ERADICATION OF POLIOMYELITIS IN THE REGION: PROGRESS REPORT

This is the third annual poliomyelitis eradication progress report prepared in response to Regional Committee resolution WPR/RC41.R5.

The provisional regional total of 2087 confirmed poliomyelitis cases reported in 1992 is the lowest annual incidence ever, even though countries have improved their surveillance systems in terms of both quality and timeliness. In the light of the progress made to date, poliomyelitis eradication by 1995 is achievable provided that sufficient vaccine can be made available and that countries intensify their supplementary immunization activities.

Increased government support has already facilitated more extensive supplementary immunization activities in several countries, most notably in the Philippines. Member States are urged to give their full support to the procurement of oral poliovirus vaccine and to expand carefully-planned supplementary immunization activities based on thorough follow-up of all cases of acute flaccid paralysis, continuous monitoring of vaccine quality and strict observance of the cold chain.
1. INTRODUCTION

In September 1988, the Regional Committee for the Western Pacific, at its thirty-ninth session, adopted resolution WPR/RC39.R15 on the eradication of poliomyelitis in the Region by 1995. This was followed by WPR/RC41.R5 and WPR/RC42.R3 which, respectively, called for an annual report on eradication and proposed ways to further accelerate the programme.

Following the resolution of the Regional Committee in 1992 (WPR/RC43.R3), poliomyelitis eradication was brought to the attention of the Executive Board and subsequently to the World Health Assembly. The most recent resolution on poliomyelitis eradication by the World Health Assembly (WHA46.33) is annexed.

This report provides detailed information on the current status of poliomyelitis eradication in the countries of the Region, the technical feasibility of eradication, and planned activities required to achieve this goal by 1995.

2. PRESENT EPIDEMIOLOGICAL SITUATION

2.1 Disease surveillance

The number of countries reporting endemic poliomyelitis cases decreased from twelve in 1980 to five in 1992 (Cambodia, China, the Lao People's Democratic Republic, the Philippines and Viet Nam), as a result of the increased efforts of the Expanded Programme on Immunization. Between 1980 and 1992, even though the surveillance system had become more effective and sensitive in its detection of new cases, the total number of reported cases continued its overall decline from 11,416 reported cases in 1980 to 2,087 cases in 1992 (see Figure 1 below).
Although the data are still provisional, the total of 2087 cases in 1992 is the lowest number yet reported to WHO. This reduction has largely been due to the enhanced poliomyelitis eradication activities in China.

Malaysia reported three imported cases, after having reported zero incidence since 1986, demonstrating the need to develop and maintain surveillance systems as well as a plan of action for poliomyelitis outbreaks, even in countries that are considered poliomyelitis-free.

In China and Viet Nam, poliomyelitis is epidemiologically widespread (see Table 1 below).
Table 1. Confirmed poliomyelitis cases and proportion of provinces or regions with confirmed poliomyelitis cases in poliomyelitis-endemic countries of the Western Pacific Region, 1991-1992

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<tbody>
<tr>
<td>Cambodia</td>
<td>84</td>
<td>146</td>
<td>21</td>
<td>57</td>
<td>71</td>
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<tr>
<td>China</td>
<td>1926</td>
<td>1372</td>
<td>30</td>
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<tr>
<td>Lao People's Democratic Republic</td>
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<tr>
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<td>29</td>
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<tr>
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<td>612</td>
<td>554</td>
<td>53*</td>
<td>89</td>
<td>74</td>
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<tr>
<td>WPR TOTAL</td>
<td>2635</td>
<td>2087**</td>
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1992 data are provisional as of May 1993.
* There were 44 provinces in Viet Nam in 1991.
** Includes imported cases reported from non-endemic countries.

The great majority of poliomyelitis cases have been either partially immunized or not immunized at all, indicating good vaccine efficacy.

3. PROGRAMME ACTIVITIES

The key strategies for poliomyelitis eradication include maintaining high routine immunization coverage, conducting supplementary immunization and improving disease surveillance. Activities in the countries have reflected these strategies, particularly increasing supplementary immunization activities, as detailed below.

3.1 Immunization

Regional coverage for children under one year of age with the six antigens of the Expanded Programme on Immunization attained more than 90% in 1990 and has maintained those levels in
1991 and 1992. Regional coverage with three doses of OPV was 92% in 1992. Three countries (Cambodia, the Lao People's Democratic Republic and Papua New Guinea) still have coverage of less than 80% (see Table 2 below).

