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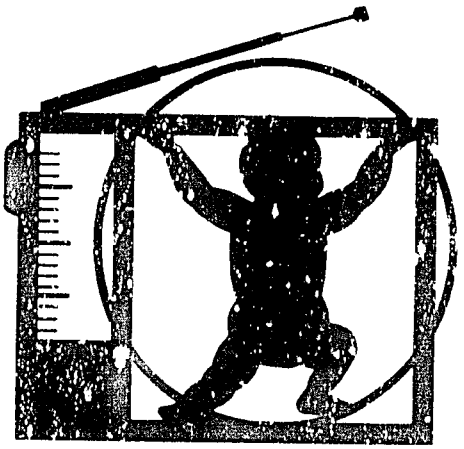


Communication for Child Survival

HEALTHCOM

ECUADOR

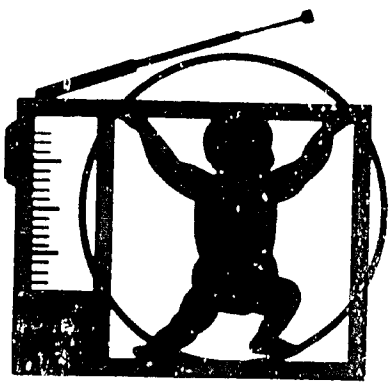
Implementation Plan

a program of the
Bureau for Science and Technology, Office of Health and Office of Education
Agency for International Development

through a contract with the
Academy for Educational Development

and subcontracts with the
University of Pennsylvania, Applied Communication Technology, Needham Porter Novelli and PATH

Contract #DPE-1018-C-00-5063-00



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Doña Eugenia Febres de Cordero

Introduction

HEALTHCOM in Ecuador

The Child Survival program in Ecuador is an initiative of the Ecuadorian Government designed to reduce infant mortality from diarrheal disease, immunizable diseases of childhood, and maternal and infant malnutrition.

The USAID/Mission requested HEALTHCOM assistance in 1983 when a resident advisor in communication was assigned to support the country's growing program of diarrheal disease control. In 1985 this program was expanded to include a major nation-wide effort including immunization and nutrition in a single comprehensive effort of child survival called PREMI. At this time a second HEALTHCOM advisor was provided to focus on communication research.

HEALTHCOM is an initiative of the Office of Health and the Office of Education within AID's Bureau for Science and Technology. In Ecuador it is jointly funded by the USAID/Mission and this central Bureau of AID.

HEALTHCOM is designed to help developing countries and USAID Missions increase the impact of their child survival programs though improved communication. It is part of the Agency for International Development's overall strategy to reduce infant mortality, and it works with other AID programs such as PRITECH, SOMARC, CCCD, and the Agency's Child Survival Action Program. HEALTHCOM coordinates its efforts with international agencies such as WHO and UNICEF to improve consumer education and to promote the correct use of oral rehydration therapy (ORT), immunizations, and other child survival technologies.

HEALTHCOM will work in up to 17 countries, using its research and development approach to adapt lessons learned from past programs to the special needs to each country. HEALTHCOM is also committed to strengthening local institutional capacity to use communication more systematically and will provide both short-and long-term technical assistance for training and development. Primary attention will be given to:

Diarrheal Disease Control
Immunization
Breastfeeding, Vitamin A, Infant Nutrition, Vector Control, and Personal Hygiene

HEALTHCOM is a comprehensive program of assistance which relies on insights from several disciplines including social marketing, instructional design, behavioral analysis, and anthropology.

HEALTHCOM strenthens child survival programs by working with local professionals to:

- conduct audience and product research
- select appropriate messages
- design radio, TV print materials
- integrate different message themes
- select local advertising agencies

- train counterpart professionals
- link private and public sector resources

The Academy for Educational Development is the prime contractor responsible for selecting and fielding the 17 resident advisors and the short-term consultants, as well as coordinating HEALTHCOM activities with each Mission, other centrally funded AID activities, and other donors.

The Annenberg School of Communications of the University of Pennsylvania is the principal evaluation subcontractor, charged with developing practical evaluation designs to measure the effectiveness of the communication strategies in each country.

Applied Communication Technology is the subcontractor responsible for follow-up evaluation studies in Honduras and The Gambia, and longitudinal analysis of program impact.

Needham Porter Novelli, one of the leading U.S. social marketing firms, will be providing marketing and advertising assistance to the project.

PATH will use its considerable experience in the development of print materials and appropriate health technology, and its "Safe Birth Plus Two" program to provide assitance in these areas.

In addition, the following leading institutions have agreed to collaborate with HEALTHCOM, providing specialized assistance as required. They include:

The Futures Group

John Snow Health Group

Management Sciences for Health

University Research Corporation

Wilmer Institute (ICEPO) and the Department of International Health, the School of Hygiene and Public Health of Johns Hopkins University.

IMPLEMENTATION PLAN
ECUADOR

1985-1988

I. EXECUTIVE SUMMARY

In 1985, the Government of Ecuador created the country's first National Child Survival Program directed specifically at lowering mortality and morbidity from four principal causes: diarrheal disease, immunizable diseases of childhood, nutrition and acute respiratory infection. The program, called the Plan to Reduce Childhood Disease and Mortality (Plan de Reduccion de Enfermedad y Muerte Infantil--PREMI), is supported by USAID, UNICEF, and WHO/PAHO. In addition to reducing infant and early childhood mortality, PREMI's goal is to strengthen the Ministry of Health's overall capacity to deliver health services, specifically through improved health systems management, logistics, supervision, training, evaluation, and the use of modern communication and social marketing strategies to increase consumer demand for, and utilization of, the improved services.

PREMI is an initiative of the highest levels of the Government. Headed by the First Lady, PREMI includes the participation of the National Institute for the Child and the Family (Instituto Nacional del Nino y la familia, INNFA) and the Ministries of Education, Defense, and Welfare as well as numerous private volunteer and commercial sector institutions.

The PREMI program is divided into three stages.

Stage I (June 1986 - December 1986) is a period of intense and massive mobilization aimed at 1) increasing awareness of the child survival problem and of PREMI and 2) improving immunization coverage, promoting widespread use of oral rehydration salts to treat diarrhea in children under five, and initiating mass weighing of children as a prelude to more extensive growth monitoring and nutritional counselling.

Stage II (January 1987-December 1987) is a period of service delivery strengthening, expansion of practices related to diarrheal diseases, immunization control, and improved nutrition, and maintenance of the awareness and coverage levels achieved in Stage I.

Stage III (January 1988-December 1982) is a period of consolidation and maintenance. It is expected that nutritional counselling will be introduced, diarrhea control and immunization services coverage maintained, and activities to combat initiated acute respiratory infection.

The fundamental strategy is to use mass communication and social marketing to stimulate aggressive demands for child survival services and to ensure proper use of those services in the home, while strengthening the service delivery side of the equation to ensure adequate response to the demand.

The PREMI program has an extensive evaluation component designed not only to measure overall impact but to provide regular formative data to program planners in order to make needed mid-course corrections. The evaluation includes national knowledge, attitude, and practices surveys (KAP) to be carried out several times during the program at approximately six-month intervals. A mortality study and numerous small studies of both qualitatives and quantitative character are planned.

HEALTHCOM is providing two long-term advisors. one in social marketing and one in communication research to INNFA, the institution charged with the communication aspect of PREMI. The advisor's role is to ensure that experience from other countries is available to the Ecuadorian professionals to assist in every aspect of the communication program and to institutionalize the HEALTHCOM methodology, within INNFA and the Ministry of Health as adapted to Ecuador's needs.

II. COUNTRY BACKGROUND

This section of the plan describes the country and institutional framework for the PREMI program.

A. COUNTRY ANALYSIS*

Ecuador's population of 9.4 million is divided among three principal geographic and socio-cultural areas: 49 percent of the population lives in the central mountains; 48 percent, on the coastal plain; and two percent in the eastern jungle area. Approximately 40 percent of the population is indigenous, composed of five major Indian groups. About 50 percent of the population is Mestizo and ladino, and 10 percent of the population is black or mulatto. Spanish is spoken by more than 90 percent of the population, but Quechua represents a significant language group in the central mountain region. Approximately 45 percent of the population is economically active, with an annual population growth rate of 2.9 percent. Literacy is officially estimated at 86 percent. The population is about evenly divided between urban and rural residents, although a larger proportion of the economically active population lives in urban areas. About 44 percent of Ecuador's population is under 15 years of age.

1. Child Survival Patterns in Ecuador.

According to 1985 Government of Ecuador (GOE) estimates, children under age five represent 15 percent of the population in Ecuador, about 1.4 million individuals. Of these children, about 260 000 are in the less than one year age group and 1.1 million are between the ages of 1-4. Estimates for births occurring in 1985 vary between approximately 260,000 and 320,000. Only about one half of these births will be medically attended.

