WHO-EM/POL/366/E

Report on the

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

Cairo, Egypt
3–4 February 2008

World Health Organization
Regional Office for the Eastern Mediterranean

© World Health Organization 2008
All rights reserved.
The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.
The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.
The World Health Organization does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.
Publications of the World Health Organization can be obtained from Distribution and Sales, World Health Organization, Regional Office for the Eastern Mediterranean, PO Box 7608, Nasr City, Cairo 11371, Egypt (tel: +202 670 2535, fax: +202 670 2492; email: DSA@emro.who.int). Requests for permission to reproduce WHO EMRO publications, in part or in whole, or to translate them – whether for sale or for noncommercial distribution – should be addressed to the Regional Adviser, Health and Biomedical Information, at the above address (fax: +202 276 5400; email HBI@emro.who.int).

Document WHO-EM/POL/366/E/03.08/66

CONTENTS

1. INTRODUCTION

The Technical Advisory Group (TAG) on poliomyelitis eradication in Afghanistan and Pakistan held a meeting in Cairo at the WHO Regional Office for the Eastern Mediterranean on 3–4 February 2008. The objectives of the meeting were to review progress towards poliomyelitis eradication in the two countries, particularly during 2007, discuss planned activities for 2008 and make recommendations to address constraints facing the national programmes on their way to achieve the target.

The meeting was opened by Dr Nicholas Ward, Chairman of the TAG, who welcomed the participants and highlighted the importance of the meeting at this very critical stage of the programme.

The meeting was then addressed by Dr Najibullah Mojadidi, Adviser to the President of Afghanistan on Health and Education, who conveyed to the meeting continued commitment of the Government of Afghanistan to the target of polio eradication and the personal involvement of H.E. Mr Hamid Karzai, President of Afghanistan, in ensuring that the programme achieved its objectives. Concerted efforts were being made by the Government of Afghanistan to bring together all stakeholders in the country in support of polio eradication. He acknowledged continued support of partners and close coordination with Pakistan.

In his address, Mr Khushnood Lashari, Federal Secretary Health, Pakistan, reaffirmed the commitment of the Government of Pakistan to immunization programmes and specifically to polio eradication. Among the key factors for success was ownership, not only by local authorities but also by the community. He thanked partners for their continued commitment and concluded by asking the TAG for guidance on the supplementary immunization activities required and on the type of vaccine to be used.

Dr Hussein A. Gezairy, Regional Director for the Eastern Mediterranean, welcomed the participants and acknowledged their commitment to polio eradication from Afghanistan and Pakistan and the significant efforts of national authorities and the continued support of the partners. He emphasized the need for coordinated efforts between the two countries, which represented one epidemiological block with respect to the occurrence of poliomyelitis. Referring to the increase in cases in the last few weeks of 2007, and the possible reasons behind them, Dr Gezairy underlined the importance of intensifying eradication efforts, particularly in high-risk areas, and ensuring very high quality in all activities.

The agenda and the programme (Annex 1) were endorsed. The list of participants is attached as Annex 2.

2. IMPLEMENTATION OF PREVIOUS TAG RECOMMENDATIONS

The TAG was informed of the status of implementation of its recommendations made during the last meetings. It was noted that all the recommendations were addressed and were or are being implemented. The only recommendation which was not implemented was the provision

of 8 million doses of vaccine (4 mOPV1 and 4 mOPV3) as a stock to be used to address emergencies and conduct mop ups as soon as indicated.

The TAG expressed its great appreciation of the fact that H.E. President Hamid Karzai had inaugurated five supplementary immunization campaigns in 2007. It also acknowledged with appreciation the fact that the Prime Minister of Pakistan has acknowledged the efforts of the various districts by distributing shields for all those who were successful to stop transmission.

3. EPIDEMIOLOGICAL SITUATION

In Pakistan, a total of 32 cases of poliomyelitis (19 due to wild poliovirus type 1 and 13 due to type 3) were reported in 2007, as compared to 40 cases in 2006 (20 cases each due to WPV type 1 and type 3).

It was noted that 12 of the 32 cases (about 40%) in 2007 had their dates of onset during November and December 2007, representing a significant increase during these two months.

The main characteristics of the 2007 polio confirmed cases show that:

- Two-thirds of the cases were under 3 years of age.
- Two-thirds of the cases received no routine immunization.
- 40% received fewer than 4 doses of OPV.
- Cases were reported from 18 districts as compared to 22 in 2006.
  - 10 of the infected districts reported only one case, 5 districts reported two cases and the remaining 3 districts (Mardan, Kambar and Killa Abdallah) reported more than two cases.
  - Three districts (Nowshera, Killa Aballah, Kambar) reported cases of both types of wild poliovirus 1 and 3.

The main reasons behind the modest decrease in number of wild poliovirus cases in 2007 included the inaccessibility of children in security-compromised areas, gaps in performance, pockets of refusals and inadequate management in some districts.

In Afghanistan, as of 2 February 2008, a total of 17 cases of poliomyelitis with onset in 2007 have been confirmed (11 due to WPV3 and 6 due to WPV1). This reflects a significant reduction in the number of reported type 3 cases compared to 2006, while this reduction did not occur with wild poliovirus type 1 (29 due to WPV3 and 2 due to WPV1 in 2006).

The major endemic zone of Afghanistan remains the southern region, which accounted for 15 of the 17 confirmed cases (all 11 WPV3 and 4 WPV1) and is sustaining endemic transmission of both WPV3 and WPV1. The remaining two cases (both WPV1) were reported from the eastern region, part of the shared northern transmission zone with North-West Frontier Province (NWFP), Pakistan. Cases are reported from the eastern region nearly every year, but while there is clear genetic evidence of shared transmission with central NWFP, there is no genetic evidence in 2006 and 2007 of continued independent transmission in the eastern region.

