

Eradication of poliomyelitis

1. Introduction

Since the adoption of the global target of polio eradication by the Regional Committee for the Eastern Mediterranean in 1988, significant progress has been achieved. At present, 18 countries of the Region have been polio-free for more than 3 years. Of the remaining 4 countries in the Region, Somalia reported its last case in October 2002 and Egypt reported its last case in June 2003. The 2 countries with cases in 2004, Pakistan and Afghanistan, are together considered a common reservoir.

The number of poliomyelitis cases in the Region decreased from an estimated 35 000 cases a year in 1998, in other words about 100 cases a day, to only 113 cases during all of 2003. To date, the number of cases in 2004 is significantly less than those of the corresponding period in 2003. As well, genomic sequencing results show diminished genetic diversity of the viruses isolated from Pakistan and Afghanistan, reflecting progress towards eradication from these countries.

On 15 January 2004, delegates from all remaining polio endemic countries in the world participated in a Ministerial Conference held at WHO headquarters in Geneva. At the end of the meeting, ministers and senior health officials, together with representatives of the main partners in polio eradication, signed the Geneva Declaration for the Eradication of Poliomyelitis, committing them to the necessary action to stop viral transmission by the end of 2004.

2. Status of implementation of the basic poliomyelitis eradication strategies in the Region

2.1 Supplementary immunization activities with oral poliovaccine

One of the basic strategies of polio eradication is the acceleration and intensification of quality supplemental immunization activities with oral poliovaccine (OPV). In 2003, both endemic and recently polio-free countries were supported to conduct national and subnational immunization days. Each of the endemic countries conducted 4 rounds of national campaigns in addition to 4 rounds of subnational campaigns in high-risk areas. Countries recently polio-free conducted less frequent national and subnational campaigns. All campaigns in the Region were implemented on a house-to-house basis and were characterized by detailed microplanning, multisectoral involvement and intensified supervision. Monitoring by independent national and international observers showed that these intensified campaigns were of high quality and were very effective in closing the immunity gap among children under 5 years of age.

2.2 Surveillance for acute flaccid paralysis

The second major strategy for polio eradication, namely surveillance for acute flaccid paralysis (AFP), continued to improve throughout the Region. The required level of sensitivity (non-polio AFP rate exceeding one case per 100 000 children under 15 years of age) has been reached not only regionally but in all individual countries of the Region. The global indicator for high quality surveillance, namely to have adequate stool specimen collection from more than 80% of AFP cases, was reached and exceeded at regional level and in individual countries.

The establishment and maintenance of the surveillance system in countries affected by war and in areas with rudimentary or virtually non-existent health care services, such as in Afghanistan, Somalia and south Sudan, is a great achievement. The system has been instrumental in the reporting and investigation of other diseases.

The polio surveillance system is supported by a network of 12 poliovirus network laboratories which function at a very high standard and are all accredited by WHO. One of the regional reference laboratories, in the National Institute of Health in Islamabad, Pakistan, has developed the capacity to conduct genomic sequencing for isolated polioviruses and is working towards joining the network of Global Specialized Laboratories.

2.3 End-game strategies

In addition to continued technical support provided to countries of the Region, Technical Advisory Groups were established for countries that are still endemic to review the epidemiological situation and provide advice to the national eradication programmes. A Regional Technical Advisory Group (RTAG) has been established to guide the eradication activities during the final phase, or "end-game", particularly with regard to the issues of laboratory containment of wild polioviruses, the certification of polio eradication, preparedness for wild poliovirus importation and development of post eradication immunization policies.

The purpose of laboratory containment of wild polioviruses is to minimize the risk of reintroduction of wild polioviruses from the laboratory to the community. A regional plan for containment laboratory was developed and endorsed by the Regional Committee in 2000. At present, 18 countries of the Region have developed national containment plans, and 9 of them have completed implementation of phase I (survey and inventory phase) of containment requirements, which is needed before global certification. The other 9 countries are progressing in completing phase I.

All countries of the Region that have been free of poliomyelitis for three or more years, except Palestine, have submitted documentation for certification to the Regional Certification Commission, and have had their documentation accepted. Annual updates from these countries are also submitted to the RCC. The remaining five countries that have not yet submitted certification documentation are facing a difficult security situation (Palestine), have only recently become polio free (Egypt and Somalia) or are still endemic (Afghanistan and Pakistan).

Guidelines were prepared by the Regional Office for the development of national plans for preparedness for wild poliovirus importation. These plans are essentially based on maintaining sensitive surveillance systems capable of early detection of importation. All countries that submitted documentation to the RCC included in their documentation a plan to address wild poliovirus importation. Although importations have been reported in several countries of the Region, circulation has not been re-established because of the high levels of immunity.

3. Future challenges

Although there has been significant progress in the regional programme of polio eradication, a number of challenges are still facing the programme.

- Stopping circulation of the virus in Pakistan and Afghanistan. According to the National Technical Advisory Group (TAG) for the two countries, the main activities needed are enhancing political commitment, addressing sociocultural factors that limit access to children and ensuring necessary technical support. Significant advocacy efforts were made by the Regional Director in this regard, resulting in a call by President Pervez Musharraf to Governors, Chief Ministers, and other senior government officials for full commitment to the eradication of polio from Pakistan. Efforts have also been successful in ensuring that a high percentage of vaccination teams include females. WHO is providing all necessary technical support, comprising more than 40 international and 180 national staff in Pakistan and 11 international and 120 national staff in Afghanistan.
- Ensuring access to all children. The security situation in Afghanistan, Palestine, Somalia, in parts of Sudan and Pakistan and, recently, Iraq presents a major challenge which the programme is trying to overcome through a number of initiatives. Special efforts must be made to avoid any gaps in immunity among children under 5 years.
- Maintaining political support. High levels of national commitment must be sustained in the face of the disappearance of the disease in both polio-endemic and polio-free countries. Yearly progress reports on polio eradication to the Regional Committee help to maintain the visibility of the polio eradication initiative.

- Securing financial resources. Despite the significant contributions of national authorities, supplemental funding from external sources is needed to sustain eradication activities. The financial resources required in support of poliomyelitis eradication in the Region for 2004–2005, excluding the price of vaccine, amounts to US\$ 68 million (US\$ 41.5 million for 2004, which has almost been secured, and US\$ 26.5 million for 2005).

The impressive progress towards eradication of poliomyelitis in the Region is the result of the extraordinary efforts of national authorities and the support provided by a consortium of partners spearheaded by WHO, UNICEF, Centers for Disease Control and Prevention in Atlanta, USA, and Rotary International. In addition, significant support was received during 2003 and 2004 from the Department for International Development (United Kingdom), United Nations Foundation, Bill and Melinda Gates Foundation, Arab Gulf Programme for United Nations Development Organizations (AGFUND), the Governments of Canada, Italy, Netherlands and United Arab Emirates and the United States Agency for International Development. It must be noted however that the largest share of resources for the eradication efforts have been provided by the Member States, and that without their commitment to the eradication initiative, nothing could have been achieved.