of polio and demand for immunization

• The TAG notes and endorses the strong ‘no tolerance’ policy of the FATA government for poor quality activities in accessible areas, and emphasizes that high, consistent coverage of children in these areas is critical to preventing the spread of WPV.
• Agency-specific plans should be reviewed by the FATA task force in advance of each round, given the very fluid situation, to ensure that activities in accessible areas are as high quality as possible, and that every possible avenue is being pursued to reach children in less accessible areas.

3.2 Khyber Pakhtunkhwa

• District-specific plans for the high risk districts should be reviewed and revised by the government and partners in a special exercise well in advance of the May NID round, and subsequently reviewed in advance of each round.
• Close coordination with FATA should be maintained to ensure that any populations moving in and out of FATA are identified, included in district microplans, and accessed with immunization in settled districts.
• Areas contiguous with FATA, or areas that constitute routes of movement in and out of FATA, should receive special attention in planning, preparation and implementation of immunization activities.
• Similar to FATA, KP should adopt flexible immunization strategies to ensure that children moving within KP and FATA are identified and accessed:
  − SIAD strategies should be implemented in any area where it is necessary to rapidly increase immunity, in particular in situations where concentrations of IDPs are present in settled districts
Permanent immunization sites should be established at every appropriate transit point where populations are moving from FATA areas to settled districts to the chances of reaching children.

3.3 Sindh

- Two rounds of high quality mop-ups in addition to planned supplementary immunization activities should be carried out in those districts affected by the current outbreak of WPV1 in central/southern Sindh, with the first round to take place as soon as possible.
- The provincial steering committee should meet as soon as possible in advance of the April SNID to review progress in implementation of the PEP and to identify issues which must be addressed to improve the quality of the April and May supplementary immunization activities rounds.
- District specific plans for all high risk districts and towns should be reviewed and revised in a specific process immediately following the April supplementary immunization activities round.
- Continued close attention must be paid to the high risk townships in Karachi, and in particular to those areas within these townships with substantial populations with links to FATA, KP and Baluchistan. The provincial steering committee should specifically review the situation in Karachi in each meeting.

3.4 Baluchistan

- The engagement of paramedics in ensuring the highest possible quality of supplementary immunization activities, particularly in the 5 high-risk districts, must be pursued as a matter of urgency. The TAG urges the Government of Baluchistan, political parties, and other advocates to intervene with paramedics associations to obtain a clear commitment to the effective implementation of polio eradication activities.
- District specific plans for the 5 high risk districts should be reviewed immediately after the April round of supplementary immunization activities. In particular plans for Killa Abdullah, Quetta and Pishin require careful attention; Killa Abdullah is currently the highest risk district in the province due to consistent sub-optimal campaign quality.

3.5 Punjab

- District-specific plans for all high risk districts should be reviewed and revised in a specific process immediately following the April round of supplementary immunization activities.
- All major population centres, including Lahore, Rawalpindi, Faisalabad and Multan, should develop specific plans for identifying migrant and mobile populations and ensuring they are included in microplans for supplementary immunization activities and routine immunization. Where large populations of underserved migrants are identified,
special immunization activities should be carried out to immunize these populations at minimum with OPV and ideally with all EPI antigens.

### 3.6 Communication and social mobilization

- The planned increases in staffing in high risk areas (67 DHSCOs and between 150 to 400 union councils level communication officers) aimed at strengthening the programme’s community engagement capacity in critical high risk areas should be implemented as rapidly as possible. Sub-district deployments should focus on the highest risk union councils and communities, as identified in district specific plans; these union councils should be identified in detailed reviews prior to the May NID round.
- A focused engagement with media should be planned to ensure that the objectives of the national emergency action plan are clearly communicated to the broader community, and to further engage and promote ownership by national and provincial leaders.
- The TAG endorses plans for focusing on the highest priority areas of FATA, KP and Balochistan, with strategies designed to improve access through the development of localized information, education and communication materials and messages, engaging more local influencers and building new partnerships with nongovernmental organizations and community based organizations. FATA, KP, and Baluchistan should be prioritized in the timelines for rolling out the new communication strategy.
- In the present security and epidemiological situation in FATA, the programme should ensure that priority is given to developing radio and other essential forms of communication materials for use before the May NID.
- The expansion of the communication programme within this new strategy will require sensitive data. Therefore data collection and analysis should be strengthened by the revision of forms for case investigation and post campaign independent monitoring to ensure key social information are incorporated, particularly on reasons for missed children. Consideration should also be given to assessing whether LQAS could be adapted for monitoring expanded communication activities.

