

# A.I.D. EVALUATION SUMMARY PART I

(BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS)

1516

IDENTIFICATION DATA

**A. REPORTING A.I.D. UNIT:**  
USAID/EQUADOR  
 (Mission or AID/W Office)

**B. WAS EVALUATION SCHEDULED IN CURRENT FY ANNUAL EVALUATION PLAN?**  
 yes  slipped  ad hoc

**C. EVALUATION TIMING**  
 Interim  final  ex post  other

**D. ACTIVITY OR ACTIVITIES EVALUATED** (Use the following information for project(s) or program(s) evaluated; If not applicable, list title and date of the evaluation report)

Eval. Plan Submission Date: FY 88  4

Project #	Project/Program Title (or title & date of evaluation report)	First PFOAG of equivalent (FY)	Most recent PACD (mo/yr)	Planned LOP Cost (000)	Amount Obligated to Date (000)
518-0015	Integrated Rural Health Delivery System (PREMI) (Amendment No. 8)	1985	12/89	4.96	4.96

ACTIONS

**E. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR**

Action(s) Required	Name of officer responsible for Action	Date Action to be Completed
I. For recommendations Nos. 1,2,3,4,5,6,8,12,15 and 17 on pages 4 and 5 of this report, actions have been taken, to be included under the new project. For recommendations Nos. 9,10 and 11, actions also have already been taken.		
II. Activities under the current Child Survival (CS) project had already been programmed including an assessment of the MOH's ability to lead implementation. (In process of approval).		
III. Develop a comprehensive Health Management Information System (HMIS) with a team of professionals.	MOH and TA	ongoing process and in the new project (0071)
IV. Restructure the PREMI/AID Coordination Unit as a means to deal with changes in the MOH under the new administration.	AID / FHD	ongoing process
V. Assist the current and new projects with technical support, with the MOH or other institution as leaders in implementation.	AID / FHD	until the end of the project
VI. Support a national survey of mortality and KAP. This final survey will be used to measure the project impact.	MOH / AID / CEPAR	May/89 - March/9
VII. Reorganize and analyze data from the KAP studies as a basis to design the final survey of project impact.	AID / FHD and TA	January to May/8
VIII. Carry out a final evaluation to measure project's impact.	AID	October to Dec/8

(Attach extra sheet if necessary)

APPROVALS

**F. DATE OF MISSION OR AID/W OFFICE REVIEW OF EVALUATION:** mo 2 day 15 yr 89

**G. APPROVALS OF EVALUATION SUMMARY AND ACTION DECISIONS:**

Project/Program Officer Signature: <i>Katherine Jones-Patron</i> Typed Name: Katherine Jones-Patron Date: <u>March 3, 1989</u>	Representative of Borrower/Grantee Signature: <i>Magdalena Vannoni</i> Typed Name: Magdalena Vannoni Date: <u>[Signature]</u>	Evaluation Officer Signature: <i>Sandra Egües</i> Typed Name: Sandra Egües Date: <u>28/2/89</u>	Mission or AID/W Office Director Signature: <i>Frank Almaguer</i> Typed Name: Frank Almaguer Date: <u>[Signature]</u>
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Clearances: SSmith \_\_\_\_\_ . PMaldonado lp/sep . WGoldman Wka . MRivadeneira [Signature] 3/6/89

## H. EVALUATION ABSTRACT (do not exceed the space provided)

The goal of -The Infant and Child Mortality and Morbidity Reduction Program- PREMI is to reduce mortality and morbidity, especially in the rural areas, and among children under five years of age. The project includes support to expand and promote oral rehydration therapy (ORT) and to expand immunization programs (EIP), breast-feeding, and nutrition/growth monitoring. The mid-term evaluation carried out by a team of 5 people, focused on an in-depth analysis of the project's field operation system and management structure and was oriented to recommending modifications in the project implementation arrangements until the end of the project's life. The methodology consisted of gathering relevant program documentation, interviewing project participants, reviewing studies and analyses of existing results from surveys completed during the project period.

Findings and Conclusions:

- \* The goal of vaccinating 80% of all children under 1 during 1985-1988 and the objective of immunizing of all pregnant women in high risk areas with tetanus toxoid have not been met. The target of immunization of 100% children between 1 and 4 has not been reached, though the coverage has somewhat improved.
- \* The goal of PREMI's facilitation for training of MOH personnel has been met quantitatively, but further analysis of the quality effects is needed.
- \* Most of the Technical Assistance (TA) received by PREMI lacked coordination and an appropriate counterpart.
- \* PREMI/AID coordination unit was critical for managing this project and for coordinating the large number of implementing institutions and other donors. The unit was important in implementing the early phases of the project, but now its original role has almost disappeared and its functional purpose is not clear. The unit must be redesigned because of the changes in the MOH under the new administration.
- \* Due to lack of unity and continuity of effort, none of the major health information activities were completed.
- \* The evaluation team during the review of the design process identified the following weaknesses: 1) lack of country-specific strategy for reduction of infant and child mortality, 2) lack of targeting of limited resources, 3) inadequate lead time for new project development and 4) lack of well defined appropriate management and administrative procedures in the project amendment.

Recommendations:

- \* Give priority to the immunization of children under 1 with a target of 80% coverage with DPT, polio and measles vaccine. Enforce the requirement of ECG vaccination for child registration maintaining the coverage rates of previous years. Maintain a 20% coverage target for DPT, polio, and measles for children from 1 to 4 to achieve cumulative coverage of 80% in this age group.
- \* The programming of PREMI activities regarding nutrition/growth monitoring and breast-feeding should consider the design of an overall strategy which includes: a) appropriate child feeding practices, b) promotion of breast-feeding and appropriate weaning practices, c) training to health workers in growth monitoring and infant and child nutrition, and d) education of the mother in infant and child nutrition and in the use of the health card.
- \* National campaigns for expanding services and increasing coverage rates must be tightly tied to the goal strengthening permanent institutions in order to improve the quality of the CS services provided.
- \* TA should assist the counterpart with technical support, and the MOH or any other national institution, must lead the implementation.

## I. EVALUATION COSTS

1. Evaluation Team Name	Affiliation	Contract Number CR TDY Person-Days	Contract Cost QR TDY Cost (US\$)	Source of Funds
Jaime Benavente	PSE	DPE-5969-2-00-7064-00	US\$37,917.85	PD and S
Magdalena Vanoni				
Roberto Calderon	Pritech Project Management Sciences for Health			
Marco Encalada				
James Eckroad				

2. Mission/Office Professional 4 people  
Staff Person-Days (estimate) 7 days full time on average

3. Borrower/Grantee Professional 1 person  
Staff Person-Days (estimate) 1.5 months/full time

# A.I.D. EVALUATION SUMMARY PART II

## J. SUMMARY OF EVALUATION FINDINGS, CONCLUSIONS AND RECOMMENDATIONS (Try not to exceed the 3 pages provided)

Address the following items:

- Purpose of activity(ies) evaluated
- Purpose of evaluation and Methodology used
- Findings and conclusions (relate to questions)
- Principal recommendations
- Lessons learned

Mission or Office: USAID/Quito

Date this summary prepared: January 30, 1989

Title and Date of Full Evaluation Report:

MIDTERM EVALUATION OF THE CHILD SURVIVAL PROJECT (PREMI)  
IN ECUADOR July and August, 1988

### 1. Purpose of the Activity Evaluated:

The goal of -The Infant and Child Mortality and Morbidity Reduction Program- PREMI is to reduce mortality and morbidity, especially in the rural areas, and among children under five years of age. The project includes support to expand and promote oral rehydration therapy (ORT) and to expand immunization programs (EIP), breast-feeding, and nutrition/growth monitoring. The specific objectives are to increase coverage for immunization (DPT polio) of children, ages 0 to 1, from 48% to 80%; to increase tetanus coverage for pregnant women from 11% to 50%; and to increase ORT coverage from 21% to 85% in Ministry of Health (MOH) health facilities, and from 2% to 50% at the community level. These objectives are expected to be met by the end of the project, now scheduled for December 31, 1989.

### 2. Purpose of the Evaluation and Methodology Used:

The mid-term evaluation carried out by a team of 10 people, intended to focus on an in-depth analysis of the project's field operation system and management structure and was oriented to recommending modifications in the project implementation arrangements until the end of the project's life. The evaluation was designed to analyze the following issues: a) specific Child Survival (CS) strategy applied in Ecuador, b) the intervention's impact and achievements regarding morbidity and mortality, c) the improvement in the capacities of MOH and other institutions to design, implement and evaluate of CS interventions, d) the role of the social communication and social marketing component in the global implementation of PREMI and e) the improvements in training and supervision activities in the MOH and other institutions as a result of project activities. The methodology of the evaluation consisted of gathering relevant program documentation, interviewing project participants, reviewing studies and analyses of existing results from surveys completed during the project period.

### 3. Findings and Conclusions:

- 1 PREMI interventions have contributed to positive changes in infant mortality in Ecuador between 1985 and 1988. Although this contribution did not help to accelerate the on-going trend in infant mortality decline, it helped to maintain the trend in a period of severe economic difficulties for the population at risk.
- 2 PREMI played a positive role in illness prevention and mortality among children under 5, due to the efforts in expanding health services in immunization and effective use of ORT and to strong effort for increasing demand for those services by means of social communication.
- 3 The project was successful in helping to develop a national awareness about CS and the most effective ways to diminish the risk of infant and child morbidity and mortality.
- 4 The PREMI "Jornadas" were effective in bringing children to the health units for immunization but this effort did not reflect a significant increase in the immunization coverage.

- 5 The goal of vaccinating 80% of all children under 1 during 1985-1988 and the objective of immunizing of all pregnant women in high risk areas with tetanus toxoid have not been met. The target of immunization of 100% children between 1 and 4 has not been reached, though the coverage has improved substantially.
- 6 The goal of PREMI's facilitation for training of MOH personnel has been met quantitatively, but further analysis is needed of the quality effects.
- 7 Most of the Technical Assistance (TA) received by PREMI lacked coordination and an appropriate counterpart. Long term TA clearly lacked leadership and did not function as a team.
- 8 PREMI/AID coordination unit was critical for managing this project and for coordinating the large number implementing institutions and other donors. The unit was important in implementing the early phases of the project, but now its original role has almost disappeared and its functional purpose is not clear. The unit must be redesigned because of the changes in the MOH under the new administration.
- 9 Due to lack of unity and continuity of effort, none of the major health information activities were completed. There has not been a clear, approach to improving (CS) information systems.
- 10 The mass communication activities, social marketing model and social mobilization campaign designed by AID and implemented through INNFA, played an important role in the development of the PREMI project. Without it the project would not have met the positive results in child health and mortality. However, it is not certain that the concepts and skills promoted by the CS strategies have brought about permanent behavioral changes.
- 11 PREMI's initiatives have permitted Ecuador to increase the level of effort in reducing child mortality and despite some shortcomings, valuable experiences were gained with MOH involvement in PREMI.
- 12 One of the major shortcomings of the project is the lack of results in institution building, especially in the MOH, reflecting a major deficiency in the project design, and not necessarily ascribed to failures in the implementation of the project.
- 13 The evaluation team during the review of the design process identified the following weaknesses: 1) lack of country-specific strategy for reduction of infant and child mortality, 2) lack of targeting of limited resources, 3) inadequate lead time for new project development and 4) lack of well defined appropriate management and administrative procedures in the project amendment.
- 14 The division of administration of the project between MOH, INNFA and USAID has compounded the problem of lack of commitment and this practice should be avoided in future project design efforts.

4. Recommendations:

- 1 The fact that the MOH is the most important institution for CS intervention, should be taken into account in the programming of the current project and in the design of new CS initiatives to expand and improve services and initiatives to increase demand for those services.
- 2 The MOH needs further assistance to strengthen its ability to implement CS interventions on a regular basis. Any USAID effort to support CS activities in the country must give high priority to strengthen MOH institutional capacity to design, implement and evaluate sustainable CS actions.
- 3 USAID should ensure the direct participation of the MOH in the design process, facilitated throughout consensus building that will encourage commitment by the agencies and individuals charged with implementing project components.
- 4 It is highly recommended that the new CS project orient interventions to

- those areas and individuals in the greatest need, rather than to continue with a nation-wide approach. In order to orient CS interventions toward the provincial level, it is important to strengthen the provincial administrative and operating structures of the MOH.
- 5 Recent studies have shown the importance of neonatal mortality in overall infant mortality rates. It is important then to design and implement interventions targeting high risk pregnancies and births. The new country CS strategy does this and is strongly supported by the evaluators.
  - 6 The project design must provide strong guidance for the administration and management of the CS interventions. It must establish effective coordinating mechanisms through clear descriptions of responsibilities and lines of authority for implementation.
  - 7 Activities under the current CS project must be programmed until the end of the project (December 1989) including a clear assessment of the MOH's ability to lead the implementation.
  - 8 Give priority to the immunization of children under 1 with a target of 80% coverage with DPT, polio and measles vaccine. Enforce the requirement of BCG vaccination for child registration and thus maintain the coverage rates of previous years. Maintain a 20% coverage target for DPT, polio, and measles for children between 1 and 4 to eventually achieve cumulative coverage of 80% in this age group.
  - 9 The programming of PREMI activities regarding nutrition/growth monitoring and breast-feeding should consider the design of an overall strategy which includes: a) appropriate child feeding practices, b) promotion of breast-feeding and appropriate weaning practices, c) training to health workers in growth monitoring and infant and child nutrition, and d) education of the mother in infant and child nutrition and in the use of the health card.
  - 10 Acute Respiratory Infection (ARI) control intervention should be completely redefined; the already developed norms for ARI treatment should be translated into programmatic efforts.
  - 11 National campaigns for expanding services and increasing coverage rates must be tightly tied to the goal of strengthening permanent institutions in order to improve the quality of the CS services provided.
  - 12 Intensive use of social marketing is highly recommended for the CS effort and the new project, with equal emphasis on the use of mass media and the development of educational efforts for person-to-person communication. The goal is to engender behavioral changes through education and self motivation.
  - 13 Make a major commitment to developing and improving a Health Management Information System (HMIS) in Ecuador. Recognize the scope of developing comprehensive HMIS with a team of professionals (with appropriate support and facilities), as an ongoing process which will gradually improve and become more useful.
  - 14 It is strongly recommended that the PREMI/AID Coordination Unit be restructured to deal with changes in the MOH under the new administration.
  - 15 TA should continue playing a key role in activities of the current and new projects. TA should assist the counterpart with technical support, and the MOH or any other national institution, must lead the implementation. Long-term and short-term TA must have a clear relationship with the Ecuadorean counterparts, as a means to help to eliminate current problems in the planning for and the selection and use of TA.
  - 16 Process evaluation activities should be reprogrammed to cover the remainder of the PREMI project which ends December 1989. Useful evaluations depends on the proper analysis of good data and the data from the KAP studies should be reorganized.
  17. Promote the use of ORT and assist with education about appropriate feeding practices during diarrheal episodes.

K. ATTACHMENTS (List attachments submitted with this Evaluation Summary; always attach copy of full evaluation report, even if one was submitted earlier)

Midterm evaluation of the Child Survival Project (PREMI) in Ecuador  
July and August 1988

L COMMENTS BY MISSION, AID/W OFFICE AND BORROWER/GRANTEE

USAID/Quito: The evaluation is very useful at this time as a basis for the new project for continuation of child survival activities

Borrower/Grantee: A version in spanish of the evaluation was recently sent to the borrower. No comments have been received yet.

MIDTERM EVALUATION OF THE  
CHILD SURVIVAL PROJECT (PREMI) IN ECUADOR

A Report prepared for USAID/Quito

by

The PRITECH Project  
Management Sciences for Health

July and August, 1988  
Quito, Ecuador

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## EXECUTIVE SUMMARY

### 1. Introduction

The present work reports the findings of the midterm evaluation of the Child Survival Project in Ecuador. The Ministry of Health (MOH) and the National Child and Family Institute (INNFA) with the assistance of USAID, UNICEF and PAHO, have completed two years and a half of the planned five-year Infant and Child Mortality and Morbidity Reduction Program (PREMI).

The evaluation, designed by the USAID/FHD, was directed by Jaime Benavente and implemented by consultants contracted by PRITECH. The evaluation team was asked to assess the current implementation and management of the project, to assess progress toward the project purposes and to make recommendations to the MOH, INNFA and USAID on measures which could help assure that the project will meet its objectives.

The current child survival initiatives (PREMI) in Ecuador are sponsored and funded by USAID under the Integrated Rural Health Delivery System Project. On June 1985, the USAID Mission in Ecuador authorized a \$4,000,000 add-on of Health account Grant funds for Child Survival activities under the IRHDS Project. These additional funds were obligated in June 1985 and the PACD was extended by 21 months to June 1988. This is the beginning of the GOE's Plan for Reducing Infant Morbidity and Mortality (PREMI). On July 1987, USAID/Ecuador recommended that the authorization for the IRHDS be amended to increase Development Grant financing by \$960,000 from the Child Survival account and to extend the PACD by an additional 18 months to December 1989.

The goal of the project is to reduce mortality and morbidity, especially in rural areas, and among mothers and children under five years of age. The child survival Project includes support to expand and promote oral rehydration therapy (ORT), and to expand immunization programs (EPI), breast-feeding, and nutrition/growth monitoring.

The specific objectives are to increase coverage for immunization (DPT polio) of children, ages 0 to 1, from 48 percent to 80 percent; to increase tetanus coverage for pregnant women from 11 percent to 50 percent; and to increase ORT coverage from 21 percent to 85 percent in MOH health facilities, and from two percent to 50 percent at the community level by the end of the Project, now scheduled for December 31, 1989.

In order to successfully increase coverage in immunization and ORT, the project design proposed: 1) to use mass media campaigns and social marketing techniques in order to stimulate demand for child survival services; 2) to mobilize as many institutions and individuals as possible toward the goal of reducing child mortality; 3) to create a long-term capacity within the MOH to deliver child survival services to the entire country; 4) to strengthen MOH and other institutions to design and implement child survival activities; 5) to train rural health workers in outreach and motivational activities; and 6) to improve the current health management information system.

## 2. Purpose and Methodology

After two and a half years of implementation, in February 1988, the MOH, INNFA and the USAID Mission in Ecuador designed a midterm evaluation of the child survival program (PREMI.) As defined in the Project Paper, the midterm evaluation is intended to focus on an in-depth analysis of the project's field operation system and management structure, and is oriented to recommending modifications in Project implementation arrangements for the remaining 16 months of the Project. The evaluation is to focus primarily on: 1) the timeliness of activity implementation vis-a-vis the planned schedule, 2) Project output attainment, identifying factors which may be contributing to the attainment of scheduled targets, and 3) Project staffing, the appropriateness of technical assistance, and project coordination.

Specifically, this evaluation of PREMI is designed to analyze the following issues: a) the specific child survival strategy applied in Ecuador; b) the intervention's impact and achievements regarding morbidity and mortality; c) the improvement in the capacities of MOH and other institutions to design, implement and evaluate of child survival interventions; d) the role of the social communication and social marketing component in the global implementation of PREMI; and e) the improvements in training and supervision activities in the MOH and other institutions as a result of Project activities.

The evaluation methodology to assess the project's implementation performance to date and its future potential consists of gathering relevant program documentation, interviewing a broad spectrum of project participants, reviewing studies, and analyses of existing results from surveys completed during the Project period. No financing was made available for additional analysis or collection of data. Indeed, documents and reports review played an exceptionally large part in this evaluation. As a result, the work of the evaluation team was

concentrated significantly in Quito as only few visits to the provinces and health areas were possible.

The evaluation methodology was influenced powerfully by the institution-building goals of the project. This turned out to be a controversial in the evaluation as some participant challenged the importance of such goals in the project and even the their existence in the project design. Though this is a matter to discuss in the section about evaluation results, all the five members of the evaluation team considered that institution-building was a relevant component in this project as it should be in any developmental project.

The evaluation team consisted of a child primary health care (PHC) programs expert, a public health administration specialist, a social communication advisor, a health management information system specialist and a health program evaluation advisor. In addition, the team had the help of two other child survival specialist and two resource persons.

### 3. Findings and Global Assessment

The evaluation team found evidence indicating that PREMI interventions have contributed to positive changes in infant mortality in Ecuador during the period 1985 to 1988. Although this contribution did not help to accelerate the on-going trend in infant mortality decline, child survival intervention, at least, helped to maintain the secular trend during a period of severe economic difficulties for the population at risk. Also, child survival interventions have been important factors in morbidity reduction among children under five years of age.

If PREMI played a positive role in preventing illness and mortality among children under five, it was due to the efforts in expanding health services in immunization and increasing effective use of ORT, and to the strong effort for increasing demand for those services by mean of social communication and social marketing inputs. Even though this strategy produced only short-term effects, PREMI's efforts increased public concern about infant and child mortality and began the eventual mobilization of a large number of people and institutions for carrying out Child Survival activities.

Indeed, PREMI was successful in helping to develop a national awareness about child survival and the most effective ways to diminish the risk of infant and child morbidity and mortality. This is an outstanding achievement because it established the basis to make child survival activities a permanent component of the national health agenda in Ecuador.

Concerning specific child survival interventions, the

evaluation team established that although the "Jornadas" PREMI were effective in attracting children to the health units for immunization, this effort did not reflect a significant increase in the immunization coverage rates due to a reduction in regular immunization activities between PREMI campaigns.

Furthermore, the goal of vaccinating 80 percent of all children under 1 during 1985-1988 has not been reached. With respect to proposed targets of 100 percent for children between 1-4 years, coverage has improved substantially, even though the goal was not met. The target of immunizing 80 percent of all pregnant women in high risk areas with tetanus toxoid was not attained. PREMI campaigns, however, helped to educate mothers about the importance of completing the full immunization schedule, and increased the number of children getting their first immunization. PREMI has also contributed to the improvement of the cold chain on a national level. The cold chain now covers 82 percent of the units involved in immunization activities.

Although there are not sufficient data to fully assess the impact of the DDC component, indirect evidence indicates there may have been some success. A more clear and definitive decline could have been expected. Unfortunately, available data to evaluate this aspect of the Project are both scarce and faulty. The Project has failed to produce data to measure project success regarding this component. However, preliminary results from the KAPs studies indicate an important qualitative increase in awareness, both among health workers and mothers, about diarrheal diseases as serious mortality risks, and about the importance of ORT to reduce this risk.

Actions oriented to achieve the goals in nutrition, growth monitoring and breast-feeding were scarce from the beginning and were discontinued due to institutional breakdowns. The major continuous achievements in this component were the development, production and distribution of educational materials on nutrition/growth monitoring for MOH health delivery personnel, and the procurement of scales for growth monitoring in MOH health facilities. Another promising development in this area is the research carried out by IIDES and Manoff International with support from the Project and USAID. This research could provide the bases for the design of a definitive component on nutrition, growth monitoring and breast-feeding, and identify the key elements for implementation.

Although not part of the original Project design, ARI was included as a PREMI component in 1986 due to its prevalence as a cause of mortality and morbidity. There have been few interventions in ARI under PREMI. Although the MOH developed norms for ARI treatment and these have the general approval of the medical community, the norms have not been translated into programmatic efforts.

PREMI facilitated ample training of MOH personnel. The goals set for this component have been met, at least quantitatively. Most of them in ORT. Further analysis is needed of the quality of the training performed and its power to produce lasting effects. Unfortunately, information to assess the quality of training was not available at the time of this evaluation. Follow-up and supervision were absent in the implementation of this component. Despite the efforts of the MOH teams and the technical assistants, the lack of definitive commitment from the Ministry aborted attempts to produce and implement a new supervisory scheme.

Technical assistance has played an important role in the implementation of the Project and has been in general effective. Although beneficial to the Project, most assistance lacked coordination and an appropriate counter-part. Long-term technical assistance clearly lacked leadership and did not function as a team. The intensive use of short-term technical assistance was often unplanned and relatively unaccountable to the Project's managers and USAID officers.

The PREMI/AID Coordination Unit was critical for managing this Project and for coordinating the large number of implementing institutions and other donors. The unit was important in implementing the early phases of the Project. Now, its original role has almost disappeared and its functional purpose is not clear. The unit must be redesigned because of the changes in the MOH under the new administration.

This evaluation team found that none of the major health information system activities were completed. There has been no clear, unified and organized approach to improving Child Survival information systems. The efforts have been fragmented, at times inconsistent, and often ineffective. The main reason for this is the lack of unity and continuity of effort in carrying out the activities within this component of the PREMI Project.

The mass communications activities, social marketing model and social mobilization campaign designed by AED and implemented through INNFA, played an important role in the development of the PREMI Project. Without it, the Project would not have achieved the positive results in child health and mortality. Social communication, with its focus on market research, has effectively generated a considerable, though temporary, demand for health services related to child survival. However, it is not certain that the concepts and skills promoted by the child survival strategies have brought about permanent behavioral changes. Without the publicity that accompanied PREMI's activities, there is no guarantee that the demand for health services will continue at its present level, or that the people PREMI was trying to reach will continue to follow appropriate child survival

practices. The strategy for increasing demand for services proved successful in meeting immediate goals; but probably has not made long-term changes in public attitudes or behavior. The emphasis on social marketing meant not enough attention was paid to the use of existing human resources, who could have played a key role in face-to-face communication as the "sale force" of the Program.

In general, PREMI initiatives have permitted Ecuador to increase the level of effort in reducing child mortality. Building on experience already gained in the Ministry's EPI and DDC, PREMI was able to engage various organizations and people in its work. Nonetheless, most of PREMI's achievements significantly lack sustainability, and if any of the interventions were replicated today the level of effort necessary to carry them out would be the same as the level of effort needed when they were originally implemented.

The MOH was relatively successful in expanding its service delivery capacity during the two first years of the Plan. However, this temporary expansion was a response to the demand for services generated by the intensive use of mass communication activities and the corresponding campaigns carried out to improve coverages, especially in immunization and ORT. Several factors have inhibited the transformation of MOH participation in this national effort into permanent capacities. Some of these factors are: the specific organization of PREMI; the existence of two major institutions involved in the implementation of the strategy; the initial, virtually uncontested INNFA leadership; the concentration of the demand growth actions in INNFA while the supply expansion actions were concentrated in the MOH. Also the MOH structure and organization did not respond to the needs of PREMI and its social communication focus.

In spite of these shortcomings, valuable experiences were gained with MOH involvement in PREMI. The most valuable is the participation of health workers in PREMI activities, and the improvement of the workers' awareness of the importance of Child Survival. This awareness should be the basis for future efforts in Child Survival. Though the MOH did not make full use of the opportunities to grow institutionally, its commitment to new Child Survival actions leaves plenty of room for hopes.

One of the major shortcomings of the project is the lack of results in institution building, especially in the MCH. This problem should not be entirely ascribed to failures in the implementation of the project. It reflects a major deficiency in the project design, which did not emphasize activities to develop the MOH ability to design and deliver child survival services on a regular basis.

Most of the Project's shortcomings are related to inadequate and efficient implementation and administration capacities of the

agencies involved in the Project. The evaluation team, during the review of the design process, identified the following additional weaknesses: 1) lack of a country-specific strategy for reduction of infant and child mortality; 2) lack of targeting of limited resources; 3) inadequate lead time for new Project development; and 4) lack of well-defined, appropriate management and administrative procedures in the Project Amendment.

The use of political support as a substitute for consensus building led to inadequate commitment by agencies and individuals charged with implementing Project components. Dividing administration of the Project between at least three institutions (MOH, INNFA, and USAID) has compounded the problem of lack of commitment. This division of administration and its inherent problems, should be avoided in future Project design efforts.

The Ecuador Child Survival Country Strategy (CSCS) under USAID Mission funds was completed in March 1988 and represents a fresh and appropriate approach to the design process. The CSCS is based on review of actual infant and child mortality in Ecuador. This has resulted in a broadening of priorities from immunization and ORS use to addressing by order of importance as a risk factors for mortality: 1) low birth-weight/risk births, 2) malnutrition, 3) acute respiratory infection, 4) diarrheal diseases, and 5) vaccine preventable diseases. The 1985 design process can be seen clearly when compared to the deliberate design process being used to develop the proposed FY 89 Child Survival Project.

#### 4. Recommendations

During the last year of implementation the inter-institutional character of the Project has dramatically changed due to changes in the MOH between April 1987 and July 1988, INNFA's pullout from the Project, and the inauguration of a new Administration in the country.

These changes have made the MOH the most important institution for child survival intervention. This should be taken into account in the programming of the current Project and in the design of new child survival initiatives including both initiatives to expand and improve services and initiatives to increase demand for those services.

The MOH, needs further assistance to strengthen their ability to implement child survival interventions on a regular basis. Correspondingly, any USAID effort to support child survival activities in the country must give high priority to strengthening the MOH institutional capacity to design, implement and evaluate sustainable child survival actions. The efforts in institutional strengthening should be focused toward the regional

or provincial levels rather than the central level of the MOH, thus reinforcing the decentralization and regionalization already taking place in the Ministry.

USAID should insure the direct participation of the Ministry in the design process. This participation must be facilitated by consensus building that will encourage commitment by the agencies and individuals charged with implementing Project components. All these will determine the development of a truly country-specific strategy for reduction in infant and child mortality. The use of political support as a substitute for this process of consensus and commitment should be avoided.

We strongly recommend the new child survival Project orient interventions to those areas and individuals in the greatest need, rather than to continue with a nation-wide approach. Project designers determine those geographic areas with the highest infant mortality and morbidity, and identify tools (i.e. growth monitoring) to screen for individuals most at risk within the regions.

To orient child survival interventions toward the provincial level with support from the central level and from technical assistance. In order to achieve this, to strengthen the provincial administrative and operating structures of the MOH to achieve more effective program implementation, supervision, and evaluation under provincial jurisdiction.

Immunization and ORT (including the use of ORS and other liquids) should continue to receive emphasis in the Project. However, we strongly support the decision to give priority to nutrition/growth monitoring and acute respiratory infections. These child survival strategies must be accentuated in any future large-scale effort to improve child well-being in Ecuador: the interrelation between factors such as acute respiratory infection and malnutrition is a principal risk factor for infant and child mortality.

Recent studies have shown the importance of neonatal mortality in overall infant mortality rates (about half the number of infant deaths.) Because neonatal mortality is so high, it is important to design and implement interventions targeting high risk pregnancies and births. The new country child survival strategy does this. We support this decision strongly.

The Project design must also provide strong guidance for the administration and management of the Child Survival interventions. It must establish effective coordinating mechanisms through clear descriptions of responsibilities and lines of authority for implementation. Furthermore, relationships between the various institutions in regard to Project implementation must be clearly defined.

Activities under the current child survival Project should be immediately reactivated. In order to do this, activities must be programmed until the end of the Project (December 1989). This programming will require a clear assessment of the MOH's ability to lead the implementation. The assessment should cover the MOH's Division of Promotion and Protection, the specific programs (EPI, DDC, Nutrition, ARI), and the MOH commitment to reinforce these units if necessary. USAID technical assistance must play an important role in supporting this assessment. The complete programming of PREMI activities must be completed in no more than a month.

Increase attention given to well-baby visits to guarantee the delivery of integrated health services to infants and insure better adherence to the vaccination schedule during the first year of life. Establish a mechanism which would facilitate adequate follow-up of children recruited through mass immunization campaigns.

Give priority to the immunization of children under 1 with a target of 80 percent coverage with DPT, polio, and measles vaccine. Enforce the requirement of BCG vaccination for child registration and thus maintain the coverage rates of previous years. Maintain a 20 percent coverage target for DPT, polio, and measles for children between 1-4 to eventually achieve cumulative coverage of 80 percent in this age group.

Through messages to groups at risk, continue to promote ORT and the use of ORS and other liquids for diarrhea control. Promote the use of breast-feeding and, for older children, the use of cow's milk during diarrheal episodes. Provide information about appropriate feeding practices during diarrheal episodes.

The programming of PREMI activities regarding nutrition/growth monitoring and breast-feeding should consider the design of an overall strategy which considers: i) appropriate child feeding practices; ii) promotion of breast-feeding and appropriate weaning practices; iii) training to health workers in growth monitoring and infant and child nutrition; and iv) education of the mother in infant and child nutrition and in the use of the health card.

Acute Respiratory Infection Control intervention should be entirely redefined. The already developed norms for ARI treatment, which have the general approval from the medical community, must be translated into programmatic efforts. The norms are the starting point for interventions design.

Campaigns for expanding services and increasing coverage rates must be analyzed in depth and redefined as needed. National campaigns must be tightly tied to the goal straightening

permanent institutions in order to improve the quality and quantity of Child Survival services provided.

Both the current child survival effort and the new Project need to make intensive use of social marketing, with equal emphasis on the use of mass media and the development of educational efforts for person-to-person communication. The social marketing approach will require the participation of existing human resources (doctors, health workers, educators, and community leaders), who must serve as the "sale force" of the Program.

A new proposal for the use of communication to support a child survival program should be prepared. This proposal should combine the marketing model used in PREMI with others that emphasize a reasonable level of face-to-face communication. The goal is to engender behavioral changes through education and self motivation. The communications program should generate a long-term demand for health services while recognizing the cultural diversity of the target population and the budgetary limitations of the project.

Make a major commitment to developing and improving a Health Management Information System (HMIS) in Ecuador. Recognize the scope of developing comprehensive HMIS as an ongoing process which will gradually improve and become more useful. It calls for an incremental, and hence modular, approach, but it must be designed and implemented with the larger system in mind.

Create a team of systems analysis and information system professionals (HMIS Team) with appropriate support and facilities. Certainly part of this team is already in place. There is the MOH National Informatics Department personnel and the long term technical assistance.

The PREMI/AID Coordination Unit has lost most of its role, though it has important resources that can ease the implementation of activities under the current Project. We recommend the Unit be restructured to deal with the changes in the MOH under the new administration. The Unit's resources must be relocated and/or re-channeled. The need for changes in the Unit point to a need to redefine direct USAID involvement in Project implementation. USAID must attempt to transfer the control over these resources to the appropriate implementation unit in the MOH.

Technical assistance should continue playing a key role in activities under both the current Project and the new Project. It is important to establish clear procedures for the use of technical assistance. The TA should assist the national counterpart and, thus, must be accountable to the counterpart. The MOH (and any other national institution involved in the

implementation) must lead the implementation; the TA should provide technical support. Both long-term and short-term TA's should strive to work as members of a team. If there is no Ecuadorean counterpart to the TA, the TA is probably not needed. A clear relationship between the TA and the Ecuadorean counterpart will help to eliminate current problems in the planning for, and the selection and use of technical assistance. Technical Assistance for all Child Survival activities should be provided under the responsibility and direction of one organization, with the explicit purpose of providing continuity of long term and short term advisors over the life of the project.

A last global recommendation has to do with Evaluation. Evaluation activities should be reprogrammed to cover the remainder of the PREMI Project which ends December 1989. Useful evaluations depends on the proper analysis of good data. The data from the KAP studies should be reorganized. Analyses of programs should be carefully planned based on the availability of data. Where necessary, additional data in a useable format should be generated. Good data and good analysis are essential to the design, implementation and review of the Project.

## I. INTRODUCTION AND BACKGROUND.

### 1. INTRODUCTION

The present work reports the findings of the midterm evaluation of the Child Survival Project in Ecuador. The Ministry of Health (MOH) and the National Institute of the Child and Family (INNFA) with the assistance of USAID, UNICEF and PAHO, have completed two years and a half of the planned five-year Infant and Child Mortality and Morbidity Reduction Program (PREMI).

The evaluation, designed by the USAID/FHD, was directed by Jaime Benavente and implemented by consultants contracted by PRITECH. The evaluation team was asked to assess the current implementation and management of the project, to assess progress toward the project purposes, and to make recommendations to the MOH, INNFA and USAID on measures which could help assure that the project will meet its objectives.

This evaluation was originally planned for early May 1988 but there were problems in hiring appropriate consultants at the right time. The evaluation effort was also frustrated by the lack of readily available and easily accessible information on the history of the project's planning, implementation and outputs. While there was ample amount of it, the information was not particularly well organized.

The evaluation team consisted of a child primary health care (PHC) programs expert, a public health administration specialist, a social communication advisor, a health management information system specialist and a health program evaluation advisor. In addition, the team had the help of two other child survival specialists and two resource persons.

The members of the team were Magdalena Vanoni, Roberto Calder n, Marco Encalada, James Eckroad and Jaime Benavente. Magdalena Vanoni had principal responsibility for evaluating PREMI program's achievements and impact, and for assessing the implementation and outcomes of child survival activities such as immunization, diarrheal disease control and the use of Oral Rehydration Therapy (ORT), and child growth monitoring. Roberto Calder n had primary responsibility for evaluating overall project management and administrative issues and for assessing the improvement in the capacities of MOH to design, implement and evaluate child survival strategies. Marco Encalada was primarily responsible for assessing the INNFA/PREMI effort in mass communication and social marketing, focusing on global strategy, planning, material production, dissemination and evaluation. James Eckroad was responsible for assessing PREMI management information system activities and program evaluation

research activities. Jaime Benavente served as the team leader and was primarily responsible for the overall assessment of the program and its strategy.

As indicated above, several other people assisted in the development of this evaluation. Ana Maria Aguilar assisted the team leader in analyzing the institutional and implementation strategies chosen for the Child Survival Program in Ecuador. Jorge Sierra assisted the child PHC programs expert in assessing the program's impacts and achievements by focusing on the achievements of the diarrheal disease control program. Joanne Jones from USAID assisted the health administration specialist in the institutional assessment. Antonio Crespo assisted the child PHC programs specialist in the assessment of program's impacts and achievements. Patricia Moser, from USAID/Washington Regional Office, also provided valuable criticisms and suggestions.

This report was prepared by Jaime Benavente. All the members of the evaluation team contributed to the conclusions and recommendations presented in this report. Preliminary reports prepared by the different consultants are also available at request. This midterm evaluation was conducted during the period from July 11 to August 12, 1988.

## 2. HISTORY AND SETTING

For a number of years, USAID health assistance has emphasized programs that improve the health of the mother and child. Since 1985, however, programs which prevent infant and child deaths have been emphasized. USAID supported the development of permanent programs to vaccinate and make ORT available. These are the "twin engines" of USAID's child survival program. USAID's child survival strategy also comprises related interventions such as acute respiratory infections control, nutrition, breastfeeding, and child spacing.

USAID's specific goals are to help particular third world countries reduce infant mortality rates to under 75 deaths per thousand live births and child mortality to under 10 deaths per thousand live births per year before the end of the century. Since 1985, when the special Child Survival Fund was established by the U.S. Congress, USAID has committed nearly 500 million dollars to support child survival activities throughout the third world.

Ecuador became a priority country for child survival efforts within the U.S. child survival initiative when it was selected by USAID as one of six countries for mortality reduction activities in the Latin American and Caribbean region.

With an annual population growth rate of 2.9%, due to high fertility combined with moderate mortality rates, Ecuador has one of the fastest growing populations in Latin America. As a result, Ecuador has an exceptionally young population combined with a traditionally adverse health situation. According to 1985 estimates, children under age five represented 15% (1.4 million) of Ecuador's population of 9.4 million. Of these children, about 260,000 are in the less than 1 year age group. Of the 300,000 births per year, only about one half are medically attended.

Despite substantial declines in infant mortality rates (IMR) over the last twenty five years, mortality among infants and children continues to be significantly high. Recent estimates place infant mortality in 1982 at 72 deaths per 1,000 live births and around 60 per thousand in 1985. There was an annual reduction of 1.8 percent since 1960 when IMR was at 111 deaths per 1,000 live births. In spite of this remarkable progress, a national IMR of 60 per 1000 live births was still significantly high in the context of the mortality decline in South America. In fact, Ecuador has the third highest IMR in South America, after Bolivia and Per .

In 1986, children under age five contributed 29 per cent of all deaths in the country. Many of these deaths were preventable using low-cost, available technologies. Diarrhea represented the leading cause of death among children under five (28%), followed by respiratory diseases (22%).

Vaccine-preventable diseases were already at a low level, causing only four percent of all children deaths. These figures represent an important change in the composition of the causes of infant and child death. Ten years earlier, vaccine preventable diseases in Ecuador caused nearly 20 percent of deaths of children under five and ten percent of all infant deaths.

Table 1  
INFANT AND CHILD MORTALITY CAUSES.  
ECUADOR, 1976 and 1986 (Percentages)

CAUSES	INFANT		CHILD	
	1976	1986	1976	1986
Enteritis and Diarrhea	24	19	25	28
Vaccine Preventable Diseases	10	2	19	4
Acute Respiratory Infections	30	21	25	22
All Other Causes	36	31	31	36
Total	100	100	100	100

Source: INEC, 1987.

This dramatic decline in the proportion of infant and child deaths from immuno-preventable diseases was a result of the first nationwide effort to implement an immunization strategy, one of the first national efforts to reduce infant illness and mortality.

The level of infant morbidity and mortality has been a MOH concern since the second half of the 1970s. Indeed, the magnitude of the problem in the country expedited the participation of international agencies such as PAHO/WHO in assisting in the design and implementation of child survival programs such as immunization and diarrheal disease control. The ambitious goals were "health for all" by the year 2000 and "universal child immunization" by 1990.

