

Draft Report
Meeting of the Technical Advisory Group on Poliomyelitis
Eradication in Afghanistan and Pakistan
Cairo, 3-4 February 2008

1. Introduction:

The Technical Advisory Group (TAG) on poliomyelitis eradication in Afghanistan and Pakistan held its meeting in Cairo at WHO/EMRO from 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.

2. Opening Session:

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 Mojaddidi, Adviser to H.E. 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. President Karzai in ensuring that the programme achieves its objectives. He made an overview of efforts made by the Government of Afghanistan to bring all stakeholders in the country together in support of polio eradication and acknowledged continued support of partners and close coordination with Pakistan.

In his address, Mr Lashari, Federal Secretary Health Pakistan, welcomed the participants and acknowledged the support of the TAG in guiding programme direction. He reaffirmed Government's commitment to immunization programmes and specifically to polio eradication. Mr Lashari then spoke about key factors for success and in this regard he emphasized on the importance of ownership, not only by local authorities but also by the community. He thanked partners for their continued commitment and ended his address by asking the TAG for guidance on the supplemental immunization activities required and on the type of vaccine to be used.

Dr H.Gezairy, Regional Director WHO/EMRO, 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 on the need for coordinated efforts between the two countries who represent one epidemiologic 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, the RD 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 and the list of participants is attached (Annex 2).

3. 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 is 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. the President of Afghanistan has inaugurated 5 SIAs in 2007. It also acknowledged with appreciation the fact that Prime Minister of Pakistan has acknowledged the efforts of the various districts by distributing shields for all those who were successful to stop transmission.

4. Epidemiologic 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 due to each of the WPV of type 1 and type 3).

It was noted that 12 of the 32 cases (about 40%) of 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 are under 3 years of age.
- Two thirds of the cases received no routine immunization.
- 40% received less 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 to children in security compromised areas, gaps in performance, pockets of refusals and inadequate management in some districts.

In Afghanistan, as of 2nd 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 shows a significant reduction in the number of reported type 3 cases than in 2006 while it was not the case with wild poliovirus type 1 (29 due to WPV3 and 2 due to WPV1).

The major endemic zone of Afghanistan remains the Southern Region, which accounts 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 Eastern Region, part of the shared northern transmission zone with North West Frontier Province (NWFP), Pakistan. Cases are reported from 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 Eastern Region.

The polio cases reported from Southern Region were in general under-immunized. 10 of the 15 cases had less than 3 doses of 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 less than 30 months of age except one case, which was 6 years old.

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.

5. Surveillance activities

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

The programme is not only analyzing 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 analyzed 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 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 Western Region, active search 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 Southern Region.

6. Virologic 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 analyzed 10,823 stool specimens from AFP cases and 2,497 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 WPV isolates, the RRL is studying their genetic sequence. The laboratory has 100% concordance in ITD 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 Pakistan and Afghanistan.

There is strong coordination between AFP surveillance staff (both Pakistan and Afghanistan) 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.

7. 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 levels of 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 SIAs, 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 analyzed for districts shows overall high rates. It was noted, however, that analyzing 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 UC 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 Faraha province of Western Region.

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

8. 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 are showing improved understanding of messages over time.

The second study, “refusal study”, was undertaken in 6 high risk districts. Preliminary data highlights 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. It was also indicated that upcoming research is 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 resource that meets the required terms of reference is a major challenge to rapid recruitments in the field. A KAP baseline study was undertaken to provide a baseline for measuring community attitudes, perceptions and practices around behaviors related to polio (and routine) immunization. The KAP has also identified barriers that prevent families from getting their children immunized including gaps in service delivery at the health facilities and at the door step.

Communication challenges in Afghanistan are different from Pakistan. Refusals are not an issue. However, since there is a lot of movement between endemic areas in both countries, a distinct 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 (AGE) control some areas which make 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 communication strategy at all levels. The next step is to ensure a communication structure that is fully functional at all levels to implement the strategy.

