

*COMMUNITY-BASED CHILD SURVIVAL PROJECT*  
*INTIBUCÁ*

***TECHNICAL REPORT***

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HONDURAS C. A.

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## I. INTRODUCTION

The Community-based Child Survival Project in Intibucá was implemented in 95 communities, located in six municipalities in southern Intibucá department in Honduras, Central America, from September 1999 to January 2004. It was funded by the United States Agency for International Development (USAID) and Catholic Relief Services (CRS) in partnership with the Central Committee for Water Projects and Integrative Development of Intibucá [Comité Central de Proyectos de Agua y Desarrollo Integral de Intibucá (COCEPRADII)] and the Honduran Ministry of Health. The aim of the project was to improve maternal and neonatal health through three core community-based interventions: 1) training pregnant women and their families to recognize risk factors and danger signs, prevention, and response to complications when an obstetrical and newborn emergency occurs; 2) training and monitoring traditional birth attendants to recognize, prevent, and respond to danger signs, first aid skills for managing obstetrical and newborn emergencies, and strengthening of referral systems to health facilities in case of complications; and 3) the organization of community-based emergency committees.

Based on these objectives, the program carried out community mobilization activities by building on COCEPRADII's work in community organization around water projects. Community mobilization activities centered on training emergency committees to provide transportation support and training groups to recognize risk factors and danger signs.

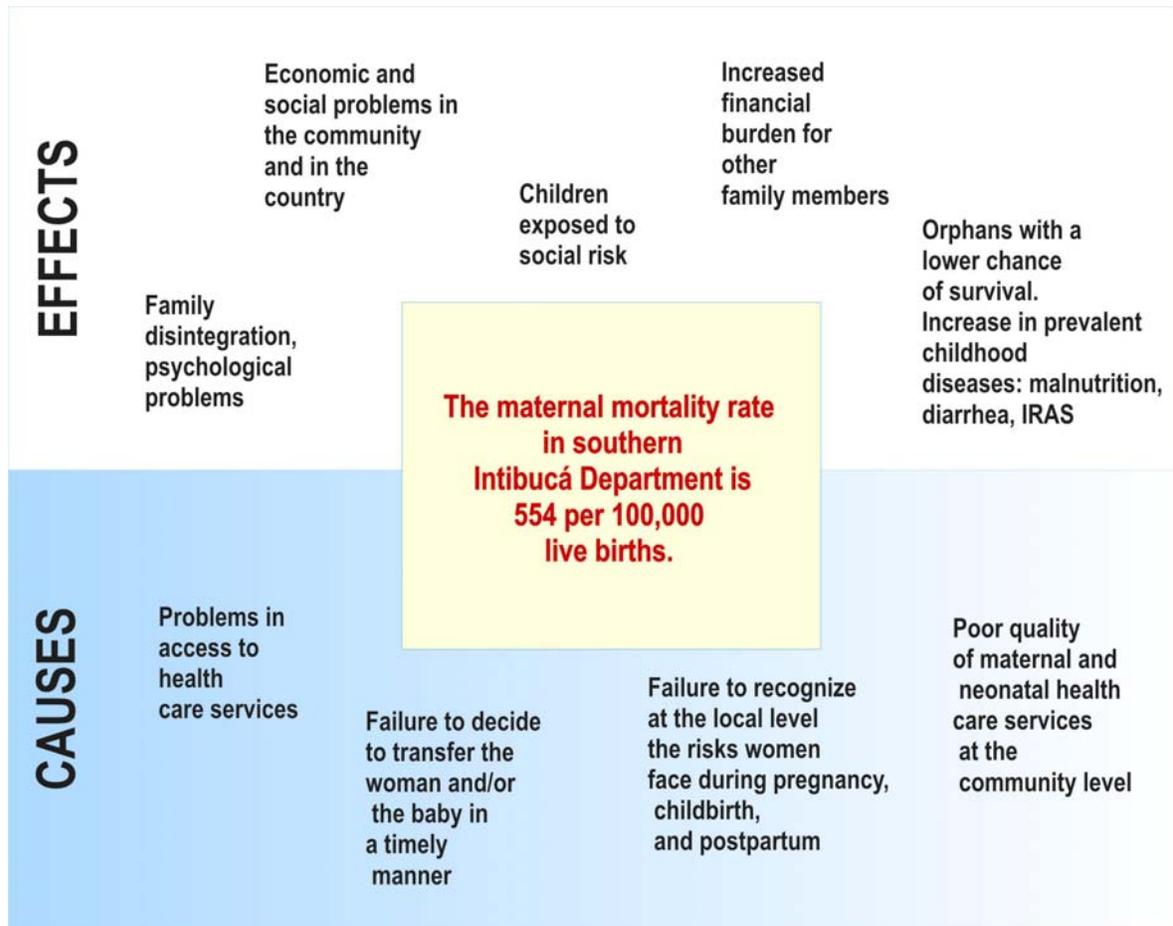
This technical report is a tool for understanding the project's original vision, theoretical-methodological approach, and implementation, as well as the lessons learned; it is based on an examination of the problem situation and the context in which the project was carried out.

Through the lens of the experiences of CRS and COCEPRADII technical staff, the Ministry of Health, and the community in southern Intibucá, this report can contribute key elements for reducing maternal and perinatal mortality in Honduras. It can also serve as a reference for institutions and organizations wishing to implement projects in similar contexts, essentially, communities with little access to health services and high maternal and perinatal mortality rates (MMR > 500x100,000; PMR > 30x1000)<sup>1</sup>.

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<sup>1</sup> MMR: Maternal Mortality Ratio; PMR: Perinatal Mortality Rate

## II. PROBLEM SITUATION



### A. National Health Situation

Causes of maternal mortality at the national level include hemorrhage (32.8% occurring at home immediately after childbirth), infections (20.7%), hypertension (12.3%), and obstructed delivery (4.2%). Two thirds of these deaths occur at home (United Nations Children’s Fund - UNICEF) during the first week following childbirth, and most occur during the first 24 hours (80%). The most frequent causes of death are postpartum hemorrhage and infection (representing 54% of the total), which can often be prevented by improving care during and following childbirth.

The Maternal Mortality Rate also reflects the high fertility rate among women in the region (6.3 compared to 4.9 nationally), little spacing between births, lack of prenatal care, absence of postpartum care, lack of

information about family planning and reproductive health, and the predominance of home births with inadequate assistance.

The 1996 National Epidemiological and Family Health Survey in Honduras (ENESF-1996) found that over 50% of cases of infant mortality occur during the first month of life and, of these, 75% occur during the neonatal period, in the first seven days following birth. These deaths are caused by trauma/asphyxia during delivery (36%), and premature birth/low birth weight. The perinatal mortality rate in Honduras is 29 x 1000 LB (nationally) while the neonatal rate reported in Area 2 (Intibucá) is 14 out of 1,000 live births. This figure is lower than the national rate and that registered in other urban areas, but this is most likely due to chronic underreporting in some rural areas. Based on the findings of the 2001 National Epidemiological and Family Health Survey (ENESF-2001), neonatal mortality rates have remained steady over the last five years.

#### **B. The health situation in Intibucá**

The maternal and neonatal mortality rates in southern Intibucá Department—554 x 100,000 births—is extremely high, more than double the national rate of 221 x 100,000 live births (LB), and the causes of this are as follows:

- At the local level, women, their families, and the community are not aware of the danger signs during pregnancy, childbirth, postpartum, and in the newborn.
- Once the danger is recognized, it is too late (failure to recognize the seriousness of the situation) and therefore the decision to transfer the women or her baby is not made in a timely manner. This is due to a number of factors such as: the family does not have money to pay for transportation to a health unit; the women is worried about who will care for her other children and the house; third parties, almost never the mother herself, are making the decisions (dependency of women); and in many cases the woman has no support network and she is not transferred from the community in time.

### III. CONTEXT

#### A. NATIONAL

Honduras is located in Central America, bordered by the Atlantic Ocean to the north, Nicaragua to the east, Guatemala to the west and the Republic of El Salvador and the Pacific Ocean to the south. It comprises 112,492 Km<sup>2</sup>, and has a population of 7.2 million, nearly half of which lives in urban areas (ENESF/ ENSM – 2001)

It is the third poorest country in Latin America, with a GNP per capita income of US\$ 730. While health indicators have improved over the past two decades, they are still among the weakest in the region. The Honduran population has relatively high fertility and mortality rates; surveys (ENESF/ ENSM – 2001) show that living conditions are substandard, particularly in rural areas where the population lacks access to basic services such as water, electricity, and sewage and trash disposal, which are associated with better survival conditions for the general population and for children in particular. Less than 20% of rural homes lack potable water, a toilet, or a gas or electric stove.

The educational level of both men and women has a significant impact on knowledge, attitudes, and habits concerning their own health and that of their children. Approximately 10% of women of reproductive age and 13% of men have never been to school.

According to the Honduran Planning Ministry (formerly SECPLAN and currently SETCO), 71% of rural Hondurans live in extreme poverty, referring to their ability to obtain the basic food basket. The Ministry of Health, operationally divided into eight regions distributed throughout the different departments of the country, is responsible for the population's health practices and for the development of health infrastructure. Intibucá department, located in Region 2, has the most severe problems in terms of access to basic services and health care. In 1999, the department had a ratio of just one doctor and six nursing aides per 10,000 inhabitants.

## B. REGIONAL



Intibucá belongs to the health area 2 in the sanitary region number 2 of the Honduras Ministry of Health. It is located in the Western part of the country, along the border with El Salvador.

Health region 2, which covers the departments of Comayagua, la Paz, as well as the departmental area of Intibucá, is one of the poorest regions in Honduras.<sup>2</sup> The Maternal Mortality Rate (MMR) is extremely high in this region, with 388 maternal deaths per 100,000 Live Births (LB). According to a UNICEF study, this figure may be as high as 554 per 100,000 live births in Intibucá department (an extraordinarily high rate, more than double the national rate).