### 3.7 Migrant and mobile populations

The strategy for accessing migrant, mobile, and minority underserved populations developed as part of the national emergency action plan should be implemented by all provinces. In particular, in all urban areas specific plans for these populations should be developed and updated prior to every supplementary immunization activities round; these groups must be included in microplans, immunization teams must be community appropriate, and the quality of activity must be monitored specifically in these communities.

### 3.8 Improving the quality of supplementary immunization monitoring data

The TAG endorses national programme plans to review the process of independent monitoring of supplementary immunization activities and implement changes designed to
improve monitoring quality initially on a pilot scale, so that more accurate information can be provided to inform programme decisions. If piloted modifications to the process prove useful, they should be implemented commencing in the high risk districts and rolled out to all districts by mid 2011.

3.9 Ensuring the highest quality of surveillance

- The process of targeted surveillance assessments planned between April and June should be implemented with the support of partners. These assessments should concentrate on reviewing surveillance quality, identifying gaps and developing rapid action plans to address any gaps, around key themes: a) high risk districts; b) populations with limited or no access; and c) migrant and mobile populations.
- Rapid assessments should continue to be carried out in any area where long chain poliovirus is detected, or in any other area of potential concern.
- An external review of surveillance should be carried out building on the rapid assessments referred to above, no later than the third quarter of 2011.
- The utility of further expanding environmental surveillance sites, within the constraints of workload and laboratory capacity, should be assessed by the national programme to determine if it would provide any value to the programme. This assessment, including the identification of any potential additional sites and the feasibility of collection and testing, should be completed by June.

3.10 Achieving high routine immunization

- More attention should be given to improving routine immunization activities at all levels, through the following actions:
- Ensuring that reviewing progress in improving routine immunization coverage is on the agenda of all provincial steering committees and district polio eradication committees.
- Ensuring that district and union council routine immunization microplans are developed in line with the microplans for supplementary immunization activities, to ensure that all communities are covered; planning for routine immunization sessions should take into account dates for planned supplementary immunization activities to ensure there is no clash.
- Ensuring that vaccinators and their first level supervisors have adequate enabling factors for outreach vaccination.
- Ensuring that the information provided through polio eradication activities (AFP and supplementary immunization activities) is optimized to take corrective measures.
- Ensuring that all appropriate health facilities offer routine immunization
- Ensuring that social mobilization and communication plans include a component on raising awareness of and demand for routine immunization.
4. AFGHANISTAN

4.1 Epidemiological situation

In 2010, a total of 25 cases due to wild poliovirus were reported as compared to 38 in 2009 which indicates a reduction of 34%. Of 2010 cases, 17 were due to wild poliovirus type 1 and 8 due to wild poliovirus type 3. The vast majority of cases (84%) were reported from the southern transmission zone, incorporating the southern region (19 cases, 11 of which were reported from Kandahar province, 7 from Helmand province, and 1 from Zabul province) and the neighbouring Farah province of the western region (2 cases). Importations of wild poliovirus type 1 genetically related to virus circulating in Pakistan caused cases in the north-east region (1 case in Kunduz province) and eastern region (3 cases in Nangahar province). These sporadic importations did not result in secondary cases. As well, the national programme was able to respond in a timely manner to address any possible spillover to parts of the country from the large outbreak that occurred in 2010 in neighbouring Tajikistan. Polio cases remain mostly among young children (less than 36 months of age) who are under-immunized compared with non-polio AFP cases. The median number of OPV doses among polio cases was 4 doses as compared to 13 doses among non-polio AFP cases of the same age group.

As at 24 March, Afghanistan has reported only one case due to wild poliovirus with onset in 2011, due to wild poliovirus type 1, from Helmand province in the southern region. Genetic analysis indicates that this case represents ongoing circulation of virus from 2010 in the southern transmission zone incorporating the southern region of Afghanistan and neighbouring areas of Baluchistan in Pakistan. The active transmission zone therefore remains the southern region.

In addition to wild poliovirus, a small outbreak of circulating VDPV type 2 was reported in Helmand province, with 5 cases reported in 2010 and one in 2011, all from Nadeali district. This district has had persistent access problems due to insecurity and has poor immunization status.

As many as 50% of the children of Nadeali remained inaccessible in supplementary immunization activities held in 2009 and 2010 and routine immunization is less than 10% as assessed from the immunization status of AFP cases. The programme responded by organizing three rounds of immunization campaigns with tOPV in July, September and November 2010, but coverage did not reach 50%.