Table 2. EPI coverage in poliomyelitis-endemic countries of the Western Pacific Region, 1991-1992
(Expressed as a percentage)

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<td>94</td>
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<tr>
<td>Lao People's Democratic Republic</td>
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<tr>
<td>Papua New Guinea</td>
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<td>63</td>
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<td>36</td>
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<tr>
<td>Regional coverage</td>
<td>93</td>
<td>93</td>
<td>92</td>
<td>92</td>
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<td>92</td>
<td>91</td>
<td>92</td>
<td>7</td>
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1992 data are provisional as of May 1993.

... Data not available.

In April and May 1993, the Philippines held the first national immunization days in the Region, providing nationwide coverage of more than 90%. China, the Lao People's Democratic Republic and Viet Nam held subnational immunization days during the winter season of 1992-1993. Twenty-nine out of 30 mainland provinces of China held immunization days in at least some areas, with the number of rounds and target ages varying between provinces owing to the poliovirus vaccine shortage. Similarly, Viet Nam conducted immunization days for children under three years of age in only 8 of 53 provinces. During subnational immunization days in the Lao People's Democratic Republic, children under five years of age received vaccine in 38% of the districts. Supplementary immunization activities have not yet been carried out in Cambodia or Papua New Guinea.
3.2 National level

3.2.1 Poliomyelitis-endemic countries

In China, the total number of poliomyelitis cases continued to fall to a total of 1372 for 1992. Progress is particularly notable in Shandong Province where health officials, with the collaboration of the Japan International Cooperation Agency (JICA), have succeeded in reducing the number of cases from 484 in 1989 to 19 reported as of late 1992.

Viet Nam, which has the highest incidence rate of poliomyelitis in the Region, continues to demonstrate a very high level of commitment to eradicating the disease. The quality of surveillance has greatly improved, with the majority of suspected poliomyelitis cases now being fully investigated. Supplementary immunization activities have been restricted by the shortage of vaccine supplies.

The Philippines became the first country in the Region to hold national immunization days, with the first round on 21 April 1993, and the second on 19 May 1993. The campaign was a tremendous success, with more than 9 million (more than 90%) children under five years of age throughout the country receiving two doses of OPV. BCG, DPT and measles vaccines were also given at fixed centres, as well as tetanus toxoid for women of childbearing age. There has also been considerable progress in surveillance; sentinel sites for reporting have been increased from 13 in January 1992 to 150 in 1993.

In the Lao People's Democratic Republic, subnational immunization days were held in all provinces in late 1992, with 48 selected districts participating (38% of all districts). Sentinel surveillance is being improved as is case investigation.

Papua New Guinea has achieved more accuracy in its surveillance system. A total of 18 acute flaccid paralysis cases were reported and investigated in 1992, with confirmation that no cases were due to poliomyelitis, for the second consecutive year.

In Cambodia, there has been progress recently in disease surveillance. Monthly reports were received from major sentinel sites, which included poliomyelitis, in 1992.

3.2.2 Imported poliomyelitis

Malaysia, which had been free of indigenous poliomyelitis since 1986, reported three cases in 1992. These were thoroughly investigated and found to be due to an imported source.
3.3 Regional level

3.3.1 Technical Advisory Group

At the third meeting of the Technical Advisory Group in Beijing in October 1992, in recognition of the vaccine shortage, a modified supplementary immunization strategy was approved. This interim contingency measure involves reducing the target age for children from under five years to under four years and limiting outbreak response immunization. The fourth meeting in Ho Chi Minh City in June 1993 focused on planning and implementing national immunization days.

3.3.2 Regional EPI Interagency Coordinating Committee (ICC)

The Committee consists of members of agencies involved in the Expanded Programme on Immunization and poliomyelitis eradication and includes WHO, UNICEF, AIDAB, JICA, USAID and Rotary International. Discussions at the second and third ICC meetings in Beijing and Ho Chi Minh City centred on the vaccine shortages, particularly in China and Viet Nam. Positive responses were made to the appeals for further funds for vaccine.

3.3.3 Regional surveillance system and laboratory network for poliomyelitis

WHO is now receiving reports of acute flaccid paralysis cases under 15 years of age from all poliomyelitis-endemic countries, with greatly improved timeliness. The regional computerized data system for acute flaccid paralysis surveillance has been updated to receive case investigation data in diskette form from the countries, and to print reports of surveillance indicators automatically from these data.

Guidelines for plans of action for integrated surveillance for poliomyelitis, neonatal tetanus and measles were introduced at a meeting for programme managers of Pacific island countries, held in August 1992.