Data from Health region 2 indicate that 80% of women received only one prenatal care visit, while 24% of women returned for a second visit and the rest did not. In rural areas, 35% of pregnant women seek prenatal care during the first trimester. Moreover, 17.8% of deliveries were assisted by health professionals, while 76.3% were assisted by traditional birth attendants, and 5.9% by a family member; there are very few referrals.

Because the maternal mortality rate in Intibucá was double the national rate, it was considered necessary to strengthen the Ministry of Health's capacity to address the critical situation in the project area. To this end, priority was placed on close coordination between COCEPRADII and the Ministry of Health to share information and transfer technology (ENESF/ ENSM – 2001).

Intibucá is one of the geographical areas of Honduras with the worst health indicators. In the mountain region, poverty levels are high, overland access is difficult, families are large, and family planning is virtually nonexistent. Only 14% of births take place in an institutional setting and the traditional birth attendant (TBA) is part of the cultural patrimony, yet totally lacking in up-to-date training and skills.

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<sup>2</sup> Ministry of Health Honduras, ASHOMPLAFA, USAID, CDC, & MSH. (2001). Honduras: Nacional Epidemiological and Family Health Survey [Encuesta Nacional de Epidemiología y Salud Familiar (ENESF-2001)]. Nacional Male Health Survey [Encuesta Nacional de Salud Masculina (ENSM-2001)]

3. Human Development Status of Indicators and Trends. UNDP Honduras

### C. LOCAL

The project was designed to improve health in 113 disadvantaged communities in southern Intibucá, leveraging the strengths of project actors and maximizing local involvement in health care. In one of the proposed project areas in the municipality of San Francisco Opalaca, maternal mortality is higher still: 600 out of 100,000 live births. Complications occur during pregnancy, childbirth, and postpartum due to the absence of trained personnel at the community level able to provide quality services. This leads to higher maternal and infant mortality rates.

The project's target area is characterized by an agricultural economy in which families rent plots of land (averaging 3.5 hectares) to produce basic grains (rice, beans, corn), since the land is hilly and soil quality is poor. Local farmers habitually reserve half of what they produce for their own subsistence and sell the other half.

Due to the shortage of institutional human resources (1 doctor, 1 nurse, and 6 nursing aides per 10,000 inhabitants), there was no ongoing monitoring and supervision of TBAs, support for women of childbearing age, or strategies in place to respond to obstetrical emergencies (community organizing to form transport committees for obstetrical emergencies) and assist women during pregnancy, labor and delivery, and post partum, and their babies.

It should be noted that there was a Maternal-Child Health Clinic in the area, but it had received little demand for assisting deliveries. There was an ambulance in poor condition in the municipality of Camasca, which also operated in the municipalities of Magdalena, Santa Lucia, San Antonio, Colomoncagua, and Concepción. Access to the communities was complicated by the fact that several lacked road access.

There was no information system in place to generate regular data on, for example, the number of pregnant women, number of births, complications, number of referrals, and maternal and neonatal deaths, which would have facilitated timely decision-making at the community and institutional levels.

Community health workers had little or no health care training (TBAs, Maternal Health Aides - MHAs, Health Committee). Local TBAs lacked equipment for assisting deliveries and some gave alcoholic beverages (*guaro, cususa*) to laboring women. Delays in transferring emergency cases to a hospital were common. Women of childbearing age (12 – 49 years old) received no guidance or ongoing training in self-care.

## D. INSTITUTIONAL

### CATHOLIC RELIEF SERVICES

Catholic Relief Services (CRS) is a not-for-profit, nongovernmental development organization founded in 1943 by the U.S. Catholic Bishops Conference to help the poor outside of the United States. Its underlying mission is to relieve human suffering and to help people develop to their maximum potential, based on the principles of charity and justice in the world. CRS assists people based on their needs, regardless of religion, ethnic group, or political affiliation. CRS is one of the largest international aid NGOs in the world and has established programs in 86 countries where it supports the self-development of people and communities.

CRS has been working in Honduras since 1959 to bring about positive changes in the lives of the poor. Currently it is implementing programs in the areas of health, water and sanitation, micro credit, agriculture and civil society. Constructive relationships with governmental, nongovernmental and community-based organizations have been critical for the program's success.

CRS Honduras has experience working with the following organizations: Ministry of Health (MH), United Nations Children's Fund UNICEF), the Honduran Catholic Church, Caritas Honduras, the National Water and Sewage Service (SANAA), the Honduran Social Investment Fund (FHIS), The U.S. Agency for International Development (USAID), SECPLAN - currently SETCO, Caritas Norway, GTZ/ Honduran-German Cooperation for Food Security, COHASA, COSUDE, AED, COMUCAMNEL, RENAFE-MOB, the Central Committee for Water Projects and Integrative Development of Intibucá (COCEPRADII), and the Central Committee for Water Projects and Integrative Development of Lempira (COCEPRADIL), among others. A regional advisor based at CRS headquarters in Baltimore, Maryland, provides technical support for CRS programs in Honduras.

CRS has implemented numerous health, water, and sanitation projects in the departments of Intibucá, Lempira, Francisco Morazán, Valle, and Choluteca. Its child survival projects have focused on reducing maternal-infant morbidity and mortality. It has trained Ministry of Health employees (doctors, licensed nurses, nursing aides, and staff of the first aid for obstetrical emergencies project), who, in turn, have trained and equipped TBAs and maternal health aides.

The original is confusing so check for accuracy of meaning. CRS has also implemented the Comprehensive Care of the Child program (AIN-C) at the community level and the Comprehensive Care for Prevalent Childhood Diseases (AIEPI) at the institutional level. Using these strategies, CRS has consolidated several successful projects such as the implementation of Basic Health Units in each community. The latter consists of identifying a site in the community, usually the Volunteer House, where health care is provided to the population by previously trained volunteers. Each site is equipped with scales, chairs, tables, and chronometers/stopwatches to check the respiratory rate of children under five years old. The Basic Health Unit includes a communal medications fund, which is a revolving fund that assigns a percentage of medicine sales to cover needs during an emergency in the community. A health committee formed and trained by CRS or its local partners monitors and supervises the Basic Health Units.

### **COCEPRADII**

The Central Committee for Water Projects and Integrative Development of Intibucá, a community network of local water councils, has worked in Intibucá department and in a municipality of La Paz since the 1980s, on water supply and other community development projects. Its work grew out of the need for communities to organize in order to ensure the sustainability of water systems installed by CRS in the Intibucá area beginning in 1983.

The growing community demand for water and other types of services gradually shaped the networks of councils, which ultimately united under the Central Committee in the early 1990s; the latter was legally incorporated in 1991. Since then, COCEPRADII has consolidated its efforts through the implementation of development projects, based on demand, in the areas of environmental protection, access to water to ensure the health of the population, productivity, and capacity-building to strengthen community involvement in decision-making processes that affect them.

### **MINISTRY OF HEALTH**

The Ministry of Health [Secretaría de Salud –SS] is responsible for providing basic health services in Honduras. Its approximately 16,700 workers undertake, on a daily basis, the many tasks involved in health promotion, protection, and rehabilitation in the communities.

The Ministry of Health aims to ensure favorable conditions for the health of the Honduran people through the collective construction and appropriate management of an integrated, decentralized, participatory, and

inter-sectorial health system featuring universal coverage and high quality, timely, effective, and efficient service delivery.

Its core mission is to formulate, design, supervise, monitor, and evaluate national health policy, standards, plans and programs; provide for, administer, and regulate the construction of healthy environments; improve the population's living conditions; develop and strengthen a culture of life and health; generate health data; respond to health-related needs and demands; ensure the safety and quality of health goods and services; and, respond to collective health risks and dangers.

The Ministry's priorities include: making health protection and promotion a priority in public policy and development programs; reducing maternal and infant mortality rates; improving the coverage, access, quality, and efficiency of health services; and, promoting the participation, oversight, and responsibility of individuals and organizations in the community in the area of health care.

One of the Ministry of Health's core policies is to improve access to health services. Specifically, it seeks to improve equal access, effectiveness, quality, and efficiency of health services, particularly for women of childbearing age, pregnant women, childbirth, postpartum care, children under five, schoolchildren and adolescents, and people over 60 years of age.<sup>1</sup>

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<sup>1</sup> Secretary of State, Health Department, Políticas de gobierno para el sector salud [Government policy for the health sector,] 2002-2006

## IV. THEORETICAL - METHODOLOGICAL APPROACH

### A. FRAMEWORK

The design and implementation of the Community-based Child Survival Project in Intibucá was based on the Latin American Initiative for the Reduction of Maternal Mortality (LAMM). Its purpose was to encourage all of the Ministry of Health's local support entities and health network staff to implement the strategies outlined in the regional proposal for the reduction of maternal mortality, which declares that "maternal health is everyone's responsibility." Its approach is based on the premise that the path to a woman's survival begins with a life-threatening problem that the woman may or may not survive. In order to survive, the woman must follow these steps: recognize the problem, decide to seek care, gain access to care, and receive quality care.

National health policies also were taken very much into account in the conceptualization and approach to problems associated with reproductive health. This has to do with the inclusion of issues ranging from pregnancy, childbirth, postpartum, newborn care, and family planning to the topics of reproductive rights and health considered at the Cairo conference, and the Beijing platform addressing sexual health and rights, the participation of different actors, particularly women, and the inclusion of social, cultural, ethnic, religious issues, human behavior, and a holistic view of society as a whole in addressing these problems.<sup>2</sup>

### B. OPERATIONAL PROPOSAL

In keeping with these policies, the following methodology was established:

Community access would be improved through COCEPRADII's local capacity and organizational structure. Local support would be provided for the development of local service-provider networks, strengthening their capacity to resolve health situations and promoting links to the formal health system.

