PAN AMERICAN HEALTH ORGANIZATION WORLD HEALTH ORGANIZATION

XXIV PAN AMERICAN SANITARY CONFERENCE

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EXPANDED PROGRAM ON IMMUNIZATION

The Progress Report presented by the Director on the Expanded Program on Immunization was discussed by the Executive Committee at its 113th Meeting. It was noted that immunization coverage continues to increase in the Region, although it appears to have declined in some countries, particularly in the larger ones, such as Brazil.

The discussion highlighted the fact that by the time the XXIV Pan American Sanitary Conference meets in September 1994, three years will have elapsed since the last case of paralytic poliomyelitis due to wild poliovirus was detected in the Americas, in Peru in August 1991. The certification of eradication may be issued when the International Commission for the Certification of Poliomyelitis Eradication meets in Washington, D.C., in August 1994.

Members of the Executive Committee noted the progress made towards control of measles and neonatal tetanus. It was emphasized that the Region of the Americas may again lead in the possible elimination of measles, setting the stage for its global eradication, as was the case with smallpox and poliomyelitis.

Preliminary data on the six-country study that is being conducted to evaluate the impact of this program on the overall strengthening of the health infrastructure was also presented and discussed. It was noted that it was important to verify the degree to which the program activities are being sustained.

Following the review of the report by the Executive Committee, additional information about the recurrent costs of national immunization programs was included in the document (see Annex). This information reveals that currently 92% of costs are being met from national sources, and the balance from international sources.

The Pan American Sanitary Conference is asked to review the current situation in the Americas on the control/elimination of vaccine-preventable diseases and to

consider the following resolution proposed by the Executive Committee (Resolution CE113.R5):

THE 113th MEETING OF THE EXECUTIVE COMMITTEE,

Having considered the progress report presented by the Director on the Expanded Program on Immunization (Document CE113/11 and Add. I)

RESOLVES:

To recommend to the XXIV Pan American Sanitary Conference the adoption of a resolution along the following lines:

THE XXIV PAN AMERICAN SANITARY CONFERENCE,

Having considered the progress report presented by the Director (Document CSP24/14) on implementation of the Expanded Program on Immunization and the Plan of Action for the Eradication of Wild Poliovirus from the Americas;

Noting with great pride that transmission of wild poliovirus appears to have been interrupted in the Region of the Americas, inasmuch as no cases have been reported in the past three years, since the detection of a case in Junín, Peru, on 23 August 1991;

Further noting that national and multinational initiatives to eliminate measles are having a major impact in the incidence of this disease, that at the end of 1993 the Region of the Americas reported the lowest number of cases in its history, and that transmission may have been interrupted in several countries or areas (e.g., Chile, Cuba, and the English-speaking Caribbean countries);

Considering that efforts to eliminate neonatal tetanus have been very successful and that the Region has reached the goal set by the World Summit for Children of less than one case per 1,000 live births at the regional level;

Realizing that immunization coverage levels have continued to increase in most of the countries, reaching a regional level of 80% in the last two years for all the vaccines being administered (DPT, polio, measles, BCG, and TT);

Considering that strategies are being developed for controlling hepatitis B and rubella, and that the possibility of introducing new vaccines—for example, a vaccine against *Hemophilus influenzae b*—in national immunization programs is now being considered by several of the Member States;

Noting that these developments have contributed enormously to the overall strengthening of the health infrastructure in all countries; and

Recognizing that it will be a major challenge in the future to maintain and further increase immunization coverage in order to reach the goal of 95% by the year 2000, and that the introduction of new vaccines will have to be preceded by major shifts in health policies toward more preventive activities,

RESOLVES:

1. To congratulate all the Member States, their health authorities, their health workers, and the communities themselves on their continuing commitment and efforts toward attainment of the historical accomplishment represented by the eradication of poliomyelitis from the Western Hemisphere, as well as other major advances in their immunization programs.

2. To thank the agencies involved in this effort, particularly the United States Agency for International Development (USAID), the United Nations Children's Fund (UNICEF), the Inter-American Development Bank (IDB), Rotary International, and the Canadian Public Health Association (CPHA), as well as many other national organizations, for their support, without which it would have been impossible to achieve these goals, and to request that they maintain and increase their contributions to the program in order to ensure that efforts to meet the new challenges are similarly successful.

3. To thank the Governments of Argentina, Brazil, France, and Sweden for their support of national efforts to control and eliminate measles.

4. To call on all the Member States to continue to give high priority to this program in order to ensure that the human and financial resources needed for implementing the actions outlined in the progress report, in particular funds for the purchase of vaccines, are made available in their national budgets and are allocated especially to those areas or populations at greatest risk for the target diseases, and in this respect, it is of the utmost importance that:

(a) National commissions for the certification of poliomyelitis eradication continue to monitor the poliomyelitis surveillance indicators in their own countries until the world is certified polio-free;

(b) The acute flaccid paralysis surveillance system now in place be expanded to cover illnesses with fever and rash, including laboratory support, as part of the efforts to increase the possibility of the elimination of measles;

(c) Vaccination of women of child-bearing age in areas identified to be at risk for the disease be accelerated in order to ensure that every child is born to an immune mother and will not be at risk of contracting neonatal tetanus;

(d) Careful consideration be given to both the epidemiological and financial implications before any other vaccines—for example, yellow fever, hepatitis B, rubella, mumps, *Hemophilus influenzae b*, or meningococcal meningitis—are used in, or added to, national immunization programs.

5. To request the Director:

(a) To continue monitoring the maintenance of poliomyelitis eradication from the Americas until the world is certified polio-free;

(b) To search for additional resources to increase the funds assigned to the Measles Elimination Fund established by the XXXVII Meeting of the Directing Council in 1993, in order to ensure that the national initiatives under way in several of the countries will have the support needed in order to consolidate present gains toward the elimination of this disease;

(c) To stimulate increased participation by the collaborating agencies through the work of national interagency coordinating committees and the monitoring of national plans of action.

Annex

EXPANDED PROGRAM ON IMMUNIZATION

CONTENTS

1. Introduction

The last confirmed case of paralytic poliomyelitis due to wild poliovirus in the Americas occurred on 23 August 1991 in the town of Pichinaki, Department of Junín, Peru. By June 1994, nearly three years will have passed without a single other case of indigenous wild polio being detected despite rigorous surveillance.

In addition to comprehensive routine screening of the childhood population most at risk of having contact with a potential case, most of the countries of the Region mounted rapid and large-scale active searches in response to the threat of wild poliovirus importation from the Netherlands, such as was detected in stool surveys in Canada in February 1993.

The level of sustained effort that has been required demonstrates the commitment of the governments of the Region to the eradication campaign. The technical and operational success attained by their national programs has paved the way for Region's governments to take the next important step: concerting the political will and scientific expertise to form national certification commissions. Their review of the surveillance data will in turn be submitted to the International Commission for the Certification of Poliomyelitis Eradication in August, 1994. The ICCPE may well find that the Americas were the first region in the world to eradicate poliomyelitis.

The momentum of the polio eradication effort has carried over into other areas. On their own initiative country after country has embarked on a campaign to eliminate measles transmission: the incidence rate is now the lowest it has ever been in the Region. It is time for PAHO/WHO's governing bodies to consider support for these initiatives formally. The campaigns to eliminate measles will require a major level of financial support from the donor community if it is to succeed following the polio eradication effort model.