Within the southern region in 2010–2011, all except 2 WPV cases, and all cVDPV2 cases, were reported from 13 conflict affected high risk districts, in particular from Nadali, Lashkargar and Sangine in Helmand, and Maywand, Shawalikot, Kandahar and Spin Boldak in Kandahar province. The 13 high risk districts therefore still clearly play the key role in maintaining poliovirus circulation in Afghanistan.
4.2 Interventions and impact

Based on the epidemiological situation, the country is divided into three zones: a transmission zone of the southern region, a high-risk zone in the east and south-east with risk from the bordering KPK/FATA in Pakistan which are experiencing an intense and persistent large outbreak. The rest of the country is labelled as a non-transmission zone.

Four rounds of NIDs were implemented during 2010 using bOPV and tOPV alternatively. In the transmission and high-risk zones of the country, 4 additional rounds of SNIDs were implemented using bOPV. In response to the Tajikistan outbreak, two rounds of mop-up using mOPV1 were implemented in the north-eastern and northern areas during 2010. Analysis of Post campaign household coverage survey, out-of-house market surveys and vaccination of AFP cases shows that except in the southern region, the rest of the country has maintained campaign quality and is persistently achieving coverage above 90%.

In order to address policy and strategic issues, His Excellency the Minister of Public Health chairs meeting regularly and is attended by WHO and UNICEF Representatives. This group monitors progress and suggests appropriate actions. An informal consultative group chaired by the Director-General of Preventive Health also meets regularly to focus on 13 high priority districts in the south.

To increase access and staff safety in the 13 high-risk districts, close coordination is maintained with ICRC and local access negotiators are engaged. The programme also coordinates with ISAF/NATO and the Afghan national army. The number of inaccessible children was decreased from 126 000 in February 2010 to almost 72 000 in December 2010. In order to improve campaign quality, district-specific have been implemented since October 2010 and a district manager assigned for each of the 13 high-risk districts. Although overall accessibility in the southern region is showing gradual improvement, the quality of campaigns remains below the required level with constant reporting of zero dose AFP cases indicating areas and sub-groups of population who are not being accessed by the vaccination teams. Analysis of milestones set for Afghanistan shows that in the January 2011 campaign, only 2 of the 13 high-risk districts achieved coverage above 90%.

In addition, a number of other actions were taken including mop-ups, vaccination of cross border populations moving through permanent vaccination posts, and enhancing the surveillance system sensitivity in the high risk zones. The programme has a preparedness plan to respond to any case in areas of country which did not have evidence of poliovirus circulation.

4.3 Communication and social mobilization

Communication/social mobilization activities are taking place across the country, with special focus on 13 high risk districts in the southern region. In these districts, locally appropriate activities are being implemented through the district-specific communication plans by the community-based communication network, comprising influential people from...
the community, mainly mullahs, community elders and teachers. They are supported by the district communication focal points and provincial polio communication focal points. In light of the importance of the eastern region of the country, being on the border with endemic areas in Pakistan, a similar community-based communication network has been established there. At the national level, preparation of public service announcements for television and radio is looked after and posters, banners and other information, education and communication materials are produced and distributed to the regions and provinces. A national social mobilization working group will be constituted soon.

This network performs in close coordination with nationals, the regional and provincial EPI management team (R/PEMT), WHO and nongovernmental organization’s partners. The focus of communication/social mobilization activities is to increase and sustain awareness among the community and generate demand for polio vaccination. According to the campaign data collected during 2010, radio was the leading source of information, followed by community elders, mullahs and teachers.

Future plans include focusing on quality communication activities in the 13 high-risk districts, with focus on the subcluster level, through intensified support and activities. With the expanded communication network, data-driven district specific communication plans would be implemented, along with a strong monitoring and evaluation component. SIAD activities would be supported through the locally feasible communication approaches; media engagement would be further enhanced, existing partnerships would be further strengthened and new avenues would be explored. Partnership with the ministries of education, religious affairs and agriculture and livestock will be institutionalized and media networks would be involved for wider dissemination of messages.

Monitoring and evaluation would be inbuilt components of the programme to know about the effectiveness of communication activities and develop evidence based communication plans. Post-campaign communication review of communication network and quarterly reviews of the provincial teams will take place, data would be collected on key communication indicators regularly, international communication review and KAP survey will be carried out at the end of the year.

