



EPI Newsletter

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December 1990

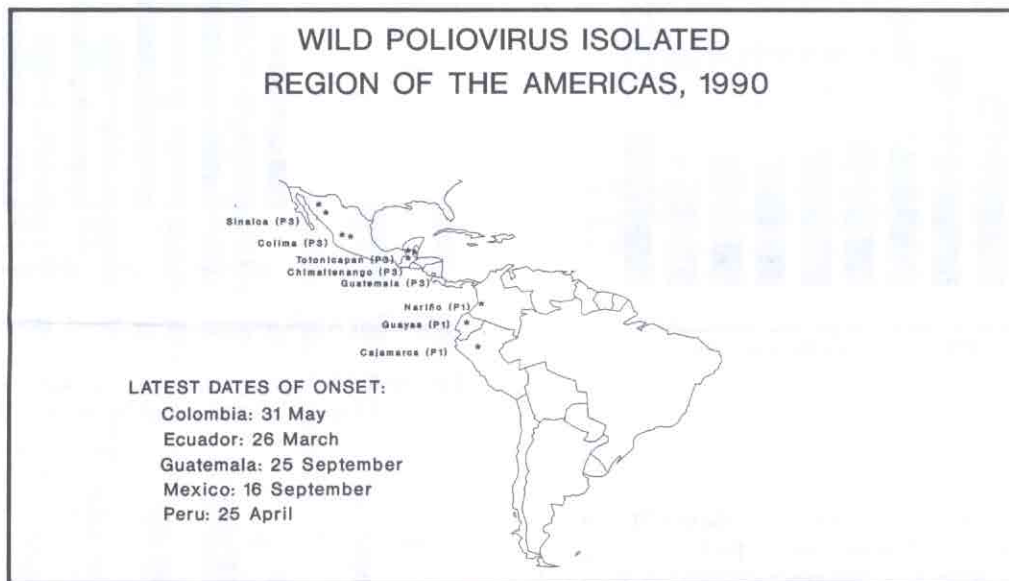
Wild Poliovirus Surveillance

Through the end of 1990, 2 218 cases of acute flaccid paralysis (AFP) have been reported to the Regional Office of EPI in the Americas, compared with 2 108 cases in 1989. Of the 2 218 cases reported in 1990, 84% had stool specimens taken for virus culture, representing a 4% increase in the stool specimen collection rate from 1989. For 1989, 81% of the 2 108 cases of AFP reported in the first 50 weeks had stool specimens taken.

Ten of the cases of AFP reported this year have been confirmed as polio cases (unchanged from previous Newsletter report - see *EPI Newsletter*, October 1990), 44 were

compatible, 1 597 were discarded, and 566 are still under investigation. The ten confirmed polio cases (Figure 1) are distributed in three limited geographic areas: western Mexico (four cases associated with wild-type 3 poliovirus), Guatemala (three associated with wild-type 3 poliovirus), and the northern Andean Subregion (three associated with wild-type 1 poliovirus, one each in Colombia, Ecuador, and Peru). The onset date of the most recent confirmed case was September 23, 1990 from Guatemala. Intensive immunization activities have been directed and completed in each of these areas.

Figure 1. Wild Poliovirus Isolated in the Americas, 1990



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Progress in Central America

Introduction

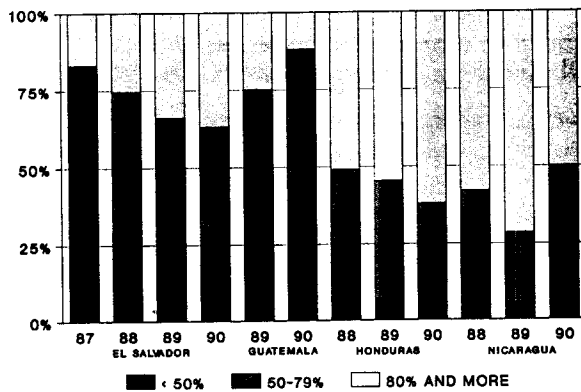
The Sixth Central American Meeting for the review of EPI and polio eradication was held in San José, Costa Rica, from 7 to 9 November, 1990. This meeting was attended by representatives of Belize, Costa Rica, El Salvador, Guatemala, Nicaragua, Honduras, Panama, Mexico, and INCAP, the Reference Laboratory for polio diagnosis in the Subregion, as well as by neuropediatricians that are cooperating with the program in the various countries.

