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**Honduras National Breastfeeding
Promotion Project**

1989 - 1993

FINAL REPORT

**Nutrition Communication Project
June 1995**



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**HONDURAS NATIONAL
BREASTFEEDING PROMOTION PROJECT
1989 - 1993**

**Nutrition Communication Project
Academy for Educational Development
1255 23rd Street, N.W.
Washington, DC 20037**

June 1995

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ACRONYMS

AED	Academy for Educational Development
AIDS	Acquired Immunodeficiency Syndrome
ARI	Acute respiratory infections
BF	Breastfeeding
CESAMO	Health Center with Physician
CESAR	Rural Health Post
CIMESAR	Interinstitutional Committee on Educational Materials in Reproductive Health
CLAP	Centro Latinoamericano de Perinatología
DAN	Directorate of Food and Nutrition (MOH)
DES	Division of Health Education (MOH)
DSMI	Division of Maternal and Child Health (MOH)
FEHMUC	Honduran Federation of Peasant Women
HEALTHCOM	Communication for Child Survival Project
INCAP	Institute of Nutrition of Central America and Panama
MOH	Ministry of Health
NCP	Nutrition Communication Project
ORT	Oral rehydration therapy for treatment of diarrhea
PAHO	Pan American Health Organization
PVOs	Private Voluntary Organizations
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

In 1988, USAID/Honduras determined that nutritional problems should receive priority attention in its new bilateral Health Sector II Project with the Ministry of Health (MOH). Health Sector II was a national program scheduled to begin in October 1988 and which covered a population of about five million. To help guide the nutrition component, USAID requested assistance from the Nutrition Communication Project (NCP) of the Academy for Educational Development (AED) to complement the ongoing support that AED was providing to the Honduran MOH through HEALTHCOM. In early 1990, NCP received funding from USAID/Honduras to initiate a three-and-a-half-year program of technical support to help the MOH apply social communication methods to address selected nutrition problems.

Based on a 1988 needs assessment, three priority nutrition areas were selected to be addressed through sequential communication campaigns: breastfeeding, growth monitoring and infant feeding. The promotion of exclusive breastfeeding was targeted for the first nutrition communication campaign because data from surveys in the latter 1980s pointed to the widespread prevalence of suboptimal breastfeeding practices in Honduras. The 1987 national nutrition survey showed that 65% of infants were given some other substance before initiating breastfeeding, 62% of infants had been given artificial milk in the first month of life, and 88% of infants had been given solid foods before the age of three months. The initial focus on breastfeeding was also facilitated by the heightened interest in breastfeeding promotion generated by UNICEF's international initiative for "Baby Friendly Hospitals."

NCP worked with three sets of counterparts in the central MOH (the Divisions of Health Education and of Maternal and Child Health, and the Directorate of Food and Nutrition) to develop a national breastfeeding communication strategy relying on training for facility-based health personnel and the community health agents that they supervise, distribution of educational print materials, and mass media using radio. The breastfeeding promotion intervention was originally conceived as a focused pilot effort in two health regions, but shortly before implementation was to begin, the MOH decided to extend the program nationally. This decision underscored the increased attention which nutritional problems had begun to receive at the MOH but also meant that the resources intended to cover two regions would now be spread across all nine health regions in the country.

Formative research to develop an empirical basis for the design of the breastfeeding promotion objectives and messages was carried out in 1990 and early 1991. Focus groups and in-depth interviews with mothers, fathers, and health workers were conducted to understand existing attitudes towards breastfeeding and to identify behaviors that would be susceptible to change through campaign messages. Knowledge, attitudes and practices surveys of mothers and health personnel also contributed to message formulation and provided a baseline for later evaluation of the breastfeeding promotion program.

The key behavioral objectives for the breastfeeding promotion program centered around the concept

of exclusive breastfeeding--"*Sólo leche materna y nada más*"--in the first six months of life. This was an unfamiliar concept to both health workers and mothers, who were accustomed to supplementing breastfeeding with water, teas and other milks and liquids from the first weeks of life. The campaign emphasized not giving water, teas or other foods in the first six months, and introducing appropriate weaning foods at six months of age.

Beginning in late 1990, NCP assisted the MOH to develop, pretest and produce of print and graphic materials aimed at mothers, health workers, and other community members. Materials produced included: a promotional poster, a poster with a calendar, a small cardboard flip chart for one-on-one communication, a large cloth flip chart for group talks, a guide for using the flip charts, a mini-reference guide on breastfeeding support aimed at health personnel, and a comic book intended for mothers. These materials were distributed to all nine health regions during 1992 and into 1993.

A training plan was developed to train all MOH physicians, nurses, community health promoters and midwives in breastfeeding promotion as part of a five-day integrated child survival training program conducted in 1992 and the first half of 1993. Following a cascade approach, NCP assisted directly with the training of national and regional level trainers who then replicated the training at the area level. Health area officials were then responsible for training staff in health centers and posts, who in turn were charged with training local traditional midwives and community health promoters. In all, it is estimated that about 1200 health workers, representing over half of all primary care level personnel, received some three to five hours of training on the government's new norm to promote exclusive breastfeeding through six months.

Radio spots were produced in 1991 and broadcast in three campaign waves on national and regional radio stations in late 1991, mid-1992 and mid-1993. Eight one-hour national broadcasts of a popular listener call-in program on health were also dedicated to discussion of breastfeeding issues in mid-1992. NCP contracted with the Tegucigalpa-based Theatre group, Garbo Hispano, to develop and perform some 56 presentations of a popular Theatre piece addressing breastfeeding.

With the full-scale launching of breastfeeding promotion activities in 1992, NCP began working with counterparts to review infant feeding patterns in the country and identify areas requiring further study to guide the development of a comprehensive communication strategy on feeding of young children. However, due to political pressure to focus on implementing activities rather than on research, the field work planned for qualitative research on infant feeding and supplementary feeding was not approved by the MOH during the period of NCP assistance, which ended in July 1993.

With respect to growth monitoring, the third priority area for NCP assistance, a national growth monitoring program planned by the MOH remained in discussion and pilot stages during most of the period of NCP assistance. As a consequence of the MOH growth monitoring program's focus on the anthropometric aspects of growth measurement instead of on health education and counseling, NCP was not asked to develop counseling activities related to growth monitoring and promotion for children found to be growth faltering. NCP advisors did provide feedback on the design of a new growth card that the MOH had developed with assistance from the Centro Latinoamericano de

Perinatología. NCP also assisted the MOH in designing and carrying out training activities to pilot test the revised growth card in two regions.

NCP carried out a formal evaluation of the 21-month breastfeeding promotion program in two health regions, with a baseline survey conducted in February-April 1991 and a follow-up survey in carried out in May-June 1993. The evaluation concluded that the program achieved its ultimate objective of increasing the practice of exclusive breastfeeding through the first six months of life. The prevalence of exclusive breastfeeding in the first month increased from 48% at the baseline to 75% among high knowledge mothers at the post measurement, and in the sixth month, from 7% at the baseline to over 20% at the post. Overall, the breastfeeding promotion program resulted in gains in prevalence of exclusive breastfeeding of 22 percentage points at one month (from 48% to 70%), 7 percentage points at four months (from 24% to 31%) and 5 percentage points at six months (from 7% to 12%).

The breastfeeding promotion program significantly increased the overall breastfeeding knowledge of health personnel and their specific awareness of the appropriateness of exclusive breastfeeding in the first six months of life. The intervention appears to have been instrumental in making service providers more knowledgeable about the revised MOH norm which extended the recommended period for exclusive breastfeeding from four to six months.

The evaluation found that all components of the national intervention were carried out, but not with equal coverage and completeness. For health workers (i.e., facility-based nurses and physicians), the distribution of print materials attained high levels of coverage in both study regions, particularly the poster and the flip chart. Significant increases in access to key print materials (from 62% to 86%) were observed at the post-intervention measurement, compared with the levels found in the baseline survey. The overall amount of materials available in each region was, however, not as high as had been originally planned, due in part to the decision to extend the intervention nationally rather than limit it to two regions.

In contrast, coverage of training activities was lower than expected, and the quality of the training seems to have varied significantly by area. Retrospective information showed that 75% of all health workers were trained in Region V, but only 32% in Region VII. While the training intervention seems to have adhered to the model curriculum and cascade approach in Region V, it appears not to have been extended systematically below the area level in Region VII.

The coverage of the breastfeeding radio spots and print materials among mothers surveyed was good. The radio spots reached nearly half of all target mothers. The poster was seen by some two-thirds of the mothers interviewed, and 16% recalled unprompted the main slogan of the campaign. Mothers reported very limited exposure to print materials other than the poster. Although opportunities for interpersonal contacts about breastfeeding were good, the actual frequency of reported interpersonal contacts with health workers in which breastfeeding topics were discussed topics was quite low, as was exposure to the flipcharts and other print materials developed to aid interpersonal communication. Very few mothers had participated in group talks on breastfeeding.

The evaluation found that increases in mothers' knowledge were strongly associated with increased practice of exclusive breastfeeding through the first six months and in particular, in the first and sixth months. Exposure to the radio broadcasts proved to be strongly associated with higher scores for mothers on virtually all knowledge items, underscoring the striking effect which radio had in improving mothers' knowledge. Because the main print material seen by mothers was the single-message reminder poster ("*En los primeros seis meses, sólo leche materna y nada más*"), it is likely that knowledge effects found to be associated with exposure to print materials were actually the result of simultaneous exposure to radio. Counseling, either individually or in groups, seems to have had little impact on mothers' knowledge.