9. Specific experiences and approaches:

The programmes shared with TAG specific approaches adopted to address certain issues

a. Cross border coordination activities:

Since the identification of the fact that both Afghanistan/Pakistan represent one epidemiologic 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:

1. 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 frequent as needed.
2. Regular exchange of epidemiologic information and successful experiences.
3. 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 cross border points. They have been vaccinating hundreds of thousands of children under 5 crossing the border annually.
4. 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.

b. Maintaining interest of political leaders (Punjab experiences)

The presentation highlighted Punjab’s experience in maintaining political commitment and programme ownership together with the challenges inherent in having multiple centers 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 non governmental elements.

Political commitment has been interrelated to both community awareness and 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 (UC)/Tehsil level, supervisors, teams and community were addressed using different approaches and tools. Most important in the Punjab experience was joint management team (WHO, UNICEF and Government) to avoid contradicting messages. Regular meetings, feedback, recognition and high profile visits played important role in keeping interest and ownership.

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

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 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 rumors.

c. Involving religious leaders (NWFP experience)

The presentation highlighted the activities 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 ministry of health, WHO, UNICEF and other partners and media agencies. These steps resulted in the issuance of religious Fatwa in support of the polio vaccinations.

Later steps focused on community based interventions by which refusals, rumors 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 jerga meetings, enabled the program to gain more support, increase the endorsement of the Fatwa, as well as increasing accessibility to communities previously refusing polio SIA activities.

Identification of key individuals and involving them in meetings and inauguration of campaigns to increase support to the program was done. They were helpful to address community concerns and clarify any misconceptions that might exist.

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 both polio eradication activities and SIA as well as routine vaccination. The trend of campaign data in the second half of 2007 confirm these findings.

d. Ensuring coverage of mobile population (Baluchistan):

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

In 2006, 3 polio cases were reported in Pakistan (2 from Balochistan and 1 Sindh) from highly mobile population. This fact has highlighted the role they play in moving viruses between the two countries.

To address this problem, the program studies population movement extensively with respect to their size, reasons, timing, etc.

The established strategies to address the situation included:

- Covering mobile populations (MP) in temporarily settled areas and micro-planning, issuing of Yellow Cards and inclusion in PCM.
- MP were also covered at check points with registration with good record keeping and follow-up in the districts
- Special Round (Mastung and Loralai)
- Availing OPV during Measles round.

No polio cases reported among MP in 2007 in Pakistan and specific interventions expanded from covering MP in temporarily settled areas and check posts to availing opportunities after SIA, measles round and routine immunization.

e. Achieving periods of tranquility: (Afghanistan experience):

Afghanistan has the experience of successful days of tranquility (DOT) in the past. At that time the concept used to convince the parties in Afghanistan was “*health is neutral and each Afghani child has the right to be immunized*”. In 1990s, days of Tranquility were announced for one week, however, due to its usefulness it was extended to more than a month. During the last five years, it became critical to revive this approach with the current parties.

Efforts were made by WHO, UNICEF, Ministry of Health and later on involving higher authorities but it was not possible to move forward because of lack of trust between fighting parties.

It was noted that most of the wild polio cases were still detected in security compromised areas. WHO continued its efforts to achieve days of tranquility and in 2007 WHO Director General and EMRO Regional Director visited Afghanistan and met HE President Hamid Karzai, HM, advisor to President, Deputy Commander ISAF / NATO. The military agreed to have days of de-conflict. All information on campaign dates and areas of vaccination was shared with them; however, operations were 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, country team explored

the possibility of approaching anti-government elements (AGE), who issued a letter of support, and announced in the media and communicated to their field formations their full support to polio supplementary immunization activities. This letter was helpful to polio staff in the field and in improving access to the areas and children. It helped to vaccinate a large number of children who were missed for long period of time.

In addition the program adopted specific initiatives including Focused District Strategy (FDS) based on recruitment of village-local teams, adding social mobilizers at cluster level, more involvement of community and close monitoring. Staggering approach (dividing the high risk districts into two zones and positioning all human resource in one and shifting to the other later) and providing additional staff from the other regions was also instrumental.