The meeting was also attended by epidemiologists, virologists, maternal and child specialists, and supervisors of the central, regional, and operative levels of the participating countries. Present, in addition were representatives of the international agencies cooperating with the program (USAID, UNICEF, Rotary International, and PAHO/WHO).

Vaccination Coverage

Only four of the eight countries invited --Guatemala, Honduras, El Salvador, and Nicaragua-- submitted coverage data by county or health area updated to the second semester of 1990 for OPV3 under 1 year of age (Figure 1).

Figure 1. Counties by range of OPV coverage in children under one year of age. Central America, 1987-1990*



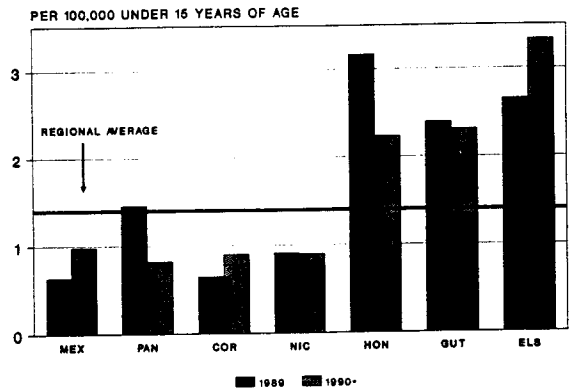
SOURCE: COUNTRY REPORTS

Polio Eradication

Until week 44 of 1990, three cases had been confirmed in Central America, the last date of onset of paralysis being September 25. There were also two cases in Mexico, with June 8 as last date of onset. In all these cases, wild P3 virus was isolated. In addition, there were five compatible cases in Mexico. Three wild P3 isolations were found near the Panamerican Highway in Guatemala. It is noteworthy that all of these cases had received at least three doses of OPV.

The incidence rate for acute flaccid paralysis, relative to the previous year, remains below 1 per 100,000 children under 15 years of age in the same countries: Mexico, Panama, Costa Rica, and Nicaragua (Figure 2).

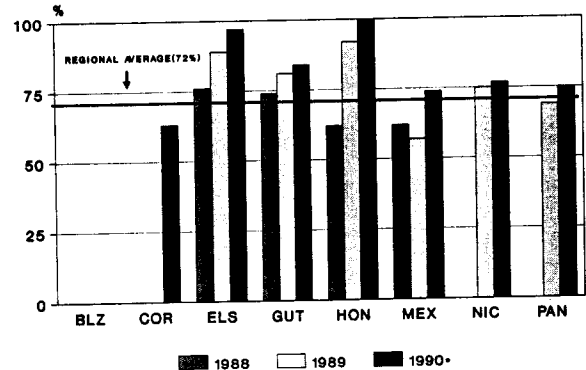
Figure 2. Incidence of acute flaccid paralysis Central America and Mexico, 1989-90*



* DATA ARE UP TO WEEK 43, 1990
SOURCE: PAHO

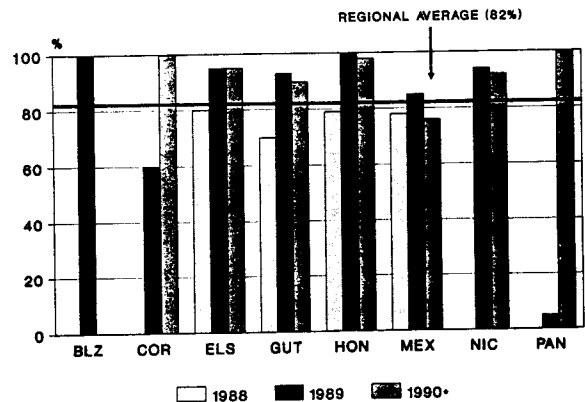
The epidemiological surveillance indicators have improved, and overall figures exceed the regional averages in the countries which control their systems (Figures 3-7).