The effort to control the "silent" killer, neonatal tetanus, is also faring well. Although reporting is still deficient in many countries, enough data have accumulated from others to demonstrate clearly that the targeted high-risk group vaccination strategy works. The Region of the Americas has nearly reached the World Summit for Children target of NNT control by 1995 and if resources are sustained this disease could cease being a major public health problem in the Region.

Extensive efforts will continue to be necessary to secure the gains accomplished. Member States will have to assume increased responsibility for financing the EPI, particularly the recurrent costs associated with vaccines, syringes, needles, and other supplies, and will be requested to increase the national immunization budgets.

2. Progress to Date

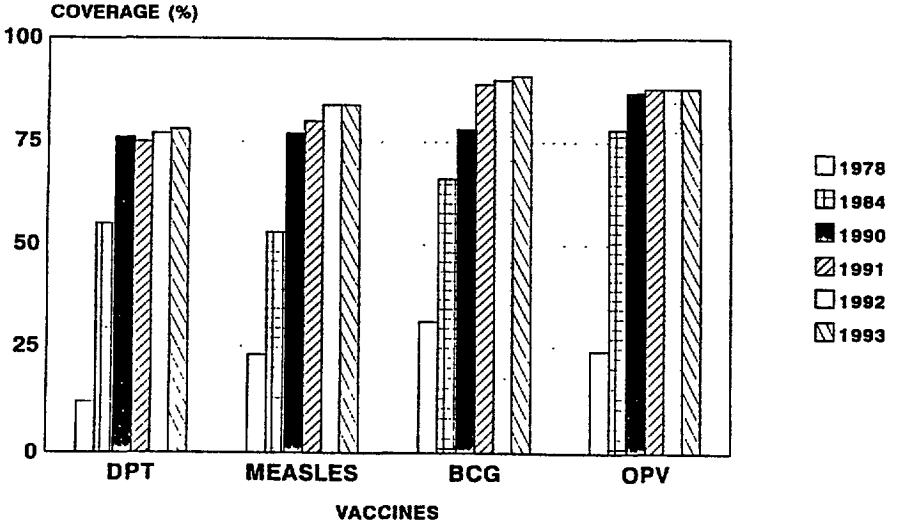
Immunization coverage rates have increased steadily since the program's inception in 1977. Preliminary data available for 1993 show that compared to 1992 coverage levels remained steady for the Region as a whole, although major increases were achieved by some countries.

In 1993, oral poliomyelitis vaccine (OPV) coverage topped 90% in most of the Caribbean nations and several countries in Central America. Vaccination against measles rose significantly in most countries, while DPT and BCG coverage were roughly the same. Coverage with tetanus toxoid in high-risk areas endemic for neonatal tetanus also continued to increase to levels above the average national average. This indicates that the program's resources were targeted to the areas most in need and that activities are being sustained.

Coverage figures for Latin America and the Caribbean (see Figure 1 and Table 1) confirm that the vast majority of the Region's children are being protected against childhood diseases that are covered by EPI. U.S. coverage rates for 1992, for children betwen the ages of 19 and 35 months, are as follows: OPV3 72.4%, measles 82.5%, DTP3 83%. Final 1993 figures were not available at the time of this report. In all of the countries, pockets of youngsters remain that even the best national vaccination programs have not been able to reach, and there are individual countries that have not yet managed to raise their national coverage levels against poliomyelitis or measles vaccination to 80%.

Figure 1

FIGURE 1. VACCINATION COVERAGE OF CHILDREN < 1 YEAR OF AGE, AMERICAS[1], 1978, 1984, 1990, 1991, 1992, 1993[2]



SOURCE: COUNTRY DATA
1 EXCLUDING CANADA AND USA
2 PRELIMINARY DATA, No Data from Antigua, Cuba, Costa Rica, Haiti and Suriname

TABLE 1
VACCINE COVERAGE IN CHILDREN UNDER ONE YEAR OF AGE IN THE REGION OF THE AMERICAS, 1992-1993*

SUBREGION/ COUNTRY	CHILDREN <1 YEAR OF AGE		DPT		OPV		MEASLES		BCG	
	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
ANDEAN REGION	2,399,601	2,419,050	76.68	78.99	81.04	81.91	72.72	78.41	88.71	90.77
BOLIVIA	190,332	198,840	77.33	81.39	83.55	82.90	79.78	80.79	80.58	83.99
COLOMBIA	812,210	821,737	75.71	81.48	81.52	83.71	72.28	91.31	86.06	92.90
ECUADOR	276,201	293,788	86.68	76.37	86.44	79.03	69.24	72.94	99.31	99.33
PERU	610,250	617,058	82.94	84.25	84.23	86.39	83.25	75.09	85.22	86.95
VENEZUELA	510,608	487,627	65.97	68.72	73.21	74.55	60.79	63.21	84.92	82.41
BRAZIL	3,764,655	3,917,937	70.97	58.86	96.21	84.47	90.62	67.93	89.58	81.96
CENTRAL AMERICA	1,033,215	937,880	71.96	80.73	76.08	84.11	67.59	80.16	70.49	81.13
BELIZE	7,839	...	89.00	...	89.00	...	83.00	...	97.00	...
COSTA RICA	80,296	...	90.52	...	90.56	...	84.22	...	92.30	...
EL SALVADOR	191,119	171,629	60.63	79.28	61.66	79.23	55.37	86.46	62.24	79.14
GUATEMALA	355,718	364,581	65.57	75.75	69.82	77.00	59.32	68.40	57.14	69.17
HONDURAS	184,564	185,130	92.75	94.01	94.33	95.00	88.73	94.00	91.49	92.25
NICARAGUA	151,635	154,379	73.96	77.89	86.32	93.84	73.03	83.45	81.03	94.39
PANAMA	62,044	62,161	76.72	81.45	77.03	82.79	76.53	82.43	84.16	90.72
ENGLISH CARIBBEAN	130,768	122,395	84.94	91.98	80.29	93.33	70.14	77.99	82.88	97.45
ANGUILLA	168	140	99.66	99.57	99.10	99.29	99.27	99.57	99.66	99.00
ANTIGUA	1153	...	99.99	...	99.99	...	99.99	...	...	...
BAHAMAS	6067	6,571	89.48	91.37	89.42	91.39	90.73	87.99	...	...
BARBADOS	4,192	4,097	89.98	88.33	88.98	92.17	90.00	92.01	...	...
CAYMAN ISLANDS	562	595	96.98	98.32	96.98	98.32	98.93	89.58	80.07	99.33
DOMINICA	1,652	1,785	98.97	99.55	98.97	99.55	98.77	99.55	98.97	99.55
GRENADA	2,429	2,543	90.00	...	90.00	...	72.99	...	66.98	...
GUYANA	18,137	18,137	79.00	90.87	87.00	89.99	73.00	78.46	88.00	92.04
JAMAICA	59,879	58,527	84.00	90.95	74.00	93.29	63.00	72.01	85.00	99.99
MONTSERRAT	203	196	99.99	...	99.99	...	99.99	...	99.99	...
ST. KITTS & NEVIS	898	864	99.67	99.94	99.68	99.78	99.22	99.88	...	...
ST. LUCIA	3,369	3,690	94.93	96.91	95.26	96.88	72.36	94.23	98.69	96.56
ST. VINCENT	2,108	2,640	99.99	99.77	99.99	99.99	99.99	98.98	99.99	99.51
SURINAME	9,000	...	63.00	...	63.00	...	90.00	...	...	...
TRINIDAD & TOBAGO	20,351	21,996	87.00	...	87.00	...	83.00	...	...	...
TURKS & CAICOS	300	324	76.00	99.99	77.00	99.99	59.00	97.13	99.99	96.18
BRITISH VIR. IS.	300	290	99.99	...	99.99	...	76.00	...	99.99	...
LATIN CARIBBEAN	231,586	236,232	63.99	57.10	68.60	82.27	84.00	99.95	64.84	64.04
CUBA	...	...	85.28	...	90.04	...	97.70	...	88.45	...
DOMINICAN REPUB.	231,586	236,232	48.01	57.10	52.51	82.27	73.72	99.95	47.10	83.51
HAITI	...	...	...	...	...	...	...	...	...	...
MEXICO	2,122,711	2,110,364	91.00	91.00	91.70	91.70	91.30	91.30	94.60	94.60
NORTH AMERICA	960	960	75.94	...	76.98	...	71.04	...	...	...
BERMUDA	960	960	75.94	...	76.98	...	71.04	...	...	...
CANADA	...	...	...	...	...	...	...	...	...	...
USA	...	...	...	...	...	...	...	...	...	...
SOUTHERN CONE	1,164,722	1,209,150	84.44	82.90	87.15	83.17	89.81	94.47	99.35	95.90
ARGENTINA	719,550	716,773	80.77	79.28	84.85	79.50	90.80	94.90	99.40	95.80
CHILE	300,827	292,496	92.52	93.73	92.52	93.73	89.29	92.53	93.29	96.67
PARAGUAY	144,345	144,679	85.49	78.92	87.14	79.99	86.01	96.25	99.08	94.86
URUGUAY	55,202	55,202	90.90	...	90.91	...	89.85	...	98.93	...
TOTAL	10,809,318	10,953,008	77.39	78.06	87.99	87.88	84.06	83.54	89.55	90.84