Despite significant efforts by the GOE over the last twenty years to address the causes of infant and child mortality it continues to be quite high. Official estimates

*This section of the plan is taken from USAID's Child Survival Project Paper (1984).

place infant mortality in 1982 at 72 deaths per 1,000 live births, a reduction of 35 percent since 1960 (111 per 1,000). However, sample surveys of infant mortality in rural areas have shown the rate to be much higher, often exceeding 100 per 1,000 live births.

Diarrheas represent the leading cause of infant death (21 percent of all infant death), followed by respiratory diseases (5.9 percent). Another indicator of the high incidence and the seriousness of diarrheal illness in children is evident from hospital data. In 1979, the most recent year for which data are available, there were 17,708 children admitted to hospitals who were under one year of age. Of these, 6,527 (37 percent) were admitted for intestinal infections. Of the children in the 1-4 age group hospitalized in the same year, 6,735 (30 percent) were admitted for intestinal infections.

Data on breastfeeding are generally more encouraging. The national Maternal-Child Health Survey of 1982 reports that approximately 90 percent of Ecuadorean women breastfeed their children. The average period of exclusive breastfeeding is five months, with a significant variation between the urban and rural population. Nevertheless, available data suggest that some 40 percent of the infant population suffer some degree of malnutrition. Malnutrition appears to begin because of the quality and timing of supplemental foods. Among urban children 65 percent have received other foods by their fifth month, while only 50 percent of rural children have received supplementary food by that age.

2. Structure of Ecuador's Health Care Sector.

Four institutions provide the bulk of health care in Ecuador: the Ministry of Public Health, the Social Security Institute, the Ecuadorean Armed Forces, and the Charity Council (Junta de Beneficencia) in Guayaquil. Of these, the first two provide the most coverage. The Ministry of Health theoretically covers approximately 85 percent of the population, while Social Security provides services to another 7.9 percent. While most of this latter coverage is urban based, Social Security does operate 16 mobile brigades and over 200 rural dispensaries. Facilities of both institutions are reported to

operate considerably under capacity and to reach only a fraction of their target populations.

Use of the private sector, particularly of pharmacies, is quite high, even among the poorest segments of the population. Traditional practitioners are also consulted frequently on health problems. In the commercial sector, there are some 35,450 retail outlets where non-prescription drugs are available. These outlets break down as follows:

Farmacias, Botiquines, Droguerias	1,700-1,800
Comisariatos	50
Super-mercados-Minimercados	600
Tiendas	33,000

The coverage of these retail outlets throughout the country represents an opportunity for the widest distribution of other non-prescription medicines, e.g. oral rehydration salts.

3. The GOE Response.

The GOE, with the active assistance of PAHO, UNICEF, and AID, has developed a National Program for Child Survival in Ecuador. Mrs. Maria Eugenia Cordovez de Febres Cordero, the First Lady of Ecuador, is the most prominent of the program's patrons. Altogether the National Program consists of simultaneous implementation of four Child Survival Activities: growth monitoring, promotion of breastfeeding, childhood immunizations, and control of diarrheal disease among children. Two of these activities, diarrheal disease control (DDC) and the expanded program of immunization (EPI), are emphasized under this Project.

4. Status of the GOE Diarrheal Control Program.

The high rate of infant mortality due to diarrheal diseases is not unusual for a country at Ecuador's stage of development. In response to the seriousness of the

diarrheal disease problem, the Ministry of Health inaugurated a program for diarrheal disease control in early 1979. The general objective of the DDC program is to reduce diarrheal mortality and morbidity in children under five years of age. The specific means employed to achieve this include:

- the promotion of oral rehydration to prevent severe dehydration and death,
- the promotion of breastfeeding as a preventive measure for diarrhea,
- the establishment of a surveillance system for diarrheal diseases, and
- active community involvement in the DDC program.

The DDC program is being implemented in stages focusing primarily on the use of oral rehydration therapy (ORT), the creation of treatment centers called oral rehydration units (ORU) in government health facilities, the training of health personnel, and the introduction of oral rehydration therapy into the medical school curriculum of the Central University. The foundation of this part of the MOH program is the distribution of oral rehydration salts (ORS) through the health system and community leaders. Health education and promotion of oral rehydration therapy as well as environmental sanitation and personal hygiene are viewed as integral parts of this effort.

An analysis reveals that Ecuador's DDC program has made some important advances and has some important strengths. First, the distribution of oral rehydration salts within MOH facilities for children with diarrhea has improved significantly since the initiation of the program. Some two million packets have been distributed over the first three years of the program.

The potential need for oral rehydration salts (ORS) is about 5.6 million packets per year for the target population throughout the entire country. Thus, while the figures above suggest that some progress has been made over the 1980-1984 period, in fact, many cases of diarrhea requiring ORS do not have adequate access through the MOH system with oral rehydration therapy. This limited coverage of the DDC program partly explains the continued high mortality rates attributable to intestinal diseases.

One of the major strengths of the MOH program is its strong commitment to oral rehydration therapy as the basis for the DDC program. This commitment is evidenced by the level of training that has occurred throughout not only the MOH system but also in the medical education system of the Faculty of Medicine at the Central University.

Another major strength of the program has been its ability to ensure continued availability of salts throughout the MOH network. Likewise, 23 ORU's have been established in MOH hospitals. Finally, the quality of educational and packaging material developed for the promotion and advertising of ORS is excellent.

In the private sector the conditions for widespread promotion and distribution of oral rehydration therapy appear very favorable. One of the major international pharmaceutical firms (Ciba-Geigy) is importing ORS packets and distributing them through private pharmacies. More promising, is the interest of Ciba-Geigy in collaborating and coordinating its ORS product and its educational efforts with those of this Child Survival Initiative.

ORS are not produced locally. Local production capacity does exist, and there is much interest on the part of the MOH associated laboratory to produce salts. However, given the current fiscal and economic environment and the availability of ORS on the international market at competitive prices, the incentives for domestic production are limited.

Despite these important strengths in the DDC program, several important weaknesses inhibit the effectiveness and outreach of the program. To date, most of the intensive efforts in diarrheal disease control and use of oral rehydration therapy have occurred in three pilot Integrated Rural Development (IRD) areas and have not been disseminated country-wide.

While there has been extensive training of MOH personnel in oral rehydration therapy, there has been little follow-up, supervision and continuing education to reinforce the program at local levels. The oral rehydration therapy strategy has not been

promulgated to other important health sector institutions. Finally, while the current availability of and the distribution network salts are adequate to meet current demand, they will not be sufficient to meet the increased demand created by an intensive promotional and educational campaign. The principal weakness, however, is the lack of awareness of most of Ecuador's population concerning the effectiveness of oral rehydration therapy for diarrheal diseases.

A 1982 PAHO study of diarrheal disease control in Ecuador summarized the problems of the DDC program as follows:

- Frequent changes in rural medical personnel mean that investments in training must be repeated regularly.
- Lack of funds for travel and per diem limits supervisory input for promotion and follow-up of oral rehydration therapy implementation.
- Data collection and analysis for important evaluation of and follow-up of oral rehydration therapy at the local level are weak.
- Lack of basic epidemiological data leads to decision making in the absence of useful information.
- Despite inroads made into the established medical community, resistance continues to impede widespread use of salts.

5. Status of the GOE Expanded Program on Immunization.

The Expanded Program on Immunization (EPI) is a worldwide initiative of the World Health Organization (WHO) and most nations of the world. Its long-term objective is to provide immunization services to all the children of the world by the year 1990. The six vaccine-preventable diseases which are included as target diseases in the EPI are measles, diphtheria, pertussis, tetanus, poliomyelitis, and tuberculosis. In the Americas, the EPI is a joint activity of the nations of the Americas and the Pan American Health Organization (PAHO). In response to the high rates of child mortality and morbidity from immuno-preventable disease, Ecuador established an Expanded Programme on Immunization (EPI) (to implement as a nationwide immunization strategy) in 1977. It was the first country in Latin America to do so.

The MOH program, which began essentially as a house-to-house program, has shifted to a program which provides immunizations as demanded through its health facilities. In 1982, the MOH initiated a complementary national strategy of "fases intensivas" or intensive immunization campaigns. Three campaigns are programmed annually with each lasting one week. All health personnel are assigned to participate in intensive EPI activities in their health facilities during that week. Temporary vaccination posts and mobile brigades are also used to reach a greater portion of the population. National media campaigns are used during these intensive periods to encourage parents to bring their children to health centers for vaccination. The Ministry has focused its program on vaccinating all children under age five and pregnant women.

Mission analysis of the MOH EPI program has revealed some important achievements, as well as some significant gaps (see detailed analysis in Annex C). Major achievements have included:

- Extension of the EPI to all 20 provinces
- Improvement in DPT vaccination coverage rate among the age 0-1 group from 10 percent to 50 percent
- Improvement of the cold chain* in all provinces
- Improved vaccine supply and delivery at local levels
- EPI training of over 1,273 local level personnel
- Increases in the number of personnel working in EPI activities
- Increases in the MOH budget devoted for program activities.