In 1977, the MOH of Ecuador established the Expanded Program on Immunization (EPI) in order to check the high rates of child mortality and morbidity from immuno-preventable diseases. Ecuador was one of the first countries in Latin America to do so. In 1982, the MOH, also with technical and financial support from international agencies started a national campaign for intensive immunization.

This initial MOH/EPI program achieved important goals between 1979 and 1982: a dramatic improvement in DPT vaccination coverage rate of children under one, a moderate improvement of the cold chain, training in EPI, increases in the number of personnel working in EPI activities and a part of the MOH budget devoted to the program. Even though coverage rates had improved considerably by 1985, they remained somewhat low and they have not yet reached the level necessary to produce specific decreased rates in morbidity and mortality. Childhood mortality and morbidity patterns from the six major immuno-preventable diseases have showed little change over the past ten years.

Considering the high rate of infant mortality due to diarrheal diseases, in 1979 the MOH started a program for diarrheal disease control (DDC.) The general objective of the DDC program was to reduce diarrheal mortality and morbidity in children under five years of age through: 1) the promotion of oral rehydration therapy (ORT) and breastfeeding as a preventive measure against diarrhea, 2) the establishment of a surveillance system for diarrheal diseases, and 3) the promotion of active community involvement in the DDC program. Two of the major strengths of this MOH program was a strong commitment to ORT as the basis for the DDC program and its ability to ensure the widespread availability of oral rehydration salts (ORS) throughout the MOH network. Between 1979 and 1985, Ecuador's DDC program made important progress, although shortcomings inhibited the effectiveness and outreach of the program. For these reasons, the achievements of the DDC program were not as dramatic

as in the case of the immunization program.

In 1981, with USAID support, the MOH launched the Integrated Rural Health Delivery System Project in an effort to improve child health. The goal of the project was to design and test models for reducing mortality and morbidity, especially of mothers and children under five, in Ecuador's poor rural areas.

Within this framework of national concern and international cooperation, in 1983 UNICEF offered to the GOE financial support for the expansion of breastfeeding promotion, growth monitoring, DDC and EPI programs. As did USAID, UNICEF promoted these strategies as simple and low cost interventions, which, when simultaneously applied, could help to bring about significant reduction of morbidity and mortality among infants and children. In 1984, the GOE committed itself to the UNICEF child survival strategy, and the MOH prepared a proposal for UNICEF called Apoyo a las Estrategias para Reduccion de la Mortalidad Infantil (Assistance for the Program for Reduction of Infant Mortality.)

The UNICEF offer and the general proposal written in the MOH coincided with the creation of the special Child Survival Fund, which established by the U.S. Congress (1985) as part of a worldwide Child Survival Initiative. The creation of this Fund and the emphasis of USAID on child survival programs provided extensive resources to the MOH/UNICEF initiative.

### 3. THE PREMI PROGRAM AND ITS CONTEXT

In 1985, the Government of Ecuador, with the assistance of USAID, PAHO, and UNICEF, designed a national program for child survival -- the Infant and Child Mortality and Morbidity Reduction Program, PREMI. This national program proposed simultaneous implementation of four Child Survival Activities: growth monitoring, promotion of breastfeeding, childhood immunizations, and control of diarrheal diseases in children under five years of age. However, two of these activities, DDC and EPI, were emphasized under USAID Project assistance design. The implementation of PREMI activities started in October, 1985.

The current child survival initiatives in Ecuador are sponsored and funded by USAID under the Integrated Rural Health Delivery System Project. The IRHDS (Project No. 518-0015, Loan No. 518-U-040) Project was authorized by the Acting AA/LAC on August 1981. The originally authorized LOP USAID funding was \$1,000,000 Grant and \$6,000,000 Loan. Its original purpose was to develop a model low cost health delivery system in three regions and to replicate successful delivery systems nationwide once the systems were developed and tested. In the area of primary health care (PHC), the Project design emphasized Ministry

of Health (MOH) institution building activities to achieve a decentralization of MOH services in the pilot areas. Thus, the major foci of the Project were on MOH institution building activities; expanding primary care services, especially diarrheal disease control; immunizations; maternal child care; health education; and provision of water and sanitation services in the target areas. Nutrition activities and activities aimed at building community participation in Project implementation were also supported. The IRHDS Project has been considered a success by USAID and the GOE institutions involved, especially in the health sector, though no comprehensive evaluation reports have been produced to support this view.

In June 1985, the USAID Mission in Ecuador authorized a \$4,000,000 add-on of Health account grant funds for Child Survival activities under the IRHDS Project. These additional funds were obligated in June 1985 and the PACD was extended by 21 months to June 1988. This is the beginning of the GOE's Plan for Reducing Infant Morbidity and Mortality (PREMI). In July 1987, USAID/Ecuador recommended that the authorization for the IRHDS be amended to increase Development Grant financing by \$960,000 from the Child Survival account and to extend the PACD by an additional 18 months to December 1989.

Additionally, funding from other donor resources has been made available since 1985 to assist the GOE in implementing PREMI. The participation of other donors in PREMI has been significant. Over the past two years UNICEF has provided nearly \$600,000 for program start-up, including activities in all four of the Child Survival strategies. PAHO has also provided assistance valued at \$20,000 to the vaccination program, mainly technical assistance to improve the cold chain. For the period of 1987-91, approximately \$1,260,000 will be provided for the immunization program by UNICEF (\$224,500), Rotary (\$392,000), PAHO (23,500), and IDB and USAID/W through PAHO (IDB, \$225,500; USAID/W, \$393,800). Furthermore, 35 US Peace Corps volunteers are working in health activities, many in providing Child Survival services in MOH clinics or in developing teaching materials for community organizations.

The goal of the project is to reduce mortality and morbidity, especially in rural areas and among mothers and children under five years of age. The child survival Project includes support to expand and promote oral rehydration therapy (ORT), and to expand immunization programs (EPI), breastfeeding, and nutrition/growth monitoring.

The specific objectives are to increase coverage for immunization (DPT polio) of children, ages 0 to 1, from 48 percent to 80 percent; to increase tetanus coverage for pregnant women from 11 percent to 50 percent; and to increase ORT coverage from 21 percent to 85 percent in MOH health facilities, and from

two percent to 50 percent at the community level. These objectives are expected to be met by the end of the Project, now scheduled for December 31, 1989.

In order to successfully increase coverage in immunization and ORT, the project design proposed the following activities:

- To use mass media campaigns and social marketing techniques in order to stimulate demand for child survival services.
- To mobilize as many institutions and individuals as possible toward the goal of reducing child mortality.
- To create a long-term capacity within the MOH to deliver child survival services to the entire country.
- To strengthen MOH and other institutions to design and implement child survival activities.
- To evaluate and finance continuing coordination and administrative services over the extended period of the Project.
- To train rural health workers in outreach and motivational activities in order to increase immunization coverage by non-MOH institutions that can play a key role in mobilizing support for PREMI and for delivering child survival services.
- To improve the current health information network in order to provide essential feedback on specific demands for services and on capabilities for service delivery. This feedback will enable MOH to improve logistical planning, support, and the rational use of health resources.

The two key institutions chosen in the Project design to lead these efforts were the Ministry of Health and the National Child and Family Institute (INNFA). These two institutions have the support of other GOE agencies such as the Ministry of Education and Culture (MEC), Ministry of Welfare, the Social Security Institute (IESS), private voluntary organizations, the Ecuadorian Bishop's Conference, and international agencies such as USAID, UNICEF and PAHO. An international, multi-institutional approach was sought in support of the primary plan to stress social mobilization and community participation in the development and implementation of child survival activities.

By Project design, a National Committee was organized in order to enlist institutional participation to achieve this social mobilization. An Executive Committee in charge of

establishing program agendas and schedules was organized. To support these activities, USAID provided the continued services of a project coordinator, project manager, and evaluation advisor.

Major outputs of the Child Survival activities were to include:

- (1) a health information system which would allow the MOH to record health data and plan health service delivery for nearly one half of all Ecuadorean children under five years of age;
- (2) infant mortality data gathered on 10,000 households which would measure the impact of PREMI on infant mortality and serve as an essential data base for future analyses;
- (3) 250 health clinics equipped with standardized, calibrated infant weighing scales;
- (4) 50 professionals in the MEC trained in Child Survival issues;
- (5) Child Survival educational materials developed, tested, and produced for MEC and health workers' use.

#### 4. EVALUATION METHODOLOGY

After two and a half years of implementation, in February 1988 the MOH, INNFA and the USAID Mission in Ecuador designed a midterm evaluation of the Child Survival Program (PREMI.) As defined in the Project Paper, the midterm evaluation is an in-depth analysis of the project's field operations and management structure. The analysis recommends necessary modifications in Project administration and organization for the remaining 16 months of the Project. The evaluation focuses on: 1) whether or not program activities were started and run on schedule; 2) how well the project is meeting its goals, including identifying the factors which are helping or hindering the achievement of those goals; and 3) Project staffing, the appropriateness of technical assistance, and project coordination.

Specifically, this evaluation of PREMI analyzes:

- a) the appropriateness of the child survival strategy used in Ecuador, and of the institutions and administrative and service organizations involved.

- b) the program's effectiveness in reducing morbidity and mortality; providing immunization services and diarrhea control; improving growth monitoring, breastfeeding and weaning practices; and controlling acute respiratory infections.
- c) the improvement in the ability of the personnel of MOH and other institutions, to design, implement and evaluate child survival programs and the role of technical assistance.
- d) the role of social communication and social marketing in the implementation of the child survival program; and
- e) the improvements in training and supervision in the MOH and other institutions as a result of Project activities.

The evaluation team gathered relevant program documentation, interviewed a broad spectrum of project participants, reviewed studies, and analyzed results from surveys completed during the Project period. No financing was available for additional analysis or collection of data. The review of documents and reports played an exceptionally large part in this evaluation. As a result, the work of the evaluation team was concentrated in Quito. Only a few visits to the provinces and health areas were possible.

The evaluation methodology payed significant attention to the institution-building goals of the project. This turned out to be a controversial in the evaluation as some participant challenged the importance of such goals in the project and even the their existence in the project design. Though this is a matter to discuss in the the section about evaluation results, all the five members of the evaluation team considered that institution-building was a relevant component in this project as it should be in any developmental project.

The different consultants participating in the evaluation effort prepared preliminary reports that were the basis for this final evaluation report.

## II. EVALUATION RESULTS

### 1. GENERAL ASSESSMENT OF IMPACT OF CHILD SURVIVAL PROGRAM

PREMI was successful in helping to develop a national awareness concerning child survival and the most effective ways to diminish the risk of infant and child morbidity and mortality. This is an outstanding achievement because it establishes the basis to make child survival activities a permanent component of the national health agenda in Ecuador.

The effective mass communications activities, social marketing model and social mobilization campaign designed by the Academy for Educational Development (AED) and implemented through INNFA, must be considered one of the main factors in increasing public knowledge about child survival. This component of PREMI reached more than 3,500,000 Ecuadoreans and greatly stimulated public understanding of and demand for immunizations, ORT, and other child survival services.

PREMI seems to have had a positive impact in reducing infant and child mortality and morbidity during the period 1985 to 1988. Although PREMI's contribution did not accelerate the on-going trend in infant mortality decline, child survival intervention at least appears to have helped USAID maintain the secular trend during a period of severe economic difficulties for the population at risk. However, there are not sufficient data to demonstrate these conclusions.

If PREMI played a positive role in reducing illness and mortality among children under five, it was due to the efforts to expand health services in immunization and increase effective use of ORT. Although the plan considered the implementation of the four major child survival activities -- growth monitoring, promotion of breastfeeding, childhood immunizations, and control of diarrheal disease -- primarily only the two latter activities (EPI and DDC) were emphasized under this program.

To date, the expansion of immunizations has been the central PREMI child survival intervention. The main tool to achieve the goal proposed in this area was the national campaigns. These national campaigns, called jornadas PREMI to distinguish them from the earlier campas, succeeded in attracting a large number of children under five for vaccination. In 1985, among children under one, the jornadas accounted for 12% of those vaccinated with BCG, 22% of those vaccinated with DPT1 and nearly 24% of those vaccinated with Polio 1. Among children one to five, the percentages were 46%, 56%, and 56% respectively. In 1986 the impact of the jornadas increased. Among children under one, the

jornadas captured 22% of those vaccinated with BCG, 46% with DPT1 and 45 percent with Polio 1. For children one to five, during the same year, the percentages were 65%, 73%, and 74% for BCG, DPT1 and Polio 1 respectively. During 1987 the share of the jornadas in the immunization of children declined somewhat; for children under one BCG was 21 percent, for DPT1, 27% and for Polio 1, 26%. For children one to five, the percentages were 43% for BCG, 41% for DPT1 and 40% for Polio 1. Certainly PREMI campaigns produced a great improvement in the recruitment of new program participants. Also, the campaigns facilitated the full immunization of a significant number of children, primarily in the older (1-4) age group, but also for children under one.

In relation to public knowledge and attitudes, the campaigns may have helped to educate mothers about the importance of completing the full immunization schedule. Discontinuation rates for PREMI campaign days are significantly lower than those in 1984, though they still remain at a high level (37% for DPT and Polio.)

Considering the immunization program's achievement, results from Knowledge, Attitudes and Practice (KAP) surveys indicate that full vaccination coverage of children 13 to 24 months of age increased from 40% prior to PREMI to nearly 70% in 1987. The KAP's results also suggest an important positive change in knowledge about proper vaccination practice among mothers: nearly 90% of them reported they thought vaccines should start before the third month of age, compared to 60% in 1985. Additional analysis is required to establish the validity of these statistics. If accurate, these changes are significant. However, 45% of the mothers still reported that vaccination should be completed before the first year of age.

The results are less impressive using data from the MOH/EPI program. The evaluation found that although the jornadas PREMI were effective in attracting children to the health units for immunization, this effort did not reflect a significant increase in the immunization coverage rates due to a reduction in regular immunization activities between PREMI campaigns. In fact, the country is still far from the target of 80 percent coverage for DPT and Polio for children under one established for this midterm evaluation. During the period 1984 to 1987 the coverage rate for DPT3 only increased from 48% to 51%, and for Polio 3 from 47% to 51%. Anti-measles even declined, although not significantly, from 51% to 46%. Also, for DPT 1 and Polio 1, MOH diverted resources from a maintenance vaccine supply to supply only for campaigns.

Coverage for children between 1-4 years of age has improved only slightly (the target was 100 percent coverage). Immunization with DPT increased from 43% in 1984 to 61% in 1988. Improvement for Polio was limited from 59% to 61% in the same years. Coverage rates for measles dropped from 66% in 1984 to 61% in 1988.

The target of immunizing 80% of all pregnant women with tetanus toxoid was also not attained. During the PREMI campaigns only 15,000 women received a second dose of TT, representing only about 20% of all pregnant women.

The increase in number of participants during the campaigns and the moderate increase in coverage rates point to reduction in the number of children immunized during regular periods. Indeed, the jornadas may have resulted in a deterioration of the regular immunization activities for the following reasons: lack of effective mechanisms to facilitate immunization activities during regular periods; 2) a growing tendency among mothers and health workers to wait for the next campaign to resume vaccination; and 3) the mass communication programs tended to emphasize vaccination during campaigns and, unintentionally, devalued immunization as a permanent practice.

The other major intervention in PREMI child survival activities is to reduce diarrheal morbidity and mortality in children under five years of age through the promotion of ORT and the extended use of Oral Rehydration Salts (ORS). Although there are not sufficient data to fully assess the impact of this component, indirect evidence indicates there may have been some success (or could say "positive results"). In 1980 nearly 22% of all infant deaths were associated with diarrheal diseases. This rate came down to 17% in 1987, an important decline during the period. However, in 1984 (right before PREMI interventions started), the rate was already at 18%. Since then, it has continued to decline slowly.

A more definitive decline could have been expected. Unfortunately, data to evaluate this aspect are scarce. Thus, there is no evidence to support a definitive decline in diarrheal diseases, even though the majority of people involved in the program assume there has been a decline.

The general view indicates an important qualitative increase in awareness both among mothers and health workers, that diarrheal diseases are a serious mortality risk and that ORT is important in reducing this risk. Results from the 1987 KAP survey indicate that nearly 93% of those interviewed knew about ORS, that at least 20% of all the last diarrheal episodes had been treated with ORS, and that 60% of mothers reported having prepared ORS. This implies an important change since PREMI began. Though good information is not available, it is assumed

that ORS use was very low before PREMI started. In the case of ORS preparation, the first KAP survey (December 1985) found that only 29% of the mothers reported having prepared an ORS solution.

Similarly, in observation trials 80% of mothers could properly measure and mix ORS solutions, and 35% reported health centers as their primary source of information on diarrhea treatment. This indicates training activities have had some positive effect, on diffusing the ORT approach.

The 1987 KAP survey also found that nearly 33% of breast-feeding mothers reported continuing the breastfeeding during a diarrhea episode, and 64% reported giving the children some liquids. This is a moderate, but still significant improvement since the 1986 KAP survey results, when it was found that only 85% of breastfeeding mothers continued the practice during a diarrhea episode, and only 50% gave the children more liquid.

These are impressive results, but further analysis is needed of the KAP surveys data to establish the accuracy of these findings.

Another important achievement of the Project was the wide-spread acceptance of ORT by physicians, other health workers, and the community. This acceptance allows us to use the number of packages distributed as a measurement of the program's impact. Between 1985 and 1987, the program distributed nearly 2.2 million packets of ORS with instructions for their proper use. If we estimate that two to three packages of ORS are required for a single episode of diarrhea, PREMI helped to decrease the risk of dehydration in nearly one million episodes between 1985 and 1987. Assuming that a child has two or three episodes of diarrhea per year, PREMI would have helped protect nearly 150 thousand children from risk of dehydration and diarrheal mortality per year during this period.

These figures demonstrate positive changes in the control of diarrheal diseases, and indicate that PREMI activities are bringing about the intended effects. However, diarrheal disease remains a leading cause of infant death in the country. It will be necessary to make additional efforts to reach the goal of 85 percent ORT coverage in MOH health facilities by the end of the project.

PREMI also contained an important component on nutrition, growth monitoring and breastfeeding. In fact, Ecuador is one of the few Latin American countries with a significant nutrition component in its Child Survival Project design. Since infant and child malnutrition is an underlying factor in at least half of the reported child deaths, achievements in growth monitoring and nutrition may produce a significant impact in infant/child morbidity and mortality. Unfortunately, actions oriented to

achieve the goals of this component were scarce from the beginning, and were discontinued due to institutional breakdowns. The major continuous achievements in this component were the development, production and distribution of educational materials on nutrition and growth monitoring for MOH health delivery personnel, and the procurement of scales for growth monitoring in MOH health facilities.

Although achievements in this component are quite minor ones, during the last period an important research activity in the area has been taking place. In fact, PREMI and USAID, with the technical assistance of Manoff International, are supporting the National Institute of Social and Medical Research (ININMS) in a qualitative research project in infant feeding, breast-feeding and weaning practices. This research effort can establish strong bases for the design of a definitive component on nutrition, growth monitoring and breast feeding, as well as produce the key elements for implementation.

Although the control of acute respiratory infections (ARI) among children under five years of age was not part of the original Project design, ARI was included as a PREMI target in 1986 because it is the largest, single cause of reported infant deaths in Ecuador after perinatal conditions (21% for children under one, and 22% for children under five) especially in the rural Sierra. However, interventions to reduce the influence of ARI as a cause of death and morbidity were seldom included in the implementation of PREMI. In 1987, the MOH developed norms for ARI treatment. Though these have the general approval of the medical community, they have not been translated into program efforts.

These two latter components, nutrition/growth monitoring and control of acute respiratory infections, must be accentuated in any further large-scale effort to improve child well-being in Ecuador.

PREMI facilitated training of MOH personnel. The basic goal of this component was to train health workers in outreach and motivational activities in order to increase immunization and ORT coverages. It also aimed to increase in-service training through health-related educational materials, and to provide training to non-MOH institutions. This training will help them to mobilize support for PREMI and to deliver Child Survival services. The institutions involved included the Ministry of Education, PVOs, and others. The training component was planned to be a key mechanism to carry PREMI beyond the campaign stage and to make it an integral part of the health care system.

Available information indicates that some of the quantitative goals set for this component have been met (most of them in ORT). Further analysis is needed of the quality of the training performed and its power to produce lasting effects (the majority of training lasted for only one or two days). For example, it seems there was little or no effort to develop continuing education programs to reinforce child survival interventions at different levels in the health system.

Though training activities had an acceptable level of effort, follow-up and supervision were absent from the implementation of this component. In spite of the efforts of the MOH teams and of the dedication of the technical assistant working in training and supervision, the lack of commitment from the leaders in the Ministry aborted the attempts to produce and implement a new supervisory scheme.

The original Project design included important funding for the improvement of the current health information system in the MOH. The goal of this component was to assist the MOH to expand its capacity to assess health needs and the effectiveness of the health delivery system, especially for child survival, and to provide data for project evaluation. The project aimed to strengthen the HMIS network in order to provide essential feedback on specific demands for services and service delivery capabilities, and to enable MOH to improve logistical planning. At least two major activities were initiated under this component: operations research to improve ambulatory service delivery information system and a global approach to improve the central HMIS. Neither of these attempts were completed. The overriding impression of the evaluation team is that there has been no clear, unified and organized approach to improving Child Survival information systems. The efforts seem fragmented, at times inconsistent, and often ineffective. The main reason for this is the lack of unity and continuity of effort in carrying out the activities in this component of the PREMI project.

The last component that is important to analyze is the strong but disjointed emphasis on technical assistance. Important monies were allocated to this component and in general they were justified by the complexity of the Project and the specific social communication strategy being implemented. Two types of technical assistance have been used in the implementation of the Project: first, a team of long-term technical advisors (two in communications, one in training and supervision, one in evaluation, and one in health planning; and second, intensive use of short-term technical assistance (nearly 120 trip/consultants between dates, of which almost fifty were brought during the first year of the project). This technical assistance was from the centrally funded project and from Project funding.

The technical assistance has been, in general, effective. However, on many occasions the short term assistance was somewhat unplanned and unaccountable. The long term assistance was hampered by the lack of appropriate conditions in the local agencies to achieve the best results from the interaction between technical advisors and their counterparts. The evaluation team also found that high-level, short-term Centrally Funded Projects consultants had important participation in the strategy definition, the original Project design and implementation re-programming. This influence did not always have a positive effect on the management of the project, especially given the number of people at different levels involved in the decision making process.

Due to the limited ability of the MOH to deal with the managerial complexity of the Project, and in order to strongly support the Child Survival activities, USAID provided the continued services of a Project coordinator through the organization of a USAID/PREMI Coordination Unit. The unit was critical for managing this complex Project with its large number of implementing institutions and other donors. Until March 1987 the unit made a significant contribution to the implementation of the project. At that time, significant changes in the MOH dramatically changed both the environment under which the Coordination Unit operated and the effectiveness of its managerial efforts. This component must be restructured to deal with the changes in the MOH under Ecuador's new government.

PREMI initiatives have permitted Ecuador to increase its efforts to reduce child mortality. Building on experience gained in the Ministry's Expanded Immunization Program (EPI) and Diarrheal Disease Control (DDC), PREMI was able to involve various organizations and people in its work. Nonetheless, most of PREMI's achievements are not self-sustainable. If any of the interventions were replicated today, they would require the same effort that was required when PREMI started, or even that was required in 1985.

## 2. PROJECT DESIGN AND CHILD SURVIVAL STRATEGIES

The Ecuador Project Amendment was the first activity obligated in the Latin America region in response to the Congressionally mandated Child Survival Initiative. Design process decisions are assumed to relate to the need to obligate available funds prior to the end of the fiscal year. Unfortunately, this was a new USAID initiative so USAID/Ecuador was unable to draw, upon previous Agency experience in the technical design process. As a results, PREMI was developed as an amendment of the existing IRHDS project.

In reviewing the PREMI Project design (Project Amendment #8) design and, so far as possible, the design process, the evaluation team noted three problems areas: 1) lack of a country specific strategy for reduction in infant and child mortality, 2) lack of targeting of limited resources, 3) inadequate lead time for new Project development, and 4) lack of well defined, appropriate management and administrative procedures in the Project Amendment.

Without the time needed to develop a country-specific child survival strategy USAID assistance to the PREMI Program was based on USAID worldwide policy and GOE perceived imperatives. The 1985 Ecuador PP Amendment created the first LAC Project response to USAID's newly mandate by Congress Child Survival Initiative. PREMI was to serve as a "showcase" for USAID's "twin-engines" of child survival: oral rehydration therapy (ORT) using oral rehydration salts (ORS) and the expanded program in immunization (EPI). Promotion of breast-feeding and growth monitoring were also included within the design but received only cursory interest in Project implementation.

From the outset, USAID imperatives can be seen to affect the shape of child survival assistance. Three aspects of the design process are called to attention in relation to the Congressional mandate. First is the short time frame between announcement in March 1985 of the availability of additional funding specifically for this activities, and the signing of the Project Paper Amendment in June 1985; second is the lack of direct host-country participation in the design process; and third is the uneasy melding of the nationally oriented child survival assistance into a Project whose stated purpose was the development of a model, low-cost primary health care delivery systems through application in three areas.

These features are assumed to be the result of the necessity of obligating funds prior to the end of the fiscal year. The Project development process therefore, lacked the necessary consensus building among host country institutions that would assure commitment to Project objectives and implementation.

In addition, many of the required analyses were abridged from the original Project Paper and did not relate specifically to implementation of a national program. Lack of inadequate analysis lead to inadequate program design. For example, although the Project Amendment reviews an analysis of supervision that states the major obstacles to adequate supervision is funding for per diem and travel, the Amendment proposes to improve supervision through development of a supervisory model and training in supervision based on regular scheduled visits to the field without discussion of the financial constraints.

The Project Amendment design was to decrease infant mortality through increase demand for an increased supply of CS services. Three specific strategies were to be used to increase the demand for services:

- Political support from high levels of the GOE;
- Mobilization of public and private institutions in support of the program (for service delivery as well as client motivation; and
- Use of social marketing, particularly through mass communication to motivate mothers,

PREMI was to use two methodologies to expand services and increase coverage rates. The first of these was implementation of national campaigns days several times during the year. The second was to strengthen static delivery services through enacting institutional improvements in the quality and quantity of CS services provided.

Assistance was to be provided under PREMI for the following:

- 1.- development of a sustained capacity in training in mass communication and delivery of CS interventions;
- 2.- strengthening of MOH supervisory capacities;
- 3.- improvement of the health information statistics related to diarrheal diseases control and immunization; and
- 4.- building of a permanent capacity in social communication for child survival.

From this evaluation, it can be seen that the strategy for increasing demand for services proved successful in meeting immediate goal; the increase in supply, however, produced only moderate achievements. Their joint expected result, expansion of institutional capacities, was far from met.

Although the program was designed to be implemented as a comprehensive package, several factors have prevented the program from achieving its intended purposes. The use of political support as a substitute for consensus building lead to inadequate commitment on the part of agencies and individuals charged with implementing Project components. Administrative divisions of the Project between at least three institutions (MOH, INNFA, and USAID) has compounded the problem inherent in its lack of commitment. In addition, lack of an effective coordinationg

mechanisms that had both responsibilities and authority for implementation has exacerbated problems of uneven implementation of Project component.

The Project Amendment provided little guidance for the administration and management of the Child Survival component. Lines of authority and specific responsibilities for each activity are not specified. Neither the purpose of the Project Coordinating Unit nor its scope of work is provided with any detail in the original document. Relationships between the various institutions in regard to Project implementation are placed within the work scope of an outside liaison agent hired by and responsible to USAID.

The previous design process can be seen as a particular anomaly in comparison to the deliberate design process being used in development of the proposed FY 89 Child Survival Project.

Completion of the Ecuador Child Survival Country Strategy (CSCS) under USAID Mission funds in March 1985 has provided guidance for development of future CS activities, as well as a tool for analysis of the PREMI Project design. The CSCS is based on review of actual infant and child mortality in Ecuador. This has resulted in a broadening of priorities from ORS use and immunization to addressing by order of importance as a risk factor for mortality: 1) low birth-weight/ risk births, 2) malnutrition, 3) acute respiratory infection, 4) diarrheal diseases, and 5) vaccine preventable diseases.

Under the CSCS, program interventions have been analyzed to assess their viability within the local setting and their cost effectiveness. Immunization continues to receive emphasis under this analysis and ORS use is expanded to include ORS and other appropriate liquid under ORT program. Both of these interventions form parts of an integrated approach to increasing child survivability. In addition, the two interventions which were not emphasized under PREMI, promotion of breastfeeding and growth monitoring, are priority under the CSCS.

Another area in which the CSCS varies greatly from the PREMI Project component is in targeting interventions to those areas and individuals in the greatest need. Through subnational mortality analysis, the CSCS has been able to determine those geographic areas with the highest infant mortality. The CSCS proposes that future USAID assistance be targeted at mortality reduction within these areas. In addition, child growth monitoring is to be used to screen individual most at risk for morbidity and mortality within the regions. PREMI was designed to have a national audience and clientele. Growth monitoring was provided only as an intervention, not as a targeting tool within the Amendment design.

Along with targeting of CS interventions, the CSCS also proposes targeting of institutional strengthening activities to the regional, rather than central, level of the MOH. PREMI weakly attempted improvements at the central level of the MOH despite the decentralization already taking place at the time of the Project Amendment development.

### 3. ORGANIZATIONAL STRUCTURE AND MANAGEMENT

PREMI did not rely on the established organizational structure of either the two main institutions in charge of the implementation of its activities. Given the strong orientation toward social mobilization, a unique organizational scheme was designed.

Thus, although the MOH organizational structure was integrated into this scheme as the main child survival services provider, it was not the primary actor in the definition of the overall implementation strategy and management. The decisions about strategy and management had significant impact on the Project's field operational system. This section briefly describes the organizational structure and the operational aspects of the Project.

#### 3.1. PREMI ORGANIZATION:

The following section describes the centralized organizational structure of PREMI:

- 1) National Committee.- This is chaired by the first lady of the Nation and includes the President of the National Congress, the Minister of Health, the Minister of Education, the Minister of Defense, the Minister of Social Welfare, the President of the Ecuadoran Catholic Episcopal Conference, and the President of the Association of Medical Schools (AFEME).

Some of the principal responsibilities of this Committee are to support at the highest level all Program activities; to invite sectors which can provide support in disseminating information; to promote and provide health services; and to call upon the Ecuadoran community to participate actively in the Plan. In general, the committee stimulates project diffusion and mobilization at the national level.

- 2) Executive Committee. - This is composed of the President of INNFA (the first lady), the INNFA representative, the representative of the Social and Labor Commission of the National Congress, the Executive Secretary of the Catholic Episcopal Conference, the Director General of Health (as a representative of the MOH), the representative (Vice Minister) of the Ministry of Education (MEC), the representative of the Ministry of Defense, the representative of the Ministry of Social Welfare, the Executive Secretary of the Association of Medicine Faculties (AFEME), representatives of the communications media and the private press, and representatives of international agencies (USAID, UNICEF, PAHO) in a technical advisory capacity.

The committee's functions include coordination of inter-institutional activities; definition of the type and degree of participation of each agency involved; approval of the overall Plan and its Program of Activities, approval of the communication strategy; and approval of all the activities and tasks designed by the Technical Commission.

- 3) Technical Commission. - A subordinate of the National Executive Committee, the Technical Commission is composed of: the Director of the MOH Promotion and Protection Unit; Heads of the MOH programs associated with child survival activities considered in PREMI (EPI, DDC, Growth Monitoring & Breastfeeding); a representative of INNFA; representatives from UNICEF, AID, PAHO; and a representative from the Ministry of Education (OTIDES). The Commission is responsible for designing the technical support for the MOH programs, and for defining specific activities and strategies developed during the development of the Plan.
- 4) MOH Child Survival Programs. - These units participated, at different levels, in the implementation of child survival activities supported by PREMI: the General Direction of Health; the Direction of Promotion and Protection; the Divisions of Nutrition, Community Development, Mother/Child Care, Health and Education; and the particular Child Survival Programs (EPI, DDC, Growth Monitoring and breastfeeding, and ARI) under the Mother/Child Division.

- 5) INNFA (National Institute of the Child and the Family).- Responsible for the overall implementation of the social communication and marketing component designed by the AED. It also has key responsibility in the areas of social mobilization through the work of the PREMI Executive Office.
  
- 6) PREMI Coordination Unit.- This Unit has the responsibility to help MOH and INNFA in the implementation of child survival activities, by providing basic coordination between these two key institutions. Support has primarily been in the areas of financial implementation and procurement. The unit is composed by a MOH Coordinator (as the national counterpart to the technical assistance) and other personnel assigned by the Ministry, a USAID funded Coordinator, and other technical advisors (also provided by USAID). It is staffed with administrative support personnel hired by USAID through a contract with a local firm, Kelly Inc.

The first MOH/PREMI Coordinator was Dr. Oswaldo Barrezueta, who departed in March 1986. Dr. Pablo Martinez served as Coordinator between March 1986 and March 1988. He was replaced by Dr. Pedro Lovato, who left with the inauguration of the New Administration in August 1988. The first USAID/PREMI Coordinator was Dr. Martita Marx. After her departure, temporary responsibility was assumed by Dr. David Nelson (USAID technical advisor) until the post was taken over the current AID-PREMI Coordinator, Dr. Joseph Baldi.

### 3.2. THE CONSTRAINTS OF THE SCHEME:

This complex management, administrative and technical scheme helped the overall functioning of PREMI, especially during its first phase (November 1985 to March 1987). It brought support to the Project from both public and private sectors. It is important to note that non-MOH institutions played a significant role in supporting PREMI implementation, but that this initial input has now been lost. The MOH apparatus has not functioned since March 1987, when the social mobilization component started declining.

Several factors played important roles in this decline. Among them is the initial key role played by the first lady in leading the process of social mobilization at an institutional level, and her gradual withdrawal departure from the global

direction of PREMI.

Another factor was the unstable situation of MOH in relation to child survival activities. During the life of the Project the MOH had four Ministers of Health, the first three Ministers under the same Administration. As is normal, the incoming Ministers brought their own views about the working of the Project and took different approaches in supporting PREMI activities. During the first ministerial period, the Minister accorded only slight interest to the Plan. During the second ministerial period, PREMI was embraced by the Ministry and Plan activities were well supported; it is this period we shall refer to as the "Best Period of PREMI". The third period, however, imposed radical changes on the Project in an effort by the Minister to make the MOH the primary institution in the design and implementation of PREMI. These changes strained the global organizational structure.

To further complicate matters, there have been four MOH Coordinators. This disrupted the implementation of activities and damaged the relationship between INNFA and the MOH, especially during the crisis of April 1987. The last MOH/PREMI Coordinator under the previous Administration denied practically any support to activities at every level. A period of relative freeze has been entered.

The changing nature of PREMI activities within the MOH and INNFA is the reason for the deterioration of the administrative structure of PREMI over time. The changes in the activities stem from weaknesses in Project design, from the ambiguous role assigned to the MOH, and from the unsustained participation of INNFA. Also, changes of officials at various levels of the administrative and technical structure of PREMI have had a direct negative influence on program operation.

INNFA was, by and large, the most stable institution in the PREMI model. It had a clearly understood scope of work, enough financial resources, and the ability to spend the monies effectively. Its operation was appropriate, and the implementation of its tasks had a positive impact on the Program. However, because of its faster pace of operations and/or because of the power INNFA held in the development of the Project, INNFA did not have an effective working relationship with the MOH. INNFA's leaders did not do much to improve the organization's relations with the MOH.

Management of program funds and budgets has also been a problem. The inability to use certain funds for other line items according to program needs meant those funds lay idle while other activities were not carried out. Over a million dollars from donations have not been used as programmed. Considerable delays in financial management for PREMI have been occasioned by

bureaucratic red tape in the MOH, as well.

A serious problem for the administration of PREMI is the notorious lack of management skills in the participating institutions. USAID is slow in providing funds, equipment and material for PREMI, and the MOH has severe problems in getting the equipment and material through customs.

One of the most important limiting factors is the lack of participation of institutions and individuals at the provincial level in the formulation of standards for child activity supervision. There is no participation at the provincial level in general programming activities.

It is clear that PREMI design did not consider existing obstacles to the implementation, supervision, and evaluation of PREMI.

### 3.3. USAID INVOLVEMENT:

The Coordination Unit, and the Technical Assistance. The direct input of USAID in the implementation of the Project has been significant. From the beginning of PREMI's implementation, and due to the limited ability of the MOH to handle the managerial complexity of the Project, USAID provided the continued services of a Project Coordinator and the support of the USAID/PREMI Coordination Unit. This unit is made up of the following personnel, hired by USAID: a Coordinator, five Advisors, a Bilingual Secretary, an Accountant, and two Drivers.

The Unit was created to strengthen ties and improve coordination between the PREMI Technical Committee and the groups in the MOH, INNFA and Ministry of Education that were directly related to the execution of the Program.

Because the Coordination Unit was composed of personnel hired by AID, and because the unit has a close relationship with the PREMI policy-making level, MOH officials felt that a structure had been created which was parallel to, and in competition with, that already existing in the institution.

This perception was accentuated initially by the Unit's participation in making the administrative and technical decisions for the first campaigns. A "rivalry" started which precluded effective coordination between INNFA and the MOH, and which has not been entirely overcome, despite the different management style adopted by the latest coordinator.

The establishment of the Coordination Unit may have limited Program development. From the beginning it duplicated actions

regularly executed by the MOH. Without well-defined functions, the unit developed to meet changing circumstances: procurements, coordination of training evolutions, collecting reports on supervision, advisory efforts, campaign activity accomplishments, of financial management of the budget line items assigned to this unit in the PREMI/MSP account.

As a member of the Technical Committee, the Coordinator participated in the programming and organization of the campaigns. He openly influenced decisions, even on technical matters, through his political connections. This heightened resistance among MOH officials.

The Coordination Unit was created to overcome the duality of command caused by the participation of both INNFA and the MOH in the conduct of this Program. Some of the functions of this unit served to streamline administrative procedures.

Despite problems in operating the Unit, the USAID/PREMI Coordination Unit has proven to be critical for managing this complex Project and the large number of institutions involved. This resulted in significant inputs to the implementation of the Project, at least until April of 1987. At that time, the significant changes occurring in the MOH had important repercussions in the development of the Project, dramatically changing both the environment in which the Coordination Unit operated and the effectiveness of its managerial efforts.

In general, the role of the Coordination Unit could have been more stable. The lack of concrete definition of the coordinating mechanism in the Project design meant the unit was unable to overcome the critical problems mentioned above.

Also, at the level of the USAID Mission changes in personnel have contributed to the instability of PREMI operations and the role of the Coordination Unit. The structure and operation of the USAID/PREMI Coordination Unit must be reviewed and redefined. This is especially important because of the changes within the MOH, and because from now until the end of the Project any Child Survival interventions will be implemented with only limited institutional support.

The Coordination Unit was also responsible for identifying and obtaining technical assistance needed for the Project. This involved the management and coordination of both long-term and short-term technical assistants assigned to specific activities in the Project.

According to the Project Paper, USAID is responsible for recruiting and contracting three long-term advisors (the Project Coordinator, the Evaluation Advisor, and the Training and Supervision Advisor) and securing the technical services of two

other long-term advisors, one in Social Communications and one in Evaluation of Communications. These advisors are paid through a USAID centrally-funded contract with AED.

The Project has had a mixed record of success and troubling delays with the long-term technical assistance. The Project began on a fairly strong footing by contracting the three long-term advisors between June and August 1985. Technical assistance in Social Communications was contracted through the AED in mid-1985. Technical assistance in MIS was originally scheduled to begin in early 1986. In reality, such TA was contracted only in early 1987, when Birch and Davis, Inc. received the contract for these services.

After the first year and a half of the Project, it was necessary to recruit replacements for some of the long-term advisors. The process of finding a new Project Coordinator took over six months, with candidates being brought from the U.S. for Project assistance and task-oriented interviews. As a result, there was a five-month gap between the departure of the original Project Coordinator and the arrival of her replacement (April 1987 to October 1987.)

There was an even more serious lapse of ten months between recruiting and hiring the new Evaluation Advisor. This was due in part to delays in selecting appropriate candidates and to extensive delays in contract negotiation. In general, contracting within USAID is a fairly time-consuming exercise, requiring at least four weeks to complete contract arrangement after a candidate is identified.

This delay most seriously affects Project flexibility in obtaining short-term technical assistance in-country through Mission contracts. Since the MOH contracting procedures are even more cumbersome (requiring a minimum of three months to complete any short-term or fixed-product contract), USAID has had to contract local technical assistance critical to Project implementation.

Long-term technical assistance has generally produced positive results. This is true despite the difficulties encountered in the development of PREMI and the conflicts that arose when individuals understood their work to be something different from what was needed to implement the project. The conflicts developed because the assistance was poorly conceived and defined in the Project design.

From its beginning in 1985 to the present, PREMI has received a variety of short-term technical assistance. There have been more than one hundred short-term consultancies to date. About 40 percent of them took place during the first year of implementation. The funding sources for this short-term

technical assistance were Project funding (nearly one third) and centrally funded contracts (the rest).