USAID's external evaluation of the Health Sector II Project commended the effectiveness of NCP and Healthcom technical assistance in transferring social marketing techniques to counterparts. Similarly, the European Economic Community's evaluation of its child survival funding to Honduras specifically recognized the role of these two projects.

The long-term effects of NCP assistance to Honduras are evidenced by the institutionalization of nutrition communication methodologies among counterparts at both the central and regional levels. The latter have demonstrated their ability to plan and manage communication campaigns and to apply techniques such as focus groups, in-depth interviews, behavioral analysis, and audience segmentation to the development of new communication activities related to growth monitoring counseling, AIDS, and micronutrients. In 1995, the MOH Health Education Division began applying NCP's rigorous communication planning methodology to the topic of infant feeding.

I. BACKGROUND

From 1981 to 1993, the United States Agency for International Development (USAID) provided technical assistance to the Government of Honduras Ministry of Health (MOH) to promote a series of child survival interventions. Beginning with the experimental Mass Media and Health Practices Project from 1981 to 1983, and continuing through the Communication for Child Survival (HEALTHCOM) Project from 1984 to 1993, technical assistance concentrated on training the MOH Division of Health Education to utilize social marketing principles and employ a mix of mass media and interpersonal communication strategies to encourage changes in health-related behaviors. Early accomplishments included the introduction of oral rehydration therapy to treat infant diarrhea and substantial increases in the use of ORT, increased participation in immunization activities, and the implementation of a communication program to address the problem of acute respiratory infections in young children. Nutrition, which was part of the broad health program supported by USAID, had not been addressed in the initial child survival communication efforts.

Preliminary data made available in 1988 from the 1987 National Nutrition Survey and the 1987 Epidemiology and Family Health Survey showed that the nutritional situation of the Honduran population had not changed substantially since 1965 and that a high prevalence of energy-protein malnutrition persisted among small children (see data presented in Table 1 for 1987). In response to this situation, USAID/Honduras determined that nutritional problems should receive priority attention in the new Health Sector II Project, scheduled to begin in October 1988.

To help guide the nutrition component of the Health Sector II Project, USAID requested assistance from the Academy for Education Development's (AED's) Nutrition Communication Project (NCP). In May 1988, NCP Director Margaret Parlato and nutrition specialist Dr. José Mora from subcontractor Logical Technical Services conducted a nutrition needs assessment in Honduras which reviewed the preliminary findings of the 1987 surveys and the proposed nutrition component of the Health Sector II Project, as well as the activities of the PROALMA Breastfeeding Program, which USAID had supported since 1982. The assessment team used a nutritional risk scoring system to rank the country's eight health regions, finding Region V to be at extremely high nutritional risk, Regions IV and I at very high risk, and Regions VII and II at high risk. Preliminary tabulations of the 1987 Epidemiology and Family Health Survey indicated that inappropriate weaning practices (characterized by the early termination of exclusive breastfeeding, widespread use of bottle feeding and the too early introduction of supplementary foods) were a serious problem. By age 1-2 months, only 21% of Honduran infants were being exclusively breastfed and some 74% were receiving other milks and foods. In reviewing the accomplishments of the PROALMA Program, the team found that while significant gains had been made in improving urban hospital practices to encourage breastfeeding, much remained to be done to promote optimal breastfeeding and weaning at the community level.

The needs assessment recommended that nutrition communication efforts in Honduras focus on the promotion of exclusive breastfeeding, growth monitoring/promotion, improved infant feeding practices, and possibly on Vitamin A if final results from the 1987 survey showed that this was a widespread public health problem.

While the existing educational programs related to control of diarrhea and acute respiratory infections had addressed the topic of breastfeeding as part of case management, it was clear from the needs assessment that much additional effort would be needed to have an impact on breastfeeding and infant feeding attitudes and practices. Moreover, while a large amount of quantitative data on breastfeeding prevalence in Honduras was available, very little qualitative information existed which would permit in-depth analysis of the motivating factors and barriers which determine breastfeeding behaviors. Most previous efforts in breastfeeding promotion in Honduras had focused on the "nine golden rules of breastfeeding," urging mothers to breastfeed and providing general recommendations. Knowledge about the importance of breastfeeding was high, although the concept of exclusive breastfeeding was poorly understood. There was widespread consensus that a major push was needed to help mothers understand the concept and to be able to deal with possible problem areas or impediments to following this new feeding pattern.

It was recognized that technical assistance would be needed to support the substantial new nutrition activities to be initiated under the Health Sector II Project and to orient the new MOH growth monitoring program towards a community-based, educational focus. The assessment team also recommended that PROALMA be supported in a third phase to shift emphasis from its hospital approach to a broader community-based one and to launch a national breastfeeding promotion campaign.

TABLE 1
Honduras Fact Sheet
(figures for 1987)

Total population	4,500,000	
% urban	40%	
Total fertility rate	5.6	
Female literacy	60%	
Per capita GNP	\$810	
Women receiving prenatal care	73%	
Deliveries in formal health facilities	41%	
Deliveries by trained attendants	90%	
Infant mortality rate (/1000 live births)	76	
Under 5 mortality rate (/1000 live births)	116	
Maternal mortality rate (/100,000 live births)	140	
Prevalence of undernutrition among children under five years of age:		
Residence	Wt/Age	Ht/Age
Urban	13.1 %	23.1 %
Rural	19.5 %	46.5 %

Sources:
Encuesta Nacional de Nutrición de Honduras, 1987.
Encuesta Nacional de Epidemiología y Salud Familiar, 1987.
World Development Report 1989, World Bank.

To complement the ongoing support that AED would provide to the Health Sector II Project through HEALTHCOM, in 1989 USAID/Honduras issued a buy-in to the NCP (Delivery Order No. 7) to provide resident technical assistance in Honduras to support nutrition communication activities. At the beginning of 1990, NCP initiated a three and a half-year program of technical support to nutrition activities being carried out under the Health Sector II Project.

II. SCOPE OF WORK FOR NCP ASSISTANCE TO HONDURAS

A. Objective and Scope

The primary objective of NCP's assistance in Honduras was to help the MOH apply social communication methods to effect positive behavioral changes in the population that would increase the survival of Honduran children. The priority nutrition areas to be addressed by NCP based on the needs assessment were breastfeeding, growth monitoring and infant feeding. (See Annex 1, NCP's Scope of Work under Delivery Order No. 7.)

This assistance was provided in the context of a broader program of AED technical assistance (led by HEALTHCOM Resident Advisor Dr. Patricio Barriga) to the Health Sector II Project which encompassed seven child survival areas in all (the three NCP priorities plus control of diarrhea, acute respiratory infections, immunizations and reproductive health). The nutrition communication strategy proposed by NCP/HEALTHCOM called for a phased introduction of nutrition communication topics whereby new topics would be introduced sequentially using a campaign-like approach. This would allow for rotating attention to the seven priority child survival areas. Breastfeeding was selected as the first of the three nutrition communication priorities to be addressed through NCP assistance in part to support the country's major effort to control diarrheal diseases and in part because USAID had decided to phase out its support of the PROALMA breastfeeding program.

NCP assistance was provided initially by Resident Advisor Dr. Peter Boddy up to his departure in November 1991, after which time Dr. Barriga gradually assumed responsibility for the nutrition communication activities, becoming the full-time NCP Resident Advisor in November 1992. The long-term assistance was complemented by periodic short-term assistance from NCP staff and consultants.

B. Institutional Partners

NCP had three sets of counterparts in the central MOH: the Division of Health Education (DES), the Division of Maternal and Child Health (DSMI), and the Directorate of Food and Nutrition (DAN). Among these, the DES was charged with carrying out and coordinating all education activities and thus assumed the leadership role in developing and implementing the breastfeeding promotion program. NCP also worked closely with the Regional Health Teams, especially in Regions II, IV, and V. Training activities were coordinated with the Division of Human Resources, and mass media activities with the Office of Public Relations.

During the three-and-a-half-year period of technical assistance, frequent changes in personnel at both the political and technical levels occurred in the DES, DSMI and DAN, including four new DES Directors during the three and a half years of NCP assistance. These staff changes significantly affected the pace and direction of NCP activities due to the need to continually reorient new personnel to the social marketing methodology and to the nutrition communication objectives and strategies. NCP activities were scheduled to get underway just as a new political party was elected to power. The change in administration resulted in a virtual standstill of activities for almost a year, as MOH personnel at all levels anticipated layoffs and transfers. Numerous changes occurred in the Director and Acting Director of the Health Education Division, and the physical location of the DES office was taken out of the main MOH building and relocated into two different offices some two miles apart. Similar though less dramatic changes were seen in the other two counterpart units in the MOH.

It is with this backdrop that various USAID, other bilateral and multilateral projects were struggling to work with counterparts to address critical health issues. As a consequence of the extreme limitations on counterpart availability and resources, international agencies often had to "compete" with one another. At the same time, these limitations resulted in the integration of certain activities and collaboration which might otherwise not have occurred.

In addition to the strong support of USAID, the nutrition communication activities undertaken by the MOH with NCP assistance enjoyed the cooperation of the major donor organizations working in the health sector in Honduras. In particular, UNICEF (under the umbrella of its "Baby Friendly Hospital" initiative) served as a major advocate for the breastfeeding promotion program and financed the second printing of educational and promotional materials designed by the DES and NCP, the 1992 broadcasts of the breastfeeding radio spots, and field costs of the final evaluation surveys. Coordination of the nutrition communication activities was also maintained with the Pan American Health Organization (PAHO). The Institute of Nutrition of Central America and Panama (INCAP) assisted in the development of the MOH's Integrated Child Health component, which encompassed growth monitoring and other child survival services, and provided considerable input in designing a qualitative study on infant feeding.