Figure 3. AFP cases reported within 15 days of onset of paralysis. Central America and Mexico, 1988-90*



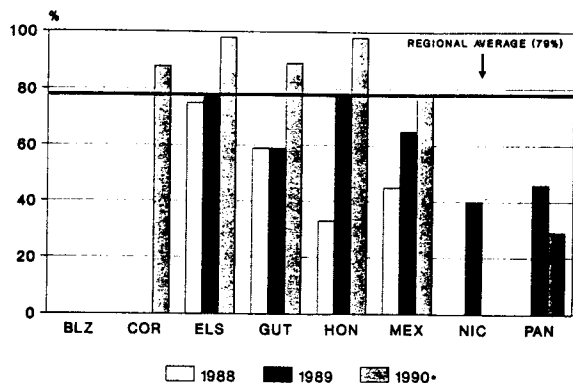
* DATA ARE UP TO WEEK 43, 1990
SOURCE: PESS SYSTEM, PAHO

Figure 4. AFP cases reported with stool samples taken Central America and Mexico, 1988-90*



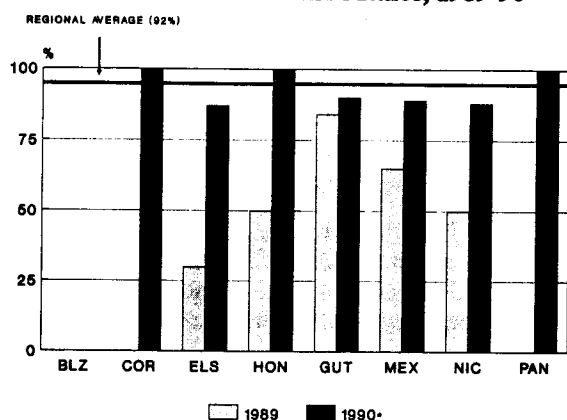
* DATA ARE UP TO WEEK 43, 1990
SOURCE: PESS SYSTEM, PAHO

Figure 5. AFP cases with stools taken within 15 days Central America and Mexico, 1988-90*



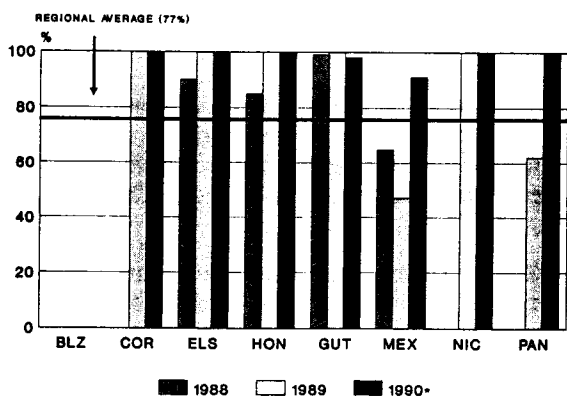
* DATA ARE UP TO WEEK 43, 1990
SOURCE: PESS SYSTEM, PAHO

Figure 6. AFP cases with control measures within 72 hours. Central America and Mexico, 1989-90*



* DATA ARE UP TO WEEK 43, 1990
SOURCE: PAHO/COUNTRY REPORTS

Figure 7. AFP cases with follow-up within 72 days of onset. Central America and Mexico, 1988-90*



* DATA ARE UP TO WEEK 43, 1990
SOURCE: PAHO/COUNTRY REPORTS

Only 5 countries (El Salvador, Guatemala, Honduras, Mexico, and Nicaragua) have developed a system of weekly negative reporting for acute flaccid paralysis and notify PAHO Headquarters in Washington.

Measles Control

The measles epidemics which have been occurring in the Subregion since 1988 have persisted in Guatemala and

Mexico up to the first semester of this year. Presently, only Nicaragua shows epidemic levels, while in Panama outbreaks began appearing in September.