Capacity to address health situations would be improved at the community level using a life-saving skills in the home methodology (LSS-HB) for community-based voluntary health workers. Implementation includes training, supervision, and logistical support. CRS/ COCEPRADII would support and implement these methodologies in conjunction with the regional and local offices of the Ministry of Health. Access would be improved through a community network and the adoption and use of a local referral system.

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<sup>2</sup> Ministry of Health Honduras C. A.: Políticas Nacionales de Salud Sexual y Reproductiva, [National Policy on Reproductive and Sexual Health], Nov.1999

The American College of Nurse-Midwives uses a methodology targeting women and children who are at risk of suffering and death due to lack of access to health care and who do not know how such situations. Training includes techniques for clean, safe deliveries, preventing infection, newborn resuscitation, and first aid for hemorrhage. It also includes preventive methods such as dietary supplements (vitamin A, iron, folic acid), tetanus vaccinations, and spacing between pregnancies (LAM method). The partnership between CRS and Georgetown University would help identify appropriate intergenerational spacing.

All of this information was considered useful in the region, to fine-tune program activities and ensure positive outcomes. CRS and COCEPRADII planned to work in conjunction with the Ministry of Health to implement this proposal. Anticipated outcomes at the end of project implementation were that 100% of the Health Centers would have improved the quality of their services and strengthened their links to the community through their association with COCEPRADII. The latter, in turn, would have expanded its services to include health components in its community efforts and would have increased the number of organized entities in the villages made up of leaders of COCEPRADII's organizational structure.

The sustainability of this project is understood as the process through which a local development program achieves partial or total program and financial self-sufficiency, which in turn promotes local capacity to influence the forces that make up the local reality. There was also a health volunteer supervision component linked to the Health Centers through a community-operated and managed information system.

The program included the following activities to promote empowerment: a field trainer (project staff) would be assigned to each health center in a geographic area of the project to support community initiatives implemented by health center personnel. His or her main activities would include home visits to develop a process of training, organization and supervision of health volunteers and to evaluate and support the development and maintenance of a simple, user-friendly community information system. These activities would lead to a reflection process and foster dialogue between the community and the Ministry of Health.

The project manager's task was to encourage a solid relationship with the health region, promoting the involvement of the Ministry of Health in each phase and in all activities related to project objectives.

The activities to be implemented to strengthen COCEPRADII's institutional capacity were based on periodic evaluations of the inter-institutional relationship between COCEPRADII – CRS, including strengths and weaknesses.

The project would support the Ministry of Health in Intibucá Department through training workshops and follow-up of maternal health interventions at all levels of care: the staff of the three Maternal Health Centers - CESAMO (a doctor and a nurse), eleven CESAR (only one nurse), and a maternal-child health clinic, were included in training activities. Community-level training targeted TBAs, maternal health aides, and local emergency committees; pregnant women and their families would be trained through home visits, mothers' groups, and community forums.

The project included training CRS and COCEPRADII project staff in obstetrical emergencies. Training would be conducted during the first stage and continue throughout the life of the project, using a comprehensive approach based on communication as a tool for changing behaviors. This would occur in the context of close coordination with the Ministry of Health, with USAID support for the development of the Maternal Health Program. Implementation included several phases and adopted a participatory approach with the organizations involved. It emphasized behaviors related to neonatal care in order to promote breastfeeding during the first hour of birth; early detection of risk factors and danger signs by the mother, relatives, TBAs, and health personnel; behaviors concerning early access to prenatal, childbirth, and postpartum care; and, the promotion of nutritional supplements with an emphasis on folic acid, iron, and vitamin A. CRS and COCEPRADII planned to participate in publicizing health messages in the geographic area of the project through a communications plan.

The following are key components of the maternal health intervention targeting women of childbearing age and pregnant women:

- Education on the importance of prenatal care and danger signs during pregnancy, childbirth, and post partum.
- Adequate nutrition, the importance of breastfeeding during the first six months of life, which is conducive to spacing pregnancies using the Lactational Amenorrhea Method (LAM)
- Promotion of tetanus vaccination for women of childbearing age and folic acid and vitamin supplements.
- Training TBAs in safe methods of care during pregnancy, childbirth, and postpartum in the community.
- Strengthening the referral system for risks that occur in the community.
- Organization of community-based emergency committees

## C. OBJECTIVES

The project proposed the following objectives to contribute to safe pregnancy and childbirth and appropriate care of the newborn:

- a) To improve the ability of women, families, and TBAs to recognize, prevent, and respond to obstetrical complications.
- b) To improve the ability of women, families, and TBAs to refer obstetrical complications to the first level of care.
- c) To promote and increase the use of the Lactational Amenorrhea Method (LAM) during the first six months postpartum.

## D. INDICATORS

The following indicators were proposed for each type of intervention:

### a). Maternity without Risk and Newborn Care

- Increase in the percentage of families correctly applying obstetrical first aid.
- Increase in the percentage of TBAs correctly applying obstetrical first aid.
- Percentage of pregnant women who receive at least two prenatal care appointments and 2 doses of tetanus vaccine administered by trained personnel.
- Percentage of pregnant women whose delivery was attended by a trained TBA.
- Percentage of TBAs who received at least one supervisory visit during the preceding four months.
- Percentage of health personnel trained in obstetrical emergencies.
- Increase in the percentage of postpartum women and newborns who received care and follow-up provided by a TBA at 6, 24, and 72 hours, and one week postpartum.
- Increase in the percentage of timely referrals.
- Increase in the percentage of referrals accompanied by the TBA.
- Increase in the percentage of communities with an action plan for emergency transport.

### b). Lactational Amenorrhea Method

- Percentage of women who begin breastfeeding in the first hour following delivery.
- 50% of children under 6 months old will be breastfed exclusively.
- 30% of women of childbearing age will have some knowledge of LAM.

## E. METHODOLOGICAL STRATEGIES

The project was designed for implementation by CRS - COCEPRADII, in conjunction with the Ministry of Health, to support health coordinators and educators responsible for conducting program activities in the community and promoting the effective dissemination of the child survival project at the local and municipal levels.

Project implementation targeted three problem areas:

- a) Limited interaction between Ministry of Health staff and the community.
- b) Limited community capacity to resolve health problems in the community.
- c) Limited capacity in the community to demand quality health care and little capacity to cover the costs of health services. Particular emphasis was placed on the lack of access to sufficient medicines at the community level by establishing community medicine funds covering 14 essential medications for the community, which will be managed by a community member.
- d) This child survival project would be linked to other complementary projects implemented in the area, such as soil conservation, water, agriculture and storage of basic grains, so as to ensure the food access of beneficiary families.
- e) The project would be supported by a CRS administered school-based program in charge of providing parasite treatment to children under 14 years old in the project area.
- f) Training focused on preventive measures and involved community-based TBAs and volunteers. A baseline survey would be followed by the training of institutional and Ministry of Health staff. TBAs and volunteers would be trained in stages, beginning with 57 communities. During the first quarter of the third year, educators would provide training in the remaining 56 communities, for a total coverage of 113 communities.
- g) To ensure project sustainability, the project focused on three problem areas. Interventions included recognizing and preventing complications in obstetrical emergencies, natural family planning, and strengthening of the referral system at two levels:
  - a. Women and their families
  - b. TBAs and community volunteers

- h) The project focus was prevention and responding to danger signs.
- i) Supervision would be conducted gradually in the communities where trained community personnel are present.
- j) The evaluation during the first quarter of the first year would establish baseline data. At the end of the second year, a midpoint evaluation would be conducted and any necessary modifications to the project would be made based on the findings. At the end of the last quarter of the fourth year, a final evaluation would be conducted to measure project achievements and significant activities.

The project's proposed main activities were as follows:

- Develop, adopt and implement a training intervention for women and families
- Design and adopt a training intervention for TBAs
- Develop mechanisms for communication and coordination between the community and the health unit for referrals
- Develop feasible community-based means of transport for the transfer of obstetrical complications to the health unit of referral.
- Develop and implement an evaluation system for quality of care at the community level
- Design, adopt, and implement an educational strategy for pregnant women
- Design, adopt, and implement an information/education/communications strategy for the Lactational Amenorrhea Method (LAM).

## F. ANTICIPATED OUTCOMES

- a) Enhance expertise among community volunteers and support community development in general and maternal/child survival in particular.
- b) Improve and increase prenatal, delivery, and postpartum care, reinforce knowledge and practice by strengthening community-based health organizations and improving coordination with health service-providers.
- c) Increase community access to essential services in the area of maternal/neonatal health.

## G. ASSUMPTIONS

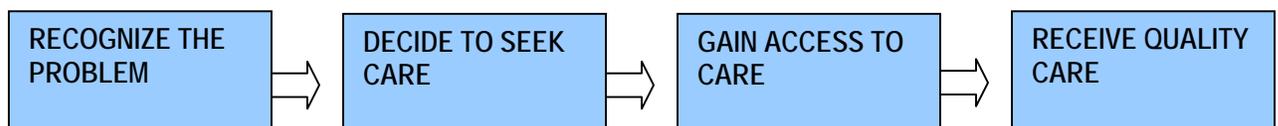
- Community organization would facilitate coordination between the community and the different levels of response to obstetrical emergencies.
- Awareness on the part of families of pregnant women regarding the services available through the Maternal-Child Clinic of referral in the zone would increase the number of institutional births.
- Promotion of the maternal home in the southern sector of Intibucá would address the need for shelter for early hospital referral of pregnant women.

## H. TARGET POPULATION

Project beneficiaries among the general population were 45,607 inhabitants residing in 106 communities in 7 municipalities in southern Intibucá Department. Direct beneficiaries were 11,310 women of reproductive age and 3,200 children under the age of two.

