

Report on the

**Second Meeting of the Regional Technical  
Advisory Group for Poliomyelitis Eradication**

Cairo, Egypt  
23–24 June 2004



World Health Organization  
Regional Office for the Eastern Mediterranean

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## 1. INTRODUCTION

The Regional Technical Advisory Group (TAG) on Poliomyelitis Eradication is an independent group of international experts on polio eradication, convened by WHO's Regional Committee for the Eastern Mediterranean to review and discuss all aspects of polio eradication in the Member States of the Eastern Mediterranean Region and to produce recommendations for the Regional Director aimed at assisting all countries of the Region to achieve and maintain polio-free status. The second meeting of the TAG was held in Cairo, Egypt on 23–24 June 2004 under the chairmanship of Dr Ali Jaafar Mohamed Sulaiman.

Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, in welcoming participants to the meeting, noted that important achievements had been made since the first meeting of the Regional Technical Advisory Group. Nineteen of the 22 Member States of the Region were now considered polio-free, with 18 having had no cases for over 3 years, and Somalia having had none for almost 2 years. Significant progress had been made in Pakistan, Afghanistan and Egypt, where there was evidence of a reduction in virus transmission and diversity.

Dr Gezairy stressed that political commitment to polio eradication had never been greater and was continuing at a high level in the three remaining polio endemic countries. All countries were fully implementing the recommended strategies. Surveillance quality was high, with an AFP rate of 2.4 per 100 000 children aged less than 15 years, and there was a 90% adequate stool collection rate.

He noted that supplementary immunization activities of high and improving quality had been conducted in endemic and recently endemic countries, the former conducting 4 full rounds of house-to-house national immunization days (NIDs) in 2003 plus 4 subnational immunization days (SNIDs) in high-risk areas.

Dr Gezairy further stressed the need to give due attention to the end-game issues, stating that polio transmission levels were now at their lowest ever and the goal of polio eradication was now within reach. He emphasized the importance of the Regional Technical Advisory Group discussions and promised careful consideration of all recommendations made.

In addition to the Members of the TAG, the meeting was attended by officials from the Ministries of Health of Afghanistan, Egypt, Islamic Republic of Iran, Jordan, Saudi Arabia, Sudan, Syrian Arab Republic and Yemen. In addition, WHO staff members from the Regional Office, headquarters and field offices, a representative from the UNICEF Regional Office for the Middle East and North Africa (MENARO) and from the Ministry of Health of Japan also attended. The programme and list of participants are attached as Annexes 1 and 2, respectively.

## **2. FOLLOW-UP OF RECOMMENDATIONS FROM THE FIRST MEETING OF THE REGIONAL TECHNICAL ADVISORY GROUP**

Dr M. H. Wahdan, WHO/EMRO, reported on the implementation of the 16 recommendations made by the TAG in its first meeting.

Recommendation 1 covered the need for high quality supplementary immunization activities in the mega-cities of Egypt and high-risk areas of Pakistan before the end of 2003. Immunization activities in these identified areas were conducted to a higher standard than ever before, and high levels of house-to-house coverage were achieved in greater Cairo.

Recommendations 2–4 related to advocacy at the highest national levels. This has been achieved to a significant extent, notably with 3 visits by the Regional Director to Pakistan, where he met with President Pervez Musharraf, provincial governors and other high officials, raising commitment and awareness to the extent that the President's office now has a polio cell, receiving regular progress reports. The effect of increased high-level advocacy has been pronounced and has strengthened technical work at all levels.

Recommendation 5 urged the use only of offshore oral poliovaccine (OPV), i.e. WHO pre-qualified vaccine, in polio eradication activities. This vaccine is now the only one being used in the polio endemic countries.

Recommendations 6–7 concerned full coordination with the WHO Regional Office for Africa. This coordination has continued, particularly at borders between countries of the two regions.

Recommendation 8 sought to increase awareness of the need for preparedness for possible poliovirus importations. EMRO has circulated guidelines to deal with importations to all Member States. In 2004, a wild poliovirus was imported into Sudan. Available data show that this importation was promptly detected and fully investigated within a short period of time.

Recommendation 9 concerned high-level recognition and appreciation for national staff working in the most difficult situations. This was addressed through letters from the Regional Director to the national authorities in response to visits and Technical Advisory Group meetings.

Recommendations 10–11 stressed the continuing need for national technical advisory groups. The advisory groups for all 3 polio endemic countries have continued to meet, with further meetings planned for 2004 and 2005.

Recommendations 12–13 were aimed at increasing financial resources for the polio initiative from within the Region. In October 2003, the Regional Committee for the Eastern Mediterranean passed a resolution (EM/RC50/R.4) urging Member States to support polio eradication in the Region. Some additional funds have been provided, but considerably more funds are needed. One country is considering a significant contribution.

Recommendations 14–16 concerned end-game strategies and the possible use of inactivated poliovaccine (IPV). WHO advice on the subject was circulated to all Member States and was endorsed by the Regional Committee in 2003. None of the Member States of the Region have yet introduced IPV into their immunization schedules.

In the discussion following the presentation, the members of the Regional Technical Advisory Group expressed their appreciation of the comprehensive way in which its recommendations have been followed up. While some of the recommendations were time limited, e.g. on NIDs in 2003, others such as advocacy, funding and end-game strategies are still relevant and merit continuing follow-up and full implementation.

### **3. PROGRESS TOWARDS GLOBAL POLIO ERADICATION**

Dr Bruce Aylward, WHO/HQ, in presenting the global polio eradication progress report, paid tribute to the significant contribution being made by Dr Hussein A. Gezairy, Regional Director for the Eastern Mediterranean, not only for his strong advocacy work within the Region, but also for his considerable influence in advancing global polio eradication.