NCP also worked with a number of Private Voluntary Organizations (PVOs) providing child survival services in Honduras. NCP conducted several training events for technical personnel of the eight PVOs which comprise the Interinstitutional Committee on Educational Materials in Reproductive Health (CIMESAR) and provided ad hoc technical assistance and educational materials to numerous other PVOs related to breastfeeding promotion. In particular, NCP dedicated a considerable amount of home office staff time to collaborate with the Honduran Liga de la Leche, the MOH, Georgetown Institute for Reproductive Health, and Wellstart to design and pre-test a detailed and richly illustrated manual (*Manual de Lactancia Materna*) for community-based workers on breastfeeding promotion and counseling.

C. Synopsis of NCP Activities in Honduras, 1990-1993

NCP's resident advisor in Honduras was fielded in early 1990. A primary activity in the first year of NCP assistance was to conduct a qualitative research study of breastfeeding and infant feeding practices in Health Regions IV and V of the country, using focus groups and in-depth interviews. The findings of this research provided an empirical basis for the design of a national breastfeeding promotion strategy using training, print materials, and mass media communication through radio. Planning for quantitative baseline surveys of mothers and health workers was also carried out in the second half of 1990, with field data collection activities beginning in February 1991.

Beginning in late 1990, NCP's long-term advisor and short-term consultants assisted the MOH to develop, pretest and produce an array of communication and educational materials aimed at mothers, health workers, and other community members. Materials were produced in 1991 and again in 1992, and distributed to the Health Regions during 1992 and 1993.

A training plan was developed to train all MOH physicians, nurses, community health promoters and midwives in breastfeeding promotion as part of a five-day integrated child survival training program. Following a cascade training approach, direct NCP assistance was provided in the training of national and some regional level trainers who then replicated the training at the local level. Training of trainers began in late 1991 and continued into 1992. Most of the training of area and facility-level staff occurred during 1992 and the first half of 1993.

Radio spots were produced in 1991 and broadcast in three campaign waves on national and regional radio stations in late 1991, mid-1992 and mid-1993. Post-intervention surveys to evaluate the breastfeeding program were conducted in May and June 1993.

With the launching of breastfeeding promotion activities throughout the country, in early 1992 NCP proposed additional formative research to guide the development of a second campaign of communication activities focused on infant feeding and weaning, but the research was not approved by the MOH during the period of NCP assistance. NCP was asked to review a revised growth monitoring card which the MOH was developing, and in mid-1992, participated in the design and implementation of a field test of the new card.

NCP resident technical assistance ended in July 1993. (See Table 2, Honduras Project Fact Sheet, for additional details on NCP activities in Honduras and Table 3 for a timetable of field activities.)

TABLE 2
Honduras Project Fact Sheet

NCP Partners:	Ministry of Health Divisions of Health Education and Maternal and Child Health and Directorate of Food and Nutrition; UNICEF; INCAP; PAHO; La Liga de la Leche/Honduras
Project Duration:	Start-up Date: October 23, 1989 End Date: August 15, 1993
Funding:	Central Funds: \$ 74,636 Mission: \$ 671,613 UNICEF: \$ 50,000
Media Mix:	Interpersonal, print materials, mass media
Key Products:	30,000 educational posters 30,000 posters-calendars 30,000 comic books for mothers 10,000 breastfeeding reference guides for health personnel 2,400 small cardboard flip charts 5,000 flip chart guides 800 large cloth flip charts 41,724 broadcasts of 6 radio spots 8 one-hour radio call-in shows on breastfeeding 56 theatre presentations of "Mamá Lactancia"
NCP Technical Assistance:	36 months resident and 16 months short-term (international and local) technical assistance in communications; 9 months of home office technical support
Number of Training Events:	58
Future Directions:	Proposal for further qualitative research on infant feeding and weaning was prepared for future consideration by the Ministry of Health and was implemented in 1995.
Special Features:	Health worker training in breastfeeding promotion was delivered as one topic in five-day integrated child health program covering numerous child survival interventions.
Research:	-36 focus groups with mothers and 9 with fathers; -66 in-depth interviews with mothers; and -51 in-depth interviews with auxiliary nurses and midwives (July-Sept., 1990) -Baseline surveys of 706 mothers and 446 physicians, nurses and midwives in three health regions (April 1991) -Final surveys of 554 mothers and 419 physicians, nurses and midwives in two health regions (June 1993)

TABLE 3
Chronology of NCP Activities in Honduras

ACTIVITY	1990	1991	1992	1993
Formative Research Literature review/planning Qualitative research	----- -----			
Design of the Breastfeeding Communication Strategy and Implementation Plan Review of research/strategy development Message development/media planning	----- -----	----- -----		
Educational Materials Development and pretesting Production Development of manual for community personnel		----- -----	----- -----	----- -----
Training Training program design Training of trainers		----- -----	----- -----	
Mass Media Development of radio programming Production of theatre program		----- -----	----- -----	
Implementation Broadcast of radio spots Training activities at regional/area levels Distribution of educational materials Broadcast of radio call-in programs Theatre performances		-----	----- ----- ----- -----	----- ----- ----- -----
Evaluation Baseline surveys Final surveys		-----		-----

III. FORMATIVE RESEARCH FOR BREASTFEEDING

A. Need for Formative Research

Prior to the inception of NCP technical assistance, the MOH's internal Nutrition Coordination Committee had carried out research to develop a draft Nutrition Communication Plan, consisting of four separate knowledge attitude and practices studies and entailing some 2100 interviews. The results, which identified some 35 nutrition-related behaviors that needed to be addressed by nutrition communication activities, proved too general to be useful for defining specific educational messages. Based on these considerations, NCP recommended to the MOH that additional formative research be conducted to understand the underpinnings of breastfeeding-related behaviors and enable the development of behavioral objectives and messages to guide the breastfeeding communication activities.

After the inauguration of a new Honduran President in January 1990, new heads were appointed to many MOH units, including the Directorate of Nutrition and the Division of Health Education. There was a great desire on the part of the new authorities to begin training and communication activities as soon as possible and to not get bogged down in time-consuming planning and design activities. Because of this desire to get to the field as quickly as possible with educational materials, a limited qualitative research activity on breastfeeding was finally approved by the MOH and begun in August 1990. It was not until some of the new MOH staff actually participated in the formative research data collection did they become convinced of the value and necessity of further research into the "why" of breastfeeding and other practices being addressed through a communication program.

B. Qualitative Research

Considerable quantitative research on infant feeding had been conducted in Honduras during the 1980s, and available studies were reviewed by the MOH/NCP team to delineate breastfeeding problems and identify what further information was needed to address them (Table 4 illustrates the analysis undertaken by the MOH/NCP team). A literature review on infant feeding in Honduras conducted by AED subcontractor Johns Hopkins University yielded some insights on the behavioral barriers to optimal breastfeeding to explore during subsequent field research.

Based on this desk research, NCP and MOH counterparts determined that the specific areas of interest for the qualitative research were:

- Mothers' attitudes about infant feeding and maternal nutrition needs (reasons for early use of teas and introduction of supplementary foods, obstacles to exclusive breastfeeding, etc.);
- Women's understanding of the changing nutritional needs of pregnancy and lactation; perceptions about their nutritional status and ability to breastfed;

- Men's role in infant feeding;
- Health workers' role in education (attitudes about exclusive breastfeeding and about their role as health educators, obstacles to being effective counselors);
- Traditional midwives' role in prenatal and postnatal counseling.

The field research was carried out during August and September 1990 in Health Regions IV and V, using experienced Honduran interviewers who received additional training in the conduct of focus groups. In total, 36 focus group discussions were held with mothers and 9 with fathers.

The qualitative research¹ found that the very concept of exclusive breastfeeding was not well understood or accepted by mothers, health workers or midwives. Most people interviewed (both at the community level and at institutional levels within the MOH) felt strongly that breastmilk alone was insufficient to sustain a child for even up to four months, much less six months. Beliefs concerning a number of highly prevalent feeding practices, including the very early introduction of remedial teas, use of cloth pacifier "*chupones*," early supplementation with other milks, liquids and foods, early use of bottles, etc. were explored. Most mothers associated the problem of insufficient milk with poor maternal diet and not with the frequency of breastfeeding or the introduction of bottles or other foods. Almost all mothers said they used bottles, primarily because of work and insufficient breastmilk, but acknowledged that bottles were less hygienic, were time-consuming to prepare and cost more. None of the mothers had any experience expressing breastmilk to be given to the infant at a later time, but many held the view that breastmilk "goes bad" quickly once it is outside the breast.

The fathers who participated in focus groups expressed support for breastfeeding, but felt it should be suspended in case of any difficulties and that it was up to the mother to decide whether or not to breastfeed. They acknowledged that fathers have a role in providing additional foods to nursing mothers.

The research suggested that the role and authority of health workers and midwives in the community were quite different. The health worker was not a member of the community, conducted little outreach, had little time and many responsibilities, and frequently underestimated or deprecated the knowledge of mothers. There seemed to be a lack of trust between the women and some health workers. In contrast, midwives appeared to be well known and well respected members of the community, with extensive contacts with mothers both prenatally and after delivery. In rural areas especially, training and communication activities for midwives seemed to be essential to a breastfeeding promotion strategy. On the part of both health workers and midwives there were several areas of incorrect knowledge about breastfeeding, especially the perceived need of young infants for water and supplementary foods. Recommendations for the breastfeeding communication strategy that emerged from the qualitative research and baseline surveys are summarized in Table 5.

¹ For further discussion of the findings of the qualitative research, see Cohen, Roberta. Trip Report: Honduras. AED/NCP July 22 - September 22, 1990.