## I. METHODOLOGY

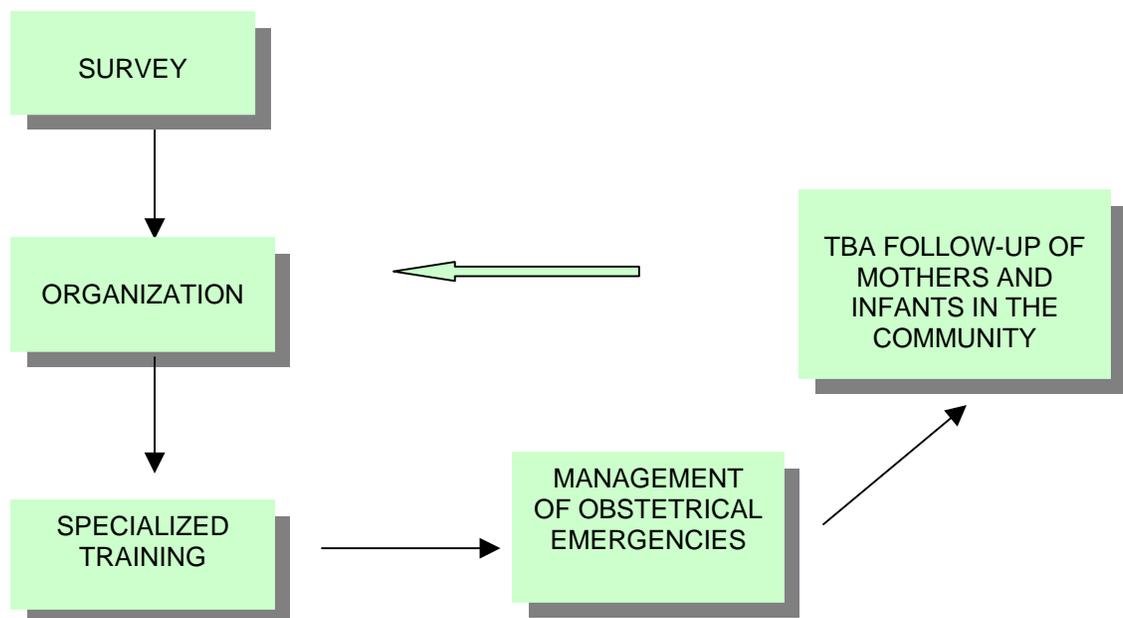
The methodology derived from the maternal mortality reduction strategies established that the woman must



The Child Survival Project in Intibucá decided to implement components in the obstetrical care system corresponding to each of these steps through activities such as: design a survey to identify the problem; disseminate basic messages contained in the information, education, and communication plan; and, mobilize community involvement in the decision-making process. Gaining access to care included implementation of effective referral/response, information, and transportation systems. Receiving quality care at the community and institutional level was to be addressed through strengthening the skills of community and institutional personnel in basic obstetrical care during pregnancy, labor and delivery, the immediate postpartum period, newborn care, and the management of complications.

## V. DEVELOPMENT AND ANALYSIS OF THE EXPERIENCE

### METHODOLOGY IMPLEMENTED



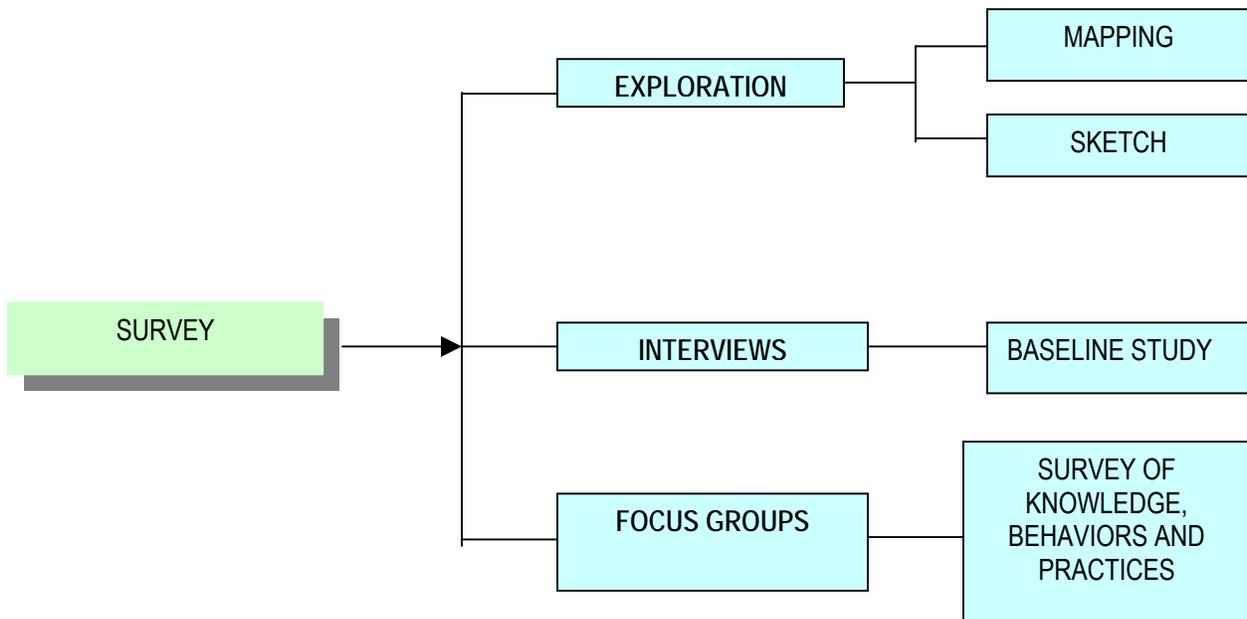
## EVOLUTION OF THE EXPERIENCE

### A. METHODOLOGY IMPLEMENTED

The Child Survival Project in Intibucá consisted of five clearly-defined stages: survey, organization, training, management of obstetrical emergencies, and TBA follow-up of mothers and babies in the community.

#### a) SURVEY

Implementation of this stage included qualitative and quantitative evaluation through exploration, mapping, and a baseline study to generate information about the communities in the following areas: general characteristics, demographic features, public services, health services, access to health services, existing community organizations and leadership, development organizations present, and the knowledge, behaviors and practices of mothers of children under two years of age in 106 communities in 7 municipalities in Intibucá Department.



The survey included the following steps: exploration, mapping, and a baseline study.

## 1. EXPLORATION

This research phase began with in-depth interviews, focus, groups and group discussions.

### In-depth Interviews:

An interview guide was developed for use in each Health Unit (HU) of the Ministry of Health to ascertain the quality of care patients received and how far they lived from the Health Unit. Mothers of children under five participated in the interviews, which were conducted following an appointment, and they expressed their perceptions about their health problems and issues.

The main findings for maternal health among this group of mothers were as follows:

- Half of the mothers interviewed had not received prenatal care and lack of time was the main factor cited.
- More than 80% felt that pregnancy and delivery are “hard times” because of the difficulties the woman experiences due to her physical condition during pregnancy and delivery.
- Most complications related to hemorrhage during or immediately following delivery.
- Most of the mothers (86%) were assisted during delivery in their respective communities.
- In general, postpartum care is not routine and is not considered a necessity; they usually had their first postpartum care visit 40 days after delivery.
- Most of the women do not use a family planning method for religious reasons.
- The pressing needs in terms of their children’s health had to do with nutrition and treatment in the home.
- None of the communities had an emergency evacuation plan.

### FOCUS GROUPS:

A focus group was held in each community. This qualitative research method was carried out through groups of community leaders, based on a list of questions concerning leaders, and community and development organizations present in the community. Participants included community health workers/guardians, TBAs, and leaders. The main findings were as follows:

- 75% had been chosen by the community and the majority could read and write
- 88% had received formal training based on their responsibilities or role in the community, in most cases from the Ministry of Health; the average length of training was three days.
- Their activities primarily focused on health education and community mobilization. Volunteer work usually was performed once a week.

- The main limitations had to do with inadequate training and lack of educational materials.
- TBAs receive monetary compensation for the services provided during each delivery.
- In general, volunteers have few prospects as health workers due to their limited ability to address community problems.

## 2. MAPPING

This activity was carried out in conjunction with community leaders in order to become familiar with the geographical area. Sketches made of the 106 communities indicated important features such as: location of volunteers (TBAs, health workers), existing organizations, public services (schools, churches, health unit), overland access (roads, paths), length of time to travel to the health unit in a vehicle and on foot, and cultural aspects (fairs, community holidays).

## 3. BASELINE STUDY

A research team was formed to conduct the survey. It was made up of representatives from CRS, the COCEPRADII Central Committee, and Region 2 Health Ministry researchers who served as supervisors and interviewers.

A training workshop was held for the team prior to conducting the study. Over a five-day period, the research conducted a survey in 30 clusters (10 households in each cluster), to arrive at the desired survey sample of 300 mothers of children under twenty-four months of age in different communities and municipalities. The instrument used was the Rapid Knowledge, Practices, and Coverage Survey (KPC) designed by Johns Hopkins University, along with the standard survey instrument used in CRS projects, which is required by USAID and adapted to each project area.

The survey was conducted to obtain baseline project data on the knowledge, attitudes, and practices of mothers of children under two and to obtain information on exclusive breastfeeding of babies under six months of age; prenatal and postpartum care; risk factors in pregnancy; danger signs in sick children and during pregnancy, childbirth, postpartum, and in the newborn; and finally, tetanus vaccination coverage.

Two weeks prior to survey implementation, activities were carried out in two phases: the first phase included a review of the objectives, goals, and indicators contained in the project proposal and initial adaptation of the questionnaire, as well as a review of the Knowledge, Practices, and Coverage (KPC) protocol, including logistical aspects. A training plan was designed for application of the survey in the field. Technical staff from the local CRS office, including staff, the coordinator, and field supervisor, were involved

in the first phase, together with COCEPRADII representatives. In the second phase, a training workshop was given to all participating staff including interviewers and supervisors.

Each survey was reviewed by the general coordinator, specialists from the Ministry of Health, the CRS survey supervisor and technical staff from the survey area, in order to verify the reliability of the data, clean them up and enter them into the computer software EPI INFO. Data analysis was then conducted in the CRS office.

