Update on Mop-Up Operations in Colombia

The first round of the mop-up operations was carried out during the last two weeks in June and the month of July in the 199 coastal counties of Colombia. This represents one of the greatest efforts ever coordinated among the health sector and the agencies in the Interagency Coordinating Committee (PAHO, UNICEF, Rotary International and AID).

Preliminary data indicate that 855,010 children under five years of age were vaccinated in the 927,232 households visited in the coastal area. The 13 Sectional Health Services mobilized all regular and volunteer personnel and material resources and achieved the highest rates of accomplishment ever reached in mop-up operations in Colombia (see Table 1).

The second round, which has the purpose of consolidating the interruption of wild poliovirus transmission and evaluating the accomplishments made in terms of educating the families visited regarding cholera prevention, will begin on September 15. Almost one million households are expected to be visited in the 199 coastal counties, with approximately one million children under the age of five (about one fourth of the total population in this age group) expected to be immunized. The plan is to complete this operation by the end of October, 1991.

Table 1. Achievements of Mop-Up Operations in Colombia
July 1991
(Preliminary Data)

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>Target children under five</th>
<th>Target households</th>
<th>OPV Doses administered</th>
<th>% children vaccinated</th>
<th>Households visited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlántico</td>
<td>223,484</td>
<td>236,907</td>
<td>180,085</td>
<td>80.6</td>
<td>208,231</td>
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<tr>
<td>Bolívar</td>
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<td>184,035</td>
<td>182,178</td>
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<tr>
<td>César</td>
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<td>108,263</td>
<td>53,191</td>
<td>49.1</td>
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<tr>
<td>Córdoba</td>
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<td>86,816</td>
<td>132,966</td>
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<tr>
<td>La Guajira</td>
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<td>31,040</td>
<td>41,462</td>
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<td>33,632</td>
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<td>Magdalena</td>
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<td>121,699</td>
<td>72,750</td>
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<tr>
<td>Sucre</td>
<td>71,176</td>
<td>74,177</td>
<td>31,001</td>
<td>**</td>
<td>89,438</td>
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<tr>
<td>Uribe Antioqueño</td>
<td>35,576</td>
<td>35,576</td>
<td>24,793</td>
<td>69.7</td>
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<tr>
<td>Islas San Andrés</td>
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<td>83.3</td>
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</tr>
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<td>Choco</td>
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<td>52,679</td>
<td>30,136</td>
<td>57.2</td>
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<tr>
<td>Caquetá</td>
<td>4,879</td>
<td>4,879</td>
<td>9,021</td>
<td>**</td>
<td>—</td>
</tr>
<tr>
<td>Narino</td>
<td>21,394</td>
<td>21,394</td>
<td>13,390</td>
<td>62.6</td>
<td>13,807</td>
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<tr>
<td>Valle</td>
<td>39,532</td>
<td>32,415</td>
<td>24,165</td>
<td>61.1</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>1,063,484</td>
<td>1,015,695</td>
<td>853,010</td>
<td>80.4</td>
<td>927,232</td>
</tr>
</tbody>
</table>

* Only the coastal counties were included.
** Percent is higher than 100% due to an underestimated target population.

Source: Sectional Health Directorates, Ministry of Health, Colombia.

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Measles Surveillance

Following the huge public health success achieved by the countries of the English-Speaking Caribbean and Suriname in vaccinating children between nine months and 14 years of age against measles during May 1991, the time has come to turn efforts towards the strengthening of the measles surveillance systems (see EPI Newsletter, Vol. XIII, No.4, August 1991).

PAHO convened meetings to discuss operational issues, criteria and mechanisms for the establishment of a rash and fever illness surveillance system. The countries agreed to begin reporting weekly, on or before September 1, 1991, the occurrence or non-occurrence (negative reporting) of any suspected measles case to CAREC. It was established that any single suspected case of measles should constitute a public health emergency requiring investigation and the implementation of control measures; in addition, health care workers and the general public should continue to be educated and motivated to report these cases.

As agreed, all countries have been reporting to CAREC every Wednesday, for the previous epidemiological week. In addition to the occurrence or non-occurrence of suspected measles cases during that week, each report includes the cumulative number of cases under investigation and confirmed since the onset of the reporting system (September 1), and the number of sites expected to report and the sites which have reported for the week in question.