... NO DATA AVAILABLE
* PRELIMINARY DATA
SOURCE: EPI/PAHO

It should be noted that the measles elimination initiative, particularly in Central America, significantly raised vaccine coverage among children under the age of one year. This was true not only for measles vaccination coverage, which increased from 69% to 80% between 1992 and 1993, but also for all other EPI vaccines (Table 2).

TABLE 2. EPI VACCINE COVERAGE IN CHILDREN LESS THAN ONE YEAR OF AGE CENTRAL AMERICA, 1992-1993

YEAR	OPV3	DPT3	MEASLES	BCG
1992	77%	74%	69%	72%
1993	84%	81%	80%	81%

2.1 *Certification of Poliomyelitis Eradication*

2.1.1 *Interruption of the Indigenous Transmission of Wild Poliovirus*

Between 1991 and the end of 1993, about 11,000 stool specimens of patients with acute flaccid paralysis have been analyzed. An additional 20,000 children have been screened for potential subclinical transmission of wild poliovirus, by stool analyses of contacts of AFP cases in all countries of the Region except for Canada and the United States.

When a poliomyelitis outbreak occurred in the Netherlands in late 1992 among members of a closed religious community that refuses to accept vaccination the Region took action. Canada --to which wild poliovirus was imported during the last outbreak in the Netherlands, in 1978-- was the first to take action. From January to April 1993, health authorities there carried out an active search in known high-risk communities with ties to the Netherlands. They found imported wild poliovirus type 3 in a stool sample survey, although no cases of clinical poliomyelitis were seen. In response to the Canadian findings, most of the countries of the Region took steps, including active searches, to assess whether importations of wild poliovirus were also occurring there. By September 1993, the results of the analyses showed no imported wild poliovirus. Meanwhile, the unvaccinated high-risk communities agreed to collaborate with the eradication campaign and, in all countries except some communities in Canada and the United States, accepted vaccination with OPV.

The Region's rapid response to the Canadian findings demonstrated that it is capable of acting effectively in the event of a threatened importation. Nonetheless, until polio has been eradicated elsewhere in the world--thousands of clinical cases still occur annually--it will be necessary for the health infrastructure of the Americas to maintain demanding surveillance standards. Before the end of the decade, it is likely that the Region will again be called upon to mobilize a rapid response to the threat of an importation.

The current network of over 20,000 reporting units is fully operational. The adequate collection of two stool specimens from 80% of all cases of AFP within 14 days of the onset of paralysis and from at least five of their contacts, is an especially taxing continuing requirement. Significant progress has been achieved in this area since 1988: that year, barely 20% of the cases had stool samples taken in time, whereas by 1993 the rate was over 63%. Much remains to be done, however, to reach the 80% compliance level called for by the International Certification Commission on Poliomyelitis Eradication (ICCPE).

It is a cause for concern that several cases of AFP detected in Argentina in 1992 have still not been investigated, a surveillance weakness that requires prompt corrective action.

Surveillance of AFP in the countries of the Region during 1993 showed that of the 2,144 reported cases, 33 were classified as compatible with polio. Ten of these were not investigated on time because of late notification, which is a failure of the surveillance system (Table 3). Late notification is most often the result of the lack of motivation on the part of attending clinicians, whose participation in the reporting system requires further encouragement. PAHO/WHO offers a US$100 reward to provide a financial incentive for reporting cases of paralysis that prove to be caused by wild poliovirus.

Twenty of the 33 compatible cases were lost to follow-up because of death. Death from polio is infrequent; it occurs in 2-10% of cases. It is therefore unlikely that 20 deaths due to polio would occur within a year without a major epidemic. There has been no such epidemic. This underscores the need for countries to conduct post mortem examinations to determine the actual cause of death.

TABLE 3. POLIO COMPATIBLE CASES BY COUNTRY
LATIN AMERICA AND THE CARIBBEAN, 1993

COUNTRIES	CASES REPORTED	COMPATIBLE			
		TOTAL	NO FOLLOW UP		LATE NOTIFICATION
			LOST	DIED	
BOLIVIA	49	1	0	0	1
BRAZIL	499	9	0	5	4
CAREC	26	2	0	2	0
COLOMBIA	187	4	1	1	2
ECUADOR	67	1	0	1	0
GUATEMALA	84	1	0	1	0
MEXICO	544	10	2	8	0
NICARAGUA	49	2	0	2	0
PERU	123	1	0	0	1
VENEZUELA	95	2	0	0	2
OTHER	421	0	0	0	0
TOTAL	**2144**	**33**	**3**	**20**	**10**

2.1.2 *Certification of the Interruption of Transmission of Wild Poliovirus in the Americas*

The International Certification Commission on Polio Eradication (ICCPE) has established four requirements for certification: (1) surveillance of AFP; (2) surveillance of wild polio virus; (3) active searches for AFP cases; and (4) mop-up vaccination campaigns in high-risk areas. Countries will be considered for certification if they have been free of poliomyelitis for a period of three or more years and their surveillance system is adequate.

By the first quarter of 1994, all the governments of Latin America and the Caribbean had organized National Certification Commissions (NCC) to review surveillance data. The NCCs are scheduled to report their conclusions to the ICCPE by August 1994. By that time, the Region will have gone three years without any wild poliovirus circulation.

