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**ERADICATION OF POLIOMYELITIS IN THE REGION:
PROGRESS REPORT**

This, the fifth annual poliomyelitis eradication report, has been compiled from epidemiological and operational data provided by the six countries where poliomyelitis still occurs. The provisional total of 699 cases of poliomyelitis in 1994 shows that transmission of poliovirus has been drastically reduced in the Region; by the end of 1995, China, the Philippines and a large part of Viet Nam will be free of wild poliovirus. The Mekong Delta area of Cambodia, the Lao People's Democratic Republic and Viet Nam are the last foci of the disease, but are expected to be poliomyelitis-free in the next two years. Supplementary immunization with oral poliovirus vaccine in national immunization days has been very successful, with related benefits for the Expanded Programme on Immunization and other public health programmes. Efforts to improve the quality of surveillance for acute flaccid paralysis must continue. Member States are urged to ensure that no poliomyelitis cases are missed, and to reach the standards required for eventual certification of poliomyelitis eradication, as the initiative progresses towards the global goal.

1. INTRODUCTION

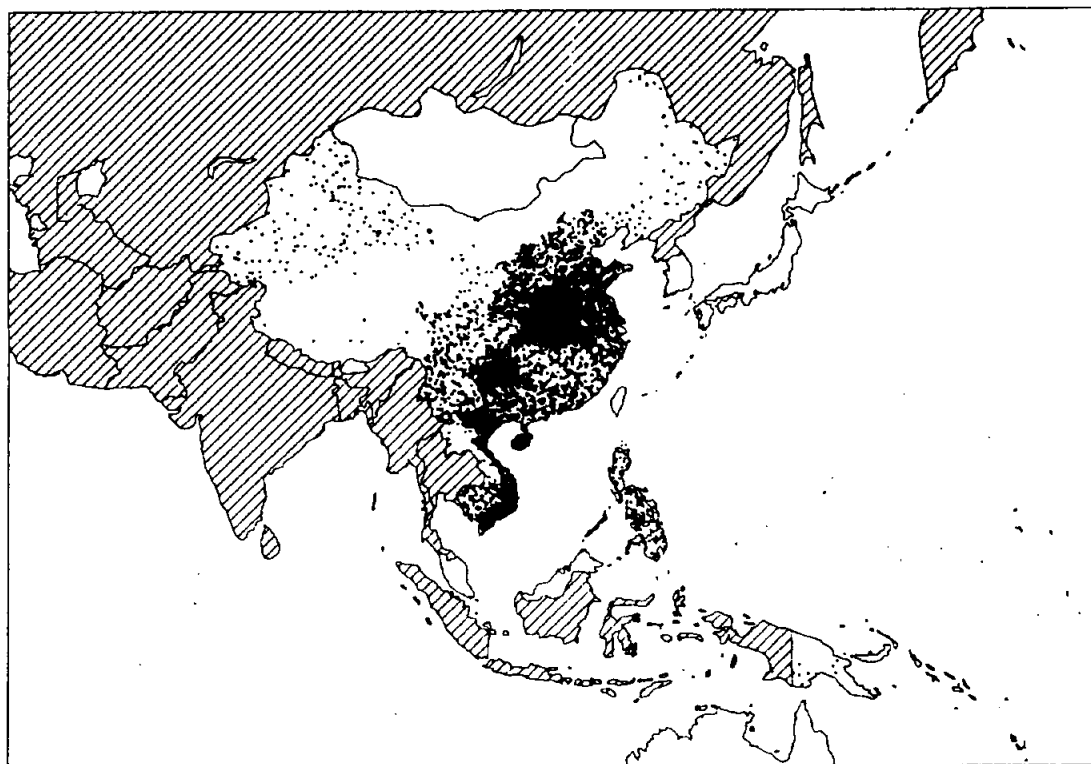
The Regional Committee for the Western Pacific adopted resolution WPR/RC39.R15 on the eradication of poliomyelitis in the Region by 1995 at its thirty-ninth session in September 1988. Resolution WPR/RC41.R5 called for an annual report on eradication, and WPR/RC42.R3 and WPR/RC44.R4 proposed ways to further accelerate the programme. Since the adoption of these resolutions, there has been much progress in poliomyelitis eradication in the Region, as this report describes.