The polio cases reported from the southern region were in general under-immunized. Ten of the 15 cases had less than 3 doses of oral poliovaccine (OPV). Two of the ten infected districts in the southern region in 2007 were infected with both types of poliovirus, WPV1 and WPV3. The two eastern region cases, in contrast, were well immunized. All cases reported in Afghanistan were among children less than 30 months of age except one case, which was in a 6 year old child.

The southern region of Afghanistan is part of a larger transmission zone extending into Baluchistan and northern Sindh in Pakistan, with extensions to Karachi and southern Punjab. This combined southern Afghanistan–Pakistan transmission zone accounts for the majority of cases reported in both countries, and has the localized transmission of persistent genetic lineages with multiple chains of transmission.

It is to be noted that the detected wild viruses represent only the tip of the iceberg of circulating wild viruses in both countries.

4. SURVEILLANCE ACTIVITIES

In Pakistan, in addition to routine surveillance activities, reviews are being carried out to assure data quality, as these data are used to conduct risk analysis regularly. Surveillance indicators are generally up to international standard, and analyses of data at lower than district level did not show any serious gaps.

The programme is not only analysing laboratory confirmed cases, but is also studying compatibles and suspected cases, even those with negative stool samples. Surveillance is also giving special attention to the investigation of situations in which isolated viruses show long arms on genetic trees, as this may indicate surveillance sensitivity gaps.

Identified gaps in surveillance are thoroughly analysed and plans of actions prepared to address them. The implementation of these plans is followed regularly.

In its efforts to maintain quality, the programme is giving special attention to training of all those involved and emphasize the need for analysis of data at district and provincial levels. In areas where security is compromised, the programme is strengthening community-based acute flaccid paralysis (AFP) surveillance.

In Afghanistan, apart from the southern region, surveillance in the country continues to be satisfactory through extensive network of reporting sites, including a strong community based component.

The major potential gaps in surveillance are in areas where security limits access to populations. Measures to address these potential gaps include expansion of contact sampling in selected districts in the western region, active searching for AFP cases during house-to-house immunization, and periodic reviews of surveillance quality. There remain potential gaps in the timeliness of AFP case detection and in particular in the timeliness of specimen shipment, in certain areas of the southern region.

5. VIROLOGICAL ANALYSIS

The WHO Regional Reference Laboratory (RRL) Pakistan has been effectively supporting the polio eradication efforts in both Pakistan and Afghanistan through its excellent performance and timely reporting, which was particularly impressive given the increased workload in 2006 and 2007.

During 2007, the RRL received and analysed 10 823 stool specimens from AFP cases and 2497 from contacts. Detected wild viruses were reported in a timely manner for action in the field. The non-polio enterovirus (NPEV) isolation rate was consistently above 10% and large numbers of Sabin-like viruses were isolated.

In addition to timely analysis and reporting of wild poliovirus isolates, the RRL is studying their genetic sequence. The laboratory has 100% concordance in intratypic differentiation and poliovirus nucleotide sequencing results with the Centers for Disease Control and Prevention (CDC), Atlanta. In 2007 three type 1 sub-clusters (A-3A, A-3D and B-4A), and one type 3 sub-cluster (B1-C) were found circulating in Afghanistan and Pakistan.

There is strong coordination between AFP surveillance staff (both Afghanistan and Pakistan) and RRL. To this effect all fast growing virus culture in poliovirus specific L20B cell line are reported to the programme, and same is true about the PCR and poliovirus nucleotide sequencing results.

6. SUPPLEMENTARY IMMUNIZATION ACTIVITIES

In 2007, Pakistan implemented 4 NIDs and 7 SNIDs. Each NID involved the recruitment of more than 80 000 vaccination teams, 15 000 first-level supervisors (area in charge) and another 4000 higher level supervisors. The SNIDs generally covers 35%–40% of the target population. They covered all transmission zones and high risk areas. In addition, these areas were given special attention in the planning of the supplementary immunization activities, in supervision and monitoring through deploying additional staff and addressing any constraint facing accessibility to children and refusals.

Several efforts were made by the programme to seek commitment of political leadership at all levels by involving them in inauguration and in monitoring. Also, several efforts were made to involve the religious leadership and media.

Post-campaign assessment coverage rates analysed for districts shows overall high rates. It was noted, however, that analysing coverage data by lower administrative levels shows clearly that in many districts, especially in the transmission zones and high-risk areas, more than 20% of the union councils have coverage rates less than 95%. Retrospective analysis of coverage data by union councils showed that this low coverage in certain areas has been ongoing for several consecutive rounds.

The programme continues to give special attention to improving performance, and is progressing towards changing the present system of post-campaign monitoring by completely independent coverage assessment and addressing reasons for poor performance all over Pakistan with special focus on high risk areas.

Afghanistan implemented 4 full NIDs and 7 SNIDs in 2007. The SNIDs focussed on the transmission zones and high risk areas bordering Pakistan, i.e. southern region, south-eastern region, and eastern region and Farah province of the western region.

The critical issue for the quality of supplementary immunization activities remains the southern region. The national programme has documented the access issues in the southern region, round by round. Both epidemiological data and supplementary immunization activities quality data clearly indicate that large numbers of children continue to be missed in the southern region and neighbouring areas.

7. COMMUNICATION/SOCIAL MOBILIZATION

In Pakistan, social mobilization efforts since October 2007 have focused on ensuring that human resources for communication are in place at the provincial and district level. As well, priority has been given to ensuring that an issue-specific communications plan is in place in the high-risk districts and that district teams are trained in data driven communications. A set of national communications indicators have been agreed and monitoring tools were used during the January campaign. Future focus will be on tracking trends and the impact of the communications interventions during NIDs.

Two research studies were presented. The first is the study tracking knowledge, attitudes and practices. The results showed improved understanding of messages over time. The second study, a "refusal study", was undertaken in 6 high-risk districts. Preliminary data highlight service delivery issues, as well as the need to involve community influentials more extensively in community mobilization. The findings of the report on refusals will be used to prepare plans to address factors behind refusals, and thus to facilitate undertaking corrective actions.