From the reports presented, it is apparent that coverage remains low, leading to a persistent risk of new epidemics due to the permanent accumulation of new susceptibles.

Neonatal Tetanus Elimination

The countries have defined their risk areas and have launched actions. To date 135 cases have been registered in 1990 (compared with 173 for the same period in 1989), with 133 cases investigated.

Country presentations are still lacking uniformity in terms of the data requested at the previous meeting.

Report from the Reference Laboratory (INCAP)

During 1990, through the end of September, a total of 522 stool samples of flaccid paralysis cases and 184 samples of contacts were processed.

The following problems occurred with sample shipments during 1990:

- Lack of data for epidemiological records
- Defective sample labelling
- Inappropriate container
- Insufficient volume
- Shipments outside the time schedule
- Lack of prior communication

Neurological Aspects

The cooperative studies of cases of acute flaccid paralysis conducted in Guatemala, Honduras and El Salvador were presented. In some cases, the follow-up activities continued for over two years, which provides a clearer picture of the clinical and epidemiological problems.

To facilitate the differential diagnosis of the sequelae after 60 days, measuring the speed of nerve transmission might be recommended at this time. Lumbar puncture should be performed as early as possible. If normal, it should be repeated one week later, to corroborate an eventual albuminocytological dissociation.

Conclusions and Recommendations

Though the program has made many achievements, the presence of wild poliovirus in Central America indicates a critical situation. This evidences the quality of the surveillance systems and provides a unique opportunity only six weeks before the wild poliovirus eradication goal to take appropriate measures to interrupt circulation. Efforts must be intensified to strengthen ongoing vaccination activities through urgent extension of health services and epidemiological surveillance of acute flaccid paralysis. In order to sustain the success attained so far, the group formulated the following conclusions and recommendations:

1. Given the recent outbreak of type 3 wild poliovirus, it is urgent to optimize the actions and consolidate cooperation among the Central American countries and Mexico. This should be accompanied by a formal commitment on the part of the Governments, such as the mobilization of other public and private agencies, and the general population.

2. A number of countries still fail to register vaccination coverage by county, which impairs the identification of high risk areas. In addition, national vaccination coverage surveys by conglomerates are not practical at this time, since they do not identify non-vaccinated "pockets". This activity is most important at the county level.

3. All of the countries represented committed themselves to send the vaccination coverage data for 1990 to PAHO by the second week of February, 1991.

4. Since several countries have already made national cold chain surveys, close monitoring of the recommendations from those surveys is advised. This is a highly important matter, and should therefore not be confined to the problem-identification stage.

5. Some countries still record high levels of missed opportunities for vaccination. In the next meeting they should present their assessments of the actions taken to reduce these missed opportunities.

6. If the study of acute flaccid paralysis at a Central American level is to be consolidated, Nicaragua, Costa Rica, and Panama must submit the data for 1988/89 included in the study protocol. In addition, the data are needed for all Central American countries up to week 40 of 1990.

7. Studies from a number of countries identify serious failures in the shipment of stool specimens to the Polio Reference Laboratories. It is therefore recommended that sample quality control indicators be established at critical points (intervals, temperature, etc.).

8. So as to achieve appropriate control of measles, the following is recommended:

i. Intensify epidemiological surveillance of measles, along with coverage surveillance by county, thus ensuring a minimum coverage of 90% for children under age 5.

ii. Promote field research, documentation, and present results at upcoming meetings.

iii. Maintain the current vaccination schedules with a single dose of measles vaccine.

9. In order to succeed in eliminating NNT, the following is recommended:

i. Increase surveillance through case investigation, and maintain records of coverage using TT2 in women of childbearing age.

ii. Vaccination of 100% of all women of childbearing age living in risk areas.

iii. Each local level should use the strategies that enable them to achieve the aforementioned goal. It is especially important to take advantage of all contacts of women of childbearing age with health facilities.

iv. Each country should ensure the purchase of syringes in sufficient quantities to achieve the proposed goals.