4.4 TAG discussions and observations

The TAG noted evidence of progress in polio eradication in Afghanistan over the past 15 months, in particular:

- The 25 cases reported in 2010 was a 34% decrease from the 38 cases reported in 2009; the one case reported in 2011 to date contrasts with 7 cases reported during the same period in 2010.
- Wild poliovirus type 3 has not been reported since April 2010, (this is consistent with the situation in neighbouring Pakistan where WPV3 transmission has also significantly declined).
• The 13 high risk districts have developed district specific plans and implementation is under way, although the plans will require further work.
• Although access remains a significant problem, tremendous efforts have been made to improve access to children in security-compromised areas of the southern region. These efforts have included continuous local access negotiation, the engagement of nongovernmental organizations implementing the BPHS in management in implementation in key areas, and the appointment of district managers in all high risk districts. At least partly as a result of these efforts, overall access to children in the southern region has improved particularly in the second half of 2010; at the start of 2009, almost 20% of children in the Region were inaccessible due to security reasons; this has improved to an average of only 7% in each of the immunization rounds since June 2010.
• Data on immunization status of AFP cases seem to be beginning to reflect these improving trends in access; in the 13 high risk districts in 2009, 21% of all AFP cases were zero dose; this dropped to 16% in 2010, and is currently less than 10% in the first quarter of 2011.
• There is also evidence from investigation of AFP cases that routine immunization levels are rising in the southern region, with modest annual increases each year since 2007. Although access to routine services is clearly still very inadequate in the Southern region, in 2010 over 40% of children had received at least one routine dose, nearly double the proportion in 2007.
• Despite the intense transmission occurring in Pakistan in 2010 and 2011 to date, particularly in FATA which directly borders Afghanistan, and the significant population movements in both directions, and despite multiple separate importations into polio-free areas in Afghanistan, there has been no significant outbreak or re-establishment of transmission following importation. This is a major achievement, demonstrating both the high levels of immunity that exist in children outside the southern region, and the effectiveness of outbreak response activities in these areas.

4.5 Risks

Although the progress in Afghanistan is undeniable, there remain significant risks to completing polio eradication.

• Ongoing transmission in key high risk districts in the southern transmission zone. These districts continue to pose the major risk to completing polio eradication in Afghanistan, in particular densely populated districts, and those with significant access problems, including particularly Nadali, Lashkargar, Maywand, Shawalikot, Panjwai, Kandahar and Spin Boldak. The issues of negotiating access and improving quality in these areas in particular must be addressed in order to reach children consistently with vaccine.
• Importation of wild poliovirus from outbreak areas in Pakistan. The risk of importation remains extremely high, highest in eastern and south-eastern regions which border Pakistan directly, but also significant for other Regions, as cases in the central region in 2009 and north-eastern region in 2010 demonstrate. The highest possible vigilance,
high population immunity and capacity to respond rapidly must be maintained in all areas of the country until transmission in Pakistan is interrupted.

4.6 Conclusions

Polio eradication in Afghanistan has made appreciable progress in the past 15 months. The national programme is managing to respond very effectively to the challenges of importation in polio-free areas, while at the same time beginning to make an impact in the endemic southern transmission zone. Political commitment in Afghanistan remains very strong, with a high level of interest from the Office of the President.

Building on the progress to date in the southern region will be critical in the coming months. In particular, continued progress must be achieved in the high risk districts, particularly those in Helmand and Kandahar. There remain just a handful of districts with significant access or quality problems. These districts must be the focus of intensified efforts by nation and provincial governments and partners.

The May 2010 TAG recommended that that vacant polio communication posts in Kabul be filled urgently, and that a comprehensive and integrated communication strategy be developed for the southern region and in particular the 13 high-risk districts. There has been progress against these recommendations with new staff in place in Kabul, and a programme of planning, training, improvements in data use, and strategy development.

Routine immunization is a critical tool in maintaining polio-free status in the 85% of communities that are non-endemic; ultimately it will be critical for the whole country. The TAG notes the significant efforts being made by national and provincial governments to strengthen routine services.

4.7 Recommendations

Supplementary immunization activities schedule and choice of vaccine

The recommended schedule is designed to finally eradicate polio in the southern region, while protecting populations throughout Afghanistan against all poliovirus types.

1. The TAG considers that in 2011 a full four national rounds should be carried out, along with at least 4 sub-national rounds, due to the ongoing risk of importation.

2. The TAG endorses the national programme’s proposed supplementary immunization activities schedule for the remainder of 2011 as follows:

- NIDs in May using tOPV
- SNIDs in June covering the southern region and Farah province of the western region, and South eastern and eastern regions, using bOPV
• SNIDs in July covering the southern region and Farah province of the western region, and south eastern and eastern regions, using bOPV
• NIDs in September using tOPV
• NIDs in October using bOPV
• SNIDs in November or December covering southern region and Farah province of western region, and south eastern and eastern regions, using bOPV

3. If cVDPV2 transmission continues in Helmand province, or appears to spread further, bOPV can be replaced with tOPV in appropriate areas during one or more SNIDs. For any recommended round, if adequate supplies of the vaccine of choice are not available, an alternative vaccine appropriate to the epidemiology should be used.

