

Report on the

**Sixteenth meeting of the Eastern  
Mediterranean Regional Commission for  
Certification of Poliomyelitis Eradication**

Cairo, Egypt  
1–2 November 2006



**World Health  
Organization**

Regional Office for the Eastern Mediterranean

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## 1. INTRODUCTION

The sixteenth meeting of the Eastern Mediterranean Regional Commission for Certification of Poliomyelitis Eradication (RCC) was held in Cairo, Egypt, from 1–2 November 2006. The meeting was attended by members of the RCC, Chairmen of the National Certification Committees and national programme managers from Afghanistan, Egypt, Kuwait, Pakistan and Sudan. Other participants included a representative of Rotary International and staff from WHO headquarters and the Regional Office for Eastern Mediterranean.

The meeting was opened by Dr Ali Jaffar M. Sulaiman, Chairman, RCC, who welcomed all the participants and thanked Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, for his continued and vigorous support for the polio eradication activities. He referred to the political and security problems in the remaining endemic countries of the Region that had hindered the effective implementation of polio eradication activities.

Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, addressed the meeting, pointing out that the task of eradicating polio from the Region seemed to get more difficult as the final stages of polio eradication approached. Some positive developments had taken place in the Region since the last meeting of the RCC: Sudan had been polio free for over a year and the National Certification Committee had re-submitted its national document for the RCC's review at this meeting. Furthermore the epidemic in Yemen appeared to have come to an end with the last case reported in early February 2006, and the outbreak in Somalia seemed to be on the decline, with the number of cases of wild poliovirus decreasing from 11 in January 2006 to 2 cases each in July and August. He stressed that the situation in these countries continued to be fragile, especially in view of the low coverage with routine immunization and the ever-present threat of importation.

Referring to the situation in Afghanistan and Pakistan, Dr Gezairy drew attention to the outbreak in Afghanistan which had started towards the end of 2005 and had been concentrated largely in the southern region, where it was caused by the immunity gap that had developed among young children as a result of worsening security situation and low quality of supplementary immunization activities.

He noted that the number of reported cases in Pakistan so far had slightly exceeded the number reported for the same period in 2005. It appeared that transmission in the tribal areas on both sides of the border between Pakistan and Afghanistan might have been missed during the past two years, and a fresh cluster of cases had been reported from the district of Bannu in NWFP where the security situation had been worsening over the past year.

Dr Gezairy emphasized that political commitment to polio eradication in the Region had never been as high as it was now and this had most recently been manifested by the active steps taken by the highest levels in both Afghanistan and

Pakistan to overcome the factors that had hindered programme implementation in the affected areas. He expressed his satisfaction with the overall quality of surveillance for AFP and with the performance of the polio laboratory network. Dr Gezairy closed by expressing his thanks and appreciation for the support of the partners of the programme and for the tireless efforts of the thousands of health workers and community volunteers who were engaged in the initiative, working in some places under most difficult and dangerous circumstances.

The programme of the meeting and the list of participants are given in Annexes 1 and 2 respectively. Annex 3 lists the conclusions and recommendations of the third meeting of the Advisory Committee on Global Polio Eradication (ACPE), held in Geneva on 11–12 October 2006.

## **2. CURRENT SITUATION OF POLIOMYELITIS ERADICATION**

### **2.1 Eastern Mediterranean Region**

#### *2.1.1 Overview*

*Dr Faten Kamel, Medical Officer, Polio Eradication, WHO/EMRO*

The total number of polio cases due to wild poliovirus in the Region has dropped from a high of 727 in 2005 (due to the epidemic in Somalia, Sudan and Yemen) to 90 cases in 2006 as on 30 October which included 29 cases from Afghanistan, 28 from Pakistan and 32 from Somalia.

On a regional basis AFP surveillance was well established in all countries and a non-polio AFP rate of more than 2 per 100 000 population under 15 years was being maintained in priority countries. Surveillance reviews have confirmed the sensitivity and reliability of the system.

Cross-border coordination of polio related activities and rapid sharing of information between bordering countries in the Eastern Mediterranean Region and African Region has been strengthened. Several meetings were held between Afghanistan and Pakistan and the first meeting of the technical advisory group for the Horn of Africa countries was held in mid August 2006 in an effort to further enhance this coordination.

In Afghanistan, the P1 outbreak that started in the southern region during the second half of 2005 is still going on with cases being reported from the provinces of Kandahar (16), Hilmand (6), Uruzgan (4) and one each from Zabul and Farah. One case was reported from Nangahar in the Eastern Province which was genetically related to the wild poliovirus circulating across the border in North Waziristan, Pakistan. Insecurity due to the ongoing insurgency, coupled with poor management has been largely responsible for the outbreak, as they have resulted in poor coverage during Supplementary Immunization Activities and the development of an immunity

gap. Flexible local strategies were being developed to deal with the constantly changing situation. These strategies include efforts to involve local and influential authorities, negotiating days of tranquillity; increased involvement of nongovernmental organizations working in the area and implementing a focused district strategy with village-based vaccination teams.

In Pakistan, the other endemic country in the Region, there was continued restriction of wild poliovirus type 1. However, there was a resurgence of wild poliovirus type 3 (12 cases in 2006 as compared to 1 case in 2005). AFP surveillance is being maintained well above the certification standard. The annualized non-polio AFP rate for 2006 was 5.6 with nearly 90% of cases with adequate stool specimen. Transmission was largely restricted to tribal and border areas with Afghanistan where the security situation has resulted in pockets of children that have been missed during supplementary immunization activities. Transmission was also discovered along the corridor extending from southern Afghanistan in to Baluchistan, North Sind and lower Punjab. Coverage during supplementary immunization activities in other areas of the country has remained consistently high. Efforts are being made to address constraints through maintaining and further enhancing political involvement at all levels, ensuring ownership and accountability of key national officials such as EDOs (Health), effective use of religious dictates (*fatwa*), and continued targeted interventions in high risk areas.