Nevertheless, while Ecuador has made much progress in the establishment of the

*The cold chain comprises all the materials, supplies, and systems related to the production, purchase, inventory control, storage, management, distribution, and utilization of vaccines. Since vaccines can be easily damaged at any point and thus rendered ineffective, the major objective of the cold chain is to preserve the effectiveness of vaccines. Ministry of Public Health, Pan American Health Organization, "Report on the Evaluation of the Expanded Program me on Immunization in Ecuador" 28 September - 8 October 1981.

EPI, childhood mortality and morbidity patterns from the six major immuno-preventable diseases have shown little change over the past ten years. In 1983 the highest rate ever of measles was recorded, and in 1984 there was a major outbreak of diphtheria among young school-aged children. Most recent infant mortality figures (1980) still list measles and whooping cough among the ten leading causes of death. Tetanus ranked among the top ten causes in 1978, but not in 1980. However, it is at present the fifth cause of death in the Province of Manabi. While official figures reflect a drop in tetanus mortality, it is likely that neonatal tetanus rates continue to be high especially in rural areas because more than half of births still occur without professional attention.

Thus, even though coverage rates have improved considerably, they remain relatively low and they have not yet reached the level necessary to produce decreased rates in morbidity and mortality. The fact that morbidity and mortality rates have not decreased is attributed to three major factors: (1) The high drop-off between first and third dosages, (2) the number of children who have received no immunizations is increasing faster than the number of those that do because of the high population growth rates, and (3) breakdowns in cold chain operations can effectively eliminate the possibility of vaccinating children in some areas for periods of time and reduce the effectiveness of vaccines available.

Low coverages continue to be a problem because of a variety of problems. For example, while significant improvements have been made in vaccine supply, problems of GOE payment into the PAHO rotating fund have limited the availability of the needed vaccines at the moment of immunization.

In spite of training efforts, MOH staff perform relatively few immunizations in health facilities. For example, a study conducted by the MOH and PAHO in 1981 showed that many MOH health workers refused to vaccinate children on demand for a variety of reasons. Likewise, outreach and motivational activities are rarely carried out from the health center. While, many staff have been trained in EPI activities, the frequent

turnover of rural health staff, the lack of continuing in-service training, the inefficient distribution of clearly stated official norms, and the weak supervision and information feedback system hamper improvements in quantity and quality of vaccinations and vaccination-related activities provided by health personnel.

According to the WHO, the MOH target group as defined, is too broad to allow efficient and effective programming of vaccination programs. Also because of the size of the target groups, as defined, significant increases in coverage rates will be statistically difficult to achieve.

Cultural resistance to immunizations is widespread. Mothers in some cultural groups are reluctant to bring children for the second dosage of a vaccine that made the child sick when it was supposed to make him or her healthy. The attitudes and practices of mothers which prevent them from immunizing their children are not clearly understood by health service personnel. Thus, health communications and services are not oriented toward changing mothers' behavior.

B. PREMI OVERALL PROGRAM STRATEGY:*

The purpose of the Project is to develop model, low cost health delivery systems.

AIDs Child Survival Initiative will dramatically increase immunization coverage for children 0-1 and ORT coverage of children under age five in Ecuador. Coverage for immunization DPT polio) of children aged 0-1 will be increased from 48% to 80%; tetanus coverage for pregnant women will be increased from 115 to 50% by the end of the Project. ORT coverage will be increased from 21% to 85% in MOH health facilities and from 2% to 50% at the community level by the end of the Project.

The project activities will strengthen specific ORT and immunization activities within the MOH and establish a capacity to deliver ORT and immunizaiton services in other institutions. Other activities will initiate a national level mass communication and mobilization compaign to stimulate for these services.

Specifically, Funds will be used for; 1) expansion of ORT and immunizations to MOH hospitals and in non-MOH institutions; 2) improvement of cold chain supply and mangement; 3) training of health workers in the MOH and in other institutions; 4) strengthening of the MOH DDC, immunization information system; 5) improvement of the MOH supervision system; 6) expansion nationwide of the IRD approach of health communications and social marketing, using mass media as part of an integrated approach.

1. EXPANSION OF ORT AND IMMUNIZATION SERVICES.

MOH operational units operate well below their capacity and little is known about the level of DDC and immunization services provided in other health sector institutions. In order to increase the available supply of ORT and immunization services nationwide, in addition to working through the MOH primary health care system, the Project will

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* This section is abstracted for USAID Ecuador and Government of Ecuador Child survival Convenio, (1984).

seek to strengthen delivery of ORT and immunization through MOH hospitals and other health sector establishments.

1. **MOH Hospitals.**

A very high proportion of hospital admissions and hospital related deaths for children are due to diarrheal diseases. Yet, in Ecuador very few hospitals are implementing and ORT program. Experience in other countries has shown that implementation of ORT has reduced the number of hospital deaths related to diarrheal diseases to one tenth of what it was prior to program implementation.

Under this Project activity, funds will be used for the following activities:

- A brief assessment of the functioning of existing hospital based Oral Rehudration Units (ORUs) will be performed, and the strategy for expansion of ORUs will be developed according to the results.

- The number of ORU's throughout the country will be increased and some existing ORU facilities will be expanded. Equipment (e.g., infant scales) and training of ORU staff will be provided in connection with this expansion. Particularly important will be the training of physicians in ORT methodology under this project activity.

2. **General Expansion of ORT and EPI Services.**

In order to reach the maximum number of Ecuadorean children, the Project will foster the delivery of ORT and immunization services through as many private and public institutions as possible. To expand the delivery of these services in other institutions, the Project will undertake the following activities:

- All institutions which could assist in the delivery of either or both services will be identified and asked to participate in the Child Survival Initiative. Their leaders will receive orientation to the Initiative organized by INNFA. The leaders will be requested to enlist the active participation of their organization and to supervise activities once these have started. Selected staff from each of the institutions will receive more technical training in ORT and immunizations and these will participate directly in service delivery.

- ORT and immunization related commodities for delivery by these institutions will be financed. ORT related supplies such as the plastic liter bags and education materials will be purchased and distributed to the participating institutions. Likewise, syringes, needles and alcohol will be provided to organizations particpating in the immunization campaigns. The MOH will provide the vaccines to these institutions. The amount of materials and supplies to be procured has been

calculated based on an estimated coverage rate of 10 percent of all children in the 0-4 age group in these combined institutions.

- During the second and third years of the program, the Project will finance the procurement of ORS packets so as to meet estimated requirements. The MOH DDC program has planned for enough packets for nationwide coverage for use throughout its system. Additional packets required during the first additional year will be financed by UNICEF.

- Financial resources will be available through the Project to study the long-term advantages of local production of ORS by an Ecuadorean pharmaceutical company. It is estimated that this study will be completed late in the life of the Project when realistic estimates of demand level will be easier to calculate.

- Continuing coordination activities will take place with Ciba-Geigy and Life Laboratories to promote widespread availability of ORS and acceptance of ORT throughout the private sector. Ciba-Geigy also will participate in training activities for ORT for private sector physicians.

2. IMPROVED COLD CHAIN SUPPLY AND MANAGEMENT.

In order to increase the capacity of the MOH to respond to the increased demand for immunization services, the Project will undertake several activities designed to guarantee that vaccines are available at all service delivery points when they are needed. Project funds will finance technical assistance, training and equipment necessary to strengthen the cold chain at the provincial and local levels. The Project will address a series of specific problems.

1. MOH Repayment into the PAHO Revolving Vaccine Fund.

Ecuador purchases external vaccines through the PAHO revolving fund. The fund is a well organized external vaccines through the PAHO revolving fund. The fund is a well organized procurement mechanism and achieves significant savings. Because of the size of the lots that are bid and its access to world-wide vaccine producers the participating country can pay a portion of its bill in local currency, which makes the mechanism an attractive one for most nations. In order to ensure that Ecuador will continue to be able to utilize this vaccine procurement mechanism, the GOE has agreed to keep its payments current to the PAHO Revolving Fund.

2. **Provision of Cold Chain Equipment.**

Project funds will be utilized to procure selected cold chain equipment to all levels of the MOH system. UNICEF will also finance some urgently needed cold chain equipment in 1985. An assessment of the MOH's cold chain needs was conducted in May 1985. Equipment to be procured under the Project for the cold chain is based on this assessment.

Specifically, the Project will finance the purchase and installation of a cold room at the Central Vaccine Bank and for repair and installation in Cuenca of the existing cold room, presently in storage. Funds will be provided for a backup generator for the Central Vaccine Bank, for freezers and cold boxes which permit seven-day storage of vaccines in areas without electricity, icelined refrigerators in areas with eight hours of electricity, and King Seeley thermoses and ice packs needed for transport of vaccines especially during vaccination campaigns. Finally, six to seven subregional vaccine distribution centers will be created to facilitate distribution to the local level. These will be equipped with freezers to permit long-term storage of vaccines.