It was indicated that a communications review process would be undertaken at the provincial level. Upcoming research is also planned to address service delivery.

The Afghanistan team has been progressing with the scaling up of human resources for communication at all levels. Lack of appropriate human resources that meet the required terms of reference is a major challenge to rapid recruitments in the field. A study on knowledge, attitudes and practices (KAP) was undertaken to provide a baseline for measuring community perceptions and behaviours related to polio (and routine) immunization. The KAP study also identified barriers that prevent families from getting their children immunized, including gaps in service delivery at the health facilities and at the doorstep.

Communication challenges in Afghanistan are different from Pakistan. Refusals are not an issue. However, as there is a lot of movement between endemic areas in both countries, the

possibility of refusals creeping into Afghanistan cannot be ruled out. Children not at home, sleeping children and refusals constitute approximately 7% of the missed children. Not opening the door to vaccinators or declaring children to be out or sleeping can be tacit or "silent" refusals that have to be factored into the communication planning.

A key issue continues to be the lack of access to priority areas; anti-government elements control some areas, making insecurity a primary factor in not being able to reach children. A set of processes and impact indicators have been agreed to measure the impact of the communications strategy at all levels. The next step is to ensure a communications structure that is fully functional at all levels to implement the strategy.

8. SPECIFIC EXPERIENCES AND APPROACHES

8.1 Cross-border coordination activities

Since the identification of the fact that both Afghanistan/Pakistan represent one epidemiological block with respect to poliomyelitis, a plan was made for coordinated eradication efforts between the two countries who share a very long border crossed annually by several millions who have strong social and economic ties. Coordination efforts included the following activities.

- Organization of coordination meeting between the highest levels of the ministries of health and between responsible officers for border areas. The latter is being done regularly and as frequently as needed.
- Regular exchange of epidemiological information and successful experiences.
- Establishment of cross-border vaccination posts at both sides of the border. The number of these posts increased to 13 posts, which cover all official border crossing points. They have been vaccinating hundreds of thousands of children under 5 years crossing the border annually.
- Coordinating the dates of the campaigns and the type of vaccine used. In some campaigns, villages located across the border are covered by either Pakistan or Afghanistan, depending on the easiest way to reach them.

8.2 Maintaining interest of political leaders (Punjab experience)

The presentation highlighted Punjab's experience in maintaining political commitment and programme ownership together with the challenges inherent in having multiple centres of influence (federal, provincial and district).

The system of decentralization strengthened the district level management which is also influenced by different political and other community and nongovernmental elements. Political commitment has been interrelated with both community awareness/acceptance and good performance at field level, which should go hand in hand.

To achieve political commitment to the goal of polio eradication, different levels of influence from provincial, political and health leadership, district (DCO, nazims, EDO, DOH), union council/*tehsil* level, supervisors, teams and community were addressed using different approaches and tools. Most important in the Punjab experience were the joint efforts of WHO, UNICEF and the national authorities to harmonize messages related to polio eradication activities. Regular meetings, feedback, recognition and high profile visits played an important role in maintaining interest and ownership.

It is still noted that there is a need to ensure motivation at union council levels in order to maintain achievements.

The level of commitment of the Punjab authorities in 2007 was very high as reflected by the allocation of resources at district level, high quality response to the DG Khan case, and campaign inauguration by high level officials. However, the programme is facing the challenges of keeping interest in polio with no cases, competing priorities, fatigue and anti-vaccine rumours.

8.3 Involving religious leaders (NWFP experience)

A number of activities have been conducted in NWFP in regard to addressing issues of refusals, misconceptions and inaccessibility related to opposition to polio campaigns. The initial steps for these activities included thorough review of the situation and of potential resources. This was followed by several activities involving high level meetings at provincial and district level and including the Ministry of Health, WHO, UNICEF and other partners and media agencies. These steps resulted in the issuance of a religious edict in support of the polio vaccinations.

Later steps focused on community-based interventions by which refusals, rumours and inaccessibility were identified in specific communities or localities. Within those areas meetings were held with the appropriate community influentials such as mullahs and tribal leaders and institutions such as the large religious schools. These activities, including *jirga* meetings, enabled the programme to gain more support, increase the endorsement of the edict, as well as increase access to communities previously refusing polio supplementary immunization activities.

Key individuals were identified and involved in meetings and inauguration of campaigns to increase support to the programme. These individuals were helpful to address community concerns and clarify any misconceptions that might exit.

The multi-faceted approach and the planned activities involving religious and tribal leaders, local media and religious institutions had a significant positive impact on increasing accessibility to previously inaccessible areas, convincing refusal communities and generating positive messages regarding polio eradication and supplementary immunization activities as well as routine vaccination. The trend of campaign data in the second half of 2007 confirms these findings.

8.4 Ensuring coverage of the mobile population (Baluchistan)

In addition to movement for social and trade reasons, there is also considerable seasonal movement. For example, large populations move from the cold northern region of Baluchistan and southern Afghanistan to warm regions in eastern and central Baluchistan, interior Sindh and Karachi and southern Punjab from September until early December every year and return back from March to May.

In 2006, 3 polio cases were reported in Pakistan (2 from Baluchistan and 1 Sindh) from highly mobile populations. This fact highlighted the role they play in moving viruses between the two countries. To address this problem, the programme studies population movement extensively with respect to size, reasons, timing, etc.

The established strategies to address the situation include:

- Micro-planning and covering mobile populations in areas of temporary settlements, issuing "yellow cards" and inclusion in post-campaign monitoring.
- Covering mobile populations also at checkpoints, with registration, good record keeping and follow-up in the districts
- Conducting special rounds (Mastung and Loralai)
- Making available OPV during measles rounds and routine immunization.

No polio cases were reported among mobile populations in 2007.