TABLE 4
Example of Breastfeeding Issues Emerging from Desk Research

Problem Statement	Study Data	Questions for Further Research																																													
<p>Exclusive Breastfeeding:</p> <p>Mothers give other substances to infants which interfere with exclusive breastfeeding; mothers do not feel exclusive breastfeeding is feasible</p>	<p>Percent of mothers who had given other foods, by age of infant:</p> <table style="margin-left: 40px;"> <thead> <tr> <th></th> <th><1</th> <th>1-2</th> <th>3-4</th> <th>5-6</th> </tr> <tr> <th></th> <th>U</th> <th>R</th> <th>U</th> <th>R</th> </tr> </thead> <tbody> <tr> <td>Water</td> <td>65</td> <td>34</td> <td>79</td> <td>54</td> </tr> <tr> <td>Milks</td> <td>59</td> <td>20</td> <td>70</td> <td>39</td> </tr> <tr> <td>Tea/cf</td> <td>12</td> <td>12</td> <td>17</td> <td>24</td> </tr> <tr> <td>Paps</td> <td>12</td> <td>10</td> <td>14</td> <td>18</td> </tr> <tr> <td>Juices</td> <td>10</td> <td>6</td> <td>32</td> <td>18</td> </tr> <tr> <td>Soups</td> <td>0</td> <td>2</td> <td>16</td> <td>14</td> </tr> <tr> <td>Solids</td> <td>0</td> <td>0</td> <td>3</td> <td>1</td> </tr> </tbody> </table> <p>Source: 1987 Epidemiology and Family Health Survey</p>		<1	1-2	3-4	5-6		U	R	U	R	Water	65	34	79	54	Milks	59	20	70	39	Tea/cf	12	12	17	24	Paps	12	10	14	18	Juices	10	6	32	18	Soups	0	2	16	14	Solids	0	0	3	1	<p>Why do mothers give other foods to young infants? What perceived benefits are there for the child? for the mother?</p> <p>What are the obstacles to giving only breastmilk in the first six months? What perceived advantages?</p> <p>What problems do mothers face in breastfeeding?</p> <p>Do husbands interfere with or oppose breastfeeding?</p>
	<1	1-2	3-4	5-6																																											
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<p>Use of <i>Chupón</i>:</p> <p>Many women give a <i>chupón</i>, a traditional cloth nipple; the use of <i>chupón</i> is frequently recommended by a relative.</p>	<p>58% of infants received a <i>chupón</i> shortly after delivery (46% of urban infants, 63% of rural infants)</p> <p>Reasons for the use of a <i>chupón</i>:</p> <table style="margin-left: 40px;"> <thead> <tr> <th></th> <th>U</th> <th>R</th> </tr> </thead> <tbody> <tr> <td>Waiting milk come in</td> <td>13%</td> <td>36%</td> </tr> <tr> <td>Custom</td> <td>24%</td> <td>16%</td> </tr> <tr> <td>Clean stomach</td> <td>19%</td> <td>11%</td> </tr> <tr> <td>Against tetanus</td> <td>5%</td> <td>8%</td> </tr> <tr> <td>Other</td> <td>23%</td> <td>19%</td> </tr> </tbody> </table> <p>Source: 1987 Epidemiology and Family Health Survey</p>		U	R	Waiting milk come in	13%	36%	Custom	24%	16%	Clean stomach	19%	11%	Against tetanus	5%	8%	Other	23%	19%	<p>What are the perceived benefits/uses of the <i>chupón</i>?</p> <p>When is a <i>chupón</i> given to an infant? How long is it used?</p> <p>When a <i>chupón</i> is given, does the infant also breastfeed or receive other foods?</p>																											
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<p>Colostrum:</p> <p>MOH officials believe women do not give colostrum and that mothers see colostrum as "dirty milk" that should not be given to the infant</p>	<p>Opinion of urban mothers about the use of colostrum and the reasons for giving:</p> <table style="margin-left: 40px;"> <tbody> <tr> <td>Yes, should be given</td> <td>56%</td> </tr> <tr> <td>No, should not give</td> <td>23%</td> </tr> <tr> <td>Don't know</td> <td>22%</td> </tr> </tbody> </table> <p>Reasons:</p> <table style="margin-left: 40px;"> <tbody> <tr> <td>Good for the baby</td> <td>36%</td> </tr> <tr> <td>Purgative</td> <td>32%</td> </tr> <tr> <td>Thinks it is dirty</td> <td>27%</td> </tr> <tr> <td>Was advised to do so</td> <td>3%</td> </tr> <tr> <td>Other</td> <td>2%</td> </tr> </tbody> </table> <p>Source: PROALMA II 1988</p>	Yes, should be given	56%	No, should not give	23%	Don't know	22%	Good for the baby	36%	Purgative	32%	Thinks it is dirty	27%	Was advised to do so	3%	Other	2%	<p>(Find out how mothers describe and name colostrum)</p> <p>Explore reasons for giving or withholding colostrum.</p>																													
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In-depth interviews were carried out with 66 mothers, 20 traditional midwives, and 31 health workers.

TABLE 5
Recommendations from the Formative Research

The qualitative research and baseline surveys provided specific guidance for the design of the breastfeeding communication strategy in the following key areas:

- **Initiation of breastfeeding/*chupones*/colostrum:** The immediate initiation of breastfeeding after birth and the need to prepare women for breastfeeding should be promoted during prenatal care; because the use of *chupones* is so deeply entrenched and there do not seem to be overtly negative effects caused by their use, do not spend time trying to discourage the practice. (This issue can be addressed in a second phase educational program.)
- **Exclusive breastfeeding:** The thrust of the communication campaign should be the promotion of exclusive breastfeeding, emphasizing the health benefits to the infant, the economic advantages, and the fact that infants do not need water or other liquids, even in very hot weather; discourage bottle use; encourage more frequent feeding to satisfy the infant and to increase milk production; emphasize that the quality of a mother's milk does not change no matter how poorly nourished she is.
- **Nutrition during pregnancy and lactation:** Reinforce the idea that pregnant and lactating women should eat more and a variety of foods.
- **Role of health workers and midwives:** Health workers need to be taught how to suggest a diet for pregnant and lactating women based on locally available foods; both health personnel and midwives need simple, clear visual materials (appropriate for illiterate audiences as well) to carry out the educational campaign; health workers need to learn new and more effective teaching/counseling techniques; midwives should be included in the campaign; particular emphasis should be given to why water is not necessary and the rationale for exclusive breastfeeding.

C. Baseline Surveys

Baseline surveys² of health personnel and mothers were conducted from February through April 1991 in three health regions (IV, V and VII). At the time of the baseline, the breastfeeding promotion program was still conceived of as a pilot intervention in only two regions, with a third region to be studied as a control. The sample for the health worker survey consisted of 446 doctors, nurses and traditional midwives; the sample for the community survey included 706 mothers--448 from the two intervention regions (IV and V) and 258 from the control (VII).

The baseline survey of health workers identified several areas of deficient knowledge among health workers in the study regions. Among the three main types of health workers interviewed, midwives showed the greatest deficiencies in the areas of knowledge needed to effectively promote breastfeeding.

With respect to the MOH norm of exclusive breastfeeding which was prevailing at that time, only a small proportion of health workers recommended exclusive breastfeeding through four months of age: 2% of midwives, 22% of nurses and 20% of physicians interviewed. The vast majority of health workers recommended giving water to breastfeeding infants beginning in the first months of life.

Most health workers knew the benefits of breastmilk and colostrum but were less well prepared to effectively counsel mothers on how to overcome breastfeeding-related problems. While 93% knew that increasing the frequency of breastfeeding produces more breastmilk, only 20% of midwives and 55% of nurses knew that poor mothers could successfully breastfeed and produce sufficient breastmilk. Only 6% of all health workers understood that the position of the nursing infant could be the source of painful nipples.

Health workers also reported having very limited access to educational materials on breastfeeding promotion, particularly at the level of the rural health posts. Fewer than 3% of the 276 midwives interviewed reported having any promotional material on breastfeeding available, and under 30% of nurses had access to reference guides or posters.

The community survey documented that mothers in the study areas had, overall, a favorable attitude towards breastfeeding. Virtually all (99%) mothers in the study area breastfed their infants, and some 90% were breastfeeding infants at six months of age. Mothers tended to breastfeed frequently, averaging 9.6 feedings per 24-hour period. The practice of exclusive breastfeeding in the first six months was, however, quite low. Almost 60% of infants under one month of age were receiving liquids other than breastmilk, and by four months of age, 80% of infants were receiving other liquids. Among mothers who gave other liquids, 62% gave them in bottles. The most commonly given liquids besides breastmilk were water and sugar water, followed by other milk. Half (51%) of mothers had given their infant a bottle with water or sugar water in the first three days of life. Solids were

² The methodology and results of the baseline surveys are reported in Baume, Carol A., Zeldin, Leslie, and Rosenbaum, Julia. Breastfeeding and Weaning Practices in Honduras. Baseline Study. AED/NCP 1991.

introduced later than liquids, with most infants receiving foods between four and six months of age.

Mothers' knowledge with respect to optimal breastfeeding and infant feeding practices was in general low. Only 1% of mothers thought an infant of five months should be exclusively breastfed, and 33% that neonates did not need any water to supplement breastmilk. Some 66% agreed that neonates should be given only colostrum. About 90% felt that water and 69% that solids should be given to infants before six months. The majority of mothers (89%) knew that breastmilk was superior to cow's milk, and 84% knew that mothers who did not produce enough breastmilk should nurse their infants more frequently. Only 17% thought that very poor or undernourished mothers could breastfeed exclusively.