Since the first meeting of the Regional Technical Advisory Group, WHO has produced a strategic plan for poliomyelitis eradication for the years 2004 to 2008. The plan defines objectives and milestones, cross-cutting challenges and roles of partner agencies and explores the issues beyond certification of global polio eradication, notably cessation of the use of OPV.

The cessation of OPV is seen as a mid-term goal. WHO will not recommend replacing its use with IPV. A longer-term goal will be to develop a programme to mainstream polio eradication infrastructures into a long-term, sustainable function.

Target dates have been revised for stopping wild poliovirus transmission by end 2004 and for global certification by 2008. While major progress has been made in Asian and North African countries and the target to stop transmission by the end of 2004 is within reach, major problems have arisen in sub-Saharan Africa, particularly in West Africa and specifically in Nigeria.

Several initiatives have been developed to raise commitment and awareness of the potential and needs of global polio eradication. These include holding regular meetings with the Ministers of Health of countries still polio endemic to seek their commitment to achieving early success, reporting to the United Nations General Assembly and developing intensified plans aiming to resolve the issues likely to delay global success.

In Asia and North Africa, 32 cases have been reported in 2004 to date. This represents a major reduction compared with the same period of 2003 and moves the still-endemic countries into the phase where mopping-up becomes the appropriate strategy when any wild polioviruses are detected. In India, 3 rounds of mopping-up are being conducted after virus detection in defined reservoir areas and 2 rounds following detection in other areas.

The situation in West Africa is far less promising. Unfounded rumours concerning OPV caused a cessation of immunization and supplementary immunization activities in parts of Nigeria, especially in Kano state. While these have, apparently, been resolved and immunization campaigns are now planned, no date has yet been committed and the quality is not yet assured. It is of concern that high transmission of poliovirus has continued through the expected low season, with 301 cases reported to date in 2004, five times the figure for the same period in 2003.

Ten countries previously polio-free have now been infected by viruses originating from Nigeria, seven of them receiving virus importations in 2004. Two viruses have been transmitted to non-neighbouring countries, one to Botswana and one to Darfur state in Sudan. There is a possibility that 22 African countries will conduct a synchronized NID campaign in 2004–2005.

In summary, the highest priorities for the global polio eradication initiative at this stage are to:

- Initiate effective control measures in West Africa, and especially in northern Nigeria.
- Conduct high quality mopping up in the last few endemic countries and following importations.
- Continue NIDs in all endemic and high risk countries for at least one further year.
- Increase attention to surveillance quality and importation response.
- Initiate discussions on the cessation of OPV.
- Start exploring the potential for mainstreaming polio experience, systems and infrastructure into broader health services.

#### **4. PROGRESS TOWARDS POLIOMYELITIS ERADICATION IN THE EASTERN MEDITERRANEAN REGION**

The number of polio cases reported in 2003 was 113 cases. In 2004 to date, 20 cases were reported, 15 of these from Pakistan, 3 from Afghanistan, one from Egypt and one from Sudan (imported case). Eighteen countries of the Region have been polio-free for over 3 years and Somalia for almost 2 years. In 2003, all endemic countries conducted 4 rounds of NIDs, as well as SNIDs in high-risk areas. The same level of intensity in implementing supplementary immunization activities is continuing in 2004, in addition to implementation of mop-up campaigns in response to isolation of any wild poliovirus.

The plan for supplementary immunization activities for 2004–2005 in priority countries is shown in Table 1. It must be noted that many other countries in the Region are also implementing immunization campaigns, mostly as SNIDs in border areas with endemic countries and for high-risk population groups.



**Table 1. Plan for supplementary immunization activities in priority countries of the Region, 2004–2005**

Country	2004												2005											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Afghanistan	■		■	■		■	■	■		■					■	■						■	■	
Egypt		■	■	■		■	■	■		■	■	■		■	■							■	■	
Pakistan	■		■	■		■	■	■		■		■	■	■	■	■	■					■	■	
Somalia			■	■					■	■			■	■										
Sudan	■	■				■	■	■		■	■		■	■										
s. Sudan						■	■			■	■		■	■										
■	NIDS																							
■	SNIDs/mop-up																							

AFP surveillance is above certification quality in all countries. Surveillance reviews have been conducted in Afghanistan, Egypt, Pakistan and Yemen. These reviews confirmed the excellent quality of surveillance in these priority countries. Reviews are planned for a number of countries of the Region.

Technical advisory groups were established for all priority countries in the Region. These TAGs are meeting regularly to review the epidemiological situation in these countries and their plans and provide technical guidance.

The regional programme is supported by a large workforce located mainly in priority countries. This comprises more than 80 international and 800 national staff. Containment of laboratory virus is proceeding with surveys completed in 9 countries and under process in another nine. Certification is proceeding and all National Certification Committees in non-endemic countries, except Somalia and Palestine, have submitted basic documentation with subsequent updates.

Priority attention is given to the 3 countries still polio-endemic to interrupt poliovirus transmission as soon as possible. Attention is also being given to polio-free countries to ensure preparedness for any virus importation through keeping certification-standard surveillance and maintaining high population immunity.

Concerning the remaining endemic countries, in Pakistan, although reported incidence is one third that for the same period in 2003, some of the same problematic areas remain, notably northern Sindh and North-West Frontier province (NWFP) and especially in the conservative, federally administered tribal areas. Concerns in Pakistan relate to providing immunization services to these areas, reaching the youngest children, ensuring local political

support for polio activities leading to better immunization campaign quality and avoiding the fatigue and discouragement likely to arise if success is not shortly forthcoming.