8.5 Achieving periods of tranquillity (Afghanistan experience)

Afghanistan has experience with successfully negotiating days of tranquillity in the past. Previously, the concept used to convince the parties in Afghanistan was that "health is neutral and each Afghani child has the right to be immunized". In the 1990s, days of tranquillity were announced for one week; because of their usefulness, the period was extended to more than a month.

During the past five years, it has become critical to revive this approach with the current parties. Efforts have been made by WHO, UNICEF, Ministry of Public Health and higher authorities, but it has not been possible to move forward because of lack of trust between fighting parties.

Most of the cases due to wild poliovirus are still detected in security-compromised areas. WHO has continued its efforts to achieve days of tranquillity, and in 2007 the WHO Director-General and Regional Director for the Eastern Mediterranean visited Afghanistan and met with H.E. Mr Hamid Karzai, President of Afghanistan, as well as the Adviser to the President and the Deputy Commander ISAF/NATO. The military agreed to "days of de-conflict". All information on campaign dates and areas of vaccination was shared with them; however, military operations were nevertheless conducted during the campaign days. ISAF/NATO HQ Brussels were visited and briefed by WHO about the polio situation in Afghanistan. They promised to keep the de-conflict situation during campaign days. At the same time, a country team approached anti-

government elements, who issued a letter of support and announced in the media and communicated to field formations their full support for polio supplementary immunization activities. This letter was helpful to polio staff in the field and helped improve access to the areas and children. Staff were able to vaccinate a large number of children who had been missed for a long period of time.

In addition, the programme adopted specific initiatives including the focused district strategy based on recruitment of village-local teams, adding social mobilizers at cluster level, more involvement of community and close monitoring. Using a staggered approach (dividing the high-risk districts into two zones and positioning all human resources in one first and then the other) and providing additional staff from the other regions were also instrumental.

There is definite progress in promoting the transition from days of de-conflict to days of tranquillity. Anti-government elements are approachable through the ICRC. However, the support of ISAF/NATO on days of tranquillity is still being sought. In this regard, the Adviser to the President on Health and Education is keeping this issue alive in NSC meetings. It was also discussed during a USAID meeting with the ISAF/NATO Commander.

9. OBSERVATIONS AND CONCLUSIONS

The TAG expressed its appreciation for the efforts made by national authorities to eradicate poliomyelitis and the detailed analysis and briefings provided by the country teams. It also expressed its satisfaction with the ongoing coordination efforts between the two countries and stressed that every effort should be made to maintain and further strengthen this coordination.

Reviewing the epidemiological situation of poliomyelitis in Pakistan and programme efforts to address the situation, the TAG made the following observations and conclusions.

- Almost all cases of poliomyelitis due to wild polioviruses type 1 or 3 remain largely restricted to known transmission zones and the adjacent areas, with the majority of the population of Pakistan living in polio-free areas.

- The sub-clusters of wild viruses circulating in Pakistan continues to decrease from 10 in 2005 to 7 in 2006; in 2007 only 4 sub-clusters, three type 1 and one type 3, are circulating in Pakistan. There is also evidence of restriction of some genetic subtypes to certain areas such as sub-cluster B4A of wild virus type 1, which continues to be primarily restricted to NWFP for 3 years. However, other sub-clusters such as A3-D and B1-C have been found in more than one area during 2007.

- Transmission of polioviruses in Pakistan occurs in two zones:

  1) The northern zone involves essentially NWFP. It is mostly due to WPV type 1. The sequence of events and transmission patterns point to the strong possibility that the circulating viruses continue to propagate in the tribal areas in Khyber, Bajour, Swat and Waziristan north and south. From there virus circulation reaches heavily populated

areas and transit points such as Peshawar, Nowshera and then reaches other areas in Pakistan and sometimes extends into the eastern region of Afghanistan.

2) The southern zone of transmission has both type 1 and type 3 polioviruses. The channels of transmission remain essentially along the corridor of movement between southern Afghanistan, Baluchistan, northern Sindh and southern Punjab.

Karachi used to be considered only an indicator district, but in 2007 was been implicated in virus spread to other areas, both in its neighbourhood (Thatta and Lasbella districts) and to distant areas including northern Sindh and as far as Afghanistan.

- Pakistan continued to conduct large numbers of supplementary immunization activities regularly, including in transmission zones, with the vaccines recommended by the TAG. Significant efforts were also made by the programme to address constraints through several initiatives and a multiplicity of approaches.

- The TAG, however, is concerned that despite intensive and mostly effective programme activities, both type 1 and type 3 polioviruses are still circulating over wide geographical areas in Afghanistan and in the north and south of Pakistan. The dangers imposed by this circulation is shown in the occurrence of importations in Mardan in the north and from Karachi into districts in the south outside those considered at highest risk. This picture indicates the presence of sufficient members of inadequately immunized population groups which are permitting continued virus circulation.

- As much as 40% of the polio confirmed cases were found to have received fewer than 4 doses of OPV and more than half the cases have not received any routine OPV doses. These facts, in addition to epidemiological investigation findings, confirm the possibility that some areas are being missed regularly, not only in routine immunization but also during supplementary immunization activities.

- The majority of areas with low immunization coverage have no accessibility problem. In these areas, the responsibility rests largely with the district management, particularly the EDOs, who have the authority and capability of ensuring that immunization is carried out with the required quality. There is ample evidence to testify that in districts where the EDO is deeply involved and effectively supervising work, performance is of a very high quality. The reverse was also found to be true.

- The TAG is concerned that two components of the programme are not reaching an acceptable standard, thereby limiting programme effectiveness: the quality of management, especially in planning and supervision, in some districts within the high-risk areas; and monitoring results of monitoring activities, largely in these same districts, which are not proving credible. The lack of reliable monitoring may conceal problems and programme deficiencies, and result in complacency.