An important portion of the short-term assistance was associated with Social Marketing activities in INNFA. Consultants came from AED and from the University of Pennsylvania, under a Healthcom centrally funded project. About half these consultancies were by high-level advisors who played key roles in the definition of the overall communication strategy and in the specific design and redesign of the mass communication component.

Another important area for short-term assistance was the design, implementation and evaluation of Immunization activities. Technical advisors from Reach, another centrally funded project with John Snow International (JSI), were primarily involved in these tasks.

A third important area for short-term technical assistance was Health Management Information Systems. The bulk of consultancies came from PRICOR, a centrally funded project in operations research in primary health care, and from Birch & Davis, a minority firm, that received a contract from the AID Mission.

A minor area for short-term consultancies was Nutrition and Growth Monitoring, which received assistance from consultants with Manoff International.

Although short-term technical assistance has been effective, on many occasions the assistance was tarnished by the lack of appropriate conditions in the local agencies to receive assistance. Three major shortcomings can be identified in the case of short-term technical assistance.

First, a large number of consultants did not always respond to Project needs. This made it difficult to describe the work they were expected to do, and to identify the best time for their visits. As a result, there is evidence of considerable overlapping and sometimes contradicting reports on the same issue.

Second, local counterparts were not always included in identifying the need for assistance, or in selecting the appropriate assistance. As a result, the advisors were not always well received by Ecuadorian functionaries, who resented the presence of an advisor they had not requested. This resulted in a misuse of TA resources.

Finally, short-term TA turn out to be relatively unaccountable to the USAID Mission and to the national counterpart. This is due, in part, to the significant

participation of advisors provided through centrally funded projects. Their commitment, sometimes tended to be to the global objectives of the central project rather than to the specific objectives of a country-contained effort.

The original Child Survival component of Project 518-0015 (Amendment 8) allocated a total of \$1,583,000 (nearly 40 percent of the total grant funds for child survival) for long and short-term technical assistance. With Amendment 9, the amount of funds programmed for such TA rose by \$540,000. Currently, the amount committed to finance technical assistance represents 62% of total Project expenditures to date. The Project has been able to commit monies for TA more successfully than for other activities funded under the project.

#### 4. INSTITUTION BUILDING AND THE MOH

Though the original design of the Project selected social marketing techniques as the main strategy to stimulate demand for Child Survival interventions, the design also aimed to establish a long term capacity within the MOH to deliver these services to the entire country. The establishment of this long term capacity was not always universally understood nor present in the implementation of the interventions. The main factor explaining the lack of agreement on the importance of institution building goals must be found in the Project design.

##### 4.1. MOH CAPACITY FOR CS INTERVENTIONS:

As indicated before, three main factors were considered in developing this long-term capacity: a) the expansion and improvement of services; b) the improvement of training of health workers in Child Survival activities, and the development of a new supervisory scheme; and c) the betterment of the current MOH information systems. Over all, the creation of a long-term ability within the MOH to deliver Child Survival services required the MOH to invest and be innovative in this area. It could do this by stimulating and enabling health staffs to identify and test ways to improve implementation at different levels, and by taking charge of the long-term requirements of coordination, evaluation, and administrative services. The expected results were a persistent decline in infant and child mortality and a sustained MOH capacity to design and implement Child Survival actions.

As shown in the section dedicated to the global assessment of the Project, the MOH was relatively successful in expanding, temporarily, its service delivery capacity during the first two

years of the Plan. However, this expansion was a response to the demand for services generated by the intensive use of mass communication activities and the corresponding campaigns carried out to improve coverages, especially in immunization and ORT. Several factors, however, have inhibited the transformation of MOH participation in this national effort into an ability to supply these services on a permanent basis. These factors include the specific organization of PREMI; the existence of two major institutions involved in the implementation of the strategy; the initial, virtually uncontested INNFA leadership; and the concentration in INNFA of activities to increase demand for services while activities to expand supply were concentrated in the MOH. The structure and organization of the MOH did not provide the efficient implementation required by PREMI, which was focused on communication.

In spite of these shortcomings, valuable experiences have been obtained from MOH involvement in PREMI. The most valuable is the participation of health workers in PREMI activities, with their increased awareness of the importance of Child Survival. This, in itself, represents a potential capability that should be the basis for future efforts in this area. Though the MOH did not make full use of the opportunities to grow institutionally, the commitment for new Child Survival actions leaves plenty of room for hope.

Although the MOH was able temporarily to increase or readjust the offer of services to meet the new demand brought about by mass communication, the evaluation team found that, overall, there are no significant improvements in the design, implementation and evaluation of child survival interventions in the Ministry. Several reasons explain this:

The initial planning did not take into consideration certain institutional characteristics. For example, the Ministry is very slow mechanism to implement new activities, and has a complex system for responding to changes in the program of in demand for services. INNFA, however, operates smoothly and has an agile financial system. Thus, though these two institutions tried to coordinate, the MOH almost always lagged behind in meeting the demands for service created by INNFA social marketing efforts.

Other factors having a negative influence on PREMI implementation include the poor flexibility of MOH bureaucracy, the MOH's limited infrastructure, and its weak information and communication systems.

#### 4.2. TRAINING AND SUPERVISION:

PREMI facilitated extensive training of MOH personnel. The

basic goal of this component was to train health workers in outreach and motivational activities in order to increase immunization and ORT coverages, and to increase in-service training through health educational materials. It was also planned to provide training to non-MOH institutions in order to enable them to mobilize support for PREMI and to deliver Child Survival services. These institutions included the Ministry of Education, PVOs, and others. The training component was planned to be a key mechanism for carrying PREMI beyond the campaign stage and making it an integral part of the health care system. Unfortunately, prior to initiation of PREMI there were no baseline surveys to determine health worker's existing knowledge, attitude and practices regarding child survival interventions. Thus, there is no reference point for drawing comparisons in this aspect.

Available information indicate that the goals set for this component have been met (most of them in ORT), at least quantitatively. Further analysis is needed of the quality of the training performed (the majority of training lasted for only one or two days), and its power to produce lasting effects. For example, it seems there was little, or no, effort to develop a system for continuing education to reinforce Child Survival intervention at different levels. Unfortunately, information to assess the quality of training was not available at the time of this evaluation.

The goals originally set out in the Project design were:

- To train 1600 community-level health workers, and central and provincial health personnel in the management of oral rehydration therapy, immunization, breast feeding and growth monitoring.
- To train 140 individuals in supervisory techniques.
- To train 20 individuals in cold chain maintenance.
- To train 150 individuals in information-systems-related subjects.
- To train people of at least 10 institutions in social mobilization techniques and in the contents of the four child survival strategies.

PREMI training and supervision activities have been changed since 1985. During the first year of the program there were non-continuous, brief, on-the-job training activities; for 1986, the activities documented were ill-defined and lacking records. During 1987 there was a considerable amount of training activity, with qualification of medical and paramedical personnel of the

Ministry and other agencies. Starting in August 1987, however, the training began to taper off significantly.

According to information reported in the KAP-Personnel survey of November 1986, which was conducted all levels -- hospitals, canton hospitals, clinics, sub-clinics, health stations -- and (focused primarily on equipment, competent staffing, training and supervision), training is limited and supervision is seriously deficient. This survey clearly reflects the situation nationwide. Under supervisory activities, for example, only 35% of the units had received any type of visit from officials at the provincial or national level during the preceding year. Even these visits could not be classified as supervisory since the great majority were made to prepare or design some aspect of PREMI or to leave off supplies. The few actual supervision visits were almost all in the EPI.

Starting in August 1987, as we have mentioned, activities began to fall off drastically. The present trend remains downward: it has been a period of relative stagnation. This is due to lack of support on the part of the Office of Development and Protection of the Ministry of Health. After identifying the problem, the AID technical advisory component for PREMI training and supervision and its national counterpart reoriented their training efforts toward coordination with the provinces on training matters.

The greatest training and supervision efforts occurred between the second half of 1986 and mid-1987. The leading programs were DDC (54% total activities), EPI (16%), DDC-ARI (9%), and supervision activities (only 4%). The record shows that 4,161 individuals, principally doctors and paramedics, were trained during 1987, most of them (3,687) in gastroenteritis disease control.

It is important to note the training system used in the Ministry of Health. It has been defined as "cascade" or "pyramidal" training, which means that doctors and nurses at the central training level (MOH in Quito) provide training in turn to personnel of the provincial hospitals, canton hospitals and clinics; "canton" hospital personnel subsequently train the sub-clinic and health station staffs. Training has been of from one to five days duration. Theoretical training lasts one day and is composed of lectures. Theory-practical application type training lasts five days and is delivered through four training centers in the country: Baca Ortiz Hospital in Quito, Guayaquil Hospital in Guayaquil, Vicente Corral Moscoso Hospital in Cuenca and Isidro Ayora Hospital in Loja. This five-day training is designated "pasant as" [internships].

The pasant as began in December 1986. On the first day, the regional doctors and nurses arrive at the Ministry to receive an

orientation and be evaluated. The orientation focuses on areas such as the information system, programming, standards, etc. From the second to the fourth day, participants move to the designated hospital for direct observation of the various services, including units on oral rehydration, case discussions, outpatient care management, etc. On the final day of the five-day training period, participants return to the Ministry, where, with technical assistance, they establish an operation plan which they will implement on return to their operational areas.

The AID/PREMI Training and Supervision Advisor and national counterpart personnel from the Gastroenteritis Control Plan prepared an important PREMI Training and Supervision Plan. A major number of planned activities were carried out during 1987. Some were not carried out, for reasons discussed in the commentary.

The partial results of the MOH/PREMI Training and Supervision Plan indicate most of the activities come under the heading of training, including seminars, workshops and conference series.

Only 427 out of a planned 2,500 individuals received programmed training during 1988. The courses delivered were four, one-day practical application sessions in pediatrics. The courses were given to doctors, nurses, midwives, health educators, nutritionists and social workers (personnel of the Ministry of Health national services network). Seventy-four people from the main offices of the MOH attended courses: 50 on Supervisory skills and 24 on Management.

The AID Advisor in Social Communication and Marketing trained 20 people from INNFA/PREMI. Topics covered were communication and research, focal group methodology, codification of surveys, data input, and statistical packages. This was a training project of high professional quality and outstanding individual effort.

In summary, many of the goals originally established in the PREMI Project Document (1985) were not achieved. The training goals for Oral Rehydration Therapy, the Extended Immunization Program, and the Cold Chain Maintenance were met. The goals for Supervision, Breast-feeding, Growth and Development Monitoring, Information Systems, and Mobilization Techniques were not met.

From existing information it is difficult to determine to what degree this improvement is meaningful; more in-depth evaluations are needed. To date, there have been no evaluations on training conducted from 1987 to the present.

Only 40% of the principal PREMI goals originally listed were

fulfilled. This percentage would be lower if we consider that within the Growth Monitoring elements were not achieved under the goal of training 1,600 health workers.

Though training activities were acceptable, follow up and supervision were almost entirely absent. In spite of the effort of the MOH team and of the dedication of the technical advisor working in training and supervision, the lack of commitment from the appropriate direction in the Ministry aborted the attempts to produce and implement a new supervisory scheme.

In general, supervisory activities were sparse during the first year of PREMI; since 1987, they have been non-existent. Only four percent of all trained personnel received training in supervisory techniques.

In general, the Ministry has not established a policy on the Training and Supervision which would offer administrative support and which would include additional inputs for these activities. As already mentioned, there has been no improvement in supervisory activities or in other aspects of PREMI in the Ministry.

Training in Growth Monitoring and Nutrition is seriously deficient. Insufficient time for exchange of information during training, and inadequate sharing of information with other professionals who did not participate in the training are also problems. In addition, some courses did not take into account the relative prevalence of each disease in each region.

To the foregoing, we must add that training and supervision activities that did occur during Project implementation have not yet been evaluated. Their impact and achievements merit analysis.

#### 4.3. IMPROVEMENTS IN INFRASTRUCTURE AND EQUIPMENT (Cold Chain):

With initiation of the EPI in 1977, the country laid particular stress on implementation of a nationwide Cold Chain. This "chain" would guarantee the maintenance, transportation and storage of the biological agents (i.e. vaccines) in accordance with applicable established international standards in order to keep the efficacy of these agents at the optimum level.

An inventory of resources and a requirements study identified a pronounced deficiency in the chain at the national level. For lack of sufficient financial resources to solve the problem, it was decided initially to reinforce the national level Vaccine Bank and provide minimal refrigeration equipment to the provinces selected for the pilot program.

With a combination of national effort and international donations, a Regional Bank in Guayaquil and refrigeration units for the provincial levels were built. These additions to the Cold Chain meant that 70% of the operational units which carried out vaccination activities had adequate facilities by the time PREMI was inaugurated.

In 1985 the country had 787 electric refrigerators, of which 714 were operable and 73 were out of order; 78 electric freezers, 74 operable and 4 out of order; 601 King Seeley thermos containers; 685 other type thermos containers; 119 cold chests and 733 thermometers.

In spite of the training given to operating personnel, in many units the standards for maintenance and control of the equipment and vaccines were not met; this was aggravated by frequent electric power failures, especially in the rural areas. It was decided that the Cold Chain needed more and better equipment, and health personnel required refresher training on the quality control and on equipment maintenance. PREMI's original programming contemplated providing the training and equipment needed to reinforce, extend and maintain an efficient Cold Chain.

PREMI has contributed substantially to the institutional development of the Cold Chain, by providing the following equipment:

- A cold storage room for the central Vaccine Bank;
- 130 electric refrigerators, 28 electric and/or gas refrigerators, and 27 electric freezers;
- 2,158 King Seeley thermos containers, 10 refrigerated boxes, 10,224 refrigerated packages, and 1,500 liquid-glass thermometers;
- 1 electric generator and two cooling engines;
- 21 equipment repair tool kits.

Because of PREMI's contributions to the Cold Chain, it is estimated that 82% of the operating units in the country are equipped with refrigeration elements for the maintenance, preservation and transportation of the vaccines. This is an increase of 12% since 1985, when PREMI began.

Because it is critical to meet the standards for managing the Cold Chain, especially at the local level, various training activities were carried out in this area, principally in the initial PREMI application and pre-campaign training. It should

be stressed that the content of these courses contemplated all PREMI CS strategies, including general matter on the Cold Chain. In 1987, nine training courses were held on the Expanded Immunization Program (PAI) in nine of the country's provinces. These courses included information relating to the Cold Chain, but dealt in greater depth with each PAI component. In an effort to solve the problem of maintenance and repair of electric refrigerators and freezers, the PAHO/WHO financed a specialized course for nineteen provincial level and two national level technicians. The technicians were issued tool kits as part of their training.

In summary, PREMI has contributed to the improvement of the Cold Chain at the national level; has helped to improve equipment maintenance by offering appropriate training courses, though not in all provinces of the country; and has helped ensure the Vaccine Bank, since the initiation of the EPI, carries out the Bank's administrative management efficiently, despite the Bank's location at a poor, not very functional site;

#### 4.4. PROCUREMENT, FINANCIAL FLOW, & IMPLEMENTATION ARRANGEMENTS:

##### 1) Procurement of Commodities.-

The Project has had mixed success. The Project has purchased \$867,000 in goods from various sources -- local suppliers, U.S. firms and distributors, and international sources (mainly UNICEF via their distribution network, UNIPAC). Local procurement has involved MOH direct purchases from suppliers in compliance with GOE procurement regulations. USAID has not engaged in direct local procurement of goods under this Project.

MOH local procurement has suffered from the typical problems associated with public sector operations: delays in processing orders and potential abuse/corruption. Fear of being accused of the latter has made some MOH employees unwilling to engage in procurement, especially to request bids for commodities from potential suppliers. Due to the complex and time-consuming nature of MOH procurement procedures, the MOH has purchased only a limited amount of local goods. The MOH has requested USAID, through the PREMI Coordination Unit, to procure small items which may be urgently needed.

For procurement from non-local suppliers, Project 518-0015 followed AID procurement regulations and contracting arrangements. This involved contracts with the General Services Administration (GSA) for procurement assistance for a variety of items (computers, voltage regulators,

audio-visual equipment, ORS, etc.), individual purchase order for items from U.S. suppliers, or contracts negotiated by AID/W with UNICEF for procurement from the UNIPAC catalogue (for example, for ORS and Cold Chain equipment).

Project 518-0015 experience with GSA-arranged contracts resulted in several months' delay in completing orders and in the arrival of commodities. For example, a major order for approximately 20 items was submitted to GSA on November 30, 1985. The first of these items began arriving in Ecuador in mid-June 1986, nearly seven months later. While designed to streamline procurement and provide the Mission with up-to-date information on procurement availability and prices, the GSA mechanism has proven cumbersome and costly (given GSA fees for their procurement services). It is not a viable alternative to direct Mission procurement from U.S. suppliers.

As a result, the Project has relied heavily on separate purchase orders for specific items available through suppliers with GSA schedule prices, or from those who are sole source for specific technical items. Delays, however, have been encountered in finding appropriate suppliers. USAID/Ecuador lacks expertise and knowledge regarding the market for technical products, and has insufficient information to assist the Project Manager in determining whether sole source or source and origin waivers can be justified. USAID procurement is also prohibited by the appropriate catalogues to assure a sufficiently broad selection of possible items required. What catalogues do exist in the Mission, therefore, are rarely helpful for specific purchases, for up-to-date prices and specifications, or for obtaining bids from U.S. manufacturers and suppliers.

For purchases from UNICEF, AID/W/SER/OP/COMS in 1987 formalized arrangements with UNICEF's procurement division to streamline procedures and payment mechanisms. Over the past year, the Mission has become fully informed of these arrangements and has a generally successful record with recent purchases via UNICEF/UNIPAC, especially for emergency procurement. An example of AID/W and UNICEF responsiveness is the emergency request for ORS packets which was placed in January 1988 and received by mid-February.

Troublesome delays still occur with regular orders, however, despite USAID/Ecuador preparing and submitting final draft PIO/C worksheets to AID/W. Because of their knowledge of the market, it is often necessary to request

detailed background information from AID/W, regarding the quality of necessary equipment and the limited availability of similar products. This information is necessary to justify procurement through UNICEF and to generate the required sole source waiver. Regretably, the process of issuing a waiver for a recent UNICEF purchase took nearly three months to resolve.

In addition, SER/OP/COMS has often experienced delay in processing Mission orders and, specifically, has failed to notify the Mission when corrections are needed or when details about the order have to be clarified. A recent example of this is the procurement request for several items for the MOH Cold Chain (immunization support) network. The UNICEF office in Quito was unable to provide current price and specification information for equipment requested by the MOH. AID/W took more than six weeks to inform the Mission of the need to amend its order due to price and specification changes. As a result, the PIO/C had to be amended to accommodate these changes. This meant the procurement process for these items was delayed an additional three months. In total, the entire procurement has taken more than year.

With UNICEF/UNIPAC procurement, procurement has experienced additional delays due to UNICEF backlogs (when UNICEF/UNIPAC efforts are focused on responding to emergency requirements elsewhere). The recent Cold Chain equipment purchase is a case in point. It is estimated that UNICEF has been unable to fill USAID/Ecuador's order for more than a month due to the need to attend to pressing emergency requests from Africa.

Once items have been ordered and shipped, the Project has had to deal with what has at times been difficult customs clearance arrangements. USAID policies have changed since the beginning of this Project, and Project commodities are no longer allowed to be officially consigned to USAID/Ecuador. They must be consigned to the implementing agency (in this case, to the MOH) and be cleared by that organization. This presents two major problems for the Project:

- 1.- MOH inefficiency in processing customs clearances for commodities; and
- 2.- lack of a clear policy regarding exoneration from customs duties for MOH Project commodities.

The first issue was most clearly attested to with the problem encountered in liberating three sea-freight

containers of ORS packets in late 1986. After the MOH had delayed five to six months in arranging the release of the shipment, USAID finally intervened and had its customs clearance agent complete the liberation process. The long delay however, resulted in the loss of the entire shipment when the ORS was found not to conform to Ecuadorian health standards due to poor storage conditions at Port.

In general, the Project has suffered from the lack of appropriate procurement capability, most notably, a well-informed Mission procurement specialist with sufficient technical information at his/her disposal to assist project staff with U.S. procurement. Seeking GSA help with procurement has meant serious delays complicated by poor communications. In addition, Ecuadorian MOH administrative support has not been efficient in identifying suppliers of necessary commodities, arranging for prompt local procurement when possible, clearing goods for customs, nor in assuring distribution of project commodities.

## 2) Financial Flow .-

In its design, the Child Survival component of Project 518-0015 created an extremely complex arrangement for funding operations and expenses for three implementing agencies -- the Ministry of Health, the National Institute for the Child and the Family (INNFA), and USAID (as the provider of international technical assistance and commodities for the Project). With eight budget line items (with four or five sub-line items each) and three institutions managing the grant funds, the Project requires intense USAID involvement and special care that the use of funds is monitored and recorded properly.

The initial two years of the Child Survival component showed fairly smooth financial arrangements and flow of grant funds to the Ecuadorian implementing agencies, the MOH and INNFA. However, no initial Project Implementation Letter (PIL) was issued to set out procurement and other implementation arrangements. As a result, most expenditures were authorized through individual Project Implementation Letters (PILs) which responded to immediate requirements, rather than under a general PIL with a yearly commitment of funds, based on an annual implementation plan, to cover various Project expenses.

These separate financial commitments proliferated to the point that a large amount of grant funds were earmarked for several specific activities or purchases, which

required excessive bookkeeping, tied up funds indefinitely, and greatly limited the Project's financial flexibility. At the same time, some Project funds were disbursed without prior authorization. The lack of a full-time Project Manager within USAID/Ecuador for the PREMI activities seems to have been one of the reasons for the lack of administrative controls.

In May 1987, a general PIL was signed that consolidated all previous commitments into general amounts for each implementing agency under the boarder line items specified in the Project Grant Agreement. This arrangement freed the Child Survival Project from some of the more restrictive and management-intensive operations of the past, giving the MOH and INNFA greater flexibility in disbursing funds for agreed-upon programming as detailed in their annual Implementation Plans. For 1988 and 1989, one PIL will approve the MOH's Annual Project Budget and will incorporate all necessary reprogramming of funds to finance annual activities, thus obviating the need for several independent actions to earmark and commit funds.

During the same period as this 'reform' (1987), USAID/Ecuador underwent a tightening of its administrative and financial controls. USAID became concerned with the large outstanding advances obtained by the MOH in 1986, which the MOH was extremely slow to liquidate. Part of this problem stemmed from the MOH's difficulty in obtaining receipts to justify expenditures at the provincial level. Another reason for the Ministry failing to spend its advances was the restrictive specification for the use of grant funds according to the Grant Agreement.

Grant funds can be used to finance only certain aspects of Project activities (for example, supplies and materials, but no per diem or local travel costs for in-country training participants). Under the Grant Agreement, it was agreed that the MOH would pay for operational expenses (such as per diem, transport, etc.) to complement grant funds for material support. Because the Ministry does not have a separate/additional budget allocation for such operational expenses, the MOH often failed to provide the necessary counterpart to pay for their part of a specific activity. Thus, the MOH did not spend its allotment of grant funds at the rate which was initially programmed. The MOH continued to hold large outstanding advances of grant funds and was denied any further advances for over a year, pending financial justification for those previous advances.

The stricter controls imposed by USAID's Controller's Office also meant delays in processing vouchers from the Ministry and INNFA. INNFA was most affected by this due to a series of unfortunate errors and delays within USAID. In addition, the Regional Controller's Office in Mexico City was computerizing its payments system. Two requests for checks for INNFA advances were temporarily lost and had to be re-submitted in the course of this "reorganization".

These circumstances meant that INNFA experienced serious delays in receiving advances necessary to allow them to continue funding mass media/social communications efforts in support of the vaccination campaigns. While INNFA managed to avoid gaps in their programming, they did so only by transferring funds from other accounts, often having to change other INNFA priorities, to cover their immediate PREMI Project needs. Many personnel hours in USAID and INNFA were invested in trying to rectify INNFA's cash flow problems during the second half of 1987.

While INNFA faced serious problems maintaining their cash flow, one of the most crucial issues for the Project emerged during the first six months of 1988. U.S. law requires that grant fund recipients liquidate advances within 90 days of receipt. The Mission is extremely concerned with keeping to this legal requirement. The fact that the two implementing agencies for this Project do not have sufficient cash on hand to allow them to cover Project expenses and later seek reimbursement, means they must streamline their internal operations so as to be able to liquidate all advances within the required 90 days.

A fairly large portion (25-40%) of Project grant funds managed by the MOH and INNFA have been transferred to the provinces for on-going promotion activities and logistical/training support. This means the MOH and INNFA must arrange to collect invoices and receipts on a frequent basis from the provinces so as to liquidate these local-level expenditures within 90 days. It is doubtful that this can be accomplished.

Serious problems persist within the Project with the flow of grant funds and the liquidation of advances to implementing agencies. MOH procedures for receiving receipts from the provinces for Project-related expenses are inadequate to meet the AID 90-day liquidation requirements. Until the procedures are improved, the USAID Controller's Office is unwilling to approve new advances to the MOH. This risks paralyzing the entire

Project's operations.

MOH counterpart funds are inadequate to finance complementary costs for various Project activities. This tends to prevent implementation of crucial institutional-strengthening activities such as training and on-going supervision.

### 3) Implementation Arrangements.-

The Project Paper for the Child Survival Initiative in 1985 speaks of the "oversight responsibilities" associated with the various Project committees -- the National and Technical Committees. It emphasizes that these committees are to provide program guidance and are not to be directly involved in management or implementation of Project activities. In reality, however, the Project has evolved such that INNFA and the MOH have become more and more responsible for the activities which were outlined in the Project Paper as originally the responsibility of the Technical Committee. These activities are: distribution of ORS and vaccines (MOH), the coordination of institutional mobilization (INNFA), the necessary market and audience research (INNFA), media use (INNFA), and training and supervision (MOH).

Also, according to the original Project Paper, "the actual provision of services and implementation of the Child Survival activities in the field will be carried out by the provincial offices of the MOH through the local primary health care and by other institutions in the health care sector."

While mass mobilization efforts have tended to require the participation of provincial MOH officials, longer-term efforts to improve MOH operations through training for and supervision of project administration, and logistical management, have not been systematically applied in the provinces. Thus, the PREMI project has not evolved in the intended manner in terms of improving MOH institutional capacity to provide services and assure self-sustaining implementation of child survival activities in the field. This issue is dealt with in greater detail in other parts of this evaluation.

Of the Committees established within the National PREMI Program structure, only the Executive and Technical Committees have met and have been actively involved on a consistent basis from 1985-1988. Their oversight and coordination support were critical for Mass Mobilization

and for harmonizing media messages according to technical criteria. However, the heavy emphasis on campaign activities often meant these Committees met to deal with logistical support and specific campaign needs, rather than to establish long-term institutional coordination to strengthen on-going field operations in health. It appears an opportunity was lost when the multi-institutional vision was not extended and integrated into regular health service activities in rural and marginal areas.

Within USAID, the lack of a full-time Project Manager assigned to deal with PREMI activities from the beginning of the Child Survival Project resulted in most management activities being handled by the original PREMI Project Coordinator. The Coordinator was also responsible for coordinating all long and short-term T.A., as well as providing the critical link between the participating institutions (INNFA, MOH, Ministry of Education, and others). As project implementation activities increased, it became less possible for the Coordinator to perform AID management tasks along with other Coordinator responsibilities.

USAID had a direct-hire Foreign Service Officer managing the Project from June 1985 to June 1986. After that time, there was a four month gap during which the project manager for the water and sanitation component of Project 518-0015 was also in charge of PREMI activities. After October 1986, the Chief of the Health Division assumed management responsibilities for PREMI. It was not until June 1987 that the Project contracted a full-time project manager (a contractor, however) within USAID. It is hoped that by September 1988 the Mission will have hired a Foreign Service National to take on Child Survival Project management responsibilities on a full-time, permanent basis.

Due to the emphasis on campaigns and the operational urgencies associated with those activities, the multi-institutional approach for the PREMI Project has not evolved as an integral part of on-going support for on-going MOH child health operations. USAID's Child Survival Project implementation arrangements never incorporated these institutions in a formal or informal manner. In addition, USAID did not assume a leadership role among the various cooperating institutions. That role fell to the First Lady as President of PREMI, and hence, INNFA. As the MOH assumed more responsibility for coordinating the activities of the various participating organizations, the multi-institutional vision faded and a more bureaucratic approach to the Project evolved. As a

result, multiinstitutional focus of the original Project has not led to the strengthening of institutional ties, which might have benefited future operations.

Relations for USAID Project Implementation (between USAID, INNFA, and MOE) have functioned fairly well, but lacked consistent, full-time leadership. They particularly lacked MOH commitment to support the required activities. Administrative support has been weak from both the MOH and AID. Financial arrangements have been more complex than necessary or desirable, and leadership has not been clearly given from any sources other than the First Lady as President of PREMI. Neither the Ministry of Health nor USAID have moved to fill the gap presented with the resignation of the First Lady from the Presidency of PREMI in mid-1988.

For operational purposes, implementation arrangements have relied greatly on USAID to procure essential Project technical assistance and equipment/supplies. USAID has taken on management responsibilities which its level of staffing and bureaucratic processes cannot support. This has increased delays in Project operations and activities.

## 5. CHILD SURVIVAL INTERVENTIONS

As we indicated earlier, the goal of the project is to reduce mortality and morbidity, especially in rural areas, and among children under five years of age. The PREMI Project includes support to expand immunization programs (EPI), to expand and promote oral rehydration therapy (ORT), breastfeeding, and nutrition/growth monitoring. During the last year, there were some attempts to support interventions to control acute respiratory infections (ARI). With the information available, this section reviews achievements in these child survival interventions.

### 5.1. THE EXPANDED PROGRAM ON IMMUNIZATION:

Ecuador was one of the first countries in Latin America to adopt the Expanded Program on Immunization (EPI) by July 1977. Before that date, immunization campaigns were carried out on occasional national vaccination days or on user demand at the health units.

The EPI eliminated the campaigns and introduced new immunization strategies, including home visits, intensive coverage of small areas by mobile health teams, and the

strengthening of immunization activities of regular units of operations. As a result, coverage improved for children under five. But not, unfortunately, to sufficiently high levels.

In 1982, 'Intensive Vaccination Days' were initiated. Immunization was provided very three months by the operating units of the MOH on specially designated days and at fixed locations.

Prior efforts had suffered from insufficient promotional activities due to budget constraints. The the introduction of regular intensive immunization days helped to improve coverage levels.

In 1985, with the implementation of PREMI, immunization activities increased greatly, particularly with respect to promotion, social mobilization, inter-institutional participation, strengthening of the cold chain, and provision of supplies. The strategy used was similar to that of the 'Intensive Vaccination Days', but in addition to immunization other components were included. The new strategy was called PREMI Campaign Days and was carried out on a national level with intensive promotional efforts. Not only the MOH, but also other public and voluntary institutions were involved in the vaccination activities.

From October 1985 to May 1988 seven PREMI Campaigns have taken place, one in 1985, three in 1986, two in 1987, and one in 1988.

## 5.2 EVALUATION OF COVERAGE RATES:

To assess program impact, immunization coverage rates between 1976 to 1987 were estimated and examined. Special attention was given to the period of the PREMI Campaigns, which started in 1985. In order to be able to examine trends, MOH vaccination information was used. Coverage rates refer to the percentage of the total population in the specific age groups, who vaccinated.

- a) Children under 1 year.- Figure 1 demonstrates a gradual increment in immunization coverage. A significant improvement was observable by the end of the period, even though coverage rates had not reached expected levels.

BCG.- Coverage rates for this vaccine increased continuously until the year 1985, when a small decline was observed. This was probably due to the fact that BCG was not administered during the PREMI Days and that BCG immunizations are not required for the registration of children in the Civil Registry. The decline in 1983 was

related to an intense and prolonged winter which impaired transportation and communication and required the use of human resources in other urgent activities. Overall, since 1982 the coverage rates for BCG can be considered acceptable because they have exceeded the 80% mark.

DPT.- Coverage with DPT is not satisfactory to date because the set targets have not been reached. However, a progressive improvement is evident beginning in 1982. An exception is the year 1983, for the reasons mentioned earlier.

Polio.- Even though effective coverage rates have not yet been attained with this vaccine, there is a tendency for continuing improvements from 10% in 1976 to 51% in 1987. As expected, coverage decreased for 1983, followed by a significant recovery to a level of 47% in 1984, which was then maintained with small variations until 1987.

Measles.- The vaccine began to be used more extensively in Ecuador in 1974. Its use was suspended in 1975. It was reintroduced in 1976, achieving a 3% coverage in that year and reaching 40% by 1978. From then on, the levels have remained markedly lower until 1984, when they reached 54%, then stabilized more or less until 1987.

b) Children between 1 and 4.-

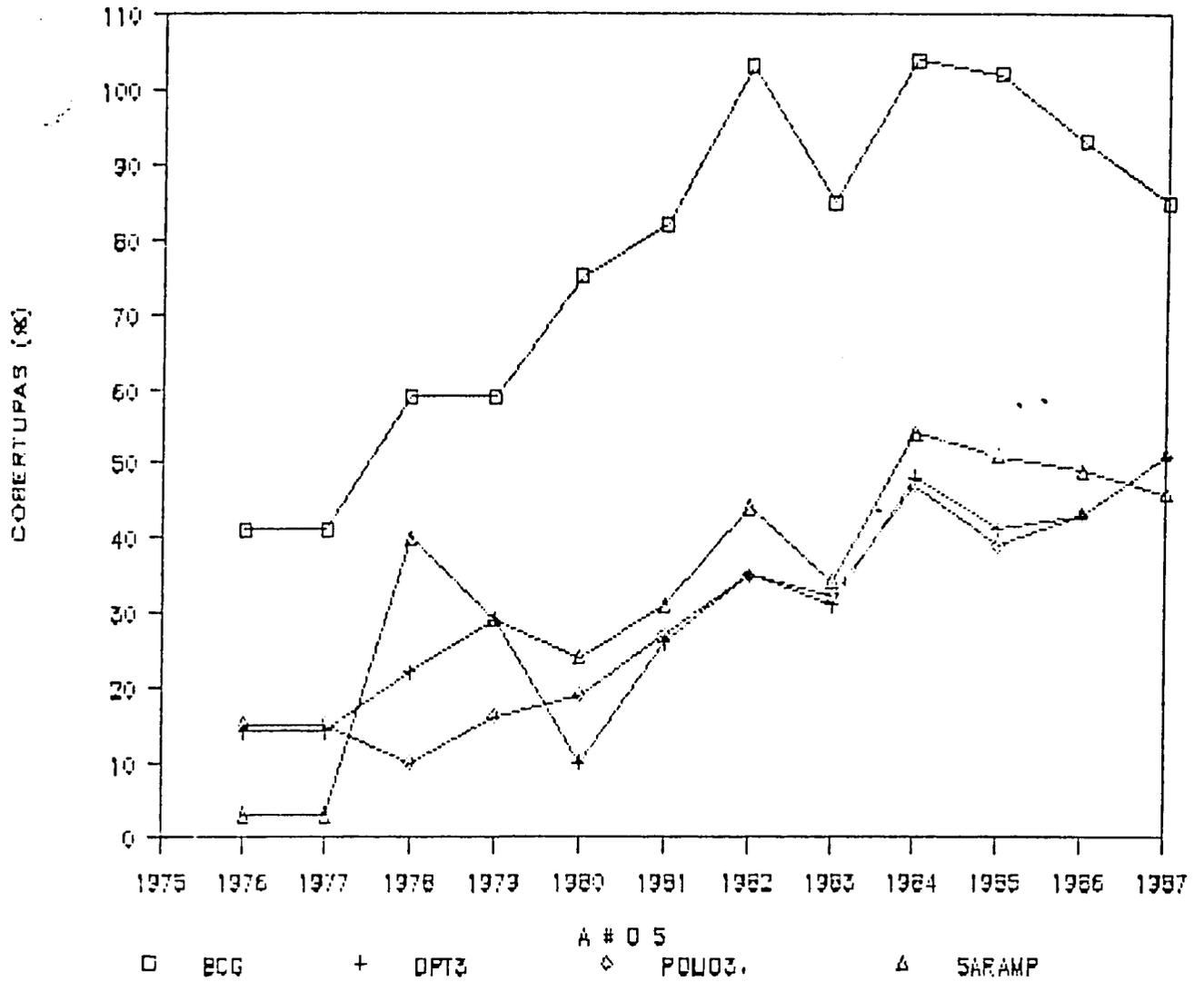
As can be seen in Figure 2, coverage rates for this age group are low. However, it has to be taken into account that goals for the older children were reduced in relation to the group under 1. The coverage targets were 80% until 1980, 45% in 1985, 30% in 1986, and 20% after that. This reduction in the vaccination goals was supported by the actual proportion of fully immunized children for each vaccine, as displayed in Table 3, which demonstrates that protection for this age group has reached 60.7% for DPT, 60.5% for polio, and 61.3% for measles.

BCG.- The low coverage of this age group with BCG is justified by the high coverage rates of 80% or more for children below 1.

DPT.- A gradual and moderate increase to a level of 25% for this vaccine was observed until 1984, after the temporary decline in 1983. The diphtheria epidemic in 1984 temporarily increased the demand for vaccine, but coverage rates dropped to 18% in 1985, reached 20% in 1986, and fell to a low level of 9% in 1987.

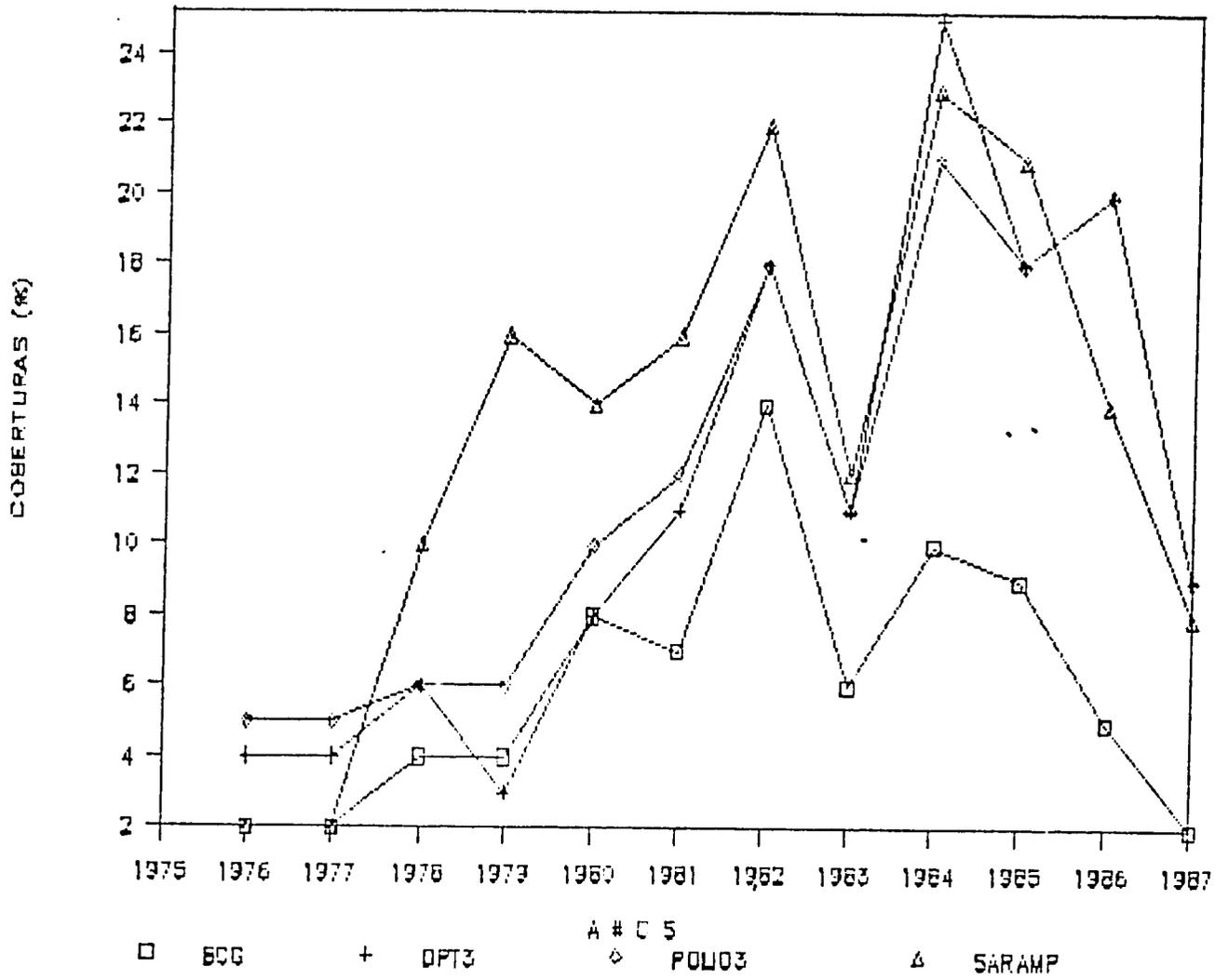
GRAPH 1

IMMUNIZATION COVERAGE TRENDS, AGE GROUP 0 TO 1  
ECUADOR 1976 - 1987



GRAPH 2

IMMUNIZATION COVERAGE TRENDS, AGE GROUP 1 TO 4  
ECUADOR 1976 - 1987



Polio.- The general coverage trends for polio follow those of DPT.