Progress in the Southern Cone

Introduction

The Sixth Meeting of the "Asunción Group" on EPI progress and Eradication of Polio in the Southern Cone, Bolivia, and Brazil was held in Asunción, Paraguay, from 29-31 October, 1990. This group first met in Asunción in July, 1987, and has held periodic meetings for follow-up of activities and to discuss the actions needed to accelerate the achievement of EPI's goals of universal child immunization and eradication of polio by 1990.

The meeting was attended by professionals from the ministries of health of the countries mentioned above and by representatives of the international organizations supporting these efforts, namely Rotary International, UNICEF, USAID, and the Pan American Health Organization (PAHO).

Vaccination Coverage

With the exception of Argentina, all countries submitted preliminary coverage data up to June, 1990, which appear to

be similar to the 1989 data; in Paraguay and Bolivia, however, low coverages require prompt intervention. This suggests that further and more active efforts are needed if the goals of universal vaccination and polio eradication by 1990 are to be achieved.

It is noteworthy that all countries (some of them for the first time) submitted coverage analysis by county, a significant accomplishment for the program.

- All countries should update the vaccination coverage information system monthly, by municipality. These updates should be done at the central level of the Health Ministry. National coverage data for 1990 should be submitted to PAHO in February, 1991.

- Coverage information by municipality should be shared with the relevant political authorities in order to facilitate improvement-oriented decision making in this area.

- Neighboring countries should be informed when there are outbreaks of vaccine-preventable disease which require

joint actions, or if there is a risk of export or import of the disease.

Polio Eradication

Cases confirmed in 1990 for the Region of the Americas were analyzed. The total number of cases to date is six, the latest being the case in July in Guatemala.

It is estimated that there has been no circulation of wild poliovirus either in the Southern Cone or Bolivia in the last 3 years, or in the last 3 1/2 years in Brazil. The need to initiate measures to certify this was discussed.

The weekly negative notification system has improved remarkably, particularly in Brazil; in other countries, the levels have been maintained.

All of the countries have improved the rates of cases of acute flaccid paralysis per 100 000 children under 15 years of age. This is the time, however, to analyze those countries, in order to identify "silent zones" where there might be unreported cases. In addition, there still exists a large proportion of cases that are not being reported within 15 days of onset of paralysis, and therefore stool specimens cannot be obtained at the right moment.

Follow-up of cases at 70 days after onset of paralysis is another indicator which deserves attention, since there has been no overall improvement since the last assessment. It is particularly low in Argentina.

- The need for adequate stool samples and timely shipment to the laboratories was emphasized.
- Countries should use the new case classification, as recommended by EPI's Technical Advisory Group.
- Flaccid paralysis surveillance indicators must be reviewed on a continuing basis, not only for the country as a whole, but also for geographical areas of the interior.

Last Isolations of Wild Poliovirus in the Southern Cone

COUNTRY	LAST DATE
Chile	June 1975
Uruguay	October 1978
Argentina	January 1984
Bolivia	February 1986
Brazil	March 1989
Paraguay	(not available)

Measles control

Countries showed different epidemiological situations; some of them have had high vaccination coverage levels for many years; others still have low coverage.

- Each country should identify low coverage "pockets" so as to increase coverage in those risk areas.
- Epidemiological surveillance should be adapted to the needs of each country. Each country should choose between weekly or monthly reports from the reporting units, or select a system consistent with its control capabilities. As much as possible, such systems should be integrated into the polio surveillance system.

- A uniform operational definition should be used for measles cases; i.e., all cases where high fever for more than three days is present, along with rash, coryza, coughing and conjunctivitis.
- Measles control and surveillance actions will vary according to each country's program development. In those cases where the program is developed and coverage rates are high, each suspected case must be investigated. In those countries where coverage rates are still low, only measles outbreaks should be investigated. Those countries still exhibiting low coverages should concentrate their efforts on increasing them as soon as possible.
- The program's response to outbreaks must be oriented to assessing the epidemiological situation and to implementing vaccination programs in those areas still unaffected.