With the reports received, CAREC compiles a weekly Measles Surveillance Bulletin which is distributed to all countries in the subregion by Friday of the same week and provides feedback on the status of surveillance and progress towards elimination.

Below is a sample of the Bulletin for the week ending October 26, 1991, which clearly demonstrates the extent of the impact that the Measles Elimination Month had on the incidence of measles in the countries of the English-Speaking Caribbean and Suriname.

EXPANDED PROGRAM ON IMMUNIZATION
WEEKLY MEASLES SURVEILLANCE FOR THE ENGLISH-SPEAKING CARIBBEAN AND SURINAME
MEASLES SURVEILLANCE BULLETIN
PAHO/WHO

Vol. 1, No. 7 Week Ending 26 October, 1991

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Suspected Cases Reported</th>
<th>Reporting Sites</th>
<th>Cumulative Cases</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>wk. 41</td>
<td>wk. 42</td>
<td>wk. 43</td>
</tr>
<tr>
<td>Anguilla</td>
<td>2</td>
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<td>0</td>
</tr>
<tr>
<td>Antigua</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Bahamas</td>
<td>1</td>
<td>n/r</td>
<td>n/r</td>
</tr>
<tr>
<td>Barbados</td>
<td>n/r</td>
<td>n/r</td>
<td>n/r</td>
</tr>
<tr>
<td>Belize</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Bermuda</td>
<td>n/r</td>
<td>n/r</td>
<td>n/r</td>
</tr>
<tr>
<td>Cayman Is.</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dominica</td>
<td>n/r</td>
<td>n/r</td>
<td>n/r</td>
</tr>
<tr>
<td>Grenada</td>
<td>2</td>
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<td>0</td>
</tr>
<tr>
<td>Guyana</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Jamaica</td>
<td>2</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Montserrat</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>St. Kitts/Nevis</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>St. Lucia</td>
<td>n/r</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>St. Vincent</td>
<td>1</td>
<td>0</td>
<td>n/r</td>
</tr>
<tr>
<td>Suriname</td>
<td>0</td>
<td>0</td>
<td>n/r</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Turks &amp; Caicos</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Virgin Is. UK</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CAREC TOTAL</td>
<td>14</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

- No data
- n/r No report
- 280 cases confirmed by MOH, Jamaica, prior to September 1991
- Second case reported from Trinidad was confirmed because of loss to follow-up
- Case from St. Vincent discarded as vaccine reaction by MOH
- Case for week 41 St. Kitts was discarded by Ministry (CMO)
Experts Call for the Inclusion of the Hepatitis B Vaccine in the EPI

Following are two recent declarations calling for the inclusion of the vaccine against Hepatitis B infection in the Expanded Program on Immunization (EPI).

The first, referred to as the “Manaos Declaration,” was made as a result of the International Symposium on Viral Hepatitis held in Manaos in April, where the preliminary results of the Hepatitis B vaccination started in August, 1989 in the western region of Amazonia, Brazil, were presented. A copy of this declaration was sent to the Presidents of all the Latin American nations in May of this year, and another was sent to the press.

The second, referred to as the “Yaounde Declaration,” resulted from the International Conference for Hepatitis B Control in Developing Countries, which was held from 7 to 9 October in Yaounde, Cameroon. The Conference was organized by WHO and a PATH task force, who has resolved to include the Region of the Americas as one of the regions it will cooperate with.

Manaos Declaration

Your Excellencies, Heads of State of the Latin American Countries:

The International Scientific Committee of the International Symposium on Viral Hepatitis, addresses your Excellencies in order to address the imminent and urgent need to develop measures to prevent and control Viral Hepatitis B. This is a medical and social problem of greater immediate and future consequences than other diseases such as AIDS or cholera, since Hepatitis B kills more people in one day than AIDS does in one year, and cholera is curable with proper prophylaxis, hygienic habits, and antibiotic treatment. Hepatitis B infection, on the contrary, has only prevention as its only control measure within the reach of medical science.

Hepatitis B produces death, cirrhosis or liver cancer. It affects 400,000 people every year in Latin America, at a cost to public health exceeding 300 million dollars annually.