The ICCPE has established criteria for each of the four certification requirements. First, surveillance of AFP must meet five indicators: (1) at least 80% of all the health units included in the reporting network should report each week on the absence or presence of AFP; (2) the detected rate of AFP should be at least 1.0 cases per 100,000 children under the age of 15 years in all countries; (3) at least 80% of all reported cases of AFP should be investigated within 48 hours of notification; (4) two stool samples should be taken from 80% or more of all reported cases of AFP within two weeks of the onset of paralysis; and (5) stool samples should be taken from five or more contacts of at least 80% of all the reported cases of AFP.

The improving degree of compliance with these indicators is shown, by country, for 1992 and 1993 in Figures 2 and 3. Still, more than half of the countries still fall short of the targets.

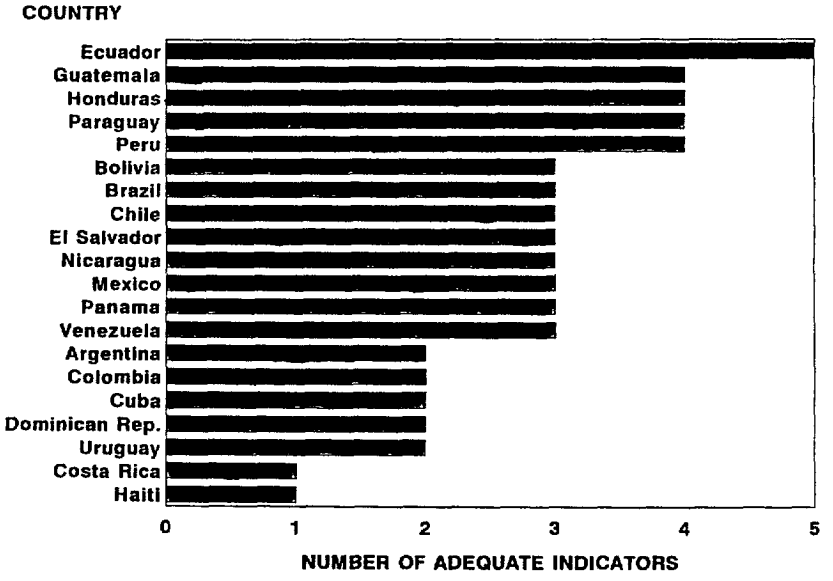
Second, regarding the surveillance of wild polio virus, the ICCPE requires that five contact stools collected for each case of AFP be analyzed as a surrogate for random stool surveys in normal children.

Third, active searches in high-risk areas should be carried out according to a standard methodology. The purpose of the searches is to ensure that no case of AFP that is clinically compatible with polio has gone unreported.

Finally, in the event that a case of polio occurs, the countries are expected to carry out "mop-up" immunization campaigns. These campaigns should be well documented, including a description of their geographic extent, the population targeted for vaccination, the number of houses visited, and the results in number and percent of children vaccinated.

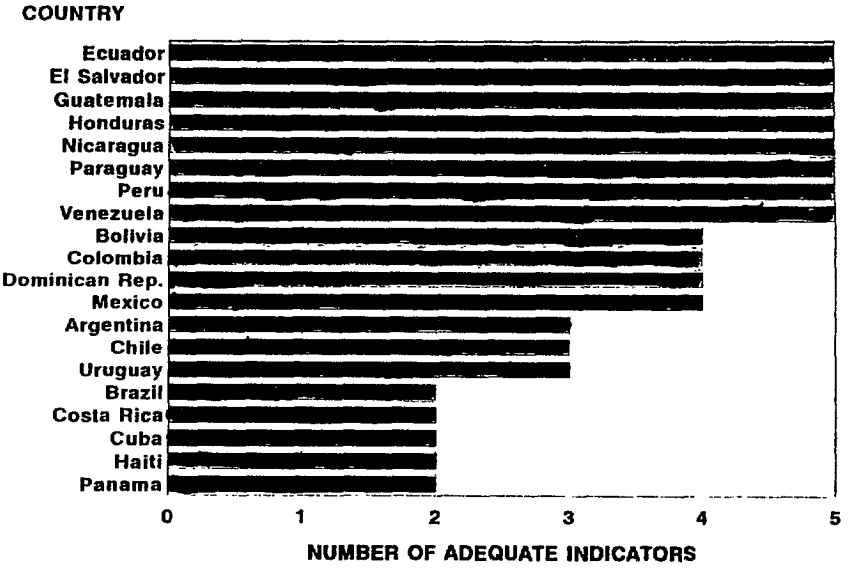
To encourage greater community involvement in reporting suspected cases of polio, information on the current PAHO reward should be made more widely known. Experience to date in countries that have put the reward to use has shown that when communities are involved reporting of AFP increases. Following Ecuador's initiative, other countries have raised their reward to US$1,000, with support from Rotary International.

FIGURE 2. ACUTE FLACCID PARALYSIS SURVEILLANCE INDICATORS MEETING CERTIFICATION CRITERIA BY COUNTRY, LATIN AMERICA, 1992



SOURCE: PESS/EPI

FIGURE 3. ACUTE FLACCID PARALYSIS SURVEILLANCE INDICATORS MEETING CERTIFICATION CRITERIA BY COUNTRY, LATIN AMERICA, 1993*



* DATA UPDATED 15 MARCH 1994
SOURCE: PESS/EPI

2.2 *Measles Control/Elimination Initiatives*

Since 1986, when Cuba launched the effort to eliminate measles by vaccinating more than 98% of their population aged 1 to 14 years, 78% of the total population in this age group in Latin America has received at least one dose of measles vaccine (Table 4).

TABLE 4. MEASLES ELIMINATION ACTIVITIES IN THE AMERICAS RESULTS BY COUNTRIES OR SUBREGIONS

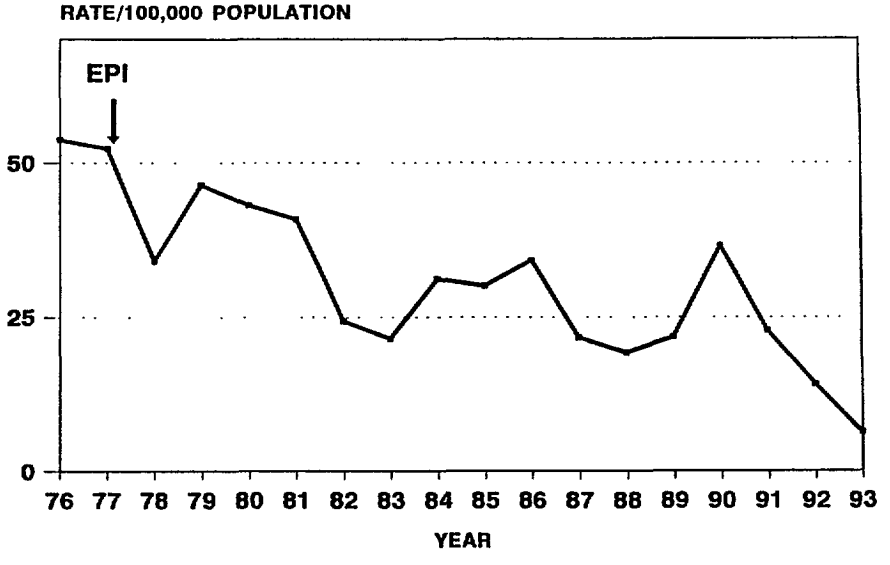
Countries or Subregion	Children 1 to 14 Years Old Vaccinated	%	Total Population 1-14 Years
Cuba	2,461,329	98%	2,521,725
English-speaking Caribbean	1,534,970	83%	1,855,555
Peru	5,738,248	75%	7,628,000
Chile	3,768,155	99%	3,790,014
Brazil	46,502,513	96%	48,475,465
Dominican Republic	2,161,411	77%	2,790,967
Central America	10,585,820	89%	11,951,013
Colombia	11,018,479	96%	11,522,814
Argentina	9,338,924	97%	9,582,733
Mexico	25,612,008	88%	29,262,371
Countries with Measles Elimination Activities **Total**	118,721,857	92%	129,380,657
Latin America and Caribbean **Total Population**	118,721,857	78%	152,730,705