In Afghanistan, where surveillance quality appears to be maintained, the major problems are poor security, with consequent difficult access both to health facilities and to the community level, and continuing population movement.

In Egypt, progress was made in raising the quality of house-to-house immunization in the mega-cities based on leadership and on coordination provided by a task force established for this purpose. The quality of surveillance was shown in a review to have much improved.

During 2004, it became apparent that environmental testing was unreliable, probably through the laboratory use of out-of-date reagents. The problem, after extensive investigation, has likely been resolved, and environmental sampling results should soon be credible again. However, it is not possible to be confident that the apparent improvement shown by reduced isolation of wild viruses in sewage samples reflected the true situation.

## **5. REMAINING CHALLENGES AND PROGRESS TOWARDS POLIO ERADICATION IN POLIO-ENDEMIC COUNTRIES**

### **5.1 Pakistan**

AFP surveillance in Pakistan is very sound. The AFP rate has reached over 3 per 100 000 children under 15 years and stool collection adequacy is over 90%. However, there are a few areas of concern including movements of populations between Afghanistan and Pakistan, conflict situations in some federally administered areas, particularly in NWFP, and a difficult security situation in some districts.

Nationwide, supplementary immunization campaigns have been effectively conducted for 4 rounds in 2003, with additional SNIDs in high-risk areas. These campaigns have been supported by 40 international consultants, all but the 2 based in the central office working at the field level. WHO Short-Term Consultants, Surveillance Officers and District Support Officers, mostly recruited for 3–12 months, are guaranteeing the quality of work at the district level and below. They are supported by approximately 300 national campaign support officers based in 120 problem districts. In addition, community mobilization teams are playing an important role in motivating and educating populations to ensure acceptance of immunization.

The presence of supervisors working with immunization teams has proved to be a critical factor in achieving immunization coverage rates of over 95%. Special efforts are being made to ensure high-level performance all over Pakistan. To this effect, high-risk districts have been defined on the basis of unsatisfactory NID performance, high levels of socially conservative populations, high security risks or high population densities.

During the SNIDs, personnel were moved from low-risk districts to strengthen performance in high-risk districts. The SNIDs and mopping-up campaigns have been extensive, with the June 2004 campaign covering 65% of districts and 60% of the population.

As a result of sustained campaigns and improved performance, there is evidence of increased population immunity. Among non-polio AFP cases investigated, there has been an increase in the median doses per child, with 75% of cases having received 7 or more OPV doses. The most striking improvement is in the older age group of children aged 24–59 months. There has been a fall in the number of zero dose children detected. There is also a striking geographical correspondence between the incidence of polio in 2003 and the lowest rates of median doses in children investigated. The highest risk factors related to children developing confirmed polio are family poverty, low parental education and residence in rural areas.

During 2004, polio cases have been confined to a few persistent reservoir districts, mainly in northern Sindh and NWFP. If transmission of polio is interrupted in these reservoirs by mid-year, eradication could be achieved by the end of 2004.

## **5.2 Afghanistan**

Polio eradication in Afghanistan still faces stiff challenges. Extensive supplementary immunization activities have been conducted, despite ongoing difficulties, with 4 rounds of NIDs and 3 SNIDs conducted in 2003 and 4 rounds of NIDs, 1 round of SNIDs and 2 mopping-up campaigns planned in 2004. However, the security situation has deteriorated, especially in Kandahar, the southeast and eastern parts of the country.

AFP surveillance is functioning all over Afghanistan. AFP cases have been detected in all parts of the country, with zero or low incidence only where population density is minimal. The non-polio AFP rate is more than 2 per 100 000 children under 15 years and the stool adequacy rate is over 80%. These are remarkable achievements, given the difficult terrain, political situation and poor security in much of the country. The success of AFP surveillance is based on 519 health facilities. In 2004, three polio cases have been confirmed in three separate districts, two in southwest and one in the southeast. Supplementary immunization activities have mostly been successful. For NIDs, 83% of districts achieved over 95% coverage, while for SNIDs, 91% achieved 95% coverage.

The main challenges relate to the deteriorating security situation now also affecting Kunduz and Kabul. Other challenges relate to the high population of “returnees”, numbering 1.8 million in the period 2000–2003, and the very slow rates of improvement in immunization status in some key areas, notably the southern parts of the country and Kandahar, where supplementary immunization activities have not been as effective as elsewhere. In an attempt to rectify this situation, mopping up campaigns are being conducted in the south and east in June and July 2004, in the western region, in Kabul and in 5 districts of Kunduz. These campaigns are being strengthened by the use of district support teams, selected from the districts in question.

### 5.3 Egypt

A major achievement since the first meeting of the Regional Technical Advisory Group is the conduct, for the first time, of a successful, house-to-house supplementary immunization campaign in greater Cairo. A key factor was the coordination by a task force comprising members from the central level, the governorates, WHO and UNICEF. Other positive factors were an increased level of central support, strengthened supervision, and additional days training for volunteers, new sources of volunteers, new tally sheets and stronger local social mobilization.

Although monitoring and evaluation indicate that the supplementary immunization activities were successful and reached high coverage, their impact on wild poliovirus circulation remains doubtful until the sensitivity of environmental sampling is restored.

