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## **Eighth Meeting of Caribbean EPI Managers**

### **FINAL REPORT**

**Montego Bay, Jamaica  
11 to 15 November, 1991**

*Expanded Program on Immunization  
Maternal and Child Health Program  
Pan American Health Organization*

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## **I. INTRODUCTION**

*The Eighth Meeting of Caribbean EPI Managers was held in Montego Bay from 11-15 November, 1991. Participants were welcomed by Mr. Sam Aymer, PAHO Country Representative in Jamaica and inaugurated by Dr. Halmond Dyer, the PAHO Caribbean Program Coordinator and by representatives of other collaborating agencies. Dr. Peter Figueroa Director of Epidemiology of the Ministry of Health of Jamaica and Member of the PAHO EPI Technical Advisory Group (TAG), represented the Hon. Easton Douglas, Minister of Health of Jamaica, and officially opened the Meeting and acted as Chairperson and Ms. Frederika Sands, EPI Program Manager in the Bahamas served as Vice-Chairperson. The co-Rapporteurs were Dr. Debra Louisy-Charles, EPI Manager, Saint Lucia and Dr. James Hospedales, Epidemiologist at the PAHO's CAREC. Mr. Henry Smith, the PAHO/EPI Caribbean Immunization Officer served as Secretary.*

*The Meeting was attended by 90 participants from 18 countries of the English-speaking Caribbean, plus Curaçao, St. Marteen, the French Antilles and Suriname, technical and administrative personnel from the Pan American Health Organization (PAHO) and its Caribbean Epidemiology Center (CAREC), and representatives of the major agencies that are supporting the program in this Region, such as the United States Agency for International Development (USAID), the United Nations International Children's Fund (UNICEF), Rotary Foundation, Rotary in Canada, and the Canadian Public Health Association (CPHA). A number of Non-Governmental Organizations (NGO's) were also present, as were, for the first time, representatives of the Commonwealth Secretariat, the Italian and French Cooperation in Health.*

## **II. OBJECTIVES OF THE MEETING**

*The three main objectives of the meeting were to review the Progress of EPI in the countries of the English-speaking Caribbean, to have them prepare National Work Plans for 1992, and to explore all venues for further collaboration between the Ministries of Health and the NGO's to strengthen EPI and ensure achievement of the goals of measles elimination and polio eradication.*

*This was the first time that the various donor agencies and the NGO's were able to discuss with the EPI Managers, the ways in which they can cooperate with the program in their respective countries. This collaboration of public and private sector is considered essential for the full realization of the goals of the program and resulted from the joint initiative of the Commonwealth Secretariat, CPHA and PAHO.*

## **III. CONCLUSIONS AND RECOMMENDATIONS**

*Following is a summary of the major conclusions and recommendations which resulted from the discussions held.*

### **A. Immunization Coverage**

*Immunization coverage rates for all EPI antigens amongst the 19 countries of the English-speaking Caribbean and Suriname were either maintained or improved in 1990.*

*For the coming years, countries should be classified according to levels of coverage between 50-80%, between 80-90% and above 90%.*

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### **A. Immunization Coverage**

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- For the coming years, countries should be classified according to levels of coverage between 50-80%, between 80-90% and above 90%.*

- *Pockets of unvaccinated children should now be identified for special mop-up operations and activities to prevent the build-up of large numbers of susceptibles.*
- *The countries that still have coverage below 90% should intensify activities to reach that target.*

## **B. Measles Elimination**

*With the exception of Bermuda, all countries of the English-speaking Caribbean and Suriname mobilized their manpower and material resources with the assistance of donor agencies such as CPHA, UNICEF, Rotary International, USAID and PAHO to carry out a Measles Elimination Month in May, during which they simultaneously achieved the highest immunization coverage against measles ever recorded in the history of the entire area: a regional average of 91.4% among the large cohort of children 9 months to 15 years of age. Over 1.5 million children were immunized during this campaign, and the elimination of indigenous measles by the end of 1995 appears to be an achievable objective. The mass campaign was also intended to boost measles coverage and interrupt transmission of the virus. It is clear that the social mobilization activities carried out, helped to educate and win the participation of the people of the Caribbean. "Mop-up" vaccinations are taking place in hard-to-reach areas in many countries, and overall measles coverage levels are now well above the 91.4% figure. It is very likely that measles transmission may have been interrupted in a number of countries, although only improved surveillance will allow for verification.*