In 1993, during their XVII Meeting in Cuenca, Ecuador, the Ministers of Health of the Andean Region set the 1994-1998 period to eliminate measles. Massive measles vaccination campaigns to immunize the 1 to 14 year-old age group are planned for 1994 in the remaining countries of the Americas (Ecuador, Haiti, Paraguay, Uruguay, and Venezuela). By the end of the year over 90% of all the children of Latin America should have received at least one dose of measles vaccine. Given that Canada and the

United States also propose to eliminate measles the time has come for PAHO/WHO to consider launching a regional initiative to eliminate measles from the Americas by the year 2000.

Meanwhile, most of the countries that have conducted mass vaccination campaigns have set up surveillance systems for fever and rash illnesses, including laboratory diagnostic capabilities. Weekly bulletins reporting on fever and rash illnesses are published by the countries of the English-speaking Caribbean, Central America and Mexico. The three bulletins reported a total of 11,548 cases of fever and rash in 1993, of which 831 (7%) were confirmed cases of measles. As a result of these efforts the circulation of measles appears to have been interrupted: no laboratory-confirmed cases have been detected in the English-speaking Caribbean for more than two years; no indigenous measles has been detected in Chile since the mass vaccination in May, 1992; in Cuba, only 2 confirmed cases of measles were reported in 1993. The incidence rate of measles in the Americas is now the lowest ever: fewer than 10 cases per 100,000 population (Figure 4). However, if the preliminary data in Table 1 are correct, it will be difficult for Brazil to eliminate measles unless it improves its coverage rates.

FIGURE 4. MEASLES CASES INCIDENCE RATE AMERICAN REGION, 1976 - 1993



SOURCE: EPI/PAHO

Experience gained thus far indicates that the vaccination strategy recommended by PAHO has been successful in the fight against measles. To secure the gains achieved so far, it is vital to set up fever and rash surveillance systems throughout the Region, with adequate capabilities for laboratory diagnosis. Furthermore, surveillance findings should be used to prompt adequate and timely control measures aimed at eliminating probable pockets of transmission.

Considering that a third of the districts in Latin America have not attained 80% coverage for one dose of measles vaccine at one year of age, continuing efforts will be required to ensure that high coverage rates are achieved in each new cohort of infants. In low coverage areas, special vaccination activities should be undertaken. Subsequent vaccination campaigns, or "catch-up" campaigns, may be needed to immunize children who missed being vaccinated at the recommended age. The frequency and target group for these campaigns will be determined by accumulated surveillance data.

Many reported cases currently are not investigated properly. Crucial epidemiologic information and the blood samples necessary to classify cases accurately are not collected routinely and the laboratory network is not yet prepared to respond to the new program needs. It is therefore of paramount importance that continued support be given these activities.

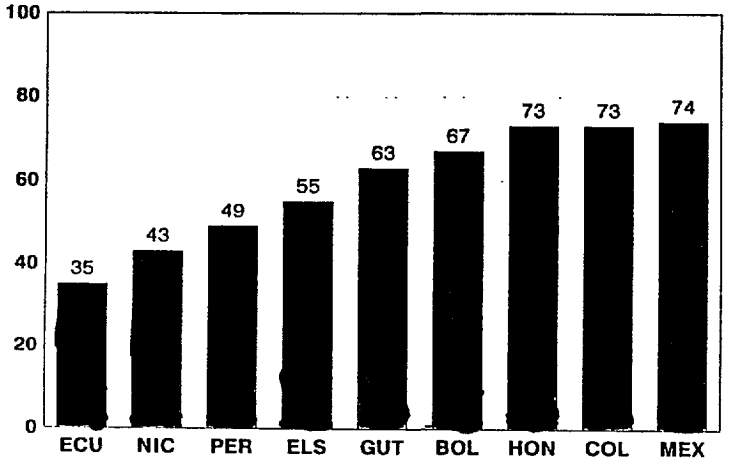
If a Regional initiative to eliminate measles is adopted, along with the corresponding Regional Plan of Action, it would give momentum to national efforts underway. Simultaneously, it would attract potential donors to finance the activities which are crucial to the success of such an initiative: fever and rash surveillance with laboratory diagnosis capabilities, mop-up vaccination, research for field laboratory diagnosis, and studies to fine-tune the definition of a probable case of measles.

2.3 *Neonatal Tetanus Control by 1995*

Of the 12,500 districts in the 16 Latin American countries that are endemic for neonatal tetanus, 12% (1560) are designated as high-risk areas. Twenty-three million women of child-bearing age live in those districts, representing over 26% of all the women of that age that live in those countries.

As can be seen in Figure 5, in nine countries the proportion of women of child-bearing age that received at least two doses of tetanus toxoid varied from 35 to 74%. This illustrates the fact that countries are giving priority to the areas in which most of the cases are occurring. In the remaining seven countries with endemic neonatal tetanus, the same strategy has been applied but properly recorded data are not available.

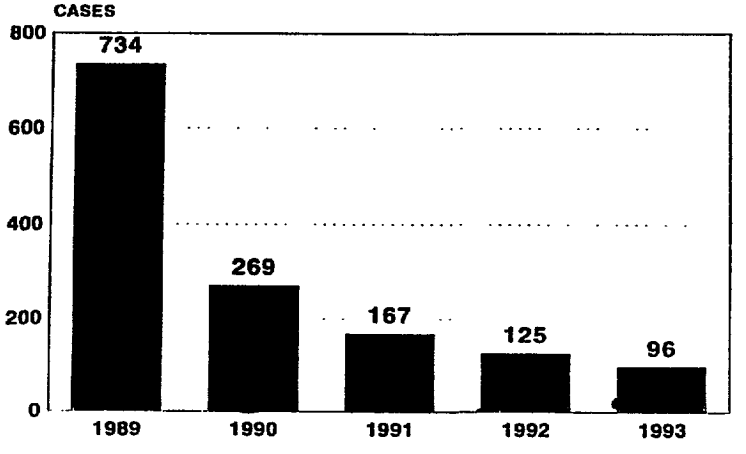
FIGURE 5. CUMULATIVE TT2 COVERAGE IN WOMEN OF CHILD-BEARING AGE IN HIGH RISK DISTRICTS IN 9 COUNTRIES
1993



SOURCE: EPI/PAHO

The high-risk areas were targeted with great precision and there has been a marked decline in the incidence of neonatal tetanus in those areas since 1989, when the concerted effort to vaccinate all the women of childbearing age began (Figure 6).