A workshop for the community and institutions was held to discuss the findings of the KPC Survey; participants included representatives of community health workers (TBAs, volunteers), technical staff from Ministry of Health Area 2, representatives of the 17 health units located in project areas, as well as some municipal representatives. Subsequently, community meetings were convened to discuss the survey's findings with the beneficiary population.

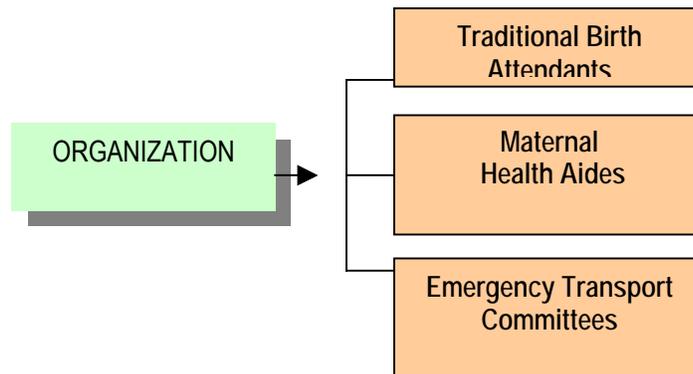
The main findings of the project's baseline research were as follows: prenatal care (at least one visit) was reported in the area of Intibucá by 86% of those interviewed (31% during the first trimester, 45% during the second trimester, and 10% in the third trimester), although only 35% of the women were able to produce a prenatal care card. Of the women surveyed, 91% reported that they were not using any form of birth control, 86% of births took place at home assisted by Traditional Birth Attendants who were not always trained in clean delivery procedures and management of complications related to childbirth.

Moreover, the baseline survey of the Community-based Child Survival Project in Intibucá (PSII January 2000) conducted by the project reflects the mothers' lack of knowledge and certain inappropriate behaviors in the areas of self-care and newborn care (harmful to their health and that of their babies). Only 13.4 % were familiar with and recognized danger signs, 2.7% were familiar with or recognized risk factors, and the prevalence of exclusive breastfeeding was 32.2%.

Access to knowledge and information about health was precarious, only a third of children under six months of age were breastfed exclusively and, of course, the links between the communities and their health services were weak. The baseline survey also found that only 4% of those interviewed were familiar with the Lactational Amenorrhea Method (LAM) for spacing pregnancies and just 1% had received postpartum care in the first 48 hours after giving birth.

After concluding the KPC Survey , the findings were discussed in the community, with volunteers and with staff from the Ministry of Health and the municipalities. The purpose of these discussion sessions was to gather the opinions of the community organization as well as to promote the project in the community in order to ascertain the degree of support and acceptance. It was then decided that the project would be implemented in 95 of the 116 communities included in the initial project proposal (leaving out the municipality of San Francisco de Opalaca because of its distance from the rest of the communities, which would have increased project costs in terms of funds, logistics, and staff). These 95 communities were included in the detailed implementation plan that was developed based on the analysis of the survey findings.

## B) ORGANIZATION



The organizational structure was fundamental for monitoring maternal health and community leaders with different types of expertise, skills, and attitudes toward community service. These leaders were trained to develop and implement a work plan to respond to obstetrical emergencies. This included supporting the family in detecting danger signs and obstetrical risks, identifying and referring cases, and particularly, organizing committees specialized in the transfer of emergencies to prevent maternal deaths.

An organization process was undertaken in each of the 95 communities, beginning with the identification, recruitment and selection of TBAs and Maternal Health Aides (MHAs), and the identification of local leaders to participate in the community-based emergency committee.

First, an inventory was conducted to locate these human resources through visits to the communities and health centers. Interviews were conducted in each community with the local and institutional leadership including: the chair of the community associations, pastors, chairs of the water councils, nursing staff, local doctors, health workers, and other leaders. After examining the data, the people identified were invited to

the local health unit to learn about the project. There, all of the TBAs approved the program, affirming its contribution to reducing maternal and infant mortality in the area.

## 1. Traditional Birth Attendants

TBAs are local volunteers, with or without training in obstetrical emergencies, who provide care to women during pregnancy, childbirth, and postpartum. TBAs are recognized by the community and some were connected to the service providers. Others were not officially recognized by the health units because they failed to transmit information regarding their activities in the community.

Criteria for selecting the TBAs were: had attended births, over 18 years of age, vocation for service, participation in community staff meetings, willingness to be trained and to provide information to the health units (health centers).

A total of 119 TBAs were identified in southern Intibucá, and they were trained as described in the chapter on specialized training.

In view of the need to compile information on maternal and child health, the participation of another person, known as the Maternal Health Aide (MHA), was requested.

## 2. Maternal Health Aides

The selection criteria were: able to read and write, willingness to collaborate in the community, willing to receive training, time available to accompany the TBA in attending births. Her main activities were:

- Fill out the list of pregnant women in the community.
- Identify and contact pregnant women, both high risk and low risk.
- Educate mothers, families, and the community regarding danger signs during pregnancy, childbirth, and postpartum, risk factors, and breastfeeding.
- Conduct home visits to pregnant women, both high risk and low risk.
- Support the emergency committee.
- Participate actively in monthly volunteer meetings held in each health unit.
- Handle timely referrals.
- Support during deliveries (this activity was limited to cases in which the TBA allowed it. It was interesting to discover that not all TBAs were willing to be accompanied, and this limited the aides' job description to a support role in the area of information and education.)

Maternal health aides were trained in danger signs during pregnancy, childbirth, and postpartum, risk factors, breastfeeding and nutritional counseling to transmit knowledge, especially among mothers of

children under two years of age and pregnant women. Some MHAs were trained in the Integrated Care of the Child (AIN C) strategy and have served as monitors.

### 3. Emergency Transport Committees

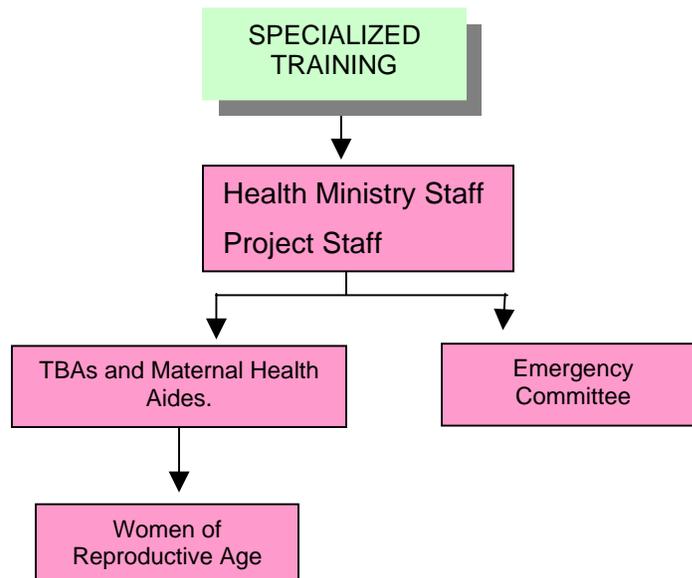
Ninety-five committees were organized during community meetings attended by TBAs, health workers, water council members, the community association, and other community members. An emergency committee was organized in every community where the project was implemented. Committee members (5 or 6 people per committee) included the TBA and MHA, the monitor, and other leaders, particularly members of the water administration councils because of their leadership role in the community. This made it possible to work efficiently, with the support of leading members and organizations in the community.

The committees were trained in a reflective process that began with an examination of maternal deaths in their communities to ascertain what could have been done to prevent those deaths. Other topics included first aid; danger signs and emergencies during pregnancy, childbirth, and postpartum; newborn care and emergencies; and, planning and documenting activities.

Each committee developed a community plan for the transfer of obstetrical emergencies. The plans included: fundraising activities (raffles, snack sales, health fairs, video presentations), administrative tasks (submitting funding proposals to other NGOs), scheduling monthly meetings to reinforce the work, and community monitoring. The committee's main function, however, was to provide financial support and/or transportation for women in emergency situations relating to pregnancy, childbirth, postpartum, and emergencies involving newborns as the highest priority, and to aid other people in need in the community as well.

The committees put their plans into action, spending the most time on income-generating activities and support for women in emergency situations. The latter was accomplished by providing guidance to families regarding risk factors and/or danger signs so as to transfer the woman to the health unit in a timely manner.

### C) SPECIALIZED TRAINING



Specialized training originally was designed so that specialists in obstetrical emergencies from the American College of Nurse-Midwives (ACNM) would train traditional birth attendants using their life-saving skills methodology. After examining the characteristics of Honduran TBAs, however, it was decided that the ACNM workshop was too technically too advanced. Therefore, the decision was made to train project and Health Ministry staff so that they, in turn, could adapt the material to the level of the TBAs and MHAs.

Three ACNM Nurse-midwives organized and gave a facilitators' training workshop for one CRS doctor, 2 nursing aides from COCEPRADII, and 4 doctors and 3 registered nurses from the Ministry of Health. Criteria for selecting these individuals included: work experience, job location, and maternal mortality rate in the sector.

Sessions on theory took place over a ten-day period (eight hours a day), and participants attended night shifts in La Esperanza Hospital for clinical practice in all stages of childbirth and the postpartum period. Subsequently, workshop participants spent two months continuing their practicum during weekends, at La Esperanza hospital and in the maternity home. In the latter setting, they focused on education for new mothers, and particularly breastfeeding.

Workshop topics were organized into ten modules from the life-saving skills manual for TBAs: Introduction to maternal mortality, Prenatal care, Monitoring progress during labor, Episiotomies, Hemorrhage, Newborn Care and Resuscitation, Infection, Rehydration, Vacuum extraction, and other emergencies.

Theoretical material was covered using adult education methods and materials such as: flipcharts, illustrated slides, masking tape, mannequins, medications, sheets, model uteruses, placentas, and pelvises, gloves, aniline, table, overhead projector, videos, posters, blackboard, water, pitchers, towels, buckets, poster board, nipples, umbilical cord, soap, detergent, chlorine.