2. PRESENT EPIDEMIOLOGICAL SITUATION

Seven countries (Cambodia, China, Lao People's Democratic Republic, Mongolia, Papua New Guinea, Philippines and Viet Nam) continue to report poliomyelitis cases. The reported number of poliomyelitis cases in the Region for 1994 is provisionally expected to be around 700. This is a marked reduction from the 1990 total of over 5000, (see Maps 1A and 1B and Figure 1) and a reduction of over 30% from 1993. Over 60% of the cases in 1994 were found in the Mekong Delta of Cambodia and Viet Nam. Poliomyelitis has been reduced to focal endemicity in only five years. In 1994, Cambodia reported more than twice the total of cases for 1993 due to improved surveillance, while Papua New Guinea reported the first two cases since 1991 (see Table 1).

The regional laboratory network has been strengthened since 1991, improving wild poliovirus isolation. The presence of wild poliovirus is now being accurately mapped in the Region (see Map 2). This improved surveillance shows that most of the provinces of China have been free of the wild poliovirus for over one year. Only five confirmed cases of wild poliovirus were found in China for the year 1994: one in Xingjiang Province, the other four in Fujian. No wild poliovirus was isolated in the northern region of Viet Nam in 1994, nor in the Philippines, where the last case was confirmed in May 1993. It is confidently expected that there will be zero cases of poliomyelitis in major parts of the Region by the end of 1995.

Map 1A. Clinically confirmed poliomyelitis cases in the Western Pacific Region, 1990



Map 1B. Clinically confirmed poliomyelitis cases in the Western Pacific Region, 1994