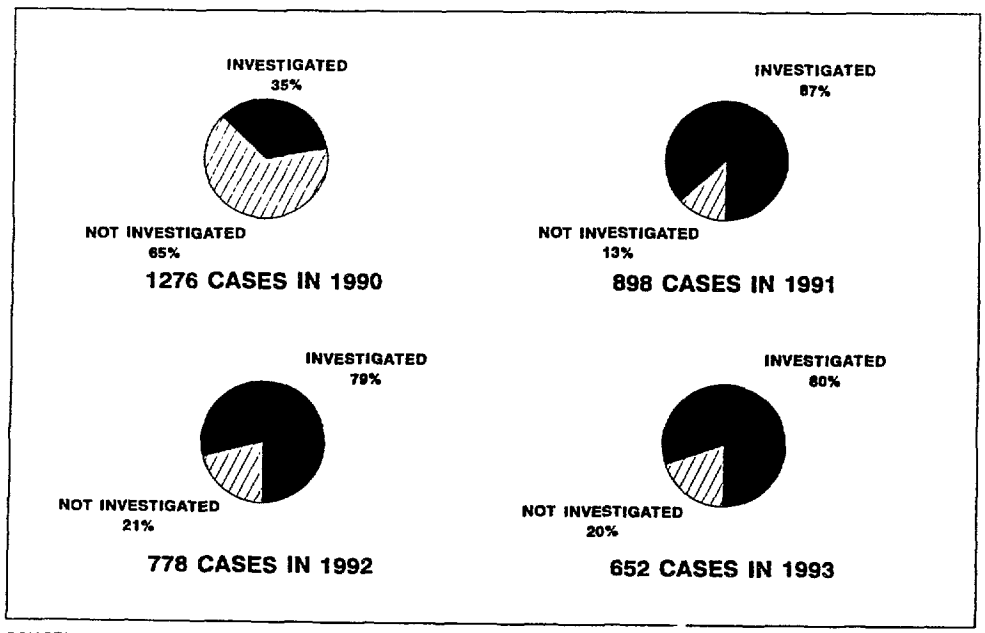
FIGURE 6. NEONATAL TETANUS INCIDENCE IN 482 HIGH-RISK COUNTIES* OF THE AMERICAS
1989 - 1993



SOURCE: EPI/PAHO
* IDENTIFIED AS SUCH IN 1989

A high rate of case investigations has been maintained since 1991 (Figure 7).

FIGURE 7. PROPORTION OF NNT CASES INVESTIGATED 1990 - 1993



SOURCE: EPI/PAHO

In 1993, 80% (512 cases) of the 652 cases reported in the Region were investigated (excluding Argentina and Haiti, for which data is not available at the time of this report). The mothers' vaccination status was obtained for 84% (254 cases) of the 308 cases investigated in 1993. This was a remarkable improvement when compared to the data obtained in 1992 (60% of 1,075) and 1991 (16% of 363).

Both the low reporting and low coverage rates that still are found in some areas point to insufficient resolve on the part of the governments to tackle this preventable disease. If additional resources are assigned to this activity, the Region of the Americas could reach its target of controlling neonatal tetanus by 1995.

A positive development was the declaration of the Summits of First Ladies held in Colombia in September 1992 and in Costa Rica in 1993, that stated that the elimination of neonatal tetanus by 1995 is one of their priorities. The declarations were followed up by action by several First Ladies, particularly in Ecuador, in which additional national resources for program operations have been generated. Yet a greater effort must be made or the Region will fail in its commitment to eliminate this disease as a public health problem by 1995.

2.4 *Hepatitis Control*

PAHO continues to recommend that vaccination against hepatitis B be targeted to those areas that are known to be at high risk for the circulation of the disease. Extension of coverage to all children should be considered only when this initial goal has been reached and when sufficient resources are available for a long-term vaccination program. Vaccination coverage data are not available and the priority for the next year should be to monitor coverage data and, most importantly, surveillance activities in order to ascertain the program's impact in reducing disease incidence in the targeted areas.

2.5 *Strengthening the Health Infrastructure through Disease Control: The Polio Eradication Study*

The poliomyelitis eradication effort has required a uniquely concerted effort of national governments and a consortium of donor agencies. The duration of the combined effort and the degree of joint planning and program execution are unprecedented in a health campaign.

During this period, in which immunization coverage has steadily increased and reduction of morbidity and mortality of the target diseases has been observed, it has been noted that countries have assumed increased responsibility for their own recurrent costs, particularly vaccines, syringes and needles and other operational costs. This can be observed by the fact that while in the period between 1987-1991 the overall cost of the EPI (data available for 19 countries) was approximately US$ 545,000,000 with approximately $114,000,000 (20%) from international sources and $431,000,000 (80%) from national sources, data for the period 1992-1996 (data available for 14 countries) indicates that the cost of the program will be in the order of $715,000,000 with $61,000,000 (8%) from international sources and $654,000,000 (92%) from national sources. This information is a strong indicator of sustainability of the program over time. Furthermore, the maintenance over several years of the multi-antigen national immunization campaigns, as an integral part of the vaccine delivery systems, is an indicator of the sustainability of the strategies of the program.

It has been therefore considered desirable to determine what, if any, impact the polio eradication effort has had on the strengthening of the health infrastructure. As a result, one year ago PAHO commissioned a group of independent investigators from a variety of fields to carry out an extensive review of the program in six countries of the Region (Bolivia, Brazil, Colombia, Guatemala, Mexico, Paraguay).

Preliminary data indicate that the Expanded Program on Immunization and its polio eradication initiative have contributed significantly to strengthening the health infrastructure. Among the many aspects of the program that are thought to have sped up the development and strengthening of the health infrastructure, the following are notable:

- A cadre of trained epidemiologists is now available in all countries, who have considerable experience in epidemiological surveillance, disease control activities, and operational research. Furthermore, virologists in several laboratories were trained in the most advanced techniques to diagnose enteroviruses.

- A network of virology laboratories was established: many of their staff of virologists have been trained. Their diagnostic capabilities were enhanced with the transfer of technologies such as DNA probes and polymerase chain reaction (PCR). These labs are now undertaking responsibility for other diagnostic procedures, such as those used to diagnose measles.

- All countries improved their health planning capabilities and present one- and five-year national plans of action that outline objectives, activities and expected results, and identify expected costs and national and international funding sources. These plans serve as management tools for program implementation, monitoring, and evaluation.

- An Inter-Agency Coordinating Committee (ICC) was created for the first time in the Region. All of the agencies collaborating in the vaccination effort participate. The Region-level ICC exists in every country as well. Under the leadership of the respective ministry of health each national ICC monitors program implementation. Over the last three years, the ICCs expanded their mandates to deal with other aspects of maternal and child health, particularly the goals of the World Summit for Children. They also monitor other general health issues. As a result of their developing role, a core group of health professionals participating in the ICCs were trained in financial planning and management.

- The eradication of poliomyelitis has been a prestigious health sector accomplishment, that may have increased the chances of obtaining further resources to address other health problems.

- An information system for vaccination coverage is now in operation at the county or district level throughout Latin America. It identifies immunization coverage for children under one year of age and helps managers to target resources to areas with lowest coverage. The coverage rate indicator serves as a surrogate for access to and performance of the health infrastructure.