Some 50% of the mothers interviewed had a functioning radio at home and listened to radio an average of three hours a day. Of mothers interviewed, 75% had received some type of prenatal care, and 64% had received it in an MOH facility. Some 66% of mothers saw a midwife during their last pregnancy. These findings indicated that there was strong potential for the intervention to reach the target population in the study areas by using radio, health workers and midwives to communicate the message.

IV. DEVELOPMENT OF BREASTFEEDING COMMUNICATION OBJECTIVES AND STRATEGY

A. Formulation of Communication Objectives and Messages for the Breastfeeding Promotion Intervention

Based on the research, broad objectives and a strategy were identified:

- Increase the number of mothers who practice exclusive breastfeeding in the first six months of life;
- Increase the number of mothers who continue breastfeeding up to 24 months;

The strategy for doing this was to: increase the quality and quantity of breastfeeding educational activities that are organized by health workers in the facility and in the community, especially within the context of prenatal care and pediatric care;

- Initiate educational activities by traditional midwives with pregnant women and mothers of newborns.

The MOH-NCP team recognized that while extensive behavior changes would be necessary to achieve these goals, only a limited number of improved practices could be promoted at one time to achieve exclusive breastfeeding and continuity of breastfeeding for 2 years. As a first step to priority settings, the team then performed a behavioral analysis of breastfeeding practices in Honduras. The

analysis compared existing behaviors (as documented in the desk and formative research) with ideal breastfeeding behaviors--i.e., those 20 behaviors established as optimal in USAID's 1990 "Breastfeeding Management Guidelines"--to identify problem areas. They came up with a list of possible behaviors which could be promoted to shift existing cultural practices toward more optimal ones. Possible behaviors were defined as those ideal practices which were at least partially occurring in Honduras and which would be feasible for a wider population if properly motivated.

NCP then asked a team of international experts on infant feeding to rank the possible behaviors according to their public health importance. That is, identify those which, from a public health/epidemiological standpoint, caused the most serious problems, and were associated with a higher relative risk of morbidity and mortality. The panel concluded that the breastfeeding campaign should *focus preferentially on eliminating the use of water, teas, and other liquids during the first six months and delaying the introduction of paps and other semi-solid foods.*

Guided by the priorities for behavior change recommended by the expert panel, the communication team developed key campaign messages linked to specific behavioral objectives (see Table 6). The primary message of the campaign focused on creating an understanding of the concept of exclusive breastfeeding. This message was also intended to reinforce the MOH's new 1991 norm of exclusive breastfeeding for the first six months, which replaced the previous MOH standard to exclusively breastfeed through four to six months--a vague message for both health workers and mothers. The exclusive breastfeeding message was articulated in a series of complementary messages which advocated specific feeding and weaning behaviors that mothers should adopt to protect the health of the infant.

B. Development of the Breastfeeding Promotion Strategy

Based on the 1987 national surveys which had identified the urban population as having the most deficient breastfeeding practices, NCP proposed concentrating the breastfeeding promotion activities in Honduras' two major cities, Tegucigalpa and San Pedro Sula. MOH authorities rejected this argument, feeling that there were compelling reasons to conduct the intervention in those areas identified in the 1987 Nutrition Survey as having the overall highest levels of malnutrition among children under five years--primarily rural areas in the western and southern parts of the country. Health Regions IV and V were consequently selected as the two implementation areas. (See map of Honduras in Figure A.)

Prior to the initiation of training activities in the two intervention regions in late 1991, however, the MOH decided that the breastfeeding intervention should be extended nationally and would not be confined to only two regions. This policy change was a positive signal of the MOH's increased attention to nutritional concerns in general and breastfeeding in particular. It also meant, however, that the print materials produced to cover only two regions would be spread across all nine health

TABLE 6
Behavioral Objectives

Priority Behavioral Objectives for Mothers and Caretakers:

- ▶ Give no water to the infant during the first six months
- ▶ Give no teas (*aguitas*) to the infant during the first six months
- ▶ Give no foods to the infant during the first six months
- ▶ Breastfeed day and night, as often as the infant wants
- ▶ Don't give a bottle, since this reduces the production of breastmilk and causes diarrhea
- ▶ Introduce "appropriate" locally produced weaning foods at six months.

Secondary Behavioral Objectives:

- ▶ Feed colostrum at birth
- ▶ Eat more and better foods during pregnancy and lactation
- ▶ Continue breastfeeding for two years.

regions in the country. Although UNICEF funded a partial reprinting of the main educational materials in 1992, the net result of the decision to expand the breastfeeding promotion program nationally was that fewer materials were available to each health facility. Although the other effect of the decision to expand to a national program was the loss of the control site--a key element of the original evaluation plan--the project team was highly motivated by having breastfeeding raised to a high visibility national effort.

The now nationally-extended breastfeeding communication strategy sought to impart to all health providers knowledge of the importance of exclusive breastfeeding for the health of the child, improve their skills in communicating with mothers and motivating them to breastfeed, and enable them to solve common problems encountered which might otherwise present a barrier to successful breastfeeding. The strategy emphasized training of local trainers in each region who in turn would train health workers and traditional midwives in their geographic area of responsibility.

Three major channels were chosen to reach mothers: 1) interpersonal communication at the health facility level by health care providers (primarily physicians, nurses and nurse auxiliaries) and at the community level by local health agents (primarily traditional midwives or *parteras*); 2) print materials to support facility and community level educational activities; and 3) radio spots and programs to reinforce knowledge.

The breastfeeding communication objectives and strategy were presented to the heads of all MOH divisions and health regions as part of the integrated child survival communication plan in a national workshop held in the city of Tela in November 1991.

V. DEVELOPMENT AND PRODUCTION OF EDUCATIONAL MATERIALS

A. Materials Development and Testing

Prior to the intervention, very few educational materials designed to support optimal breastfeeding were available for health workers, especially at the community level. The aim of the breastfeeding communication strategy was to provide health workers in direct contact with mothers of young children with educational tools to facilitate communication and to remind mothers (and health workers) of the key breastfeeding practices.

A multi-disciplinary design group was formed involving nutritionists, physicians, nurses and educators from the DES, DAN and DSML, led by the Health Education Division. The group discussed the types of materials needed, presentation ideas and graphic design, and coordinated the technical pretesting of all materials. For each print material, at least two alternative versions were pretested with the target audience. Pre-testing was carried out in urban and rural sites with the participation of the the graphic designers, DES technical personnel, and occasionally, regional staff.

NCP assisted the MOH to develop several different types of print materials promoting breastfeeding to support the training activities and facilitate interpersonal communication. The print materials developed included: a promotional poster, a poster with a calendar, a small cardboard flip chart for use in one-on-one communication, a large cloth flip chart for group talks, a guide for using the flip charts, a mini-reference guide on breastfeeding support aimed at health personnel, and a comic book intended for mothers. All the materials contained all of the key messages. The exception was the posters, which featured only the primary concept of the campaign in the slogan, "Only breastmilk and nothing else in the first six months of life" ("*En los primeros seis meses, sólo leche materna y nada más*"). (Photographs of the key print materials are provided in Annex #2.)

Several other promotional items were developed in addition to the print materials: hats and T-shirts with the main campaign slogan, "Only breastmilk and nothing else;" a mobile in the shape of a heart which promoted the use of oral rehydration therapy and dietary management of diarrhea; and a

handkerchief with the slogan, "Although your child has a cold, keep breastfeeding" which were distributed in the Acute Respiratory Infection Program to remind health workers to discuss breastfeeding.

B. Production of Materials

The production of the breastfeeding print materials was supervised by the DES with assistance from NCP. NCP advisors assisted the DES in the development of specifications for each material which were used in the bidding process and helped guide the selection of the printers and the preparation of contracts. Unit costs for the print materials in Lempiras and the quantities produced are shown in Table 7 below.

TABLE 7
Educational and Promotional Materials Developed

Educational Materials on Breastfeeding	Unit Cost (Lps)	Quantity Produced
Promotional Poster	1.80	30,000
Poster with Calendar	1.80	30,000
Small Cardboard Flip Chart	24.00	2,400
Flip Chart Guide	6.80	5,000
Large Cloth Flip Chart	298.00	800
Comic Book for Mothers	3.40	30,000
Mini-reference Guide for Health Personnel	7.30	10,000
Promotional Materials on Breastfeeding (BF), Respiratory Infections (ARI), Diarrhea (ORT)	Unit Cost (Lps)	Quantity Produced
ARI/BF Handkerchiefs	3.60	10,000
ORT/BF Heart Mobile	3.75	36,000
Caps	9.51	469
T-Shirts	18.00	1,610

(Note: in 1991, 5.3 Lempiras = US \$1.00)

C. Distribution of Print Materials

The distribution of the breastfeeding materials was the responsibility of the DES, with support from the DAN and the DSMI. The plan (like that used for past educational programs) was to distribute large quantities of these materials to the headquarters of each health region for the regional teams to then distribute to the area teams at the time of their training. The number of materials distributed to each health area was based on the size of its catchment population. Promotional posters were to be

placed in strategic locations within each health facility and in the communities, such as homes of community health agents, schools, nurseries, municipal offices, etc. The detailed pocket guide was developed as a mini-reference for health personnel. The flip charts were intended to be used by health personnel in talks with mothers and in training community health workers. The comic book was designed to be distributed to community health workers and to mothers after talks at the health facility.

The quantities of the educational and promotional materials distributed to each region are presented in Annexes #3 and #4, respectively. Systematic records of how the print materials were actually distributed below the regional level were not kept as part of the intervention.