In a subsequent five-day workshop, the facilitators adapted the training program contents for the TBA training process. Using this format, the facilitator team trained project field trainers and Ministry of Health nursing aides, together with TBAs and MHAs, in the community.

The facilitator team in Intibucá (3 doctors and 1 registered nurse) also trained: 1 registered nurse who worked for CRS as an Assistant Project Manager for the Child Survival Project and 4 doctors and 4 registered nurses from Area 1 of Health Region 1 working in the area of Marale – Orica. This workshop was held at San Felipe de Tegucigalpa Hospital and included five 8-hour days of theoretical instruction as well as night shift practicum in the labor and delivery room of that hospital. An additional benefit was obtained when Child Survival Project staff in Marale – Orica Francisco Morazán replicated the workshop they had observed in La Esperanza Intibucá. They provided training in obstetrical emergencies to 8 CRS field trainers, 2 nursing aides from the Ministry of Health, and 52 TBAs from Marale – Orica, including members of the Tolupanes indigenous community from La Montaña de la Flor. The first draft of the facilitators manual for obstetrical emergencies was written at that location and shared with the Intibucá project manager as a contribution toward systematizing the workshop that had originally been conducted in that area of the country.

### **Training for Traditional Birth Attendants and Maternal Health Assistants**

The TBA training program was two-tiered. The first workshop was implemented using the Ministry of Health's TBA training manual with a reproductive risk approach. This five-day workshop covered topics such as risk factors, standards of care for women, and the information and referral system.

Most of the TBAs chosen for training did not have the technical skills required for managing emergencies during pregnancy, childbirth, postpartum, and in the newborn, and lacked proper equipment to do their work. Therefore, a second training workshop specifically on obstetrical and newborn emergencies was viewed as essential. This training workshop was given to 116 TBAs, 60 MHAs, 15 Field trainers, 3 project assistant coordinators, and 6 Ministry of Health nursing aides. The facilitators were members of the technical team made up of 4 Ministry of Health doctors, one COCEPRADII coordinator, and one CRS manager.

Nine workshops were scheduled and conducted, each involving a maximum of 20 participants from the community (TBAs and MHAs). The participants were trained during five 8-hour sessions. Initially, the sessions were held in La Esperanza, Intibucá; however, 60% of the participants were trained in locations close to their local health units.

The training methodology included reflection, analysis, and demonstration. It began by exploring the TBAs' usual practices in each subject area, and from there proceeded to a demonstration of the correct way to perform each skill. Each TBA's skills were observed individually and recorded on a checklist during practice sessions (the checklist includes different skills areas and the corresponding boxes can be checked off; this facilitates observation of each TBA's individual progress as well as follow-up in the field by project staff). Audiovisual materials basically included mannequins, prophylactic solutions (eye drops and povidone iodine), sheets, model uteruses, placentas and pelvises, gloves, and delivery materials and equipment used by TBAs.

The contents of each subject covered during the workshop are adapted from the 10 modules found in the life-saving skills manual for Traditional Birth Attendants: causes of maternal death; infection; hand washing; decontamination, cleaning, disinfection and sterilization of delivery equipment; clean delivery and normal newborn care; most common emergencies and first aid during pregnancy, childbirth, post partum, and for the newborn. The importance of timely referral and transport of emergency cases is stressed.

*The outcomes of the training process, in addition to the human resources trained, were:*

- The support provided by La Esperanza Hospital
- Equipping TBAs with supplies needed for a clean delivery
- Clean deliveries in the community
- Detection of risks in pregnant women
- Better treatment of pregnant and postpartum women in the community
- The TBA counsels new mothers on the importance of early bonding, immediately following birth, and the importance of postpartum care
- Community-based personnel were motivated and encouraged through: periodic training, public recognition of their work in the community during health fairs, awards during counseling competitions and artistic contests (there are tapes of unedited songs on health topics performed at each fair).

## 1. Emergency Committees

A total of 95 committees were trained to analyze the maternal-perinatal situation in their communities and to create an emergency plan and implement it in the community.

The outcomes achieved were:

- Organization and training of 95 emergency committees
- Fundraising activities in 95 communities and funding proposals submitted to other institutions for the transport of emergency cases; in a nine-month period, these committees had a total of 60,000 lempiras (US\$ 3,300.00) circulating in the communities, according to their accounting records
- Monthly meetings for reinforcement and monitoring in the community.
- Financial support and transport of pregnant women as a priority, as well as support for other needy individuals in the community.

Additional workshops were envisioned to enable the committees to play a protagonist role in raising family and community awareness about improving the role of women in timely decision-making, and advocacy to improve infrastructure, such as roads, and the quality of institution-based care. However, the project duration was a limiting factor in achieving this.

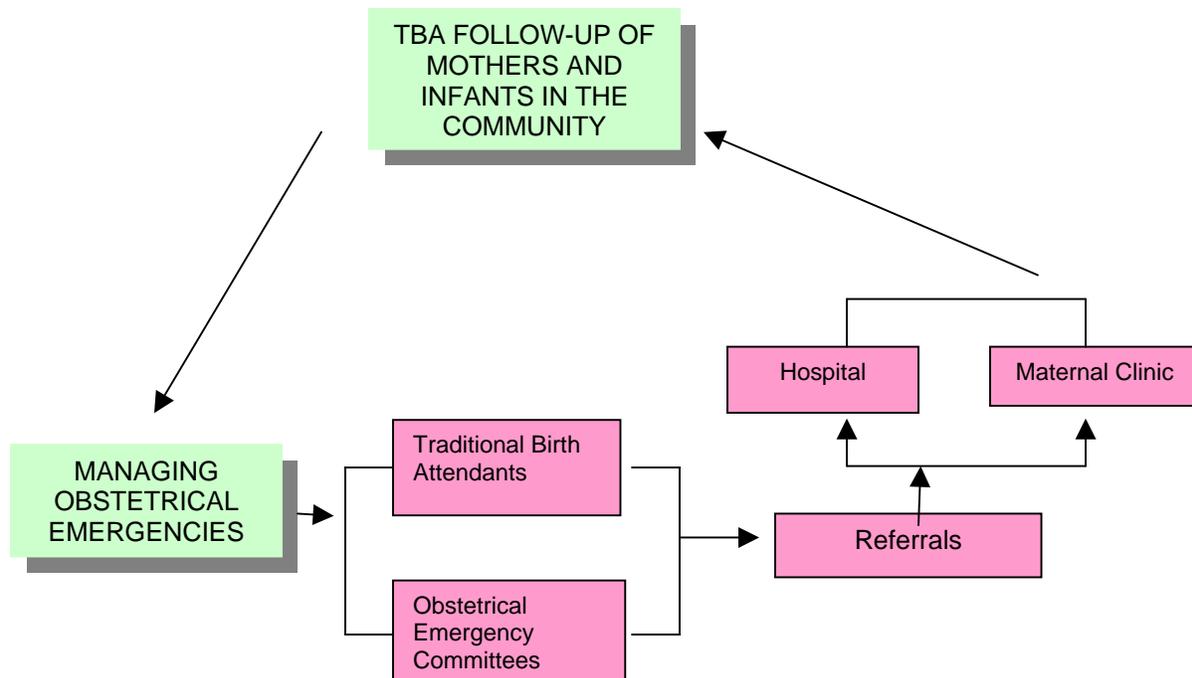
## 2. Training Women of Childbearing Age

One of the project's objectives was to improve the ability of women and families to recognize and prevent danger signs and risk factors. The methods included: group information sessions; individual counseling provided by traditional birth attendants, maternal health aides, local committee members, and institution-based staff; community meetings attended by women and their families; and home visits scheduled specifically for this purpose.

The main topics imparted were: danger signs during pregnancy, childbirth, and postpartum, prenatal care, birth plans, hemorrhage, newborn care, comprehensive women's care, and the lactational amenorrhea method (LAM). This community education program approached each topic beginning with the women's experiences, and used slides, drawings, and posters, and adult education techniques such as role plays, songs, and poetry.

The education process was widely accepted by women of childbearing age and 11,310 women were reached. Other observations included greater risk detection during pregnancy and a higher number of pregnant women seeking prenatal care. In September 2004, a survey of the target population (mothers of children under age two) was conducted to ascertain attitudes, knowledge, and customs related to seeking help when a danger sign was present in the mother or her child. The findings are presented later, in the chapter on that subject.

#### d) MANAGING OBSTETRICAL EMERGENCIES



##### 1. Traditional Birth Attendants and Maternal Health Aides

Trained traditional birth attendants play a leading role in providing primary preventive health care in the community—particularly in areas of prevention such as prenatal, delivery, postpartum, and newborn care—and in the early detection and referral of obstetrical problems to the Maternal-Child Clinic. For this reason, they also played a protagonist role in the achievements of the project.

In the stage of responding to obstetrical emergencies at the community level, the TBAs identified and documented in the information system pregnant women and provided timely services in terms of care, risk detection, and referral to the closest health unit. The TBAs identified pregnant women during home visits or through spontaneous demand. Often, the pregnant woman seeks assistance from a known TBA when she detects signs of labor, misses her period, or because she decides spontaneously that the TBA will provide prenatal care or assist the delivery.

The Maternal Health Aides played an essentially educational role with pregnant women, their families, and their communities. They also strengthened the information monitoring system by detecting, informing, and or referring pregnant women in their home communities.

Generally the TBA carries out prenatal care in her home and the pregnant woman goes there in a timely manner. A total of 1763 pregnant women were identified and referred by TBAs and MHAs and, of these, 81% received prenatal care in 2003.

Childbirth assistance is provided in the home of the mother. When a complication occurs during labor, the TBA communicates first with the family, which, in turn, seeks help by informing committee members of the situation. At the same time, the TBA provides first aid appropriate to the type of emergency and accompanies the mother.