This dramatic presentation is fueled by the lack of political response that repeated calls and recommendations made over the past ten years by various Scientific Committees and Professional Associations have generated. Also, by the serious attributes that the epidemic is acquiring to the point that it has transformed itself into a pandemic problem for Latin America. This is an inexplicable situation given the existence of efficacious and safe vaccines which prevent the disease:

Therefore, allow us to make to Your Excellency the following recommendations for the improvement of the health of the Latin American people:

1. Immediately begin national vaccination programs that conform to each country’s situation.

2. Integrate the programs which target children into the activities of the EPI.

3. Assist in the support and development of all technical and scientific activities that promote these programs, striving to achieve an awareness among the overall public that will allow for the use of the vaccine as a way to fight the disease.

The Yaounde Declaration

The time has come for action to eliminate one of the world’s major diseases. Over 300 million people are chronically infected with Hepatitis B virus and are at significant risk of death from liver cancer and cirrhosis. Each year, over one million children are born who will eventually die from this infection.

It is known that

Hepatitis B disease burden is comparable to the world’s most serious diseases and exceeds those of diphtheria, pertussis, polio, cholera, rotavirus diarrhea, and AIDS.

Hepatitis B infection is a children’s issue because it kills parents of young children, it is acquired in childhood, and it is prevented by vaccination near birth.

Hepatitis B vaccine, the first against a major human cancer, is among the best vaccines, and the possibility of combining it with other childhood vaccines will make its delivery even more effective.

Hepatitis B vaccine can be added directly to the EPI schedules; its administration with other EPI vaccines does not diminish its efficacy.

Current Hepatitis B vaccine cost makes it a very effective health intervention, and increased use will lead to even lower costs.

Therefore, the participants in the International Conference on the Control of Hepatitis B in Developing Countries,

1. State that NOW is the Time for Action;

2. Call on manufacturers to make Hepatitis B vaccine available at an affordable price; and,

3. Call on the World and its Leaders to

   Recognize the Significance, especially to children, of Hepatitis B infection and its sequelae,

   Recognize the Right of all children to protection from Hepatitis B infection,

   Support the development of Hepatitis B vaccines combined with other childhood vaccines,

   Establish a Global Fund for vaccine purchase and delivery, and,

   Provide Hepatitis B vaccine to children in all countries as part of the EPI.

Submitted by: Dr. Oscar Fay, Director, School of Biochemical and Pharmaceutical Sciences of the National University of Rosario, Argentina.
Progress in Central America and the Andean Region

From the 9th to the 11th of September in Managua, Nicaragua and from the 7th to the 9th of October in Caracas, Venezuela, the 7th Central American Meeting and the 3rd Meeting of Andean Countries were held to evaluate the activities of the EPI, the eradication of polio, and the elimination of measles. Haiti and the Dominican Republic participated for the first time in the Central American Meeting, while Mexico joined in as a bordering country. Brazil participated in the Andean Meeting. Following is a summary of the principal conclusions and recommendations reached at each of the meetings.

Vaccination Coverages

All of the countries presented projected vaccination coverages for children less than one year old for 1991. Excluding Ecuador, the Andean Countries and Brazil surpassed coverage levels reached in 1990. In Central America and Mexico, where in 1990 the highest levels in history were achieved, coverage figures appear to be decreasing so far in 1991, partly due to a temporary reduction in the supply of biologicals. This poignantly illustrates the importance of having the governments ensure that the necessary financial resources are available in the national budgets.

With the exception of Costa Rica and Haiti, all countries presented coverage data by county (Mexico presented data by "jurisdicción"). Over 50% still show coverages below 80%, implying that an important proportion of children still live in high risk areas. In order to increase coverages, Bolivia has instituted a prize that will have the director of the county or district with the highest coverage invited to participate in international conferences.

Polioymyelitis Eradication

Wild Poliovirus

The last time a polio case was confirmed through isolation of wild virus in the Central American Region and Mexico was in October of 1990. In the Andean Region however, seven cases have thus far been confirmed in the first 39 weeks of 1991: six in Colombia and one in Peru. The isolates from Colombia came from four localities in the Atlántico and Bolívar Departments, the last one was collected in April, 1991. The isolate from Peru came from the Piura Department and was collected in February, 1991. All the wild viruses isolated from the stools of cases and contacts were found to be P1, and according to genomic sequencing studies, appear to be indigenous to the Andean Region. The fact that all the viruses are P1 seems to indicate that types 2 and 3 have been eradicated from the Region.