As part of the final evaluation, in August 1993 NCP sent consultant Dora Castillo de Méndez to obtain data from regional officials on the number of print materials received by the Region V and VII offices up to July 1993 and on the distribution of these materials to the areas³. The timing of the distribution of the materials appears to have varied among the health areas. Information provided by the Region V office showed that the materials were generally sent out shortly after each area-level team was trained, with the region distributing whatever materials it had available at the time (primarily flip charts, posters and comic books). Most materials were distributed during the period March-August 1992, when the majority of the training activities were carried out in Region V. A full complement of materials does not appear to have been provided to health facilities at one time or necessarily at the time staff were trained. In Region VII, information from the area level indicated that much of the print materials were distributed late in 1992 and into 1993, with one health area reporting that it received very few materials at all. Health area officials in Region VII also reported receiving many fewer materials than were reported to be available at the regional headquarters.

Data on the actual number of materials by type that were received in each health facility were not obtainable, but it is likely that some facilities received more materials than others, and in Region VII, that certain materials never reached some facilities. But even assuming that each facility received an equal share of the materials available in each region, the amount of materials that would have been available to each health facility was small, especially the materials destined for distribution to mothers and community health agents. For Region V, the ratio would be about 13 posters, 13 comic books, 34 flyers, 2 flip charts, and 2 reference guides per facility. For Region VII, the ratio would be 33 posters, 13 comic books, 1 flip chart and 6 reference guides per facility. The posters were by far the most available and thus were the print material most likely to have been seen by mothers.

D. Additional Educational Materials Developed

In April 1992, the Honduran Liga de la Leche requested NCP assistance in developing a breastfeeding promotion and counseling manual for community-level personnel. Under funding from USAID/Honduras, NCP provided the services of José Mata and Reynaldo Pareja to work with the MOH and La Liga de la Leche to produce a first draft. Subsequently, Clara Olaya of

³ See Castillo de Méndez, Dora. Informe de Consultoría. AED/NCP August 1993.

NCP/Washington continued this assistance, structuring the material into modules, coordinating the development of illustrations and orienting the manual for wider use throughout Latin America. NCP enlisted the technical collaboration of Wellstart to review and field test the manual in Honduras and that of the Georgetown University Institute of Reproductive Health to collaborate in developing and pretesting the chapter on birth spacing. The final manual was also reviewed by UNICEF headquarters staff and regional experts and by various infant nutrition specialists. The manual was finalized in early 1995. UNICEF will print and distribute the manual in Latin America.

VI. DESIGN AND IMPLEMENTATION OF HEALTH WORKER TRAINING

A. Training Strategy

Originally, an intensive training activity was envisioned, with specialized regional training teams delivering trainings in breastfeeding and infant nutrition issues and counseling skills. The goal was to change the knowledge and skills of facility and community-based health workers to better equip them to promote exclusive breastfeeding and solve problems as they arose. Midwives were seen as particularly important to train as problem solvers because of their vital consultative role in the community.

Various institutional factors forced a deviation from the ideal plan. The MOH was experimenting with "integrated" approaches at the time, and it was decided that training activities should be managed at the local level. There was also concern about the amount of time dedicated to training that would require health facilities to close. As a result, all training related to the Health Sector II child survival emphasis areas were combined into one major week-long session covering acute respiratory infections, diarrhea control, immunizations, nutrition, basic sanitation, and malaria and dengue vector control.

The integrated child survival training followed a cascade model with training-of-trainers at the central level who then replicated the training in the regions. HEALTHCOM and NCP advisors trained staff of the MOH Division of Health Education in Tegucigalpa, who in turn trained teams at the regional level. Regional staff were then responsible for training health area level teams, who would be responsible for training health center and post staff and community health workers in their area. The trained health workers were expected to impart their newly gained knowledge and skills to mothers through counseling during routine consultations and through formal health talks (*charlas*).

Although midwives had been identified as a key source of information for mothers and were known, from the baseline survey, to be deficient in knowledge and skills, different recommendations for providing more direct and tightly organized training for midwives were not accepted by the MOH. Midwives were simply not a priority at the time.

B. Development of the Training Content and Training of Trainers

The breastfeeding promotion component of the training course was developed by DES staff in coordination with the DAN and the DSMI. The breastfeeding content was included in the integrated training seminar's module on nutrition for pregnant women and children under five and had a duration of three to five hours. The training curriculum covered the basic objectives and messages of the breastfeeding promotion program, introduced the print materials to be used at health facilities, discussed how to use these materials to train mothers and community-based health workers, and demonstrated effective educational techniques.

A prototype breastfeeding training program was prepared to facilitate replication of the course within the regions. It consisted of a brief introductory description of the breastfeeding promotion program's objectives and the role of health workers in its implementation; a review of the basic campaign messages, using the flip chart; demonstration and practice of educational techniques; presentation of the full set of educational materials, including cassettes of the radio spots; training in interpersonal communication techniques, using the growth monitoring counseling video, "Comuniquémonos YA!" (developed by AED/NCP and UNICEF); and guided practice with the flip chart.

The project team assisted with the delivery of this prototype training to trainer teams from the health regions during the period December 1991 through February 1992, reaching some 80 trainers in five workshops. The training-of-trainers workshops also included methodological aspects of training delivery. AED/NCP Chief of Party Patricio Barriga also participated in some of the regional level trainings and conducted numerous training sessions in communication techniques and qualitative research methods for central and regional MOH staff and several non-governmental organizations. A complete inventory of training activities in which NCP assisted is presented in Annex #5.

C. Training Implementation at the Regional, Area and Community Levels

In practice, the degree and depth to which the prototype breastfeeding content was covered varied considerably by region and area. The breastfeeding content in the regional level seminars was reported to be about five hours. Below the regional level, however, the duration and content of the actual breastfeeding promotion training were inconsistent, with some regions barely completing the training of area level teams and other regions actually holding follow-up refresher training one year after the initial training round.

Process data on the area level training activities were not systematically recorded, but field visits by NCP consultant Castillo de Mendéz reconstructed what training activities took place in Regions V and VII, where baseline and final evaluation surveys of the national breastfeeding promotion program were conducted. Based on the information collected, the breastfeeding training intervention appears to have reached three-quarters of health center and post staff in Region V, but only about half of nurse auxiliaries and about a third of all staff in Region VII. MOH monitoring visits to the regions

after the training revealed that there was wide variation in how well the cascade training was working in the nine different regions of the country. Region V was viewed as "high intensity," and Region VII as "low intensity."

In Region V, the regional team replicated the five-day training for groups in each of its four health areas, and each area team appears to have replicated the training four or five times to cover the facilities in their area. In addition to health facility staff, a large number of community health workers (285 *parteras* and 144 *guardianes de salud*) were given some training in breastfeeding promotion.

In Region VII, trainers from the central level DES led a single five-day Integrated Child Care training for staff from the regional office and from all four health areas. The area teams in Region VII, however, did not systematically replicate the training for staff of the facilities in their respective areas, citing as one reason a decision that facilities could not be closed to enable health workers to attend the training. The training in Region VII also tended to be targeted at auxiliary nurses and outreach workers rather than at all categories of personnel. The Region VII team did conduct two other breastfeeding training activities in 1992: a three-day training entirely on breastfeeding for nursing personnel of the Regional Hospital in Juticalpa and a five-day training for 47 community leaders from the Honduran Federation of Peasant Women (FEHMUC). The FEHMUC leaders are reported to have then replicated their training among 56 women's groups throughout the Department of Olancho.

With some exceptions (such as Region V), the training activities carried out at the local level concentrated on facility-based health personnel and were not systematically extended to midwives, as had been intended in the breastfeeding promotion strategy. It is estimated that nationally, approximately half of all health center and post-based health care personnel (some 1200 health workers) received training in the new MOH norm on exclusive breastfeeding as part of the breastfeeding promotion program.

VII. DEVELOPMENT OF MASS MEDIA CHANNELS

A. Mass Media Strategy

Mass media communication using radio was the third component of the breastfeeding promotion program. Radio broadcasts were designed to provide the target population of pregnant and lactating women and mothers of young children with basic messages about optimal breastfeeding and to reinforce information communicated by health workers.

Radio was used in two ways. The first and primary way was to broadcast six different 30-second spots on breastfeeding topics over a mix of national and regional radio stations during three campaign "waves." The second way was the production of a series on breastfeeding on a popular medical advice program on one of the national radio stations. The call-in program was intended to provide

women with a forum for discussing their problems and concerns and to obtain advice about common problems.

In addition to the major mass media emphasis on radio, NCP sponsored a series of popular theatre presentations on breastfeeding.

B. Radio Spots

The radio spots were developed by a professional media firm hired by the MOH and subjected to rigorous pre-testing. The key messages transmitted in each spot (which took the form of conversations between two individuals) are summarized in Table 8 and provided textually in Annex #6. The spots were broadcast in three intensive waves: for four months in late 1991, for two weeks in July-August 1992, and for one month in mid-1993. (See Annex #7 for the actual schedule of radio spot broadcasts.) Two national radio stations and some 34 regional stations were contracted to air the spots. The periods and frequency with which the radio spots were aired by region are shown in Table 9. As seen in the table, radio spots were limited to the national station and local stations in Regions IV and V in 1991 but broadcast throughout the country on local stations in each region in 1992. The third wave of broadcasts were aired only in Region V, beginning a month before before the final evaluation survey was carried out. The six spots are assumed to have each been broadcast with more or less the same frequency on each radio station, since the MOH monitoring system intended to spot check the broadcasts did not operate effectively. The broadcast of the radio spots was funded by USAID, UNICEF, and MOH Health Sector II Project counterpart funds.