In the period June–October 2003, six environmental samples from Abu Querkas were positive, plus an additional sample in January 2004. In May 2004, a virologically positive case was detected in Assiut governorate, close to the border with Minya, with the virus closely related to others detected in the environment during the previous year. Mop-up response was implemented successfully in the two provinces of Minya and Assiut. The second round planned in July will be extended to cover all Upper Egypt provinces.

Regrettably, major concern has arisen over the sensitivity of environmental sampling, manifest as a sharp decline in late 2003 and 2004 in the isolation of Sabin-like and other enteroviruses in the samples. This concern has been intensively investigated, and almost certainly resolved. Regrettably, until reliable testing is re-established, the credibility of much reduced isolation of wild polioviruses in the environment must remain in doubt. However, the marked downward trend, even before concerns arose, indicates much reduced poliovirus circulation in Egypt.

## 6. END-GAME ISSUES

### 6.1 Sustaining surveillance quality

There is evidence that AFP surveillance quality in the Region is being maintained. Throughout the Region in 2003, 113 polio cases were reported, with 20 compatible cases in which polio could not definitely be excluded. In 2004, 20 confirmed cases have been detected to date, with one compatible case.

Of the AFP cases detected, 41% had a final diagnosis of Guillain Barré Syndrome. There was no final diagnosis in 624 cases, of which 427 were in Afghanistan and 91 in Somalia, where the capacity for complex diagnostic testing is limited.

A number of measures have been taken to maintain interest and commitment to sustaining high levels of AFP surveillance and reporting. These include the *Polio fax*, surveillance reviews in critical countries, production of certification documents and

certifications requirements, regional meetings and continued support by international staff and country visits by Regional Office staff.

The laboratory network has continued to function effectively in 2003 and 2004. The regional reference laboratory in Pakistan has recovered from the theft of equipment and is again able to conduct all tests, including sequencing. In Iraq, the laboratory looted during the war became functional again in February 2004 but continues to conduct parallel testing of specimens with VACSERA.

Laboratory testing confirms the reduction in clusters of poliovirus still circulating, with just one in Egypt and three in Afghanistan/Pakistan in 2004, compared with five in 2003.

## **6.2 Maintaining population immunity**

### *Overview*

Routine immunization with at least 3 doses of OPV is being well maintained in the non-polio endemic countries of the Region, with the exception of countries facing difficult situations, such as Iraq (57% OPV3 coverage), Yemen and Djibouti. In Pakistan, OPV3 coverage through routine services is only 69%, while in Afghanistan and Somalia the figure is much lower due to the poor health service infrastructure.

In total, for the Eastern Mediterranean Region, routine OPV3 coverage is just below 80%. There is some evidence that countries that have been polio free for many years are not maintaining the high profile need for polio immunization, and coverage rates may be declining slightly.

### *Sudan*

The Expanded Programme on Immunization in Sudan is facing a number of challenges, making it difficult to sustain high levels of routine immunization against polio in all populations. These challenges are the lack of security in Darfur, rapid population movements and new settlements, additional EPI initiatives such as those for measles, NNT and new vaccines, and the problem of ensuring sufficient financial support.

The difficulties faced, compounded by the recent importation of a wild poliovirus, are being tackled by conducting mopping-up rounds, hopefully in July and August in Darfur, NIDs in October and November and additional NIDs in late 2005.

### *Somalia*

The last detected case was in October 2002. Current strategies aim to improve routine immunization wherever possible, continue supplementary immunization activities, maintain high quality surveillance and maintain effective contingency plans to deal with importations, should they occur.

With continuing instability and security problems in many parts of the country, attempts are being made to develop innovative strategies to improve coverage both during and between supplementary immunization activities. One such strategy is to boost community immunity by conducting special immunization sessions for all children aged under 5 years with less than 5 OPV doses, to be held at regional districts, capitals and in large villages.

### *Yemen*

Supplementary immunization activities in 2003–2004 targeted 984 000 children, with the first round covering 103% of the targeted population and the second, 92%. In addition, 82% of children received vitamin A.

There is concern that levels of routine immunization coverage achieved before 2003 are not being sustained and that both AFP surveillance and data management need urgent attention and revitalization.

### *Iraq*

NIDs were conducted in January–February 2003, with defaulter tracing in March 2003, but further planned progress was disrupted by the war. Following the onset of war, considerable damage was caused both the civil disturbances and by looting of key installations such as cold chain stores and the polio laboratory.

During the past 12 months, major efforts were made to repair, maintain and replace the cold chain and to replenish vaccine stores. In addition, channels of communication are being re-established and the surveillance system has been restored to a functioning level.

Planning for routine immunization has included the creation of twice weekly outreach systems to trace defaulters, national days for immunization on the 22nd of each month, and strengthening of social mobilization. The achievements have been significant, with routine immunization now available in all primary health care centres. Certification-standard indicators for AFP surveillance have been achieved and vaccine supplies are increasingly dependable. Preparations are proceeding for a NID campaign in the autumn.

Despite these achievements, major problems remain, especially lack of security, restrictions on health staff, difficult access to immunization points, difficulties in transporting vaccines, intermittent power supplies, inadequate coordination with nongovernmental organizations and massive population movements.

## **6.3 OPV cessation**

### *Strategic plan for polio eradication 2004–2008*

The new strategic plan for global polio eradication 2004–2008 explicitly outlines the medium-term goal of OPV cessation as soon as possible, after the interruption of wild poliovirus transmission (i.e. while population immunity and surveillance sensitivity are high).

Recognizing the importance of this major policy directive to the work and planning of the Member States of the Eastern Mediterranean Region, the Regional Technical Advisory Group reviewed two specific related issues during this meeting:

- Draft national guidelines for OPV cessation
- National deliberations and decisions on IPV introduction.