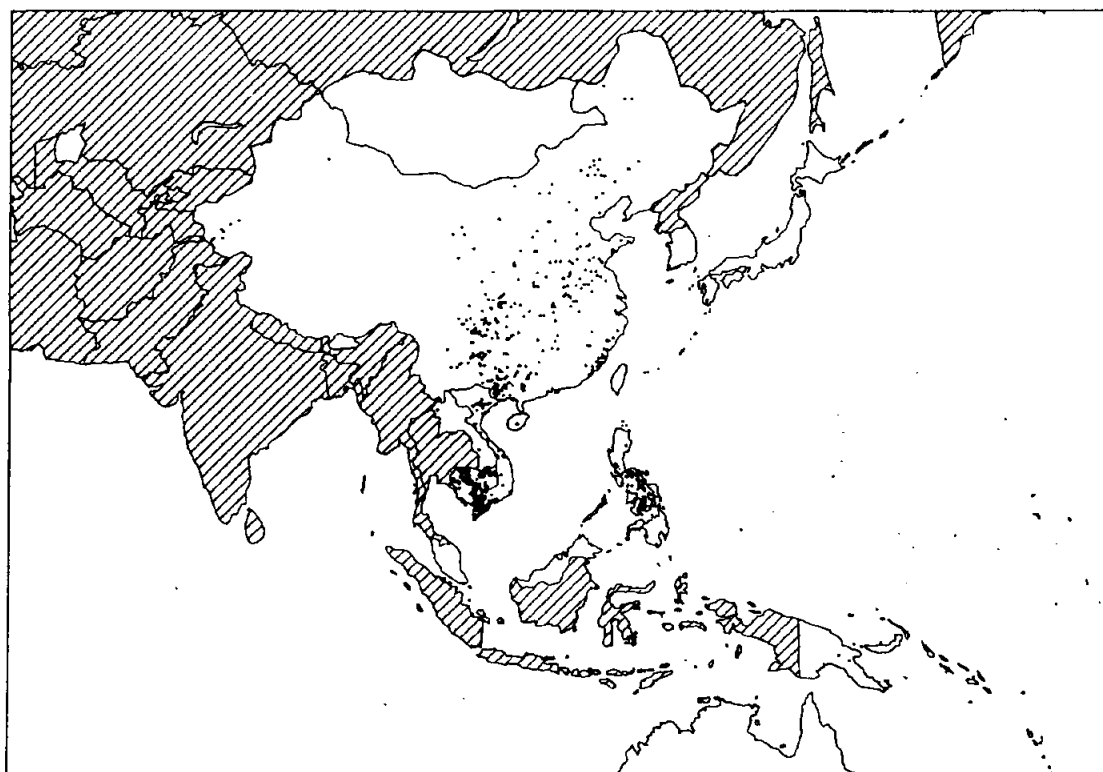
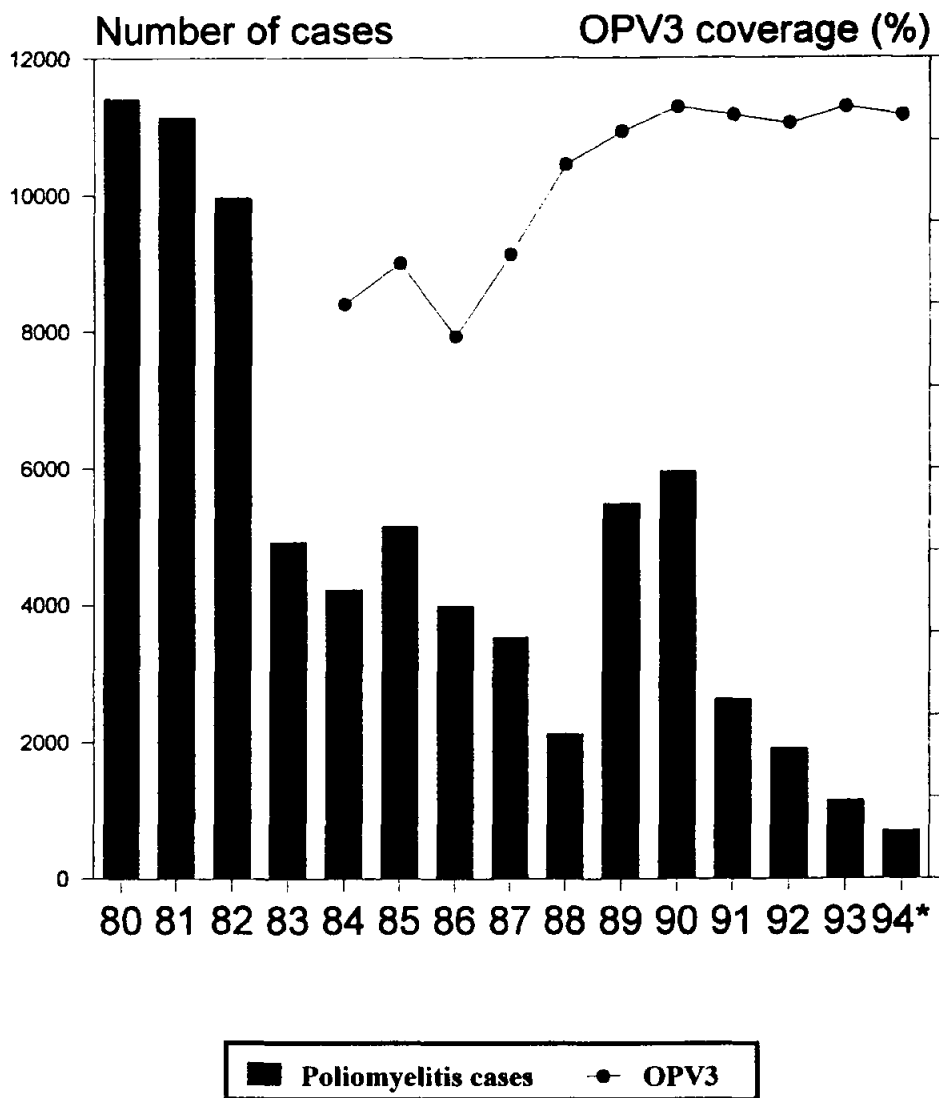


Figure 1. Reported poliomyelitis cases and OPV3 coverage
in the Western Pacific Region, 1980-1994



*1994 data provisional.

Source: WHO/WPRO CEIS and Poliomyelitis surveillance reports, as at 15 June 1995.