4. The configuration of the supplementary immunization activities schedule may be changed depending on epidemiology; the TAG may be convened in person or electronically to provide advice on this.

5. Plans for 2012 should be discussed in the last quarter of 2011 based on the evolving epidemiology, however for planning purposes the Government of Afghanistan and partners should plan for up to four national immunization rounds, and up to four subnational rounds. This may be reduced in the event of favourable epidemiological developments in both Afghanistan and Pakistan. If four NIDs are conducted, two should be with tOPV and two with bOPV. Vaccine of choice for the SNIDs should be bOPV.

Mopping up in response to wild poliovirus

6. Planned supplementary immunization activities should be complemented by large scale, intensive mop-ups in response to detection of any circulating poliovirus, whether WPV or cVDPV.

7. A mop-up task force drawn from government and partner agency staff should be formed at national level to support provincial teams in the timely planning, preparation for, and conduct of, the highest quality mop-ups. Any mop-ups must be intensively monitored and actions taken immediately to repeat immunization in any area with less than 95% coverage.

8. Vaccine of choice for mop-ups should be the appropriate monovalent vaccine or bOPV for WPV, and trivalent OPV for cVDPVs. An appropriate buffer stock of vaccines for mop-ups should be maintained at national level in accordance with previous TAG recommendations.

Addressing ongoing transmission in the 13 highest risk districts

9. A thorough review of progress under the district specific plans for all 13 high-risk districts should be carried out following the April round, and the plans amended as necessary. At district, provincial, and regional levels progress should continue to be
reviewed every month; at national level, progress should be reviewed quarterly; following the April review, a further full review should be carried out in June.

**Accessing populations in security-compromised areas**

10. The engagement of ICRC and other relevant agencies and government departments should continue to be sought to help negotiate access in conflict-affected areas. The programme should coordinate with government security forces, NATO/ISAF, and AGE where necessary, to ensure the best possible access in each supplementary immunization activities.

11. Negotiations with nongovernmental organizations implementing the BPHS should continue to expand the number of districts in which they take responsibility for implementation of supplementary immunization activities.

12. In the context of district-specific plans, local solutions to achieving access for immunization and surveillance should continue to be explored in those areas affected by conflict; the impact of local initiatives to improve access should be evaluated and if indicated, their use should be expanded.

13. The programme in the southern region should retain the utmost flexibility in reaching children with vaccine and not be restricted only to implementation of planned supplementary immunization activities rounds; in particular the following approaches should be introduced/continued:

14. Short interval additional dose (SIAD) strategies should be implemented in any area where it is necessary to rapidly increase immunity, in particular in areas where access is intermittent or where windows of opportunity exist to access children.

- Permanent immunization sites should be established at every appropriate transit point to and from inaccessible areas to maximize the chances of reaching children.
- Any significant movement of IDPs out of restricted access areas should be addressed by rapid special SIAD activities to reach children as they become accessible, recognizing that the opportunity to reach them may be very short.

**Migrant, mobile, and underserved populations**

15. In all districts the identification and mapping of migrant, mobile, and minority underserved populations should be updated prior to every supplementary immunization activities round. These groups must be included in microplans, immunization teams must be community appropriate, and the quality of activity must be monitored specifically in these communities.
Maintaining polio-free status and achieving high routine immunization

16. All polio-free areas should concentrate on achieving the highest possible routine immunization coverage of infants; microplans should be reviewed to ensure that all communities are included, in particular migrant and mobile communities.

17. The gradual improvement in coverage in the southern region must be consolidated and coverage further increased through ensuring that adequate service opportunities are provided, and that polio experience in accessing communities is put to good use.

18. The remaining two rounds of accelerated routine immunization should be carried out in Helmand province to ensure that high tOPV coverage is achieved in areas at risk of cVDPV circulation.

19. A thorough desk and field review of immunization services should be carried out by the fourth quarter of 2011. This review should seek to identify the successes of the programme so they can be built on, and the constraints to achieving high sustainable coverage, in order to inform policy and programme actions to strengthen services.

Detecting wild poliovirus transmission

20. Sub-national surveillance assessments should continue to be carried out by the national programme in any areas of potential concern, particularly if any long-chain wild polioviruses are detected.

Communications and social mobilization

21. The TAG endorses plans to develop specific communication strategies to support SIAD and mop-up activities and urges that these strategies be finalized by end April.

22. The establishment of a communications network at the subdistrict level is a critical tool for focusing work within districts and for identifying and responding to specific issues within sub-clusters. However, the TAG notes gaps in the management of the existing structure of the network and recommends these gaps be addressed rapidly so that incremental expansion of the system can take place as soon as possible.