Laboratories

The INCAP laboratory has received 1,020 stool samples thus far in 1991, which represents a considerable increase when compared with the 765 samples received in 1990. Virus isolation rates are 37% for case samples and 48% for contacts, 18% were vaccine polioviruses and 82% were other enteroviruses. Results were informed within 43 days of receipt, for 96% of the samples.

FIOCRUZ received 197 samples from Peru and 79 from Bolivia during the first 39 weeks of 1991. The enterovirus isolation rates were 25% and 40%, respectively. Results of about 65% of the samples were obtained and reported within 43 days of receipt of the samples.

During the same time frame, the National Institute of Health of Colombia (INS) received 131 samples from Colombian cases and 45 from Ecuador, obtaining isolation rates of 27% and 23%. Results were reported within 43 days for 98% of the samples from Colombia and 91% of those from Ecuador.

The National Institute of Hygiene in Venezuela processed 99 samples in the same time period, with 91% of results reported within 43 days.

A recommendation was made that, in order to decrease the response time, the laboratories in Colombia and Venezuela be prepared to perform intratypic differentiation by next year. Problems still remain in the areas of quality of samples (inadequate quantities and containers), incomplete case forms, no previous notification of the arrival of samples, lack of compliance with the criteria for selecting contacts (samples have been taken of children over five years of age or children who had been recently vaccinated), and incomplete data entry into the information system.

Active Search

Every case found during active case finding that was not reported through the regular surveillance system should be adequately investigated in order to identify the causes of non-reporting. The need to complement the flaccid paralysis surveillance system with regular active searches for cases in the high-risk areas was stressed. The methodology should include review and analysis of hospital and other health facility records, death certificates, and during mop up activities, and can be done by health personnel, community leaders, students and volunteers, and should also be used to identify neonatal tetanus, measles, and cholera cases. Mexico, Guatemala, El Salvador, Bolivia, Colombia, Ecuador, and Peru presented data on these activities.

Since the last cases confirmed due to wild virus occurred in the border areas between Peru and Ecuador, and Colombia and Venezuela, the coordination of activities taking place in border areas acquires importance at this moment. Therefore, active searches were carried out in the health services and communities along the Colombia-Venezuela border. Health establishments were visited every week, the negative reporting network was extended, and the weekly reporting systems were jointly reviewed. Migratory flows among the countries in these areas were also identified, meetings were held in Paraguay, Cucuta, and San Cristóbal, and information on cases was exchanged. Biologicals have been exchanged and joint vaccination activities have been carried out in several Indian communities in northern Colombia. Brazil did extensive case finding activities in the state of Amazonas and held a coordination and information exchange meeting with Colombia. Following Rotary International’s lead, the first Bolivia, Peru, and Chile Border Meeting was held in September 1991. Even though important border activities have been carried out individu-
ally by Ecuador and Peru, the development of joint activities in the future is recommended.

**Surveillance Indicators**

The negative reporting network for flaccid paralysis in the Andean Region, contains nearly 3,000 sites. Between 70 and 80% of the network is reporting weekly; Peru and Colombia have only 38% and 59% of their sites reporting on a weekly basis. It is worth noting that countries like Costa Rica and Nicaragua need to improve weekly negative reporting, active case finding, and the reporting of cases within 15 days of onset of paralysis.

Care should be taken that the incidence rate for flaccid paralysis among children under 15 years of age is maintained above one per 100,000. Several factors need to be monitored since they may contribute to lowering this indicator, such as the cholera outbreak, a certain complacency which may be resulting from the reduction of confirmed cases, better screening for cases or the reduction in cases of certain illnesses like bacterial meningitis which could have entered the system at earlier stages. The administrative reorganization which is taking place in some countries, as well as the decentralization process that is taking place throughout the Region, may also be contributing factors, especially in light of the inadequate definition of supervisory roles assigned to the various levels participating in the process.