In Somalia, the number of cases reported so far in 2006 is only 32 as compared with 185 in 2005. The outbreak seems to be on the decline throughout most of the country with remaining pockets of circulation of wild polio virus near the border with Ethiopia. Due to poor health services, the routine immunization coverage is very low. During 2006 eight NIDs and one SNID have been conducted, using OPV1 and special mop-ups were conducted in selected areas facing security problems. Another NID is planned for early December 2006 and 6 Supplementary Immunization Activities are planned for 2007. Continued circulation of the wild virus despite these Supplementary Immunization Activities indicate gaps in the overall quality of Supplementary Immunization Activities although reported coverage were high. Surveillance indicators are being maintained at high levels with the annualized rate for 2006 being 3.98 with 82% of cases with adequate stool specimen. The main challenge to the programme continues to be the security situation, which affects the quality of Supplementary Immunization Activities and AFP surveillance and access to the large nomadic population.

In Yemen, the epidemic seems to have died down with the last case reported in early February 2006. One round of NIDs using mOPV1 was conducted early in 2006 followed by mop-ups in April and May in response to the case detected in February. Independent monitoring confirmed coverage above 95%. The annualized non-polio AFP rate for 2006 was 3.98 with stool adequacy of 82%. The second meeting of the Technical Advisory Group was held in June this year and identified the main risk to the programme as being inadequate surveillance to detect ongoing transmission of

wild poliovirus in high-risk areas which also have low surveillance indicators and are exposed to the risk of importation from Somalia.

### *2.1.2 Polio laboratory network*

*Dr Humayun Asghar, Laboratory Coordinator, Polio Unit, WHO/EMRO*

All of the 12 polio laboratories in the regional network have continued to perform optimally during the year. The various performance indicators have been maintained at high levels in spite of substantial increase in the workload due to a larger number of AFP cases being detected now as a result of improved surveillance. The mean time from onset of paralysis to reporting of ITD results in 2006 was 28 days as compared to 32 days in 2005. Strong links between laboratories and the national programmes are being maintained and there is rapid sharing of data between all partners involved in the polio eradication initiative. The new algorithm that was field tested in Pakistan earlier this year will be introduced in all the other laboratories of the network by the end of 2007. This will further reduce the time taken for reporting results of testing of stool specimen to 12–15 days. Analysis of the viral VPI nucleotide sequence data was used to trace transmission pathways. Concerning VDPVs, since January 2005, type 2 VDPVs were found in immunodeficient children in the Islamic Republic of Iran, Syrian Arab Republic, Tunisia (discovered in France from a child of Tunisian origin) and Morocco (discovered in Spain from a Moroccan child).

## **2.2 Global overview**

*Dr Rudi Tangermann, Medical Officer Polio, WHO headquarters*

Globally, 1500 polio cases due to wild poliovirus have been reported this year as of 26 October as compared to 1414 for the same period in 2005. The four remaining endemic countries (Afghanistan, India, Nigeria and Pakistan) have reported 1393 cases so far in 2006 while the number for the same period in 2005 was 593. The number of cases reported by the 11 non-endemic countries dropped to 107 as compared to 821 in 2005. The substantial increase in the number of cases from endemic countries in 2006 was due to the escalating disease in Nigeria and India, which accounted for nearly 65% and 25% of the global case load, respectively.

In recent years, poliovirus from India and Nigeria has frequently been exported to polio-free areas, often causing multiple outbreaks. During the past 4 years, 68 separate importation events have affected 24 previously polio-free countries that led to over 1400 cases globally and cost, in external funding, nearly US\$ 450 million to bring the outbreaks resulting from the importation under control. Substantial progress has been achieved in stopping outbreaks of polio following importation of WPV in to polio-free areas. In 2006, these outbreaks have accounted for only 8% of all globally reported cases to date, down from 60% in 2005. Only nine countries (Angola, Democratic Republic of Congo, Namibia, Niger, Ethiopia, Somalia, Bangladesh, Nepal and most recently Cameroon) have ongoing transmission following an

importation. However, since 2003 no importation has resulted in long term re-establishment of transmission.

Based on the experience gained with dealing with recent outbreaks, new response standards have been developed. The countries contiguous with endemic areas will continue to require preventive campaigns until the endemic areas are free. For new outbreaks, large scale-campaigns will be continued until confirmation that outbreak has stopped, i.e. a minimum of 3–4 months after the last virus is detected.

The resurgence of cases in India has occurred in a circumscribed area of a few districts of western Uttar Pradesh province, centring on Moradabad district, with some spread outside Uttar Pradesh. The population density in this province is high as compared to other states and the health service delivery infrastructure is poor. The poor environmental sanitation and the high NPEV rate provide a favourable environment for wild poliovirus circulation and probably lead to interference with OPV. A positive observation has been a decline in the number of polio virus type 1 lineages in western Uttar Pradesh to only two in 2006, as compared to 5 in 2005.

Transmission of WPV in Nigeria is predominantly restricted to the northern part of the country, where there is no evidence of the hyper-endemic situation coming under control. It is the only endemic country with widespread, multi-lineage transmission of both WPV1 and WPV3 which are clearly related to extensive gaps in population immunity. The quality of supplementary immunization activities leaves much to be desired. with more than 20% of children in the affected area having received no doses of OPV. The Immunization Plus days (polio + other intervention) approach does not seem to have had much impact on transmission of wild poliovirus. However, it was welcomed by the communities. Intensive community dialogues have been initiated to explain the rationale and the need for repeated campaigns.

Dr Tangermann concluded by referring to the US\$ 50 million funding gap for 2006 and a projected gap of US\$ 390 for 2007–2008 and pointed out the implications of the funding gap on support of campaigns in the endemic countries and those at greatest risk of importation. It has become imperative to generate additional resources for the eradication initiative within the Region.

*2.2.1 Outcome of the third Meeting of the Advisory Committee on Global Polio Eradication (ACPE), held in Geneva, 11–12 October 2006*

*Dr Yagoub Al Mazrou, Member, RCC and ACPE*

The third Meeting of the Advisory Committee on Global Polio Eradication (ACPE), was held in WHO headquarters from 11 to 12 October 2006. The recommendations are summarized below, and the full text of the conclusions and recommendations are included as Annex 3.

### Strategic priorities

- Endemic countries: 7–8 supplementary immunization activities rounds/year; using appropriate mOPV.
- Re-infected areas: continue supplementary immunization activities until interruption using appropriate mOPV.
- Contiguous areas: supplementary immunization activities as appropriate until indigenous polio is interrupted in endemic reservoirs; using appropriate OPV (tOPV or mOPV).
- Polio-free areas: high routine coverage with tOPV.