Neonatal Tetanus Elimination

Some countries have already started epidemiological research, while others have commenced and/or strengthened actions to eliminate this disease. Bolivia has started a program where Tetanus Toxoid (TT) is administered by midwives, it is expected to be evaluated at the next meeting.

Regarding the present situation, it was remarked that a large number of cases still occur in urban areas and that large numbers of cases are from multiparous mothers, who have had more opportunity to be in contact with the health services, due to their children's or their own illnesses. These represent missed opportunities to administer TT.

- Those countries which have already identified risk areas should implement programs to eliminate risk. The outcome of such actions must be reported at the next meeting. The diagnosis should be completed as soon as possible and control measures should be taken.
- Countries must update their TT vaccination policies, in order to ensure their application during pregnancy, and to all women of childbearing age.

Missed opportunities for vaccination

There was a presentation of the experience of ten countries of the Americas in which missed opportunities had been evaluated. Of these, only two countries have undertaken evaluations after beginning measures to eliminate missed opportunities.

The need to use the definition and the standard protocol for missed opportunities in order to facilitate comparison of the experiences of different countries was discussed; also the need to follow up studies with actions, whether at the program management, health service, health personnel, or community level.

- Each country should conduct investigations on missed opportunities for vaccination using a consistent definition and implement measures to eliminate the problems, as well as document the results of such actions.
- By definition, a missed opportunity for vaccination occurs every time a child or a woman of childbearing age

lacking vaccine doses visits a health facility for any reason, and does not get vaccinated.

- Intrahospital vaccination should be established, and the results should be shown at the next meeting.
- Both missed opportunities and false contraindications for vaccination should be included in all of the discussions, as well as at training centers for health professionals.

Social communication

Several countries' experiences in social communication and mobilization were presented. Rotary Clubs in the various countries have diversified their scope of participation, and propose to participate to an even greater extent in program assessment and surveillance activities. Rotary International and UNICEF support of such social mobilization and communication activities will be very important at the stage of the program during which the attempt will be made to increase vaccination coverage, as well as control or elimination of such vaccine-preventable diseases as polio, neonatal tetanus, and measles.

- All social communication forms where coverage information is oriented to the population at large, or to the political levels, should be presented in an easily comprehensible format, e.g. showing the numbers of non-protected children.

- The notion of missed opportunities for vaccination should be expanded to other aspects of the health programs, such as missed opportunities for social communication and health-oriented education.
- Countries should describe specific experiences in the realm of social communication and mobilization, particularly those having resulted in larger vaccination coverages and better control of the program diseases.
- For purposes of experience exchange and coordination possibilities, each country should create a bank of information on social communication and mobilization opportunities.

Conclusions and Recommendations

1. Each country's epidemiological surveillance system should be reviewed in order to introduce all remedial actions permitting the certification of the eradication of the wild poliovirus and timely follow-up of measles outbreaks.
2. All the ministries of health should prepare EPI Plans of Action for 1991, as well as five-year plans.
3. Each country should try to devise mechanisms that ensure that syringe and vaccine purchases are made with local funds, thus avoiding dependence on external sources for their procurement.

Measles Elimination in the Caribbean

Introduction

The VII Caribbean Meeting of EPI Managers took place in Antigua, from 12-15 November 1990. It was opened by the Minister of Health of Antigua and Barbuda and was attended by the program managers of all the English-speaking Caribbean countries, Suriname, as well as Aruba, Curaçao, Guadalupe and Martinique.

The PAHO Caribbean Program Coordinator and the Director of the Caribbean Epidemiology Center (CAREC) were in attendance at the opening session.

Representatives of international agencies that support the program included the USAID, UNICEF, CPHA, Rotary International and the Pan American Health Organization. The Rapporteur of the EPI Global Advisory Group was also present at the Meeting.