Significant progress has also been made in establishing the regional laboratory network. Fairfield Hospital in Victoria, Australia, and the National Institute of Health in Tokyo, Japan, continue to serve as regional reference laboratories. In 1991, only China and Viet Nam had a national laboratory system in place, but, by 1992, all the countries reporting poliomyelitis, including Cambodia, had collected stool specimens and sent them to the corresponding laboratories for virological investigation. Special meetings on the laboratory network were held during the third and fourth meetings of the Technical Advisory Group in Beijing and Ho Chi Minh City in order to improve coordination of activities.
3.3.4 Cost-benefit analysis

A cost-benefit analysis of poliomyelitis eradication in the Region was prepared in 1993 showing the financial benefits that would accrue from eradication. Once eradication is achieved, there will be no costs associated with treatment, no more income or job losses due to the disease, and eventually no further need for immunization. The savings will therefore be considerable, and will mount up each year. It is estimated that the costs of poliomyelitis eradication in the Region will be recovered by the year 2001. By the year 2010, total savings from poliomyelitis eradication will exceed US$1 billion, increasing by an estimated US$123 million each year thereafter.

3.4 Vaccine supply and cold chain

WHO continues actively to seek funds for vaccine supplies, and to support vaccine production self-sufficiency. Vaccine production is being expanded in China and Viet Nam to meet the needs of poliomyelitis eradication, although the quality of these vaccines remains a major issue.

Although cold chain equipment in the Region is on the whole adequate, shortages and inappropriate equipment still exist in many countries. WHO is endeavouring to improve existing equipment, in particular with instructions for modifying domestic refrigerators. Local production of cold chain equipment will continue to receive encouragement from WHO as requirements for poliomyelitis eradication activities increase.

3.5 Training

National and subnational training workshops for poliomyelitis surveillance continued to be held in all the endemic countries. These workshops afforded an opportunity to present surveillance data and introduce new case-investigation forms, line-listing forms and monitoring indicators. Extensive training was also provided prior to the holding of immunization days.

3.6 Reviews

Provincial-level reviews of poliomyelitis eradication activities were carried out in Viet Nam in October 1992 and March 1993 and in China in May 1993. A comprehensive review of the Expanded Programme on Immunization was conducted in Cambodia in November 1992. Such reviews serve to indicate strong points as well as problems in implementation of the national poliomyelitis eradication plans so that activities can be further improved.
3.7 Resource requirements

The bulk of the resources for the Expanded Programme on Immunization and poliomyelitis eradication continue to come from the countries themselves. There were some positive developments in 1993 in mobilizing funds, especially as regards procurement of poliovirus vaccine. Additional funds were received from Australia, Japan, the United States of America and Rotary International.

Additional funds will be required for holding national immunization days, including US$40.4 million required to purchase 566.1 million doses of OPV until 1995. The Technical Advisory Group’s modified supplementary immunization strategy will remain as an interim emergency measure if the original requirements cannot be met. However, in order to implement this modified strategy, there will still be a shortfall of 256.1 million doses of OPV costing US$13 million until 1995.

3.8 Constraints

The vaccine shortage continues to be a major constraint on the achievement of the eradication goal. Provision of external support as well as modification of the vaccine requirement strategy have alleviated but not solved the problem.

Surveillance for acute flaccid paralysis remains weak and has not yet been fully implemented in all poliomyelitis-endemic countries. Completeness and timeliness of poliomyelitis surveillance reporting, case investigation, and collection of specimens still leave room for improvement.

While the Philippines has set an example of very strong government involvement and resource allocation from all sectors, and at all levels, support has been inadequate in some other countries. Lack of access to certain areas of poliomyelitis-endemic countries due to their geographical isolation, civil strife or other causes has hampered the progress of poliomyelitis eradication.

4. FUTURE ACTIVITIES

Mindful of the above progress, the Technical Advisory Group at its fourth meeting has reaffirmed that poliomyelitis eradication is achievable provided that sufficient vaccine is made
available and that national immunization days are held in the poliomyelitis-endemic countries. To achieve the 1995 target, the following activities will be emphasized:

WHO will collaborate with all countries and areas to implement the key regional and national eradication strategies of improved immunization and surveillance in a wider and more systematic fashion.

WHO will continue to coordinate the supplies of poliovirus vaccine to enable all poliomyelitis-endemic countries to conduct national immunization days. Political commitment as well as the resources necessary to conduct effective immunization days will need to be mobilized from within countries. Improved planning, implementation and evaluation of these immunization days will be required to ensure that all eligible children are reached and immunized.