### Interrupting indigenous transmission

- Enhance Head of State engagement and ensure cross-Ministry cooperation.
- All endemic countries should plan for 7–8 supplementary immunization activities rounds per year until transmission is interrupted.
- Enhance plans needed to engage and reach populations that still harbour wild poliovirus.
- Establish realistic timeframes and plans extending beyond 18 months.
- Pakistan and Afghanistan should ensure close coordination of activities.

### Limiting international spread and protecting polio-free areas

- Annual supplementary immunization activities in countries surrounding Nigeria and India.
- Polio-free areas: to ensure continued high routine coverage with tOPV.
- Update WHO's *International travel and health*: to recommend that all travellers to and from polio infected areas should be fully immunized against polio.
- Establish a standing recommendation under the International Health Regulations that all travellers from polio-infected areas should to be vaccinated prior to travel.

### Eventual OPV cessation

- Continue work towards eventual OPV cessation in the post eradication area
- Endorse the protocol for IVDPVs.

### Risk reduction and risk management

The ACPE endorsed the:

- Goal, strategy and steps for the Global Action Plan III of poliovirus laboratory containment
- Concepts of 'Standard Operating Procedures' for global stockpile of monovalent OPV for the post-OPV era
- Programme of work on IPV

- Establishment of the PAI a “Poliovirus Antiviral Initiative” to develop at least 2 polio antiviral drugs for use in post-OPV era.

### 2.3 Discussion

The RCC welcomed the clear and informative presentations providing an overview of the status of polio eradication activities in the Region and at the global level. These presentations were supplemented by those made by the Chairmen, NCC of the two remaining endemic countries in the Region, i.e. Afghanistan and Pakistan.

The Commission expressed concern at the drop in the AFP surveillance rates below the level of 2/100 000 children under the age of 15 in several polio-free countries of the Region. It recommended that the chairpersons of the NCCs be informed of the Regional Directors communications to the relevant Ministers of Health drawing their attention to the drop in the non-polio AFP surveillance rates.

The RCC noted with great concern the unavailable or inadequate resources for preventive supplementary immunization activities for some countries of the Region especially those at high risk and with low routine immunization (Djibouti, Sudan and Yemen). In this respect, the RCC requested the Regional Director to continue his efforts at fund raising and asked the global programme to ensure that these countries are given priority to maintain their polio free status in the face of the high risk of importation. It was noted that in Iraq too, there may be a need for preventive Supplementary Immunization Activities as the security situation had led to deterioration in the quality of AFP surveillance and routine immunization, and there is threat of an immunity gap developing.

The RCC was also concerned about the modest improvement in coverage with routine immunization in the endemic and at risk countries. Better use of resources from GAVI for strengthening the infrastructure for routine immunization is a possible solution, in addition to persuading the national governments to assume ownership of the programme.

The Commission recognized the continuing threat posed by the high endemicity of poliomyelitis in Nigeria to countries in the region specially those whose polio free status is still fragile. It recommended that efforts be continued at high level to highlight this threat to the region and ways to address it.

The RCC noted the decision of the Ministry of Health of Saudi Arabia concerning OPV vaccination requirements for all visitors from endemic countries before issuance of visas. It was also briefed about the recommendations of the ACPE with respect to vaccination requirements to prevent / limit the international spread of polio from endemic areas.

While noting, with appreciation, the performance of the polio laboratory network, the RCC strongly recommended that the technical expertise and facilities of the polio laboratory network should be used for other diseases such as measles rather than establishing duplicate facilities for this purpose.

It was clarified that the rationale for establishing a 'Poliovirus Antiviral Initiative' was to eliminate the circulation of wild poliovirus from immunodeficient cases.

### **3. UPDATE ON THE REGIONAL LABORATORY CONTAINMENT ACTIVITIES**

*Dr Humayun Asghar, Laboratory Coordinator for Polio Eradication,  
WHO/EMRO*

The RCC was briefed on the progress in laboratory containment. Sixteen countries in the Region (Bahrain, Djibouti, Islamic Republic of Iran, Iraq, Jordan, Kuwait, Libyan Arab Jamahiriya, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia and United Arab Emirates) have completed their national laboratory surveys and inventory involving a total of 21 858 laboratories. Fourteen of these countries have also completed the quality assessment exercise and reports. The remaining two countries (Kuwait and Lebanon) are in the final stages of completion of this exercise. At the fifth intercountry meeting of national containment coordinators held in September 2006, the quality assessment reports were reviewed by a panel of independent containment experts from outside the Region who then provided feedback to the countries on areas which needed further clarification and/or improvement. The revised reports are going to be reviewed by the respective NCCs before being submitted to the RCC at its next meeting. Three countries (Egypt, Palestine and Yemen) are currently conducting their national surveys. The endemic countries (Afghanistan and Pakistan) have recently appointed containment coordinators and will begin the preparatory work for the laboratory survey once transmission has ceased. In due course a regional inventory of laboratories storing wild polio infectious material will be created and periodically updated.

The highlights of the draft third edition of the Global Action Plan for Polio virus Containment in the Post OPV Era (GAP 3) was presented to the RCC. It was pointed out that while the main purpose of the second edition was to minimize the post eradication risk of facility-associated re-introduction of wild poliovirus in the community during a time when OPV is being used, the objective of the draft third edition was to minimize the post eradication risk of re-introducing wild poliovirus or Sabin strains from the laboratory in the community, at a time when OPV use has stopped. The rationale behind GAP 3 is that the non-immune population will increase once wild poliovirus (WPV) is eradicated and OPV is no longer being used. A facility-based re-introduction of WPV would have serious consequences and a facility associated post OPV introduction of a Sabin strain could lead to cVDPV

dissemination and re-establishment of poliomyelitis. Therefore, the strategy spelled out in GAP 3 is elimination of risk through destruction of poliovirus material in national inventories. Only less than 20 facilities worldwide would retain this material under appropriate bio-safety measures.

The RCC appreciated the good progress achieved in laboratory containment and looked forward to receiving the quality assurance reports from the 16 countries that have completed their laboratory survey and quality assessment exercise. The RCC recommended that the existing communication between the NCCs, national polio laboratories, national EPI teams and containment coordinators should be further enhanced and streamlined.