- Presenting immunization coverage data by large population groups such as districts has been masking the real picture of inadequate immunization at lower administrative levels in Pakistan.

- The only endemic zone in Afghanistan is the southern region, which is part of a large transmission zone including southern Pakistan. The main reason for continued endemic transmission in the southern region of Afghanistan is the compromised access to children during immunization rounds due to the security situation.

- Although achieving an agreement for periods of tranquillity has not yet materialized it has been possible to reach agreement with anti-government elements to issue a statement of support for supplementary immunization activities in the southern region. This breakthrough, combined with the Government of Afghanistan's efforts to limit hostilities during immunization rounds, has allowed improved access to children in the southern region which has been sustained for several months. The impact is not yet obvious in case numbers, but supplementary immunization quality indicators have started to show encouraging signs of improvement.

- The few sporadic cases reported from the eastern region represent cross-border transmission from NWFP, Pakistan. The good coverage in supplementary immunization activities rounds and the high quality surveillance indicate that it is unlikely that the eastern region is supporting endemic transmission of wild polioviruses.

- AFP surveillance indicators in both countries give the overall impression that surveillance is functioning well. In depth review carried out in Pakistan shows some evidence that the quality of work in some districts is less than the desired level. This is supported by the genetic characteristics of some isolated viruses.

- The TAG commended the role and contribution of Pakistan RRL in the polio eradication programme in both Pakistan and Afghanistan.

- The TAG was very impressed with the significant level of progress made by Pakistan and Afghanistan in social mobilization in record time since the last consultation. The TAG has also noted that Pakistan has developed and approved a set of indicators which are to be used for monitoring communication trends and the impact of communication activities, and that Afghanistan has prepared a draft set of indicators which are still under discussion.

With the present low levels of wild poliovirus transmission in Afghanistan and Pakistan, the first 6 months of 2008 provides a valuable window of opportunity to make dramatic progress towards polio eradication. The problems identified with inadequate planning and supervision and unreliable monitoring of performance could all be corrected easily and rapidly, at least outside areas of poor security.

10. RECOMMENDATIONS

Political commitment

1. In Pakistan, the national and provincial authorities, already with well recognized commitment should undertake the following activities:
   1.1 Review performance of district officials, strengthening or replacing ineffective management when detected. For this to be done, a strict time-line should be defined and enforced for implementation of all the TAG recommendations, providing correction, ideally by the March SNIDs and certainly by those scheduled for April.
   1.2 Ensure that the national communication strategy highlights the value of immunizing children, with the aim of creating demand for vaccination within the community.
2. In Afghanistan, the strong political commitment exhibited should be maintained with continued active involvement and follow-up with the provincial national teams, including public health directors.

Supplementary immunization activities

3. To address the quality gap in supplementary immunization activities in Pakistan, the following activities should be implemented immediately.
   3.1 The specific plans of action usually developed at district level before supplementary immunization activities should be further developed and updated based on close review and mapping of identified challenges, and should include appropriate solutions. Time-bound action plans to address constraints should be prepared and their implementation monitored and followed up.
   3.2 With the alarming role played by Karachi in receiving and spreading infection in 2007, the TAG feels that it represents a major threat to the entire programme. Guaranteeing the quality of work in the city is an increasing priority. To this end, two activities should be implemented promptly: 1) intensification of AFP surveillance, possibly supported by environmental sampling; and 2) a guarantee of high performance SNIDs. To this end, new initiatives, such as the drafting of experienced staff, including high quality supervisors, to conduct mass campaigns at a time slightly different from the rest of the province, should be considered.
4. In both countries, programmes should continue to ensure and monitor the presence of the following basic elements for all areas in all rounds.
   a) Adequate and effective supervision of the activities.
   b) Appropriate selection and training of vaccinators and continued efforts to ensure that each team includes at least one female.
   c) Increasing involvement of the community and its leadership (including religious and other community leaders) in order to promote a sense of ownership of the programme making use of successful experiences in some areas in this regard.
5. Programmes in both countries should enhance monitoring and verification of campaign quality by:
   a) Expanding reliance on finger marking as a tool to assess coverage and to identify missed areas such as during market surveys. In this regard, training of vaccinators on proper use of finger marker should be strengthened.

b) Strengthening independent monitoring of supplementary immunization activities. In this regard, it is essential that independent monitoring be conducted by females from sectors other than health, e.g. education. Emphasis should be made on the need to include areas expected to be missed, such as those considered difficult to reach. The focus should be on obtaining a full picture and hence the data will not represent the best case scenario but should instead reflect the worst case scenario.

c) Analysing campaign data (including monitoring data) to the lowest possible administrative level. In calculating coverage rates, the denominator should always include the entire target population, whether accessed or not.

6. Security-compromised areas in both countries should be addressed.

6.1 Security-compromised areas should be mapped and monitored round by round to the lowest possible level. The ongoing efforts to ensure reaching children with vaccine in these areas should be further strengthened using appropriate approaches suitable to the local situation.

6.2 The programme should make the best possible use of any period of access to security compromised areas to carry out immunization activities, regardless of whether or not this is during planned rounds.

6.3 Wherever periods of accessibility are attained in areas which are not continuously accessible, the possibility of giving consecutive doses of mOPV of the same type within a short period should be considered, provided it is logistically feasible.

7. A buffer stock of both mOPV1 and mOPV3 should be maintained to ensure rapid response to any detected virus and to allow for additional supplementary immunization activities in high-risk areas (5 million doses of each type of vaccine for Pakistan and 1 million doses of each for Afghanistan).

8. With regard to the schedule of supplementary immunization activities, the TAG holds that its previous recommendations in April 2007 and those of the technical consultation of October 2007 are still valid, generally, and emphasizes the following:

8.1 The general population immunity against all polioviruses should be assured through conducting at least 4 NIDs using trivalent vaccine all over both countries.