Measles.- Coverage rates for the measles vaccine showed considerable improvements, from 10% in 1977 to 23% in 1984. Low levels of coverage are observed for 1983, 1986, and 1987, with a coverage of barely 8% in the latter year.

### 5.3. VACCINATION ON DEMAND AND DURING CAMPAING DAYS BETWEEN 1985 AND 1988:

The following information was considered in evaluating immunization coverage during 1985-1988:

- Coverage rates between 1980-1984 are representative of regular immunization activities of the MOH and serve as reference points;
- Coverage rates during 1985-1988 are for the PREMI phase;
- Number of doses of vaccine administered on PREMI days;
- Relative contribution of the PREMI Campaign Days to the total immunization activities in each year between 1985-1988;
- Cumulative protection of the population under 5 years;
- Discontinuation rates in the less than 1 year old group prior and during the evaluation period.

The latter information was unavailable for the 1-4 year olds, because children who did not receive the first vaccine dose during the campaigns were not systematically followed. In addition, it is not known how many of them received the first dose as part of the regular immunization activities.

Information for each PREMI Campaign included all vaccine doses administered during the entire month, not only on the designated days. Regular vaccination activities beteen Dic. 1985 and Jun. 1988 encompassed all months during which no PREMI days were scheduled, i.e., 11 months in 1985, 9 months in 1986, and 10 months in 1987. The activities for 1988 were based on the first trimester and included one PREMI Day and three months of regular activities.

Coverage rates for the evaluation period and the five years prior are displayed in the following Table.

TABLE 3  
IMMUNIZATION COVERAGE OF CHILDREN UNDER 1 AND CHILDREN  
BETWEEN 1 AND 4 DURING 1980-1984  
(In percent)

YEAR	Less than 1				1-4 Year			
	BCG	DPT3	Polio3	Meas	BCG	DPT3	Polio3	Meas.
1980	75	10	19	24	8	8	10	14
1981	82	26	27	31	7	11	12	16
1982	103	35	35	44	14	18	18	22
1983	85	31	32	34	6	11	11	12
1984	104	48	47	54	10	25	21	23

Source: MOH National Division of Statistics. Evaluation Team.

Table 3 demonstrates that between 1980-1984, coverage increased for all vaccine types for both the younger and older age group, indicating increasing acceptance of services by the mothers.

The period from 1985 to 1988 covered by PREMI (see Table 4) shows that coverage rates first decreased in 1985 for all vaccine types, increased slightly in 1986 - more so for DPT and polio than for BCG and measles - and for DPT and polio reached coverage levels in 1987 which were close to the rates in 1984; coverage for BCG and measles, however, remained lower.

TABLE 4  
IMMUNIZATION COVERAGE OF CHILDREN UNDER 1 AND CHILDREN  
BETWEEN 1 AND 4 DURING 1985-1988  
(In percent)

YEAR	Less than 1				1-4 Year			
	BCG	DPT3	Polio3	Meas	BCG	DPT3	Polio3	Meas
1985	102	41	39	51	9	18	21	14
1986	93	43	43	49	5	20	14	16
1987	85	51	51	46	2	9	8	22
1988*	19	13	14	12	3	1	2	12

\* Corresponds to the first four months of 1988. Source: NOH National Division of Statistics. Evaluation Team.

PREMI Days. The following programmatic aspects were evaluated for the PREMI Days:

- ~ Number of vaccines administered
- ~ Number of participants
- ~ Number of children who complete immunization

Number of Vaccines Administered. This variable will be evaluated in relation to the number of doses administered during each of the seven campaign periods between 1985 and 1988. The last PREMI Day was conducted only by the MOH.

Table 5 lists the number of doses administered during each PREMI Campaign, separately for infants and children between 1-4.

TABLE 5

NUMBER OF DOSES ADMINISTERED DURING THE PREMI VACCINATION CAMPAIGNS, BY VACCINE TYPE. ECUADOR 1985-1988  
(In thousand)

	CAMPAIGNS VACCINE							
	TOTAL	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN
<b>0-1 Years</b>								
BCG	179,8	31,2	21,0	3,5	30,6	30,6	24,4	32,6
DPT1	275,8	55,0	34,8	40,4	40,8	36,3	29,3	39,4
DPT2	202,8	24,8	38,8	29,5	28,6	24,5	28,6	28,2
DPT3	115,5	12,3	14,7	17,7	14,9	16,0	18,5	21,4
Polio1	279,3	58,2	35,3	39,4	46,9	35,6	29,1	40,8
Polio2	203,2	24,4	38,6	28,4	28,5	24,3	28,3	30,6
Polio3	114,8	12,3	14,4	17,0	14,8	15,9	18,1	22,4
Measles	167,5	32,6	21,9	25,8	23,1	20,5	17,6	26,1
<b>TOTAL</b>	<b>1,538,7</b>	<b>250,7</b>	<b>219,</b>	<b>207,7</b>	<b>222,3</b>	<b>203,</b>	<b>193,</b>	<b>241,4</b>
<b>1-4 Years</b>								
BCG	97,8	45,7	17,0	12,8	8,9	5,6	4,8	5,1
DPT1	188,8	92,3	27,2	21,6	14,4	9,9	8,5	15,0
DPT2	228,6	53,3	70,7	41,3	22,58	12,8	12,7	15,1
DPT3	323,5	70,9	55,5	82,8	44,7	24,6	20,5	24,5
Polio1	188,8	91,7	27,8	21,2	14,7	9,7	8,5	15,0
Polio2	229,6	53,9	71,2	41,3	22,8	12,7	12,7	15,1
Polio3	327,4	72,2	57,0	83,0	45,0	24,6	20,8	4,9
Measles	306,3	115,2	42,0	44,0	32,4	22,4	17,1	33,2
<b>TOTAL</b>	<b>1,890,7</b>	<b>595,1</b>	<b>368,5</b>	<b>358,1</b>	<b>205,5</b>	<b>122,1</b>	<b>105,6</b>	<b>147,8</b>

Source: PREMI/MOH. Evaluation Team

A total of 1,587,743 doses of vaccine were administered to children under one during the seven PREMI Campaign Days. The first dose of DPT and polio accounted for the largest proportion of vaccine use, followed by the second dose of the same vaccines, the measles vaccine, and finally the third doses of DPT and polio. BCG was only administered in the operating units (health units) of the MOH, due to technical requirements.

A total of 1,892,732 doses of vaccine (including 99,755 doses of BCG) were administered to the 1-4 year olds. The first campaign accounted for about 30% of all vaccine use of the 7 PREMI Days. With this age group the greatest demand was for third dose of DPT and polio, followed by measles, and first doses of DPT and polio.

TABLE 6

TOTAL ACTIVITIES EXPRESSED IN NUMBER OF DOSES  
ADMINISTERED TO CHILDREN UNDER 5 YEARS BY  
CAMPAIGN AND YEAR - ECUADOR (1985-1988)  
(In thousand)

YEAR	CAMPAIGNS YEAR TOTAL							
	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN	
0-1 Years								
1985	250,7	250,7						
1986	649,4		219,4	207,7	222,3			
1987	397,3					203,5	193,7	
1988*	241,4						241,4	
TOTAL	1,538,7	250,7	219,4	207,7	222,3	203,5	193,7	241,4
1-4 Years								
1985	595,1	595,1						
1986	922,1		368,5	348,1	205,5			
1987	227,7					122,1	105,6	
1988*	141,8						141,8	
TOTAL	1,892,7	595,1	368,5	348,1	205,5	122,1	105,6	147,8

\* Corresponds to the first four months of 1988. Source: PREMI/MOH. Evaluation Team

The first PREMI Campaign drew the largest response for both age groups because of extensive start-up activities, expectations created by promotion, and mass mobilization efforts. Activities decreased over the following campaigns. An exception was the last campaign which, again showed relative increases for the following reasons:

- ~ The challenge to the MOH as the sole responsible institution;
- ~ High motivational levels of the personnel involved;
- ~ Exclusive focus on immunization activities;
- ~ Decentralization of the campaign with major involvement of the cantons in the organization; and
- ~ Long time between the sixth and seventh campaign.

Most vaccines were administered to both age groups in the year 1987 because of the greater number of campaign days. This was followed by the first PREMI Campaign for the 1-4 year olds, indicating the great interest and expectations raised by promotional activities.

TABLE 7

ESTIMATE OF NEW PROGRAM PARTICIPANTS FOR DPT BY  
CAMPAIGN DAY AND AGE GROUP - ECUADOR 1985-1988  
(In thousand)

	CAMPAIGNS YEAR TOTAL							
	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN	
-----								
0-1 Years								
-----								
1985	55,0	55,0						
1986	116,1		34,8	40,4	40,8			
1987	65,5				36,3	29,3		
1988*	39,4						39,4	
TOTAL	275,8	55,0	34,8	40,4	40,8	36,3	29,3	39,4
-----								
1-4 Years								
-----								
1985	92,5	92,5						
1986	63,2		27,2	21,6	14,4			
1987	18,4				9,9	8,5		
1988*	15,0						15,0	
TOTAL	188,8	92,5	27,2	21,6	14,4	9,9	8,5	15,0
-----								

\* Corresponds to the first four months of 1988.

Source: PREMI/MOH. Evaluation Team

Number of Participants in the Program. The number of children receiving the first dose of DPT on any Campaign Day was used as the indicator for the number of new program participants. Across campaigns, the total was 275,834 for children below 1 and 188,796 for children between 1 and 4. The largest number of new participants was recruited during the first PREMI Campaign. Table 7 lists new participants by campaign and age.

For DPT, the number of newly recruited children under 1 year fluctuated across campaign days, while the number of new participants among the older children tended to decrease over time, with the exception of the seventh PREMI Campaign.

The first dose was used as a proxy for estimating new program participation, because it represents the number of children starting a vaccination series and who will need to complete it. Also, by selecting one vaccine type data duplication is reduced. This indicator also has been used for intensive campaigns which note only the number of vaccines administered, without participant registration and follow-up.

TABLE 8

CHILDREN FULLY IMMUNIZED WITH DPT BY CAMPAIGN DAY AND AGE GROUP  
ECUADOR 1985-1988  
(In thousands)

	CAMPAIGNS YEAR TOTAL						
	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN
-----							
0-1 Years							
-----							
1985	12,3	12,3					
1986	47,4		14,7	17,7	14,9		
1987	34,4				16,0	18,5	
1988*	21,4						21,4
TOTAL	115,5	12,3	14,7	17,7	14,9	16,0	18,5 21,4
1-4 Years							
-----							
1985	70,9	70,9					
1986	183,0		55,5	82,8	44,75		
1987	45,1				24,6	20,5	
1988*	24,5						24,5
TOTAL	323,6	70,9	55,5	82,8	44,7	24,6	20,5 24,5
-----							

\* Corresponds to the first four months of 1988.  
Source: PREMI/MOH. Evaluation Team

Estimates of Fully Immunized Children. The third dose of DPT was utilized as an indicator of fully immunized children. The numbers are displayed in Table 8

A total of 115,474 children under one and 323,530 children between 1 and 4 completed the third dose of DPT. For the younger age group the number of fully immunized children increased across PREMI Days. This may indicate that mothers are becoming aware of the necessity to complete the total number of immunizations. The reason for the diminution in the number of older children who received the third dose of DPT (with the exception of the third Campaign) is not clear and requires further investigation.

The Relative Contribution of the PREMI Campaign Days to Immunization Coverage. The following Table displays the contribution of the PREMI Immunization Campaigns to the total immunization coverage.

TABLE 9  
CONTRIBUTION OF THE PREMI  
IMMUNIZATION CAMPAIGNS TO TOTAL NATIONAL COVERAGE  
IN CHILDREN UNDER ONE  
ECUADOR 1985-1988  
(In percent)

VACCINE	YEAR			
	1985	1986	1987	1988*
BCG	11.5	22.1	21.3	35.3
DPT1	22.0	45.5	26.8	41.0
DPT2	14.8	46.4	25.8	36.1
DPT3	11.4	36.7	22.3	34.0
45.0	26.1	40.4		23.6
Polio2	15.0	45.7	25.7	37.2
Polio3	11.8	35.6	21.9	34.6
Measles	24.2	48.0	26.9	41.9

\* Covers the first four months of 1988  
Source: PREMI/MOH. Evaluation Team

The first PREMI Campaign Day contributed between 11% and 24% to the total number of immunizations in 1985. Regular immunizations and intensive EPI activities which were completed in February accounted for the remainder.

Table 10 compares the accomplishments of the first PREMI Campaign with 1984 vaccination activities in Guayas, which responded directly to an epidemic of measles and diphtheria.

While these represent two entirely different events, they can be compared from the point of view of programming effectiveness. The emergency situation in 1984 resulted in the allocation of 20 million Sucres by the Government and required rapid program development and implementation. One could say that the first PREMI Campaign in 1985 simulated such an emergency in some of the characteristics of political decision-making, mass mobilization, inter-institutional cooperation, and promotion, and in the considerable use of human, economic, and material resources which were allocated.

TABLE 10

IMMUNIZATION COVERAGE IN GUAYAS (1984) AND DURING THE FIRST PREMI CAMPAIGN AS A PROPORTION OF TOTAL NATIONAL COVERAGE BY AGE GROUP

VACCINE	(0-1 years)		(1-4 years)		
	1984	1985	1984	1985	
	Guayas	1st PREMI	Guayas	1st PREMI	
BCG	22.0	11.5	21.0	46.0	
DPT1	24.0	22.0	22.0	55.6	
DPT2	23.0	14.8	27.0	36.9	
DPT3	23.0	11.4	41.6	36.7	
Polio1	24.0	23.6	20.0	55.8	
Polio2	23.0	15.0	26.0	37.6	
Polio3	23.0	11.8	31.0	37.5	Measles
25.0	24.0	22.0	51.0		

Source: PREMI/MOH. Evaluation Team

The panic created by the epidemics in Guayas resulted in increased coverage levels for both age groups in this province. When the 1984 data are compared to coverage through PREMI in 1985, the Guayas emergency situation seemed to have produced a comparatively better coverage for children under one, while PREMI achieved more protection for the older age group.

The contribution of PREMI to overall coverage was higher in 1986 than in 1985, because three campaign days took place, but dropped for 1987 with two campaigns (see Table 9). For 1988, considerable improvements in coverage can be observed across all types of vaccines. It must be pointed out, however, that this Campaign was limited to vaccination activities and took place 10 months after the sixth Campaign.

TABLE 11

CONTRIBUTION OF THE PREMI IMMUNIZATION CAMPAIGNS TO TOTAL  
NATIONAL COVERAGE IN CHILDREN ONE TO FOUR  
ECUADOR 1985-1988  
(In percent)

VACCINE	YEAR			
	1985	1986	1987	1988*
BCG	46.0	63.3	43.4	59.6
DPT1	55.6	73.0	41.0	65.0
DPT2	36.9	78.4	42.9	62.0
DPT3	36.7	74.7	41.3	58.7
73.2      40.5      65.0				Polio1      55.8
Polio2	37.6	78.0	43.0	61.6
Polio3	37.5	74.2	40.5	58.4
Measles	51.0	70.6	39.6	61.0

\* Covers the first four months of 1988  
Source: PREMI/MOH. Evaluation Team

Table 11 demonstrates that the PREMI Campaigns accounted for an increasing proportion of the total coverage of the older children, an effect which is stronger than for the younger age group. This concurs with the data for cumulative coverage presented in Table 12.

TABLE 12

CUMULATIVE COVERAGE FOR CHILDREN UNDER FOUR BY  
VACCINE TYPE AND YEAR - ECUADOR 1984-1988  
(In percent)

Year	Vaccine Type		
	DPT	Polio	Measles
1984	43.0	58.7	66.3
1985	61.5	58.7	66.3
1986	58.5	56.3	65.6
1987	63.7	62.8	65.3
1988*	60.7	60.5	61.3

\* Covers the first four months of 1988  
Source: PREMI/MOH. Evaluation Team

Cumulative coverage is a better indicator of the actual level of disease protection afforded because it includes children who received their vaccinations during the first year of life.

The cumulative coverage rates are acceptable and approach the 80% target for this age group (see Table 12). As a result, it appears adequate to maintain vaccination rates of 20% for this age group in order to protect the majority of Ecuadorian children.

TABLE 13

DISCONTINUATION RATES OF CHILDREN UNDER ONE PARTICIPATING  
IN THE PREMI CAMPAIGNS ECUADOR 1985-1988

Year	DPT			Polio		
	First	Third	(%)	First	Third	(%)
1985	250,186	107,832	357.0	246,852	104,027	58.0
1986	254,975	129,273	49.3	256,935	129,388	49.6
1987	244,272	154,376	36.8	247,071	155,292	37.1

Source: PREMI/MOH. Evaluation Team

Discontinuation rates for vaccines requiring multiple doses have improved over the years 1985-1987 and, in 1987, were somewhat below those of 1984:

DPT	46.6%
Polio	48.2%

Table 14 compares discontinuation rates from related campaigns. The rates improved from 67.7% to 41% of discontinuation for DPT and 70.8% to 37% for polio.

TABLE 14

DISCONTINUATION RATES OF CHILDREN UNDER ONE PARTICIPATING IN THE  
PREMI CAMPAIGNS. ECUADOR 1985-1988

	DPT			Polio		
	First	Third	(%)	First	Third	(%)
1st & 3rd	54,963	17,736	67.7	58,239	17,015	70.8
2nd & 4th	35,762	14,914	57.1	35,312	14,812	58.1
3rd & 5th	40,356	15,989	60.4	39,385	15,930	59.6
4th & 6th	40,778	18,453	54.7	40,915	18,077	55.8
5th & 7th	36,253	21,375	41.0	35,595	22,441	37.0

Source: PREMI/MOH. Evaluation Team

Since EPI is the component that has received the most attention in the PREMI Project, it deserves a detailed summary of the major findings. The analysis in this section allows us to conclude that:

1. The goal of vaccinating 80 percent of all children under 1 during 1985-1988 has not been reached. At the beginning of the period, coverage levels for the third dose of DPT and polio were 48 percent and 47 percent, respectively. In 1987, they had reached 51 percent for both vaccines. Measles coverage dropped from 54 percent before PREMI to 46 percent in 1987. In summary, the coverage rates are increasing only slowly for DPT and polio and have been decreasing for measles.
2. With respect to proposed targets of 100 percent for children between 1-4 years, coverage has improved substantially, even though the goal was not met. Cumulative coverage rates in 1988 indicate that immunization with DPT has increased to 60.7 percent compared to 43 percent in 1984. The improvements for polio are much smaller, from 58.7 percent to 60.5 percent in the same years. The coverage with measles vaccine dropped from 66.3 percent in 1984 to 61.3 percent in 1988.
3. The target of immunizing 80 percent of all pregnant women in high risk areas with tetanus toxoid was not attained. During the seven PREMI Immunization Campaigns, only 14,902 women received a second dose of TT. This was due primarily to the emphasis on child immunization services.
4. The activity levels during the campaign days were high, with coverage rates approaching 50 percent of all Ecuadorian children below one year and 70 percent of all children between 1 and 4. Despite the high level of activity, no significant increases in annual coverage rates were achieved due to the reduction in regular immunization activities between PREMI Campaigns.
5. A great improvement was noted in the recruitment of new program participants, particularly during the first PREMI Campaign, which reached 275,834 infants and 188,796 children between 1 and 4, a total of 464,630 new program participants.
6. The Campaign days facilitated the full immunization of a considerable number of children, foremost in the older age group (323,560 children), but also for children under 1, with a total of 115,474 children. The data make it impossible to ascertain what proportion of the fully immunized children had received first or second doses of

DPT or polio during the regular immunization activities.

7. Discontinuation rates for the PREMI Days are lower than in 1984, indicating that campaigns may have educated the mothers about the need to complete the full immunization schedule. Between 1985-1988, similar improvements were noted across the years. However, the discontinuation rates have remained excessively high at 36.8 percent for DPT and 37.1 percent for polio.
8. The Campaign Days appear to result in a deterioration of the regular immunization activities due to lack of an effective mechanism to facilitate immunization activities during the interphases and due to a preference among mothers and health personnel to prefer campaign days for starting or continuing immunizations.
9. Under PREMI, the MOH has not managed to solve administrative and financial problems related to the purchase of imported vaccines, and the country has not resolved the problem of vaccine production, which results in irregular availability of supplies.
10. PREMI has contributed to the improvement of the Cold Chain on a national level. The chain now covers 82 percent of the units involved in immunization activities. Similarly, PREMI has supported extensive training of technicians for Cold Chain equipment maintenance.

## 5.2. DIARRHEAL DISEASE CONTROL

For many years, diarrheal diseases have occupied the first place in the disease and mortality profile in Ecuador (see the following Table). Before 1983, infant mortality by diarrheal disease fluctuated around 20 percent of all infant deaths. Since then, the mortality rate for diarrhea has declined by nearly three percent per year.

In 1979, the MOH implemented a program to reduce the incidence of diarrhea in children under 5 by 20 percent. After a needs assessment study, the program was implemented in two provinces, using ORT as the main strategy. Staff and community volunteers were trained in ORT, and with time the initial resistance of physicians to this form of treatment was overcome. The Ministry of Education was invited to join these efforts in its formal and nonformal programs and to assist in the preparation of educational materials.

TABLE 15  
 INFANT MORTALITY FOR DIARRHEAL DISEASES  
 ECUADOR 1980-1987

Year	Total	Mortality	
	Mortality	Diarrhea	Percent
1980	14,261	3,087	21.6
1981	13,402	2,634	19.7
1982	13,101	2,653	20.3
1983	12,694	3,624	28.5
1984	11,161	2,007	18.0
1985	10,615	1,814	17.5
1986	10,372	1,832	17.6
1987	10,064	1,736*	17.2

Source: INEC

\* Estimate (Evaluation Team)

With the help of UNICEF, nine oral rehydration units were established in the main provincial hospitals for the training of health personnel, who were in turn were responsible for teaching the mothers in the use of ORS. Between 1982-1985, 5,669 people were trained, nearly 1,200 of them in 1985, the first year of PREMI.

To strengthen community participation in these efforts, the Diarrheal Disease Control Program (DDC) was included in the USAID funded Integrated Rural Health Project, and special materials were prepared to foster behavioral changes in the treatment of diarrheas and to promote ORT. PAHO provided financial and technical assistance for training and supervision.

1. The Diarrheal Disease Control Component fo PREMI.- The other major intervention in PREMI child survival activities is to reduce diarrheal morbidity and mortality in children under five years of age through the promotion of ORT and the extended use of ORS. PREMI utilized both the national PREMI Campaign Days and the on-going program of the individual health units. Crucial aspects of the program were manpower training and instruction of the community in the use of ORS. In addition, an intense mass communication program was launched, utilizing all available means.

Although we do not have appropriate data to assess the impact of this component, indirect evidence indicates that PREMI may have had significant success in DDC. In

1980, nearly 22 percent of all infant deaths were associated with diarrheal diseases. This rate came down to 17 percent in 1987. This shows an important decline during the period. However, in 1984 (right before PREMI interventions started) the rate was already at 18 percent. Since then, it has kept declining slowly.

Conversely, there is evidence indicating that O.R.T. coverage rates of episodes of diarrhea were very low before 1980 (MOH Statistics, 1987). Coverage rates have increased since then, breaking through the level of 20 percent just before PREMI started. In 1986, after the first full year of PREMI implementation, the rate of DDC coverage was nearly 30 percent and for 1987 the estimated rate is over 35 percent (PREMI, 1988) This indicates that the efforts carried out in DDC since 1979 have been successful and that PREMI intervention would have boosted this progress significantly.

Another possible indicator of success is the distribution and use of ORS packages. Between 1985 and 1987 nearly 2.3 million packages of ORS with a measuring device, and instructions for their use have been distributed (see Table 16).

TABLE 16  
NUMBER OF PACKAGES OF ORS DISTRIBUTED  
ECUADOR 1984-1987

Year	Number of Packages Distributed
1984	851,557
1985	621,165
1986	501,121
1986	813,337
1987	325,613

Note. Between 1984-1987, ORS were distributed for promotional purposes.

Data from surveys indicate a strong support for ORT and ORS use from the medical community, health workers and the mothers. This acceptance allows us to use the number of packages distributed to measure the program's impact. Between 1985 and 1987, the program distributed nearly 2.2 million packets of ORS with their respective instructions for proper use. If we estimate that two to three packages of ORS are required for a single episode of diarrhea, PREMI helped to decrease the risk of dehydration in nearly one million episodes between 1985 and 1987.

Assuming that a child has on average between two and 2.5 episodes of diarrhea per year, PREMI would have helped protect nearly 150 thousand children from risk of dehydration and diarrheal mortality per year during this period.

To reinforce the importance of ORT and ORS use in the treatment of diarrhea, 29 units for ORT were established across the country. The area of personnel supervision was strengthened through training of supervisors. This evaluation team was unable to assess the actual functioning of these units. However, PREMI support extensive training of MOH personnel and personnel from other institutions in the preparation and administration of ORS. In fact, most of the training component was associated with DDC.

An important aspect of PREMI support to DDC was the development of a strategy in mass communication and social mobilization.

In order to strengthen the concept that ORS is an appropriate treatment for diarrheal episodes in children under five, INNFA, personnel from the Ministry of Education (MEC) and health workers prepared special materials for the media. 19,000 individuals were trained in the use of ORS and are responsible for transmitting their knowledge through the 3000 health posts.

Also, in 1985 the MOH and other educational institutions organized an international seminar with more than 200 participants to develop norms for a manual of DDC. This manual was then distributed to the health posts of the MOH and to the rural social security health posts.

In 1986, a meeting on the control of diarrheal diseases in Andean countries recommended the development of a national plan and attained the collaboration of other institutions to establish ORT Training Centers jointly with the Association of Faculties of Medicine (AFEME) in cities with medical schools. By February of 1987, this program had trained 3,678 persons in 46 courses, including pre-medical and nursing students, in-service training for physicians and nurses, and training of health personnel.

One of the most important successes is the positive change in attitudes and practices about diarrheal diseases among health workers and mothers. KAP surveys were conducted to determine the knowledge of the population about diarrheal diseases, the need for liquids, and the foods provided during and after episodes. Although these surveys have not yet been thoroughly analyzed, findings from preliminary analyses indicate an important qualitative increase in awareness, both among mothers and health workers, about diarrheal diseases as a serious mortality risk, and about the importance of ORT in reducing this risk. Results from the 1987 KAP survey indicate that nearly 93 percent of those interviewed knew about ORS, that at least 20 percent of

all the last diarrhea episodes had been treated with ORS and that 60 percent of mothers reported having prepared ORS solution. This implies an important change since PREMI began. Though there is no good information, it is assumed that ORS use was very low before PREMI started, and in the case of ORS preparation, the first KAP survey (December 1985) found that only 29 percent of the mothers reported having prepared an ORS solution.

Similarly, in observation trials, 80 percent of mothers could properly measure and mix ORS solutions, and 35 percent reported health centers as their primary source of information on diarrhea treatment, indicating that training activities have had some positive effect on diffusing the ORT approach.

The 1987 KAP survey also found that nearly 93 percent of breastfeeding mothers reported having continued the breastfeeding during a diarrhea episode and 64 percent reported to have given the children some liquids. This is a moderate, but still significant, improvement since the 1986 KAP survey results, when it was found that only 85 percent of breastfeeding mothers continued the practice during a diarrhea episode, and only 50 percent gave the children more liquid. These are impressive results. Again, however, further analysis is needed of the KAP surveys data to establish the accuracy of these findings.

Another important achievement of the Project was the wide-spread acceptance of ORT by physicians, other health workers and the community. In fact, a private survey which was conducted with the support of the Ecuadorian Pediatric society and which sampled physicians in the rural and urban areas, supports this view. For example, 73 percent of the physicians in the urban areas and 92 percent in the rural areas prescribed ORS for treating diarrheas (the difference between urban and rural doctors was expected because many of the physicians in the rural areas were recent graduates and already trained in ORT). Also nearly 66 percent of all physicians in the sample recommended providing food during an episode of diarrhea, and only a minority (3 percent) recommended suspending breast-feeding.

All this demonstrates positive changes in the control of diarrheal diseases, and indicates that PREMI activities are bringing about the intended effects. However, diarrheal diseases remain a leading cause of infant death in the country. It will be necessary to make additional efforts to reach the goal of 85 percent ORT coverage in MOH health facilities by the end of the project. In fact, a more definitive decline could have been expected. Unfortunately, available data to assess the entire component are both scarce and faulty.

Indeed, though these pieces of information reinforce the idea of success, there is no reliable information to support these observations. The Project has failed to produce data for

project success regarding this component. Thus, there is no evidence to support a definitive decline in diarrheal diseases, even though the majority of people involved in the program assume there has been a decline. The lack of effort for producing accurate and timely information to assess Project success is an overall weakness of the Project.

### 5.3. GROWTH MONITORING, BREASTFEEDING AND NUTRITION EDUCATION

Infant and child malnutrition is an underlying factor in at least half of the reported child deaths. Achievements in growth monitoring and nutrition may produce a significant reduction in infant/child morbidity and mortality. Most people in the field agree that, though the situation is critical and interventions should be a priority, actions in this area have been nil. PREMI has also failed to include this component in its program.

Before PREMI, several attempts were made to address this issue. In 1978, the first manual with norms, strategies, and technical procedures for infants, preschoolers, and school children was published. It included information about growth monitoring and suggested the use of the Growth Chart (WHO) and the Denver Developmental Screening Test to assess motor, linguistic, and cognitive development. In 1982, norms were issued for Maternal and Child Health which promoted growth monitoring, assessment of development, and nutrition education, among other areas.

In 1983, PEMFAAMI (the Project of Assessment and Improvement of the Project of food complement for mother and children) of the ININMS (National Institute of Nutrition Research and Social Medicine) validated the anthropometric measurements which were used to guide the interpretation of gains in physical growth. Parameters for psycho-motor development, information materials on child nutrition, immunization cards, and instruction materials for the use of ORS were developed and approved by the MOH in 1984. In addition, a pilot nutrition education program for mothers and children was implemented.

When PREMI was designed in 1985, growth monitoring and breastfeeding were included among the four main strategies. This resulted in an expansion of growth monitoring and child nutrition education. PREMI thus contained an important component on nutrition, growth monitoring and breastfeeding. In fact, Ecuador is one of the few Latin American countries with a significant nutrition component in its Child Survival Project design.

Based on the earlier experiences, the Program of Growth Monitoring and Development, Breastfeeding and Child Nutrition (CLAI) was developed to further strengthen the areas of prevention, monitoring, and treatment of child nutritional

deficiencies. Components for training, supervision, research, and community education were elaborated.

Measures for Project success in these areas are not available. In Growth Monitoring, achievements are difficult to assess, and the distribution of health cards cannot be considered successful in itself when they are not used correctly and when follow-up is inadequate. Data from KAP surveys demonstrated that by December of 1985, approximately a third of the mothers had a new health card; this percentage increased to 57 percent by July 1986. Moreover, the only information about child weighing activities was found in the PREMI/MOH Project Report for April-June 1986, which stated that about 180,000 children have been weighed. However, the weight is not routinely recorded in the growth chart of the health card, so that mothers can not follow and learn about the weight gain of their children, and health personnel do not educate mothers about the significance of changes in weight or the importance of recording it regularly. By July of 1986 (also information from a KAP survey), about a third of all children below two had at least one point marked on the growth chart; however, in April 1987, less than 16 percent of the same age group had at least two recordings of weight.

PREMI helped to finance and procure the following equipment for growth monitoring, which was supplied to the operating units of the MOH: nearly one thousand scales for babies (with respective pans for weighing and weights); 3,500 scales for children; nearly 1,200,000 growth charts; nearly 3,000,000 health passes, 50,000 instructions for passes, and 15,000 posters "Make your child a champ".

During the period of this evaluation, no information was available about training, supervision, follow-up and research for these two strategies. Moreover, the lack of baseline information prior to PREMI makes impossible the quantitative evaluation of Project impact.

Though KAP information indicates the situation regarding breastfeeding is positive, this evaluation cannot associate this to specific intervention from the MOH or any other institution. The only connection could be the efforts in mass communication carried out by MOH and INNFA (nearly 900,000 posters promoting breastfeeding). Moreover, breastfeeding is a practice that was significantly prevalent in Ecuador when the PREMI Project started.

In any case, information from the KAP surveys indicates that, overall, 92 percent of all mothers breast-feed during the first three months; and 82 percent of the 3-6 month old infants (68 percent in urban and 94 percent in rural areas) are breast-fed. The percentage drops to 70 percent (56 percent urban, 82 percent rural) for the 7-12 months olds. This

reinforces the idea that breastfeeding is still a national custom, though reductions are observable in some of the urban and the marginal areas of the country.

The overall conclusion of this evaluation regarding this component is that actions oriented to achieve the goals of this component were scarce from the beginning and were discontinued due to institutional breakdowns. The MOH, with the Direction of Promotion and Protection, was unable to organize a strong team to be in charge of the assessment of the nutritional situation of the target population, the design of a specific strategy to address the problem, and the implementation and evaluation of the strategy. Furthermore, the problematic initial efforts to organize CLAI (only in February 1987), the changes in program leadership, and the strong dependency on and the lack of coordination with ININMS, have affected the implementation of a significant activity.

The major continuous achievements in this component were the development, production and distribution of educational materials on nutrition/growth monitoring for MOH health delivery personnel, and the procurement of scales for growth monitoring in MOH health facilities.

Although achievements in this component are quite minor ones, during the last period an important research activity in the area has been taking place. PREMI and USAID, with the technical assistance from Manoff International (Weaning Project) are supporting ININMS in a qualitative research project on infant feeding, breastfeeding and weaning practices. This research effort can create strong bases for the design of a definitive component on nutrition, growth monitoring and breast feeding, as well as produce the key elements for implementation. Results from this research effort could lead to an overall assessment of the situation regarding nutrition, breastfeeding and growth monitoring in the country, the design of an appropriate strategy, the future implementation and evaluation of a specific program. It is necessary, however, to organize a group within MOH to make this endeavor possible.

#### 5.4. CONTROL OF ACUTE RESPIRATORY INFECTIONS:

Although the control of acute respiratory infections (ARI) among children under five years of age was not part of the original Project design, ARI was included as a PREMI component in 1986 due to its high prevalence as a cause of mortality and morbidity. Deaths from respiratory infections are the largest single cause of reported infant deaths in Ecuador after perinatal conditions (21 percent for children under one and 22 percent for children under five), especially in the rural Sierra (Ruststen, 1987)

TABLE 17  
DEATHS FROM ACUTE RESPIRATORY INFECTIONS  
IN CHILDREN UNDER FIVE, BY URBAN AND RURAL AREAS  
ECUADOR 1981-1985

Year	Number of Deaths		Total	Urban	Rural
	Total	ARI	(%)	(%)	(%)
1981	21,558	3,155	14.6	40.1	59.9
1982	19,777	3,351	16.9	38.1	61.9
1983	19,171	2,957	15.4	43.4	56.6
1984	17,473	2,413	13.6	42.8	57.2
1985	18,322	2,133	12.4	41.7	58.3

Moreover, as data in Table 17 indicate, children mortality rates by ARI were stationary between 1981 and 1983, and CMR by ARI fluctuated between 14 and 17 deaths per thousand live births. Since then only a moderate decline can be observed. In 1985, the ARI child mortality rate was still near 12 per thousand.

Interventions to reduce the influence of ARI as cause of deaths and morbidity were negligible in the implementation of PREMI. Little attention has been paid to this problem until recently, despite the high rates of ARI morbidity and mortality indicated in hospital statistics.

Because of the high ARI prevalence rates, in 1986 ARI was included as a component within the PREMI Project. The proposed goal was to reduce mortality due to ARI in children under five to 22 percent. Research has indicated that mortality in low-birth-weight infants and malnourished children is substantially higher than in well-nourished children. According to hospital statistics, the relative risk of children under one year is three and a half times that of children between one and four; and a PREMI/INNFA study demonstrated that 61 percent of visits to health facilities were related to ARI.

Earlier studies had shown alarmingly high levels of ARI in six of the mountain provinces: Chimborazo, Cotacachi, Tungurahua, Bolivar, Carchi, and Imbabura. As a result, the program was implemented first in these areas. MOH staff and community volunteers were trained in the implementation of this program. Physicians refused to participate in the because the ARI Program made extensive use of paramedical and non-medical staff.

In 1987, the MOH, with PREMI support, developed norms for ARI treatment. Overcoming initial resistance, these norms obtained

general approval from the medical community. In February of 1988, one hundred pediatricians from across the country were invited to a meeting with the goal of evaluating and reformulating the ARI strategy. Norms and guidelines were finally approved for diagnosing and treating ARI which allowed para-medical and non-medical staff a rather limited role in treatment. Unfortunately, all these efforts have not yet been translated into programmatic efforts.

Achievements from the inclusion of ARI within PREMI Project have been limited to date, and it is not possible to the extent of these achievements determine. It seems the ARI Program has gradually extended coverage to all health units to date, with little involvement on the part of the community. However, training of health personnel has been minimal, and little has been achieved in educating the population. It is fair to say, however, that implementations has just started in several of the health facilities of the MOH, and evaluation of these activities is premature.

Implementing ARI control in every health facility, will require a great effort and the solution of many problems by the appropriate units in the MOH ( such as staffing, coordination, and guidelines for community involvement).

Overall, the two strategies that have received most of the attention and concentrated most of the effort are the Expanded Program in Immunization (EPI) and Diarrheal Disease Control (DDC). In EPI, the goal, have not been reached yet.

Although there is some indirect evidence indicating the PREMI DDC component would have had positive result, the required data to quantitatively assess Project success is unavailable.

To date, nutrition/growth monitoring and acute respiratory infections have received little attention. The effort regarding these component must be accentuated in any further large scale effort to improve child well being in the country.

This evaluation found a major shortcoming in the implementation of the Project. This was the lack of appropriate and the timely information to assess Project impact and implementation process. Although Project design considered this aspect, and enough funds were allocated for this purpose, the Project has failed to produce accurate data and to analyze on time the data that have been produced.

## 6. INFORMATION SYSTEM AND EVALUATION ACTIVITIES.

### 6.1. THE STRATEGY AND PLANNED ACTIVITIES:

Activities in this area were called to improve the availability and use of information related to accomplishment of project goals. The current information system in Ecuador was deemed to be too incomplete and inaccurate to meet the project's information and evaluation needs. In general, these activities were divided into two categories: 1) research studies and evaluations, and 2) improvements in the routine data collection system. The first category consists of specific ad hoc studies designed to fulfill an information need for evaluation of project impacts and achievements at a particular point in time. The second category consists of activities which will contribute to improvements in existing information systems such as those in the MOH or INEC.

The Project Paper outlined several (10) specific project outputs in the area of improved information systems. From three studies on ORT/immunization coverage and morbi-mortality in children, baseline study of KAP of mothers concerning immunization, ORT and breast feeding; in marginal urban and rural areas, to small computers installed in central and up to ten provincial MOH offices and computerization of EPI/ORT data in MOH offices with computers.

During the first year of the project considerable modification was made to the information system plan, particularly in the research studies and evaluation category. These changes were a result, in part, to input from a number of consultants who passed through Quito during the project's early stage. The new plan/strategy greatly increased the emphasis (and budget) given to studies and evaluation activities. Among other things, the need for a long term project evaluation and communications evaluation advisors were identified. The approach also called for considerable support from several AID centrally funded projects. Specific support was programed from AED, Johns Hopkins, REACH and PRICOR.

Most of the activities called for in the Project Paper were maintained but the organization and implementation was modified. The number of KAP surveys called for was increased to occur twice a year. In addition, collection of coverage and morbidity data was shifted to the KAP instrument for 1986 and 1988. The revised plan also identified the need for a surveillance post study to identify and demonstrate possible improvements to MOH information system.

## 6.2. IMPLEMENTATION OF EVALUATION RESEARCH ACTIVITIES:

PREMI Evaluation Advisor. In late 1985 Juan Londono was hired as the long term evaluation advisor on the PREMI Project. He advised on and helped plan evaluation activities for one year. It then took a full year to fill that vacancy, with Jaime Benavente taking over the position in November of 1987.

Communications Evaluation Advisor. Eduardo Contreras was made available as a long term communications evaluation advisor through the centrally funded AED/HEALTHCOM project. Dr. Contreras began working with PREMI/INNFA in January 1986 and continued until June 1988 when the PREMI/INNFA group was disbanded. During that time (with University of Pennsylvania backstop) he had major input into the design of KAP2 and KAP3. In June 1988 he signed a one year contract to provide support to the PREMI Evaluation Advisor for ongoing analysis of the KAP surveys.