#### **4. REVIEW OF NATIONAL REPORTS**

##### **4.1 Re-submission of the national documentation of Sudan**

Professor Abdel Rahman Kabbashi, Chairman, NCC, Sudan, presented a summary of the re-submitted national document. He pointed out that the first submission of the document was approved by the RCC in 2003 and subsequently, annual updates for 2003 and 2004 were also submitted by the NCC. However, in view of the outbreak following an importation through Darfur, submission of further reports was suspended. Professor Kabbashi briefly described the evolution of the outbreak and its control through repeated supplementary immunization activities and improved surveillance. The last case of polio was detected over a year ago (on 17 June 2005). The NCC noted that various surveillance-related indicators were being maintained well above the certification standard and steps have been taken by the programme to fill the gaps identified by the surveillance review in 2005. It also noted that performance of national polio laboratory has been highly satisfactory and a second laboratory survey for containment of wild poliovirus has been successfully completed. Based on these findings and following discussions with the programme staff, the NCC was convinced that Sudan was free of wild polio and the quality of AFP surveillance was sensitive enough to detect any future importation, the risk of which remains high.

The RCC was pleased to review the re-submission of the national documentation of Sudan, submitted by the Chairman, NCC, and expressed its satisfaction with the re-submitted national document from Sudan and decided to accept the report with some minor modifications. However, it noted that the quality of AFP surveillance would need to be monitored closely especially in high risk provinces and those where AFP rate is less than 2 per 100 000. The RCC recognized that the country continues to be at high risk of importation and recommended that the national programme should be supported with adequate resources to consolidate its gains.

The RCC's comments for modification of the report will be communicated to the Chairman, NCC Sudan, in a letter from the Chairman, RCC.

## **4.2 Provisional national documentation report of Afghanistan, Egypt and Pakistan**

### *4.2.1 Afghanistan*

The second provisional National Documentation report was presented by Dr Gholam Aram, Chairman, NCC Afghanistan. He recalled that in April 2005, when the first provisional report was submitted to the RCC, the situation was very encouraging and expectations were high that the country would soon reach zero case level. However, during the second half of 2005 a P1 outbreak started in the southern region. Dr Aram described the factors leading to the existing situation, predominant among which was the security situation in the affected area of the country. He referred to various steps being taken to enhance the political commitment and the management of polio eradication activities and hoped that these will soon result in controlling the outbreak.

### *4.2.2 Pakistan*

Professor Tariq Bhutta, Chairman, NCC Pakistan, presented the third provisional national documentation report on behalf of the NCC Pakistan. He summarized the salient developments that had taken place since the submission of the last provisional report nearly a year ago. He expressed his satisfaction with the high quality of AFP surveillance and the coverage during supplementary immunization activities except in security compromised areas and stressed the need to improve the continued low coverage with routine immunization. He also touched on the measures being taken to access young children in the tribal areas bordering Afghanistan.

The RCC expressed its satisfaction at having an opportunity to review provisional national documentation reports both from Afghanistan and Pakistan during the same meeting. It commended the national programme in both the countries for their efforts in eradicating polio under difficult circumstances and thanked the respective Chairmen of NCCs for their efforts in authenticating the data compiled by the national programme and for their interest in the eradication related activities.

The RCC made detailed comments on both the reports that will be communicated in a letter from the Chairman, RCC to the respective Chairmen, NCC, in both the countries.

### *4.2.3 Egypt*

The third provisional national documentation report was presented by Dr Salah Madkour, Chairman, NCC Egypt. He briefly described the work done by the NCC since its establishment in 1998 and its close interaction with the national programme. He recalled that the last case of wild polio virus was reported in May 2004 and the last environmental sample positive for wild polio virus was found in January 2005. The NCC was fully satisfied with the quality of AFP surveillance and with the high

coverage achieved during supplementary immunization activities conducted during the last couple of years and by routine immunization. He also referred to the sustained high level performance of the national polio laboratory and expected the laboratory survey for containment of wild poliovirus to be completed soon. In view of the above the NCC was convinced that the country remained polio free.

The RCC was pleased to review the third provisional national documentation report from Egypt. It was noted that nearly three years would have elapsed by the time the RCC meets for its next meeting in late April 2007 and therefore, advised the NCC and the national programme to submit the formal report in time for its review at its meeting in April 2007. The RCC made a few minor comments on the provisional report which will be communicated to chairman, NCC.

#### **4.3 Annual updates for 2004 and 2005 of Kuwait**

The RCC reviewed and provisionally accepted the revised annual update for 2004 and the annual update for 2005. It made some comments on both these reports and advised the Chairman NCC, to amend the two in light of its comments so that the reports can be formally accepted.

### **5. OTHER MATTERS**

#### **5.1 Dates and venue for the 17th meeting of the RCC**

The RCC decided that its next meeting (RCC 17) will be held in Cairo, Egypt, from 24 to 26 April 2007. It was noted that as there will be about 20 national reports for review and discussion, the RCC would need at least 3 full days to fulfil the agenda of the meeting.

#### **5.2 Completeness of the reports submitted by the NCCs**

The RCC noted that certification reports submitted by the NCC are sometimes still incomplete: pages are not properly numbered; annexes missing; some reports include attachments that are not required; and the electronic version submitted to the secretariat to be forwarded to the RCC members for their review prior to the meeting differs from the hard copies submitted.

The RCC advised the secretariat to remind the Chairs of NCCs to give due attention to ensuring the completeness of reports and to avoid attaching unnecessary documents unless they are specifically requested. The responsibility for ensuring the timely submission of a properly completed national document rests entirely with the NCC and the national programme. More attention to completeness would do away with the unnecessary and time consuming correspondence between the secretariat and NCCs dealing with reminders, pointing out omissions and seeking clarifications in the certification documents submitted by NCCs

## **6. CLOSING SESSION**

During the closing session, Dr Ali Jaffar Sulaiman, Chairman, RCC, thanked the participants for their contributions to the meeting. He stressed the importance of submitting good quality reports and in this regard, the NCCs bear a heavy responsibility in critically reviewing reports that are compiled by the programme for accuracy and completeness. He pointed out that a positive side effect of preparing the certification reports has been the elaboration of a computerized list of laboratories in the countries of the Region as part of the certification-related containment activity.