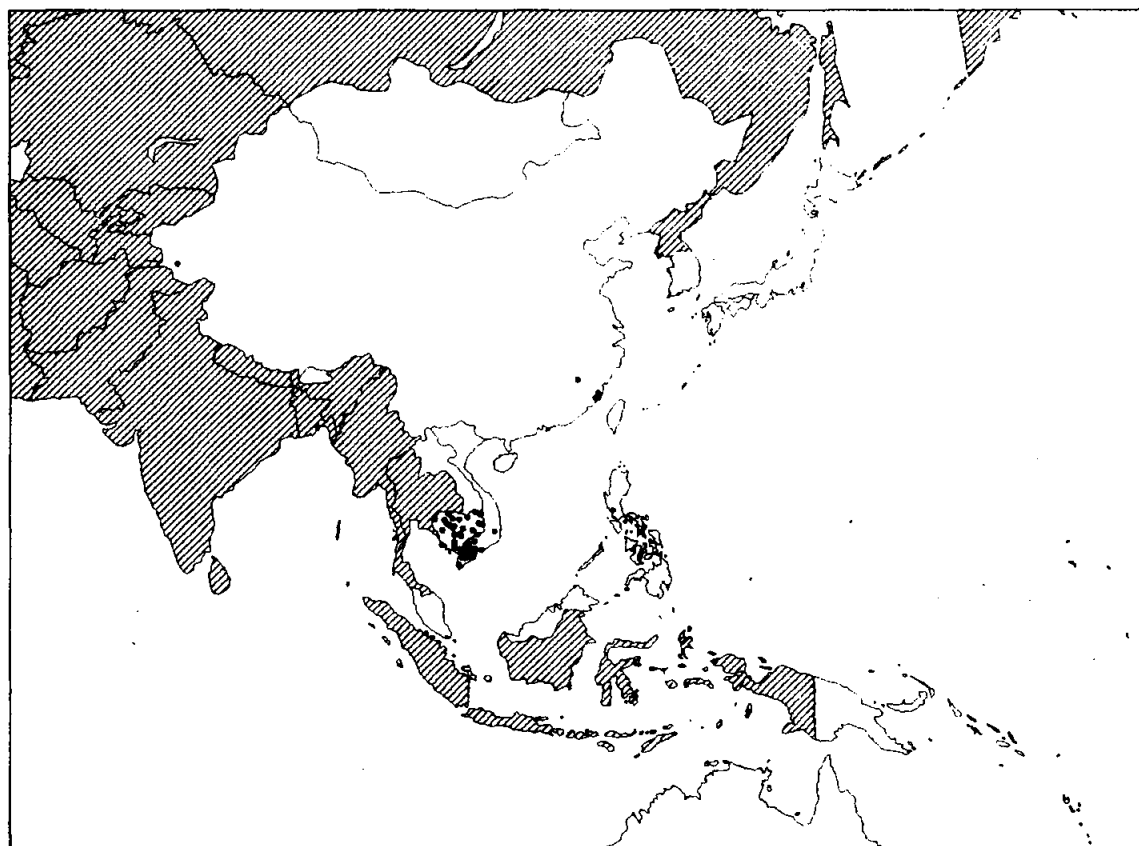
**Table 1. Total acute flaccid paralysis cases reported and confirmed poliomyelitis cases
1992-1994**

	Total acute flaccid paralysis cases reported			Total confirmed poliomyelitis cases		
	1992	1993	1994*	1992	1993	1994*
Cambodia	146	135	299	146	135	296
China	2488	1818	2606	1191	538	261
Lao People's Democratic Republic	10	12	9	7	7	6
Malaysia	0	17	15	3	0	0
Mongolia	1	2	0
Papua New Guinea	73	16	16	0	0	2
Philippines	47	88	126	13	15	10
South Pacific	0	0	1	0	0	0
Viet Nam	653	607	339	557	452	124
Others	0	0	1	0	0	0
TOTALS	3417	2693	3408	1918	1149	699

* 1994 data incomplete (as at 15 June 1995).

... Data not available.