3. Improvement in Preventive Maintenance.

Preventive maintenance of equipment is essential for vaccine not to be damaged. The Project will fund workshops for provincial maintenance technicians in equipment maintenance. A cold chain maintenance specialist supported by PAHO will assist in the design and implementation of the course working with existing PAHO materials. The specialist will also assist in training provincial cold chain technicians in repair techniques. Refresher training will be provided in the second and third year of the Project Activity. Financing will also be provided for spare parts and maintenance tool kits. A spare parts repository will be developed at the central and provincial levels.

4. Establishment of Regionalized Vaccine and Equipment Distribution System.

Provinces are responsible for distribution of vaccines to all establishments within the provinces and for supervision of both vaccination activities and the cold

chain. Because of the large number of establishments under provincial responsibility, insufficient staff, and logistic difficulties, vaccines do not always reach their destination, and supervision is rare. As a result vaccinations given in operational units are low in number, related information is not collected and analyzed in a systematic way. Performance is, therefore, not evaluated, problems are not identified, and continuing education rarely occurs.

This activity will implement a regionalized system of vaccine distribution. Up to seven subprovincial vaccine banks will be established and equipped. Specific inputs for improving supervision and information (technical assistance, training, microcomputers and duplicating equipment will be provided to strengthen this regionalization.

3. TRAIN HEALTH WORKERS AND WORKERS FROM OTHER INSTITUTIONS

Training and supervision will play a key role in overall program success. Multiple audiences will need to be trained - some as supportive decision-makers, some as house-to-house canvassers, some as service delivery personnel responsible for distributing packets and providing immunization. The central task facing the Project will be organization and scheduling of training. It is vital that a large cadre of trained personnel be ready when the services are to be delivered.

To achieve the levels of ORT and EPI acceptance and practice necessary to achieve the project purpose, significant numbers of people will need to be training both within and outside of the public sector. Physicians will need to understand the practical realities of ORT and EPI so they can support and promote their use with the patients and health personnel they supervise. Front-line health providers, rural nurses, and auxiliaries will need to know how to use ORT properly for mild, moderate, and severe dehydration. Health personnel must acquire new skills in order to teach others critical ORT practices. Training in EPI is necessary to ensure vaccine availability (managing the cold chain) and to teach health personnel how to motivate mothers to vaccinate their children.

Two different groups will be the recipients of training: MOH personnel and personnel of cooperating institutions participating in the mobilization and delivery effort.

1. MOH Training.

Training for MOH personnel will focus on five principal areas: (1) technical training of operational unit staff in EPI and DDC, (2) training in motivational communication methodology, (3) training of supervisors in supervisory methods, (4) training of statisticians and other MOH DDC/EPI staff in information systems, and (5) training of cold chain technicians in maintenance methods. Because of the variety of themes and the numbers of persons to be trained, the training component will be carefully organized, planned, scheduled and managed. Because most of the training listed in items (2) through (5) above are discussed under other project activities, this section will focus on a description of the technical training in ORT and EPI to be accomplished.

The training of MOH personnel will focus on technical and attitudinal issues which are presently impeding the effective delivery and outreach of ORT and immunization services. Training in ORT, and immunization will be coordinated with training in supervision, information systems, and cold chain maintenance. Five day combined EPI/DDC training courses are planned over the remainder of the life of the project. Forty-two courses will be conducted in the provinces training a total of 1,682 persons from all levels of the health care system (provincial, cantonal, parrochial and local levels) in all aspects of EPI and DDC activities. Existing PAHO training materials will be modified for local conditions.

Constant turn over of personnel, especially at the sub-center level of the health care system requires that in addition to the first round training described above, an on-going continuing education program be implemented. In order to implement an effective continuing education program the MOH will require an adequate supply of locally

available trainers, access to adequate funds for travel and per diem, and an implementable training reinforcement strategy.

The Project will address these requirements:

a. The cadre of existing trained MOH personnel will be rapidly expanded through two strategies: the training of trainers and the use of training personnel from other agencies. Ciba-Geigy will field a team of sixty detailmen to help in training aspects of the program. Ciba-Geigy's program will work with physicians. In order to further reduce the GOE costs of training, a "training of trainers" strategy will be used. A core of MOH central level personnel will be trained. This central group will be responsible for conducting four "provincial" trainers, with technical assistance from the central MOH group will program and conduct training sessions for provincial health staff. To assure that good teaching methods are used, the MOH division of health education and the marketing firm will participate in developing materials, and in the planning and implementation of the sessions where the proposed trainers will be trained. Improvements made in the supervision system will also affect positively the ability of the MOH to provide follow-up to the training.

b. A careful and realistic assessment of training capacity and problems of the MOH must guide the development of the overall training program. Training content will be developed on a modular basis for most topics so that continuing education can be built into the training program. To this end, project funds will finance a long-term training adviser to assist the MOH in the overall training effort.

2. Training for Non-MOH Institutions.

Two different kinds of training will be conducted for other MOH institutions. First, those institutions involved in the mobilization campaign only will receive orientation to the Child Survival Initiative and training in mobilization techniques. For institutions participating in the delivery of one or more services, training will be more detailed and more technical in content.

All institutions or groups that could assist in the provision of services will be identified. These may include, but are not limited to, the following: the Red Cross, PVOs, Peace Corps, the Ministry of Education, Rural Social Security, the Church, the Armed Forces and SEDRI (See Annex I). The final participating institutions will be selected by the MOH and INNFA.

Training courses then will be conducted for leaders in each of the institutions participating in the mobilization effort and in delivering services. These courses will be replicated for key personnel from each institution. INNFA will be responsible for organizing this part of the training effort, but the content and actual training will be provided by the MOH. Likewise, the initial training of trainers from these institutions will be conducted by MOH personnel.

4. IMPROVED INFORMATION SYSTEM

Appropriate timely information is a critical ingredient in the performance of any system. Without it, it is impossible to know if goals are being reached and if not, why not. Without information, it is difficult to supervise and motivate personnel or to redesign strategies. As noted, information on child mortality and morbidity due to diarrheal diseases, immunization preventable diseases, and malnutrition in Ecuador is quite incomplete and inaccurate.

In order to improve the availability and use of information regarding provision and use of immunizations, ORT, breastfeeding and growth monitoring and their impact on child mortality and morbidity, PREMI will carry out research studies and evaluations and to implement improvements in routine data collection system.

The Project will also contribute to improvements in the existing DDC/EPI information system in four different ways.

Improvements in the supervision system described previously will lead to improvements in the quality and quantity of data collected and in their timeliness.

To improve the quality of reporting from all levels, the forms presently used for reporting will be reviewed for their clarity and appropriateness and modifications will be made, as deemed appropriate. The existing reporting norms for DDC and EPI will also be reviewed and modified to improve the quality and timely remitance of information.

In order to improve the quality of information at all levels, the Project will assist the DDC and EPI programs to change from a manual to a computerized system. It will

also make improvements in the reporting system, utilized between the provinces and central level, as described below.

Manual processing of data is a major problem in Automation of the system will help alleviate many of the delays, will improve information quality and will facilitate communication and feedback between the provinces and the central level. The Project will finance an assessment of computer needs and capability during the first months of the Project. Using the results of this assessment, a team of technicians will design and program the system. Based on the outcome of the assessment, it is anticipated that microcomputers will be procured early in 1986 for the central level Divisions of Epidemiology, Planning, and Statistics and to the Project office to be located in the Division of Priority Programs.

To improve timely feedback of information to health personnel at the provincial and local levels, the Project will seek to improve the production and distribution of the quarterly Epidemiological Bulletin. This bulletin, which began publication in 1984, covers topics related to the EPI, the DDC program and information on other communicable and chronic diseases. The Project will address the problems currently encountered in the production and duplication of the Bulletin by procuring a lettergraph duplicator to the production office and by developing a direct mailing system to insure that all relevant institutions receive copies of the Bulletin. The computer installed in the Division of Epidemiology will permit the generation of mailing lists. The prompt feedback of information in the Bulletin to operational units will also serve as an incentive for those units to improve the quality and timeliness of reporting.

5. IMPROVED SUPERVISION

Under this Project activity the supervision system of the MOH will be strengthened in order to improve the quality of ORT and immunization services and to ensure adequate supplies for program outreach.

Project funds will be used for long term technical assistance in supervision and training. An adviser will assist the MOH to redesign the existing supervision model and to implement the revised model. This will include design and implementation of supervisory instruments and training courses in supervision. The adviser will make use of the excellent supervisory training materials developed by PAHO for this training and will coordinate closely with PAHO advisers in Ecuador.

Supervisory training will give emphasis to nursing personnel, because nurses have lower rates of turnover than rural physicians. One training course will be held for approximately 20 provincial level nurse supervisors. Four regional training courses will be held for cantonal level nursing and medical staff in Quito, Guayaquil, Cuenca and Riobamba.

An expected outcome of the redesign and training is an increase in the quantity and quality of supervisory visits to all levels. Each province will receive at least two visits from the central level. Each canton will receive at least four supervisory visits annually from the provincial headquarters and each parroquia will receive at least four supervisory visits annually from the canton. At least 140 health personnel will be trained in supervisory methods and in how to check supply levels so as to ensure adequate availability at all times.