Surveillance for acute flaccid paralysis will be strengthened to ensure that all poliomyelitis cases are detected, based on evaluation of monitoring indicators endorsed by the Technical Advisory Group. This group will continue to meet annually.

Training will continue at all levels in order to upgrade the knowledge and capabilities of staff in surveillance and supplementary immunization activities.

Systematic evaluation of poliomyelitis eradication activities will be instituted to document achievements and provide information for the further improvement of activities.
The Forty-sixth World Health Assembly,

Noting the report of the Director-General on the Expanded Programme on Immunization which emphasizes the need to accelerate progress, particularly in implementing the initiative to eradicate poliomyelitis by the year 2000;

Appreciating the progress towards the goal of poliomyelitis eradication being made in all WHO regions;

Congratulating the countries of the Region of the Americas on having had no cases of poliomyelitis caused by wild poliovirus for over one year;

Noting resolution WPR/RC39.R15 of the Regional Committee for the Western Pacific on the regional eradication of poliomyelitis by the year 1995;

Recognizing the major concern expressed by the Programme's Global Advisory Group at "the absence of political will on the part of some industrialized countries, developing countries and donors to make poliomyelitis eradication a sufficiently high priority";

Warning that the goal of global poliomyelitis eradication will not be achieved unless there is a continuing acceleration of national immunization programmes;

Emphasizing that eradication of poliomyelitis will strengthen the Programme's activities against other diseases, conserve financial resources currently committed to vaccine purchase and medical and rehabilitative care, improve surveillance, strengthen laboratory services, render delivery systems more effective and increase community participation;

Recalling resolutions WHA41.28, WHA42.32, WHA44.33 and WHA45.17 of the Health Assembly and the World Declaration on the Survival, Protection and Development of Children, which set goals for the 1990s, including the global eradication of poliomyelitis, the elimination of neonatal tetanus and the reduction of measles morbidity and mortality,

1. REAFFIRMS that the goal of global eradication of poliomyelitis by the year 2000 is achievable;

2. CONFIRMS WHO's commitment to the eradication of poliomyelitis as one of its highest priorities for global health work;

3. ENDORSES the revised plan of action, including the establishment and extension of poliomyelitis-free zones and the confirmation of the absence of wild poliovirus transmission in those zones;
Annex

4. APPRECIATES the commitment, support and coordinated actions of UNICEF and other organizations of the United Nations system, other intergovernmental agencies and governmental and nongovernmental organizations, in particular Rotary International;

5. URGES Member States:

(1) to reaffirm their commitment to the national eradication of poliomyelitis and make available the staff and resources necessary to achieve it;

(2) to implement the essential policies and strategies in the global plan of action;

(3) to develop effective surveillance for cases of acute flaccid paralysis and persistent wild poliovirus circulation among the population and in the environment;

(4) to strengthen rehabilitation services for children disabled by poliomyelitis and other paralytic illnesses;

6. CALLS ON organizations of the United Nations system, other intergovernmental agencies, and governmental and nongovernmental organizations to support countries committed to poliomyelitis eradication by cooperating in the planning and implementation of essential activities, ensuring provision of adequate quantities of poliovaccine for supplementary immunization, supporting the development of the poliovirus laboratory network, and providing technical assistance on surveillance and immunization;

7. REQUESTS the Director-General:

(1) to implement the measures necessary to achieve the global eradication of poliomyelitis by the year 2000, particularly plans, budgetary support and organizational activities necessary for coordinated health work;

(2) to support countries in obtaining sufficient quantities of vaccine meeting WHO quality requirements for both routine and supplementary immunization, including local production or bottling of bulk vaccine, as appropriate;

(3) to cooperate with countries in determining their other needs with regard to implementing the essential measures to achieve poliomyelitis eradication, including logistics and cold-chain systems, laboratory services, and surveillance;

(4) to work with other organizations of the United Nations system, other intergovernmental agencies and governmental and nongovernmental organizations to mobilize sufficient funding for vaccine supply and to meet other requirements for the eradication of poliomyelitis;

(5) to monitor progress on a monthly basis through reports of detected cases of acute flaccid paralysis, confirmed cases of poliomyelitis and indicators of the effectiveness of surveillance;

(6) to continue to pursue basic and operational research relevant to poliomyelitis eradication;

(7) to keep the Executive Board and the Health Assembly informed of progress towards the global eradication of poliomyelitis by the year 2000.

Thirteenth plenary meeting, 14 May 1993
A46/VR/13