Dr M. H. Wahdan, Special Adviser (Polio), speaking on behalf of the Regional Director, thanked all the participants especially the members of the RCC and national authorities for their efforts to rid the Region of poliomyelitis.

**Annex 1**

**PROGRAMME**

**Wednesday, 1 November 2006**

- 08:30–09:00 Registration
- 09:00–09:30 Opening session  
Introductory remarks by Dr Ali J. Sulaiman, Chairman of RCC  
Address by Dr Hussein A. Gezairy, Regional Director, WHO/EMRO  
Adoption of Agenda
- 09:30–12:15 Present situation of polio eradication initiative  
Eastern Mediterranean regional overview, Dr F. Kamel, WHO/EMRO, Dr H. Asghar, WHO/EMRO  
Global Overview, Dr R. Tangermann, WHO/HQ  
Outcome of the third ACPE Meeting, Dr Y. Al Mazrou, RCC and ACPE Member  
Discussion
- 12:15–13:30 Update on the regional laboratory containment activities, Dr H. Asghar, WHO/EMRO
- 13:30–14:15 Presentation and discussion of the re-submitted national document of Sudan
- 14:15–15:45 Private meeting of the RCC members

**Thursday, 2 November 2006**

- 08:30–09:00 Review of Annual Updates for 2004 and 2005 of Kuwait
- 09:00–09:45 Presentation and discussion of (provisional) national document of Afghanistan
- 09:45–11:00 Presentation and discussion of (provisional) national document of Pakistan
- 11:00–11:45 Presentation and discussion of (provisional) national document of Egypt
- 11:45–14:00 Private meeting of the RCC members
- 14:00–14:30 Closing session

**Annex 2**

**LIST OF PARTICIPANTS**

**Members of the RCC**

Dr Ali Jaffer Mohammed (*Chairman*)  
Advisor Health Affairs  
Supervisor Directorate General Health Affairs  
Ministry of Health  
Muscat  
OMAN

Dr Magda Rakha  
First Under-Secretary  
Ministry of Health and Population  
Cairo  
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Dr Yagoub Y. Al Mazrou  
Assistant Deputy Minister for Curative Medicine  
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Professor Mushtaq Khan  
Professor of Paediatrics  
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Dr David Salisbury  
Director of Immunization  
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**Country representatives**

**AFGHANISTAN**

Dr Gholam Aram  
Chairman, National Certification Committee

**Herat**

**EGYPT**

Dr Salah Madkour  
Chairman, National Certification Committee

**Cairo**

Dr Ibrahim Barakat  
EPI Manager  
Ministry of Health and Population

**Cairo**

Dr Ibrahim Moussa  
Deputy EPI Manager  
Ministry of Health and Population

**Cairo**

**KUWAIT**

Dr Ali Al-Saif  
Chairman, National Certification Committee

**Kuwait**

Dr Mussab Al-Saleh  
Head of EPI Programme  
Ministry of Public Health

**Kuwait**

**PAKISTAN**

Professor Tariq Iqbal Bhutta  
Chairman, National Certification Committee

**Lahore**

**SUDAN**

Professor Abdel Rahman Kabbshi  
Chairman, National Certification Committee

**Khartoum**

Dr Eltayeb El Sayed  
EPI Manager  
Federal Ministry of Health

**Khartoum**

### **Other Organizations**

#### **Rotary International**

Dr Diaa Seif El Din  
Chairman  
National PolioPlus Committee of Egypt  
Cairo

### **WHO Offices**

#### **WHO headquarters**

Dr Rudolf Tangermann  
Medical Officer  
Polio Eradication Initiative  
Geneva

#### **WHO Secretariat**

Dr Hussein A. Gezairy, Regional Director  
Dr M. H. Wahdan, Special Advisor to the Regional Director for Poliomyelitis Eradication  
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**Annex 3****CONCLUSIONS AND RECOMMENDATIONS OF THE THIRD MEETING  
OF THE ADVISORY COMMITTEE ON POLIOMYELITIS ERADICATION  
Geneva, 11–12 October 2006**

The third meeting of the Advisory Committee on Poliomyelitis Eradication (ACPE) was convened in Geneva, Switzerland, on 11–12 October 2006, to provide the World Health Organization (WHO) and the Global Polio Eradication Initiative (GPEI) with expert advice on:

- programme priorities and policies for interrupting wild poliovirus transmission worldwide;
- limiting the international spread of circulating polioviruses;
- refining the programme of work for eventual cessation of immunization with oral poliovirus vaccine (OPV) following interruption of wild poliovirus transmission.

The ACPE provides recommendations on broad strategic issues for the global programme. Individual advisory groups exist in each endemic country and some re-infected countries to provide detailed technical and operational guidance specific to the context of these countries.

*The international context*

The ACPE is meeting at a time when international concern is very high regarding the pace of eradication in the remaining endemic areas. The longer it takes to interrupt transmission in the remaining endemic countries the greater the danger of WPV being exported to countries that are currently polio-free. There are significant financial and opportunity costs associated with preventing and responding to polio outbreaks following importation. The concern of the international community is greatest with respect to Nigeria (where multiple lineages of both WPV1 and WPV3 are circulating) and western Uttar Pradesh in India, which pose a constant risk within these countries, to neighbouring countries, and to any country receiving travellers from these areas.

**1. Interrupting wild poliovirus transmission**

As of 12 October, 1403 paralytic polio cases due to wild poliovirus have been reported in 2006, from 14 countries: 4 endemic countries and 10 countries re-infected by wild poliovirus originating in endemic areas. This compares with 1979 cases from 16 countries for the whole of 2005.

**1.1 Strategic priorities**

Currently the remaining transmission of wild poliovirus globally can be broadly divided into two situations.