#### *National guidelines on OPV cessation*

The Regional Technical Advisory Group noted with appreciation the ongoing work to consolidate into a single document for senior decision-makers the priority actions needed at national level before, during and after OPV cessation. These 'National guidelines for OPV cessation' provide an overview of the risks of paralytic polio after interruption of wild poliovirus as the scientific basis for the policy directive to eventually stop routine immunization with OPV globally. The subsequent sections of the guidelines outline the specific actions that will be required by Member States in the areas of poliovirus containment (for wild, VDPV and Sabin strains), surveillance (including eventual immediate notification internationally of 'suspect polio'), stopping of OPV immunization and the disposal of OPV stocks, vaccine stockpiles, and outbreak response in the OPV cessation era (including eventual limitations on the ability of countries to unilaterally reintroduce Sabin strains) and implications of introducing IPV (especially in terms of cost, cold chain and vaccination schedules).

#### *Role of IPV in polio immunization and eradication in the Eastern Mediterranean Region*

The Regional Technical Advisory Group reviewed the deliberations and decisions on IPV introduction by four Member States: Islamic Republic of Iran, Jordan, Saudi Arabia and Syrian Arab Republic. Jordan's experience in, and the Syrian Arab Republic's review of, introduction of a sequential IPV–OPV schedule highlighted the substantial financial and operational implications of such a policy decision. Saudi Arabia explained that its current risk assessment showed that the ongoing risk of importations from polio-endemic countries warranted the continued use of OPV for routine immunization. However, the country is considering a switch to IPV for an interim 5-year period during the cessation of OPV. The Islamic Republic of Iran has conducted a detailed evaluation of the risks of, and options for, OPV cessation in the national context, concluding that the national EPI should 'discontinue OPV as soon as possible after global eradication' without the introduction of IPV.

## **7. CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 Follow up to the first meeting of the Regional Technical Advisory Group**

The Regional Technical Advisory Group is pleased to note the progress made towards implementing the recommendations of its first meeting in Damascus, from 28–29 June 2003.

Time-limited recommendations, such as those related to supplementary immunization activities in the mega-cities of Egypt and in Pakistan, advocacy for polio eradication at the highest national level, and the sole use of offshore vaccines for polio immunization have been fully and successfully implemented. The Regional Technical Advisory Group confirms that the remaining recommendations remain fully relevant in strengthening the regional polio eradication initiative.

The Regional Technical Advisory Group notes the continuing high-level commitment to polio eradication in all Member States of the Region. It especially commends the continuing determination of governments of the three remaining polio-endemic countries to achieve polio eradication as soon as possible.

A crucial factor in developing and sustaining this commitment at the highest level has been the country visits made to Pakistan by the Regional Director of the Eastern Mediterranean Office, during which he briefed and motivated President Pervez Musharraf, provincial governors and other senior national officials. These inputs have proved critical, both regionally and globally, in advancing the cause of early polio eradication.

There remains a shortfall in funding for the polio initiative. The resolution (EM/RC50/R.4) passed by the Fiftieth Session of the Regional Committee for the Eastern Mediterranean in 2003 represents a step towards obtaining financial support from Member States.

**Recommendation 1.** The Regional Technical Advisory Group re-affirms the recommendations of its first meeting and stresses the need for continuing implementation of those not directed solely at activities in the past 12 months. The Regional Technical Advisory Group urges the Regional Director to continue and follow up on his visits to polio endemic Member States, using these visits to ensure continuing commitment and awareness of the initiative at the highest national levels.

**Recommendation 2.** Following resolution EM/RC50/R.4 (2003) of the Regional Committee, WHO staff should intensify their efforts to secure additional funding from countries of the Region to allow completion of polio eradication in the Region.

**Recommendation 3.** All countries of the Region should commit themselves to the use of only polio vaccines of proven potency and safety, i.e. WHO pre-qualified, not just for the critical supplementary immunization activities that will secure early polio eradication, but also for routine immunization to guarantee protection and immunity for the individual child.

## 7.2 Global polio situation

It is possible that in Asia and North Africa, including all countries of the Eastern Mediterranean Region, poliovirus transmission could be stopped by the end of 2004, in line with the global target.



The Regional Technical Advisory Group is deeply concerned about both the extent of polio occurrence in Nigeria and the failure, to date, of the authorities to institute effective control measures. Following extensive spread during the recent low season of poliovirus transmission, there is a high risk of further spread both to neighbouring countries of West Africa and to more distant countries, as has already occurred in Botswana and Sudan.

It is apparent that this situation represents a real threat not only to the early achievement of global polio eradication, but also, following possible virus importations, to the current polio-free status of Member States of the Eastern Mediterranean Region, most especially those on the African continent.

**Recommendation 4.** The Regional Technical Advisory Group recommends that the Regional Director for the Eastern Mediterranean use his own commitment and position to encourage senior officials of the World Health Organization in the African Region and leaders of affected countries in that Region, especially Nigeria, to do all in their power to achieve national and regional polio eradication, specifically by instituting high quality supplementary immunization activities in all areas reporting polio cases.

**Recommendation 5.** The Regional Technical Advisory Group urges the Government of Sudan to treat the recent importation of wild poliovirus from Chad into Darfur state as a public health emergency, taking all necessary measures to stop in-country spread. These measures include conducting extensive high quality mopping up immunization within 4–6 weeks, at least throughout the three Darfur states, intensifying AFP surveillance throughout the country and conducting NIDs nationwide before the end of 2004.