## 2. Emergency Committees

Once formed, the emergency committees respond to complications by supporting the mothers. They provide transportation when there is no other access to it, and sometimes offer financial support when the family has limited resources. The organization and training of the committees contributed to the detection, transfer and referral of complications occurring in the communities. Referrals are made to the various health entities in the country.

A study conducted in 2003 on the type of assistance received by pregnant women who had experienced complications showed that women had received transportation and financial assistance. The committees had also given presentations on danger signs during pregnancy, childbirth, and postpartum.

## 3. Referral

The referral system was one of the mechanisms strengthened by the project. This topic was stressed with community personnel and relationships with health units were established to promote timely responses to obstetrical and newborn emergencies.

Training of community actors is ongoing and is conducted during home visits, monthly meetings, and in seminars to strengthen the system given by Ministry of Health and project staff.

One of the objectives of this project was to increase community referrals to the health units. To this end, an informal education strategy was implemented for TBAs, MHAs, committees, and families in the 95 communities. The project succeeded in establishing links between community health workers and institutional staff, which facilitated the response to the demand created by the referrals sent.

#### 4. Institutional Staff

Ministry of Health staff continued to respond to emergencies in the various health units in Intibucá Department. These employees have been trained in obstetrical emergencies in the community and this has helped prevent an increase in the maternal mortality rate in the zone.

##### E) TBA FOLLOW-UP OF POSTPARTUM MOTHERS AND NEWBORNS IN THE COMMUNITY

Women of childbearing age in the communities of southern Intibucá typically give birth in the community and in nearby health facilities. The TBA is responsible for providing follow-up to the postpartum mother and the newborn. Her duties include the following: observe whether the bleeding has diminished; find out if the mother has a fever or headache; check whether the nipples are cracked or inverted; massage the uterus; evaluate the newborn, give prophylactic eye drops and care of the umbilical cord; find out whether the baby is breastfed exclusively, whether his or her color is normal, and check for fever.

This is accomplished through home visits during the first 24 hours. If a post partum complication is detected, referral is made to the nearest health unit.

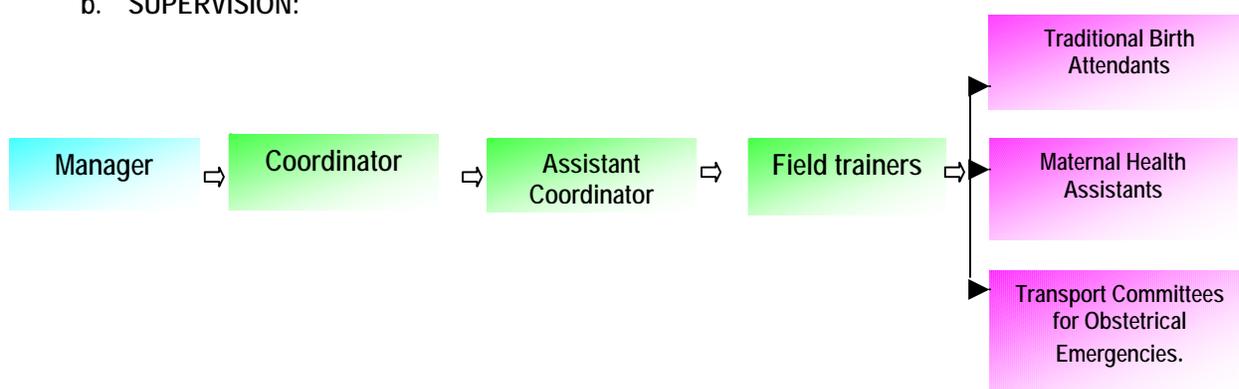
According to the final evaluation, all newly delivered mothers receive postpartum care from a TBA if the birth took place in the community, and from a doctor and nurse if the birth took place in a hospital.

## B. AUXILIARY PROCESSES TO THE CORE METHODOLOGY

### a. FOLLOW-UP/MONITORING

Project and Ministry of Health staff supported and monitored the traditional birth attendants, maternal health aides, and committees during the course of the activities. They provided accompaniment through community meetings, analyses of the health situation, home visits to families experiencing difficulties, review of progress and limiting factors in skills development and committee plans, visits to Ministry of Health authorities and Municipal Corporations to resolve the problems of families reluctant to attend referrals and rescheduling.

### b. SUPERVISION:



The Child Survival Project implemented a supervision and monitoring system for maternal health interventions. It is based on a bottom – up approach, beginning with the monitoring and supervision needs of the community, and continuing up the ladder to the Project Manager. Supervision entailed a process of ongoing support, accompaniment, and education, in which each person’s supervisory responsibility was determined based on his or her responsibilities within the project. Supervisory methods at all levels included: observation, accompaniment through visits, meetings, review of work plans, and report and performance reviews. Specific forms were available for this purpose.

Field Trainers (15) were directly responsible for reinforcing community personnel in 6 to 7 communities (TBAs, MHAs, and emergency committees). The trainers visited each of these local actors in their own communities, equipped with evaluation guides or checklists to verify progress—especially among TBAs and MHAs—and try reinforcing any weak areas observed. The trainers would pay more frequent visits to individuals in more need of support. Monthly meetings, including Ministry of Health staff, were held in each Health Unit with an agenda designed to strengthen participating community personnel.

### Assistant Coordinators (3)

Each Assistant Coordinator provided supervision by accompanying the assigned field trainers (5 or 6 trainers each), using a supervision guide to provide individual support. When common weaknesses were observed, meetings were held in the designated sub-offices to analyze and reinforce the work. (For purposes of organization and clarity of action, the project internally divided the communities into 4 sub-offices responsible for 31-33 communities each).

The Assistant Coordinator worked under the supervision of a coordinator who also provided individual and /or group reinforcement based on observations in the field, using the supervision guide. The coordinator was supported and/or supervised directly by the Project manager and together they scheduled activities (field visits, meetings, refresher trainings) to improve quality and ensure fulfillment of project objectives.

COCEPRADII was responsible for decision-making in cases of personnel with a consistently poor performance despite efforts to improve their skills through education and administrative measures in the field.

Based on the need for reinforcement, the manager and coordinator held meetings with assistant coordinators to strengthen supervision and, in doing so, improve quality, performance, and decision-making skills. This benefited the staff, as well as risk families and communities. Monthly meetings of the project's entire technical team were held to plan activities, and assess achievements and limitations. At these meetings, priority activities at each level were established; it was particularly helpful to project staff to identify areas that required supervision of community personnel.

With improved supervision, all the institutional and community personnel were trained, thereby meeting the goals, with the attendant improvement of health indicators in the communities.

### c. INFORMATION SYSTEM

The information system begins in the community and ends with Project Management, with the support of a technical advisor; from there, information flows to donor agencies.

Some project reporting formats were developed internally and were considered important for information collection during the life of the project. However, the project also worked through the information system established by the Ministry of Health, including forms such as the Community Maternal Health List

developed by the USAID Quality Assurance Project which TBAs still use to register every pregnant woman in the community.

The field trainer supports each TBA in his or her community, reviewing the community list, updating the information, and reinforcing the TBA's skills where weaknesses were observed in the skills evaluation guide or checklist used for each visit. The TBA takes her completed community list to each monthly community staff meeting (it serves as a report), and the field trainer and health unit staff takes the opportunity to update its information system based on the report. These meetings are also used to reinforce the work of community staff and to examine any situations raised, such as achievements, problems or limiting factors, or to analyze the causes of a maternal/neonatal death, if one had occurred, and what could have been done to prevent it. Supplies used by the TBAs are also replenished at the meeting.

Following these meetings, project and Health Ministry staff scheduled joint support and/or supervisory visits together with the TBAs. This was done particularly in cases of at-risk families reported by community personnel (for example, husbands who did not want their wives or partners to go to a health unit despite a referral or emergency community meetings to analyze the causes of deaths during a specific time period). Project decision-making processes were examined at each level during meetings of the project's technical team.

Meetings were held every four months to examine the specific health situation in each community. Project and Health Ministry staff and voluntary community personnel developed an agenda, which the communities used to analyze and make decisions about the problems that had arisen during the preceding period. Also at the meeting, a topic was chosen for discussion and refresher training, using adult education methods.

## C. PROJECT OUTCOMES

During the four years of implementation (1999-2003), in the 95 communities in six municipalities of Intibucá department, the project was designed to reduce maternal and perinatal mortality through the following interventions:

- Safe delivery and neonatal care

Emphasis was on obstetrical first aid in the community and in Health Centers, as well as the creation of emergency transport plans for transfer to first and second level health care facilities in the public health system.

- Lactational Amenorrhea Method (LAM)

Natural family planning education to enhance awareness about this specific method for spacing pregnancies.

- Pneumonia Case Management

The project focused on improving prevention, detection, and behaviors oriented toward seeking care at the community level. It sought to improve the quality of care through Standardized Case Management training (SCM) and coordination with, and referral to, Ministry of Health service units.

- Diarrhea Case Management

The goal of the interventions was to improve the ability of mothers and families to detect, prevent, and treat dehydration and to increase the quality of care through training and coordination with Health Ministry first level service units.

The main strategies for achieving project objectives were inter-institutional coordination, community participation, and the application of up-to-date technology, together with international maternal-child health assistance.

The project's main achievement was in the area of maternal health (see the outcomes chart in Annex 1). The project's work with TBAs was innovative and launched an important process to integrate and expand the role of TBAs in community-based health projects, where there are no other viable alternatives for childbirth. The TBAs were invited to hospitals for training, which was expanded to offer information on "obstetrical first aid." Besides training in hygiene and equipment sterilization, the TBAs received instruction in managing emergencies such as post-partum hemorrhages and infant resuscitation. The American

College of Nurse-Midwives conducted the “training of the trainers,” which was followed by training workshops for local health providers and TBAs conducted by Ministry of Health and Project staff. The exposure of TBAs to the broader health system helped break down existing barriers between them and Ministry of Health staff.