- *Fever with rash occurring 5-15 days after measles vaccination should be regarded as an adverse event and should not be counted as a measles case or be considered for collection of blood specimens for diagnosis. These cases should be recorded in a register for adverse events following vaccinations, whenever such registries exist.*
- *The standardized case definition should be understood and used by all health workers and institutions. It was stressed that countries may wish to monitor rash and fever illnesses by a simple tally or a brief line-listing, but efforts should be focused only on those cases which actually meet the case definition for a suspect measles case: rash and fever illness with at least one of the following symptoms - coryza, cough or conjunctivitis. These cases should then be entered into the system, given an identification number and have an investigation form completed.*
- *It will be necessary to increase the number of reporting sites throughout the subregion, with the inclusion of private practitioners and pediatricians who are the most likely health care providers to see imported cases.*
- *The timeliness of weekly reporting needs to be improved.*
- *Aggressive mop-up vaccination should be initiated as soon as a suspected measles case is detected. For the present it is expected that the suspected cases most likely to be confirmed are those in unvaccinated children under 15 years of age or those in young adults. It is therefore critical that aggressive outbreak control be undertaken particularly when such cases are detected.*
- *There is a need to strongly encourage the complete collection of information on case investigation forms and laboratory report forms. The availability of detailed information on each case will allow a better understanding of the disease and direct the adequate measures, both to adjust the surveillance system and to implement control measures.*
- *Social mobilization needs to continue to maintain public interest and vigilance.*

*The goal for measles vaccination should be 100% of the children under two years of age. Given the new epidemiological situation, consideration could be given to start vaccination at 12 months of age, in order to increase vaccine efficacy.*

### **C. Polioyelitis Eradication**

*The last poliomyelitis cases detected in the sub-region were in Jamaica, in 1982. Since that time, no cases have been confirmed. However, only recently, surveillance for acute flaccid paralysis has been initiated in most countries. Fourteen probable cases were reported during 1991, most of them had a complete vaccination history and so far none have been confirmed as poliomyelitis.*

*However, some of the indicators needed for certification are still unsatisfactory:*

- 1. The rate of AFP in children under 15 years of age is still below the expected of at least one per 100,000. For 1991, the projected rate is around 0.5/100,000, but it is apparent that some countries are not reporting promptly all cases of AFP.*
- 2. Only a few of the reported cases of AFP have had two stools specimens collected within 15 days of onset and it is rare that contacts of such cases have stool specimens collected.*

*It is of paramount importance that all cases of AFP detected in any country be immediately reported to CAREC so that the real incidence can be determined and that two stool specimens be collected promptly and sent to CAREC for examination, so that the countries of this region be certified as free of polio. There is a need to focus on hospitals and pediatricians to strengthen the reporting of AFP and hospital infection control nurses should be incorporated into the national surveillance system.*

### **D. Rubella and Congenital Rubella Syndrome**

*The primary reason for rubella immunization is the prevention of congenital rubella syndrome (CRS). Cost-benefit analysis shows that the benefits gained from prevention of CRS far outweigh costs of immunization.*

*If rubella circulation is reduced by vaccination of young children, rather than interrupted, then the age distribution of cases is shifted to older persons, some of whom will be pregnant women.*

*Studies throughout the world have revealed different levels of susceptibility of pregnant women, who are the highest risk group. In island communities, levels of susceptibility are often higher and epidemics of rubella less frequent. Every study reveals some level of susceptibility, and even when susceptibility is extremely low, e.g. 1 - 2% in England, cases of CRS occur. CRS is preventable through immunization and there are three different approaches that can be used, namely :*