- 1) Endemic transmission of both WPV1 and WPV3 continues in areas of only four countries, Nigeria, India, Pakistan, and Afghanistan. These countries have never completely interrupted transmission and represent the only remaining reservoirs of WPV. The four endemic countries account for 92% of all reported cases globally; Nigeria and India account for 65% and 25% of global totals respectively. Nigeria, India, and Afghanistan have all had marked increases in the number of cases reported in 2006 compared to 2005, and in Pakistan case numbers are almost the same.
- 2) Virus from endemic areas (Nigeria and India) has in recent years frequently been exported to polio-free areas, often causing multiple case outbreaks. Over the past 4 years, 68 separate importation events have affected 24 previously polio-free countries, led to over 1400 cases of polio globally, and cost, in external funding alone, more than US \$450 million to bring under control. Importations resulting in outbreaks have all been caused by WPV1. The risk of importation is greatest for those countries immediately neighbouring endemic areas, but there is also risk for those neighbouring outbreak areas, and a risk of long distance exportation of wild poliovirus from endemic areas. Long distance exports of virus in the past 4 years have caused more than 700 of the importation associated polio cases and cost more than US \$150 million to control.

Progress in stopping outbreaks of polio following importation of wild poliovirus into polio-free areas has been substantial. In 2006 these outbreaks have accounted for only 8% of all globally reported cases to date, down from more than 60% in 2005. In 2006, outbreaks in polio-free areas have declined in terms of the number of importations detected, the number of countries currently dealing with outbreaks, and the number of cases resulting from these importations. Only 8 countries (Angola, Democratic Republic of Congo, Namibia, Niger, Ethiopia, Somalia, Bangladesh, Nepal) currently have ongoing transmission following importations, the lowest number for 4 years, and for all of these outbreaks appropriate control measures are being taken. The ACPE was briefed on response activities in Angola by the Vice-Minister of Health and noted plans for a further NID round in 2006 and two rounds in early 2007.

Despite the progress in controlling outbreaks in polio-free areas following importation, ongoing transmission of wild poliovirus in endemic areas poses a constant risk to the achievement of polio eradication globally.

Data from trials in Egypt demonstrate higher response rates following a single dose of mOPV1 than tOPV, and also reduced excretion of virus upon challenge. These data confirm that mOPV1 is more effective against WPV1 transmission than tOPV and validate the strategic decisions on mOPV1 use made by the programme. The ACPE emphasizes that the effective use of this improved tool will enhance current strategies

and lead to cessation of WPV1 transmission, provided these strategies are effectively implemented.

### **Recommendations**

- The ACPE endorses the strategic approach of the Global Polio Eradication Initiative for stopping wild poliovirus transmission, specifically:
  - Endemic areas: conducting 7–8 rounds of high quality supplementary immunization per year with the appropriate OPV (as per previous ACPE recommendations) in endemic areas until circulation of wild poliovirus has been interrupted. The appropriate mOPV may need to be alternated with tOPV depending on the transmission situation in any given area.
  - Re-infected areas: continuing supplementary immunization activities until circulation of wild poliovirus has been interrupted, as per previous ACPE recommendations and WHA Resolution 59.1. The vaccine of choice is the appropriate mOPV.
  - Areas contiguous with endemic areas: conducting supplementary immunization activities as appropriate until circulation of wild poliovirus is interrupted in the endemic reservoir and maintaining highly sensitive AFP surveillance. The vaccine of choice is tOPV where the neighbouring area is endemic for both WPV1 and WPV3.
  - Polio-free areas: achieving and maintaining high routine immunization coverage against polio, and maintaining certification-standard surveillance.
- Trial data on mOPV3 should be obtained as soon as possible to set the stage for more widespread use of this vaccine.
- In light of the developments over the previous 12 months the programme should prepare a new Global Strategic Plan for the period 2007–2010 to provide a longer term framework for eradication and post-eradication activities.

### **1.2 Interrupting indigenous transmission**

The four countries that still have areas of endemic transmission are each facing different situations.

Nigeria remains the single biggest risk to global polio eradication. It is the only endemic country with widespread, multi-lineage transmission of both WPV1 and WPV3, which is clearly related to extensive gaps in population immunity, and in 2006 case numbers are almost double that for the same period in 2005. Despite the recent improvements in reaching children, in several northern states more than 20% of children less than 5 years of age have never had a dose of OPV, based on AFP case data. This is of grave concern and points to the continued existence of major quality gaps in supplementary immunization activities that must be rapidly addressed. Consistent high quality rounds will need to be conducted in the endemic areas in order to close the immunity gap and restrict transmission.

Despite the increase in cases, the ACPE notes some positive developments. Southern Nigeria has stayed polio-free. Recent data from the IPDs in northern states suggest that there have been some improvements in accessing children, following efforts to engage local governments and local communities. Surveillance data also indicate that there may be a reduction in WPV1 case numbers in northern states following the IPDs. These improvements need to be sustained and expanded.

Afghanistan in 2006 is experiencing a significant outbreak of WPV1 in the Southern Region, with some spillover into Baluchistan in Pakistan. Apart from one case in a bordering province of Western Region, the outbreak has been confined to Southern region and all other areas of Afghanistan remain polio-free. The main issue in Southern Region, and increasingly neighbouring regions, is security, which hampers the access of immunization teams to children, and the access of supervisors and monitors supporting teams to achieve good quality of work.

In Pakistan the bulk of the population lives in polio-free areas; transmission is restricted to security compromised areas (including parts of Federally Administered Tribal Areas), areas bordering the outbreak in Afghanistan, and mobile populations. The border areas of Pakistan and Afghanistan are areas of common transmission. The ACPE appreciates the initiative of the Federal Minister of Health, Pakistan, to arrange meetings with the Ministers of Afghanistan and India to discuss cross border coordination issues.

In India the situation is mixed. In Bihar, only 20 cases have so far been reported in 2006, all WPV1, and it is certainly possible that local transmission can be stopped in the near future. However in Uttar Pradesh (UP), an outbreak of type 1 poliovirus is occurring, centred on western UP. This outbreak has resulted in significant numbers of cases, and has spread outside western UP, although not to the same extent as during the outbreak in 2002. In western UP WPV transmission is aided by very high population density and very poor sanitation, and the high prevalence of enteric infections probably interferes with response to vaccine in individual children. This is supported by recent analysis of AFP and polio case data which suggest that the efficacy of OPV is lower in UP than in other parts of India. However, the same data also suggests that monovalent OPV1 is more protective than tOPV even in UP. It is clear that in northern India, particularly in western UP, it is necessary to get more doses of OPV into children, including sufficient doses of mOPV1, and to consistently achieve higher coverage than was necessary in other parts of India. The current challenge is to consistently reach all children in western UP during every round of supplementary immunization.