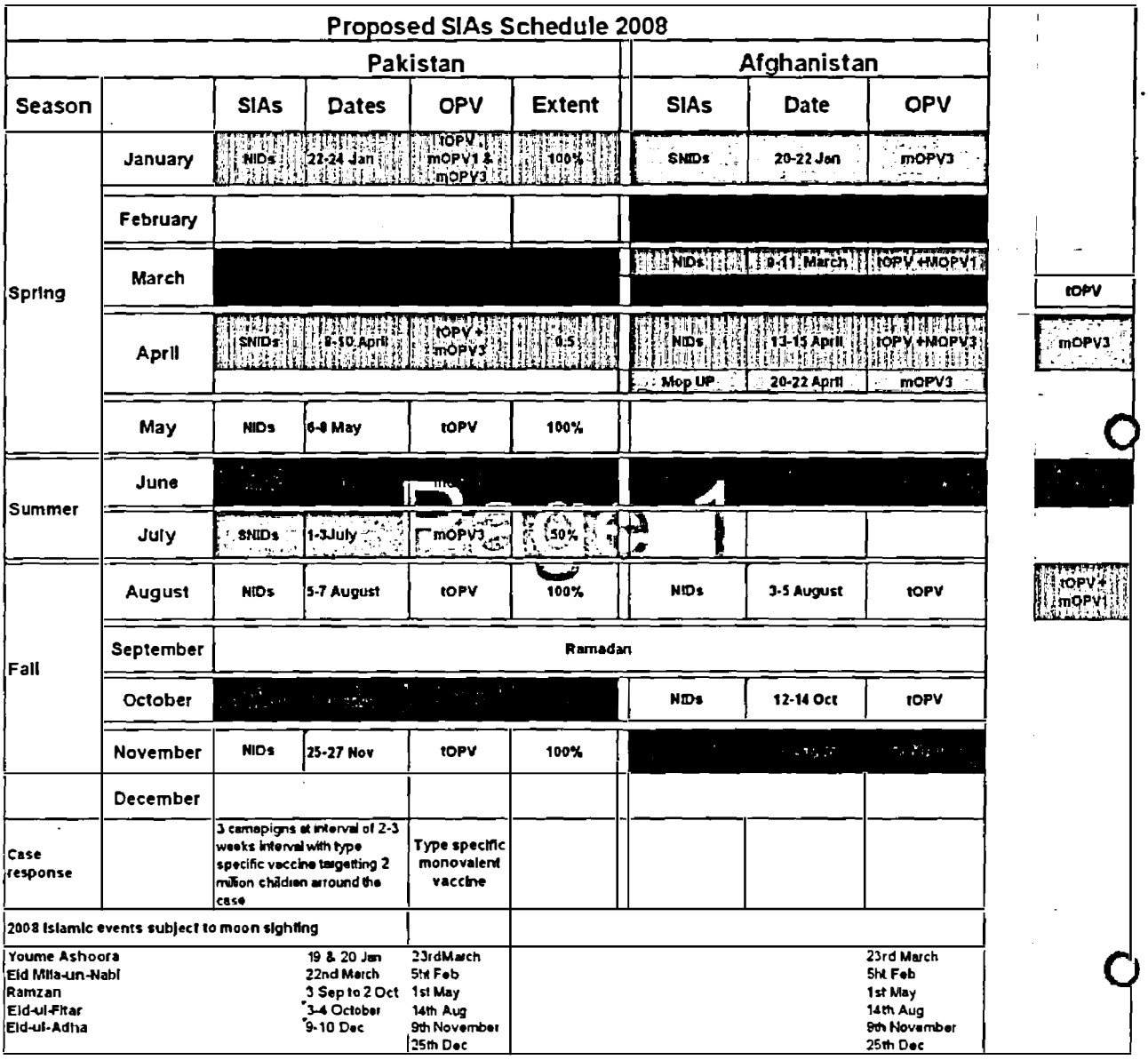
8.2 Additional rounds of supplementary immunization activities between these NIDs should be planned for transmission zones and other high-risk areas using appropriate monovalent vaccines. SNIDs in Pakistan should constitute at least 50% of the total target population including all of Sindh, NWFP, FATA, Baluchistan, and selected high-risk districts of southern Punjab.

8.3 Large scale mop-up response to the appearance of WPV in polio-free areas should be conducted as soon as possible after confirmation using appropriate mOPV. The emergency stock of mOPVs should be replenished to maintain the stock.

8.4 A risk analysis concerning the use of various types of vaccines should be conducted as soon as possible. It should demonstrate the expected consequences related to the use of various schedules and types of vaccines on the occurrence of cases. The results of this study should be utilized by the programme in recommending the schedule and type of vaccine to be used. The views of the TAG can be obtained through email communication or telephone conference and then presented to the authorities.

8.5 The recommended schedule for 2008 is shown in the table below. The TAG noted that the coordinated schedule and vaccine type between Afghanistan and Pakistan has been disrupted because of prevailing political situation in Pakistan, necessitating changing

the dates for some rounds, and recommends that efforts be made to ensure a return to close coordination and synchronization as soon as possible.