Short Term Technical Assistance. A number of short term advisors have been made available for PREMI's evaluation and information activities through AID centrally funded projects including HEALTHCOM, REACH, PRICOR, PRITECH, Johns Hopkins and AID/W. Since the project began in 1985 there have been over fifty short term-consultant visits with a third to a half of them directed toward or having some input into evaluation and information systems activities.

Mortality Study. In the interest of efficiency and expediency the decision was made to carry out the first (baseline) mortality and morbidity study attaching it as part of the DANS survey (Diagnostic de la Situacion Alimentaria, Nutricional y de Salud) being carried out by CONADE (Consejo Nacional de Desarrollo). There are some questions on the appropriateness of the sample and the less complete (truncated instead of full) birth history method. These problems were in part because the nutrition study had an inherently different purpose and target (children under 5) than the mortality study. The field survey was carried out during the first three months of 1986 but the cleaned data set on the morbidity and mortality portion of the survey was not turned over to PREMI until one and a half years later. An analysis of the data (Rutstein) concluded that the DANS survey resulted in an under estimation bias that could be as bad or worse than the vital statistics data it was suppose to improve upon.

Rutstein Analysis. In October and November of 1987 Shea Rutstein and others produced a report based on an analysis of data from the DANS survey, three other surveys (ENF, ESMIVID and ENDESA), and Vital Statistics from INEC. The report concluded that the "best estimates" were derived from the ENF and ENDESA

survey, and that the DANS survey and the INEC data both contained biases resulting in significant lower estimates of infant mortality rates. The report also concluded that under reporting of vital statistics "appears" to have worsened but that this was actually the result of neonatal deaths (which suffers more from under reporting) is making up an increasing proportion of infant mortality as non)neonatal deaths have declined. The Rutstein analysis concluded that the infant mortality rate had dropped from about 60 per thousand in 1985 to 52 per thousand in 1987. This compares to a Project Paper estimate of 72 per thousand for 1985 and a 1989 goal of 50 per thousand. It might appear that the project has almost met its goal, but this is because the Project Paper over estimated infant mortality when the goal was set. Rutstein's report was translated to Spanish and was generally considered accurate and useful.

KAP1 Study. The first knowledge, attitudes and practices survey was carried out in late 1985. While this was intended to be a baseline survey, it actually did not take place until a month after the first campaign. There were apparently two reasons for this: pressure to get the first campaign underway, and administrative problems in arranging for the survey. Some problems were encountered with the sample design and it was necessary to go back in March, 1986 and augment the rural portion of the sample. The data was never seriously analyzed and no report was produced.

KAP2 Study. Work on the second KAP survey was begun in early 1986 with Jacques Manceau (REACH) working on the initial sample design. It was necessary to increase the sample size considerably in order to include the OPI/immunization coverage objectives since immunization information was relevant only for a subset of the KAP sample population. PREMI had major responsibility for design of the instrument's content but there were interests other groups and individuals involved. The questionnaire contained over 400 variables and almost 4000 cases. The field work was contracted by PREMI/INNFA to CEPLAES and was carried out in May and June of 1986. CEPLAES also processed the data, did simple frequency tables and turned the data over to INNFA for analysis.

REACH KAP2 Analysis. Marjorie Pollack, under a REACH contract, carried out a consultancy during August and September of 1986. One of the main purposes of the trip was to undertake a preliminary analysis of the KAP2 survey data, particularly from the immunization coverage standpoint. A draft report was produced in late 1986 followed by a final report. This report presented tabular and graphical descriptive statistics of the KAP2 data and also provided some analysis with recommendations for adjustments to PREMI's activities. One important finding of Dr. Pollack was that the KAP2 data indicate significantly higher coverage than do the MOH statistics. This report was

not well received by the MOH because of conflicts over coverage rates, nor by INNFA because of its independence and failure to credit INNFA's role. As a result the analysis was not used as widely as it might have been. Over a year later another REACH consultant, Rodrigo Rodriguez, analyzed immunization coverage from KAP2, KAP3 and MOH sources. Mr. Rodriguez came to a different conclusion than Dra. Pollack, that the KAP2 coverage was not higher than indicated by the MOH and that the KAP figures were not reliable.

REACH Cost Effectiveness Study. A cost-effectiveness study was carried out by REACH consultants Donald Shepard, Robert Robertson and others. The study compared cost effectiveness of the PREMI vaccination campaigns and Ecuador's regular vaccination program. Effectiveness data was taken from the KAP2 study and cost data was collected in Ecuador in June and July of 1986. A final report was produced in August of 1987. This study did not appear to be part of the regular evaluation plan and it seems that interest for the study came from outside Ecuador. A criticism of this study, as well as the Pollack Analysis, is that they were done completely independent of any GOE involvement, and then presented in an authoritative manner.

KAP3 Study. The third KAP survey was in many respects a repeat of the second one. The Communications Advisor with support from the University of Pennsylvania had primary design responsibility. Some variables were added and some were dropped with the net result of slightly fewer questions than KAP2. The number of cases in KAP3 were reduced considerably from KAP2. The field work was contracted again to CEPLAES and was carried out in April of 1987 using a large portion of the KAP2 interviewers. CEPLAES ran descriptive statistics and some cross tabulations in June and July of 1987. The data was similar to KAP2 and really did not demonstrate the campaign results that were anticipated. Preliminary analysis led to improvements in targeting immunization toward children under one year old and raised issues of demand being generated that may exceed the MOH's ability to offer services. No comprehensive analysis or report has been produced.

The decision was made to postpone any further KAP surveys, but there may be some KAP types of questions in the morbidity/mortality survey planned for March of 1989. The Evaluation Advisor and the Communications Evaluation Advisor plan to carry out more extensive analysis of the KAP2 and KAP3 data prior to the March 1989 survey.

KAP Personnel/Inventory Study. In 1986 a knowledge, attitudes and practices survey was carried out on personnel in MOH facilities and included questions on resource inventories. The planning and design work was done by the PREMI Coordinator, the Evaluation Advisor and a consultant, Dra. Pollack. No

evidence was available of any analysis or report, and apparently no code book can be found.

Cold Chain Inventories. The MOH has carried out annual Cold Chain Inventory surveys and, following the surveys, cold chain equipment has been ordered. Marjorie Pollack analyzed the results of the 1986 survey and David Nelson did a similar analysis of the 1987 survey results. It is not clear how much effect the surveys or analyses have had on the equipment orders. In addition, there does not appear to be anyone within PREMI Coordination currently overseeing this activity for 1988.

### 6.3. IMPLEMENTATION OF INFORMATION SYSTEM IMPROVEMENT ACTIVITIES:

PRICOR Pilot Study. A large pilot project entitled "Subsistema de Informaci n para Atenci n Ambulatoria del Ministerio de Salud P blica" was designed and carried out under a contract with PRICOR in late 1986 and 1987. PRICOR consultant Karen Foreit worked on the design and provided technical assistance, and Francisco Sevilla was contracted as Principal Investigator. The project was based on the conclusion that "la informaci n procesada por el sistema actual es poco confiable, incompleta, desintegrada, inoportuna (lenta) en la retroalimentaci n de la informaci n siendo inadecuada para la tendencia de planificaci n descentralizada y programaci n local integrada del Ministerio de Salud P blica." The project design had a number of components including:

- \* Identification of child survival related indicators from eight separate MOH forms and consolidated into one single form.
- \* Implementation of the consolidated form over a six month period in forty randomly selected health facilities.
- \* Selection of an additional forty matched health facilities as a control group for monitoring the standard MOH data collection process.
- \* Centralized microcomputer processing of the data and report generation.
- \* Feedback of the information to the national, provincial and local levels.

The consolidated form was designed and the field work was carried out from March through August of 1987 in 35 health facilities. (The five facilities in the Oriente were dropped due to problems created by the earthquake.) The control group was selected but the monitoring never really took place. The project

was contracted through October of 1987 at which time the project was far from complete. PRICOR agreed to extend the project to the end of 1987 but was not willing/able to extend it further. By the time PRICOR "finished" the project less than half of the data had been entered into the computer. The first three months of 1988, using PREMI funds, the MOH continued input of the data. By the end of March approximately sixty five percent of the data had been entered but there still did not constitute a data set complete enough to perform any analysis. PREMI then contracted directly for additional data entry services. Eighty percent of the data has now been entered, resulting in a complete data set for four of the six months from thirty of the thirty five health facilities. This data set includes 45 indicator variables and approximately 100,000 cases.

In June PREMI contracted with Robert Timmons to clean and analyze that data. Data cleaning has been completed on all but one of the thirty health facility data sets. The cleaning process has uncovered a large number of errors particularly in the area of logical validation checks. Dr. Timmons has indicated that most of these errors occurred at the point the forms were filled out, and consist of fields that should have been filled out but were not. It has been argued that in many cases this is because the services were not performed but, since the control group was not monitored, it is impossible to know the extent to which this might be true. The data entry program did not contain the level of consistency checks which were needed to detect this problem. He has commented that the consolidated form is quite complex and contains some inaccuracies in the form's coding instructions. At this point it is questionable how much meaningful analysis can be performed on the data.

Birch and Davis Global Approach. In early 1987 Birch & Davis Associates, Inc. was awarded a contract resulting from competition among minority (8a) firms. This contract was to provide technical assistance to improve and computerize the MOH's health information system related to the Child Survival project. Birch & Davis proposed carrying out the following activities:

- \* Review and revise, as appropriate, the standards and forms used for reporting.
- \* Develop systems to improve the quality, quantity and timeliness of the reported data.
- \* Provide increased and improved training to provincial statisticians and cantonal statistics auxiliaries.
- \* Support more effective publication and distribution of the Epidemiological Bulletin.

- \* Convert from a manual to a computerized information system for the Diarrheal Disease Control and Expanded Program of Immunizations.

One significant aspect of their proposed approach was that the information system should be built from the "ground up," allowing for the health facility to collect and use the information before summarizing and passing on to higher levels.

This project began in January 1987 with Stuart Friedman as Officer-in-Charge, Robert Murray as Computer Systems Consultant, and Lynne Gaffikin as Epidemiologist/ Information Systems Consultant. (Birch & Davis were not able to obtain the services of John Novak as promised in the proposal.) The project seemed to falter and have trouble getting started. The Quarterly report dated September 30, 1987 (after half of the eighteen months had passed) was still talking about the kinds of problems that exist and what should be done. In terms of their original implementation schedule they were to have completed: monitoring of software development, installation and testing of hardware, and development of training materials. In fact they were still in the phase of needs assessment and information system development. During this time the decision was made to concentrate on detailed development of subsystem models beginning with the Epidemiology Department of MOH. In a later Progress Report dated April 30, 1988 it was pointed out that project in-country activities were suspended April through October 1987 due to changes in the MOH and absence of two key USAID personnel.

In October 1987 a major change in the scope and direction was apparently agreed to between Birch & Davis, USAID and the MOH. The decision to make this change is not well documented, and it is difficult to know exactly how it developed. The change called for dropping previous plans to work on subsystem models and concentration on developing a macro level Executive Information System (EIS). This EIS would consist of computerizing summary information from current MOH and INEC statistics. The system would be designed to provide central level decision makers with on line query capability. A project proposal was developed by Birch & Davis and submitted by the National Informatics Department of the MOH.

The first draft of the proposal was questioned by the PREMI Evaluation Advisor on the grounds that it was not specific enough, especially in terms of how it was to be implemented. PREMI and USAID agreed that the EIS and central level automatization activities could continue if a satisfactory proposal could be developed that provided more specifics on what was to be done. The second proposal still did not represent an implementable plan and these activities are currently suspended.

Dr. Benavente also took steps to refocus the project on the provincial and local level. A consultant, Edmond Andrews, was identified and employed through the Birch & Davis contract to develop activities with MOH personnel in the Cotopaxi province and several of its health areas. The purpose of the activities is to help them develop better understanding of decision processes and uses of information. The Birch & Davis contract has been extended until September of this year, at which time there will be a report of the results of the provincial pilot effort.

Epidemiological Bulletin. The MOH has been publishing its Epidemiological Bulletin on a slightly irregular basis, but it seems to come out at approximately annually. For a while distribution was in bulk to the provinces but now a specific mailing list has been developed. It is unlikely that any information from PREMI evaluation and information systems activities has made its way into the Bulletin.

#### 6.4. ANALYSIS AND CONCLUSIONS:

We believe that it is fair to say that PREMI's Information Systems activities have been less than successful. While a number of activities have been planned and implemented, they have fallen short of fulfilling the purposes given in the Project Paper for including these activities in the Child Survival project. Most of the problems or shortcomings can be grouped into two categories: problems with the strategy and design, and problems with the implementation.

##### 6.4.1. Problems with the Strategy and Design.

The primary strategy for the development of information system activities has been an over reliance on special studies and multiple purpose surveys. The reason given for this was that the existing routine data collection systems are incomplete and inaccurate. However, the inordinate amount of emphasis on special studies has helped to assure that this will continue to be the case. PREMI, or any new child survival project, would need to continue to rely on costly special studies indefinitely since these special studies have done little to understand or improve the regular information systems in Ecuador.

Almost everyone seems to agree that mortality data generated by INEC are inaccurate, with significant under reporting problems. It should be possible, however, to design/use a mortality study that would improve on the INEC system and make it more useful. The first step would be to make assumptions about under reporting as explicit as

possible. For example, we can assume that under reporting is more severe in some areas than others. The system can be assumed to be more accurate in Quito and Guayaquil than in remote areas. A model could be developed which predicts the amount of under reporting or error expected in the INEC figures. The model would predict by area (administrative unit), by age (including a neonatal category) and sex, and by socio-economic indicator.

When the cluster sampling is carried out for a mortality survey, the model could be used to predict what the survey results would be for each cluster. The survey results could then be used to refine the model. The initial model may have to be based on a WAG (wild guess) but after the first mortality survey (or more detailed comparison between the vital statistics and the data from ENF and ENDESA) it could be converted to a SWAG (scientific wild guess). After the second mortality survey (perhaps the one planned in March, 1988) a fairly useful model could be expected. There may, of course, be random errors in the INEC system, but these could be accounted for by smoothing techniques. The development of such a model would have two benefits. First, it would make the routine data collection system more useful by making it possible to interpret INEC data for what ever year and at what ever geographical level was of interest. Second, it would provide a mechanism for identifying areas for improvement in the routine system (e.g. reporting-of neonatal reporting of births and deaths), as well as a way to monitor progress toward achieving those improvements.

Certainly there is some information that cannot reasonably be extracted from the routine data collection system. Information on knowledge and attitudes can best be obtained from a KAP type instrument. However, in PREMI the KAP surveys were abused in that they were used to try to collect everything. Surely 400 variables must go beyond any single person's ability to digest, and there has to be some question as to the effect of such a lengthy, complex questionnaire on the respondent's ability to answer in a meaningful way. There is little doubt that some of the KAP information (particularly from the second survey) contributed significantly to the understanding and modifications of the mass media campaigns. Far too much of the KAP data, however, has gone unanalyzed and unutilized.

While some of the KAP information was quite useful, much of the information did not need to be collected at all. It has been estimated by one key figure in the process that a third of the KAP2 variables could have been dropped without any significant loss in the amount of analysis and utilization that occurred. In a 6/12/85 memo to Ken Farr recommending considerable expansion of evaluation research activities, AED, consultant Bob Hornik said "The samples don't need to be large, nor the measurement instrument limitless." Clearly this is not the way things turned

out. While there are many reasons why, the main one seems to be that too many people with different agendas had their hands in it.

There is information which could have been acquired by other means including improvements to the routine data collection system. Comments made above about a model for interpreting and improving INEC mortality information, apply equally well to MOH morbidity rates and coverage rates for immunizations and oral rehydration salts. Likewise, an improved MOH logistics information system would be a useful way to determine vaccine and ORS distribution. While these systems would obviously not cover private sector distribution, they would have the advantage of providing operational information on the distribution channel. A major issue arose in the project when Dra. Pollack's analysis of KAP2 came up with immunization coverage figures significantly higher than the MOH figures from their information system. Much later, when Mr. Rodriguez (another REACH consultant) was able to conclude that the immunization rates from the KAP2 data are NOT higher than the MOH figures, it became easier to understand when one observer commented that in general MOH personnel do not believe in the results from special study surveys. This comment, if true, has very significant implications for PREMI special studies strategy given that the MOH is the principal operating agency in terms of immunizations, ORS distribution and treating the diseases reflected in morbidity rates.

In conclusion the project has spent far too much effort generating information and not enough effort on how the information is to be used. Too often social scientists forget that the scientific method consists of developing a hypothesis, making observations on variables contained in the hypothesis, and then modifying the hypothesis based on the observations. The tendency within PREMI has been to skip the first step, generate data on every variable that might conceivably be related to the problem, and finally to sift through that data in search of hypotheses.

In addition to the problem of over reliance on special studies, most of the "de facto" strategy for improving the regular information system has been directed at the central level and has emphasized computerization.

There were two major problems in the design of the PRICOR project. The first one is that it called for computerization of individual patient visit data. If this had been a truly sentinel post system it may have been alright, but as a pilot project for nationwide implementation it was totally unreasonable. A good operations research effort would have estimated the amount of data to be generated by implementing such a scheme nationally, and found it to be impractical. The PRICOR project apparently

didn't even calculate the amount of data to be generated by the pilot project since their equipment and processing procedures were completely inadequate. The work that was done on the consolidation of forms was probably a step in the right direction but the design makes manual tabulation and processing awkward if not impossible.

The second major problem with the PRICOR project was in the design of the information flow. The project called for sending the forms to the central level where they would be entered into a computer, analyzed and summarized, and then fed back to the provincial and local levels. There are several reasons why this approach will not lead to an improved information system. The main reason is that many if not most of the data integrity problems in the existing system are the result of forms not being filled out properly. This situation cannot be expected to improve significantly until the persons in the health facilities involved in filling out the forms have a real understanding of the uses, and therefore the importance, of the information. If processing and analysis occurs at the central level, and even if the feedback step is implemented (it seldom is), they are much less likely to make the connection between filling out the forms and the information's usefulness and importance. Only when the data is processed, analyzed and conclusions drawn at the facility level are the persons most likely to realize the consequence of errors. Other reasons that the information flow was problematic involved the sheer logistics of moving that amount of raw data. Data for August for eight health facilities is missing because the provincial MOH director finally refused to bear the cost of transporting the forms to Quito.

The main idea of the Birch & Davis contract was to provide a global, integrated approach to improving the MOH information system. Their early descriptions emphasized working at all levels of the health system. As mentioned earlier, they talked about building the system from the ground up. After a year of work they developed a proposal that had as its main component the implementation of a system that is highly computerized and places most of its activity and emphasis at the central level. The proposal discusses the importance of building in data integrity at the local level but there is little or no discussion of how and by whom. If the proposed project were carried out the MOH would end up with a sophisticated system for analyzing and basing decisions on information that everyone acknowledges is inaccurate.

In addition to the problem of inattention to development of the system at the local level, the level of computerization called for in the proposal would not likely be assimilated in the twelve months of the project nor even the following twelve month period. The proposal included local contracted training but it

would not begin to be sufficient to train people to use the level of system being recommended. Over twenty five different pieces of software were included in the proposal. Much of the recommended software is very complex and difficult to learn. Nor was it made clear how or for what most of the software would be used. There is a similarity here to the design of the KAPs; they didn't know what was needed so they asked for everything.

#### 6.4.2. Problems with the Implementation.

The single overriding impression in this evaluation of the Information System activities is that there has been no clear, unified and organized approach to improving Child Survival information systems. The efforts have seemed fragmented, at times inconsistent and often ineffective. The main reason for this is the lack of unity and continuity of effort in carrying out the PREMI project.

There are four different factors which contributed to this situation: 1) the project implementation was divided among two GOE agencies in a way that seem to promote institutional jealousies and dissention; 2) the USAID Health Division experienced turnover of its two top positions at an important period in the project's life cycle; 3) the long term technical assistance and project coordination consisted primarily of Personal Service Contracts. While this may have saved money, it is felt that it also contributed to the projects inability to obtain and maintain the continuous high level of complimentary and institutional support needed by a project of this complexity; 4) there were far too many short term technical assistants representing too many organizations and interests.

Although all four factors are significant it was probably the last two which were most damaging. There existed no single entity taking the responsibility for quality and integration of the technical input to the project. If a long term advisor left, there was no single organization responsible for obtaining a qualified replacement in a timely manner. If the work of short term advisors was not well coordinated or of poor quality, there was no single organization that could be approached for discussion and rectification. There were a number of instances where short term technical assistance was determined as much or more by the centrally funded projects as by the needs of the PREMI project. The following is a discussion of some examples of where the implementation of the PREMI project broke down.

In terms of time, effort and resources the three KAP surveys probably represent the largest evaluation/information activity. Ideally, they would have been a well integrated set of surveys with a predetermined analysis plan that provided for consistent and continuous learning and evaluation. As discussed

earlier this was not the case. PREMI coordination could not settle on a consistent frequency and schedule for the surveys. There was disagreement between the two principal GOE implementing agencies over the purpose and content. And the large numbers of technical consultants were not able to assure that the instrument design and analysis would lead to comprehensive results and decisions.

There were several instances where REACH consultants produced reports which were of questionable validity and problematic in their impact on the project. The KAP2 analysis report by Dra. Pollack followed by a refuting analysis by Dr. Rodriguez is one example. The example that borders on irresponsibility, however, is the cost effectiveness study and report. Interest for this activity was apparently based on outside academic and/or professional reasons unrelated to PREMI project needs. There are a number of questions about the study's validity including the accuracy of the data and its simplifying assumptions. In addition, cost effectiveness studies usually examine two or more ways of accomplishing the same purpose. The PREMI campaigns are not comparable to the routine vaccination program since one of the main purposes of the campaigns is to increase the coverage and improve the timeliness of vaccinations beyond what can be achieved in the regular program. In the words of economists: costs at the margin (for incremental improvements) are usually expected to increase. This study is having a damaging impact on the project since it has created serious disagreements between the MOH and INNFA over the wisdom of the whole mass media campaign approach. The above two examples can be compared to the mortality analysis and report by Dr. Rutstein which appeared to be professional in its methodology, useful in its conclusions and generally well received by all parties involved.

Both of the major efforts at improving the MOH information system experienced problems in implementation. The PRICOR project was not able to implement the processing, analysis or feedback phases of the system. This was due in part to the design problems mentioned earlier. It was due in part to the unplanned intervention of the MOH in the process without sufficient preparation. It was due in part to the Principal Investigator probably not being properly trained or sufficiently experienced for a project of this nature. As a corollary, it is probably due in part to PRICOR not providing adequate technical backstopping.

Regardless of the reasons, the issue is who had responsibility for successful completion of the project. PRICOR's position seems to be that they contracted with the MOH who was not able to fulfil the terms of the contract. The fact is, however, that the project was conceived, designed and promoted by PRICOR and they should bare the responsibility for

its feasibility. Instead, when the contract was over PRICOR decided that to pull out. The PRICOR project was designed to improve upon the regular MOH information system; instead it has left a gaping hole (thirty five health facilities for nine months) in their 1987 health statistics. This hole will probably never be filled.

The Birch & Davis project was also plagued with problems in implementing their project. This was attributed by Birch & Davis to changes in the MOH and absence of direction from PREMI coordination during a significant portion of the project. While these may have been factors, there is a nagging feeling that the Birch & Davis team was not able to zero in on an implementation plan and pursue its execution in a systematic way. Once again this may be a problem of inadequate or inappropriate staff. Another problem, however, is that from the very beginning there was serious inadequacy between the proposed scope of work and the proposed level of effort. It appears that there was not a clear understanding of the magnitude of the task. When that realization hits there is a clear tendency to move in the direction of a quick technological fix) which of course does not solve the real problem.

#### 6.5. GENERAL OBSERVATIONS:

One of the principal recommendations evolving from the evaluation of PREMI's information improvement activities is that emphasis should shift from reliance on special study surveys to development/improvement of a Health Management Information System (HMIS). Special surveys could continue to be used under very specific circumstances: first, if the nature of the information is such that it could not be provided by normal data collection systems, or second, the information could be provided by an ongoing data collection system but the current system is not considered accurate enough.

It is important to recognize the scope of developing a comprehensive HMIS. It must be viewed as an ongoing process which will gradually get better and become more useful. It calls for an incremental, and hence modular, approach, but it must be designed and implemented with the larger system in mind.

No meaningful improvement can occur without improving the accuracy of the data. However, this data is being generated in close to 1200 health facilities, most of which are operating in environments of limited human and financial resources, and two thirds of which are in the rural area. This task is so overwhelming that there is a tendency to return to issues of central level policy and decision making. In fact, development of the system at the central level cannot be ignored lest

improvements at the facility level result in information that is accurate but not useful. The dilemma is: how can improvements be undertaken at the facility level that will be meaningful yet won't be so overwhelming that development at the central will be paralyzed for a long period of time. The answer, of course has to be a two pronged attack, working at the central and facility levels at the same time.

The Project Paper, PRICOR and Birch & Davis, all discussed the issue of forms and norms. This is the principal aspect of the HMIS which links the facility and central levels. For work to move forward at either level this issue must be discussed and a decision must be made that will provide some stability to the issue for a reasonable period of time. Specifically it is a decision as to what data collection forms are to be used at each type of facility, and as to what the norms are for filling them out. This does not necessarily mean a complete redesign of the current system. It may involve nothing more than the decision that the current forms and norms are fine and this is what they are.

At the central level it makes sense to begin with some activities similar to the EIS. Recognizing that the information being processed and analyzed is inaccurate and incomplete, these activities would have two principal objectives. The first would be to identify the initial system components to undertake, and to begin to develop decision models for those components. The second would be to begin to develop analytic and database capabilities within the MOH at the national level and perhaps in some of the provinces. This should be seen as an evolutionary process, with the system being developed and improved gradually over time. As the accuracy of information from the facilities improve, these analyses and decision models will become more meaningful.

At the facility level, the answer is a pilot intervention/sentinel post approach. An explanation is called for. A pilot intervention is needed which will begin to develop methodologies for understanding decision processes and improving analytic capabilities at the various levels of health facilities. These pilot interventions should be carried out on the basis of sentinel posts. This will allow higher quality, representative information to begin to filter up and be used at the central level. Using the decision models being developed at the central level, comparative analyses between information from all facilities and information from the sentinel posts will provide a better understanding of the problems which exist in the system.

The approach described above provides for a sequential strategy to improve the local level information system gradually. In the beginning there may be only one sentinel post for each of the five facility types. As methodologies are developed and

information systems are improved in the first pilot projects, new sentinel posts can be added to the system allowing the information from this system to become more precise and more representative.

#### 6.6. NEXT STEPS:

There are two recommendations which are tied directly to a new project being defined and implemented. The first is that a major commitment be made to developing and improving a HMIS in Ecuador. This should be undertaken to improve and evaluate Child Survival activities, but work should not be limited only to Child Survival related components. The second is that Technical Assistance should be provided under the responsibility and direction of one organization, with the explicit purpose of providing continuity of long term and short term advisors over the life of the project. This recommendation applies to all evaluation and information related activities, but it would be better still if it could cover all Child survival activities.

The following is a series of suggested activities which could be carried out during 1989 independent of what happens to the Child Survival Project.

1. Create HMIS Team.- One of the first steps is to create a team of systems analysis and information system professionals, with appropriate support and facilities. Certainly part of this team is already in place. On the one hand there is the MOH National Informatics Department that, with some additional staff and support, will make up the main component of the HMIS team. Another important component of the team is the long term technical assistance, made up of PREMI Coordination with its Evaluation Advisor and local hire consultants. Yet another component is the outside short term technical assistance to provide training and specialized guidance.
2. Executive Level HMIS Workshop.- As a way to begin to formulate an overall HMIS, it is suggested that a training-workshop be held with persons at the highest level within the MOH. The workshop should last about a week and have two components. The first component would consist of lectures, discussions and case studies aimed at providing a background in theoretical concepts underlying a well designed HMIS, including potential pitfalls and problems. The second component would consist of structured working sessions which are designed to apply the theoretical concepts to the existing situation, and to develop a framework and operational guidelines for moving ahead with their HMIS. Outcomes from these activities would include: 1)

awareness of and commitment to the HMIS at the highest levels within the MOH, 2) a decision on the issue of what norms and forms are to be used, and 3) decisions on which components within the health system will receive priority attention in the development of decision models.

3. Component Level HMIS Workshops.- The initial steps in designing a particular component of the HMIS might include an HMIS workshop similar to the one held at the executive level. The conceptual sessions of the workshop could be the same, but the working sessions would concentrate less on overall policy and more on decision processes particular to the area being covered. Outcomes from this workshop would consist of identification of key decisions to be made and the information needed to support those decisions. There would be an additional workshop for each new component initiated.
4. Develop Selected Component Models.- The HMIS team would take the outcomes from the component workshop and begin to develop the actual decision support model. Model development would consist of: 1) identification of information sources, 2) organization of the information into an integrated database design, and 3) design of a system of queries and reports. To facilitate this design process members of the HMIS team should receive a workshop or other form of training in relational database design. The HMIS team should maintain a client relationship with the persons who were in the component workshop. As the system is developed and data input, demonstrations should be given to maintain enthusiasm and get feedback from the decision makers who will use the system.
5. Design and Begin Sentinel Post System.- A special team should be established to begin work at the facility level. This could be a subset of the main HMIS team or a separate group supported by the HMIS team. The steps for working at the facility level are similar to the steps described in 3 and 4 above. They are similar in that they consist of providing persons with general concepts and then applying those concepts to their particular circumstances. The steps are different in that they will need to be quite flexible and able to adapt to individual situations. Selection of the sentinel posts should follow the general procedures discussed previously. It may be, however, desirable not to start on all groups at once. The assumption could be made that information accuracy and use is fairly good in hospitals and health centers, and the program should begin concentrating on health subcenters and rural

health posts.

6. Develop INEC/MOH relational database.- The whole strategy of sequentially developing and improving the HMIS is based on the ability to hypothesize and test what is happening in the health facilities and the population as a whole. It is based on the ability to draw conclusions from the parts and extend them to the whole. To do this the HMIS team needs a model of the entire population, all of the MOH facilities, and a relationship which "connects" the population to the various health facilities. This model would be an important tool in much of the work of the HMIS team and, as such, must be in a form that is easy to manipulate and modify. A microcomputer based relational database should be designed and created, combining INEC census data and MOH facility coverage information. Population data could probably be down loaded from the 1982 census information in INEC's database and the coverage data could be entered from the 1982 MOH Directory. The term model is used here to acknowledge the fact that the information may not be current nor accurate. It will serve as a basis, however, from which to make and test hypotheses. As the HMIS team works with this database they will learn to update it and improve its use.
7. Develop Mortality/Morbidity Model.- One specific use of the relational database described in 6 would be to begin to develop the mortality model as described earlier in the analysis section. The first step is to develop the under-reporting hypotheses based on the Rutstein analysis and general knowledge about the INEC data. The relational database would be used to draw the sample clusters to be used in the March 1989 mortality study. Based on the hypotheses, mortality figures would be estimated for each of the clusters selected. These figures would then be compared to the actual results of the survey and adjustments to the hypotheses could be made accordingly.

## 7. SOCIAL COMMUNICATION AND SOCIAL MARKETING

Social communication is one of PREMI'S most important components. For this reason, we pay special attention in this report, to the design, implementation, an evaluation of the communication an social markeying activities.

## 7.1. OBJECTIVES OF MARKETING AND SOCIAL COMMUNICATION

Social marketing and communication were designed to reinforce the activities of TRO and immunization, and to initiate "a campaign" at the national level of massive communication and mobilization to stimulate the demand for these services". Later, this was amplified adding growth monitoring and breastfeeding.

The PREMI/INNFA general objectives are:

- Develop national awareness of the magnitude of the problem of illness and infant death; the existence of technologies that could be easily and widely used to improve the infant health situation in the country.
- Achieve the participation of different institutions in the execution of activities relating to the promotion and delivery of child survival services
- Promote community participation in the care of infant health.

The specific objectives are:

1. Marketing: Bring to the public sector a long term marketing strategy for TRO and immunizations, and to strengthen the public sector's and private sector's capacity to use social marketing.
2. Social Communication: Develop a campaign directed to the mothers of children under five, to community workers, and to people at the decision-making level aimed to support an intensive national mobilization program. The campaign expected to reach about 6 million people.
3. Mobilization: To achieve the participation of public and private institutions in support child survival activities.
4. Training: Organize information and orientation meetings to the heads of participating institutions to promote the mobilization of resources toward the objective of infant survival.

The general strategies for marketing and social communication applied by PREMI is based on a methodology from the Offices Health and Education within the Bureau of Science and Technology of USAID, expressed in the project Healthcom. The theoretical principle on which Healthcom built its social marketing approach is the same as that of commercial marketing, from which "has been adopted the best that commercial techniques

have to offer for selling ideas that ultimately produce community welfare" (Torres, 1988).

It was decided that INNFA, because its prestige, its mobilization potential and its organizational agility, would coordinate all activities associated with health communications and the mass media. Meanwhile, the MOH through its Division of Health Education, would assure that the experience and the lessons learned during the IRD pilot project would be reflected in the mass media program.

It was determined that the most of the activities to reinforce child survival interventions be developed in campaign. The "umbrella theme" was to allow the messages to be transmitted regularly during the campaign. For this purpose, a detailed media communication plan was to be designed during the first month of implementation.

A resident consultant in mass communications, under the auspices of AID, would serve as the nexus between the two institutions. In addition, INNFA would contract a local advertising agency to provide a high level of professional ability for the design, planning, research and handling of the media.

- a) Strategies in the area of mobilization.- The national mobilization campaign was conceived as an effort to mobilize as many institutions and individuals as possible toward the goal of reducing infant mortality through the use of the four child survival strategies. All institutions and groups that could have an effect on the motivation of families to use child survival services would be identified. Their leaders would be contacted, and their participation would be assured. These leaders, in turn, would promote the child survival activities within their own institutions.
- b) Strategies in the area of communication.- Initially, a marketing operational research regarding child survival strategies was carried out and its results helped to determine the final content of the strategy for the mass media campaign.

A first phase was aimed at describing and explaining the problems of infant mortality in Ecuador; explaining the benefits of child survival services; establishing child survival as a priority in Ecuador; stimulating visits to health posts, or centers for additional information; and motivating individuals to recognize the benefits of the infant survival strategies.

An "umbrella" campaign was developed to unite the four strategies (diarrhea control, immunizations, breastfeeding, and growth monitoring). A general logotype and an information package was prepared as a means to show the "social product" being promoted.

The use of a series of innovative proposals for field mobilization for oral rehydration therapy (ORT) and immunizations was considered for its utility. And the major task was to coordinate the many institutions involved in implementing the first steps. Methodologies for massive distribution (saturation) oral rehydration salts during the diarrhea season, and intensive use of incentives for immunization were regarded as high priority. A package of promotional incentives for mothers to bring their children in for immunization during the intensive campaigns was to be developed and delivered.

## 7.2. IMPLEMENTATION:

INNFA department of social marketing and communication sought to support PREMI's operations through the provision of information, promotion, motivation, persuasion and the creation of awareness, adapting these to each requirement.

From the marketing perspective, the purpose of using communicational input was to orient it in support of the development of the four "P's": the social product, the price (the absolute and relative advantage of the CSS, and the efforts they demand), the promotion (stimulate systematic and permanent demand for the product), and the points of storage and distribution (the health posts from which services are offered).

- a) Intensive vaccination campaigns.- Seven intensive vaccination campaigns involving four types of immunization (polio measles, DPT, and BCG), were implemented during the October 1985-May 1988 period. These campaigns were called "jornadas" (campaigns). During these campaigns, there was also heavy promotion of oral rehydration, breastfeeding, and growth monitoring and development of the child. Nevertheless, in each campaign there were slight variations in the goals sought as regards the CSS in question.

First campaign : 26-27-28, October 85 (Sat-Sun-Mon)  
Second campaign : 25-26-27, January 86 (Sat-Sun-Mon)  
Third campaign : 15-16-17, June 86 (Mon-Tue-Wed)  
Fourth campaign : 26 and 27, November 86 (Wed-Thu)  
Fifth campaign : June 7, 1987 (Tue)  
Sixth campaign : August 2, 1987 (Sunday)  
Seventh campaign : 28 and 29, May 88, (Sat-Sun)

- b) The intercampaign.- Between the campaign there were time lapses of different duration; these were called "intercampaigns". During these periods, the health units provided routine service to the target population.

First intercampaign : 12 weeks, 3 days duration  
Second intercampaign: 19 weeks, 5 days duration  
Third intercampaign : 22 weeks, 6 days duration  
Fourth intercampaign: 27 weeks, 1 day duration  
Fifth intercampaign : 7 weeks, 6 days duration  
Sixth intercampaign : 42 weeks, 4 days duration

The interventions reinforcing child survival activities in the target population the organization of intensive campaigns and through regular activities between campaigns (intercampaign). Communication and social marketing activities were tightly defined by this implementation model.

- c) Marketing and Communication during the campaigns.- Social marketing and communication had two basic components: promotion and education, which were repeated each time with a similar focus, but slightly adjusted to the circumstances of each campaign.

Promotion:

- i) Purpose.- Promotional activities were of persuasive character. They were related to the key activities (immunizations, TRO, etc) of each campaign. The promotion pushed for more immunizations, more receptions of oral salts or growth monitoring booklets, etc. It provided information about the date on which the campaign started, the location of the health or vaccination posts, etc.

ii) The "instruments" or "means" used during the seven campaigns were of the most varied types, forms, colors and presentations. An attempt was made to adjust them to the multiplicity of circumstances such as type of public (urban, rural, paramedical personnel, promoters, etc.), type of themes (CSS), specific appeals and others.

iii) Scheduleng for use.- A "media diffusion plan" was prepared for all of the campaign. It was a relatively poor instrument, lacking a unique format for each of the campaigns. It consisted of a set media, and short communication instruments produced and used before or during the campaign. These documents made clear the nature and format of each medium or informational instrument as a function of the survival strategies. It was therefore difficult to identify the appropriateness of these instruments just by analyzing the "plans".

#### Education:

i) Purposes.- Educational activities were designed to promote concepts and to generate basic skills. They were aimed principally at the mothers, to generate various basic skills in oral salts preparation, and how to administer them to infants during periods of diarrhea.

Different messages were prepared for each-expected skill. These messages were designed considering the diversity of the audience and the communication medium used. It was difficult for the evaluator to determine the coherence of the communication activities as they related to the expected skills and the publics. The concepts that were promoted with the mothers were more numerous than the skills. For each CSS there were various concepts, to understand, and associate with their daily life, and that of their children.

Educational materials aimed at promoting similar concepts were also prepared for the personnel at the health units. One of the aims was to create the skill at the health unit and disseminate them to the target community.

The evaluation team was unable to determine whether or not the production of educational material was responsive to technical and didactical demands. However, information from interviews with professionals

involved in the project allow us to find some critical issues related to the quality of these materials, especially in the pre-testing of their designs. Again, it was difficult to determine the quality of pre-test design and implementation.

- ii) **Instruments:** the educational activities with the mothers was accomplished through the work of health education personnel, who also trained community leaders, social workers, extensionists and others. These people, in turn, had the obligation to multiply the training effort in the communities. Nevertheless, many classical mass media, limited media and community media were utilized to spread the messages.
- iii) **Scheduling:** Scheduling for educational activities was designed at the micro level, or for each campaign. Therefore, it lacked connection with the major strategy. This evaluation team could not find a finished educational program designed for any particular campaign. There are lists of media being used, and description of the "educational character" of some actions.

This micro scheduling was centralized in Quito. The materials arrived to the provinces in finished form and the provincial team had to accept them and distribute them. Materials were not adapted to local needs. Due to lack of confidence on provincial capacity to produce effective materials. Despite this, in provinces, a significant quantity of material was produced.

This tendency toward centralization and the "standardization" of messages became a very important technical problem in many cases, adaptation was necessary at the local level in order to make messages responsive to cultural and social specificity. But for the INNFA'S communication team this adaptation, although acceptable in theory, did not fit well with the global strategy that had been designed.

This relationship between Quito and the provinces is the most difficult part of the PREMI/INNFA communicational/educational process to reconstruct. There are not appropriate documents to describe and understand the process in operational terms.

However, evidence (from conversations with MEC health educators) suggests the existence of important confusion in the design of messages, the materials to be used, the radio stations that would broadcast the messages and which materials were to be used in the stages and which in the interphases.

#### 7.2.2. Marketing and communication in the interphases.-

The utilization of communication/marketing in the interphases was exclusively for educational purposes. However, this was not a formal educational effort. Only at the end of the 36-month period did importance start to be attached to school education. However, this matter was approached with difficulty, and without much planning, despite the seriousness with which it was marked.

As in the case of the campaigns, the educational task for the interphases was addressed to three main audiences: (a) health workers; (b) community leaders; and (c) mothers.

- a) Education for health personnel: From point of view of communication and marketing, the purpose of these educational activities was eminently instrumental. Informative media were used to transmit methodological suggestions so that these personnel could create awareness among mothers about the importance of the CSS and skills to achieve the goals underlying the strategies.

The evaluation team found the PREMI/INNFA failed in recognizing the importance of health workers' lack of motivation to increase their interpersonal interaction with the mothers.