There is a definite progress on understanding the concept of DOT, and now we are in a transition from Days of de-conflict to DOT. The AGE is approachable through ICRC. However, seeking the support of ISAF/NATO on Days of Tranquility is still in progress. In this regard, advisor to the President on Health is keeping this issue alive in NSC meetings. It was discussed during a USAID meeting with ISAF/NATO Commander.

10. Observations and conclusions:

The TAG expressed its appreciation of the efforts done 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.

- 1) Reviewing the epidemiologic situation of poliomyelitis in Pakistan and programme efforts to address the situation, the TAG made the following observations and conclusions:
 - a. 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.
 - b. The sub-clusters of wild viruses circulating in Pakistan continues to decrease from 10 in 2005 to 7 in 2006 and 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-clusters 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.

- 2) Transmission of polio viruses in Pakistan occurs in two zones:
- a) 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 it reaches heavily populated areas and transit points such as Peshawar, Nowshera and then reaches other areas in Pakistan and sometimes extends into eastern region of Afghanistan.
 - b) The southern zone of transmission has both type 1 and type 3. The channels of transmission remain essentially along the corridor of movement between Southern Afghanistan, Baluchistan, North Sindh and Southern Punjab.
 - c) Karachi used to be considered only an indicator district, but in 2007 it has been implicated in the spread to other areas, both in its neighborhood (Thatta and Lasbella districts) and to distant areas including Northern Sindh and as far as Afghanistan.
- 3) Pakistan continued to conduct large numbers of SIA regularly including transmission zones with the vaccines recommended by the TAG. Also significant efforts were made by the programme to address constraints through several initiatives and a multiplicity of approaches.
- a. the TAG, however, is concerned that, in spite of intensive and mostly effective programme activities, both types 1 and type 3 are still circulating over wide geographical areas in Afghanistan and in both 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 inadequately immunized population groups which are permitting continued viral circulation due to poor quality.
 - b. as much as 40% of the polio confirmed cases were found to have received less than 4 doses of OPV and more than half the cases have not received any routine OPV doses. These facts, in addition to the epidemiologic investigation findings, confirm the possibility that some areas are being missed regularly not only in routine immunization but also during SIAs.
 - c. 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.
 - d. the TAG is concerned that 2 components of the programme are not reaching an acceptable standard, limiting its' effectiveness, firstly the quality of management, especially in planning and supervision, in some districts within

the high risk areas and secondly, SIA monitoring results, largely in these same districts, are not proving credible. This lack of reliable monitoring can only lead to concealed problems and programme deficiencies, resulting in complacency.

- e. 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.
- 4) The only endemic zone in Afghanistan is Southern Region, which is part of a large transmission zone including southern Pakistan. The main reason for continued endemic transmission in Southern region of Afghanistan is the compromised access to children during immunization rounds due to the security situation.
- a. Although achieving an agreement for periods of tranquillity has not materialized yet it has been possible to seek the agreement of AGE to issue a statement of support to SIAs in the Southern Region. This break through combined with the Government of Afghanistan's efforts to limit hostilities during immunization rounds, have 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 SIA quality indicators started to show encouraging signs of improvement.
 - b. The few sporadic cases reported from the Eastern Region represent cross border transmission from NWFP, Pakistan. The good coverage in SIA rounds and the high quality surveillance indicate that it is unlikely that eastern region is supporting endemic transmission of wild polioviruses.
- 5) 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.
- 6) TAG commended the role and contribution of Pakistan RRL in the polio eradication programme in both Pakistan and Afghanistan.
- 7) The TAG was very impressed with the significant level of progress made by Pakistan and Afghanistan in social mobilization in a 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.

11. Recommendations

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 identified problems, with

inadequate planning, supervision and unreliable monitoring of performance could all be corrected easily and rapidly, at least outside areas of poor security. To this effect the TAG made the following recommendations:

Political commitment:

- 1) In Pakistan, the Federal and Provincial authorities, already with well recognized commitment should:
 - a) review performance of District officials, strengthening or replacing ineffective management when detected. If this is to be done, as is clearly necessary, a strict time-line needs to be defined and enforced for all the TAG recommendations, providing correction, ideally by the March SNIDs and certainly by the ones scheduled for April.
 - b) ensure that the national communication strategy highlights the value of immunizing children and should aim at 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 the Public Health Directors.