Costs of transportation for supervisory visits will be covered for local supervisory personnel. Air fares for annual visits of supervisory personnel from the central to the provincial levels will also be covered. Finally, Project funds will be used to provide certain equipment necessary for the field visits of each of the supervisors.

III. COMMUNICATIONS PLAN

A. OVERVIEW

A systemmatic health communication program using mass media and a professional advertising agency will be developed and implemented for the promotion of immunization and oral rehydration theraphy (ORT) as well as breastfeeding and growth monitoring. The campaign target audiences will be mothers of children under five, health service providers, community workers, and decision-makers. The campaign will run for 24-36 months and support the GOE's intensive program of national mobilization. Second, a long-term marketing strategy for oral rehydration therapy and immunization will be developed within the public sector. Third, public and private sector capacity to use social marketing and health communication for other priority health programs will be strengthened.

The proposed campaign will run in all major media (television, radio, newspapers and magazines). While the individual messages will be brief, simple, and easily understood, the campaign is intended for all audiences and socioeconomic classes. In addition to media, activities such as popular rallies, church sermons, house-to-house canvassing, and public events will help the program rise above more traditional media campaigns.

It is expected that the mass media campaign will reach approximately six million people. The communication campaign will contribute to the overall objective of reducing infant mortality by expanding the demand for oral rehydration therapy and immunization and promoting growth monitoring and breastfeeding.

The major activities in mass communications which will be financed include:

- detailed media and communication planning.
- audience and market behavioral research in both rural and urban areas including concept testing, message testing and program monitoring.
- development of media messages based on this research.

- media activities, particularly radio and TV spots, interviews and other related action newspaper articles and promotions, magazine inserts, and movie house slides.
- monitoring and testing media messages for their impact.

Two institutions will work together to conduct the health communication campaign. The Instituto National del Nino y la Familia (INNFA), because of its prestige, its potential for mobilization, and its organizational agility will coordinate all activities associated with health communications and mass media. It will be responsible for contracting and overseeing an advertising agency to run the mass media campaign. The Ministry of Health, through its Division of Health Education, will ensure that the experience and lessons learned from the IRD regions will be reflected in the mass media program and that the methodology of implementing a mobilization campaign is institutionalized in the MOH and INNFA. A long term adviser in mass communications financed with Project funds, will facilitate coordination between the MOH and INNFA.

Mass Mobilization. The National Mobilization Campaign is an effort to mobilize as many institutions and individuals as possible toward one goal, the reduction of child mortality, using the four strategies of immunization, oral rehydration, breastfeeding and growth monitoring.

A broad institutional structure has been established, led by a National Committee composed of the First Lady, the Cardinal, the President of Congress and the Minister of Health. This committee will channel public opinion and provide top level support for institutional implementation of the Child Survival Program. An Executive committee composed of representatives or delegates of the key figures in the National Committee will actually have coordination and decision-making authority for the Child Survival Mobilization effort.

All institutions or groups that could have any effect on motivating families to use the four child survival strategies will be identified. Leaders from these organizations will be contacted by the National Committee and the participation of their institutions in

the program will be encouraged. Informational materials will be provided and orientation meetings will be held for these leaders. These leaders will then be responsible for returning to their respective institutions, promoting the Child Survival Initiative, and promoting the capabilities of their own institution in meeting the objectives of the program.

The objective of the mass mobilization campaign is to garner the participation of the widest variety of private and public sector institutions in the Child Survival Initative. The majority are expected to participate in promotional activities such as displaying child survival posters, holding meetings, etc., but others also will participate in delivery activities such as distribution of oral rehydration salts. Private sector firms, will be enlisted to participate in training activities for private sector physicians.
The major activities which will be financed with project funds in the mass mobilization effort include:

- motivational planning meetings and seminars nationwide.
- extensive training and orientation seminars on oral rehydration therapy and EPI for top, middle, and field level personnel within the MOH and the other cooperating institutions.
- large scale production of print materials including fliers, pamphlets, posters, suero-oral sign, flip charts, school modules, and booklets specific to each thematic area.
- large scale production of promotional material and outdoor displays such as signboards, billboards, bumper stickers, taxi signs, T-shirts, buttons, fairs and rallies, promotional kits for doctors, institutional decision-makers, and pharmacists.

In addition to Health Communication and Mass Mobilization the PREMI program, as already explained, will provide extensive support for the following activities:

Immunization Supplies.
ORS packets.
Weighting Scales.
Health Professional Training.
Information System Development, Supervision.
Program Administration and Management.

B. OBJECTIVES

1. Recognition of PREMI

- 80 percent of the population recognizes the name PREMI and associates it with the health of children under five years of age.
- 80 percent of the primary target audience (PTA) knows the dates of each intensive phase.
- 60 percent of the primary target audience can list three of the four PREMI themes.
- 60 percent of the primary target audience associates PREMI with the Ministry of Health.

2. Immunization

- 70 percent of PTA completes EPI series for their child by 12 months of age and another 20 percent of PTA children by 18 months.
- 90 percent of PTA know that immunization should be completed by 12 months of age.
- 90 percent of PTA can state that child needs to be vaccinated three times in order to be protected.
- 80 percent of PTA can state that child should start immunization series by age of three months.
- 80 percent of PTA can state that reactions to immunization are normal and not dangerous, even to child under one.
- 80 percent of PTA and health personnel providing immunization services can state that a child with low grade fever or mild case of a cold not requiring hospitalization can receive immunization without danger or significant complications.
- 80 percent of PTA can correctly interpret immunization section of the PREMI health card.
- 90 percent Health Personnel providing immunization services (HPI) provide vaccines to all children who require it following established MOH norms.

3. Diarrheal Disease Control

- 40 percent of espisodes of diarrhea reported during the last two weeks will be treated adequately with oral rehydration.
- 60 percent of diarrheal dehydration in children under five treated in hospitals will be treated with oral rehydration.

- A commercial ORS product will be available in 60 percent of pharmacies throughout the country.

C. TARGET AUDIENCES

1. **Primary Target Audience** (PTA) is mother of children under five with special emphasis on those with children under one. Segmentation of this audience into homogeneous socio-cultural groups in Ecuador suggests at least five audience segments be considered.

   a. Rural indigenious women of the Sierra who are Quechua speaking.

   b. Rural woman of the Sierra who are not Quechua speaking .

   c. Urban and semi-urban women of the Sierra.

   d. Rural and semi-urban women of the coast.

   e. Urban women of the coast.

The principal segmenting factors are language, access to health facilities, and health practices.

2. **Secondary Audiences include the following groups:**

   a. Health service providers in the public sector, segmented into regular Physicians, Rural Medical Students, Nurses/Auxiliary Nurses.

   b. Physicians in the private sector.

   c. Pharmacy operators and service personnel.

   d. Pharmaceutical manufacturers.

   e. Persons who influence health decisions of the PTA at the community level.

   f. Persons who influence personnel at all levels of the public health system.

D. BEHAVIOR ANALYSIS OF PREMI COMPONENTS

This section provides a brief behavioral analysis of key practices required by the PTA to achieve the established objectives.

1. **Immunization**

PTA must take child to health center at appropriate times.

Potential Obstacles

- Health Centers are not always open at required times.
- Vaccines scarcity makes H.W. resist using vaccines.
- H.W. does not always vaccinate children who could be vaccinated--either because they follow old norms on low grade fever and illness or because they do not correctly interpret the interval between vaccines administration.
- Reaction to vaccine cause PTA to resist returning for 2nd and 3rd doses.
- PTA may not understand or believe that three doses are really required.
- Visits to health centers are too high a cost to pay for the low pay-off of avoiding disease.
- Measles is not considered a serious disease.

2. **Diarrheal Disease Control**

PTA must:

- Acquire salts as soon as child's disease begins.
- Give one cup of ORS for each of the child's stool.
- Monitor the child's progress and if he gets worst or the diarrhea lasts more than two days, take child to health center.
- Continue feeding during bouts of diarrhea.
- Disgard the ORS solution which is left-over each day.

Potential Obstacles

- ORS not available at right time.
- Mixing instructions not clear.
- No litre measurer available.
- PTA Unable to give solution because too busy or didn't know when child had a stool.
- Fasting child during diarrhea is a long-held routine practice.

- PTA doesn't know what signs of improving or getting worst are.
- ORS solution does not stop diarrhea.
- PTA doesn't accept concept of throwing-out medicine.

3. Growth Monitoring

- Mother must take child and health card to Health Center every 1-2 months whether the child is sick or not.
- Mother must follow advice given at center on feeding her child.

Potential Obstacles

- Center is not open regularly.
- Center personnel do not know how to do weighing and show mothers the significance of weight progress.
- Center weights child, but gives mother no specific advice on what to feed.
- Center personnel focus on child with problems, and give rewards or praise only to child who is doing well.
- Mother doesn't see any sign of lack of growth but the chart; her child looks like other children so she doesn't believe advice is important.
- Advice mother is given on what to feed is not practical given her circumstances.