This lack of motivation also extended to the technical and administrative personnel throughout the MOH; the MOH did not consider PREMI to be important, and as a result, did not collaborate with its activities to the expected level.

It was PREMI/INNFA's responsibility to provide training in the techniques of interpersonal communication and motivation, so that its personnel could be used to carry out PREMI activities with mothers and the general community. Also, they were responsible for the continuous supply of precise data on the progress of the program, which included some motivational effort.

Prior to the first campaign a child survival health education program aimed to all audience groups was designed. The contents and the corresponding materials, educational instruments, and the support materials to be used in each of the interphases were also produced.

The training materials were of two types: 1) those aimed at the creation of skills among the personnel who offered services in the four survival strategies, 2) those aimed at helping them to multiply child survival strategies, and 3) those aimed at helping them to multiply the training diffusing its contents toward the mothers.

The Social Promoters Manual, prepared by PREMI/INNFA and utilized from the first campaign on, is one of the instruments designed to help multiply the training in the health sector. The document, unfortunately, was quite theoretical, and its didactic structure was not tailored to the target population the health promoters. These people are not trained in the field of education, and they have a broad range of responsibilities in community work. Also, this document was published almost at the end of the program.

- b) Education for the community leaders: The purpose of the training of community leaders and personnel from other institutions was develop skills to motivate and educate mothers in child survival actions. OTIDES (MEC), MOH and other institutions provided training in health services.

The OTIDES contribution has been highlighted by many interviews in this evaluation: The health educators from this institution took their work very seriously, and showed a high degree of motivation and organization. They performed their task starting with the idea of "cascade" training: first with the national inspectors, these people with provincial supervisors, the supervisors with the directors of educational establishments, they with the teachers, and the teachers with students who would promote the work in the communities. MOH's participation was light from the beginning of the program.

The media utilized were highly interpersonal. They consisted of courses and seminars. The training was offered to people from the Church, the Ministry of

Social Welfare, some units of the MOH, Rural Social Insurance, IESS, the Ministry of Education, the INNFA volunteers, and the Armed Forces.

Between the third and fourth campaign, this training got into a crisis as a result of the withdrawal of some institutions from the process (MEC, Armed Forces and the Church). They had withdrawn because the First Lady had abandoned the program. As a result, the program lost a great deal of its training capacity, and it was never recovered.

In order to carry out this type of training, didactic materials were produced for the instructors. But also, other didactic materials were produced, to be used by the promoters. The "Teachers's Methodology Guide. PREMI Basics", prepared by OTIDES for use in the schools, is one of those documents. It was prepared before the first campaign. This document earned some negative commentary from the health educators at MOH, because it did not fully meet basic didactical requirements. The same was true of the "Educational Manual of Basic knowledge - PREMI", aimed at the students.

- c) Education for Mothers. - The objectives of the interphase educational activity for mothers were conceptual in type: the health of the child and the family, the importance of preventive medicine and of immunizations, the importance of breastfeeding and of proper nutrition for the children, increased knowledge of the value of good health for the family and the country, problems created by diarrhea, and the various alternatives for fighting them.

The planning of the education for the mothers was done only during the interphases. There was no integrated plan for all of the interphases. In each, the contents from the previous one were repeated, with slight modifications. This type of educative activity did not take shape until the beginning of the second interphase. This was due to the priority given to promotion for the campaigns.

Of course, this provoked a flurry of activity which, although responsive to the concept of education, did not fit with the overall educational strategy on the communication/education/marketing focus applied at PREMI/INNFA. From this perspective, any complaint from those in charge at PRMEI regarding planning for education, could be accepted from the standpoint of

"micro- scheduling".

The educational media, instruments and materials used for this audience were many, and were varied in type: mass orientation and interpersonal, print, audiovisual, audible.

One of the most outstanding instruments in non-formal education was the radio course for mothers, called "Let's Strive for Healthy Children". It is a 36-lesson course, each lesson lasting 30 minutes, transmitted over the course of 7 weeks. Its scheduling, presentation and evaluation took a full year.

The course was recorded on disks, to be transmitted on 60 radio stations. The contents of the course were transcribed into a pamphlet which also contained a series of didactic instructions to be carried out by the mothers after they had heard the program as a group. The course included, in one of its parts, a short radio story, to be used as a teaching instrument.

The main themes of the course were: Common diarrhea stops by itself within 3-7 days. Do not give the child with diarrhea either antibiotics or anti-diarrheics. The child with diarrhea should be medicated orally. Always have oral salt in the house.

In order to create continuous attention to the radio program for the entire 7 weeks, PREMI/INNFA created a number of mechanisms, such as diplomas for those who had listened to the entire course. Among the mothers who listened under the supervision of an auxiliary nurse, 110 scholarships were awarded on a lottery basis. Each scholarship was worth 10,000 sucres. For the auxiliary nurses, 17 scholarships, each worth 100,000 sucres were awarded on a lottery basis as a means of encouraging local efforts.

Another outstanding educational program was the course on nutrition for mothers, called "Adriana Bravo". It emphasized the conceptual aspects of infant nutrition. It is a radio course consisting of 30 chapters, eight minutes each. It was originally designed for transmission over closed circuits, but ultimately it was transmitted by 60 radio stations, twice a year. Unfortunately, it was not used in groups, because the Church withdrew its support to PREMI.

### 7.3. THE PLANNING PROCESS:

Planning was the weakest area of the social marketing and

communication component of PREMI. There was a "theoretical-operational" model for social marketing and communication, but not an authentic planning; this weakened the concept of major, middle-term strategies, and caused the administrators of the project to emphasize punctual scheduling of a "micro" rather than a "macro" type.

According to Reynaldo Pareja, communications consultant for AED, he put together a "generic plan" that was descriptive in nature. Later Bill Smith, also from AED, prepared an implementation plan from the viewpoint of his organization, and, based upon this document, prepared short-term implementation plans for PREMI/INNFA. These plans were poor from the standpoint of conceptual strategy, and consisted basically of lists of media, instruments and microprocesses that would have to be implemented during the stages and interphases.

The implementation of the social marketing and communication began in August 1985, lacking a solid planning document for the 36 months that PREMI would last. Moreover, the concept of marketing appears not to have been clear in the mind of the majority of individuals responsible for implementing the project.

Marco Polo Torres, head of PREMI/INNFA, claims that the idea of what had to be done "was understood by everybody" was not written in any document. Bill Smith's document was formalized only in 1987, two years after the start of the program, therefore couldn't be the basis for implementation. Torres recognized that Smith's views was influential from the beginning with regard to the themes utilized in each of the campaigns and interphases.

Since there was no operational plan, PREMI/INNFA launched a scheduling activity for each campaign. But this also had limitations in terms of being fully achieved because of a lack of understanding on the part of the majority of people involved in the decision-making process at the highest levels. These problems were not present at the level of the professionals responsible for the activity. Nevertheless, during the first months, prior to the first campaign, and through to the time of the second campaign, there was no certainty about PREMI's resources. The department of marketing and communication did not know what financial resources were available, nor how much they could spend per campaign or per month or per year. Under these conditions, it was impossible to prepare an orderly general plan, or one for each campaign. Although knowledge regarding availability of resources for communication and marketing improved later on, the conditions for planning did not evolve in a positive way.

According to the Technical Committee, of which the Department of Marketing and Communication was a part, established the near-term objectives for the campaign and interphase, and

these were presented to the Executive Committee for approval. The Committee approved almost everything having to do with communication. In some instances, the Committee became too bogged down with operational problems, when, in plenary sessions, and with the concurrence of those invited, irrelevant discussions ensued because the new participants didn't know very much about the project's history, and, in some instances, wanted to reconstruct the program from its roots.

The Executive Committee always postponed its meetings, but, once they were held, approved everything having to do with communication without any problem. So, evidently it was within the Technical Committee that major problems of misunderstanding arose to what should or should not be done with regard to communication planning.

Once the goals for PREMI were set, planning began and the media strategy was scheduled. The scheduling process, according to M. P. Torres' description, was interesting and rational. It apparently fit well with the plan for distributing resources in keeping with the most acceptable technical suggestions. However, this process was never documented. What is documented is the final product, the plan or program or list of media, or what it should call itself.

This lack of planning was offset by coordination that was apparently good. If PREMI can be judged as having been successful with regard to the communication/marketing component, this is due, in great measure, to the intelligent coordination that could be generated by the communication team with many of the sectors. However, it is in the area of lack of coordination with the MOH, that one of the major errors detracting from PREMI's total success occurred. There was a lack of total involvement of MOH in the program, and a lack of technology transfer in communication toward the MOH.

There are several factors that explain the lack of general planning: 1) little comprehension of social marketing on the part of the entities involved; 2) lack of preliminary basic research; and 3) political-administrative constraints. It was hard for the evaluator to understand the reasons that the replication of this social marketing scheme in a generalized way throughout Ecuador after its pilot application in the three IRHDS areas.

Another factor that contributed to the situation was the constant discussions and negotiations between INNFA and MOH over the definition of roles and responsibilities in the PREMI execution. There were also disagreements regarding the appropriate organic-administrative structure at the top of the organization, and the various organizational entities in Quito, the provincial capitals, and at the local level.

The result was that important operational and instrumental discussions were hurried. Every effort had to be devoted to the scheduling of support for the first campaign, which was to be only 1 or 2 days in duration, without considering that the public promotion for the first campaign had to be completed at least 20 days prior to the start. And, since it was the first campaign, the work tended to be greater and more intensive and there was no time to make a documented diagnosis based on data.

This created a definite disruption in planning, especially in the case of the interphases, because any educational communication process can be planned reasonably only when one knows, how much time is available to create the desired effect on the audience. In the case of the campaigns, this was less of a problem, although it created the same levels of anxiety, because the tendency was to apply the same "dosage" of communication and education in most of the messages.

As a result, the scheduling was merely instrumental, lacking authentic strategies. Fortunately, there were sufficient financial resources available to produce many instruments and materials to "aim" at the target.

An important reason why there was no integrated strategic planning was the lack of empirical evidence that the communication model, from the marketing standpoint, was the most appropriate for the CS efforts in Ecuador. The empirical data from the pilot project (IRHDS), used in support of PREMI's communication, lacked sufficient validity in technical terms.

The description of the PREMI project indicates that the results achieved in the IRHDS Project were impressive, and that the most outstanding was the preparation of materials with the participation of the community. It also indicates that the most exciting result from that project was the highly positive evaluation of the impact of the communication program on the control of diarrheal diseases, carried out during the same year by MOH. According to the evaluation, 93% of the mothers interviewed knew about oral salt, and 39% said that they were using it during episodes of diarrhea.

However, doubts have arisen regarding this success. Robert Hornik, evaluation consultant, carried out an analysis of the evaluation done of the project. His brief analysis of the data showed that they should be treated with great caution. In this report, Hornik indicates that "the results suggest that the activity had an impact, but the biases in the selection of the final sample, and the procedure used in the interviews invalidated any kind of precise estimates". He concludes, "unfortunately, the evaluation materials available permit no inferences regarding the program's impact".

Hornik was asked, whether it would be valid to perform another evaluation of the pilot project, which would be useful for the government of Ecuador, which at the point was almost committed to the PREMI campaign at the national level. His answer was that he was doubtful that such a second analysis could be useful for purposes of improving the present campaign. "If the results were negative, and suggested little or no impact, this would not stop the larger project, because it already has such political momentum that it cannot be stopped". He added that, if the results were positive, that wouldn't help much either, "... because community leader training, and the involvement of the community in the development of educational materials, which were also a part of the PREMI national campaign, are qualitatively different; such differences are inevitable when pilot projects are compared with national projects".

This whole situation did not help in bringing about a sustained planning process for the launching of the communication and marketing activities of PREMI/INNFA.

#### 7.4. THE COMMUNICATION AND MARKETING STRATEGY:

From the beginning, the PREMI Project used an almost pre-designed formula for preparing the social communication and education "systems". Also, the strategy for thematic contents was almost pre-defined. These had already been tested in other parts of the continent, and ought to function in Ecuador, with appropriate modifications by local technicians.

However, the model faced a major problem in the widespread lack of understanding in this country, especially with regard to the concept of "marketing". For some it was easy to understand, and it was so in the case of those who had the responsibility for applying it. But, for others, it was hard to understand, as was the case with the technical personnel from MOH. For a third group it turned out to be understandable, although it was confused; this was the case of the health educators from MOH and OTIDES and other institutions.

The main confusion lay in the belief that communication and marketing were the same thing, when the former is one of the basic inputs for the latter. This confusion lasted throughout the 36 months. It caused people to think erroneously that the only agency responsible for "doing marketing" was PREMI/INNFA, because it had the responsibility for tasks involving "motivation, communication and education". Marketing, however, basically, marketing was the responsibility of all of the sectors directly involved in the process (MOH, INNFA, MEC, MSW).

This lack of understanding was fatal to the support of the 4 P's of marketing. For some reasons, the "P" for product (the

health services) became separated from communication, and perhaps it was this, and other political factors, that caused the MOH to be the most reluctant to accept the model and the PREMI program.

The social marketing and communication model says that social communication can be utilized in such a way as to support ALL elements (the 4 P's) of programs for social development in order to achieve the expected results. To do this, communication has to take on a special format of the marketing kind, which is different from the classical format utilized for the broadcasting of innovations.

In order for communication to take on a marketing tone, it is necessary that the strategy for using communication confront four essential substrategies: the strategy of audiences, the strategy of media, the strategy of messages, and the strategy of broadcasters.

Each of the P's of social marketing (product, point of sale, promotion and price) needs to be assisted by the four substrategies of communication so as to help in their internal development and the achievement of its goals, together with the other P's. The total combination of all of them allows the achievement of the overall goal, which is the "demand of services", and the development of the "offer of services" based on social needs. Two complementary actions are needed, common to all of the substrategies: market research and evaluation.

PREMI/INNFA made use of the four communication substrategies in support of each of the 4 P's to varying levels of effort. It appears that they were quite successful in many of the tasks they carried out, with outstanding effort and great professionalism.

However, the "P" for social product (health services) was not fully realized, and prevented them from closing the circle in terms of the model. Communication was used in dealing with the health personnel at the operating units (and even there it was somewhat deficient), but not with administrative and technical personnel at the higher institutional levels.

As a result, there was no communication in the direction of the MOH, and MOH, due to other political and administrative situations, refused from the beginning to participate actively and fully in the PREMI process; it declined to accept the transfer of PREMI's experience when the project ended, and it was incapacitated in trying to replicate the most positive and least conflicted part of the communication and marketing model.

It was usual for MOH personnel to create the impression that what PREMI was doing had been done many times before (a reference to PAI and CED), when, in fact, there were aspects of the PREMI project that were quite different from anything that had been

done before.

Strangely, PREMI had tried to gain approachment with the independent physicians. Seminars were offered on immunizations, TRO, and diarrhea control in Guayaquil, Quito and Cuenca. But this procedure was not used to motivate the MOH personnel.

#### 7.5. THE MEDIA STRATEGY

The media strategy of the communication component had a clear marketing focus. That is, a high profile of massive information, with an emphasis on motivation of the users to demand the social product. The advertising agency McCann Erickson was invited to prepare the first program under the AED original scheme.

Motivation was handled: directly, through mass media and minor media, and indirectly, through a large number of social agents who worked through a "cascade" effect to finally reach the target audience.

##### 7.5.1. Direct Motivation:

Radio played the most important role in motivation and promotion throughout the country, and especially in rural areas; although there were problems in the selection of the stations, its use was much more extensive than that of the other media. Television was also highly used to cover urban sectors, and in emergency situations such as the campaigns.

In the final campaign, television was used for motivational purposes in urban and rural sectors, while radio was used for promotional spots in rural areas. It was discovered that there was a high television saturation in the rural areas, and that this medium had a great influence on opinions, behaviors and attitudes.

The decision to use mass media with high intensity was the main polemical point regarding the validity of the marketing/communication component. A main criticism was the contradiction between the rural orientation of the Program and its choice to use urban communication, since the mass communication media are centered in urban sectors. Perhaps the critics are right about this, given that exposure on a real and daily basis does not exceed 65% on average (Ciespal, 1983). The press is even worse, with a limited circulation (700,000 copies daily in a population of 3.5 million), a high urban concentration, high levels of illiteracy, high prices for newspapers and others, all of which cause the rural groups to be least exposed to these media. Illiterates tend to reside in toward which PREMI was originally oriented. On the other hand, according to the commentary of three

OTIDES health educators, radio covers only 10% of the rural areas of the country, due to problems in the selection of broadcasters, as well as the lack of control over broadcasts.

The faults in communication were evident at the local rural areas, where the mass media have no impact in comparison with the urban areas. Apparently PREMI-INNFA lacked the operational capability to work at this level outside of Quito and Guayaquil. "Adaptation at the local level was never accomplished as it should have been."

- a) Radio.- played a continuous part in all of the campaigns and interphases. The decision to use radio as a primary instrument was good for the Program, because of coverage and costs. However, the ways in which it was used dramatically limited the impact of radio use.

Radio was used mostly for spots, testimonials, radio theaters, and chats (a format that is more valid for education), transmitted through 225 broadcasters throughout the country for 21 days prior to each campaign, and during the campaign, at an average intensity of 14 messages per day. In total, there were about 602,000 spots broadcast by radio during the entire duration of PREMI, which means an average of 557 spots per day during the 1,090 days of PREMI.

It would appear that the transmission schedule, made in two segments, one early in the morning and one early in the evening, was the best possible. However, the selection of the broadcasters was chaotic, and it appears that PREMI - INNFA lost control over the process.

In order to assure radio coverage, PREMI/INNFA signed a contract with the Ecuadorian Broadcasting Association (EBA). The EBA did not meet its obligations generating serious problems in the accomplishment of the targets in radio coverage, especially in rural areas.

According to progress reports, one of the most serious limitations of the radio sector was the lack of controls on the broadcasts in the different cantons and provinces. So, it was almost impossible to determine the real impact of the radio medium on PREMI's overall results.

- b) Television.- was limited to some few days prior to or during the campaigns. 5,520 spots were transmitted over the country's seven TV channels. This seems relatively low in comparison with radio, but it is quite high actually, and expensive, representing 26% of all the program's costs of communication and mobilization.

Television, due to financial problems, is the most difficult medium to use in a project of this type. Its use for educational purposes was very small. The TV channels did not offer the kind of collaboration that radio did. TV was not willing to make many sacrifices in terms of its audience and its business affairs. There is no evidence that there was control over the transmissions of the television spots, nor how they were handled.

- c) Print.- The written press was used exhaustively for the free diffusion of news, published through special bulletins that were distributed periodically. There was also a substantial use of this medium to announce the locations of the health centers where vaccinations would be offered.

A review of the press notices collected during the 36 months of PREMI showed about 20,000 pieces cut from 17 daily papers, large and small. This is significant, since it exceeds the number (12,000) of the press notices for all of INNFA during the same period.

The press was utilized greatly during the campaigns to transmit instructions regarding the vaccination posts, counsel for receiving health services, etc. It was also used to transmit educational information, backing information transmitted through other media such as radio and television. Complete pages on PREMI were published free of charge in various papers more than once. Supplements to the larger papers, such as El Comercio in Quito, were published with at least five pages of coverage.

- d) The minor media.- With regard to the minor media, the PREMI program became the greatest experimental laboratory in the past thirty years for any kind of medium and instrument for information and motivation. This was possible not only because the availability of financial resources, but also to the collaboration of the various institutions, the most important of which was MEC, and its program of health education, and OTIDES.

Among the media used for direct promotion were the following: Generic posters, posters on vaccination and the location of health stations, posters in Quichua, handouts in Spanish and Quichua, loose leafs explaining oral rehydration, and others on immunization; invitation cards from the First Lady, records with the PREMI song, cassettes, match boxes, flags for the vaccination stations, arm bands for the assistants, vests for the vaccinators, rubber stamps, comic books, adhesives, etc.

### 7.5.2. Indirect Motivation:

Was done through training for leaders, paramedical personnel, personnel from the educational system, field people in institutional development and the Church. This type of mobilization was called institutional.

PREMI mobilized five ministries, three international organizations, 120 domestic companies and more than 50,000 volunteers, according to a report by one of the communication directors.

OTIDES worked at the provincial level coordinating with the Provincial Communication Commission, and with members of the Provincial Technical Committee on Training and Promotion. The OTIDES' final report says that training was done through workshops, campaigns, meetings and sessions aimed at: 20 employees at the central level, 40 heads of Educational Technology and Rural Education, 600 provincial supervisors of Regular Compensatory Education, out of school, and Remote education; 19,000 heads of formal educational institutions; 2,000 literacy promoters; 12,000 students from OTIDES' sixth course.

In multiplying the information received by these groups, the numbers become: 2,600,000 students in the school system; 20,000 assistants at informal education centers; 7,200,000 members of the Ecuadorian population.

In the provinces with Quichua-speaking and Shuar-speaking populations, special materials were prepared in these languages, especially regarding vaccination. These materials were mostly posters, information and education sheets, and radio and cassette programs. According to the evaluations of those who produced them, they had a tremendous impact, especially in those provinces where some broadcasters contributed effectively to the dissemination of the materials.

### 7.5.3. Media Production Methods:

There are two media production methods of information, communication and education: the participative and the non-participative methods. In the case of PREMI, there was a tendency to use the non-participatory methods in dealing with centralized and decentralized levels.

However, in some reports it is said that there was participation of some groups in the production process of some of the materials. In reality, it was more the classical kind of consultation rather than true participation. From a careful analysis of the related procedures, it is seen that, in some cases, a consulting process was used with some members of the

audience for the development of a few materials. This was the case, for example, when some mothers were involved in the development of the PREMI logo.

The logo had originally been designed by McCann Erickson in the classic mode of commercial marketing, but apparently it did not function well in the eyes of many of the PREMI people. When a group of mothers was consulted, it was improved. But process such as that were rarely repeated during the program. The rush was so great, and the model, in a way, so demanding, that the classical, non-participative production model was used.

#### 7.6. THE STRATEGY OF PUBLICS:

The strategy of publics is PREMI's poorest. Some consideration was given to the concepts of people from the Sierra and people from the Coast, and perhaps there was an intention to differentiate urban from rural, but there was no segmentation or differentiation of publics.

According to the general model, the communication planned and produced centrally was used to cover the country. All audiences were covered according to the same standard. This was suitable for use with the mass media. The work done at the provincial level, could have been easily segmented through the use of the "alternative media" already mentioned. However, there was no segmentation either at the provincial level. Also, the approach was the same to literates and to illiterates. And the fact that work was done with organizations promoting literacy doesn't mean that there was a special approach prepared for illiterates. Nor was there a special version for peasants. Perhaps the only differentiation made was with the Quichua-speaking population, for which all materials used were translated into Quichua, but even here it was without any adaptation of the materials in a cultural sense.

#### 7.7. THE STRATEGY OF THE MESSAGE:

The message strategy was almost pre-defined by the original description of the project. The message would concentrate on the four CSS that had been selected by PREMI, and, from that point on, a marketing-type communication model, with persuasion tuned to the local cultural diversity, would be used. Unfortunately, there was no single form of the message strategy. The message changed over the course of the seven campaigns according to what was decided about the CSS. The only one kept as a common denominator was the one promoting the name PREMI. This was inappropriate as the hallmark of the program.

### 7.7.1. Variation of the message during the campaigns:

The message content varied significantly over the course of the PREMI program, due to the shifts in emphasis in each campaign. This made sense, since even small variations in the focus on each of the CSS, the target group of mothers also varied in terms the type of child to whom the health message was directed. This called for changes in the message. There were also changes as a result of the CAP studies and other studies which identified effects and distortions that were produced in the various communication campaigns.

The strategy of the message would have to be adapted to other types of change, such as the duration of the campaign, and which days they would use. Some campaigns lasted only one day, others two or three, and some suggested they should last as long as a month. Some took place on the weekends, while others were on weekdays and the weekend. All of this conditioned the nature of the message and the intensity of its use. The adaptation, therefore should have been quick and efficient, because things can't be stopped.

Changes in the objective of the program influenced the entire model of communication. This was felt in the structuring of contents and the codification of the message.

This situation was nothing more than a reflection of the uncertainty and lack of consensus within MOH. In fact there was great discrepancies internally about many technical aspects of the four strategies, some of which created a schism at the top of PREMI, at PREMI-MPH, and at PREMI-INNFA. But in most cases, both groups had to submit to the experience gained in each of the campaigns. The campaigns revealed a substantial lack of scientific research.

This is disturbing for a communicator, especially when there is no time to plan or replan. But if the time existed, it would have been a positive thing in both professional and academic terms, because the process would be enriched and creativity would be brought to bear, not only with regard to the CSS, but others, as well. And the professionals involved had to work for the most part intuitively, as mentioned above.

- a) The immunization message.- The strategy for immunizations was the most stable throughout the program. But it also changed, and forced changes in the message.

However, in reviewing some printed promotional materials on immunizations, it was found that some provinces maintained the message about children under five, even in the fourth and fifth campaigns. If a constant repetition of errors of this type, in all of the campaigns and all of the provinces,

were verified, one would perhaps have to make new hypotheses about the utility of communication in motivating the adoption of the recommended technologies.

The general messages regarding immunizations covered four issues: the importance of immunizations, illness against which they were protection, vaccination cycles, ages for vaccination and logistical information regarding the service, vaccination posts, days, participating institutions, and conditions for receiving service.

One matter to highlight in this last part was the message that "all children" meant the children that should be vaccinated, whatever the state of their health. A misunderstanding in this regard (even among physicians) up until then had been that children showing symptomatology should not be vaccinated. This apparently had limited the response rate in the past. And in this case, communication was very successful, according to the vaccinators.

- b) The oral rehydration therapy message.- At the outset, a massive expansion of the use of oral rehydration salts was planned, including distribution to all of the health units. The slogan was similar to that of "Alka-Seltzer: "Always have one in the house." This was used until the third campaign. At the beginning of the fourth campaign, the need was felt to limit the field of action of this strategy, with a shift to distributing the packets to the health units, so that they could make a more selective distribution to the mothers. And this was resolved because the level was saturated. It was understood that all of the mothers already had their packets in the house, and that they were being given inappropriately to adults.

The communication message changed substantially. It became, "Come to the health center to get your packet." The message that promoted the mass distribution of the packets was eliminated. The message was oriented toward dealing with technical issues involved in ways of treating diarrhea, including treatment plans. The message counseled mothers not to use antibiotics or any other product to fight diarrhea, telling them that diarrhea involved a self-regulating cycle that ended to end within five days. But it continued to emphasize the importance of using oral salts to restore liquids lost by the infant during the episode of diarrhea.

When the idea of TRO was originally launched in the campaign, the message was not able to explain that the salts did not cure diarrhea, but simply helped with rehydration. When the mothers discovered through experience, and on the

basis of PREMI's new messages, that the message was about the real use of the salts, there was apparently some frustration on the part of the mothers about the potential of this product for protecting the health of their children, and possibly an abandonment of valid or invalid practices in the use of the salts. And many turned to the use of home remedies.

PREMI-INNFA also began to stress the various treatment alternatives for diarrhea (it talked about treatment A, B, and C), and the use of home remedies for rehydration.

All of this kept the communication team on its toes, because it always had to submit its plans for each campaign and each strategy for approval at MOH.

Most people feel that the strategy for DDC was the most successful in terms of its adoption by the mothers. However, there is no information yet as to the extent to which all of this affected mortality figures. The potential danger in some cases may be that some mothers are hiding cases of dehydration, ironically because of PREMI's messages, some of which virtually held the mother responsible for, and guilty in the case of, illnesses in children.

The communication may have provoked cognitive dissonance in the mothers, who felt compelled to hide information as soon as they learned something about the dangers of diarrhea, the importance of oral salt, and the fact that they are the only ones responsible for the improvement or worsening of the health of their children.

This attribution of responsibility to the mother gave the program a flavor of blaming. This is not unusual, because in the course of all programs of this type, involved in the "diffusion of innovation," the most common tendency found by researchers is: accusation of the rural person (in this case the mother) as being guilty of not adopting technological innovations (in this case, health technologies), when basically, there are structural problems that put constraints on the freedom and possibility of this audience to make the best decisions regarding the acceptance or rejection of these innovations.

In the present case, an additional element played a role: the fact that the PREMI messages did not include the concept of the father in the family -- only the mother. Only at the beginning of the fifth campaign did the father begin to get any mention, with little reference to his responsibility for the maintenance of family health. The term, family health, is completely missing from the communication program.

- c) The breast feeding message.- This was the most standardized message throughout the duration of the seven campaigns. There were two basic components in the message: One, the war over bottles and other substitutes for maternal milk; and the promotion of breast feeding.

There are some disagreement about the most advisable age limit for breast feeding. Noted pediatricians recommended breast feeding up to age one, while others said it should be continued through age two. Others said that it should be used only for the first two or three months. As a result, the communication never achieved a single standard in its messages regarding breast feeding. This is made clear by the evidence that there were differing standards of behavior about breast feeding in the Sierra and on the Coast, as well as in urban areas as compared with rural.

- d) The growth monitoring message.- The message never became standardized during the entire sequence of campaigns. The variations were owed to the changes in technical criteria within the MOH to evaluate health status, based on growth rate and nutritional status. This had an effect on the type of "infant carnet" promoted during PREMI. The third campaign marked a milestone in the use of the "infant carnet", because there were mass weighings of children under two, with great success. Since then, all of the campaigns have repeated the mass weighings.

The communication message was that the mother should weigh her child monthly, and that she use the carnet to record the weight. Then it was discovered that the mothers did not know how to use the carnets, and it became necessary to launch an educational strategy using all of the media. During the first two campaigns, an audiovisual of 42 slides had been prepared for the training of health personnel who would learn to use the carnet and teach the method to the mothers. The final result was that, this skill was practically imposed on the community. As a result of this, MOH has institution- alized the requirement that children entering pre-primary school have a fully filled-in carnet. The carnet contains the dates of immunization and the growth chart.

#### 7.7.2. The campaign hallmark:

- a) Lack of more extensive research.- One of the most serious problems confronted in communication and the structuring of

the message was the choice of the campaign hallmark. Some facts indicate that the communication team was never completely aware that it should search out the best alternative.

The hallmark of the campaign was "PREMI." It was hoped that this would be the point around which other messages would be arranged for penetrating the awareness of the audiences. So, in each piece of information the name PREMI appeared as an identification symbol, and as an association with the rest of the messages (the trademark).

The other messages that would follow would address: the importance of the child's health, the responsibility of the mother for the child's health, preventive medicine, and MOH as a unique source for the provision of services.

After these messages came the various promotional and educational messages for each of the child survival strategies, more or less in the following order: reasons for their importance (immunizations, rehydration, breast feeding, and growth control), development of skills in the demand for and use of associated technologies (vaccination, salts, weight carnet), and, finally, logistical information (where to receive services, schedules, conditions, etc.). This order is difficult to verify in practice, especially when one tries to ascertain the dosage rate for messages in each campaign.

In reality, no one knows how long this scheme was used. After the third campaign, the picture becomes unclear. There was no clear scheme. It appears that there was a tendency to stay with the word PREMI, distributed and mixed with the diversity of messages about the four CSS. These were strongly emphasized in the level of promotion, in the development of skill, and in the logistical information for each of the survival strategies, combining and repeating messages so as to make them stick and have them learned.

It appears that for the last four campaigns, the campaign no longer followed this arrow format. It had lost track of this issue because it was in a hurry, and wanted to repeat certain schemes that had worked. One could say that, at that point, consciously or unconsciously, a "handcuff" kind of format was adopted, that is, a strategy of force and imposition, rather than sharpness, aimed at breaking down the resistance to persuasion that tends to build when a campaign is very broad, or when there is an overload of information (saturation), and when the "novelty" effect passes away, generating a model such as the one used here: gigantic, impositional, mobilizing, exhausting, multi-thematic and compelling.

- b) A product leader versus the name PREMI.- In applying the marketing model, it would have been expected that a "product leader" would have been chosen, which would serve as a "spearhead," and pull the others along. That's how the classical commercial marketing operates when dealing with multiple products from the same company. But this concept was not familiar to PREMI/INNFA. They felt that the concept would not work in this case, because the four products were of quite different levels of development.

Basically, this product leader did not necessarily have to be one of the child survival strategies. The product leader could have encompassed all of them (i.e. "The Healthy Child," "The Child's Right to Health," "Family Health," "The Life of the Child,"). In practice, these were used, but not as a spearhead. It appears that two main themes were used: the word PREMI, and immunization. This was logical within the marketing model. PREMI was the product name, and immunization was the product. But a limitation, perhaps, was that around them had developed parallel currents of persuasion. One current consisted of concepts and institutional advertising of the umbrella kind (the health of the child, the importance of PREMI, etc.), under the PREMI banner, and the other about all aspects of immunization, from its importance to logistical information.

No other reason explains why the campaigns were mounted around the concept of "vaccinations," to which the other three strategies were to be added. This may have produced a tremendous distraction on the attention of the audience, because the weight given to the institutional advertising.

At this point, it is difficult to measure quantitatively what was given most importance. Was it the institutional advertising? That would be ironic, since the institution (PREMI/INNFA) was designed to disappear at the end of the project (as compared with MOH, which could have used all of the favorable promotion). Or was it the social products? It is not very clear what was done and what was not done regarding this part of the structuring of the message strategy. Although, the communication leader wanted to agglutinate the strategies, this was not possible. Instead, "it was more important to begin to promote the products one by one, under a common denominator. That is what PREMI was; it brought them together, and many times we made this clear: so they measured PREMI, and the CAP shows that we didn't emphasize PREMI enough" (M.P. Torres). The image created was that PREMI was a kind of institution or hierarchical ministry (INNFA), when actually it was only a "program," the services of which were executed by MOH. MOH did not profit

from the advertising or the promotion, and, on the contrary, was affected negatively because it apparently failed to exercise leadership in an area in which it is, by definition, the recognized authority.

#### 7.8. THE BROADCASTER STRATEGY:

Possibly the most coherent component in the communication/marketing model applied in PREMI was the broadcasting.

Although there was strong pressure to create a "central broadcaster," which was to be PREMI-INNFA, itself, operating out of the political center at Quito, there was an explicit model that called for the creation of many broadcasters throughout the entire country of Ecuador. These would be charged with carrying the message to the target audience, which at the beginning was the mothers during the first five campaigns, and the fathers and the mothers during the sixth and seventh.

These broadcasters were the thousands of students that visited the communities, house to house, the health promoters, the operating personnel at the health units, the community leaders and others that administered the mobilization process.

In this way, many messages were multiplied through various channels, and many of them fit in with the diverse ways of interpreting life, perceptions, expectations and hopes that were held by the diverse audiences. This lent some richness to the project. Unfortunately, this process of mobilization became disarmed over the course of the project, to such an extent that, to reconstitute it, in order to continue the program, would require a great deal of work and research.

It has not been possible in this evaluation to investigate in depth the great motivation that allowed for structuring the mobilization with such enthusiasm at the beginning. Nor have the reasons that contributed to its decay been explored. A future evaluation should concentrate on this issue.

However, it seems that this image of a "multiplicity of broadcasters" was not completely understood as one of the elements of the marketing model by the majority of the individuals interviewed for this evaluation. And possibly, many of the people working on the project, even in directive positions, never understood the model. For this reason, over the course of the seven campaigns, criticism about the excessive emphasis on the use of mass media persisted, although, many other media were used. Perhaps one of the reasons for the criticisms was that the work involving the mass media, by its very nature, was the most evident.

Ironically, these mass media were not used to support the concept of national mobilization in interinstitutional terms; and they were not used to make the diversity of broadcasters created through the mobilization more useful. The mobilization, even at high levels, was done by word of mouth: but the "political word," the hook in the selling of influence; and only a group of institutions and persons became persuaded of the importance of a project of this kind. The others, at the highest levels, never were persuaded. The description by M.P. Torres about the type of people that liked to participate in the sessions of the National Executive Committee, in the hopes of seeing the First Lady, is dramatic: they were people with no decision-making power, and no understanding of what PREMI was all about.

The local cultural preparation of the messages carried by these people may have been very poor, in spite of the enormous cultural diversity of the broadcasters on hand. But these hundreds and thousands of broadcasters are, in fact, a guarantee of better persuasive ability, and of better institutional adaptation to local needs, than is one alone.

Naturally, the discovery that these hundreds and thousands of broadcasters were not able to adapt to the specificity of local culture and thereby become more persuasive would indicate that we not only have to diversify the broadcasters, but also the messages, the cultural codes, the names, the signs, and the social meanings; this is the only way to be responsive to such cultural diversity.

#### 7.9. MARKETING AND COMMUNICATION RESEARCH

The research task developed as a part of the communication and marketing component of PREMI was varied and abundant. In total, 31 investigations were performed, from knowledge, attitudes and practices (KAP) studies to tests of materials analysis, including subgroup questionnaires and qualitative explorations of combined audience groups. However, the utility of all this is far from optimum, due to various circumstances that affected the planning and feedback process, not only with regard to communication/marketing, but also in the offer of services.

At the planning stage, it was already understood that there had not been sufficient research done in communication and marketing prior to the start of PREMI.

According to the project description, a KAP should have been developed prior to the launching of PREMI. This KAP would help

in the development of the first total operating program (36 months). But this was not done. This lack of research was critical for the entire process of using communication and marketing in PREMI, beginning with the planning phase, and possibly affected other aspects related to the services provided by the health units, the mobilization process, and interinstitutional relationships.

If the research process had been installed, it would have been possible to determine the best way to orient the various strategies for broadcasters, receivers, media and messages with regard to the general and specific perceptions of the target audiences. The basis would have been established for measuring progress in terms of knowledge, attitudes and practices of the audiences and sub-audiences. The lack of studies at the outset deprived the country of the chance to test if the model worked according to the hypotheses on which it was based.

PREMI-INNFA carried out five kinds of research over the course of its duration. These were:

- a) Basic research to identify levels of knowledge, attitudes and practices (KAP) regarding the technologies involved in the OSS. In total, three of them were carried out, and they provided the best data regarding the impact of PREMI in all of its facets, although much of the data have not yet been analyzed and interpreted.
- b) Community research, which is a study of social groups. It is based on the results of KAP, and its purpose is to broaden the knowledge of some important variables in the groups that are a part of the target audience for the PREMI program; the KAP research suggested some interesting situations that should be researched in greater detail.
- c) Studies that tested information, motivation and educational materials. These studies were done in Quito and in the provinces, with the purpose of testing and evaluating the quality of these materials in terms of the people's perceptions and tastes.
- d) Operational research was carried out in support of the various programs of communication used by PREMI.
- e) Personal opinion studies of the operating MOH units, to learn of problems experienced during the campaigns.
- f) Evaluations were done of certain groups of people who participated in the various campaigns. The purpose was to identify the main limitations encountered.

For reasons of time, it was impossible for the evaluator to

explore the methodological aspects and the results of the various research efforts listed here. The main limitation recognized in the field of qualitative research was the lack of experienced local personnel. With regard to the use of these results for purposes of helping the system of communication, there is evidence that a good part of this work was used opportunely in operational terms, with the exception of the case of the KAP questionnaires, which ran into serious problems.

From the standpoint of the social marketing model, the KAP studies are the most powerful research instruments; they provide certainty about how things are going, and in what direction, in all aspects. During the course of PREMI, three KAP studies were developed. The first was done in December 1985, the second in July and August 1986, and the third in April 1987. A study was appended to KAP 1 representing rural areas.

The global objectives of the KAP's were: to identify all variables related to level of knowledge, attitudes and practices regarding the four CSS, and to measure the coverage achieved by the PREMI health services. They explored the impact of the program in terms of mobilization and communication, and at the same time the impact of the supply of the services.

However, each of the KAP's had its own individual characteristics in terms of design, execution, procedures and utilization of results, which explains why their general operational utility was so limited. KAP 1 had the most serious execution problems. There was no general understanding of its purpose, of who should design it, or execute it and use it. Within the general work team for PREMI, there was no clear understanding of the importance of the research in marketing and communication, with the exception of the group in charge of communication, so things did not go well.

KAP1 design was completed in September 1985 by Robert Hornik, consultant from the University of Pennsylvania, who came to Quito for short periods to observe how things were going with regard to the evaluation of communication.

Initially the design consisted of a simple questionnaire with only a few questions; it met the obvious needs of a basic communication questionnaire that could be applied, if everything was going reasonably well, up to a few days prior to the launching of the first stage. It was to have provided a "pre-" measure for PREMI.

The greatest conflict was over whether the study should concern itself with marketing and communication objectives, or with service objectives. From PREMI-INNFA's viewpoint, the study should have been concerned mostly with communication. If the MOH was interested in learning about service coverage, it could have

utilized other techniques, different from a KAP-type study. But those who favored a focus on communication lost the battle, and the KAP was designed to meet both objectives. However, the emphasis was more on epidemiological aspects. The decision to do a study that met two objectives injected several types of error at the start. A relatively long questionnaire (200 questions) was prepared, and it explored both areas incompletely; and, the results were long delayed in reaching those who had to make decisions about their utilization in managing the rest of the project. This sequence was repeated with the two KAP's done later.