23. The TAG endorses the plan for a KAP study in 2011, and for a comprehensive communications review during the third quarter of 2011 where progress in addressing gaps and monitoring expansion of the network should be presented and discussed.

Cross cutting recommendations

24. Close coordination between the national programmes (government and partners) should include regular electronic contacts and face to face meetings to discuss progress, identify gaps, coordinate activities and exchange ideas.
25. Bordering provinces and districts should be in contact prior to each supplementary immunization activities round to re-assess mechanisms for ensuring that all border and mobile communities are covered.

26. The performance and placement of permanent cross-border immunization posts should be reviewed to ensure that they are performing optimally, particularly in those areas where children are moving in and out of conflict zones.

Next meeting of the TAG

27. The TAG proposes to re-convene at latest by September 2011.
Thursday, 24 March 2011

08:00–08:30  Registration
08:30–10:00  Opening session
  Message from the Regional Director, WHO EMRO
  Introduction and adoption of agenda  Chairperson
  Global situation update  Dr B. Aylward, WHO/HQ
  Achievements in the Region with respect to the global strategic plan 2010–2012  Dr T. Mir, WHO/EMRO
  Session 1. Pakistan

10:30–10:40  Implementation status of June 2010 TAG recommendations  Dr A. Bosan, MoH Pakistan
10:40–11:00  Epidemiological situation in Pakistan  Dr N. Abid, WHO/Pakistan
11:00–11:30  Discussion
11:30–11:40  Salient features of the national and provincial emergency action plans  Ministry of Health Pakistan
11:40–13:15  Provincial presentations (presentation 15 minutes and discussion 20 minutes) Tactical steps taken to achieve the targets set in the Emergency plan  Pakistan
  Sindh  Mr S. Hashim, Pakistan
  Punjab  Mr F. Hassan, Pakistan
  FATA  Mr A. Majeed, Pakistan
  Balochistan  Mr M. Azam, Pakistan
  KP
14:00–14:20  Surveillance quality in Pakistan  Dr Oul-Islam, WHO/Pakistan
14:20–14:40  Campaign monitoring data quality in Pakistan  Dr T. Iqbal, WHO/Pakistan
14:40–15:10  Discussion
15:10–15:20  Role of PEI in strengthening routine EPI  MoH Pakistan
15:20–15:40  Communication activities in Pakistan  Ms Cathy Williams, UNICEF Pakistan
15:40–15:55  Discussion
15:55–16:40  Overall discussion on Pakistan
16:40  Internal meeting of the TAG

Friday, 25 March 2011

Session 2. Afghanistan

08:00–08:10  Implementation status of June 2010 TAG recommendations  Dr A. Dost, MoH Afghanistan
08:10–08:30 PEI update: epidemiology, major interventions and impact
Dr A. Dost, MoH Afghanistan
Dr A. Quddus, WHO/Afghanistan

08:30–08:45 Challenges, priorities and tactics 2011: Southern Region (with more focus on 13 HRD)
Dr J. Iqbal, WHO/Afghanistan
Dr A. Pokhla, MoH Afghanistan

08:45–09:05 Communication interventions and activities in the 13 HRD
Dr N. Kakar, UNICEF/AFG
Dr Zahed, UNICEF/AFG

09:05–10:00 Discussion

10:30–10:50 AFP surveillance quality
Dr A. Quddus, WHO/Afghanistan
Dr H. Niazi, MoH Afghanistan

10:50–11:05 Strengthening routine EPI through PEI network (experience in the northern region)
Dr R. Habib, WHO/Afghanistan
Dr Z. Mohammed, UNICEF/AFG

11:05–11:30 Discussion

11:30–12:00 Overall discussion on Afghanistan

12:00–14:30 Closed TAG meeting
Closing session

14:30–15:00 Presentation of TAG recommendations

15:00–15:30 Remarks by partners

15:30 Closing remarks by the chief guest
Annex 2

LIST OF PARTICIPANTS

MEMBERS OF THE TAG

Dr Nick Ward*
Chairman
Devon
UNITED KINGDOM

Dr Robert Linkins
Chief, Vaccine Preventable Disease Eradication and Elimination Branch
Centers for Disease Control and Prevention, CDC
Atlanta
UNITED STATES OF AMERICA

Dr M.H. Wahdan
Polio Senior Consultant
WHO/EMRO
Cairo
EGYPT

Dr Ezzeddine Mohsni
Polio Coordinator
WHO/EMRO
Cairo
EGYPT

Dr Olen Kew*
Molecular Virology Section
Centers for Disease Control and Prevention
Atlanta
UNITED STATES OF AMERICA