Proposed SIAs Schedule 2008

		Pakistan				Afghanistan		
Season		SIAs	Dates	OPV	Extent	SIAs	Date	OPV
Spring	January	NIDs	22-24 Jan	tOPV + mOPV1 & mOPV3	100%	SNIDs	20-22 Jan	mOPV3
	February							
	March					NIDs	9-11 March	tOPV +MOPV1
	April	SNIDs	8-10 April	tOPV + mOPV3	0.5	NIDs	13-15 April	tOPV +MOPV3
						Mop UP	20-22 April	mOPV3
	May	NIDs	6-8 May	tOPV	100%			
Summer	June							
	July	SNIDs	1-3July	mOPV3	50%			
Fall	August	NIDs	5-7 August	tOPV	100%	NIDs	3-5 August	tOPV
	September	Ramadan						
	October					NIDs	12-14 Oct	tOPV
	November	NIDs	25-27 Nov	tOPV	100%			
	December							
Case response		3 campaigns at interval of 2-3 weeks interval with type specific vaccine targetting 2 million children around the case		Type specific monovalent vaccine				
2008 Islamic events subject to moon sighting								
Youme Ashoora			19 & 20 Jan	23rdMarch				23rd March
Eid Milla-un-Nabi			22nd March	5st Feb				5st Feb
Ramzan			3 Sep to 2 Oct	1st May				1st May
Eid-ul-Fitar			3-4 October	14th Aug				14th Aug
Eid-ul-Adha			9-10 Dec	9th November				9th November
				25th Dec				25th Dec

tOPV

mOPV3

tOPV + mOPV1

8.6 While the great majority of the population of Pakistan lives in polio-free areas, this status cannot be guaranteed if transmission of WPV persists in the high-risk areas. The programme must guarantee that, even in the long-term absence of positive findings from AFP surveillance, its quality must be sustained and closely monitored for any signs of reducing effectiveness. Equally important, programme staff should review the geographical and epidemiological extent of mopping-up campaigns, understanding that with the inevitable time delays to case detection virus isolation, plus the likelihood of sub-clinical infection in a well immunized population, WPV spread will be extensive before the mop-up can start.

Surveillance

9. Surveillance reviews should be regularly conducted to document the quality of surveillance activities and plans of action should be developed to address constraints identified.
10. It is strongly recommended that the programme institutes a mechanism by which the data reported on individual AFP cases are independently validated on a regular basis.

Communication

11. The TAG encourages both Pakistan and Afghanistan to continue to implement the recommendations of the communication reviews as soon as possible.
12. The TAG views the establishment of communication indicators as a particularly important development. In this regard, it recommends that Afghanistan should review and refine its communication indicators and finalize them prior to the next NID. The TAG looks forward to future communication reports based on these indicators. These reports should be prepared after each supplementary immunization activities and incorporated into the campaign report.
13. The TAG also recommends that communication reviews should continue on a periodic basis as required by country programmes. The nature, scope and timing of the reviews should be determined by country teams and be chaired by the governments with the support of the national teams and international/national experts as required. These reviews should be based on social issues and challenges and the evolving polio epidemiology and provide realistic and achievable inputs on how to overcome challenges and strengthen the programme.
14. The study on refusals in Pakistan should be expanded and its findings used in preparing plans to address factors identified for refusals and undertake corrective actions.

Routine immunization

15. Immunization data for polio cases in Pakistan in 2007, which show that two-thirds of the cases had received no routine immunization, indicate that a substantial number of children in high-risk areas are still outside the immunization delivery system. Every opportunity should be sought to reach these children with poliovaccine in order to finally eliminate the remaining reservoirs of susceptible children that are enabling a low level of poliovirus circulation to persist. A plan of action for routine immunization in the high-risk districts should be ready for implementation as soon as possible and results presented in the next TAG meeting.
16. The Government of Pakistan is encouraged to use GAVI/ISS funds and other resources to urgently develop and implement a management structure for improved routine/outreach immunization services, particularly in the high-risk districts for polio. The proposed management structure and plan of action should draw upon the lessons learned in Pakistan for engaging and sustaining the interest of political leaders, involving religious leaders, communicating the value of vaccines to the community, and devising strategies to reach mobile populations and insecure areas.

Annex 1

PROGRAMME

Sunday, 3 February 2008

08:30–09:00	Registration	
09:00–09:30	Opening session	
	Address by Adviser to H.E the President of Afghanistan on Health and Education	Dr Najibullah Mojadidi
	Address by Secretary Health, Pakistan	H.E. Mr Khushnood A. Lashari
	Address by Regional Director, WHO EMR	Dr Hussein A. Gezairy
	Objectives and meeting agenda	Dr Nick Ward, Chairman
09:30–09:50	Implementation of TAG Recommendations	Dr Rehan Hafiz, EPI manager Pakistan Dr Aghagul Dost, EPI manager, Afghanistan
	Pakistan	
09:50–10:20	Epidemiological situation	Dr Ni'ma Abid, WHO Pakistan
10:20–10:40	Surveillance quality	Dr Obaid ul Islam, WHO Pakistan
10:40–11:00	Laboratory update	Mr Sohail Zaidi, Pakistan
11:30–12:00	Campaign quality / monitoring data	Dr Javed Iqbal, WHO Pakistan
12:00–13:00	Discussion on Pakistan presentations	
	Afghanistan	
14:00–14:30	Epidemiological situation in Afghanistan	Dr Tahir Mir, WHO Afghanistan
14:30–14:50	Surveillance quality in Afghanistan	Dr Arshad Quddus, WHO Afghanistan
14:50–15:10	Campaign quality/monitoring data in Afghanistan	Dr Tahir Mir, WHO Afghanistan
15:10–16:00	Discussion on Afghanistan presentations	
16:00–17:00	Internal meeting of TAG Members	

Monday 4 February, 2008

08:30–10:30	Special approaches	
	Cross-border coordination	Dr Aghagul Dost, EPI manager Afghanistan
	Maintaining interest of political leaders	Dr Ahmed Darwish, WHO Pakistan
	Involving religious leaders	Dr Abdul Jabbar, WHO Pakistan
	Ensuring coverage of mobile population	Dr Raul Bonifacio, WHO Pakistan
	Achieving period of tranquillity	Afghanistan team
11:00–12:00	Update on communication	
	Pakistan	Ms Melissa Corkum, UNICEF Pakistan
	Afghanistan	Ms Savita Naqvi, UNICEF Afghanistan
12:00–13:00	General discussion	
14:00–15:00	Internal meeting of the TAG members	
15:00–16:00	Presentation of the recommendations	
16:00–17:00	Discussion and closing remarks	