Perhaps the mistake made by the communication team was its decision not to carry out its own KAP's, exclusively oriented toward communication. There were sufficient financial resources, and they could well have launched the two types of KAP studies, although not within the same time frame. One could have concentrated on matters of interest to MOH, and the other on those of interest to PREMI-INNFA. This would probably have made it easier to carry out a greater number of KAP's during the various campaigns, with an orientation toward the communications strategy used in each, and would have permitted an efficient utilization of the results for purposes of planning the component better for the medium term, for each stage and interphase, and for structuring messages.

The carrying out of KAP 1 was under the responsibility of researcher Ernesto Pinto. The sample he used was apparently biased in the urban direction, which was contradictory to PREMI's intentions of concentrating on rural areas. This bias was not detected until the end, when the first results were coming in. So, it was later resolved that another study would be done. It was called Rural KAP, and was designed to cover the areas not covered by KAP 1.

The utility of the data was more theoretical than practical, because it was used here and there in various areas. But the data were used in a tardy fashion. In the field of communication, the data could not be put to immediate use for PREMI feedback purposes. Most of the data arrived too late to be of operational use. The greater proportion of them were not available until the third stage. And those that did arrive were not made available to the Department of Communication, and nobody knew their whereabouts. Also, many of the data requested were not available, because they had not been provided for in the original design, and it was then too late to do so. There was lack of time and technical personnel to make efficient use of the data.

It wasn't until the beginning of the fourth campaign that a real research section was put together. In this new situation, the technicians began to ask for data that were just not

available in the study. The specialists in communication had to become experts in parameters with which they were not familiar, such as epidemiological profiles of whichever of the four survival strategies was in question at the moment.

There was a data credibility problem in the part having to do with MOH, once it was learned that there was a bias toward urban areas in KAP 1. According to Contreras, it was only in the data on diarrhea that credibility was achieved, because those data fit with what MOH already had. But in the case of vaccination coverage, there was always some doubt, to the point that an PAHO technician actually arrived with the basic mission of computing or discovering sources of discrepancy between the data collected in the KAP's and the data collected under normal circumstances by MOH.

With the disastrous experience of KAP 1, the bases and the terms of reference for KAP were extremely detailed. The study was done one month after the end of the third campaign. The KAP 2 design also involved a series of mishaps, some of them similar to those experienced with KAP 1. One of the greatest obstacles was the introduction of changes in the dimensions of the study at the time that the research organizations were brought together.

CEPLAES was selected to carry out the field work of KAP2. This company demonstrated enough technical and operating ability to be able to do it. KAP 2 was better technically. The process was neater and more understandable; any discrepancies were of a technical kind, that is, there were no gaps or ambiguities as serious as there were in the first KAP.

However, the epidemiological interest remained as part of the content, and was, in fact, even stronger. In KAP 2, there was a clear intention to use data in order to estimate coverage of children as defined within precise age groups. This study was furnished with a questionnaire on coverage prepared by the Child Health Project (Reach).

One of the most important results of KAP 2 was that it showed rising curves in people's levels of knowledge about diverse aspects relevant to communication. This knowledge was of both the conceptual kind and of the kind involving concrete skills relating to the CSS. The growth monitoring strategy was the area where the least results were achieved in terms of knowledge. The area where the most change occurred was immunizations; this was the result of past experience with PAI, which had created a knowledge base regarding vaccinations. But with rehydration, there was a problem of product delivery. It is not known whether this was due to lack of availability of the product, or to communication problems. The distribution of the product was apparently chaotic. During the first stage, a mass

distribution was made (two packets with the health cover). For the second campaign, distribution was diminished, or the product was given only in cases where diarrhea was present. Even now, it is not given for health maintenance purposes, but only when the child has diarrhea. This affected its appropriate usage. In an evaluation of this type, it is impossible to draw conclusions from the KAP results with regard to the extent to which there was a positive impact on communication.

#### 7.10. TRAINING :

The training in marketing and communication done within PREMI was basically with health educators (OTIDES) and MOH. From the beginning, and right through to the end of PREMI, the MOH health educators were resistant to participating. Only during the last phases of the program did two of the educators participate in the courses.

The OTIDES training was excellent up until the middle of 1986, at which time problems between the two institutions (INNFA and OTIDES) arose because of "sensitivity." OTIDES felt its work had not been recognized at a public ceremony held in praise of PREMI's success. They felt that they were seen as having had only a passing role, although they had developed an enormous training effort in the school system.

Cooperation fell to its lowest level for a year. It was revived when Eloiza Gortaire was appointed director of OTIDES. She was an educational psychologist who convinced M.P. Torres to broaden the concept of health education beyond only the four CSS.

At this time OTIDES asked for greater participation in the process of developing educational and promotional materials, and especially in the reviewing of contents. The response was positive, but only in theory.

The OTIDES report is important, because it summarizes the perceptions of many people within the Ministry of Education regarding some of the materials produced by PREMI.

It was suggested that the focus with regard to hygienic habits, feeding, nutrition and personal care be on prevention; that the paternal image be used; insert a glossary of terms; the scientific contents should have been more precisely defined; review the grammatical structure of the messages; make the drawings more dynamic; reduce the number of pictures per page; and reduce the amount of text.

The reason that OTIDES had sought a greater participation in the production of materials was that criticism of the "marketing"

model that had been made months before by the MEC health educators and some groups of teachers still persisted.

The main criticisms that there was an implicit manipulation of the people. The country's cultural aspects were not taken into account, nor was there a segmentation of the audiences; to the contrary, there was a stress placed on foreign aspects. It was not based upon serious research into what it was that the people would consume or demand in the way of services. It was lacking in credibility, especially with regard to the provision of certain health services (vaccines, salts, etc.), about some of which the mothers even began to believe "they contained sterilizing substances."

Associated with this criticism was an implicit complaint on the part of the health educators that PREMI lacked a useful means for sampling the opinions of the people with respect to each of the parts of the program. Also, there was disappointment that there had not been an annual evaluation of what OTIDES had accomplished in the provinces. There was no feedback regarding what had been achieved, and therefore no stimulation to work.

PREMI's task in doing communications and marketing training with the OTIDES health educators was accomplished using: 1) training through seminars and special courses, and 2) training "in situ." However, it can be seen that the training was quite delayed, not having started until after the end of the third stage of intensive vaccinations.

- a) Training through courses:- The first training course for the MEC health educator personnel took place in 1986 in Riobamba. According to OTIDES the effort was a failure because of a lack of planning and excessive improvisation. There was not much emphasis on communication, but rather on the 4 CSS. The course wound up being costly (S/ 600,000) for the two months of full time functioning. However, the personnel performed well, possibly in response to their own motivation.

In 1987, when criticism was growing over the marketing and communication model adopted by PREMI, a course was organized under the auspices of PAHO, OTIDES, and MOH, for the MEC and MOH health educators. Thirty-eight people attended. The course was organized in response to a MEC mandate; the MEC organization chart had the Department of Health Education shown as a subdivision of its National Directorate for Regular and Special Education. So, MEC felt that, if this group of health educators had the responsibility for coordination with PREMI, it would be necessary to provide them with some training. The course lasted nine months, and cost S/ 2,000,000.

- b) Training "in situ".- The "in situ" training of the OTIDES personnel took place through a system of workshops that began only after the third campaign. These workshops involved a theoretical component on communication and marketing and another component on the four child survival strategies. Each of the provincial heads of health education from MEC attended these workshops.

This training system began with visits of the personnel from the INNFA Department of Communication and Marketing with the MEC health educators in each of the provinces, beginning in March 1986. During these visits, the Provincial Communications Commissions were set up, and the scheduling of all of the tasks in each of the 20 provinces for each of the campaigns began.

Before these meetings, the health educators were incorporated to the Provincial Executive Committees, representing the Provincial Education Directorates of MEC. Their role was to spread among the students the concept of PREMI in order to stimulate them in their local work in the community. It was at this time that MEC instituted the idea that secondary students, instead of writing the thesis that all such students are normally required to write prior to receiving their degree, could work on promotional tasks having to do with PREMI.

At the end of the fourth campaign, a follow-up visit to the provinces was made. At this time, personnel from Quito left some materials and instructions that could be used as a reference source in the production and adaptation of local materials. They also delivered basic materials for the production of materials.

During the fifth and sixth campaigns, workshops were offered in Quito. They were attended by the heads of the MEC health education sections in each of the provinces. Two MOH health educators were also included, and they were the only ones from that institution that took advantage of such training.

#### 7.11. ADMINISTRATION OF THE COMMUNICATION COMPONENT:

- a) Personnel.- The team that comprised the PREMI-INNFA Communication Unit was relatively small in comparison with the enormity of their task. It consisted of ten people who, for most of the time, function as full time staff: The director, a specialist in advertising and marketing, a social researcher, a radio and television producer, a

journalist, an administrator, an accountant, two secretaries, a driver and a messenger. Assistance was also provided by three permanent foreign consultants with their respective secretaries.

The main limitation that the Director encountered in putting this team together was the lack of specialists with broad experience in marketing and research in communication. To do research, he had to create a team that had experience in related disciplines, but were not of a sufficient level of expertise to comprise a strong counterpart to the foreign consultants.

The training given to the personnel of the Communication Unit was relatively poor, and exclusively about minor matters of a functional nature: short courses in computing, graphic design, design of audiovisual aids, message analysis, etc. Marco Polo Torres said that there was no time to do more extensive national or international training. They did not have a chance to visit other countries where they could have observed similar experiences. There were resources available, but not enough time. Everything proceeded on an emergency basis.

One of the most frequent comments made during the evaluation with regard to personnel was the "excessive" presence of occasional foreign specialists. Apparently, the work of many of them was used not at all during the entire duration of the program. In the communication area, at least six short-term consultants were identified.

- b) The administration of the communication component.- M.P. Torres showed himself to be an excellent administrator for the entire program in all of its dimensions. He used firm standards for the selection of personnel, and for using their specific skills, and he provided a high return on the investment made; a significant portion of the funds allotted was not even spent.

He recognizes that he committed some minor errors with regard to his lack of flexibility in investing more money in the procurement of human and technical resources. As for the fee levels, INNFA had fixed limits that made it difficult to hire more qualified people. But, his collaborators complained that he put too much pressure on them with regard to operating costs. Even so, their level of identification as a team was high.

- c) Costs.- PREMI-INNFA invested approximately \$1,026,100 dollars during the 34 months of operations of the

communication and marketing component, according to the report of the Unit Director, M.P. Torres, cut off in April 1988. The major costs were for television (26%) and printing (17%).

The cost of the communication and marketing component was totally covered by AID. The original appropriation for communication was \$ 1,116,000 (28% of the total budgeted), of which US\$ 902,400 was used. For mobilization, the budget was US\$ 127,000 (3% of the total budget), of which US\$ 78,000 was used.

According to available evidence, there is neither sufficient nor reliable information available yet for drawing firm conclusions about the cost effectiveness or the cost benefits of the PREMI communication component. The only study done of cost effectiveness until now was that of the Child Health (Reach) Project, which took place in August 1987. That study has received strong objections from every person of responsibility at PREMI. The study concluded, among other things, that the costs of immunizations were higher during the campaign than are those for immunizations offered through permanent facilities. It has not been possible to find any document that formalizes the objections to the Reach report.

#### 7.12. CONCLUSIONS:

- 1) The communication component played an important role in the development of PREMI. Without it, the program would not have achieved the positive results with regard to the child survival strategies.
- 2) The communication component, with its focus on the applied market, has effectively generated a considerable temporary demand for health services related to child survival, and especially immunizations. But it is not certain that the concepts and skills that were promoted around the CSS have generated permanent behaviors that would assure that, in the future, in the absence of the stimulation provided by similar communication, these skills will be applied in daily life, nor that the demand for services will continue to be shown in the populations in question.
- 3) An exaggerated and accentuated emphasis on the information and motivational processes, as opposed to the educational process, impeded any considerable contribution on the communication component to the cultural changes that need to be achieved in order to ingrain as a part of individual and family habits the notions of preventive medicine, family

health, child's health, child's rights, and health rights of the people in general.

- 4) The lack of a substantial educative component prevented the possibility that the enthusiastic mobilization process that had been created during PREMI, especially at the outset, would be strongly channeled to generate a permanent process of awareness among the people regarding family and community health. It thereby also prevented the generation of authentic community participatory processes with regard to the child survival.
- 5) There was no intention to generate the authentic community participatory processes that would allow its members: a) to identify their health problems, and especially those of children under 5, b) to seek better alternatives for the preservation of recuperation of health, or c) to generate the skills needed to apply the technologies appropriate to solving health problems.
- 6) The process of communication applied was eminently compulsory, unilateral, and lacking in dialogue; it took on the same assistantship characteristics as the project as a whole. It made it impossible to achieve any kind of compatibility between the thoughts and feeling of the people, and the form in which the strategies for infant survival were offered, as services from the health units. The communication process sought to co-opt the perceptions of the community so as to shape its messages on behalf of persuasion aimed at generating demand.
- 7) Because of this, little was learned about the community with regard to its authentic perceptions of the health problems associated with the child survival. This will make it difficult in the future to avoid similar problems.
- 8) There was an exaggerated emphasis on the use of mass media as opposed to communication procedures that were more interpersonal, group-oriented, and community-based. This tendency generated doubts in one segment of the national public opinion, regarding the authenticity of the program's social service; it may have been seen as a program that was hiding some of the government's political intentions. Also there were not just a few speculations about the possibility that this super-saturation of information through the mass media produced some confusion about aspects important to infant health among the population with reduced resources.
- 9) There was no relationship between the demand generated through the pressure of motivational communication, in the style of the purest kind of commercial marketing, and the offer of real service. The demand would have exceeded the

quantity and quality of the services. And there may have been provoked a growing frustration among the people with regard to the credibility of the messages about infant survival. These messages were exaggerated in their effort to maximize the perception of the clientele regarding the quality of health services and the benefits to be expected in the short term. Meanwhile, the services had been more deficient than was true in normal times because of their own problems with a war-scale set of logistics used in offering massive service and the numerous differences in technical criteria used at the MOH.

- 10) As a result, the intended search for equilibrium between supply and demand has not been produced, precisely because of the contradictory situation which was sought, with a communication model that was eminently persuasive and compelling, and an "artificial demand" (I bought because I was pushed) based upon a supply that was also artificial (I offer good service because I am pushed to do so).
- 11) Within this situation, with a communication model based on social marketing, there was confusion in its basic interpretation by those who were to implement it, who in many instances worked within the setting of an organizational pyramid. The model generated gratuitous resistance in some cases, and in others, resistance created by misapplications of the model.
- 12) The original social marketing model, as postulated for the project, was insufficiently formalized and tardy. And it prevented the possibility of a rational application. The irrationality in launching the application of the communication component and the marketing was shown by a lack of initial research, a lack of middle term planning which affected the global design of the proposal, a lack of analysis of what had really happened in the pilot project (IRHSD), and a lack of a critical attitude toward the entire model, which would have allowed for the tailoring of the model to the peculiarities of the country.
- 13) The lack of research and planning in the launching of the communication and marketing component produced a series of errors in the evaluation of the informative and educational aspects. The work was done in an intuitive fashion, with accidental scheduling, for relatively short periods, and under strong time pressures; only the expertise, the good will, the motivation and the decisions made by the professionals in charge made what was achieved possible.
- 14) There were many problems in the course of the KAP research, due to inconsistencies at the management level of PREMI regarding the objectives of the evaluations (pro

communication or pro epidemiology), which institutions should perform the studies, and how to make use of the results. Only a small part was put in service of feedback to the various communication systems used in each phase and interphase of the program.

- 15) The lack of unity in technical criteria among the personnel in public health, disrupted much of the work in communication, and this, in turn, had an impact on the efficacy of the communications strategies adopted.
- 16) The work done in communication and marketing was impressive. Much of it was of excellent quality, but there were deficiencies which minimized the merits of the global effort.
- 17) The mobilization activities at the national level were very effective, especially at the beginning, due to the consistent effort of the various national institutions, particularly MEC; and it is certain that Ecuador gained a lot from the experience.
- 18) The MOH was isolated from the PREMI process, which tended to diminish its contribution to the communication and marketing effort. Health educators did not participate in the process, but developed a parallel communication and education activity through the application of methods and procedures totally different from those used by PREMI/INNFA.
- 19) The implementation of the communication and marketing activities did nothing to strengthen the MOH. To the contrary, it was felt that some individuals lost confidence regarding the future use of communication in support of the development of programs of immunizations, oral rehydration, maternal lactation, and growth control in children.
- 20) The process of training intermediaries who would bring the message to the mothers was carried out satisfactorily through the mechanism of "mobilization". But the technical training of personnel who would continue to apply similar strategies in the future did not exist. There was no sustained technical training for members of the team that was responsible for communication; neither was there such training for health education personnel from MOH or MEC, nor was there created a solid and coherent professional group to be used in the future.
- 21) Administrative limitations affected the communication effort. These limitations grew out of internal coordination problems at the highest levels of PREMI/INNFA, out of limitations on the payment of reasonable fees for high-level professionals, out of a lack of sufficient specialized human

resources in the country from the field of communications, marketing and research, out of the excess of foreign consultants for short term stays, out of the lack of an efficient relationship between the international institutions that supported the program, and out of the lack of coordination between PREMI/INNFA and the MOH.

- 22) The administration of the program appears to have been efficient, and was distinguished by the enormous coordinative capacity of those who directed the communication and marketing effort.
- 23) Another important lesson was that the main inputs for mobilization are political support and social communication. That neither one nor the other should be abused by using it to generate confidence and credibility in a national audience accustomed to being offered much with no possibility for delivery.

### III. CONCLUSIONS AND RECOMMENDATIONS

#### 1. General Conclusions

The evaluation team, despite a lack of adequate data, found evidence indicating that PREMI interventions have contributed to positive changes in infant mortality in Ecuador during the period 1985 to 1988. Although this contribution did not help to accelerate the on-going trend in infant mortality decline, child survival intervention, at least, helped to maintain the secular trend during a period of severe economic difficulties for the population at risk. Also, child survival interventions have been important factors in morbidity reduction among children under five years of age. There is no doubt the impact could have been stronger, however the achievements are still significant.

If PREMI played a positive role in preventing illness and mortality among children under five, it was due to the efforts in expanding health services in immunization and increasing effective use of ORT, and to the strong effort for increasing demand for those services by means of social communication and social marketing inputs. Even though this strategy produced only short-term effects, PREMI's efforts increased public concern about infant and child mortality and began the eventual mobilization of a large number of people and institutions for carrying out Child Survival activities.

Indeed, PREMI was successful in helping to develop a national awareness about child survival and the most effective ways to diminish the risk of infant and child morbidity and mortality. This is an outstanding achievement because it established the basis to make child survival activities a permanent component of the national health agenda in Ecuador.

The effective mass communications activities, social marketing model and social mobilization campaign designed by AED and implemented through INNFA, must be considered one of the main factors in the positive effects of PREMI in bringing about this awareness about child survival. This component reached more than 3,500,000 Ecuadoreans and greatly stimulated public understanding of and demand for immunizations, ORS, and other child survival services.

Concerning specific child survival interventions, the evaluation team established that although the Jornadas PREMI were

effective in attracting children to the health units for immunization, this effort did not reflect a significant increase in the immunization coverage rates due to a reduction in regular immunization activities between PREMI campaigns.

Furthermore, the goal of vaccinating 80 percent of all children under 1 during 1985-1988 has not been reached. With respect to proposed targets of 100 percent for children between 1-4 years, coverage has improved substantially, even though the goal was not met. The target of immunizing 80 percent of all pregnant women in high risk areas with tetanus toxoid was not attained. PREMI campaigns, however, helped to educate mothers about the importance of completing the full immunization schedule, and increased the number of children getting their first immunization. PREMI has also contributed to the improvement of the cold chain on a national level. The cold chain now covers 82 percent of the units involved in immunization activities.

Although there are not sufficient data to fully assess the impact of the DDC component, indirect evidence indicates there may have been some success. A more clear and definitive decline could have been expected. Unfortunately, available data to evaluate this aspect of the Project are both scarce and faulty. The Project has failed to produce data to measure project success regarding this component. However, preliminary results from the KAPs studies indicate an important qualitative increase in awareness, both among health workers and mothers, about diarrheal diseases as serious mortality risks, and about the importance of ORT to reduce this risk.

Actions oriented to achieve the goals in nutrition, growth monitoring and breast-feeding were scarce from the beginning and were discontinued due to institutional breakdowns. The major continuous achievements in this component were the development, production and distribution of educational materials on nutrition/growth monitoring for MOH health delivery personnel, and the procurement of scales for growth monitoring in MOH health facilities. Another promising development in this area is the research carried out by INNIMS (now IIDES) and Manoff International with support from the Project and USAID. This research could provide the bases for the design of a definitive component on nutrition, growth monitoring and breast-feeding, and identify the key elements for implementation.

Although not part of the original Project design, ARI was included as a PREMI component in 1986 due to its prevalence as a cause of mortality and morbidity. There have been few interventions in ARI under PREMI. Although the MOH developed norms for ARI treatment and these have the general approval of the medical community, the norms have not been translated into programmatic efforts.

PREMI facilitated ample training of MOH personnel. The goals set for this component have been met, at least quantitatively. Most of them in ORT. Further analysis is needed of the quality of the training performed and its power to produce lasting effects. Unfortunately, information to assess the quality of training was not available at the time of this evaluation. Follow-up and supervision were absent in the implementation of this component. Despite the efforts of the MOH teams and the technical assistants, the lack of definitive commitment from the Ministry aborted attempts to produce and implement a new supervisory scheme.

Technical assistance has played an important role in the implementation of the Project and has been in general effective. Although beneficial to the Project, most assistance lacked coordination and an appropriate counter-part. Long-term technical assistance clearly lacked leadership and did not function as a team. The intensive use of short-term technical assistance was often unplanned and relatively unaccountable to the Project's managers and USAID officers. Future technical assistance must be designed and managed so that these problems do not occur again.

The PREMI/AID Coordination Unit was critical for managing this Project and for coordinating the large number of implementing institutions and other donors. The unit was important in implementing the early phases of the Project. Now, its original role has almost disappeared and its functional purpose is not clear. The unit must be redesigned because of the changes in the MOH under the new administration.

This evaluation team found that none of the major health information system activities were completed. There has been no clear, unified and organized approach to improving Child Survival information systems. The efforts have been fragmented, at times inconsistent, and often ineffective. The main reason for this is the lack of unity and continuity of effort in carrying out the activities within this component of the PREMI Project.

The communication component with its strong social marketing approach played an important role in the development of the PREMI Project. Without it, the Project would not have achieved the positive results in child health and mortality. Social communication, with its focus on market research, has effectively generated a considerable, though temporary, demand for health services related to child survival. However, it is not certain that the concepts and skills promoted by the child survival strategies have brought about permanent behavioral changes. Without the publicity that accompanied PREMI's activities, there is no guarantee that the demand for health services will continue at its present level, or that the people PREMI was trying to reach will continue to follow appropriate child survival practices. The strategy for increasing demand for services proved

successful in meeting immediate goals; but probably has not made long-term changes in public attitudes or behavior. The emphasis on social marketing meant not enough attention was paid to the use of existing human resources, who could have played a key role in face-to-face communication as the "sale force" of the Program.

In general, PREMI initiatives have permitted Ecuador to increase the level of effort in reducing child mortality. Building on experience already gained in the Ministry's EPI and DDC, PREMI was able to engage various organizations and people in its work. Nonetheless, most of PREMI's achievements significantly lack sustainability, and if any of the interventions were replicated today the level of effort necessary to carry them out would be the same as the level of effort needed when they were originally implemented.

The MOH was relatively successful in expanding its service delivery capacity during the two first years of the Plan. However, this temporary expansion was a response to the demand for services generated by the intensive use of mass communication activities and the corresponding campaigns carried out to improve coverages, especially in immunization and ORT. Several factors have inhibited the transformation of MOH participation in this national effort into permanent capacities. Some of these factors are: the specific organization of PREMI; the existence of two major institutions involved in the implementation of the strategy; the initial, virtually uncontested INNFA leadership; the concentration of the demand growth actions in INNFA while the supply expansion actions were concentrated in the MOH. Also the MOH structure and organization did not respond to the needs of PREMI and its social communication focus.

In spite of these shortcomings, valuable experiences were gained with MOH involvement in PREMI. The most valuable is the participation of health workers in PREMI activities, and the improvement of the workers' awareness of the importance of Child Survival. This awareness should be the basis for future efforts in Child Survival. Though the MOH did not make full use of the opportunities to grow institutionally, its commitment to new Child Survival actions leaves plenty of room for hopes.

Despite the poor results in institution building, PREMI's experiences generated new capacities to design and implement Child Survival interventions. These capacities must be reinforced. Even considering more specific failures (information system, supervision, etc.), the project increased awareness within institutions involved. This is a positive basis for future developments.

One of the major shortcomings of the project is the lack of results in institution building, especially in the MOH. This problem should not be entirely ascribed to failures in the

implementation of the project. It reflects a major deficiency in the project design, which did not emphasize activities to develop the MOH ability to design and deliver child survival services on a regular basis.

Most of the Project's shortcomings are related to inadequate and efficient implementation and administration capacities of the agencies involved in the Project. The evaluation team, during the review of the design process, identified the following additional weaknesses: 1) lack of a country-specific strategy for reduction of infant and child mortality; 2) lack of targeting of limited resources; 3) inadequate lead time for new Project development; and 4) lack of well-defined, appropriate management and administrative procedures in the Project Amendment.

The use of political support as a substitute for consensus building led to inadequate commitment by agencies and individuals charged with implementing Project components. Dividing administration of the Project between at least three institutions (MOH, INNFA, and USAID) has compounded the problem of lack of commitment. This division of administration and its inherent problems, should be avoided in future Project design efforts.

The Ecuador Child Survival Country Strategy (CSCS) under USAID Mission funds was completed in March 1988 and represents a fresh and appropriate approach to the design process. The CSCS is based on review of actual infant and child mortality in Ecuador. This has resulted in a broadening of priorities from immunization and ORS use to addressing by order of importance as a risk factors for mortality: 1) low birth-weight/risk births, 2) malnutrition, 3) acute respiratory infection, 4) diarrheal diseases, and 5) vaccine preventable diseases. The 1985 design process can be seen clearly when compared to the deliberate design process being used to develop the proposed FY 89 Child Survival Project.

The strategy for increasing demand for services proved successful in meeting immediate goals; the increase in supply of services, however, produced only moderate achievements. The expected expansion of institutional capacities was not achieved.

In the following section, this report presents specific recommendations that can help to reinforce the Project's positive experiences and correct the others.

## 2. Recommendations

In this section, the evaluation team presents recommendations for the implementation of child survival activities in the current Project, as well as recommendations for

the design and implementation of the new child survival Project currently under discussion between MOH and USAID. A set of global recommendations are discussed in the first part of this section. Later we present recommendations for specific areas.

## 2.1 Overall Recommendations

During the last year of implementation the inter-institutional character of the Project has dramatically changed due to changes in the MOH between April 1987 and July 1988, INNFA's pullout from the Project, and the inauguration of a new Administration in the country.

These changes have made the MOH the most important institution for child survival intervention. This should be taken into account in the programming of the current Project and in the design of new child survival initiatives including both initiatives to expand and improve services and initiatives to increase demand for those services.

The MOH, needs further assistance to strengthen their ability to implement child survival interventions on a regular basis. Correspondingly, any USAID effort to support child survival activities in the country must give high priority to strengthening the MOH institutional capacity to design, implement and evaluate sustainable child survival actions. The efforts in institutional strengthening should be focused toward the regional- or provincial levels rather than the central level of the MOH, thus reinforcing the decentralization and regionalization already taking place in the Ministry.

USAID should insure the direct participation of the Ministry in the design process. This participation must be facilitated by consensus building that will encourage commitment by the agencies and individuals charged with implementing Project components. All these will determine the development of a truly country-specific strategy for reduction in infant and child mortality. The use of political support as a substitute for this process of consensus and commitment should be avoided.

We strongly recommend the new child survival Project orient interventions to those areas and individuals in the greatest need, rather than to continue with a nation-wide approach. Project designers determine those geographic areas with the highest infant mortality and morbidity, and identify tools (i.e. growth monitoring) to screen for individuals most at risk within the regions.

Immunization and ORT (including the use of ORS and other liquids) should continue to receive emphasis in the Project. However, we strongly support the decision to give priority to

nutrition/growth monitoring and acute respiratory infections. These child survival strategies must be accentuated in any future large-scale effort to improve child well-being in Ecuador: the interrelation between factors such as acute respiratory infection and malnutrition is a principal risk factor for infant and child mortality.

Recent studies have shown the importance of neonatal mortality in overall infant mortality rates (about half the number of infant deaths.) Because neonatal mortality is so high, it is important to design and implement interventions targeting high risk pregnancies and births. The new country child survival strategy does this. We support this decision strongly.

The Project design must also provide strong guidance for the administration and management of the Child Survival interventions. It must establish effective coordinating mechanisms through clear descriptions of responsibilities and lines of authority for implementation. Furthermore, relationships between the various institutions in regard to Project implementation must be clearly defined.

Activities under the current child survival Project should be immediately reactivated. In order to do this, activities must be programmed until the end of the Project (December 1989). This programming will require a clear assessment of the MOH's ability to lead the implementation. The assessment should cover the MOH's Division of Promotion and Protection, the specific programs (EPI, DDC, Nutrition, ARI), and the MOH commitment to reinforce these units if necessary. USAID technical assistance must play an important role in supporting this assessment. The complete programming of PREMI activities must be completed in no more than a month.

The programming of PREMI activities regarding nutrition/growth monitoring and acute respiratory infections should be priority, although immunization and ORT (including ORS other liquids promotion) should continue to receive attention.

Campaigns for expanding services and increasing coverage rates must be analyzed in depth and redefined as needed. National campaigns must be tightly tied to the goal straightening permanent institutions in order to improve the quality and quantity of Child Survival services provided.

Both the current child survival effort and the new Project need to make intensive use of social marketing, with equal emphasis on the use of mass media and the development of educational efforts for person-to-person communication. The social marketing approach will require the participation of existing human resources (doctors, health workers, educators, and community leaders), who must serve as the "sale force" of the

Program.

The PREMI/AID Coordination Unit has lost most of its role, though it has important resources that can ease the implementation of activities under the current Project. We recommend the Unit be restructured to deal with the changes in the MOH under the new administration. The Unit's resources must be relocated and/or re-channeled. The need for changes in the Unit point to a need to redefine direct USAID involvement in Project implementation. USAID must attempt to transfer the control over these resources to the appropriate implementation unit in the MOH.

Technical assistance should continue playing a key role in activities under both the current Project and the new Project. It is important to establish clear procedures for the use of technical assistance. The TA should assist the national counterpart and, thus, must be accountable to the counterpart. The MOH (and any other national institution involved in the implementation) must lead the implementation; the TA should provide technical support. Both long-term and short-term TA's should strive to work as members of a team. If there is no Ecuadorean counterpart to the TA, the TA is probably not needed. A clear relationship between the TA and the Ecuadorean counterpart will help to eliminate current problems in the planning for, and the selection and use of technical assistance. Technical Assistance for all Child Survival activities should be provided under the responsibility and direction of one organization, with the explicit purpose of providing continuity of long term and short term advisors over the life of the project.

A last global recommendation has to do with Evaluation. Evaluation activities should be reprogrammed to cover the remainder of the PREMI Project which ends December 1989. Useful evaluations depends on the proper analysis of good data. The data from the KAP studies should be reorganized. Analyses of programs should be careful planned based on the availability of data. Where necessary, additional data in a useable format should be generated. Good data and good analysis are essential to the design, implementation and review of the Project.

## 2.2 Recommendations for Child Survival Interventions

- A. The following are global recommendations concerning the Child Survival Programs:
  - a. Orient specific child survival interventions toward the provincial level. Staff support should come from the central level and from technical assistance.

- b. In order to achieve "a", above, strengthen the provincial administrative and operating structures of the MOH to achieve more effective program implementation, supervision, and evaluation under provincial jurisdiction.
- c. Support programming, implementation, and evaluation of interventions with appropriate inputs from MOH management information systems, both at the central and local levels.
- d. Establish and maintain systematic processes for supervision and evaluation at all levels, particularly the operating level.
- e. Promote collaboration between participating institutions to deliver services during campaign days and regular activities, with an emphasis on prevention in each program area.
- f. Strengthen program components which provide services to mothers and newborns through improvements in prenatal care, health services delivery, and special services for the high-risk mother. Promote the expansion and improvement of centers delivering perinatal services.

#### B. Recommendations for Expanded Immunization Program

- a. Increase attention given to well-baby visits to guarantee the delivery of integrated health services to infants and insure better adherence to the vaccination schedule during the first year of life. Establish a mechanism which would facilitate adequate follow-up of children recruited through mass immunization campaigns.
- b. Give priority to the immunization of children under 1 with a target of 80 percent coverage with DPT, polio, and measles vaccine. Enforce the requirement of BCG vaccination for child registration and thus maintain the coverage rates of previous years. Maintain a 20 percent coverage target for DPT, polio, and measles for children between 1-4 to eventually achieve cumulative coverage of 80 percent in this age group.
- c. Increase immunization activities to ensure administration of the second dose of TT to pregnant women in provinces with high incidence of neonatal tetanus. Targets need to be established in accordance with the designated human and financial resources and the epidemiological situation of the province.
- d. Strengthen promotional efforts which emphasize the importance for disease protection of completing the full vaccination schedule. Address the discontinuation rates for vaccines requiring multiple doses.

- e. Direct intensive immunization efforts with priority given to provinces which, according to EPI standards have low coverage rates. Annually re-assess the standing of each province for the purpose of prioritization.
- f. Motivate health personnel to maintain regular immunization activities independent of those strategies directed at recovering previous levels of service delivery. Maintain and facilitate the regular immunization activities of the respective health facilities of the MOH. Emphasize the importance of providing immunization to children during spontaneous visits or regular appointments.
- g. Make use of the experiences of previous years, before and during PREMI, for future on-going programs and intensive campaigns. Identify administrative and operational areas which limit further development of the immunization program.
- h. Insure that the Government assigns sufficient funds to the importation of vaccines and supplies to insure their permanent availability independent of international cooperative commitments.
- i. Achieve technical cooperation and direct the support from private agencies to areas which have limited the successful implementation of the program.
- j. Strengthen and sensitize the epidemiological monitoring system as an essential component of program evaluation, planning, and implementation.
- k. To up-date the accounting of cold-chain supplies, provide necessary equipment to health units with shortages, and assure maintenance of equipment. Implement the cold-chain at the regional and cantonal level. Emphasize the achievement of norms for maintenance and transportation of vaccines at the provincial and operational levels as part of the regular personnel supervision. Promote the construction of the new Vaccine Bank at the central level.

C. Recommendations in Diarrheal Disease Control

- a. Through messages to groups at risk, continue to promote ORT and the use of ORS and other liquids for diarrhea control.
- b. Promote the use of breast-feeding and, for older children, the use of cow's milk during diarrheal episodes. Provide information about appropriate feeding practices during diarrheal episodes.
- c. Train the health personnel at all levels in the use of ORT so

they can serve as "sale force" of the Program's products within the community. With the Schools of Medicine, coordinate training for medical students to emphasize the effectiveness of ORT and the uselessness of antibiotics and others diarrhea medications.

- d. Improve supervision and monitoring, create norms for these activities, and decentralize them.
- e. Insure that short-term, intensive activities, like campaigns, are always well integrated into larger program goals and implementation.
- f. Improve the logistics of distributing ORS to the health posts. Standardize the packages to facilitate their recognition.
- g. Substitute citric acid for bicarbonate, as recommended by WHO. This improves acidosis and results in less frequent and firmer stools during the first 24 hours.
- h. Design the evaluation mechanism for Project success determination. Develop indicators to assess the effectiveness of ORT.

#### D. Recommendations for Nutrition Education and Breast-feeding

- a. Design an overall strategy which considers: i) appropriate child feeding practices; ii) promotion of breast-feeding and appropriate weaning practices; iii) training to health workers in growth monitoring and infant and child nutrition; and iv) education of the mother in infant and child nutrition and in the use of the health card.
- b. It is paramount that IIDES's personnel and CLAI team at the MOH division of Promotion and Protection participate in designing the program strategy.
- c. The program design can benefit from continuing technical assistance from Manoff International.
- d. The program design should be based on knowledge gained from research activities carried out by INNIMS (now IIDES) and Manoff International with support from the Project and USAID. This information must serve as a base for the design of the component on nutrition, growth monitoring and breast-feeding, as well as identify the key elements for implementation.
- e. Develop, produce and distribute educational materials on nutrition/growth monitoring for MOH health delivery personnel and communities.

- f. Actions in this area should be initiated during the implementation of the current child survival Project. Programming of these activities under PREMI should take into account their inclusion in the new child survival Project design.

#### E. Recommendations for Acute Respiratory Infection Control

- a. This component must be entirely defined.
- b. The already developed norms for ARI treatment, which have the general approval from the medical community, must be translated into programmatic efforts. The norms are the starting point for interventions design.
- c. The ARI team at the MOH division of Promotion and Protection must be strengthened.
- d. Programming under PREMI should carefully considered the eventual inclusion of these activities in the new child survival Project design

#### 2.3 Recommendations for Training and Supervision

- a. Institutionalize the training and supervision processes in the MOH. Design a supervisory system that fits MOH requirements at different levels.
- b. Establish a formal training and supervision program with short- medium- and long-terms objectives. The program will require continuous monitoring and evaluation, and the commitment of policy decision makers.
- c. Decentralize technical assistance to the provincial level, while giving it the capability to coordinate with the central level. This will increase the possibilities for technology transfer at the provincial level and expand professional capacities in child survival interventions.
- d. Standardize PREMI training and supervision reports in order to verify goal achievement over the short-, medium- and long-term levels. Carry out monthly monitoring in all health areas to ascertain goal fulfillment, as well as to detect operational problems.
- e. Evaluate the material programmed in the National PREMI Supervision Plan. To date there has been no evaluation of the plan's accomplishments.
- f. Insure the training and evaluation technology provided by

international agencies remains in the country, through official, full-time assignment of national professionals (counterparts) to these activities.

- g. Establish a new national agency for training, supervision and evaluation of health activities (or strengthen an existing agency). The agency should have high-level government support.
- h. Carry out periodic surveys of national health personnel for a more precise determination of the training and supervision they are receiving.
- i. Prepare a Tracking Plan for PREMI training activities.

## 2.4 Recommendations for Project Operations

### 2.4.1. Institutional Organization:

- a. Establish or strengthen consultation and coordination mechanisms at the central, provincial, canton and local levels. These mechanisms must include the institutions which operate in maternal/child care and child survival (MOH, MEC, Ministry of Social Welfare, UNICEF, CARE and PVO's)
- b. Establish technical norms so the actions of the institutions involved in child survival will be compatible and procedures will be uniform.
- c. Implement a training program for working teachers in the MEC. The program will explain the child survival activities under PREMI and provide technical advice and support to the teachers. These teachers and the MEC can reinforce the MOH's efforts by providing additional community support and by disseminating information on PREMI activities.
- d. Schedule and coordinate information activities of the institutions involved in child survival in order to reach as many people as possible through each institution.
- e. Strengthen the PREMI input into the MOH distribution system. Consider the need to allocate special or specific funds to reinforce the transportation system (i.e. , purchase of cross-country vehicles).
- f. Require that the program chiefs of the Maternal-Child Division (PAI - CLAI - CED - IRA - MI) participate, on a mandatory basis, in PREMI development activities, and that their achievements and participation be evaluated.

- g. At the provincial level, increase the personnel who coordinate with the national level (Division of Promotion and Protection). At present one professional is carrying out multiple duties, which doesn't permit him to address each subprogram in depth.
- h. Support provincial administrative personnel by providing basic supplies and equipment (i.e., paper, typewriters) needed for their work.
- i. Do not limit future programs to child survival: include the mother as well (Mother & Child Survival Program) and support her growth in the socio-economic context.
- j. At the provincial level, develop norms appropriate for the rural level, and make sure they are applied from the central level.
- k. Health services should be regionalized so that there will be greater effectiveness and control in the province, both administratively and financially.

#### 2.4.2 Procurement and Financial Flow:

- a. Procurement of commodities: Future overseas and local procurement should be contracted for by specialized procurement agents familiar with USG requirements and Ecuadorean health sector needs. These agents should be capable of completing the necessary paperwork to satisfy USAID regulations and to expedite shipment to Ecuador.
- b. USAID should assist the MOH in streamlining their internal procedures to assure that project commodities are rapidly liberated from customs and distributed efficiently to local operating units. It may be necessary to contract local technical assistance to support the MOH in this administrative reform.
- c. Financial flow: USAID should negotiate with the MOH (since INNFA is no longer participating in the Project) to improve mechanisms for liquidating grant funds within the A.I.D. 90-day limit.
- d. The MOH should either finance provincial-level Project activities with its own funds, or agree to develop a more efficient mechanism for liquidating grant fund advances sent to the provinces. Technical assistance should be provided to assist with such management reforms.
- e. The MOH should work to include in its annual operating budget monies to support complementary Project activities (and such

essentials as vaccine purchases) on a regular basis.