All of the countries in the Andean Region have shown improvements in the collection of samples from five contacts, reaching levels above 55% of cases with samples from five contacts in Ecuador, Peru, and Venezuela. Bolivia (31%) and Colombia (21%) still need to increase efforts to improve this indicator. Only 33% of the cases from Central America and Mexico have at least five adequate samples from contacts, with important fluctuations in the various countries.

The most troubling problem with the surveillance indicators has to do with the slow progress made regarding the taking of two adequate stool samples from cases within two weeks of the start of the paralysis. In Central America, there are still about 50% of the cases reported that do not comply with this standard. Bolivia, Ecuador, and Peru have made progress, with over 65% of the cases complying, but Colombia and Venezuela are still below 50%. This weakness is of special concern in Colombia and Peru, given the wild poliovirus findings in these countries. Since eradication certification will require documented evidence that two adequate samples were taken within the first 15 days of onset and appropriately transported to the reference laboratories, no country is exempted from improving this indicator.

**Mop-Up Operations**

The strategy of using house-to-house mop-up operations to reinforce cholera control activities was discussed. A decision was made to expand the use of mop-up operations as was done in Colombia (see *EPI Newsletter*, Vol. XIII, No 4, August 1991), Guatemala, and El Salvador, by conducting house-to-house visits in the areas at highest risk for cholera and with lowest vaccination coverages. These visits would be used to immunize children and women of childbearing age, look for cases of flaccid paralysis, neonatal tetanus and acute diarrhea in adults and adolescents, and provide the health education needed to adequately implement cholera prevention measures.

Colombia reacted powerfully to the latest wild poliovirus isolations, visiting every house in 199 counties of the Atlantic and Pacific coasts, vaccinating almost one million children under five years of age in the first round. Partial data for the second round are presented on page 1.

Mop-up operations were carried out in 83 districts in Peru, with a total of 429,612 children under five immunized during the first round. Joint cholera activities were carried out in 40 districts which included the distribution of oral rehydration salts as well as wide promotion of preventive measures.

Practically the same number of doses administered during the mop-up operations conducted in all of 1990, were administered in the first half of 1991 in Venezuela.

**Stool Surveys**

In a stool survey conducted in Peru, 579 samples were collected from 15 districts, from which six wild P1 isolates were obtained in addition to 32 non-polio enteroviruses, 28 vaccine-related polioviruses, and 163 negatives (350 samples are still pending final results).

In Venezuela, stool surveys were conducted among children in five districts. Results of 15 samples are still pending, but so far two polioviruses, seven mixed polio types, and 25 nonpolio enteroviruses have been isolated.

In Cartagena, Colombia, both sewage and stool sample surveys have been conducted in order to compare poliovirus detection methodologies (see *EPI Newsletter*, Vol XIII, No 4, August 1991). Results are still preliminary since sample analysis is still pending completion both at the regional labs and CDC.

**Neonatal Tetanus Elimination**

So far this year, 97 neonatal tetanus cases have been identified in the countries which attended the Central American Meeting. Haiti still does not have an information system for this disease and lacks effective immunization strategies for tetanus toxoid. Although its surveillance system depends mostly on the review of death records, Guatemala has developed broad control measures for neonatal tetanus. Sixty-six cases were studied in Mexico and aggressive control measures were implemented in the 97 counties at high risk for the disease. Investigations have revealed that three of the seven cases which occurred in 1991 in Honduras were born from mothers who had received prenatal care, one was even born at a health facility. In El Salvador a case which deserves further investigation was reported in a child whose mother had received three doses of tetanus toxoid. In general, all the Andean countries have increased epidemiological surveillance. During the first half of 1991, a total of 275 cases had been reported, with 236 investigated.

Recommendations were made to the effect that all countries should continue to investigate cases, concentrate vaccination activities on women of childbearing age who live in high-risk areas, and that missed vaccination opportun-
ties should continue to be reduced by using every contact that these women have with the health services as a chance to administer tetanus toxoid. An agreement was made to evaluate all cases occurring in children of vaccinated mothers as well as to continue active surveillance for cases. The implementation of additional information systems in order to ensure an adequate diagnosis of the epidemiological situation in each country, was also recommended. Some innovative approaches and experiences are reported below:

Ecuador has been using mothers' visits to the birth registry to evaluate vaccinations coverage and complete vaccination schedules. The plan is to implement this activity, so far carried out only in Los Ríos on a trial basis, on a national scale.