E. COMMUNICATION STRATEGY

1. To overcome these obstacles and achieve the project's objectives the following communication strategy is proposed:

An initial umbrella campaign using mass media to establish child survival as a problem and PREMI as a response to the problem. PREMI will be identified with four actions - ORS, immunization, growth monitoring and breastfeeding.

A series of four **mass mobilization** phases during which children will be immunized and weighed, ORS salts will be distributed to all children under five whether they have diarrhea or not, and a packet of educational support material will be distributed containing the new health card, flyers on immunization, diarrheal disease control, breastfeeding growth monitoring and, mixing/measuring bag for the ORS solution. Each phase will be preceded by extensive mass media promotion. The phases themselves will be led by the First Lady, ensuring extensive news coverage, health personnel will be mobilized to be ready to respond to the demand for services during these days.

Intra-phase education and promotion of PREMI's messages. These messages are developed using audience and market research techniques, and will vary from one period to another in order to meet changing consumer's attitudes and practices.

Two one year (1987 and 1988) maintenance phases which will focus on stregthening service delivery and health provider education, as well as expanding consumer demand.

2. Key Consumer Benefits and Support. Each of the themes carry slightly different consumer benefits but the overall strategy will focus on "You can save your child from disease and death."

In immunization the benefit is preventing illness which attacks the small child -showing the happy healthy children who have avoided polio and other immunizable disease.

- Stressing the ease of immunization during intensive phases and.....
- Providing clear social incentive/rewards to demonstrate that the effort of 3 immunizations is worth it.

In diarrheal disease control the benefit is ease, safety and effectiveness of a new medicine, "Suero-Oral" to treat all cases of diarrhea in children.

ORS availability is expanded through mass distribution of salts and give importance in child survival as part of PREMI's overall approach.

Additional research is need to establish the consumer benefits in Ecuador of growth monitoring and breastfeeding.

Support is provided to mothers through testimonials of satisfied users who demonstrate that the products merit the investment of time and energy.

3. Tone and Manner. The overall tone is serious but loving - showing the results through happy healthy children.

The tone is further set by the First Lady who establishes child survival as a mother's responsibility and duty to protect and care for her children. "Now for the first time these services are widely available to the mother who cares for and loves her child."

4. Channel Strategy. **Mass Media** (radio and TV) will carry the largest

promotional role during early stages, informing people of when events are to take place and creating widespread awareness of PREMI and Child Survival.

At later stages it will play a larger instructional role by modeling specific behaviors such as ORS mixing, and physical/patient interaction style.

Programs on TV will use both news bulletins and spot announcements.

Radio will be used to present a saturation spot campaign during each intense phase and 7-8 minute programs as well as radio school programs for selected groups.

Print Media will include a wide range of reminder flyers, posters and instructional booklets for health providers. Incentive such as diplomas, stickers, and badges will be produced in large numbers as well as banners, arm bands and aprons identifying PREMI personnel.

Interpersonal channels will compliment health provides through school children visit to homes, rural litiracy volunteers to inform and motivate rural communities, rural teachers to run special adult radio courses for mothers, and other institutional personnel to provide logistical and administrative support.

IV. INSTITUTIONALIZATION

The goal of institutionalization is to leave within the cooperating institutions a greater capacity to use social marketing and health communication to support new health priorities as they emerge. Specially:

- The Health Education Unit of the Ministry of Health will have an expanded capacity to use formative research to develop, test and monitor health communicaiton inputs.
- INNFA will have a greater capacity to plan large-scale communication interventions, supervise private-sector resources, use formative evaluation techniques and information and evaluate communication intervention.

The primary measure of success in this area will be changes in:

1) Number of personnel assigned.

2) The quality of personnel assigned.

3) Norms and policies governing communication feeding and implementation.

4) Continued use of communication strategies after PREMI'S completion.

To achieve there institutionalization goals, the technical advisors will be assigned full-time counterparts and expected to carry-forth in-service training and cooperation activities.

Secondly, formal seminars will be developed for in-country staff in areas such as qualitative research and behavioral analysis.

Thirdly, all short-term consultants will work directly with local counterparts to transfer needed skills.

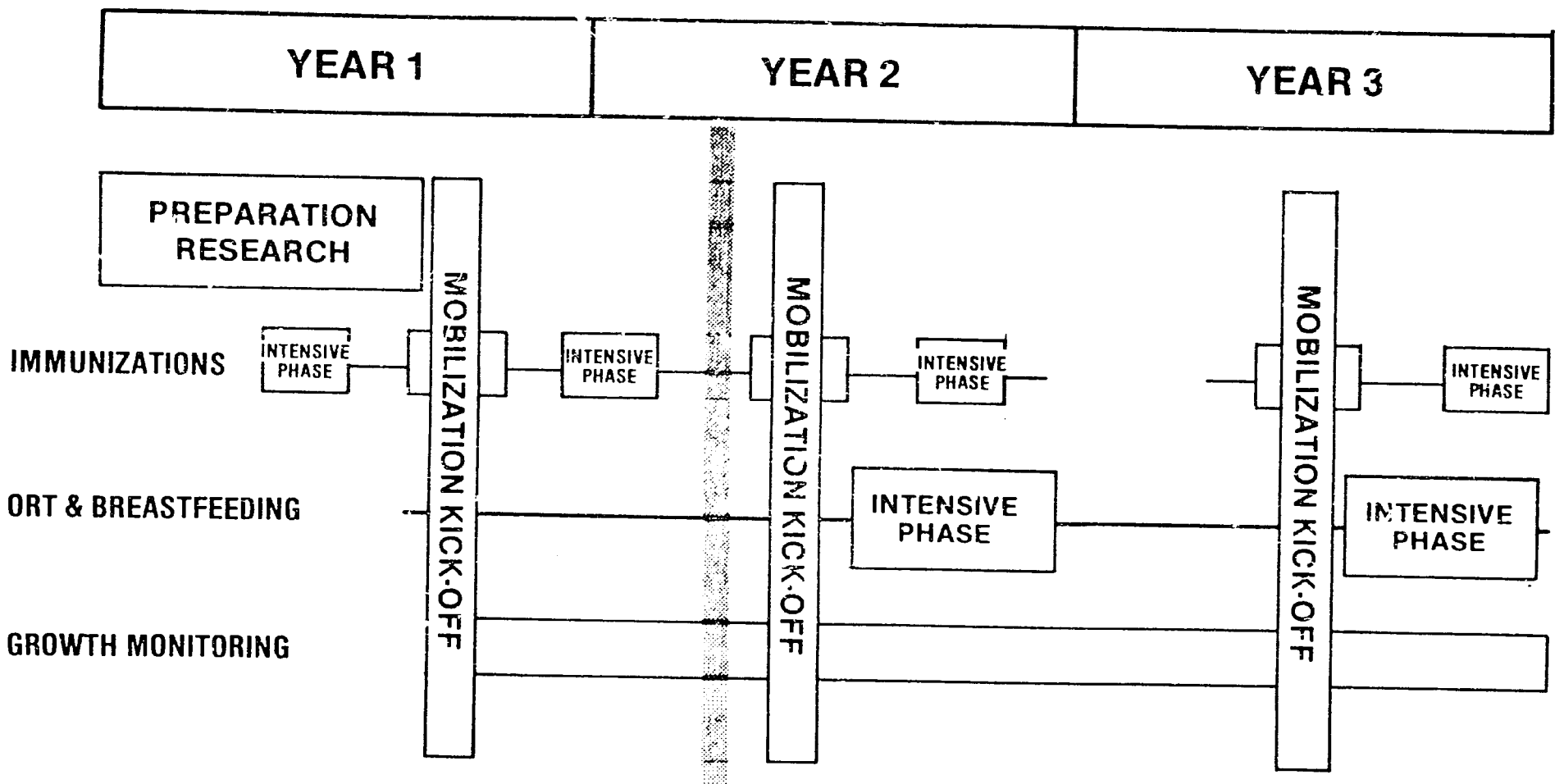
Finally, regular audit points will be established to review the program of institutionalization goals and readjust program as needed.

V. IMPLEMENTATION SCHEDULE

The following Implementation Schedule indicates the general timing of key events during the program.

Detail work plans are prepared seperateiy for each stage.

IMPLEMENTATION SCHEDULE



VI. MANAGEMENT RESPONSIBILITIES

A. INSTITUTIONAL CONTEXT*

1. Ministry of Health.

Administrative management of Project activities will be the responsibility of the Office of the Director General and the Division of Priority Programs under whose responsibility the technical offices for Diarrheal Disease Control and the Expanded Programme on Immunization are placed. The Director of Priority Programs will be the responsible project officer for the MOH. The directors of the technical offices for the Expanded Programme on Immunization (EPI) and Diarrheal Disease Control (DDC) will be responsible for day-to-day planning and operations. These offices will be responsible for supervising the development of training courses and materials, reviewing the health communication plan; participating in planning of the national mobilization program monitoring ORS and cold chain supplies and distribution, designing the expansion of ORUs and the cold chain maintenance workshops, and upgrading the supervisory and information management systems related to DDC and immunizations.