Map 2. Poliomyelitis cases confirmed by wild poliovirus isolation, 1994



3. PROGRAMME ACTIVITIES

3.1 Supplementary immunization activities

Supplementary immunization for children under the age of five years with oral poliovirus vaccine during national immunization days has been a major success in the Region. This is mainly due to the excellent level of commitment of governments. National leaders have attended opening ceremonies and intense social mobilization has been evident at every level. In each of the countries, the national immunization days have been the largest ever public health event, and in China, where over 80 million children under the age of four years were immunized in two days, it was the largest such event in history (see Table 2). By March 1995, the Philippines had conducted three successive double-round national immunization days; China, the Lao People's Democratic Republic and Viet Nam each conducted two rounds, and Cambodia conducted one round.

**Table 2. Supplementary immunization days in the Western Pacific Region
1992 - 1995**

Country	Subnational immunization days	National immunization days	Coverage	Other antigens and micronutrients	Number immunized (000 000)
Cambodia	1	1	98%	Vitamin A*	1.8
China	1	2	>80%	-	83
Lao People's Democratic Republic	2	2	80%	Measles, DPT	.65
Papua New Guinea	0	0	-	-	NA
Philippines	0	3	>90%	TT, Measles Vitamin A	9.8
Viet Nam	1	2	>90%	TT, Measles, Vitamin A	9.7
TOTALS	5	10	85%		105

*In limited areas.

Immunization with supplementary doses of oral poliovirus vaccine has been associated with a steep decline in reported poliomyelitis cases. Routine immunization has diminished the incidence of the disease over the years, but has not been sufficient to break the chain of transmission. Supplementary immunization on this scale has only been possible because of the generous support of international external funding agencies (see Table 3).

Table 3. External funding agency support for purchase of oral poliovirus vaccine for supplementary immunization, 1994

External funding agency	US dollar (Millions)	Percentage of total external funding
Rotary International	10.70	44
Government of Japan	6.24	26
UNICEF	2.54	10
Government of the United States of America through the Centers for Disease Control and Prevention	2.0	8
Government of Australia through AusAID	1.95	8
Others	0.9	4
TOTAL	24.3	100

Supplementary immunization will continue after 1995 in areas where the poliovirus still circulates, where there is a risk of importation from an adjacent area, or where surveillance is still not reliable enough to detect every new case. However, the extent of supplementary immunization (whether national or subnational immunization days) will depend upon the epidemiological situation on a country-to-country basis.

3.2 Poliomyelitis surveillance

Although the situation varies from country to country, there has been much progress in acute flaccid paralysis surveillance in the Region since 1991.¹ In 1994, 3395 cases of acute flaccid paralysis were reported throughout the Region, of which 90% were investigated. As the poliovirus becomes more scarce, it is more and more important to detect its circulation and take action. Two stool samples from every acute flaccid paralysis case should be sent for analysis. In 1994, two samples were taken for only 35% of acute flaccid paralysis cases. The rate increased in the first half of 1995 to almost 60%. Further improvements are needed as a priority, to ensure that no poliomyelitis cases are missed, and to reach the standards required for eventual certification of poliomyelitis eradication.

3.3 Certification of poliomyelitis eradication

All countries will have to demonstrate the absence of wild poliovirus for three years to enable certification to take place.

This will require the development of high quality acute flaccid paralysis surveillance, and continuing supplementary immunization as indicated above.

The process of certification of poliomyelitis eradication will begin in 1995 with the formation of a Regional Certification Commission. The terms of reference will include:

- ratifying the criteria required;
- developing a protocol;
- reviewing national data; and
- conducting national visits.

Later, national commissions will be formed as countries improve surveillance quality and reach zero cases. Countries cannot even begin to start certification procedures until they have sufficiently high quality surveillance to demonstrate that the wild poliovirus is no longer in

¹ A good indicator of the effectiveness of acute flaccid paralysis surveillance is the ability of the surveillance system to report the expected background rate of one non-poliomyelitis acute flaccid paralysis case per 100 000 children under 15 years of age. In the Region, approximately 70% of expected non-poliomyelitis acute flaccid paralysis cases were reported in 1994.

circulation. Initially, all countries will be required to improve the quality of acute flaccid paralysis surveillance to reach WHO-approved indicator levels of completeness and timeliness of case investigation, including laboratory specimen analysis.