The main purpose of the Meeting was to review the implementation of the immunization programs in each country and identify those problems that are hampering the further improvement of immunization coverage and disease surveillance, which could be addressed by better planning, management and evaluation procedures. The objectives of the Meeting included the review of activities implemented

during 1990 and the preparation of the workplans for 1991. This year, these workplans included activities relating to the elimination of measles by 1995, especially the preparation of the "Caribbean Measles Elimination Month" being planned for May, 1991 and further activities related to the need for heightened surveillance of rash illnesses and flaccid paralysis. These last activities are essential for the eventual certification of interruption of indigenous transmission of wild poliovirus and elimination of measles from the English-speaking Caribbean.

Conclusions and Recommendations

1. Significant progress has been achieved in the majority of countries with regard to sustaining or increasing immunization coverage in the target age groups. Some countries have experienced a decrease in immunization coverage and efforts should be made to correct this situation.
2. Some progress has been made in the establishment of the groundwork needed for surveillance of flaccid paralyzes and rash illnesses.

The rate of notification of flaccid paralysis for the Caribbean is increasing, but it is still low compared with

Reported Cases of EPI Diseases

Number of reported cases of measles, poliomyelitis, tetanus, diphtheria, and whooping cough, from 1 January 1990 to date of last report, and for same epidemiological period in 1989, by country.

Subregion and country	Date of last Report	Measles		Poliomyelitis #		Tetanus				Diphtheria		Whooping Cough	
		1990	1989	1990	1989	Non Neonatal		Neonatal		1990	1989	1990	1989
						1990	1989	1990	1989				
LATIN AMERICA													
Andean Region													
Bolivia	20 Oct.	453	778	0	0	...	...	56	84	1	6	200	750
Colombia	22 Apr.	1 831	4 528	1	5	0	68	54	63	7	15	339	454
Ecuador	1 Apr.	523	3 649	1	2	19	93	17	58	1	3	145	256
Peru	30 Jun.	...	...	1	1	...	...	...	...	...	...	...	...
Venezuela	20 Oct.	7 747	5 314	0	1	54	13	21	29	0	0	1 068	173
Southern Cone													
Argentina**	25 Aug.	907	1 749	0	0	42	55	...	...	2	5	1 175	1 584
Chile	24 Nov.	1 415	12 292	0	0	18	14	0	2	30	34	55	200
Paraguay	1 Sept.	196	67	0	0	115	17	37	10	3	1	86	49
Uruguay	1 Dec.	92	...	0	0	4	0	0	0	0	...	127	...
Brazil	11 Aug.	...	21 446	0	2	...	1 553	...	339	...	802	...	11 301
Central America													
Belize	27 Oct.	60	5	0	0	0	0	0	0	0	0	3	1
Costa Rica	2 Jun.	6	10	0	0	1	0	0	0	0	0	41	15
El Salvador	30 Jun.	642	13 753	0	0	25	24	9	16	0	0	97	19
Guatemala	2 Jun.	7 257	50	3	0	22	21	1	7	1	0	27	51
Honduras	27 Oct.	8 962	64	0	0	19	7	20	4	0	0	48	19
Nicaragua	20 Oct.	13 604	71	0	0	29	42	10	7	0	0	209	230
Panama	1 Sept.	227	301	0	0	2	6	2	7	0	0	16	36
Mexico	1 Sept.	58 159	8 166	4	13	136	128	28	53	0	6	569	1 286
Latin Caribbean													
Cuba	23 Nov.	16	0	0	0	3	0	0	0	0	...	6	...
Haiti	30 Jun.	...	...	0	0	...	...	...	...	...	...	...	...
Dominican Republic	2 Nov.	2 755	...	0	0	49	...	14	...	13	...	157	...
CARIBBEAN													
Antigua & Barbuda	22 Sept.	0	0	0	0	1	0	0	0	0	0	0	0
Bahamas	29 Sept.	62	21	0	0	0	0	0	0	0	0	0	0
Barbados	22 Sept.	49	0	0	0	3	0	0	0	1	0	1	0
Dominica	29 Sept.	7	5	0	0	0	0	0	0	0	0	0	0
Grenada	29 Sept.	2	1	0	0	0	0	0	0	0	0	0	0
Guyana	24 Mar	8	3	0	0	0	0	0	0	0	0	0	0
Jamaica	29 Sept.	3 617	14	0	0	...	...	...	...	...	...	...	...
St. Kitts/Nevis	29 Sept.	61	12	0	0	...	...	...	...	...	...	...	...
St. Vincent	24 Mar.	0	0	0	0	3	0	0	0	...	...	...	...
Saint Lucia	29 Sept.	23	6	0	0	0	0	0	0	0	0	0	0
Suriname	30 Jun.	...	...	0	0	...	...	...	...	...	...	...	...
Trinidad & Tobago	29 Sept.	453	1 657	0	0	6	0	0	0	0	0	1	5
NORTH AMERICA													
Canada	31 May	105	275	0	0	0	0	0	0	5	0	3 074	286
United States**	22 Dec.	26 043	15 956	0	0	58	...	0	...	4	...	3 997	3 760