The actual provision of services and implementation of the proposed child survival activities will be carried out by the provincial offices of the MOH through the primary health care system. In addition, other institutions such as Social Security, the Armed Forces, the Red Cross, and Peace Corps Volunteers will participate in mobilizing the country and, where appropriate, in delivering some services such as distributing oral rehydration salts and providing immunizations. INNFA, however, will be responsible for coordinating their activities, as more fully described below.

The Divisions of Epidemiology and Statistics, the National and Provincial Vaccine Banks, and the National Vaccine Laboratory (which produces DPT and liquified BCG

*This section of the Plan is taken largely from Ecuador Child Survival Agreement (1984), USAID/Government of Ecuador.

vaccines) will also participate in the project. The former two will be responsible for activities related to improving the information system and studies while the latter will play a key role in production of vaccines and in improvements in the cold chain.

2. INNFA.

The Ecuadorean National Institute of the Child and Family (INNFA) will coordinate and manage all of the activities related to the mass media and national mobilization components of this project. INNFA will subcontract the mass media campaign to a social marketing firm. This firm will be responsible for the baseline research on knowledge, attitudes, and practices of mothers regarding diarrhea, immunizations, and breastfeeding; for preparing radio, television, and newsprint messages; and for the conduct of the mass media campaign throughout the life of the Project. INNFA will begin the contracting process for the social marketing firm immediately following the obligation of funds. The advertising agency will be selected through competitive procedures managed by INNFA. Technical assistance will be provided to develop the Request for Proposals (RFP) and help assess the proposals. A review panel will be established. Agencies will be asked to make verbal as well as written presentations to the panel headed by INNFA with members of the MOH and USAID. This panel will make the final selection. Specific criteria for agency selection will be developed.

3. Program Committees.

A National Committee headed by the First Lady and composed of political and social leaders has been created which will promote the activities of national mobilization for the entire Child Survival Initiative. An Executive Committee of this National Committee will be established. This committee will have decision-making responsibility for the Initiative.

A technical committee, which acts as a technical secretariat of the Executive Committee, will also be established. This committee will have the responsibility for

developing the specific plans for (1) the distribution of salts and vaccines, (2) the coordination of institutional mobilization, (3) the necessary market and audience research, (4) media use, and (5) the training and supervision needed to support the program.

Within the Ministry of Health, program implementation will be provided by the General Director of Health and supported by the Technical Committee composed of department heads from Diarrheal Disease Control, Immunization, and other divisions such as Epidemiology. A Project Implementation Committee will be established at the provincial level. As described above, it is anticipated that the Ministry will designate a high level official responsible for the Project, who will maintain close working contacts with the Project Coordinator and the AID Project Officer on day-to-day matters of Project implementation. This individual will also serve on the national technical committee of the Child Survival Program.

Within INNFA, a Project Manager responsible for coordinating INNFA activities will be named. This person will maintain close working relationships with the Project Coordination Unit and the AID Project Officer on day-to-day Project implementation matters. The INNFA Project Manager will also serve on the Executive Committee of the Child Survival Program.

4. Project Coordination Unit.

USAID project grant funds will be used to contract a Project Coordination Unit. Staff of the Unit will consist of a Project Coordinator, an administrative assistant specialized in logistics, a secretary, and an accountant. The Coordinator will serve as liaison between the different agencies involved in the Child Survival Initiative. In addition, the Coordinator will assist the AID Project Officer to manage the Child Survival activities financed by this Project, including coordination of the technical assistance efforts. The Project coordinator will serve as the Chief of the Project Coordination Unit.

The specific responsibilities of all staff of the Project Coordination Unit will be jointly developed by the GOE Project representatives and the AID Project Officer. All staff of the Coordination Unit will be contracted directly by AID.

A number of centrally funded Child Survival Programs are cooperating with the USAID/Ecuador Mission to provide adequate financial and technical support to the program. HEALTHCOM is providing the long-term advisors in communication research and social marketing. PRITECH is providing short-term TA in program planning. REACH is providing short-term assistance in immunization planning, and PRICOR is providing short-term TA in information systems research.

VII. FINANCIAL PLAN

The following program budget includes only for being funded by Healthcom. It includes the cost of two resident advisors, short term TA, administrative costs, and some limited on-country operational costs.

Costs have been broken down by contract year and by funding source, showing the relative contribution of local USAID Mission and Central AID resources.

The majority of other PREMI program costs are being funded by USAID/Mission under seperate agreements, plus local government and other donor contributions.

ECUADOR FIELD SITE BUDGET

LINE ITEM BUDGET SUMMARY
CONTRACT NO. DPE-1018-C-00-5063-00
THE HEALTHCOM PROJECT
THE ACADEMY FOR EDUCATIONAL DEVELOPMENT

16-Oct-86

CATEGORY	YEAR 1	YEAR 2	YEAR 3	CENTRAL TOTAL	MISSION TOTAL	GRAND TOTAL
1. SALARIES & BENEFITS:	$87,101	$91,456	$48,014	$25,021	$201,550	$226,571
2. CONSULTANTS:	$19,249	$12,127	$8,490	$19,933	$19,933	$39,866
3. TRAVEL & TRANSPORTATION:	$20,512	$12,727	$26,361	$26,163	$33,437	$59,600
4. OTHER DIRECT COSTS:	$14,145	$9,386	$4,985	$9,897	$18,619	$28,516
5. OPERATIONAL EXPENSES:	$24,555	$20,255	$10,125	$0	$54,935	$54,935
6. SUBCONTRACT EXPENSES:	$58,674	$76,948	$32,721	$113,343	$55,000	$168,343
GRAND TOTAL:	$224,236	$222,899	$130,696	$194,357	$383,474	$577,831

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VIII. EVALUATION PLAN

A. PURPOSES

1. Provide systematic information to guide implementation decisions about PREMI program, in particular those related to mass communication and interpersonal communication components.

2. Evaluate overall success of the program and its communication components, and define elements that are important for that success, for the purposes of the Government of Ecuador, USAID and other donor agencies.

B. OVERVIEW OF DESIGN

The design incorporates multiple research strategies, each providing unique information as well as support for inferences from other research strategies. The largest activity will be a sequence of five or six household surveys tracking many aspects of program operation and success. It will incorporate observational measures of practices and skills, wherever feasible, based on experience in instrument validation.

Complementing the household surveys, and in so far as feasible in the same areas, will be two KAP surveys of clinic physicians and health workers designed to capture effects of training and MOH policy shifts on actual clinical practices vis-a-vis diarrheal disease control and child growth and development. A small observational study of clinical practice would allow some comparison of self-reported clinical practice with actual behavior.

Archival evidence, about oral rehydration therapy distribution and about disease prevalence, including immuno-preventible disease and severe diarrheal related dehydration would be gathered to consider whether they support inferences based on surveys.

Evidence about mortality among under five year old children is to be gathered by the DANS surveys planned for spring of 1986 and for 1988. One path to complement those surveys would make use of age and cause-specific mortality data from the civil registry. A study of costs related to communication components of the program will complement both outcome data and cost data for the PREMI program, generally.

All of these studies will provide information for the overall summative evaluation of the program, but the KAP surveys, in particular, and other studies where feasible may be used to provide extensive formative information for the ongoing operation of the program. In addition, the evaluation design incorporates other specific studies exclusively focused on formative evaluation needs, including broadcast monitoring, group discussions for purposes of concept development, materials testing, and targeted operational research studies.

The following section presents specific designs. It is followed by some discussion of how each element of the evaluation design might be implemented, and some caveats about that implementation. A time schedule for implementation of each design, a matrix summarizing central elements of each design and proposed research budgets follow.

1. Household Surveys

Topics: Exposure to channels of information through which PREMI reaches its audience; knowledge attitudes and practices, particularly those addressed by PREMI directly, including oral rehydration therapy, child growth and nutrition, immunization and breastfeeding. Background characteristics of respondents, particularly those which are likely to affect access/receptivity to the program.

Timing: The first survey, predominantly in urban areas, took place in December 1985, after the first vaccination days. It will be supplemented by a rural survey in March/April using the same instrument. Together these surveys will represent the first of five waves of surveys. The next survey will be implemented on a comparable sample in June 1986. It will document changes as the result of the completion of the

three vaccination days as well as campaign activities between phases. Results from the first two surveys will be used to provide guidance to PREMI planners as to what they have accomplished, what still needs to be done and what strategies are particularly promising.

A third survey will be applied in November 1986. If there is an additional vaccination day in October, it will capture effects of that campaign, as well as intensive activity in growth chart training expected during the summer and fall of 1986, and provide timely feedback to implementers. Since it would follow the first (urban) KAP by one year, it would provide seasonally comparable data for the first anniversary of the PREMI program.