3.4 Vaccine quality

The Regional Office has developed a Regional Plan of Action for achieving self-sufficiency in vaccine production and supply in the Region. The objectives of the plan are to assure: a sustainable supply of adequate quantities of safe, potent, good-quality vaccines, by strengthening local production and national capabilities in quality control, with the aim of achieving WHO standards; and continued cooperation between national governments and the international community in procuring vaccines. Under the plan, national expertise and centres of excellence within the Region will be utilized fully.

3.5 Resource requirements

Although most of the resources for the Expanded Programme on Immunization and poliomyelitis eradication are provided by the countries themselves, international support has been a prominent factor in ensuring success. Vaccine for supplementary immunization is the largest item, and this has been provided, to a total of US\$30 million from 1992 to 1994, by UNICEF, the Governments of Australia, Japan, and the United States, and Rotary International. In addition, funds for operational expenses for national immunization days in Cambodia and the Lao People's Democratic Republic were provided by the Government of Australia in 1995. As the regional priority is now the improvement of surveillance quality, together with the laboratory network, additional resources are required in 1995, 1996 and beyond, to enable countries to investigate fully all cases of acute flaccid paralysis, including conducting timely laboratory specimen analysis. At the meeting of the Interagency Coordinating Committee held in Beijing, China, from 29 October to 3 November 1994, Rotary International pledged support for the six countries that still report poliomyelitis. Such funding will cover the areas of training, personnel, equipment and supplies, operational costs, and meetings.

3.6 Constraints and problems

CURRENT PROBLEMS WITH SURVEILLANCE

Current problems	Planned activities to overcome problems
<ul style="list-style-type: none">• Low non-poliomyelitis acute flaccid paralysis rates.• Zero reports unreliable.• Delays in stool specimen collection and transport.• Delays in laboratory analysis at national and regional laboratories.• Acute flaccid paralysis cases unreported in areas where there is a low use of health facilities.	<ul style="list-style-type: none">• Active surveillance: weekly check for acute flaccid paralysis cases at health facilities.• Active search: regular retrospective reviews of records to find acute flaccid paralysis cases.• More support for specimen transport and specimen analysis.• Upgrade equipment, training and data management in laboratories.• Training and support for district-level surveillance.

CURRENT PROBLEMS WITH SUPPLEMENTARY IMMUNIZATION

Current problems	Planned activities to overcome problems
<ul style="list-style-type: none">• Certain population groups often excluded: non-registered, mobile population, ethnic groups.• Excessive workload for health workers.• Poor social mobilization and poor coverage in cities.• Coverage figures sometimes inflated due to inclusion of children aged five years and older.• Confusion over response to outbreaks.	<ul style="list-style-type: none">• During planning, identify groups who are missed, extra immunization posts, new strategies to reach them including political support.• Avoid doing subnational immunization days just before or after national immunization days.• Involve community groups more, in addition to television, radio etc., use volunteers during national immunization days to mobilize house to house.• Improve age screening.• Simplify terms, clear guidelines in selecting areas for subnational immunization days.

4. FUTURE ACTIVITIES

4.1 Supplementary immunization

Ideally, poliomyelitis-endemic countries should be prepared to continue to carry out supplementary immunization until global eradication has been achieved, but the question of the scale of supplementary immunization can only be decided on a country-by-country basis using criteria that include the quality of surveillance, extent of poliovirus circulation, the risk of importation of the virus, and previous supplementary immunization activities. Countries have already demonstrated their commitment and ability to conduct national immunization days successfully. In the future, WHO will continue to collaborate to improve the quality of national immunization days, by the use of strategies to reach groups of children among whom the poliovirus may still circulate, including those that may not be reached by routine immunization services.

4.2 Surveillance

Surveillance quality needs to be improved in all countries reporting poliomyelitis, and in some poliomyelitis-free countries. The extent of poliovirus transmission, which is now at very low levels in some countries, must be accurately monitored. This requires the development of high standards of reporting and investigation of all acute flaccid paralysis cases, and effective virological analysis in national laboratories. As countries progress towards eventual certification, surveillance must attain even higher standards, documented according to the recommendations of the Regional Certification Commission.