- During the last five years, the most comprehensive surveillance system for human health that has ever existed in the Hemisphere was put into operation, with the participation of over 20,000 health units (covering 100% of all counties or districts in Latin America) reporting regularly (weekly) on the presence or absence of cases of acute flaccid paralysis (AFP), which are considered probable cases of poliomyelitis. Over 80% of these cases are investigated promptly by especially trained epidemiologists. This system is now being expanded to include other vaccine-preventable diseases, particularly measles and neonatal tetanus, and was crucial for the early detection and follow-up of the cholera epidemic.

- A Revolving Fund for Vaccine Procurement has been established and has been operational for the last 13 years. The fund ensures that high quality vaccine is available in a timely manner at country level. The countries reimburse the fund in local currency. The Fund served as the model for the establishment of the "Independent Vaccine Initiative" now in operation.

3. Conclusion

The gains achieved in combating what used to be major causes of childhood morbidity and mortality are of historic proportions, but they are fragile. The eradication of the indigenous transmission of wild polio virus from the Americas will be jeopardized if the lack of cases leads to a sense of false security, as often occurs when a disease is rare. National surveillance systems could be neglected and cease to detect the importations that may be inevitable as long as the rest of the world has not matched the efforts of the Americas.

For this reason it is essential now more than ever that all organizations (multilateral, bilateral, nongovernmental) that have contributed to the program thus far continue to do so. This support will be critical to reinforce the national immunization programs and health infrastructure in their efforts to sustain what has been achieved. Simultaneously, it would facilitate achieving the goals and targets set forth in 1990 by the World Summit for Children of further reducing the incidence of measles and eliminating neonatal tetanus as a public health problem.

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PAN AMERICAN HEALTH ORGANIZATION WORLD HEALTH ORGANIZATION

XXIV PAN AMERICAN SANITARY CONFERENCE

XLVI REGIONAL COMMITTEE MEETING

WASHINGTON, D.C.
SEPTEMBER 1994

Provisional Agenda Item 5.3

CSP24/14, ADD. I (Eng.)
10 September 1994
ORIGINAL: ENGLISH

EXPANDED PROGRAM ON IMMUNIZATION

All the countries of the Region formed National Poliomyelitis Eradication Commissions to review the surveillance and laboratory data that had been gathered since the polio eradication campaign was launched in 1985. All the National Commissions have met at least once and prepared final reports that were submitted to the International Commission for the Certification of Poliomyelitis Eradication, at its meeting in Washington, D.C., 22-25 August 1994.

The ICCPE reviewed all the national reports presented at that meeting and will present a final report during the XXIV Pan American Sanitary Conference.

No cases of poliomyelitis caused by wild poliovirus have been detected in the Region of the Americas for 3 years. The apparent success of the Region in halting the transmission of wild poliovirus has been an incentive to other regions of WHO. The Director General of WHO has dedicated World Health Day 1995 to the theme of global poliomyelitis eradication.

Annex

PAN AMERICAN HEALTH ORGANIZATION

PAN AMERICAN SANITARY BUREAU REGIONAL OFFICE OF THE
WORLD HEALTH ORGANIZATION

Expanded Program on Immunization
Poliomyelitis Surveillance in the Americas

Vol.9, No.36

Weekly Bulletin for the week ending 10 September 1994

Poliovirus Surveillance

THREE YEARS WITHOUT POLIO

Table No. 1a
Status of Case Stool Sample Analysis
Last 52 Weeks (93/37 - 94/36)

LAB.	CNTRY	TOTAL *	WITHOUT RESULTS			ENTEROVIRUS ISOLATION					
			Not yet in Lab	<10 wks	>10 wks	% ISOLATION	NEG.	OTHER ENTERO-VIRUS	Poliovirus Pending	Poliovirus Vaccine	Wild
BEL	BRA	91	3	5	1	19.5	66	16	0	0	0
CAR	DOR	15	0	0	0	20.0	12	3	0	0	0
	GUT	21	0	12	0	44.4	5	4	0	0	0
	GUY	6	0	0	0	33.3	4	2	0	0	0
	HAI	13	0	2	0	36.4	7	4	0	0	0
	JAM	2	0	0	0	50.0	1	1	0	0	0
	NIC	34	3	15	0	31.3	11	5	0	0	0
	PAN	4	0	2	0	50.0	1	1	0	0	0
	SCN	1	0	0	0	100.0	0	1	0	0	0
	SUR	3	0	0	0	33.3	2	1	0	0	0
	TRT	9	0	0	0	11.1	8	1	0	0	0
CDC	COL	1	0	0	0	100.0	0	0	0	1	0
	DOR	1	0	0	0	100.0	0	0	0	1	0
	ELS	2	0	0	0	100.0	0	0	0	2	0
	GUT	1	0	0	0	100.0	0	0	0	1	0
	MEX	6	0	0	0	100.0	0	0	0	6	0
	NIC	3	0	0	0	33.3	2	0	0	1	0
	VEN	1	0	0	0	100.0	0	0	0	1	0
FIO	BOL	45	11	0	6	42.9	16	10	0	2	0
	BRA	195	30	15	11	30.2	97	34	0	8	0
	PER	94	4	17	0	39.7	44	29	0	0	0
INC	COR	1	0	0	0	0.0	1	0	0	0	0
	ELS	6	0	0	0	83.3	1	5	0	0	0
	GUT	44	2	4	0	44.7	21	17	0	0	0
	HON	26	0	3	0	30.4	16	7	0	0	0
	NIC	12	0	0	0	50.0	6	6	0	0	0
	PAN	3	0	0	0	0.0	3	0	0	0	0
INDRE	MEX	387	0	37	1	17.2	289	57	3	0	0
	NIC	5	0	0	0	20.0	4	1	0	0	0
INH	VEN	94	4	5	0	17.6	70	13	1	1	0
INS	COL	177	6	10	0	27.3	117	31	0	13	0
	ECU	71	13	3	0	25.5	41	9	0	5	0
MAL	ARG	86	1	12	13	23.3	46	11	0	3	0
	CHI	32	0	0	0	12.5	28	4	0	0	0
	PAR	14	2	3	2	42.9	4	2	0	1	0
	URU	5	0	1	0	0.0	4	0	0	0	0
REC	BRA	126	17	5	8	21.9	75	21	0	0	0
TOTAL		1637	96	151	42	25.7	1002	296	4	46	0

* Each sample relates to an individual

Case samples only

Table No. 1b
Status of Contact Stool Sample Analysis
Last 52 Weeks (93/37 - 94/36)

LAB.	CNTRY	POLIOVIRUS ISOLATION	
		Poliovirus Pending	Poliovirus Vaccine	Wild
BEL	BRA	0	2	0
CAR	DOR	0	0	0
	GUT	0	0	0
	GUY	0	0	0
	HAI	0	0	0
	NIC	0	0	0
	PAN	0	0	0
	SUR	0	0	0
	TRT	0	0	0
CDC	COL	0	1	0
	DOR	0	5	0
	ECU	0	3	0
	ELS	0	1	0
	GUT	0	12	0
	GUY	0	1	0
	HAI	0	1	0
	HON	0	1	0
	MEX	0	8	0
	NIC	0	2	0
FIO	BOL	0	17	0
	BRA	16	38	0
	PER	0	29	0
INC	COR	0	0	0
	ELS	0	0	0
	GUT	0	0	0
	HON	4	2	0
	NIC	0	0	0
	PAN	0	0	0
INDRE	GUT	0	0	0
	MEX	122	1	0
	NIC	0	0	0
INH	VEN	8	2	0
INS	COL	2	49	0
	ECU	7	6	0
MAL	ARG	0	0	0
	CHI	0	0	0
	PAR	0	1	0
	URU	0	0	0
REC	BRA	2	8	0
TOTAL		161	190	0