In Afghanistan, Pakistan, and India, WPV1 outbreaks are occurring. Analysis of genetic data for each outbreak shows close relationships between viruses. This is not a pattern of wide endemic transmission, which is characterized by genetic diversity. It is more similar to outbreaks in polio free areas when WPV is introduced. The implication is that these outbreaks can be brought under control in the same way as

outbreaks in polio-free areas, with consistent application of proven strategies. In order to reach the level of quality and consistency of work necessary to interrupt transmission in the remaining endemic areas an even higher level of political commitment must be achieved and sustained in these countries to ensure government ownership and oversight.

### **Recommendations**

- Recognizing the international health risks posed by continuing wild poliovirus transmission in the remaining endemic areas and the need for extraordinary cross ministry cooperation to reach all children, and following the example of Afghanistan where the President has formed a working group reporting directly to him, mechanisms should be established to regularly brief the Head of State in each of the endemic countries on progress and programme requirements.
- All endemic countries should plan for 7–8 supplementary immunization rounds per year in endemic areas until transmission is interrupted.
- All endemic countries need enhanced plans for systematically engaging and reaching those populations which are continuing to harbour wild poliovirus. These plans should be shared with the ACPE by January 2007.
- Recognizing that improvement in campaign quality in endemic areas has been incremental, endemic countries should establish realistic targets and planning timeframes that extend beyond 18 months. This is essential to facilitate international risk management and domestic allocation of resources.
- The following actions should be taken to address specific issues in endemic countries:
  - Nigeria should carefully plan supplementary immunization activities for the remainder of 2006 and early 2007, taking into account upcoming elections, to ensure that endemic areas are adequately covered by sufficient numbers of high quality supplementary immunization rounds. Plans recommended by the ERC should be made available to the ACPE members in December 2006.
  - State and local governments in Nigeria need to take strong ownership of the programme particularly in the coming months leading up to Presidential elections.
  - The Director General of WHO should continue to interact with the UN Secretary General's office to facilitate the negotiation of cease fires in security compromised areas of Afghanistan, particularly in the southern region, to allow supplementary immunization activities to take place.
  - Pakistan and Afghanistan should ensure close coordination of activities, so that populations at risk of WPV transmission are effectively and consistently covered by surveillance and immunization.
  - In India, interrupting transmission in Bihar and controlling the outbreak in UP as a prelude to interrupting transmission there should be pursued simultaneously. Efforts in UP should focus on engaging local governments and local communities to ensure sustained high quality supplementary

immunization activities and improved routine immunization. The recommendations of the India Expert Advisory Group should be made available to the ACPE following the meeting in November.

The Governments of Nigeria and Pakistan should commit additional national resources for polio eradication in order to finish the job.

### **1.3 Limiting the international spread of circulating polioviruses**

Although WPV transmission persists in endemic areas, all outbreaks following importations into polio-free countries occurring between 2003 and 2005 have been stopped or are under control. Outbreaks following importations in 2006 are being responded to appropriately according to ACPE recommendations and WHA Resolution 59.1 of May 2006. Experience has shown that no importation throughout this period has resulted in long term re-establishment of wild poliovirus transmission, and that an appropriate response, as per ACPE recommendations, will stop outbreak transmission.

However the ACPE emphasizes that the four remaining endemic areas constitute a risk for all polio-free areas and the risk of international spread of WPV remains high until WPV transmission is stopped globally.

The ACPE noted the recent decision of the Kingdom of Saudi Arabia to enhance its polio immunization requirements for persons intending to travel to Saudi Arabia from polio-infected areas. The Kingdom now requires that all such travellers aged <15 years would need to provide evidence of appropriate polio immunization, at least 6 weeks in advance of travel, to be granted an entry visa. In addition, all Nigerians are now required to meet these requirements prior to travel. To further reduce the risk of polio infection of visiting pilgrims, the Kingdom also requires travellers from polio-infected areas to be immunized on arrival.

The ACPE reviewed the scientific basis for polio immunization requirements for travellers from polio-infected areas. The ACPE found the scientific basis for these requirements to be sound, noting that such measures would reduce the risk of poliovirus infection and excretion by travellers from polio-infected areas. The ACPE evaluated the options for enhancing national and international advice to both individual travellers and governments, including the WHO publication *International Travel and Health*, and the International Health Regulations 2005 (IHR 2005).

### **Recommendations**

A multi-pronged strategy is needed to address the risk of international spread of circulating polioviruses. In addition to the technical recommendations previously made by the ACPE, the following steps should be taken to reduce the risk of international spread of wild poliovirus.

- Countries bordering endemic areas of Nigeria and India should continue to conduct supplementary immunization rounds of an appropriate scale annually until transmission in the endemic reservoirs is interrupted.
- The WHO publication *International Travel and Health* should be updated to recommend that all travellers to and from polio infected areas should be fully immunized against poliomyelitis in accordance with national policy. Individuals without a prior history of polio immunization should complete a full primary series by one month prior to the date of intended travel. Previously immunized individuals should receive a booster dose between one and twenty-four months prior to travel.
- A Standing Recommendation on polio immunization for travellers from polio-infected areas<sup>1</sup> should be established under the International Health Regulations 2005.
- The Standing Recommendation should include:
  - a) Individuals who have not completed a full series of polio immunization should complete a full primary series by one month prior to the date of intended travel.
  - b) Previously immunized individuals should receive a booster dose between one and 24 months prior to travel.
  - c) Individuals undertaking travel on short notice (i.e. less than one month before departure) should receive a dose of polio vaccine prior to departure.
- The immunization of travellers arriving from polio-infected areas with a single dose of polio vaccine at the point of entry may reduce the risk of spread of an imported virus.
- The vaccine of choice for immunizing travellers from polio infected areas is trivalent OPV.
- These recommendations should remain in effect for a minimum of 6 months after detection of the last wild poliovirus. If certification standard surveillance is not in place in the infected country, the recommendations should remain in effect for a minimum of 12 months.
- WHO should take immediate steps to ensure appropriate polio expertise is available to the expert roster for the IHR (2005).

## **2. Eventual OPV cessation**

### **2.1 Risk assessment**

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<sup>1</sup> For the purposes of these recommendations, polio-infected areas include: a) endemic areas, and b) re-infected areas with a multiple case outbreak that have detected wild poliovirus within the last 6 months. The list of polio infected areas is updated quarterly by WHO.