While program plans for 1987 are as yet unclear, two more surveys, in June and November are tentatively scheduled. Each would provide ongoing feedback to program implementers, responsive to specific activities undertaken, and complete two years of data collection for the purposes of summative evaluation. A sixth survey coinciding with the end data of PREMI activity, June 1988, would be added if feasible.

The instrument: The existing instrument will serve as the basis for subsequent instruments, to assure comparability. However, some modifications will be incorporated into the June 1986 instrument, reflecting both analysis of the first survey and further evolution/specification of PREMI objectives. Assuming stability of PREMI objectives and strategy, instrument changes in rounds 3, 4 & 5 of the survey will be rather less. However, in each subsequent stage a small one-time only module may be added incorporating questions thought to be important for planning PREMI strategies.

The sample: Each sample will include 1000 female primary caretakers of children under five years old. It will be drawn to represent the Ecuadoran population residing in urban marginal areas and rural areas (excluding the Oriente). Distinct sampling strategies will be used to produce urban and rural samples. The urban samples will be drawn from the six largest cities in Ecuador, through a randomized multi-stage

cluster sampling strategy. It will include 50 primary sampling units with 10 caretakers in each unit. The rural sample will be drawn, also, through a randomized multi-stage cluster sampling strategy, however the stages will reflect different geographical organization of census data for rural areas. Once again 50 clusters of 10 caretakers with children under five will be selected, with caretakers within clusters selected randomly also, reflecting prior mapping.

Analysis: Basic results reflecting data relevant to short term PREMI planning needs will be produced within 6-8 weeks of the completion of field work and coding of data. Additional analyses, for purposes of longer term planning and for summative evaluation will be completed on a slower schedule.

2. Studies in Health Facilities

Surveys of health workers: Both doctors and other health workers will be asked what they know, think, and do with regard to the critical areas of PREMI. In July of 1986 and July of 1987, three people will be interviewed in each of seventy health centers. The specific topics include: treatment of diarrheal disease and use of oral rehydration therapy, use of growth charts and other elements of the new health cards and other themes related to PREMI activities. Since current plans call for training of health personnel in growth chart use and other PREMI foci during the summer and fall of 1986, surveys in July of both 1986 and 1987 should permit the capture of changes in practice associated with that training. A third survey, in the summer of 1988, if it were feasible, would provide a longer term picture of PREMI-induced changes.

Observational study in health facilities: The surveys will provide information about self-reported practice and formal policy with regard to treatment in health centers. It will be useful to contrast self-reported practice with actual practice, even if it can only be accomplished on a small scale. We will station observors in 20 clinics of diverse types with an observation instrument which will allow them to code what sorts of treatments and instruction are actually given with regard to diarrheal disease treatment

and growth chart use. Tentative plans would require that observors remain in each clinic for two days, providing a total of 40 days of first hand observation. Results of observations would be compared with results from questionnaires administered to clinic staff.

Both health worker surveys and facility observations would take place in facilities matched to the sampling units for the household surveys. Wherever possible, the health facility customarily used by the mothers who are interviewed for the household surveys will also be the site for the health worker interviews. This will allow analysis of household survey reported practices (vis a vis diarrheal disease for example) in the light of the policy and practice of health workers in the local health clinics. Matching survey respondent and clinic is likely to be easier in rural areas than in cities. It will be necessary to schedule clinic interviews to coincide with household interviews so that treatments reported as given and received refer to equivalent time periods.

3. Availability and Distribution of Oral Rehydration Salts.

One indicator of the success of PREMI activities directed toward use of oral rehydration therapy would be the actual distribution of packets in the country. Records may be drawn from three sources: a) the records of the clinics in which surveys are being administered--the source closest to the consumer, b) Ministry of Health aggregated data both at the provincial and national level on a month by month basis, and c) the records of commercial distributors of ORS, predominantly Ciba-Geigy, if those were available.

4. Rates of Infant Mortality.

Current plans have scheduled two national surveys which will track changes in rates of infant mortality occurring concurrently with PREMI activities. The data from the DANS I questionnaire (the first mortality instrument) will be available at the end of 1986 but the second DANS questionnaire, even if it goes according to the current schedule, will register changes at the end of 1988. In order to complement the estimates of mortality changes derived from the two questionnaires we hope to institute a study of

mortality rates based on the civil registries in a sample of localities. This data would be used to generate estimates by age and cause specific mortality so as to be able to see the effects of both the immunization campaigns, and the diarrheal disease control campaigns on specific mortality. The implementation of this study will depend on the quality of available civil registry data, and its stability over time with regard to biases in its representation of actual mortality data.

5. Prevalence of Children's Diseases

A great deal of PREMI effort is focused on raising immunization coverage rates. If that effort is successful, it would be expected that the number of cases of immuno-preventible diseases will decrease. Similarly, if oral rehydration therapy use increases substantially, the number of cases of diarrheal disease-associated severe dehydration should decrease also. Making use of the archives of the Ministry of Health, the study will try to detect changes in prevalence and incidence of those diseases.

This analysis will require looking at monthly data from 1984 to 1987 both at the national level and at some specific sample sites. Its usefulness will depend, again, on quality of data.

6. Cost Analysis

Many of the studies described in this design will trace effects due to communication components of the campaign without being able to separate them from effects of other campaign components. That problem will be most acute in addressing issues of costs. Nonetheless part of the evaluation task is to specify the costs of health communication programs and it is our intention to do so, in collaboration with efforts to do a more general cost analysis. While the actual cost analysis may be delayed until the last months of the evaluation activity, it will be necessary to set up procedures for organizing costs in the near future. It is our intention to hire a consultant to work with us in developing such procedures in the next months.

7. Validation Study

The current draft questionnaire, which will be given to the caretakers of children, asks the mother how she would mix oral rehydration salts; future versions will ask her to explain how to interpret a growth chart. However it is important to supplement this self report data with direct observational data about the ability to mix oral rehydration salts and interpret the growth chart. Because we are unsure about the ideal methodology to use in measuring this on a large sample, we will conduct on a preliminary basis a validation study in August 1986. This validation study will be designed to permit us to develop instruments to observe both of these behaviors and to make a decision how best to proceed afterwards. We will do our best to incorporate the observation instruments into the large sample survey instrument, if that is feasible. If it is not our plans would be to do an independent study incorporating the observational instruments without trying to build them into the formal survey instrument. The validation study will be done with a small sample, perhaps in four areas of the country, one in an urban area, one in a rural area near a city and two in areas that are somewhat more dispersed. 10-15 mothers would participate at each site. The results of this pretest will define our next step, either developing a parallel study on a much larger sample or directly incorporating the new instrument into the KAP instruments used for the population as a whole.

8. Formative Evaluation Studies

The KAP questionnaires of the population and the KAP questionnaires for the health personnel will provide information that is of immediate use for the formative ends of the PREMI project. Each administration of either KAP instrument will precede a special analysis to translate that information to respond directly to the questions of the implementation teams, particularly those in charge of the communication aspects of the program. In addition to the questions that will be asked at each wave of the survey, there will be a possibility of adding modules to each wave which may address issues raised by implementers. In addition to the formative uses of the KAPs there will also be several instruments constructed for exclusive use in formative evaluation.

Monitoring: We will assist the implementation team in developing an instrument to monitor broadcast of PREMI messages on the radio and television to confirm that scheduled messages are in fact being distributed on the schedule that they were assigned.

Discussion groups: As each new PREMI theme is launched and a new communication campaign is developed, a limited number of discussion groups including members of potential audiences for the campaign may be conducted. They will allow exploration of issues surrounding campaign themes in a way difficult to realize through other research procedures.

Mini Studies for Operational Purposes: As particular questions arise in the context of implementation plans small directed studies will be developed like that used last fall for testing response to the distribution of oral rehydration salts as part of the immunization campaign.

C. RESPONSIBILITIES

There is substantial overlap between the evaluation outlined here, and that of the overall PREMI evaluation. It is assumed that implementers of the overall evaluation and the communication evaluation will share some of the tasks which overlap. The role of the communication evaluation adviser in the exclusively formative evaluation strategies will be focused on providing technical advise on research strategies rather then on actual implementation.

D. CAVEATS

1. This is a tentative evaluation design reflecting current knowledge of PREMI objectives and strategies. As those evolve significant changes in this design may be appropriate.

2. There are many activities outlined here: shortages of resources, particularly of professional time, may require a reduction in plans. This is particularly true given the requirement that Dr. Contreras will be available for PREMI evaluation only for 60 percent of his time. The feasibility of the design will depend on how easily research

staff capable of implementing particular studies under Contreras guidance can be located, or whether shared responsibilities between the AID evaluation advisor and Contreras allows enhanced productivity.

3. Some research activities (particularly those scheduled for 1987) assume it will be possibile to locate relevant archival data, or develop certain instruments. To the extent such data proves unavailable or instruments impractical, such studies may be dropped.