**Recommendation 6.** The Regional Technical Advisory Group requests that the Government of Sudan be approached to consider using its influence through bilateral channels to persuade the Government of Nigeria urgently to institute essential polio eradication measures, especially high quality supplementary immunization activities in endemic areas. The Regional Technical Advisory Group also appreciates the initiative of the Organization of Islamic Conferences aimed at influencing the national and state level authorities in Nigeria to pursue polio eradication. The Regional Technical Advisory Group requests the Organization to continue and follow through its initiative.

**Recommendation 7.** The Regional Technical Advisory Group requests the Regional Director to brief Member States of the Region on the continuing situation of polio in Nigeria. Two aims of this briefing should be to raise awareness of the risk of direct or indirect poliovirus importations into countries of the Region and the potential risk of polio to citizens of countries of the Region living in or travelling to Nigeria.

**Recommendation 8.** The Regional Technical Advisory Group stresses the need for all countries to review and update national plans of action aimed at the prompt identification of importations and their rapid control. These plans should be well prepared in written form, with training of concerned staff and measures to raise awareness of the risk and should be appropriate for this stage of the initiative, when successful national and regional polio

eradication is within reach. The WHO Regional Office for the Eastern Mediterranean has guidelines for the preparation of appropriate plans of action.

### **7.3 Global planning**

The Regional Technical Advisory Group is pleased to note the preparation and publication of the strategic plan for the global eradication of poliomyelitis, 2004–2008.

While accepting the strategic plan in its entirety, the Regional Technical Advisory Group particularly wishes to endorse four specific defined priorities: interruption of wild poliovirus transmission through the conduct of high quality mopping-up activities following detection of wild polioviruses; the continuing conduct of NIDs in all endemic and high-risk areas for at least a further year; increased attention to high quality investigation and response to importations of virus; and initiation of discussions on the eventual cessation of OPV administration.

While the urgent and immediate priority is to achieve polio eradication in the shortest possible time, the highest long-term priority is to ensure both sustainable immunization coverage through routine services and highly effective communicable disease control.

**Recommendation 9.** The Regional Technical Advisory Group recommends that staff responsible for polio eradication should plan ways in which staff skills and infrastructure developed for polio eradication, such as surveillance, laboratory support, supplementary immunization activities, social mobilization and data management, can be “mainstreamed” for the eventual benefit and strengthening of routine immunization services.

In some countries and areas of the Eastern Mediterranean Region, e.g. Afghanistan, Somalia and southern Sudan, lack of health infrastructure has necessitated the development of strong and effective polio eradication systems. There is considerable pressure for these systems to deliver other services aimed at immunization and disease control. While this is reasonable in the short-term, the prime objective of these systems is to guarantee effective polio eradication performance, and this objective should not be threatened by additional demands on staff time. Equally, the existence of the system for polio eradication, helping to deliver other services, should not be accepted as an alternative to broad health service development.

### **7.4 Polio eradication in the Eastern Mediterranean Region**

Despite considerable demographic and security problems in the three remaining polio endemic countries, considerable progress has been achieved towards polio eradication. In Somalia, no polio cases have been detected for almost 2 years, despite the lack of government infrastructure. In the three remaining endemic countries, there is evidence that the extent of poliovirus transmission is being progressively reduced and should become increasingly susceptible to eradication measures.

Much credit for the success of polio eradication efforts lies not only with national governments and partners in the polio coalition, but also with the support provided by the WHO Regional Office. Its flexibility in providing resources and its financial backing for national programmes are key factors. It is important that the Regional Office should continue in this role and that it adequately support the introduction of appropriate new strategies, such as mopping-up. In time, the Regional Office will be called on for technical support to new components of the initiative, such as virus containment, certification and mainstreaming for routine immunization.

In its coordination role, the Regional Office has prepared a summary of planned NIDs and SNIDs for the endemic and recently endemic countries of the Region. While this summary is generally logical and reflects coordinated programme needs, it remains flexible and has, to some extent, required adjustment to meet the needs of importations or changed endemic situations.

The Regional Technical Advisory Group appreciates the extent to which the Regional Office has ensured the provision of technical expertise to Member States through its flexible policies on staffing levels in country programmes. With the progress being achieved, it is probable that the needs for technical advice from WHO will change, e.g. developing skills for mopping-up, mainstreaming the polio experience and advising on containment and cessation of OPV use.

**Recommendation 10.** The Regional Technical Advisory Group recommends that the World Health Organization Regional Office for the Eastern Mediterranean should ensure that experiences gained in mopping are shared between countries. In this regard, staffing levels and the provision of technical advice for polio eradication should be kept under continual review to ensure that WHO is meeting the needs of Members States.

**Recommendation 11.** The Regional Technical Advisory Group endorses the provisional programme for planned NIDs and SNIDs as presented during the second meeting, with the exception that the importation into Darfur, Sudan necessitates intensified and urgent supplementary immunization activities, while the planned SNID in spring 2005 in Somalia would better be conducted as a full NID with a SNID in the fall.

## **7.5 Country-specific conclusions and recommendations**

### *Pakistan*

Pakistan has made strong progress towards polio eradication in the past year, reflected both by the reduced number of confirmed cases, and the increasing limitation of transmission to a few areas, notably in NWFP and northern Sindh.

While it appears that the epidemiological situation is good, much of the remaining transmission is occurring among conservative, less cooperative populations in high-risk areas. Although the Regional Technical Advisory Group agrees that if remaining polio reservoirs are

cleared by mid year the country could eradicate polio by the end of the year, the difficulties still to be faced in these areas may result in transmission persisting through to 2005.