Dr Raymond Bruce Aylward
Director, Polio Eradication Initiative
WHO/HQ
Geneva
SWITZERLAND

* Unable to attend
Dr Faten Kamel*
Medical Officer/POL
WHO/EMRO
Cairo
EGYPT

Mr Chris Morry
Director, Special Projects and Coordination
The Communication Initiative
Victoria, British Columbia
CANADA

Mr Christopher Maher
Coordinator, Strategy Implementation
Oversight and Monitoring, WHO/HQ
Geneva
SWITZERLAND

Dr Hamid Jafari
Project Manager
The National Polio Surveillance Project
WHO India

AFGHANISTAN
Dr Saleh Rehman Rehmani
Associate Professor Kabul Medical Faculty
Pediatrician, Indira Gandi Hospital
Kabul

Dr Muhammad Sidiq
Head of Pediatric Department,
Mirwais Hospital
Kandahar

PAKISTAN
Professor Tahir Masood Ahmad
Professor of Pediatrics
Dean, Children Hospital’s and The Institute of Child Health
Lahore

* Unable to attend
Professor Iqbal Ahmad Memon  
Fellow American Board of Pediatrics, FRCP (C)  
Professor of Pediatrics, Dow University of Health Sciences  
Karachi

Professor Abdul Din Muhammad Bari  
Professor of Pediatrics & Head of Pediatrics  
Department, Bolan Medical College  
Quetta

Professor Tariq Bhutta  
Chairman of NCC  
Government of Pakistan, Punjab  
Lahore

MINISTRIES OF HEALTH

AFGHANISTAN
Dr Taufiq Mashal  
Director General Preventive Medicine  
Kabul

Dr Agha Gul Dost  
National EPI Manager  
Kabul

Dr Hanif Niazi  
National Surveillance Coordinator  
Kabul

Dr Abdul Qayoom Pokhla  
Provincial Health Director  
Kandahar

Dr Haji Inayattullah Ghaffari  
Provincial Health Director  
Helmand

Dr Abdul Ahad Azim  
EPI Manager  
Helmand

Dr Haji Nazar Mohammad  
EPI Manager  
Kandahar
PAKISTAN
Dr Assed Hafeez
Federal Director General Health
Ministry of Health
Islamabad

H.E Begum Shahnaz Wazir Ali
Special Advisor to Prime Minister
Islamabad

Dr Rehan A. Hafiz
Focal Person for Polio
Islamabad

Mr Fawad Hasan Fawad
Secretary of Health
Lahore

Mr Syed Hashim Raza Zaidi
Secretary of Health
Karachi

Capt. (Retd.) Munir Azam
Secretary of Health
Peshawar

Dr Baloch Naseer Ahmed
Additional Secretary Health
Quetta

Brig. Kamaluddin Somoro
Secretary of health
AJK, Muzaffarabad

Mr Abid Majeed
Secretary Administration & Coordination – FATA
Peshawar

Dr Altaf Hussain Bosan
National Programme Manager – EPI
Islamabad

Dr Arshad Iqbal Dar
Director Health Services, EPI
Dr Mazhar Khamisani  
Deputy Project Director  
Health Services, EPI  
Ministry of Health, Govt. of Sindh  
Karachi

Dr Ayub Kakar  
Provincial Programme Manager  
Health Services, EPI  
Ministry of Health, Govt. of Balochistan  
Quetta

Dr Janbaz Khan  
Deputy Director  
Health Services, EPI  
Ministry of Health, Govt. of Khyber-Pakhtunkhwa  
Peshawar

Dr Sahibzada Khalid Khan  
Assistant Director  
Health Services, EPI  
Ministry of Health, Govt. of Khyber-Pakhtunkhwa  
Peshawar

Dr Iqbal Rasool  
Programme Manager, EPI-Gilgit – Balistan  
Gilgit

Sardar Shabbir Ahmed  
Programme Manager – EPI – AJK  
Muzaffarabad

Mr Mazhar Nisar Sheikh  
Health Education Advisor  
Islamabad

**OBSEVERS**

Dr Aga M. Ashfaq  
Deputy National Programme Manager – EPI  
National Institute of Health  
Islamabad

Mr Qadir Bux Abbasi  
Director M&E, Federal EPI  
Islamabad
Dr Shahab Hashim
Health Officer, Polio Eradication Unit
Islamabad

PARTNER AGENCIES

UNICEF
Dr Robin Nandy
Senior Health Advisor, Team Lead Polio
New York
UNITED STATES OF AMERICA

Ms Susan Mackay
Senior Advisor Polio Communications
New York
UNITED STATES OF AMERICA