- 1. universal immunization of young children, often at the same time as measles immunization, in order to interrupt transmission of rubella. Any susceptible pregnant women are therefore protected through prevention of exposure.*
- 2. selective immunization of high risk groups. Here girls are immunized around the age of puberty, and vaccine is offered to any susceptible adult women, or given post-partum to those found to be susceptible on screening in pregnancy. This strategy depends on providing individual protection. It may be wasteful of vaccine as many of those immunized are already immune, but less costly as only half the annual birth cohort are immunized.*

3. *combination of the above two strategies. Although the most expensive, this approach provides the most rapid and effective control of rubella and prevention of CRS, through interruption of transmission and protection of high risk groups.*

*Many Caribbean countries are using MMR or MR vaccine for the last few years, not necessarily with a long term defined strategy for rubella and CRS control. Concern was expressed that at present, outbreaks of the disease are now being experienced by several Caribbean Countries, all confirmed by lab tests. An MMR seroconversion study was conducted in St. Lucia in 1991. The study was a collaboration the St. Lucia Ministry of Health, CAREC and the Centers for Disease Control of the USA, with support from PAHO/EPI. The study evaluated maternal antibody levels in infants aged 6 to 15 months and seroconversion among infants vaccinated at 9 to 15 months. Preliminary seroconversion results for 140 children indicated an overall seroconversion of 91%, 87% and 94% for measles, mumps, and rubella respectively. Seroconversion from 9 to 12 months of age ranged from 89% to 100% for measles, 85% to 95% for mumps, and 93% to 100% for rubella. This study replicates findings from other parts of the world and suggests that an additional 10% seroconversion may be accomplished by shifting immunization from 9 to 12 months.*

- *Countries considering introducing rubella vaccines, should ensure that the risks outline above are recognized and avoided.*
- *It is therefore of priority to assess the likelihood of achieving and maintaining high immunization coverage and to identify the prospects for CRS surveillance, before embarking in a national rubella vaccination program.*
- *Furthermore, it is essential to select the appropriate strategy and identify the financial implications of such a long term control program.*
- *PAHO and CAREC should coordinate and support an in-depth review of the rubella vaccine utilization in the Caribbean countries over the last few years and present epidemiological situation of rubella and CRS, in order that strategies for its control can be properly made by every country.*

#### **E. Information and Surveillance Systems**

*The second phase of measles elimination, intensive epidemiologic surveillance, was initiated by several countries from September, 1991 on. To date, all 19 countries are involved in weekly reporting. There are currently 350 reporting sites across the subregion and over 90% of these are reporting weekly to CAREC. As of the week ending Nov. 2nd, CAREC had received reports of 385 suspected cases, of which 282 have been confirmed, 51 discarded, and 52 are pending. Of the 282 confirmed cases (nearly all from Jamaica, in which the measles cases peaked in May, 1991. It is possible that many of these could have been post-vaccination and some rubella) 280 were confirmed on the basis of loss to follow-up. Only 2 of Jamaica's 280 cases were confirmed serologically. Ten countries have reported no suspected or confirmed cases for the last two months. The last confirmed case in the subregion was a suspected case in a traveller to Trinidad who was subsequently lost to follow-up.*

*Weekly reporting of suspected cases is now well underway throughout the subregion with over 90% of sites reporting on a weekly basis. However, more detailed information (vaccination history, clinical history, and date of onset of rash and of fever) on lab and case investigation forms is necessary for improved functioning of the system.*

*A new computer program developed by PAHO was installed in CAREC. This program is principally aimed at tracking all suspected measles cases and providing related analysis of critical data from the case investigation form. Initial data analysis of reported cases has indicated that not all critical data are reaching CAREC. The need for standardized data, from all member countries was stressed and therefore, changes that*

eventually could be made in the investigation form should comply with the minimum data necessary for comparison among the countries.

CAREC will be increasing epidemiology training in the 1992/93 period, including the use of computers in disease surveillance and control. For the Eastern Caribbean, training will be done jointly with the PAHO/CPC office in Barbados.

The Measles Elimination Field Guide was reviewed by the participants and, in general, it was considered a useful reference document that needs to be adapted to each country and field situation.