Annex 2

LIST OF PARTICIPANTS

MEMBERS OF THE TECHNICAL ADVISORY GROUP

Dr Nick Ward, Chairman
Stowford Meadow
Langtree, Devon
UNITED KINGDOM

Dr M.H. Wahdan
Special Adviser to the Regional Director for Poliomyelitis Eradication
WHO/EMRO
Cairo
EGYPT

Dr Faten Kamel
Medical Officer, Poliomyelitis Eradication
WHO/EMRO
Cairo
EGYPT

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

Dr Rudi Tangermann
Medical Officer, Polio Eradication
WHO/HQ
Geneva
SWITZERLAND

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

Dr Howard Gary*
National Immunization Programme
Centers for Disease Control and Prevention
Atlanta
UNITED STATES OF AMERICA

---

* Unable to attend

Dr Steve Cochi
Senior Advisor, Immunization Division, National Immunization Program
Centers for Disease Control and Prevention
Atlanta
UNITED STATES OF AMERICA

Dr Maria Otelia Costales
Senior Health Adviser
Global Polio Eradication Program, Health Section Programme Division
UNICEF Headquarters
New York
UNITED STATES OF AMERICA

Dr Hamid Jafari*
Project Manager National Polio Surveillance Project
WHO Regional Office for South-East Asia
New Delhi
INDIA

Dr Arun Thapa*
Regional Adviser
WHO Regional Office for South-East Asia
New Delhi
INDIA

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

Dr Ghulam Naghshband Haji M. K. Aram
Afghanistan National TAG Member
Kabul
AFGHANISTAN

Dr Saleh Rahman Rahmani
Afghanistan National TAG Member
Kabul
AFGHANISTAN

Professor Abdul Ghafar Billo
Pakistan National TAG Member
Sindh
PAKISTAN

---

* Unable to attend

Professor Dur-e-Sameen Akram*
Pakistan National TAG Member
Karachi
PAKISTAN

Dr Abdul Malik Kassi
Pakistan National TAG Member
Baluchistan
PAKISTAN

Professor Tariq Bhutta
Pakistan National TAG Member
Chairman of NCC
Punjab
PAKISTAN

Professor Azmat Talat*
Pakistan National TAG Member
NWFP
PAKISTAN

MINISTRIES OF HEALTH

Afghanistan
Dr Najibullah Mujadidi, Advisor to H.E the President on Health and Education, Ministry of Public Health, Kabul
Dr Aghagul Dost, National EPI Manager, Ministry of Public Health, Kabul

Pakistan
H. E. Mr Khushnood Akhtar Lashari, Federal Secretary Health, Federal Ministry of Health, Islamabad
Dr Rehan Abdul Hafiz, National EPI Manager, National Institute of Health, Federal Ministry of Health, Islamabad
Mr Farooq Haroon Nazir, Chief Executive Officer, Punjab Rural Support Program, Lahore
Mr Syed Sohail Zahoor Zaidi, Senior Scientific Officer, Polio Regional Reference Laboratory National Institute of Health, Islamabad

OTHER ORGANIZATIONS

Centers for Disease Control and Prevention (CDC)
Dr Elias Durry, Team Leader EMR VPDEEB, Global Immunization Division, Atlanta

United States Agency for International Development
Ms Ellyn Ogden, USAID Worldwide Polio Eradication Coordinator, Washington DC

---

* Unable to attend

United Nations Children's Fund (UNICEF)
Dr Rafah Salam Aziz, Polio Senior Advisor, Health Section, Programme Division, UNICEF/HQ
Mr Pankaj Mehta, Project Officer, Immunization, Health and Nutrition, Kathmandu, NEPAL
Ms Catherine Mbengue, Representative, UNICEF Afghanistan Country Office
Dr Brandao Co, Chief, Health & Nutrition, UNICEF Afghanistan Country Office
Dr Popal Shahwali, Health Project Officer, UNICEF Afghanistan Country Office
Ms Savita Naqvi, Communication Officer, UNICEF Afghanistan Country Office
Dr Ibrahim Elziq, Chief, Health & Nutrition, UNICEF Pakistan Country Office
Dr Azhar Abid Raza, Health Specialist, UNICEF Pakistan Country Office
Ms Melissa Corkum, Communication Specialist, UNICEF Pakistan Country Office

Rotary International
Mr Abdul Haiy Khan, Chairman National PolioPlus, Rotary International, Karachi

OBSERVER

Dr Nicholas Grassly, Imperial College London, London

WHO SECRETARIAT

WHO/EMRO
Dr Hussein A. Gezairy, Regional Director, WHO/EMRO
Dr Mohamed Abdi Jama, Deputy Regional Director, WHO/EMRO
Dr Humayun Asghar, Virologist, WHO/EMRO
Dr Abdalla Elkasabany, Medical Officer, WHO/EMRO
Mr Jalaa Abdelwahab, Technical Officer, WHO/EMRO
Ms Abir Hassan, Secretary, Polio, WHO/EMRO
Ms Wallaa El Moawen, Secretary, Polio, WHO/EMRO

WHO/HQ
Dr Bruce Aylward, Director, Polio Eradication Initiative
Ms Anne-Lise Loomer, External Relations Officer

WHO Afghanistan
Mr Peter Graaff, WHO Representative Afghanistan
Dr Tahir Mir, Medical Officer
Dr Arshad Quddus, Short Term Consultant

WHO Pakistan
Dr Khalif Bile, WHO Representative Pakistan
Dr Ni'ma Abid, Team Leader, Pakistan
Dr Ahmed Darwish, Team Leader, Punjab
Dr Yehia Moustafa, Team Leader, North Sindh
Dr Abdul Jabbar Abdul Ridha, Team Leader, NWFP/FATA
Dr Raul R. Bonifacio, Team Leader, Baluchistan
Dr M. Obaid-ul-Islam Butt, National AFP Surveillance Coordinator
Dr Javed Iqbal, National Campaign Coordinator