** Country does not report neonatal tetanus data separately.

... Data for polio includes only confirmed cases through week 52 (ending 29 December, 1990).

... Data not available.

other sub-regions of the Americas. It will be necessary to speed up the establishment of a system for negative reporting and also collection of stool specimens from every case of flaccid paralysis and its contacts, as prerequisites for the certification process.

3. The draft Field Guide for Measles Elimination was reviewed and comments received from participants. It is expected that this Field Guide will be finalized at the Meeting of Epidemiologists to be held at CAREC in Trinidad from January 14-18, 1991.

4. It will be necessary for PAHO and CAREC to provide permanent monitoring and support to countries as far as surveillance is concerned. This must include laboratory support and training of country epidemiologists.

5. Some of the problems that still hamper further improvement of vaccination coverage and disease surveillance, include:

i. On occasion, delays in payment for vaccines ordered through the EPI Revolving Fund impede the receipt of new shipments;

ii. Stand-by generators still are required at all central stores, and gas and kerosene refrigerators are still in short supply for those areas without electricity;

iii. Training for surveillance of EPI diseases, particularly measles and poliomyelitis needs to be implemented;

iv. Promotional materials, such as audiovisuals, posters, and flyers are in greater demand and additional resources are needed to address this issue;

v. Due to personnel and financial constraints, supervisory visits to health centers have been affected;

vi. Data collection from private practitioners is still a bottleneck for determining immunization coverage in many countries;

vii. National Plans of Action are not systematically followed up to ensure that all planned activities are implemented.

6. As far as the Measles Elimination initiative is concerned, there are issues that need to be addressed and resolved before the January 14th meeting, including:

i. The key strategy for interrupting measles transmission in all countries is the elimination of all susceptibles under 15 years of age, simultaneously. Therefore, every country will have to ensure that any deviation from this strategy will still achieve interruption of transmission.

ii. Financial resources, particularly for vaccine purchase, have not yet been fully identified in most countries.

It is noted that while measles can be eliminated with the use of measles vaccine alone, this would represent a considerable missed opportunity for control of rubella and mumps. The Group urges that every effort be made by the Ministries of Health, with the support of PAHO and other collaborating agencies, to ensure the availability of MMR vaccine for this initiative.

iii. There were concerns over the social communication and mobilization plans. Considering the available time between now and the proposed "Measles Elimination Month" in May, 1991, it is imperative that an overall communication and mobilization plan be organized for immediate implementation.

7. The exchange visits of EPI managers were reviewed and it was recommended that they continue, as they are invaluable for managers to share experiences and learn from each other.

8. The VIII Caribbean meeting of EPI managers should be held in November, 1991.

The *EPI Newsletter* is published every two months, in Spanish and English by the Expanded Program on Immunization (EPI) of the Pan American Health Organization (PAHO), Regional Office for the Americas of the World Health Organization (WHO). Its purpose is to facilitate the exchange of ideas and information concerning immunization programs in the Region, in order to promote greater knowledge of the problems faced and their possible solutions.

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