It was noted that a Weekly Surveillance Measles Bulletin is now published by CAREC, reporting dynamically the situation in each country. This feed back is critical to maintain the awareness of everyone involved with the program.

*The goals regarding computerization and Measles Surveillance Software were presented. The long-term goal is to ensure that each country has computer capability, both for epidemiology analysis and for EPI management purposes. However, manual recording and analysis should not be hampered if a computer is not available or becomes inoperable. Computerization is not an overnight occurrence and that even with the procurement of equipment and software, there is a necessity to maintain a back-up system by hand. Both proper training and technical support were considered to be key elements required before widespread use.*

#### **F. Laboratory Support**

*Between January and October 1991, CAREC received 188 serum specimens from 11 member countries which included Anguilla, Bahamas, Barbados, British Virgin Islands, Grenada, Guyana, Montserrat, St Kitts and Nevis, St Vincent, Suriname and Trinidad. During September - October 1991, soon after the initiation of weekly reporting of suspected measles cases from week 36 of 1991, 63 specimens were received, this was 33% of total samples received during the year. All specimens were tested for Measles, for Rubella using ELISA Test and for Dengue using HAI. Only 43 specimens could have confirmatory laboratory diagnosis; there were 40 confirmed cases of Rubella, 3 of Dengue and none of Measles. Only 62 samples were received paired, while the remaining 126 were single samples. 65% of Rubella and all Dengue cases were confirmed through testing both acute and convalescent sera.*

*There are logistical problems in the collection of convalescent specimens following 2-3 week interval after the case first comes in contact with a health worker. Some countries have collected the second sample by home visiting. In many instances mothers have been very reluctant to allow blood withdrawal when the child has recovered from the illness.*

*The quality of shipments received so far was quite satisfactory. However some countries do not have formal means for shipping their specimens on a regular basis to CAREC.*

*Those countries which are on the route of BWIA and LIAT should have a facility to avail courtesy shipments through these airlines. Those countries which are not on BWIA's route will have to ship their specimens through Miami's port health authorities. Member countries participating in the surveillance system will need explicit guidelines on this matter.*

*Countries should also consider training the health workers in the techniques of venous blood collection and ensure availability of specimen collection kit for shipment to the laboratory.*



*Systems for improved shipment of specimens to CAREC need to be developed and further refined.*

#### **G. Social Mobilization and Communication**

*The Caribbean already has a reputation for innovation in EPI. At this meeting, for the first time, the program managers were joined by representatives of leading NGOs from Belize, Guyana, Jamaica and Trinidad. The participation of NGOs was made possible through collaboration of the Commonwealth Secretariat, the Canadian Public Health Association, and PAHO.*

*The NGO representatives attended all sessions, including the work groups when the managers reviewed and revised their national plans. This involvement provided an invaluable opportunity for the NGOs to take part in the planning process, and to identify areas where the managers anticipated problems and the NGOs could assist with solutions. This NGOs/EPI managers collaboration has been so successful that PAHO intends to expand the NGO involvement at meetings of Latin American program managers, recognizing the recommendations that there must be increasing cooperation between NGOs and Governments.*

*As noted in the final report of the 7th Caribbean Meeting of EPI Managers held in November 1990, it was imperative that Measles Elimination Month May 1991 count on well organized social mobilization and communication plans. To address this issue every country produced local materials ranging from TV/radio spots to call in programs to inform and educate their public on measles. PAHO's regional efforts, with support from AID and CPHA also complemented country efforts to raise the awareness of the need for measles immunization. An evaluation of the promotional component of the English-speaking Caribbean Measles Elimination Campaign was conducted in five selected countries - Barbados, Belize, Jamaica, St. Lucia and Trinidad. Interviews were carried out with Ministry of Health (MOH) policy makers, chief health educators, radio and TV program producers, and persons involved in the production and distribution of regional promotional materials in all five countries. Focus group discussions were held: two groups of mothers and teenagers and one group of health workers - the primary target groups of the campaign - in Barbados, St. Lucia and Trinidad.*