Ms Sherine Gergis
Communication for Development Specialist, Polio
New York
UNITED STATES OF AMERICA

Ms Susan Roe
ROSA

Dr Zahra Mohammed
EPI specialist
Kabul

Ms Adriana Zarrelli
Chief Health and Nutrition
Kabul

Mr Zahid Shah
M&E specialist (Polio)
Kabul

Dr Nafi Kakar
Communication officer
Kabul

Mr Sayed Kamal Shah
Communication officer
Kandahar
Mr Said Hussein Sayedzai  
Communication officer  
Jalalabad

Ms Karen Allen  
Deputy Representative  
Islamabad

Mr Denis King  
Acting Chief Polio Eradication Unit  
Islamabad

Mohamed Cisse  
Chief, Maternal, Child Health and Nutrition (MCHN)  
Islamabad

Ms Cathy Williams  
Communication for Development Specialist, Polio Eradication  
Islamabad

Dr Azhar Raza Abid  
Health Specialist  
Islamabad

Ms Attiya Qazi  
Communication for Development Officer, Polio Eradication  
Punjab

Dr Shoukat Ali  
Health Officer, Polio Eradication  
Sindh

Ms Shabnam Afzal  
Communication for Development Officer, Polio Eradication  
KP

Dr Muhammad Rafiq  
Programme Specialist  
FATA/KP

Dr Abdul Qayyum  
Health Officer  
KPK
CENTERS FOR DISEASE CONTROL AND PREVENTION
Dr Elias Durry
Team Leader
Global Immunization Division
Atlanta
UNITED STATES OF AMERICA

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
Ms Ellyn Ogden
USAID, Worldwide Polio Eradication Coordinator
Washington D.C.
UNITED STATES OF AMERICA

Mr Andrew Sisson
Mission Director
Islamabad
PAKISTAN

Dr Sardar Talat Mehmood
Project Management Specialist
Islamabad
PAKISTAN

Dr Roshani

ROTDARY INTERNATIONAL
Dr Robert Scott
Chairman
PolioPlus Committee

Aziz Memon
Chairman, Polio-Plus National Immunization Committee for Pakistan
Karachi
PAKISTAN

Dr Ajmal Pardis

GATES FOUNDATION
Mr Michael Galway
Senior Programme Officer, Vaccine Delivery
Seattle
UNITED STATES OF AMERICA
Dr Waqar Ajmal  
Consultant – Pakistan and Afghanistan  
PAKISTAN

DFID  
Mr George Torrington  
Health and Population Adviser  
Islamabad  
PAKISTAN

Dr Raza Zaidi  
Health & Population Advisor  
Islamabad  
PAKISTAN

WORLD BANK  
Mr Rachid Ben Messaoud  
Country Director  
Islamabad  
PAKISTAN

Dr Inaam-ul-Haq  
Senior Health Specialist  
Islamabad  
PAKISTAN

Dr Tayyab Masood  
Health Officer  
PAKISTAN

Mr Ishiguro  
Project Formulation Advisor  
PAKISTAN

Dr Hiroto Miyagi  
Chief Advisor Health  
PAKISTAN

CANADIAN INTERNATIONAL DEVELOPMENT AGENCY  
Ms Ehonda Ehsani  
Head of CIDA  
Islamabad
Ms Raseema Alam
First Secretary (Development)
Embassy of Canada

EMBASSY OF THE ROYAL KINGDOM OF SAUDI ARABIA
H.E. Abdul Aziz Al Ghadeer
Ambassador

WHO SECRETARIAT

WHO/EMRO
Dr Tahir P. Mir, Polio Regional Adviser

WHO/AFGHANISTAN
Dr Ahmed Shadoul, WR Afghanistan
Dr Arshad Quddus, Polio Team Leader
Dr Javed Iqbal, Polio Medical Officer, Southern Region
Dr Rohullah Habib, National Campaign Officer

WHO/PAKISTAN
Dr Guido Sabatinelli, WR Pakistan
Dr Ni’ma Abid, Team Leader, Pakistan
Dr Obaid-ul-Islam Butt, National Surveillance Coordinator
Dr Tariq Iqbal, National Camp. Coordinator
Dr Deborah Bettels, Provincial Team Leader (Punjab)
Dr Yehia A. Ghaffar, Provincial Team Leader (Sindh)
Dr Hisham Daabies, Provincial Team Leader (KPK)
Dr Sarfraz Afridi, NPO (FATA)
Dr Ibrahim Yalahow, Prov. Team Leader (Balochistan)
Dr Mohammed Azam, Routine Immunization Officer
Ms Gul Afridi, SSA
Mr Mamdouh Samuel, Administrative & Finance Officer