Bolivia demonstrated the importance of involving traditional birth attendants in vaccination and epidemiological surveillance activities. A total of 250 birth attendants have been trained so far in Santa Cruz de la Sierra and plans are being made to repeat this experience in all risk areas. The great improvements made by Bolivia were noted.

Control activities have not increased in Colombia due to both the cholera epidemic and the wild poliovirus circulation fact identified this year. Nevertheless, work continues in the high-risk areas and over 600,000 women of childbearing age were immunized during the national campaigns.

Peru has undertaken more aggressive control measures than in previous years, adding tetanus toxoid to the vaccines administered in the two national vaccination campaigns held in 1991.

House-to-house vaccinations have been conducted in the entire Indian area of the state of Zulia, in Venezuela. This caused a 50% reduction in the cases reported during the first 38 weeks of 1991 when compared to 1990.

There was consensus that all countries should develop national Plans of Action for neonatal tetanus control by the end of November 1991.

Measles Control
The increase in coverage with measles vaccine has produced a dramatic decrease in the incidence of the disease. Because a high proportion of the counties still have coverages below 80%, epidemics are still observed at four-year intervals. The data presented at meetings such as these has improved greatly, showing that the most affected age group is that of children under five years of age and that the vaccine being used is efficacious.

The plans to eliminate measles from Mexico by 1995 and Brazil by March 1992 were presented. The countries are urged to increase efforts to reach and maintain coverages above 90%, especially in those countries that presently have low coverages. Control of this disease will eventually require a joint continental effort and the experiences of the countries of the English-Speaking Caribbean, Cuba, and Brazil will help to illustrate the strategies which will need to be followed.

Local Health Systems
Vaccination data allow for the evaluation of several indicators of the efficiency of the local health systems. Coverage with the first DPT dose gives an indication of accessibility to the health services. Drop-out rates can be used to measure the efficacy of various interventions used to reduce missed vaccination opportunities. The proportion of DPT1 doses applied before reaching two months of age or the proportion of measles vaccine applied before nine months of age, is an indicator of the health personnel's compliance with vaccination schedules. These indicators should be analyzed by the local health systems and corrective measures should be implemented when appropriate.

Adverse Effects of Vaccination
There are three kinds of vaccine adverse effects; those induced by the vaccine, those that have a programmatic cause, and those which are commonly confused with coinciding events.

The events which result from the vaccine are of very low frequency and must always be compared and put in perspective with the effects of the disease which is being prevented. The events which result from programmatic failure, generally, are due to mistakes in the preparation and administration of the vaccine, and should take priority since they are fully preventable and do not represent contraindications for future vaccine administration. Some events are only temporally associated with the vaccination and are very difficult to differentiate from the others since the age group which is targeted for vaccine administration is highly susceptible to congenital or neurological infections which may not be manifested at the time of vaccination. Mexico presented a system which has been in place since 1988 and has permitted monitoring of adverse events, as well as research into the identified causes and their correction.

The countries should develop a system to monitor adverse events which would begin with informing health workers and the community at-large about these occurrences.

Pertussis
With the increases in DPT coverage, over the past ten years, whooping cough or pertussis incidence has experienced a ten-fold decrease in the Central American Region and a five-fold one in the Andean Region. In the course of the last four years, the morbidity rate for the Andean Region has stabilized in under 10 cases per 100,000 population and does not appear to present epidemic peaks. The same program impact can be observed in the mortality data.

The reports presented by Costa Rica, Honduras, and Mexico show that the case definition should be standardized, basic data about the disease need to be collected (such as age of cases, vaccination schedule, complications, etc.), and clinical diagnoses should be confirmed by the laboratory in order to avoid the inclusion of false cases and to achieve a better understanding of the epidemiological behavior of the disease.

Rotary International's Participation
Once again, the countries acknowledge the great level of commitment which Rotary International has shown to the program through the active participation of Rotary Club members in all countries of the Region, of the institution in the Interagency Coordination Committee, and the valuable support of EPI objectives provided through community organization.
# Reported Cases of EPI Diseases

Number of reported cases of measles, poliomyelitis, tetanus, diphtheria, and whooping cough, from 1 January 1991 to date of last report, and for same epidemiological period in 1990, by country.