*Interviews with mothers and teenagers revealed that they are aware of the dangers of measles and the importance of immunization. This plus the high measles vaccine coverage rates achieved during the month of May leads to the conclusion that the promotional campaign was successful in the majority of the countries visited. The regional approach to health promotion resonates with the prevailing unity movement in the Caribbean. It was the view of the respondents that the regional materials complimented those produced locally.*

*The promotional problems identified during the evaluation were mainly related to process and coordination:*

- Sufficient time was not available (8 to 12 months) to develop, pretest and distribute the PAHO regional materials. Some materials did not have the broad appeal desired - Make Measles History Poster and the Question and Answer Pamphlet;*
- Ministry of Health staff and teenagers expressed the desire to be involved in the research and creative aspects of developing materials. Requests were made for additional promotional materials that target men and address the issue of revaccination and side effects.*
- The exposure of some target groups (especially teenagers) to messages may not have been maximized because of the shortage of time to distribute materials.*
- A monitoring system to track the broadcasting of regional and national materials was not established.*
- It was also the impression of the investigators that promotional activities in all countries visited have either been suspended or they are at an insignificant level.*

The following are actions to be taken:

- *It was agreed by the NGOs and the managers that there should be a continuous dialogue between Governments and NGOs. This could be best facilitated by setting up InterAgency Coordinating Committees (ICCs) or other coordinating mechanisms appropriate to any given country. The NGOs recommended that there should be agreed Plans of Action that identified the tasks and targets for NGOs and Governments, including the NGO responsibilities. Whenever possible, the basis for collaboration between NGOs and Governments should be the National plans.*
- *The sustainability of the achievements of EPI will depend in part on the involvement of NGOs as lobbyists for EPI at the highest political levels. Equally, NGO involvement in community mobilization may be crucial in providing extra resources, both human and financial, to ensure EPI's success.*
- *All countries must continue to prepare and produce health education materials in order to maintain the awareness of the danger of measles and the goal of elimination.*
- *PAHO should also from time to time produce regional materials TV/Radio spots for Caribbean in order to maintain the momentum and mobilize the political will.*

#### **H. National Work Plans**

*All countries have produced a National Work Plan for 1992. These Plans were discussed during the Working Group Sessions, in which there was the participation from all the collaborating agencies and NGOs. The Plans cover several program components such as: biologicals and logistics, cold chain, training, supervision, surveillance, research, social communication, evaluation and operational costs. These Plans outline all the major activities that need to be implemented to address the issues identified in each component and the responsible MOH officer to carry them out. It also identifies the cost of each activity and the source of funding, both national or external, that eventually should be negotiated with the collaborating agencies.*

*The total cost of the 1992 program for all the 19 countries that produced the Plans is in the order of US\$10 million, 84%, or US\$8.4 million, financed by the countries themselves and 16%, or US\$1.6 million which will have to be financed from outside sources. Tentatively, and if agreement is reached between countries and the collaborating agencies, the external funds would be approximately US\$1.6 million with the following distribution:*

<i>PAHO Regular Funds</i>	<i>US\$230.0</i>
<i>USAID Grant</i>	<i>300.0</i>
<i>CPHA Grant</i>	<i>180.0</i>
<i>UNICEF</i>	<i>680.0</i>
<i>OTHER</i>	<i>190.0</i>
<b><i>TOTAL</i></b>	<b><i>1,580.0</i></b>

*The distribution of the funds from the external agencies would be directed proportionally to the following components of the Plans:*

<i>Biologicals/Logistics</i>	<i>8.6%</i>
<i>Cold Chain</i>	<i>23.9</i>
<i>Training</i>	<i>14.1</i>
<i>Social Mobilization</i>	<i>20.4</i>
<i>Operating Costs</i>	<i>16.4</i>
<i>Supervision</i>	<i>1.8</i>
<i>Surveillance</i>	<i>6.7</i>
<i>Research</i>	<i>3.6</i>
<i>Evaluation</i>	<i>4.5</i>

#### *I. Future Meeting Plans*

*The next (Ninth) Meeting of the Caribbean EPI Managers should take place in November, 1992, in Guadeloupe.*