Supplementary Immunization Activities

- 3) To address the quality gap in SIAs in Pakistan, the following should be immediately implemented
 - a) The specific plans of action usually developed at district level before SIAs should be further developed and updated based on close review and mapping of identified challenges and include appropriate solutions. Time-bound action plans to address constrains should be prepared and its implementation monitored and followed up.
 - b) With the very concerning role being played by Karachi in receiving and spreading infection in 2007, the TAG feels that it represents a major threat to all the programme. Guaranteeing the quality of work in the city is an increasing priority. To this end, 2 activities should be instituted promptly, firstly an intensification of AFP surveillance, possibly supported by environmental sampling and secondly a guarantee of high performance SNIDs. To this end, new initiatives, such as the drafting in 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, there is need to continue to ensure and monitor the presence of the following basic elements for all areas in all round:
 - i. Adequate and effective supervision of the activities.
 - ii. Appropriate selection and training of vaccinators and continued efforts to ensure that each team includes at least one female.

- iii. 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) Enhanced 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 SIAs. 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 deemed to be difficult to reach. The focus should be on obtaining a full picture and hence the data will not represent the best case scenario but better to be the worst case scenario.
 - c) Analyzing campaign data (including monitoring data) to the lowest possible administrative level.
- 6) Addressing security compromised areas in both countries:
 - 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.
 - 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.
 - 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 its 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 SIAs in high risk areas (5 million doses of each type of vaccine for Pakistan and 1 million doses of each for Afghanistan).
- 8) SIA schedule: The TAG feels that its previous recommendations in April 2007 and those of the technical consultation of October 2007 are still, generally, valid and emphasize on the following:
 - i. The general population immunity against all polio viruses should be assured through conducting at least 4 NIDs using trivalent vaccine all over both countries.
 - ii. Additional rounds of SIAs in 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, Balochistan, and selected high risk districts of southern Punjab.

- iii. 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.
- iv. 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 an email communication or telephone conference and then presented to the authorities.
- v. The recommended schedule for 2008 is shown in the attached table. 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.
- vi. 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.

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					SNIDs	10-12 Feb	mOPV1
	March	SNIDs	4-6 Mar	mOPV1	50%	NIDs	9-11 March	tOPV+mOPV1
						Mop UP	16-18 March	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	SNIDs	3-5 June	mOPV1	50%	SNIDs	1 - 3 June	mOPV1
	July	SNIDs	1-3 July	mOPV3	50%			
Fall	August	NIDs	5-7 August	tOPV	100%	NIDs	3-5 August	tOPV
	September	Ramadan						
	October	SNIDs	14-16 Oct	mOPV1	50%	NIDs	12-14 Oct	tOPV
	November	NIDs	25-27 Nov	tOPV	100%	SNIDs	7 - 9 Dec	mOPV
	December							
Case response		3 campaigns at interval of 2-3 weeks interval with type specific vaccine targeting 2 million children around the case		Type specific monovalent vaccine				
2008 Islamic events subject to moon sighting								
	Youme Ashoora		19 & 20 Jan	23rd March				23rd March
	Eid Mila-un-Nabi		22nd March	5th Feb				5th 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

Surveillance

- 9) Surveillance reviews should be regularly conducted to document the quality of surveillance activities and plans of action developed to address identified constraints.
- 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 SIA 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) Further expand the study on refusals in Pakistan and use its findings in preparing plans to address factors identified behind refusals and undertake corrective actions.

Routine Immunization:

- 15) Immunization data of polio cases in Pakistan in 2007 showing that two thirds of the cases had received no routine immunization indicate that substantial number of children in high-risk areas are still outside the immunization delivery system. Every opportunity to reach these children with polio vaccine should be sought to finally eliminate the remaining reservoirs of susceptible children that are enabling 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) Pakistan Government 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 strategies to reach mobile populations and insecure areas.