- f. Implementation Arrangements: The Project, in terms of USAID management, must be streamlined so that the MOH accepts the operational responsibilities and Child Survival as MOH priorities, with concomitant budgetary commitments.
- g. USAID must assist the MOH in streamlining its administrative and management procedures in order to create more flexibility in management of finances and procurement of goods and services.
- h. The Project should rely less on USAID procurement of equipment and supplies, consolidating purchases that can be made by specialized procurement agents.

#### 2.4.3 The Cold Chain:

- a. Any future program directed at reducing child morbidity-/mortality, must include the financial resources for maintaining, repairing and broadening the Cold Chain.
- b. Systematically develop Cold Chain on-the-job training activities.
- c. Maintain a regular program of supervision over the management and proper utilization of the Cold Chain.
- d. Take inventories of material resources at the provincial and operating unit level.
- e. Document work produced by the trained maintenance technicians.
- f. Assure the adequate supply at the provincial level of repair/replacement parts for refrigeration and freezing equipment.
- g. Construct a new central-level Vaccine Bank, for which studies, plans and financing arrangements are available now.

### 2.5 Recommendation for Health Management Information System

#### 2.5.1 At a general level:

- a. Make a major commitment to developing and improving a HMIS in Ecuador.
- b. Recognize the scope of developing comprehensive HMIS as an ongoing process which will gradually improve and become more

useful. It calls for an incremental, and hence modular, approach, but it must be designed and implemented with the larger system in mind.

- c. HMIS development activities should aim to improve and evaluate Child Survival activities, but work should not be limited only to Child Survival related components.
- d. Shift emphasis from reliance on special study surveys to development/improvement of a Health Management Information System (HMIS).
- e. Special surveys could continue to be used under very specific circumstances: i) if the nature of the information is such that it could not be provided by normal data collection systems; ii) the information could be provided by an on going data collection system but the current system is not considered accurate enough.
- f. Improve accuracy of the data generated in health facilities, considering the environments of limited human and financial resources in which they operate.
- g. Development of the system at the central level cannot be ignored lest improvements at the facility level result in information that is accurate but not useful. In order to consider the requirements at both central and local level, a two pronged attack is recommended, working at the central and facility levels at the same time.
- h. At the central level it is recommended to begin with some activities similar to the Executive Information Systems, initially developed by Birch & Davis, with two principal objectives: i) identify the initial system components to undertake, and to begin to develop decision models for those components; ii) develop analytic and data base capabilities within the MOH at the national level and perhaps in some of the provinces.
- i. At the facility level, we recommend the design and implementation of a pilot intervention/ sentinel post approach, to develop methodologies for understanding decision processes and improving analytic capabilities at the various levels of health facilities.

#### 2.5.2 Specific steps:

- a. Create a team of systems analysis and information system professionals (HMIS Team) with appropriate support and

facilities. Certainly part of this team is already in place. There is the MOH National Informatics Department personnel and the long term technical assistance.

- b. Organize a training workshop with persons at the highest level within the MOH to formulate an overall HMIS. The workshop should last about a week and have two components: i) lectures, discussions and case studies aimed at providing a background in theoretical concepts underlying a well designed HMIS; ii) structured working sessions which are designed to apply the theoretical concepts to the existing situation, and to develop a framework and operational guidelines for moving ahead with their HMIS.
- c. Organize HMIS Workshops to design particular components of the HMIS with more emphasis on decision processes particular to the area being covered.
- d. Develop selected component models. Model development would consist of: i) identification of information sources, ii) organization of the information into an integrated data base design, and iii) design of a system of queries and reports.
- e. Members of the HMIS team should receive a workshop or other form of training in relational data base design to facilitate design process.
- f. Establish a special team to design and begin sentinel post system at the facility level. This could be a subset of the main HMIS team or a separate group supported by the HMIS team.
- g. Develop INEC/MOH relational database (and population model) to hypothesize and test what is happening in the health facilities and the population as a whole.
- h. Develop Mortality/Morbidity model to adjust for under reporting and obtain "best" mortality estimates.

## 2.6 Recommendation for Social Communication and Social Marketing

### 2.6.1 Research.

- a. There should be an immediate effort to analyze in-depth the results of the KAP studies already completed. This will allow for more certainty about the impact which the communication component had over the past 36 months.
- b. One of the aims of the analysis of the KAP results should be

to help plan a new communications proposal to support future child survival programs.

- c. A new KAP study, running through the year 1989, should be conducted. The study must be communications specific and should identify effects of the communication campaign that was mounted following substantial changes in the Child Survival Program.

#### 2.6.2 Planning.

- a. A new proposal for the use of communication to support a child survival program should be prepared. This proposal should combine the marketing model used in PREMI with others that emphasize a reasonable level of face-to-face communication. The goal is to engender behavioral changes through education and self motivation. The communications program should generate a long-term demand for health services while recognizing the cultural diversity of the target population and the budgetary limitations of the project.
- b. The institutions which will implement the program --especially the MOH-- should participate in the design of the communication proposal and suggest changes, if needed.
- c. An operating plan covering the life of the communication program must be developed. The plan should be clear, precise, and flexible, rather than generalized and vague.
- d. The operating plan should be discussed, modified, and approved by representatives of the institutions involved in the project. This should be done in formal seminars where the process can be documented rationally and clearly. The operational, administrative and technical responsibilities of the various parties should be determined at these seminars.

#### 2.6.3 Training Project Personnel

- a. A training plan for the permanent personnel of participating institutions should be prepared. The training should cover:
  - i) planning for communication an education;
  - ii) research;
  - iii) production;
  - iv) testing in these areas;
  - v) evaluation;
  - vi) follow up;
  - vii) inter-institutional coordination.
- b. The training may be short-, medium-, or long-term. Professional program in universities outside Ecuador should be considered.

#### 2.6.4 Communication Strategies

- a. Communication should not be considered a "campaign", but rather a permanent process that will continue beyond the life of the program itself. The target audience and communication and public health technicians perceive a "campaign" as something that will end. A permanent process should last until the goal of the program, the permanent change in attitudes and behavior, have been achieved.
- b. The communication program should consider MOH personnel as a special and priority public. The goal is to motivate these employees to contribute to improving the quality of the services provided by the Ministry.
- c. Social groups within the target audience should be identified so that activities in the communication program can reach the people intended as effectively as possible.
- d. The "mobilization process" should be developed using the lessons learned in previous work. Some of the lessons that should be kept in mind are: i) don't design a program that is too big to coordinate, supervise and operate; ii) a program should not require more time, effort, or money than the participating institutions can afford.
- e. The MOH and the MEC should be the base for mobilization, and should share responsibility for program development and operations.
- f. The program should use the media which allow the most active participation by the basic institutions, and which reflect the thinking of the specific local community.
- g. All community development institutions should be invited to collaborate in producing materials, and in the use of these media, for community communications, using their own action models not only to "move" the people to demand health services, but also to educate the respective audiences in general and specific aspects of health.
- h. Child survival health education by developmental organizations should not be organized on the basis of artificial "mobilization" and pressuring of the community. It should become a part of the organization's regular activities and lead to a public awareness that good health practices are something to be followed year-round, not just during campaigns.
- i. The communications program should give a high priority to the educational programs both in school and outside the school system, capable of continuing child survival health education in their communities. To accomplish this, the communication

- strategy should include the "building" of an appropriate curriculum, production of materials, training of instructors, and motivation of directive, administrative and supervisory personnel of the national education structure.
- j. The system of selection and reselection of the radio stations used to send out the motivational and educational messages should be improved.
  - k. Mechanisms should be devised which guarantee the monitoring of messages in the various communication media.
  - l. Educational programs to teach families about child survival strategies should be re-edited and their number increased. There should be an emphasis on education programs at a distance.
  - m. A system of in-service training for specialists in producing material for television, radio, and the press should be instituted. The training system should be independent of the institutions responsible for the CS program and should have high-quality resources.
  - n. The production and transmission of educational programs on public and closed-circuit television should be increased. The program formats should use marketing techniques and should be scientifically correct without being complex or difficult to understand.
  - o. Great effort should go to the design of a leading message (a head of the campaign) for the communication campaign. This message should remain throughout the program.
  - p. A communications team should be created at the MOH that has sufficient personality, autonomy, and negotiating ability to create the necessary coordination both within the MOH and with other participating.
  - q. A system for reviewing the communications program should be established which allows for not only quantitative analysis but also qualitative analysis that can identify and make any necessary changes in the program.
  - r. Planning for the communications program, media production, research efforts, and evaluation should be decentralized.
  - s. The communications process should be documented so that the lessons learned through the program can be shared by others and applied in other areas of family health.
  - t. Finally, there should be, at the start, a special program to underline the importance of the programs for child survival

and for health communication and education. If this is not done none of the rest will work. Communication should be a significant part of the total planning process in public health programs.

#### IV. APPENDICES

##### APPENDIX A

##### PERSONS INTERVIEWED

##### MINISTRY OF PUBLIC HEALTH

Lcdo. Alfredo Altamirano	Operations and Logistics (MOH) Director
Dr. Fausto Andrade	National Health Council Coordinator
Dr. Galo Andrade	Director of the Cantonal Hospital in Pillaro
Dr. Humberto Baquero	Vice-Ministero of Health 1985
Dr. Marco Bedoya	Finance (MOH) Director
Dr. Jorge Bracho	Minister of Health 1986-1987
Dr. Oswaldo Egas	Planning (MOH) Director
Dr. F tima Franco	Epidemiology Division, Region II (MOH)
Lcda. Enriqueta Freire	Nurse of Health post Emilio Mar a Ter n in Tungurahua
Dr. Manuel Gallegos	Director of the Provincial Health Division in Tungurahua
Lcda. Rosario Lara de J come	Nurse of the Sub-center of San Miguelito in Tungurahua
Dr. Carmen Laspina	DDC Section
Dr. Nelson Laspina	Programming (MOH) Director
Dr. Pedro Lovato	Former Head of MCH Care Division (MOH)
Dr. Pablo Mart nez	PREMI/MOH Coordinator
Dr. Enrique Moreta	Had of MCH Care Division in Tungurahua
Dr. Jacobo Moreta	EPI Section
Dr. Antonio Orquera	Chief of Health Services of Tungurahua
Lcdo. V ctor Ortega	MOH Health Educator
Dr. Bernardo Ramirez	MOH Administrative Advisor
Dr. Marcelo Rom n	ARI Section
Lcda. Umanda Santa Ana	Nurse of the Provincial Health Division in Tungurahua
Dr. Roberto Sempertegui	Head of Epdimiology Division (MOH)
Econ. Ra l Stacey	Head of Statistic Division (MOH)
Lcda. Teresa de Tapia	Nurse of MCH Care Division (MOH)
Dr. Walter Torres	MCH Care Division
Dra. Magdalena Vanoni	New Head of MCH Care Division (MOH)

## INTERNATIONAL AGENCIES

Mr. Joseph Baldi	PREMI/AID Coordinator
Dr. Oswaldo Barrezueta	PAHO Immunization Advisor
Dr. Lenin Guzmán	UNICEF Health Programs Officer
Ms. Joanne Jones	Child Survival Program Officer
Dr. Eduardo Navas	PREMI/MOH/AID Resident Advisor
Dr. David Nelson	PREMI/AID Training Advisor
Ms. Kate Jones-Patron	Deputy Chief FHD/AID
Leda. Pilar Rivas	UNICEF Communication Official

## INNFA

Dr. Eduardo Contreras	PREMI/INNFA Long-term Evaluation Advisor
Dr. Reinaldo Pareja	PREMI/INNFA Long-term Communication Advisor
Dr. Marco Polo Torres	Head of Communication and Social Marketing Program

## MINISTRY OF EDUCATION (OTIDES)

Leda. Eloisa Gortaire	OTIDES/MOE Director
Leda. Myriam Vera	Provincial Head of Health Education for OTIDES/MOE in Manabí
Ledo. Marcelo Ocampo	Provincial Head of Health Education for OTIDES/MOE in Cotopaxi
Ledo. Juan Díaz	Provincial Head of Health Education for OTIDES/MOE in El Oro.

## OTHERS

Dr. Fausto Castellanos	Armed Forces Delegate to PREMI
Dr. Antonio Crespo	PREMI/MOH Physician
Ms. Ana María Merchán	PREMI/AID Coordination Unit Administrative Assistant
Dr. E. Espejo	PREMI/AID Coordination Unit Comptroller
Dr. E. Espejo	E. Espejo Foundation Delegate to PREMI

## APPENDIX B

### DOCUMENTS USED IN THE EVALUATION OF PREMI

1. Implementation Plan (first draft/PREMI Amendment 8)
2. Workshop of status of activities No. 4
3. Financial Status Nov. 12/87
4. DDC II Semester 1987 / Budget
5. CLAI II Semester 1987 / Budget
6. EPI II Semester 1987 / Budget
7. PNCS II Semester 1987 / Budget
8. Balance of Implementation Plan Budget
9. Financial Status PL480/PD&S - various financial status
10. Birch & Davis Reports
  - 10.1 Project for the development of the Information System/  
PREMI
  - 10.2 Report with letter to the Project/Preliminary Network of  
the Information System for AID & the MOH
  - 10.3 Trip report Roger D. McCreery - Oct.25-Nov/87
  - 10.4 Letter to Joannes Jones Dec/87 with statistical studies  
of various illnesses.
  - 10.5 Project proposal - Bob Murray - Ecuadorian Ministry of  
Health National Health Information System.
11. National Training and Supervision Plan.
12. National Training and Supervision Plan including  
introduction.
13. EPI - Graphic model of the memorandum of agreement for the  
Five-Year Action Plan.
14. Report of the distribution of vaccines to provinces Oct/87
15. Regional Vaccine Bank
16. Vaccine Bank
17. Internal Norms for duties. Internal Coordinator, Interagency  
Constitutional Acta, Immunization coverage 86
18. DDC/PIO/C Expansion of services. Seminannual report  
Healthcom resident advisors - April 1987, Sept. 30/87.
19. Report - Survey Nov. 9/87
20. Child Survival Strategies
21. Project Implementation Letters
  - 21.1 Grant
  - 21.2 ESF/INNFA
22. MANOFF/ININMS
  - 22.1 Communication strategy MPT-1 and MPT-2

- 22.2 Letter Dr. Lovato Jan.19/88 with Memo to Marcia Griffiths.
  - 22.3 Confidential Memorandum to Dr. Goldman
  - 22.4 Letter of agreement
  - 22.5 Letter of agreement with memorandum
  - 22.6 Quality research on infant feeding proposal
  - 22.7 PIO/T Amendment 9
  - 22.8 Training in Nutrition Program - Sep/87. Quality Research. Proposal Oct/87
23. ORS
- 23.1 Translation/Stanton, Binita, F. Rouland, Michael G.M.; Clements.
  - 23.2 List of commodities
  - 23.3 Memo M892-87, Confidential, Destruction of Salts.
  - 23.4 FHD 941/87, Dec. 9/87, Letter to Dr. Pablo Mart nez
24. PREMI - Activities
- 24.1 Table of Contents of Research, PREMI/INNFA file
  - 24.2 Corolarios
  - 24.3 Project Components. Chart. Letter PREMI M566-86
  - 24.4 Annex III-A, Report of status of activities
25. PREMI - Executive Committee
- 25.1 Social marketing and communication report. PREMI/INNFA
  - 25.2 PREMI Executive Committe Minute. July 23/87
26. PRICOR
- 26.1 Operations research on Sanitary Report. Activities Plan. June 5/87
  - 26.2 Information subsystem for ambulatory care. MOH
  - 26.3 Proposal: Activities Plan. Quito, Sep.1/87
27. KAP
- 27.1 Health personnel KAP survey
  - 27.2 PREMI Norms. To answer KAP/personnel questions
  - 27.3 Health Units KAP survey on human and physical resources. Annual data collection.
  - 27.4 Work Report. Pretest of inventory. KAP/ health personnel.
  - 27.5 Translation memorandum Marjorie Pollack. Apr.5/86
28. PRICOR.- Project Description: Francisco Sevilla Project:
- 28.1 Health Information System for ambulatory care. MOH
  - 28.2 Training model

- 28.3 Training annex
  - 28.4 Training plan
  - 28.5 Logistic model
  - 28.6 Approval of Plan of Activities
- 
- 29. INVENTORY - 1986
    - 29.1 Survey (final copy)
    - 29.2 Survey No.
    - 29.3 Inventory of MOH health-post resources.
- 
- 30. PRICOR.- Data analysis
    - 30.1 Memorandum
    - 30.2 Legal requirements
- 
- 32. PRICOR.- Francisco Sevilla's reports
    - Technical report No. 2 of status of activities
- 
- 33. PRICOR.- Sub-agreement
    - Budget summary
- 
- 34. PRICOR.- Minitest
    - Annex 1, 2, 3, 4 and 5
- 
- 35. REPORTS TO AID
    - 35.1 Health and Child Survival Project Reporting set. Ref.  
Guide FY 10/87

APPENDIX C  
PROJECT 518-0015, CHILD SURVIVAL  
FINANCIAL STATUS AS OF 06/30/88

LINE ITEM	AMENDMENT 8			AMENDMENT 9	
	AID	INNFA	MDH	AID	MDH
<b>D.1. MASS COMMUNICATION</b>					
1) Budgeted amount per FILs Nos. 85/96	413,000,00	629,000,00	12,500,00		
2. Amount earmarked	506,949,41	525,000,00	100,000,00		
3. Amount unearmarked as of 06/30/88	(93,949,41)	104,000,00	25,000,00		
4. Amount committed as of 06/30/88 †	506,949,41	525,000,00	100,000,00		
5. Amount unspent of commit- ment amount (undirsbursed amount)	0,00	67,078,02	33,657,56		
6. Amount available as of 06/30/88 (1-4) + 5	(93,949,41)	171,078,02	58,657,56		
7. Amount to be reprogrammed (consolidation AID & INNFA)	77,128,61	0,00	58,657,56		
<b>D.2 MOBILIZATION</b>					
1) Budgeted amount per FILs Nos. 85/96	0,00	140,000,00	0,00	0,00	0,00
2. Amount earmarked	0,00	127,000,00	0,00		
3. Amount unearmarked (1-2)	0,00	13,000,00	0,00		
4. Amount committed	0,00	127,000,00	0,00		
5. Amount unspent of commit- ment amount (undirsbursed amount)	0,00	5,000,00	0,00		
6. Amount available as of 06/30/88 (1-4) + 5	0,00	18,000,00	0,00		
7. Amount to be reprogrammed (consolidation AID & INNFA)	0,00	0,00	18,000,00		

† Includes USD 98,000 for Manoff Buy-In

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LINE ITEM	AMENDMENT 8			AMENDMENT 9	
	AID	INNFA	MOH	AID	MOH
<b>D.3. SUPERVISION</b>					
1) Budgeted amount per FILs Nos. 85/96	218.000,00	0,00	0,00	0,00	0,00
2. Amount earmarked	214.569,18				
3. Amount unearmarked (1-2)	3.430,82				
4. Amount committed	214.569,18				
5. Amount unspent of commit- ment amount (undisbursed amount)	0,00 †				
6. Amount available as of 06/30/88 (1-4) + 5	3.430,82 †				
7. Amount to be reprogrammed (consolidation AID & INNFA)	3.430,82 †				
<b>D.4. IMPROVED INFORMATION SYSTEM</b>					
1) Budgeted amount per FILs Nos. 85/96	723.330,00	0,00	80.000,00	370.000,00	200.000,00
2. Amount earmarked	548.009,36		72.400,00	0,00	0,00
3. Amount unearmarked (1-2)	175.320,64		7.600,00	370.000,00	200.000,00
4. Amount committed	548.009,36 ††		72.400,00	0,00	0,00
5. Amount unspent of commit- ment amount (undisbursed amount)	0,00 †††		58.454,30 ††††		0,00
6. Amount available as of 06/30/88 (1-4) + 5	175.320,64 †††		66.054,30	370.000,00	200.000,00
7. Amount to be reprogrammed (consolidation AID & INNFA)	175.320,64 †††		66.054,30	370.000,00	200.000,00 †††††

- † Possible USD 20,000 left over from D.N. Contract
- †† Includes USD 57,000 for AED Buy-in not yet "committed" by CONT.
- ††† Additional USD 20,000 likely to remain from B&D Contract
- †††† Additional undisbursed US\$ 6,400 not included (reserved for computer purchase)
- ††††† Transfer US 120,000 to D.6. (MOH managed funds)
- †††††† Need to reserve USD 200,000 for Infant Mortality Survey

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LINE ITEM	AMENDMENT 8			AMENDMENT 9	
	AID	INNFA	MDH	AID	MDH
<b>D.5. TRAINING HEALTH WORKERS</b>					
1) Budgeted amount per PILs Nos. 85/96	59,000,00	20,000,00	47,000,00	0,00	30,000,00
2. Amount earmarked	17,464,49	16,500,00	44,000,00 †		0,00
3. Amount unearmarked (1-2)	41,535,51	3,500,00	3,000,00	0,00	30,000,00
4. Amount committed	17,464,49	16,500,00	44,000,00	0,00	0,00
5. Amount unspent of commit- ment amount (undisbursed amount)	0,00	12,908,73	12,693,75	0,00	0,00
6. Amount available as of 06/30/88	41,535,51	16,408,73	15,693,75	0,00	30,000,00
7. Amount to be reprogrammed (consolidation AID & INNFA)	57,944,24		15,693,75	0,00	30,000,00
<b>D.6. IMPROVE COLD CHAIN SUPPLY/ MANAGEMENT</b>					
1) Budgeted amount per PILs Nos. 85/96	322,500,00	0,00	9,500,00	0,00	0,00
2. Amount earmarked	298,315,53	0,00	10,005,05		
3. Amount unearmarked (1-2)	24,184,47	0,00	0,00		
4. Amount committed	298,315,53 ††		10,005,05		
5. Amount unspent of commit- ment amount (undisbursed amount)	0,00		0,00		
6. Amount available as of 06/30/88	24,184,47		(505,05)		
7. Amount to be reprogrammed (consolidation AID & INNFA)	23,679,42		0,00		

† Includes PIL 73 for USD 700

†† Includes USD 8,000 for TA not committed by CONT. &amp; USD 8,000 for scales not committed by CONT.

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LINE ITEM	AMENDMENT 8			AMENDMENT 9	
	AID	INNFA	MOH	AID	MOH
<b>D.7. EXPANSION OF SERVICES (ORT, IMMUNIZATION &amp; NUTRITION)</b>					
1) Budgeted amount per FILs Nos. 85/96	364,000,00	0,00	160,000,00	60,000,00	40,000,00
2. Amount earmarked	339,076,94	0,00	125,615,00	30,000,00	0,00
3. Amount unearmarked (1-2)			34,385,00	30,000,00	40,000,00
4. Amount committed	339,076,94	0,00	125,615,00	30,000,00	0,00
5. Amount unspent of commit- ment amount (undisbursed amount)	0,00	0,00	48,000,00 **		0,00
6. Amount available as of 06/30/88 (1-4) + 5	24,923,06	**	82,385,00	30,000,00	40,000,00
7. Amount to be reprogrammed (consolidation AID & INNFA)	24,923,06	**	82,385,00	30,000,00	40,000,00
<b>D.9. PROJECT COORDINATION</b>					
1) Budgeted amount per FILs Nos. 85/96	481,000,00	0,00	0,00	260,000,00	0,00
2. Amount earmarked	461,540,64	0,00	0,00	197,530,00	
3. Amount unearmarked (1-2)	16,059,36	0,00	0,00	62,470,00	
4. Amount committed	461,540,64	0,00	0,00	197,530,00 †	
5. Amount unspent of commit- ment amount (undisbursed amount)	0,00	0,00	0,00		
6. Amount available as of 06/30/88 (1-4) + 5	19,459,36	0,00	0,00	62,470,00	
7. Amount to be reprogrammed (consolidation AID & INNFA)	19,459,36	0,00	0,00	62,470,00	

† Includes fully-funding Baldi PASA, not registered as committed by CONT.

\*\* Estimate

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LINE ITEM	AMENDMENT 8			AMENDMENT 9	
	AID	INNFA	MOH	AID	MOH
D.9. CONTINGENCIES					
1) Budgeted amount per PILs Nos. 85/96	70.000,00	14.285,00	124.385,00	0,00	0,00
2. Amount earmarked	48.455,15	14.285,00	132.844,00	0,00	0,00
3. Amount unearmarked (1-2)	21.544,85	0,00	(8.459,00)		
4. Amount committed	48.455,15	14.285,00	132.844,00		
5. Amount unspent of commit- ment amount (unreimbursed amount)	0,00	4.345,46	16.976,76		
6. Amount available as of 06/30/88 (1-4) + 5	21.544,85	4.345,46	8.517,76		
7. Amount to be reprogrammed (consolidation AID & INNFA)	25.890,31	0,00	8.517,76		

\* Technically not earmarked contingencies, simple in budget estimate of PILs

APPENDIX D  
LIST OF TDYS

DATE	NAME	ORGANIZATION	PURPOSE
3/21-4/10/88	Andrews, Edmund	B & D	To provide technical assistance for HIS
4/27-4/30/87	Baldi, Joseph	USPHS	Premi/AID Coordinator applicant
10/26/87	Baldi, Joseph	AID/W	Lt CS Project Coordinator
4/27-5/1/87	Baldi, Joseph	USPHS	Review plan for next campaign days, assist with arrangements and recommendations
10/25-10/27/85	Bart Kenneth	AID/W	Participate in first mobilization campaign
10/25-10/27/85	Bart Kenneth	AID/W	Participate in S&T campaign
1/28-2/6/87	Benavente Jaime	CSF	Lt Evaluation Advisor applicant
4/6-4/10/87	Benavente Jaime	CSF	Assist evaluation plan PREMI/MOH
11/30/87	Benavente Jaime	PSC	Lt evaluation advisor
4/5/87	Benavente Jaime	B & D	
5/24-5/6/87	Benavente Jaime	CSF	Help MOH/PREMI staff with evaluation of child survival program
5/18-5/22/87	Biellik, Robert	CDC/W	PREMI/AID Coordinator applicant
5/17-5/22/87	Biellik, Robert	CDC/W	Review plan for next campaign days, assist with arrangements and recommendations
10/26-10/27/87	Black, Robert	AID/W	Assist mortality analysis
10/6-11/23/87	Black, Robert	AID/W	
7/27-8/13/88	Calderon, Roberto	PRITECH	To assist in the design of the Child Survival paper
2/16-2/22/86	Chambers, Helen	VPI	Design behavioral study component

DATE	NAME	ORGANIZATION	PURPOSE
4/10-5/25/86	Chambers, Helen	Drake Univ.	Immunization behavioral study
9/24-9/27/86	Clay, Robert	AID/W	Observe PREMI activities
9/30-10/4/86	Clay, Robert	AID/W	Explore new health related programs
1/86	Contreras, Eduardo	Univ. of PA	Lt communications/ evaluation consultant
11/5-11/28/87	Delgado, Roberto	PAHO	Cold chain maintenance and repair
2/8-2/13/88	Delgado, Roberto	PAHO	Cold chain assistance
7/11-7/25/88	Eckroad, Kip	PRITECH	To work on the child survival eval. process
3/16-3/25/86	Elder, John	Univ. of W.VA	Immunization behavioral study
7/1-7/12/85	Elkins, Henry	PRITECH	Evaluate plan
7/1-7/12/85	Elkins, Henry	PRITECH	Obtain from PRITECH & AID pre-departure briefing on CSAP eval. guidelines & reporting requirements, as well as preliminary plan for ED CSAP eval. outlined in Guito 4721
9/29-10/6/85	Elkins, Henry	PRITECH	Recommended minimal # of questions, including draft design of questions required for any infant mortality survey quest.
3/10-3/23/85	Feeney, Paula	AID/W	Assist Mission in developing FP amendment
3/23-3/30/85	Feeney, Paula	AID/W	Assist health, nutrition, & education office in preparation of briefing papers for translation in July
8/18-8/30/86	Ferencic, Nina	Univ. of PA	Review KAP population

DATE	NAME	ORGANIZATION	PURPOSE
3/19-3/27/87	Ferencic, Nina	Univ.of PA	Clean KAP2 data & analysis
8/18-8/30/86	Ferencic, Nina	Univ.of PA	Review of results of the second KAP survey
10/19-11/6/87	Fermo, Aurora	AID/W	Mortality research and analysis
9/10-9/17/86	Fiore, Pilar	PRICOR	Prepare draft contract PRICOR/MOH-PREMI
8/25-8/30/86	Fiore, Pilar	PRICOR	Review draft contract for PRICOR II assistance
8/4-8/30/86	Folch-Lyon, Evelyn	WEANING PRJ.	Focus group nutrition
1/11-1/16/88	Foreit, Karen	PRICOR	For the integration of PRICOR results into MOH HIS design
6/2-6/6/86	Foreit, Karen	PRICOR	Surveillance posts/ integrated form
3/3-3/7/86	Foreit, Karen	PRICOR	Assist in development evaluation plan
3/31-4/4/86	Foreit, Karen	PRICOR	Assist in development evaluation plan
8/25-8/29/86	Foreit, Karen	PRICOR	Finalize field test & new form
10/6-10/10/86	Foreit, Karen	PRICOR	Implementation PRICOR Project
4/6-4/10/87	Foreit, Karen	PRICOR	Supervise surveillance post study
1/11-1/16/86	Foreit, Karen	PRICOR	Integration of PRICOR results into MOH health information system design
3/31-4/5/86	Foreit, Karen	PRICOR	Complete design of sentinel post study & health center survey to be used in project eval.

DATE	NAME	ORGANIZATION	PURPOSE
5/26-5/31/86	Foreit, Karen	PRICOR	Assist PREMI project evaluation group in initiating pre-test of surveillance post methodology in health facilities around Quito
8/25-8/30/86	Foreit, Karen	PRICOR	To provide TA to PRICOR II PREMI Project
10/6-10/11/86	Foreit, Karen	PRICOR	Supervise progress of PRICOR's surveillance post information study
2/1-2/7/87	Foreit, Karen	PRICOR	Review of progress of surveillance post study
4/6-4/11/87	Foreit, Karen	PRICOR	Review of PRICOR funded field test of consolidated reporting form for CS services
6/1-6/6/87	Foreit, Karen	PRICOR	Review progress with field test of consolidated reporting for CS services
9/7-9/19/87	Foreit, Karen	PRICOR	Work on other AID/W-funded project in Ecuador
1/11-1/16/88	Foreit, Karen	PRICOR	Integration of PRICOR result into MOH HIS design
1/26-1/30/87	Friedman, Stewart	B & D	Information system proposal plan
4/6-4/10/87	Friedman, Stewart	B & D	Information system implementation
1/25/87	Friedman, Stewart	B & D	
4/5/87	Friedman, Stewart	B & D	
1/26-1/30/87	Gaffikan, Lynn	B & D	Information system proposal plan
4/6-4/10/87	Gaffikan, Lynn	B & D	Information system implementation

DATE	NAME	ORGANIZATION	PURPOSE
1/25/87	Gaffikan, Lynn	B & D	
4/5/87	Gaffikan, Lynn	B & D	
9/28-9/30/87	Ganter, Bernardo	PAHO	Assist EPI in 5Y plan
1/19-1/30/87	Gomez, Victor	Lima, Peru	Assist cold chain improvement
3/17-20/87	Gould, Roberto	P. Novelly	Focus groups seminar for INNFA staff
7/24-8/6/86	Griffith, Marcia	Weaning Proj.	Focus group nutrition
7/16-8/6/86	Griffith, Marcia	INCS	Growth monitoring/ infant feeding activities
1/12-1/23/88	Griffith, Marcia	MANOFF INTL.	Orientation workshop for local personnel of selected parishes health units
1/12-1/23/88	Griffith, Marcia	MANOFF INTL.	The weaning project
2/18-3/6/87	Griffith, Marcia	MANOFF INTL.	Growth monitoring/ infant feeding activities
1/11-1/22/87	Griffith, Marcia	MANOFF INTL.	Assist quality invest.
1/12-1/23/88	Griffith, Marcia	MANOFF INTL.	The Weaning project
8/19-9/7/85	Haight, Harold	AID/W	Assist in PIO/Cs
7/1-7/12/85	Hayes, John	J. Snow Inc.	Evaluate proposals for AD agencies
5/18-5/22/87	Henderson, Peggy	CDC/W	PREMI/AID Coordinator applicant
4/13-4/23/86	Hill, Ken	J. Hopkins	Assist in baseline mortality study
9/29-10/5/85	Hill, Ken	PRITECH	

DATE	NAME	ORGANIZATION	PURPOSE
4/13-4/23/86	Hill, Ken	PRITECH	Review final questionnaire for national infant mortality survey which will provide baseline data for CS evaluation
5/31-6/20/87	Hill, Ken	PRITECH	Review data set from DANS
7/7-7/24/87	Hill, Ken	PRITECH	
10/6-11/27/87	Hill, Ken	PRITECH	
2/16-2/22/86	Holland, James	U.Pittsburgh	Design behavioral study component
4/14-4/23/86	Holland, James	U.Pittsburgh	Immunization behavioral study
8/14-8/22/86	Holland, James	U.Pittsburgh	Review observation KAP population
8/14-8/22/86	Holland, James	U.Pittsburgh	Review and analysis of results of behavioral studies & design of intervention with the Catholic University at the MOH
10/3-10/19/85	Hoover, Paul	DMS	Install computers and start information system
3/8-3/11/88	Hornik, Robert	PRITECH	To revise evaluation work regarding INNFA/PREMI activ.
6/9-6/13/85	Hornik, Robert	Univ. of PA	Evaluate mass media, health practices supervises communication component
2/16-2/22/86	Hornik, Robert	Univ. of PA	Review/observation KAP population
8/18-8/23/86	Hornik, Robert	Univ. of PA	Work on mass media and health practices project
6/9-6/13/85	Hornik, Robert	Annenberg School of Communication	Work on mass media and health practices project

DATE	NAME	ORGANIZATION	PURPOSE
9/29-10/6/85	Hornik, Robert	PRITECH	Provide assistance in developing evaluation format/indicators for social communications component of CS
8/18-8/23/86	Hornik, Robert	U.Pittsburgh	Review of results of the second KAP survey
3/8-3/11/88	Hornik, Robert	AED	Revise evaluation work regarding INNFA/PREMI activities related with the University of Pennsylvania
10/15-12/12/86	Jones, Joanne	USAID/ED	Temp. replacement of Martita Marx
3/4-4/20/87	Jones, Joanne	USAID/ED	Amend 9 and new budget for PREMI
1/1-2/1/86	Jones-P, Kate	AID/W	USAID/ED LACDR backup
1/30-2/2/86	Jones-P, Kate	AID/W	USAID/ED backstop officer
3/31-4/10/87	Jones-P, Kate	AID/W	Provide support to Mision
4/13-4/24/87	Kenrick, Chesa	MANOFF INTL.	Data Analysis KAP2
12/15/85-12/8/8	Londono, Juan	AID/ED	Lt evaluation consultant PREMI
11/20-11/27/85	Lucaire, Edward	AED	Supervise communication component
11/20-11/27	Lucaire, Edward	AED	Work on the mass media and health practices project
6/9-6/20/86	Manceau, Jacques	REACH	Sampling frame/coverage survey
5/15/87	Manoff, Richard	MANOFF INTL.	Assist Comm. strategy CLAI
6/85	Marx, Martita	AID/ED	Lt AID Coordinator PREMI
10/21-10/24/87	McCreery, Roger	B & D	Computerized information system
5/20-6/18/88	Moore, Robert	PRITECH	Review of public health financing

DATE	NAME	ORGANIZATION	PURPOSE
2/15-2/22/88	Moser, Patricia	AID/W	To review Mission health & nutrition activities and provide technical assistance for new proj.
8/2-8/5/88	Moser, Patricia	AID/W	To assist Mission and project evaluation advisor to organize different consultant reports and develop an outline for the evaluation report
3/24-3/28/86	Mota, Felipe	Mexico	National Seminar ORT
10/21-10/30/87	Murray, Robert	B & D	Computerized information system
1/8-1/15/87	Murray, Robert	B & D	Computerized information system
4/5-4/17/87	Murray, Robert	B & D	
3/20-3/25/88	Naylor, Audrey	WELLSTART	To explore breastfeeding practices and programs in Ecuador, especially in urban hospitals, with potential counterparts and trainees
8/86	Nelson, David	AID/ED	Lt supervision/training
5/2-5/6/87	Nelson, F.		
6/85	Pareja, Reynaldo	AID/ED	Lt Communications Consult.
10/12-10/23/87	Piwoz, Ellen	MANOFF INTL.	Quality investigation
1/4/87	Piwoz, Ellen	MANOFF INTL.	Quality investigation
1/3-1/23/88	Piwoz, Ellen	MANOFF INTL.	The Weaning Project
3/24-3/28/86	Pizarro, Daniel	Costa Rica	National Seminar ORT
6/15-6/20/86	Pizarro, Daniel	Costa Rica	Symposium Diarrheas Cuenca
3/31-4/8/86	Pollack, Marjorie	REACH	Cold chain evaluation/assist KAPS
6/14-7/12/86	Pollack, Marjorie	REACH	Pretest KAP POP & KAP personnel
8/17-9/20/84	Pollack, Marjorie	REACH	Review KAP/EPI/MOH Evaluate cold chain
3/10-3/23/85	Pollack, Marjorie	PRITECH	Develop 5Y strategy for expanding and maintaining immunization coverage to 90% or more of Ecuador's children

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3/7-3/21/86	Pollack, Marjorie	PRITECH	Assist in design work for improving regular immuniz. services
3/15-3/25/86	Porter, Doug	U.Pittsburg	Immunization behavioral study
7/25-7/28/88	Ramirez, Bernardo	AUPHA	To work with the Mission in developing a health management training component for the child survival health project
4/23-4/26/88	Reyes, Petra	AID/W	To review with Mission the implementation of the commendable CSCS
4/24-4/27/88	Reyes, Petra	AID/W	Review with Mission the implementation of the commendable child survival country strategy
2/17-2/22/87	Reyes, Petra	AID/W	Assist with administration of PREMI child survival project
7/22-7/25/87	Reyes, Petra	AID/W	Review with Mission plans/timing for development of CS country strategy
11/9-11/23/87	Reyes, Petra	AID/W	
4/24-4/27/88	Reyes, Petra	AID/W	Review with Mission the implementation of the commendable CS country strategy
10/6-11/27/87	Rodriguez, Rodrigo	REACH	EPI survey and analysis
10/6-11/23	Rodriguez, Rodrigo	REACH	Work with the MOH/EPI team to conduct comparison of KAPs 1,2,3. Complete EPI surveys.
10/19-10/31/87	Rutstein, Shein	AID/W	Mortality research & anal.
6/6-6/20/86	Saturno, Pedro	REACH	Study cost of campaigns

DATE	NAME	ORGANIZATION	PURPOSE
11/20-11/27/85	Smith, Bill	AED	Supervise communication component
2/13-2/26/86	Smith, Bill	AED	Supervise communication component
8/16-9/15/86	Smith, Bill	AED	Review communication strategy
4/22-4/25/87	Smith, Bill	AED	Supervise communication component
3/10-3/23/85	Smith, Bill	AED	Work closely with Dr. Reynaldo Pareja, in designing a national promotion, information & media campaign to promote ORT and immunization
11/20-11/27/85	Smith, Bill	AED	Work on mass media and health practices project
8/25-9/8/86	Smith, Bill	U.Pittsburgh	Review of INNFA's second annual plan for communic. for the PREMI project
11/29-12/9/87	Smith, Bill	AED	Assist PREMI in the design of the CS strategy
11/10-12/18/87	Smith, Barry	PRITECH	Assist PREMI in the design of the CS strategy
9/29-10/2/87	Steinglass, Robert	REACH	Lt reach TA for Ecuador
9/28-10/3/87	Steinglass, Robert	REACH	Discuss status of MOH/ Mission plans for long-term TA from REACH project

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5/11-6/9/88	Tangerman, Rudolf	CDC	Analysis of mortality task
6/13-6/27/88	Thomas, Michael	PRITECH	Private sector opportun.
6/20-8/5/88	Timmons, Robert	OSF	To prepare a report regarding the validity & reliability of PRICOR data
10/24-10/30/85	Tinker, Anne	AID/W	Participate in first campaign mobilization
10/24-10/30/85	Tinker, Anne	AID/W	Participate in S&T campaign
10/6-11/23/87	Tomaro, John		Feasibility study to produce ORS in Ecuador
3/22-3/28/86	Urrutia, Juan	PAHO/W	National Seminar ORT
5/19-5/22/87	Urrutia, Juan	PAHO/W	Pediatric seminar PCED
3/22-3/25/88	Valdes	WELLSTART	To explore breastfeeding practices & programs in Ecuador, especially in urban hospitals, with potential counterparts & trainees
3/20-3/25/88	Wester, R.	WELLSTART	To explore breastfeeding practices & programs in Ecuador, especially in urban hospitals, with potential counterparts & trainees
2/15-2/20/87	Wise, Robert	AID/W	Lt evaluation advisor applicant
2/17-2/22/87	Wise, Robert	AID/W	Help MOH/USAID analyze various child survival PREMI survey data