**Recommendation 12.** In the high-risk, conservative and/or federally administered areas, where polio is most likely to persist, steps should be taken to ensure that programme activities are locally driven by supportive personnel, understood and accepted by the population. This will require an urgent and intense programme of work on communication and community mobilization.

**Recommendation 13.** Experience suggests that wild poliovirus transmission will probably persist in the community for a time after the last detected polio cases. In view of this, Pakistan should ensure that the surveillance system that has been developed can be, and is, sustained well beyond the last known paralytic cases.

**Recommendation 14.** At this stage of the initiative, it is important that forward plans for supplementary immunization activities are developed allowing for national planning, vaccine resources and for finance to be available. Such planning should be for at least a year ahead. Within and around reservoir areas, supplementary immunization activities will be required for at least 12 months after the last known polio case.

**Recommendation 15.** Recognizing the potential for the current discussion on OPV by source to disrupt programme activities and in view of concerns that the 2003 increase in cases may have been partly due to sub-optimal vaccine potency, the national authorities should take steps to restore public confidence in OPV immunization. Only WHO pre-qualified vaccine should be used both for supplementary and routine immunization. (See also recommendation 3)

### *Afghanistan*

Although Afghanistan continues to make progress towards polio eradication, notably with its surveillance achievements, the Regional Technical Advisory Group is deeply concerned that the deteriorating security situation could undermine the infrastructure already developed and lead to insuperable difficulties in controlling transmission.

With increasing difficulties in working and guaranteeing the quality of activities in Afghanistan, the Regional Technical Advisory Group hopes that the progress being made in Pakistan will prove a major benefit also to Afghanistan.

It is clear that, should security further deteriorate, programme staff should develop flexible policies that may allow work to proceed rapidly, should windows of opportunity arise. The quality of surveillance, while remarkable under the prevailing conditions, may have some gaps which might allow indigenous strains of poliovirus to continue circulating undetected. It is hoped that such areas will be more defined and mapped, as security allows.

**Recommendation 16.** In areas of poor security, with attendant problems of accessibility, it is important to develop strategies depending on local mobilization, attempting to create a demand for services. The Regional Technical Advisory Group was pleased to note the

increasing use and acceptability of female health staff and recommends their further and greater use in polio eradication activities.

**Recommendation 17.** The Regional Technical Advisory Group recommends that there should be a greater definition of those areas in which surveillance may be suboptimal and that there should be review of the quality of surveillance being conducted both in case detection and subsequent investigation.

### *Egypt*

The Expanded Programme on Immunization in Egypt has made sound progress in removing a major cause for concern, the failure of successive NIDs to reach all houses/apartments in the mega-cities of greater Cairo. The creation and successful function of the task force established to ensure effective urban NIDs is a significant success for the programme.

The Regional Technical Advisory Group is impressed by the continuing high-level government commitment to achieve polio eradication and commends the officials concerned for their persistence in sustaining the quality of activities.

The detection in May, in Assiut, of a polio case caused by wild poliovirus has been a major disappointment for programme staff, and the factors that allow for its occurrence are not yet clear.

It is apparent to the Regional Technical Advisory Group that the problems arising from the reduced sensitivity of environmental monitoring, probably originated in laboratory failure based on the inadvertent use of outdated reagents. This is being corrected. Until re-testing of environmental samples is resumed, it is not safe to assume that the major improvements in urban immunization have stopped wild virus transmission in greater Cairo.

The Regional Technical Advisory Group believes that, despite the disappointment of the Assiut case, the programme is sound and should be able, within a short time, to initiate activities sufficient to stop further transmission and achieve polio eradication before the end of 2004. The key to achieving such success will be the carrying out of high quality supplementary immunization activities over a wide area, most likely centred in southern Egypt and in greater Cairo and repeated on a frequent basis.

The Regional Technical Advisory Group endorses the recommendations of the national Technical Advisory Group for Egypt (May/June 2004) and makes further recommendations.

**Recommendation 18.** Supplementary immunization activities should be conducted in Upper Egypt and in greater Cairo, with four rounds before December 2004. The quality of work should be guaranteed by the creation of a task force, similar to that which functioned during the previous rounds in greater Cairo.

**Recommendation 19.** The Regional Technical Advisory Group recommends that further investigation be conducted in southern Egypt to try and identify any factors that might be allowing the persistence of wild poliovirus circulation despite the reportedly good quality implementation of strategies.

#### *Sudan*

The Regional Technical Advisory Group is concerned at the potentially disastrous combination of a wild poliovirus importation into an area of insecurity and high population movement. Although excellent work was conducted by the responsible staff in the rapid detection of the importation, its investigation and the prompt laboratory characterization of the responsible virus, there is clearly risk of further spread within the affected province or even wider. In order to prevent this, it is important that extensive mopping-up be conducted as widely as possible.

**Recommendation 20.** While understanding the difficulties and limitations imposed by climatic and security considerations, the Regional Technical Advisory Group stresses the need for extensive supplementary immunization activities to be conducted as soon as possible in Sudan. Minimally, these should aim to cover all three Darfur states ideally in July–August 2004, with more extensive NIDs in October–November 2004. (See recommendation 6)

**Recommendation 21.** In view of the potential risk posed by the situation in Nigeria, Chad and the Central African Republic, Sudan must be highly geared to detect further importations, with an appropriate high quality plan to deal with them effectively and promptly. To minimize the risk of an immunity gap developing before Nigeria is polio-free, Sudan should plan to conduct NIDs in the fall of 2005.