<table>
<thead>
<tr>
<th>Subregion and country</th>
<th>Date of last Report</th>
<th>Measles</th>
<th>Poliomyelitis</th>
<th>Tetanus</th>
<th>Diphtheria</th>
<th>Whooping Cough</th>
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</thead>
<tbody>
<tr>
<td>LATIN AMERICA</td>
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Data for polio includes only confirmed cases through week 43 (ending 26 October, 1991).

Data not available.
The XXXV Meeting of the PAHO Directing Council,
Having considered and examined the progress report
presented by the Director (Document CD35/15 and ADDs,
I and II) on the implementation of the Expanded Program
on Immunization and the Plan of Action for the Eradica-
tion of Indigenous Transmission of Wild Poliovirus from
the Americas;
Noting with satisfaction that: immunization coverage
levels for children under one year of age have achieved at
least 75% for each of the vaccines included in the program
(DPT, polio, measles, and BCG), the highest level ever
achieved in the Americas; transmission of wild poliovirus
has been virtually interrupted in the Hemisphere, with only
seventeen cases reported in 1990 and only two during the
first six months of 1991; and considerable progress has been
made in regard to strategies to control or eliminate neo-
natal tetanus and measles;
Recognizing that considerable efforts will be needed to:
achieve final eradication of indigenous transmission of wild
poliovirus in the few remaining foci; maintain and increase
the overall immunization coverage levels; control or elim-
inate neonatal tetanus and measles; and include new vac-
cines in the national immunization programs; and
Concerned that the global shortage of EPI vaccines,
particularly measles and polio, could jeopardize the efforts
of countries in maintaining the immunization coverage
already achieved and the control of the EPI diseases,
Resolves:
To congratulate all Member Governments and their
health workers on the progress achieved so far, which
shows their high level of commitment to the health of
the children of this Hemisphere.
To express appreciation and request continued support
from the various agencies (AID, UNICEF, IDB, Rotary
International, and the Canadian Public Health Associa-
tion) which, together with PAHO, have given strong sup-
port to the national immunization programs and efforts to
eradicate poliomyelitis.
To commend the Organization for its enthusiastic, out-
standing support of the Member Governments' efforts to
implement their national immunization programs and eradi-
cate poliomyelitis.
To urge Member Governments to adopt the "Priorities
for Action" described in Chapter II of the Progress Report
(Document CD35/15), to ensure that:

Immunization coverage is monitored by "municipios"
and that missed opportunities for vaccination are elim-
ninated;
All vaccines used in the program conform to the mini-
imum requirements of PAHO/WHO;
Weekly negative reports are transmitted in a timely
manner from all health facilities included in the surveil-
ance system and that the PAHO reward of $100.00 for any
person reporting the first confirmed polio case of an out-
break is widely publicized by all countries;
"Mop-up" operations are properly implemented, with
two rounds of house-to-house vaccination, one month
apart, in which all children under five years of age living in
a wide area, usually encompassing several districts, receive
one dose OPV in each round, regardless of their previous
vaccination status;
The surveillance system records separately neonatal and
post-neonatal tetanus cases, and that vaccination programs
are implemented in those districts already identified as at
risk;
Human and financial resources are assigned to the pro-
gram in the national health budgets and in the 1991-1996
national EPI Work Plans.
To request the Director to:
Apply all the needed measures to ensure the final inter-
ruption of transmission of wild poliovirus in the Western
Hemisphere;
Evaluate the strategies for measles control/elimination
being used in Cuba and the English-Speaking Caribbean
and the feasibility of their implementation in the rest of the
Western Hemisphere;
Monitor the activities for neonatal tetanus control in
those areas identified as at risk and support the expansion
of surveillance to verify the degree of impact;
Continue aggressive efforts to mobilize the needed ad-
ditional resources to meet the challenges described in the
Progress Report;
To take the necessary actions to address the issue of
vaccine shortage, with the aim of achieving regional self-
sufficiency in all matters of vaccine production and quality
control;
Report on the progress of the program to the thirty-sixth