To further inform decision-making on long term policies to minimize and manage the risks of polio re-emergence and/or reintroduction into a polio-free world, the GPEI has taken a multi-pronged approach utilizing a combination of programmatic observations (e.g. impact of OPV campaigns on cVPDVs), studies (e.g. prevalence of iVDPVs) and mathematical modelling.

A comprehensive analytic, decision-making model has been developed over the past 5 years to quantify the risks associated with different policy options in a post-eradication world, test the robustness of the predicted outcome of each option, and identify areas of particular uncertainty in terms of model inputs (assumptions). This modelling reaffirms that with ongoing use of OPV post-eradication, outbreaks of cVDPVs will occur unless very high universal coverage is maintained. Cost-effectiveness analyses found that the policy option of no routine immunization post-eradication may be both cost and life saving in the setting of low and middle income countries. Further work needs to be done with respect to the risk posed by iVDPVs in the post eradication era. WHO has developed a protocol for assessing the prevalence of iVDPVs in middle and low income settings, which was reviewed by the ACPE.

### **Recommendations**

- Decision-analytic modelling reaffirms the ACPE recommendation that the GPEI work towards the eventual cessation of routine use of OPV in a post-eradication era. The ACPE recommends continuation of this work and the allocation of further time in upcoming meetings to review in greater detail the outcomes and implications of this work, particularly the newer work on the costing of the various post-eradication options.
- The ACPE endorses the proposed protocol for iVDPVs and recommends its immediate application with an update on findings at its next meeting. The ACPE further recommends that the geographic area targeted for such studies be expanded to include low income sites and sites in sub-Saharan Africa.

### **2.2 Risk reduction and risk management**

Recognizing that there are inherent, residual risks associated with all policy options for polio immunization in a post-eradication era, the ACPE has recommended a comprehensive strategy for minimizing the managing the risks of polio re-emergence and/or re-introduction in such a period. The six-pronged strategy in place as of September 2006 to minimize and manage the long term risks of polio consists of:

1. Confirmation of the interruption and containment of wild poliovirus globally,
2. Highly-sensitive surveillance for, and immediate notification of, polioviruses,
3. Establishment of an mOPV stockpile for responding to emergent or re-introduced circulating poliovirus,

4. High (>90%) nationwide routine immunization coverage with IPV in all countries with poliovirus (essential) facilities,
5. Synchronous global cessation of OPV for routine immunization, and
6. Containment of Sabin poliovirus strains.

The ACPE reviewed the current working draft of the Third Edition of the WHO Global Action Plan to Minimize Poliovirus Facility-associated Risk in the Post-eradication/post-OPV era (GAP III) which had been updated to reflect revisions proposed by the Committee. The central component of this strategy is to reduce the number of facilities retaining virus to <20, conducting essential international vaccine, reference and research functions. These facilities would undergo a rigorous, annual review and biennial accreditation process to ensure ongoing compliance with the primary safeguards of facility containment and secondary safeguards of location in areas of lowest population risks.

The conceptual framework for the Standard Operating Procedures for the Stockpile of Monovalent Oral Poliovirus Vaccines (mOPV) in the Post-eradication/Post-OPV era was presented to the ACPE. These SOPs outline the rationale for an mOPV stockpile, indicate the composition (i.e. type and quantities of vaccine), and provide a proposal for the governance, release criteria, decision-making process, physical management and post-response monitoring of its use. The draft SOPs build on current processes for the management and use of international stockpiles of other vaccines (e.g. yellow fever, meningococcal meningitis), existing WHO procedures for assessing and verifying potential international health threats, and the impending provisions of IHR 2005. The ACPE welcomed the development of these SOPs, providing comments to clarify specific technical aspects (e.g. management of unused balances) and proposing amendments to the introduction.

WHO and the GPEI have established an extensive programme of work on IPV in the context of both eradication and the post-eradication era. This programme of work includes studies on the impact of IPV on poliovirus transmission, alternative schedules (e.g. 2 dose studies), dose reduction approaches (e.g. intradermal delivery of fractional doses), and cost-effectiveness. In addition, WHO is coordinating demonstration projects to evaluate both operational issues related to the introduction of stand alone IPV, as well as the protection conferred against VDPV emergence (in a setting of high coverage). WHO has also established a collaboration to establish proof-of-principle on new IPV vaccine development (Sabin-IPV). This programme of work continues to inform and update WHO policy on IPV that has been recently summarized in a WHO position papers and a supplement on this topic (April 2006). A recent NIH-sponsored meeting on polio eradication was presented to the ACPE and reaffirmed in particular the importance of this expanded programme of work on IPV.

The ACPE also reviewed the deliberations and outcomes of a meeting convened by the U.S. National Research Council to explore the programmatic utility and options for the development of an antiviral compound to facilitate risk management in

the post-OPV era. The meeting generated specific recommendations proposing the development of at least 2 polio antiviral drugs, the primary use of which would be to assist in the control of VDPVs in the post OPV era. The ACPE was presented with a proposal for the establishment of a Poliovirus Antiviral Initiative (PAI) to take forward the key recommendations arising from that meeting.

### **Recommendations**

- The ACPE endorses the goal, strategy and proposed implementation steps of GAP III, concurs with the plan for finalizing the technical biosafety details by end-2006 and recommends its dissemination for review and comment by a broader group of stakeholders in early 2007.
- The ACPE endorses the concepts outlined in the draft stockpile SOPS contingent on the inclusion of the comments provided. The SOPs should now be reviewed with a broader group of stakeholders, particularly manufacturers and NRAs, to facilitate long-term international planning. The next draft of the SOPs should be shared with the ACPE in Q1 2007.
- The ACPE endorses the extensive WHO/GPEI programme of work on IPV and suggests that WHO should communicate this extensive programme of work to the broader scientific community.
- An open consultative forum should be held in 2007 (if the data are available), to better explore the implications of the use of IPV in both eradication and a post-eradication era.
- The ACPE concurs with the proposal to establish a Poliovirus Antiviral Initiative (PAI) with an NGO-based secretariat. The ACPE encourages the proposed primary partners of the PAI to develop and initiate a plan of action, including resource mobilization, with a report back to the ACPE at its next annual meeting.