Contact samples only

Table No. 2
Status of Poliovirus Pending Intratypic Differentiation
Last 52 Weeks (93/37 - 94/36)

LAB	COUNTRY	POLIOVIRUS												TOTAL
		NOT YET IN LAB				IN LAB < 4 Wks				IN LAB > 4 Wks				
		P1	P2	P3	MIX	P1	P2	P3	MIX	P1	P2	P3	MIX	
	MEX	1	2	0	0	0	0	0	0	0	0	0	0	3
	VEN	0	0	1	0	0	0	0	0	0	0	0	0	1
TOTAL		1	2	1	0	0	0	0	0	0	0	0	0	4

Case samples only

Vol.9, No. 36

Acute Flaccid Paralysis Surveillance

Table No. 1
CASES OF ACUTE FLACCID PARALYSIS UNDER INVESTIGATION
BY WEEK OF REPORT

SITE	TOTAL 1993	CUM. 1994	WEEKS 1- 4	5- 8	9-12	13-16	17-20	21-24	25-28	29-32	33	34	35	36
ARG	0	29	0	0	0	1	0	3	7	9	0	3	2	4
BOL	0	7	0	0	0	0	0	0	2	4	0	1	0	0
BRA	0	121	0	1	1	1	4	11	33	44	8	9	7	2
CAN	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CAR	0	6	0	0	1	3	0	2	0	0	0	0	0	0
CHI	0	15	0	0	0	0	0	2	8	5	0	0	0	0
COL	0	31	0	0	0	0	0	2	16	13	0	NR	NR	NR
COR	0	3	0	0	0	0	0	0	3	0	0	NR	NR	NR
CUB	0	6	0	0	0	0	0	1	5	0	0	0	0	0
DOR	0	1	0	0	0	0	0	1	0	0	0	0	NR	NR
ECU	0	19	0	0	0	0	0	2	3	8	2	1	2	1
ELS	0	11	0	0	0	0	0	5	3	1	0	2	0	0
GUT	0	25	0	0	0	0	1	10	9	5	0	0	0	NR
HAI	0	7	0	0	0	0	0	1	3	3	0	0	0	0
HON	0	4	0	0	0	0	0	2	2	0	0	0	0	0
MEX	0	83	0	0	0	0	1	16	36	30	0	0	0	NR
NIC	0	18	0	0	0	0	0	0	9	6	0	0	3	0
PAN	0	3	0	0	0	0	0	0	0	2	0	1	0	0
PAR	0	3	0	0	0	0	0	0	1	1	0	0	1	0
PER	0	19	0	0	0	0	0	0	10	7	0	1	1	0
URU	0	1	0	0	0	0	0	0	1	0	NR	NR	NR	NR
USA	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
VEN	0	18	0	0	0	0	0	0	4	8	3	1	2	0
TOTAL	0	430	0	1	2	5	6	58	155	146	13	19	18	7

NR NO REPORT RECEIVED

Table No. 2
CASES OF AFP REPORTED , RATE PER 100,000 < 15 yrs.,
% INVESTIGATED WITHIN 48 hrs, % WITH 2 ADEQUATE
SAMPLES AND % WITH 5 CONTACT SAMPLES TAKEN
AS OF WEEK 36

SITE	TOTAL CASES 1993	TOTAL RATE 1993	CUMULATIVE CASES 1994	RATE 1994*	% INV. < 48hr	% 2 SMPLS+	% 5 CONT.	% REPORT
ARG	115	1.19	77	1.15	87	8	18	44.0
BOL	49	1.53	32	1.44	91	63	97	81.2
BRA	519	0.98	357	0.97	92	53	71	81.5
CAN	NR	-	NR	-	-	-	-	-
CAR	26	0.98	12	0.65	83	50	50	-
CHI	101	2.50	57	2.04	100	88	88	93.1
COL	189	1.64	126	1.58	93	84	98	99.8
COR	15	1.37	12	1.59	0	0	0	75.2
CUB	11	0.49	24	1.54	96	83	88	85.4
DOR	30	1.10	9	0.48	89	89	100	92.0
ECU	67	1.53	52	1.72	94	87	90	94.1
ELS	55	2.36	30	1.86	93	100	93	88.4
GUT	90	2.15	64	2.21	95	88	95	33.8
HAI	16	0.63	8	0.45	0	75	88	54.7
HON	41	1.79	23	1.45	100	96	100	86.0
MEX	566	1.72	276	1.21	95	78	88	91.1
NIC	48	2.71	32	2.61	97	88	94	97.7
PAN	9	1.07	6	1.03	83	17	83	92.2
PAR	25	1.45	12	1.00	100	92	92	92.1
PER	123	1.41	64	1.06	100	98	100	84.5
URU	8	1.02	2	0.37	0	100	100	0
USA	NR	-	NR	-	-	-	-	-
VEN	96	1.27	71	1.36	89	86	99	80.9
TOTAL♦	2199	1.35	1346	1.19	92	70	82	86.8

* Adjusted + Taken within 14 days of onset of paralysis
♦ Excluding Canada and USA

Table No. 3
CONFIRMED CASES OF POLIOMYELITIS
BY WEEK OF ONSET

AS OF WEEK 36

SITE	TOTAL 1993	CUMULATIVE 1993	CUMULATIVE 1994
ARG	0	0	0
BOL	0	0	0
BRA	0	0	0
CAN	0	0	0
CAR	0	0	0
CHI	0	0	0
COL	0	0	0
COR	0	0	0
CUB	0	0	0
DOR	0	0	0
ECU	0	0	0
ELS	0	0	0
GUT	0	0	0
HAI	0	0	0
HON	0	0	0
MEX	0	0	0
NIC	0	0	0
PAN	0	0	0
PAR	0	0	0
PER	0	0	0
URU	0	0	0
USA	0	0	0
VEN	0	0	0
TOTAL	0	0	0

CAR Includes reports from all CAREC member countries

Table No. 4
POLIO COMPATIBLE CASES
BY WEEK OF ONSET

AS OF WEEK 36

SITE	TOTAL 1993	CUMULATIVE 1993	CUMULATIVE 1994
ARG	0	0	1
BOL	0	0	1
BRA	7	6	0
CAN	0	0	0
CAR	2	2	0
CHI	0	0	0
COL	1	1	1
COR	0	0	0
CUB	0	0	0
DOR	0	0	0
ECU	1	1	0
ELS	0	0	0
GUT	1	1	1
HAI	0	0	0
HON	0	0	0
MEX	11	9	2
NIC	2	2	0
PAN	0	0	0
PAR	0	0	0
PER	0	0	0
URU	0	0	0
USA	0	0	0
VEN	1	1	0
TOTAL	27	23	6