#### *Somalia*

Developing AFP surveillance meeting certification quality indicators in Somalia and passing two years without any detected wild virus transmission is a major achievement, reflecting an outstanding contribution and effectiveness by the partners in the polio coalition and the national team members.

**Recommendation 22.** In view of the evidence of some recent slippage in AFP surveillance due to the deteriorating security situation and the potential threat from virus spread from Nigeria, the Regional Technical Advisory Group recommends that the SNIDs planned for spring 2004 be converted to full NIDs.

#### *Yemen*

While accepting the lack of evidence of persisting wild poliovirus in Yemen, the Regional Technical Advisory Group is concerned at the quality of EPI and polio eradication activities in Yemen. Declining coverage with routine immunization, and unsatisfactory, incomplete AFP surveillance and data reporting all reflect insufficient commitment to providing the immunization and disease control needs of children in the country.

**Recommendation 23.** The Regional Technical Advisory Group urges the health authorities in Yemen to review urgently countrywide performance in polio eradication and in routine immunization. Should there be evidence of deterioration in provision of immunization services and polio eradication, an agreed programme of work should be developed to revitalize these important elements of child health care.

### *Iraq*

Despite the ongoing crisis in the country for the past year, the health authorities, with support from their polio partners have successfully re-established immunization and AFP surveillance. EPI is now restored in all primary health care units and certification standard AFP surveillance has been achieved. Capacity building is proceeding and the success, both in polio eradication and in providing a high level of coverage with measles vaccine, reflects great credit to those concerned. The restoration of the polio laboratory, looted during the conflict, is another major success.

The Regional Technical Advisory Group commends these achievements and acknowledges the outstanding contribution of the individuals concerned. The Regional Technical Advisory Group endorses the plan to conduct a NID in the fall of 2004.

## **7.6 OPV cessation**

### *Guidelines for OVP cessation*

**Recommendation 24.** The Regional Technical Advisory Group recommends that the draft written version of the national guidelines for OPV cessation be shared with Regional Technical Advisory Group members when it is available in late July 2004, so that TAG members can provide written feedback to the secretariat in advance of the September 2004 Meeting of WHO's 'Advisory Committee on Polio Eradication'. The draft national guidelines should take into account the Regional Technical Advisory Group's initial comments on biosafety, the role of mass campaigns at the time of OPV cessation, the destruction of OPV stocks, and ethical considerations in the targeted use of IPV after OPV cessation.

**Recommendation 25.** The Regional Technical Advisory Group reaffirms its previous recommendation that Member States continue to use OPV for routine immunization at this time. Furthermore, given the increase in wild poliovirus transmission in west and central Africa in 2004, and the spread of that virus back into the Eastern Mediterranean Region, the Regional Technical Advisory Group recommends that Member States defer, by at least 12 months, any further decisions on long-term polio immunization policy, particularly with respect to the introduction of IPV.

### *Role of IPV in polio eradication and immunization in the Eastern Mediterranean Region*

**Recommendation 26.** The Regional Technical Advisory Group recommends that as Member States explore the implications of IPV introduction, there should be a) an accurate assessment of vaccine-associated paralytic polio (VAPP) and how the introduction of IPV would affect

the VAPP burden; b) a comprehensive evaluation of the financial implications of IPV introduction, including the percentage increase in the national immunization budget, as well as the cost/dose procured; and c) a detailed review of the operational implications of IPV introduction.

**Recommendation 27.** The Regional Technical Advisory Group recommends that the WHO Regional Office for the Eastern Mediterranean and headquarters participate, as requested in national and subregional deliberations on IPV, in facilitating full understanding of the relevant issues for long-term immunization policy planning (e.g. meetings of national immunization advisory committees; GCC health policy meetings). WHO should also provide Member States with the necessary tools to facilitate policy development, such as a sample case definition for VAPP.



**Annex 1**

**PROGRAMME**

**Wednesday, 23 June 2004**

08:00–08:30	Registration
08:30–08:45	Opening session Address by Dr Hussein A. Gezairy, Regional Director for the Eastern Mediterranean
08:45–09:00	Follow up on implementation of the first meeting recommendations/Dr M.H. Wahdan
09:00–09:45	Progress towards polio eradication: Global overview/Dr B. Aylward Regional overview/Dr F. Kamel
09:45–10:00	Discussion
10:30–12:00	Remaining challenges Endemic countries • Pakistan, Dr A. Mounts • Afghanistan, Dr N. Sadozai • Egypt, Dr S. Al-Jorf Discussion
12:00–12:30	End game issues Sustaining surveillance quality/Dr M. Agocs/Dr H. Asghar
12:30–13:30	Maintaining population immunity: Introduction/Dr A. Elkasabany Country presentations: ▪ Sudan/Dr S. Haithami, Dr E. Durry ▪ Somalia/Dr E. Durry ▪ Yemen/EPI Manager ▪ Iraq/Dr O. Mekki
14:30–15:00	Discussion
15:00–15:20	Progress in laboratory containment activities in the Region and using QA tools to report on phase I/Dr H. Asghar
15:20–16:10	Regional certification activities/Dr M.H. Wahdan
16:10–16:30	Discussion
16:30–17:30	Closed meeting of TAG

**Thursday, 24 June 2004**

08:30–10:30

Guidelines for OPV cessation:

Introduction/Dr B. Aylward

Country perspectives

- Jordan/EPI Manager
- Syrian Arab Republic/EPI Manager
- Saudi Arabia /EPI Manager
- Islamic Republic of Iran/EPI Manager

Discussion/ Moderator: Dr Bruce Aylward

11:00–11:30

Closing session

Discussion on conclusions and recommendations

**Annex 2**

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