The program was also highly successful in its other components. Therefore, it has achieved and exceeded the indicator goals established in the Detailed Implementation Plan (DIP - 1999). The training of health educators and TBAs has succeeded in reaching communities, as evidenced by improved knowledge and skills in managing maternal illnesses in all areas surveyed.

In the survey conducted during the final evaluation, mothers and families demonstrated better recognition of danger signs during pregnancy and many more women had received post-partum care compared to the baseline study.

More mothers are breastfeeding exclusively and more women understood the benefits of the Lactational Amenorrhea Method (LAM) for family planning and spacing pregnancies.

Mothers also demonstrated a significantly improved ability to identify signs and symptoms of pneumonia, and there were fewer reported cases of children with rapid, agitated breathing in the two weeks leading up to the survey.

More mothers were able to identify the signs and symptoms of dehydration in children with episodes of diarrhea and could identify the most serious danger signs requiring medical attention. Mothers also reported increasing the intake of liquids during the episode and the amount of food following the episode. However, the goal of 50% more mothers increasing the amount of food administered during a diarrhea episode was not reached. Most mothers surveyed gave oral salts during the diarrhea episode and most mothers could describe the correct preparation of Oral Rehydration Solution.

The following are among the most significant changes documented by the project:

1. 17% of all pregnancies in the project service area were identified as involving some complication or danger sign and were referred.
2. Institutional births, a substitute for the global indicator of births attended by a TBA, rose from 16% to 23%.

3. Exclusive breastfeeding of children under 6 months of age rose from 32% to 63%
4. Mothers' familiarity with the signs of pneumonia increased from 38% to 89%
5. Behaviors oriented toward seeking care for pneumonia increased from 53% to 86%
6. The use of Oral Rehydration Therapy for children under two with episodes of diarrhea in the two weeks leading up to the survey increased from 27% to 78%

The main programmatic priorities emerging from this evaluation relate to the sustainability and expansion of interventions, and particularly of maternity-related activities, given the urgent need in the most impoverished rural communities.

#### D. LIMITING FACTORS

- Frequent turnover of institutional staff limited the time available for carrying out certain planned activities, particularly in the area of follow-up and monitoring.
- Resource shortages affecting the Ministry of Health department in the project area limited its ability to be involved full-time, particularly during follow-up and other activities to improve assimilation.
- Lack of clearly defined roles among project partners from the outset delayed the carrying out of joint activities.
- The high illiteracy rate among community personnel slowed down the informal education process.
- The paternalism and dependence generated by past projects with other institutions limited community participation in training and community meetings.

#### E. LESSONS LEARNED:

- Whenever a partnership is established for project implementation, the roles of each institution should be clearly defined, in writing, from the outset.
- When communities have experienced project interventions that foster dependence and paternalism, it becomes very difficult to implement an eminently educational project.

- Training of TBAs is essential in remote communities with high maternal and perinatal mortality rates, so that they can provide basic care to women equipped with the expertise and skills required to recognize risk, give first aid, and provide timely referral.
- Technical human resource training for problem management must be complemented by legal processes to protect the rights of women during pregnancy, childbirth, and postpartum.
- Training of TBAs, women, families, and communities leads to timely responses to emergencies. Such processes generate greater demand as communities mobilize, but it is necessary to have a well-coordinated network.
- The participation of institutional service-providers is important at every stage—organization, training, follow-up, monitoring, and evaluation—to enhance assimilation of the process.
- Coordination with other institutions with the means to provide emergency transport fostered timely referral.
- The health process should be systematized and documented from the outset to enrich the experience and facilitate transfer to other areas or institutions facing similar problems.

## F. PERSPECTIVES FOR SUSTAINABILITY

**Communities that have agreements with the program.** 100% of the communities covered by the project have signed agreements in support of the work of the community committees and water councils in carrying out actions to address local health problems and promote community development.

The municipal seats of the six municipalities in the project area have established an Association of Border Municipalities of Intibucá (AMFI) and have held meetings involving project and Health Ministry staff for the development of a Municipal Development Plan in each municipality.

AMFI meetings have been held widely and a proposal entitled “Healthy Border” has been developed with broad participation of project and Health Ministry staff (regional and local), and other institutions working in the zone. This has included formal pledges to seek solutions to the health situation in each of the municipalities covered by the project. Significantly, the contributions of the project and its leading

institutions (CRS and COCEPRADII) in the area of maternal-child health were recognized during the first meeting, at which time the Ministry of Health and the Quality Control Project also recognized that the strategies employed are consistent with the proposal to reduce maternal mortality that is being implemented in other areas of Health Region 2.

One of the project's strengths has been the presence of COCEPRADII and its water projects around which communities have organized. Agreements are in place in areas where joint work has been conducted for the past ten years.

#### G. RECOMMENDATIONS

- Training programs for committees to transport obstetrical emergencies should include advocacy issues as part of a more integrated approach to improving living conditions and quality of care.
- The follow-up and monitoring of emergency committees, TBAs, and MHAs should continue on a systematic, regular basis to evaluate the progress of activities, including quality of care issues.
- There should be ongoing efforts to empower local governments and supportive local leaders in the solution to community problems.

VI. ANNEXES  
Annex 1

PSII OUTCOMES: CHART SUMMARY  
SUMMARY OF OUTCOMES - INTIBUCA KPC 2003

INDICATOR OF SAFE DELIVERY AND NEWBORN CARE	BASELINE 1999	GOAL	FINAL 2003	CHANGE RELATIVE TO THE BASELINE
Increase in the percentage of women who receive post-partum visits	1%		75.8%	↑ 74.8 % points
% increase in timely referrals	No data available		100%	Not detected
% increase in referrals accompanied by the TBAs	No data available		100%	Not detected
% increase in communities with a plan of action for transport in place	0%		98%	↑ 98 % points
<b>Lactational Amenorrhea Method (LAM)</b>	<b>Baseline 1999</b>	<b>Goal</b>	<b>Final 2003</b>	<b>Change relative to the Baseline</b>
50% of children under 6 months will be breastfed exclusively by the mother	32.2%	50%	63.2%	↑ 31 % points
30% of women of reproductive age will be familiar with LAM	No data available	30%	81.8%	Not detected
<b>Management of Cases of Pneumonia</b>	<b>Baseline 1999</b>	<b>Goal</b>	<b>Final 2003</b>	<b>Change relative to the Baseline</b>
Prevalence of Acute Respiratory Infections (ARIs)	56.3%		41.1%	↓ 15.2 % points
Proportion of children with ARIs experiencing rapid, agitated breathing (Pneumonia indicator)	77.5%		54.7%	↓ 22.8 % points
60% of mothers with children under 24 months will be able to identify signs of pneumonia	38.3%	60%	89.1%	↑ 50.8 % points
60% of mothers with children under 24 months with an ARI will have sought medical care	53.4%	60%	86.3%	↑ 32.9 % points

INDICATOR OF SAFE DELIVERY AND NEWBORN CARE	BASELINE 1999	GOAL	FINAL 2003	CHANGE RELATIVE TO THE BASELINE
60% of children under 24 months with an ARI in the two weeks preceding the survey will have received treatment and/or been referred by a community health worker	No data available	60%	64.7%	Not detected
<b>Management of Cases of Diarrhea</b>	<b>Baseline 1999</b>	<b>Goal</b>	<b>Final 2003</b>	<b>Change relative to the Baseline</b>
Prevalence of diarrhea	32.3%		34.0%	↑ 1.7 % points
45% will be given more liquids at home (breast milk or other liquids)	7%	45%	67.9%	↑ 60.9 % points
50% of children under 24 months with diarrhea in the two weeks preceding the survey will have received increased food rations during the illness	26.8%	50%	29.9%	↑ 3.1 % points
50% of children under 24 months with diarrhea in the two weeks preceding the survey will have received increased food rations following the illness	7.2%	50%	48.5%	↑ 41.3 % points
40% of mothers with children under 24 months will be able to identify at least one sign of dehydration	10%	40%	87.7%	↑ 77.7 % points
50% of mothers with children under 24 months with diarrhea in the two weeks preceding the survey will have treated the sick child with an Oral Rehydration Solution (Litrosol)	26.8%	50%	78.4%	↑ 51.6 % points
90% of mothers with children under 24 months will know the correct way to prepare the Oral Rehydration Solution (Litrosol)	No data available	90%	89.8%	Not detected

## Annex 2

### ACKNOWLEDGMENTS

#### TECHNICAL REVIEW

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## BIBLIOGRAPHY:

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1. Catholic Relief Services, Propuesta de Parteras en el Marco del Proyecto de Supervivencia Infantil.2002.
2. Catholic Relief Services, Antecedentes del manual de Capacitación de Parteras en Emergencias Obstétricas.2002.
3. Encuesta Nacional de Epidemiología y Salud Familiar. ENESF Ministry of Health. 2001.
4. Iniciativa Reducir los “Riesgos del Embarazo” Trabajo con Individuos, Familias y Comunidades para mejorar la salud de la madre y el recién nacido. Organización Mundial de la Salud.2002.
5. Manual de Normas y Procedimientos de Atención Integral a la Mujer. Ministry of Health 1999.
6. Investigación de Muerte Materna y de Mujeres de en Edad Reproductiva. IMMÉR, Ministry of Health 1997.
7. Ministry of Health Taller de Estandarización en Atención Materno Neonatal Esencial (AMNE) Módulo Básico diseñado para Clínicas Materno Infantiles.
8. Ministry of Health of Honduras Manual de Normas de manejo de Patologías y Emergencias Obstétricas para el nivel Institucional 1999.
9. Ministry of Health of Honduras Manual Para la Capacitación de parteras Tradicionales de Honduras 1994.
10. Ministry of Health of Honduras Manual para Capacitadores de Parteras Tradicionales en Honduras1998.
11. Promoviendo La Calidad del Cuidado Materno y del Recién Nacido, CARE 1998.
12. Ministry of Health, QAP, USAID, CRS Señales de peligro durante el embarazo, parto, post – parto y en el Recién Nacido.
13. WHO. IMPAC Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors 2000.