C. Radio Call-in Program

The MOH and NCP orchestrated the presentation of a mini-series on breastfeeding issues on a popular one-hour weekly call-in radio program called "The Doctor and Your Health." The program is broadcast on Thursday mornings on one of the national radio stations that also aired the spots. Eight shows of the program were devoted to breastfeeding issues over an eleven-week period from July to October 1992. The topics presented on the shows included the importance of exclusive breastfeeding, how to overcome difficulties with breastfeeding, the value of colostrum, the importance of early initiation of breastfeeding, how working mothers can continue to breastfeed, how to stimulate milk production, breastfeeding on demand, and introduction of other foods at six months. Callers to the program posed questions to the physician moderator (who was supported by a silent lactation expert at his side) and expert guests. (See Annex #8 for a transcript of callers' questions).

TABLE 8
Key Messages Contained in Radio Spots

	BASIC MESSAGES
Radio Spot #1	Colostrum is the best first food for newborns and gives them all they need
Radio Spot #2	Pregnant and lactating women need to eat more, and only breastmilk for the infant
Radio Spot #3	Only breastmilk and nothing else in the first six months; breastmilk has all the baby needs
Radio Spot #4	Give other foods at six months; continue breastfeeding through two years
Radio Spot #5	To produce enough breastmilk, breastfeed and nothing else; breastfeed more often to produce more milk; milk begins to dry up if other foods are given to the baby
Radio Spot #6	Breastmilk and nothing else is the best food to make a baby grow healthy and strong; exclusive breastfeeding protects against cholera

D. Theatre Program

NCP contracted with the Tegucigalpa-based theatre group, Garbo Hispano, to develop and perform a popular theatre presentation addressing breastfeeding. During 1992 and 1993, the Grupo Garbo Hispano presented some 56 performances of "*Mamá Lactancia*," reaching about 20,000 people. Most of the performances were held in Tegucigalpa in parks, schools, hospitals and health centers.

VIII. ACTIVITIES RELATED TO OTHER NUTRITION PRIORITIES

With the full-scale launching of national breastfeeding promotion activities in 1992, NCP prepared to begin work on the infant feeding component of its technical assistance to the Health Sector II Project. Discussions were initiated with the new MOH authorities about conducting additional formative research on infant feeding and weaning to guide the development of a comprehensive communication strategy on feeding of children under five years, with emphasis on the first two years of life, when acute undernutrition is most prevalent. MOH counterparts were reluctant to undertake additional formative research because of political pressure to focus on implementing activities rather than on research. A plan for qualitative research on infant feeding and supplementary feeding was developed in collaboration with the Institute of Nutrition of Central America and Panama (INCAP) in early 1992, but the field work was not approved during the period of NCP assistance.

TABLE 9
Period and Frequency of Radio Spot Broadcasts

	Sept-Dec 1991 (122 days)	July-Aug 1992 (14 days)	May-June 1993 (38 days)
National (Tegucigalpa)	244 spots	560 spots	-
Region I (Danli)	-	938 spots	-
Region II (Comayagua)	-	938 spots	-
Region III (San Pedro Sula)	-	882 spots	-
Region IV (Choluteca)	15,250 spots	532 spots	-
Region V (Santa Rosa de Capon)	15,250 spots	868 spots	4,218 spots
Region VI (La Ceiba)	-	938 spots	-
Region VII (Juticalpa)	-	756 spots	-
Region VIII (La Mosquitia)	-	350 spots	-
TOTAL	30,744 spots	6,762 spots	4,218 spots

With respect to growth monitoring, the third priority area for NCP assistance, a planned national growth monitoring program remained in planning and pilot stages during most of the period of NCP assistance. Disagreements within the MOH over whether the DSMI or DAN would coordinate the program and over the emphasis of growth monitoring activities (as either a surveillance activity or an opportunity for providing practical advice to mothers whose children are found to be growth faltering) precluded the communication activities which NCP had anticipated for growth monitoring and promotion. A decision was made by the DSMI, responsible for the Growth Monitoring and Development Program, that the pilot effort would **not** attempt to develop nutritional messages.

In early 1992, the Director of the DES requested NCP assistance to review the various versions of the Child Growth Card which had been used in Honduras over the previous years. NCP short-term advisors provided feedback on the new card, which had been designed with technical assistance from the Centro Latinoamericano de Perinatología (CLAP) in Uruguay. NCP was also asked to provide training in qualitative research methods to staff of the DSMI and to assist in training regional staff in Regions IV and V in conducting focus groups and in-depth interviews as a tool which local health teams could use to explore local infant feeding practices. NCP assisted in the design and implementation of the field test of the revised growth card in Regions IV and V in June and July 1992.

IX. MONITORING

Monitoring of the implementation of the breastfeeding promotion activities was the responsibility of the MOH and included recording the number of training and educational activities carried out. Staff from both the DSMI and DES at the central level provided technical supervision to the regional and area level teams. Regional staff, who were ultimately responsible for training and the distribution of the print materials to their health areas and facilities, were expected to provide follow-up supervision and monitor the radio broadcasts in their region to ensure that the contracted broadcasting schedules were met. The regional teams were also charged with supervising the educational activities of local private voluntary organizations that were collaborating with the MOH. The area level teams were expected to supervise breastfeeding promotion activities in their health centers and posts, and health center staff to train and supervise community personnel, especially traditional midwives.

As has been discussed in previous sections, the thoroughness of the actual implementation of breastfeeding promotion training and materials distribution varied significantly between regions. In Regions II and VI, for example, there was a concerted effort on the part of area and facility level staff to train and supervise midwives in breastfeeding promotion, while in other regions few activities were carried out with community level personnel. These differences were also reflected in the quality of the information maintained in the regions about the activities carried out of the breastfeeding promotion program. NCP consultant Castillo de Méndez found that detailed records of training activities and materials distribution were kept in Region V, while no such records existed in Region VII.

X. INSTITUTIONALIZATION

NCP's resident technical assistance in Honduras, following the pattern set by AED HEALTHCOM assistance, invoked a permanent emphasis on training MOH counterparts in all aspects of nutrition communication project planning, formative research, strategy development, design, management and evaluation. While the Health Education Division was the primary recipient of this capacity-building in nutrition communication, counterparts in the DSMI and the DAN as well as in certain Health Regions also benefitted. NCP counterparts at both the central and regional levels have demonstrated their ability to apply the methodologies transferred by NCP--such as focus groups, in-depth interviews, behavioral analysis, audience segmentation and social marketing--to the development of new communication activities related to growth monitoring counseling, AIDS, latrine construction, and micronutrients.

The institutionalization of a systematic approach to developing health communication activities within the DES and DSMI was specifically recognized in the European Economic Community's evaluation of its funding for child survival activities in the region, as a model for the rest of Central America. Similarly, USAID's external evaluation of the Health Sector II Project commended the effectiveness of NCP and HEALTHCOM technical assistance in transferring social marketing techniques to MOH counterparts.

The institutionalization of communication strategies and technologies in the Honduran MOH is also evidenced by the continued application of the rigorous health communication planning methodology after the completion of NCP assistance. Also, the MOH's annual operating budget continues to include funds for the contracting of radio broadcasts, production of graphic materials, training of trainers, and field supervision of health communication activities.

XI. EVALUATION

A. Evaluation Plan and Methodology

The project's evaluation plan sought to determine whether desired changes in health worker and mother knowledge and infant feeding behavior occurred as a result of the breastfeeding promotion program. Specifically, the evaluation focused on awareness of the key messages and on the practice of exclusive breastfeeding in the first six months of life. Data to measure the program's effects were collected in two surveys of health workers and of mothers of children under six months: a pre-intervention or baseline survey (conducted in February-April 1991), and a post-intervention survey (in May-June 1993) carried out after a 21-month breastfeeding promotion effort.

Because the study design was originally conceived as quasi-experimental, with an intensive intervention to be conducted only in Health Regions IV and V and Region VII to serve as a control, the baseline surveys were carried out in these three regions. Since the MOH later decided that the breastfeeding promotion program would be extended nationally, covering all regions in the country but with a less intensive intervention, the evaluation could no longer be based on a comparison of intervention and control regions. Instead, the revised evaluation design called for a pre-post comparison of health workers and mothers based on the actual degree of access or exposure they reported to have had to the different elements of the intervention. For health workers, the intervention channels considered in the evaluation were training and access to print materials. For mothers, the intervention channels were exposure to radio broadcasts, exposure to print materials, and interpersonal contacts with health personnel at the facility and community level. Financial constraints dictated that only two regions be surveyed in the post measurement--Regions V and VII. Consequently, the baseline data used in the pre-post comparisons exclude Region IV.

For both the pre and post measurements, the sampling unit was the facility. A multi-stage sampling approach was used to select the study sites. Facilities were first stratified by type: (a) small rural health posts staffed by an auxiliary nurse, known as *Centros de Salud Rurales* or CESARs; (b) medium-sized health centers, staffed with one or more doctors and nurses, known as *Centros de Salud con Médico* or CESAMOs; and (c) large urban health centers, often based in hospitals, known as CESAMOs Urbanos. Because there are about three times as many CESARs as CESAMOs in each region, approximately half of the CESAMOs and about 20% of the CESARs were randomly selected for the purpose of ensuring that data collection was extended throughout each region. Once a facility was selected, all available personnel at the facility were interviewed. The sample universe for mothers

consisted of mothers with infants six months of age and under living in each of the communities in the catchment area of the health facility.

B. Impact of the Breastfeeding Promotion Program on Health Workers

The evaluation⁴ concluded that all components of the intervention were carried out, but not with equal coverage and completeness. For health workers (i.e., facility-based nurses and physicians), the distribution of print materials attained high levels of coverage in both study regions, particularly the poster and the flip chart. Significant increases in access to key print materials were observed at the final survey, compared with the levels found in the baseline. The overall amount of materials available in each region was, however, not as high as had been originally planned, due both to the decision to extend the intervention nationally rather than limit it to two regions and to logistical difficulties encountered in the distribution of the materials.

Coverage of training activities was lower than expected, and the quality of the training seems to have varied significantly by area. Retrospective information shows that 75% of all health workers were trained in Region V, but only 32% in Region VII. While the training intervention seems to have adhered to the model curriculum and cascade approach in Region V, it appears not to have been extended systematically below the area level in Region VII.

From the pre to the post measurement, the proportion of personnel acknowledging access to print materials (promotional and educational posters, reference guide for personnel, cloth or cardboard flip charts, flip chart manuals, and comic books) increased from 62% to 86%. That increase is statistically significant ($p \leq .001$).

The study found that in the aggregate, the intervention significantly increased the overall breastfeeding knowledge of health personnel and their knowledge of the appropriateness of exclusive breastfeeding in the first six months of life. The intervention seems to have been instrumental in making service providers more knowledgeable about the revised MOH norm which extended the recommended period for exclusive breastfeeding from four to six months.

With respect to the impact of individual intervention components, print materials demonstrated the most positive effect on health worker knowledge. Access to posters and flip charts seems to have had a wider impact than did access to the reference guide designed for health personnel. Figure B illustrates the impact of exposure to the breastfeeding print materials on overall knowledge. Average scores on the overall knowledge scale increased from 38.6% to 66.8% among those exposed to the print materials but from 37.8% to only 55.0% among staff not exposed.

Training had no statistically significant effects on improving knowledge of health workers. While the

⁴ For a complete discussion of the evaluation results, see Hernandez, Orlando, Marquez, Lani and Parlato, Margaret. Assessment of the Impact of a National Intervention to Promote Exclusive Breastfeeding in Honduras. AED/NCP February 1995.

study did not collect process information which might explain why the training failed to have an impact, it appears that the cascade approach as implemented resulted not only in wide variations in coverage by health area, but also in the quality and thoroughness of the training content received by health workers at the facility level. It is also hypothesized that the training plan, which covered five different health and nutrition topic areas, may have led to insufficient time devoted to breastfeeding.

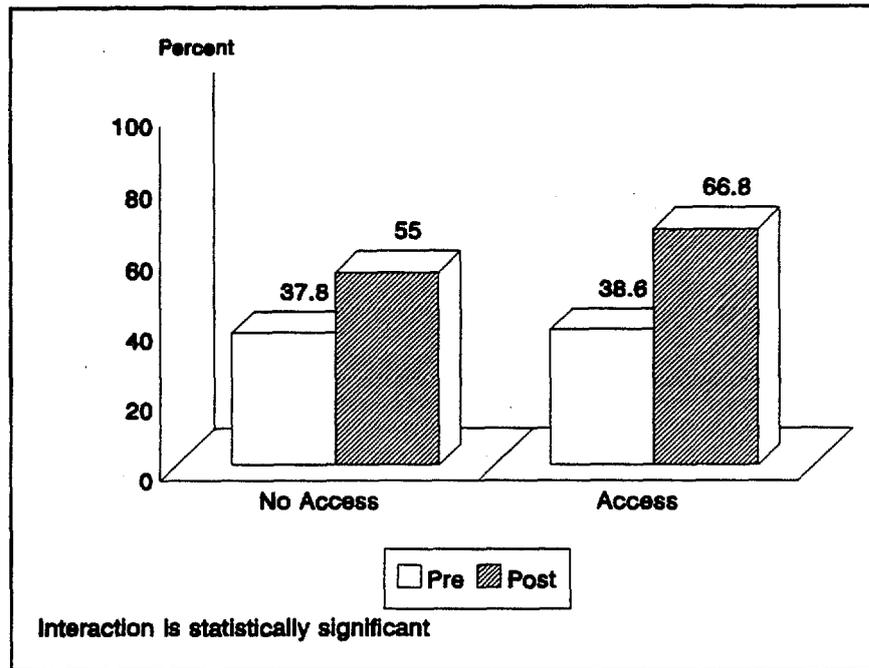
Although the training activities as implemented did not systematically include traditional midwives (i.e., midwives were trained in some regions but not in others), because of the predominant role of midwives in providing prenatal, delivery and postnatal care in Honduras, the final survey included midwives. The evaluation found that midwives had modest but statistically significant knowledge gains from the pre to the post measurement. Despite the modest knowledge improvements which occurred, the post survey indicated that only a minority of midwives were aware of the appropriateness of exclusive breastfeeding in the first six months. The knowledge level of midwives at the post measurement regarding exclusive breastfeeding was comparable to that of mothers but much lower than that of nurses and physicians. Concerning knowledge of techniques for overcoming barriers to successful breastfeeding, at the post measurement, midwives demonstrated roughly the same results as those of nurses and physicians. The most critical knowledge gaps found among midwives at the post measurement were those relating to the introduction of water, other liquids and solids prior to six months of age; the majority of midwives continued to recommend the initiation of supplementary feeding at earlier ages.

Since midwives have extensive contact with mothers both prenatally and after delivery, future breastfeeding training programs need to pay particular attention to training these key community health agents. (In the survey regions, 66% of mothers consulted with a midwife during their last pregnancy.)

C. Impact of the Breastfeeding Promotion Program on Mothers' Knowledge and the Practice of Exclusive Breastfeeding

The coverage among mothers surveyed of the breastfeeding radio broadcasts and print materials was good. The radio spots reached nearly half of all target mothers, and the poster was seen by some two-thirds of the mothers interviewed. Mothers reported very limited exposure to print materials other than the poster. Although opportunities for interpersonal contacts about breastfeeding were good (82% of mothers interviewed received some prenatal care and 35% of mothers received some type of postnatal care at MOH facilities), the actual frequency of reported interpersonal contacts with health workers in which breastfeeding topics were discussed was quite low. Very few mothers had participated in group talks on breastfeeding. The message most frequently remembered by mothers as having been communicated by health workers during their contacts--"only breastmilk in the first six months"--was recalled unprompted by 13% of mothers who received prenatal care at MOH facilities, by 4% of mothers who saw midwives prenatally, and by 17% of mothers who received postnatal care at MOH facilities.

FIGURE B
Improvements in Overall Knowledge Scores and Access to Print Materials
All Health Workers



The radio messages most commonly remembered by mothers were the campaign's main slogan, "breastmilk and nothing else in the first six months," which was recalled unprompted by 52% of mothers who had heard radio broadcasts, and "don't give foods in the first six months" (mentioned by 17% of mothers). When asked on which radio stations they had heard these messages, by far the most commonly cited station was *Radio América*, one of two stations with national coverage that was used to broadcast breastfeeding messages; some 46% of mothers who had heard breastfeeding spots on the radio cited *Radio América* as a source. The two next most commonly cited stations had regional coverage only in Region V: *La Voz del Occidente* (cited by 17% of mothers) and *Radio Sultana* (cited by 13%).

Overall exposure to the breastfeeding promotion intervention was associated with knowledge gains among mothers in several areas, and these effects were heightened when exposure was narrowed to the specific channel, radio. Of particular note is the difference in knowledge about giving water to newborns, an area identified as especially deficient in the baseline survey: 45% of exposed mothers knew not to give water, compared with 29% of mothers not exposed to the intervention.

Exposure to the radio broadcasts proved to be strongly associated with higher scores on virtually all knowledge items, underscoring the striking effect which radio had in improving mothers' knowledge.

The most important increases found related to mothers' knowledge of the appropriate feeding of newborns and the introduction of water and solids beginning at six months. Exposure to print materials was also associated with knowledge increases among mothers, but because the main print material seen by mothers was the single-message poster, it is likely that these knowledge effects were actually the result of simultaneous exposure to radio. Counseling, either individually or in groups, appears to have been infrequently practiced by health workers or not practiced effectively, and consequently, seems to have had little independent impact on mothers' knowledge.

Most importantly, the evaluation found that increases in mothers' knowledge were strongly associated with increased practice of exclusive breastfeeding through the first six months and in particular, in the first and sixth months. The prevalence of exclusive breastfeeding in the first month increased from 48% at the baseline to 75% among high knowledge mothers at the post measurement, and in the sixth month, from 7% at the baseline to over 20%. While the improvement seen at the post measurement in the practice of exclusive breastfeeding was most pronounced among high knowledge mothers, a generalized improvement occurred for all mothers.

As seen in Figure C comparing all the mothers at the baseline and final surveys, the breastfeeding promotion program resulted in gains in prevalence of exclusive breastfeeding of 22 percentage points at one month, 7 percentage points at four months, and 5 percentage points at six months. Figure D shows the difference in exclusive breastfeeding between high and low knowledge women at the final survey (the shaded area). The data indicated that the low knowledge women--those who either were not reached by the intervention or for whom exposure did not result in improved knowledge--showed exclusive breastfeeding practices similar to those of the women surveyed prior to the intervention, i.e., showed little change from the baseline scenario.

The evaluation also examined the changes in specific feeding behaviors which underlie the increase in the prevalence of exclusive breastfeeding. The rise in exclusive breastfeeding appears to be mainly the result of decreases in mothers giving their infants water and other non-milk liquids. At six months of age, the use of water declined by about 17 percentage points (from 78% at the pre to 61% at the post), and the giving of other non-milk liquids (e.g., sugar water, broths) dropped by 18 percentage points (from 26% to 8%). The prevalence of giving cow's or powdered milk and solids each declined by about 10 percentage points.

FIGURE C
Exclusive Breastfeeding By Age of Child
Pre-Post Comparison, All Cases

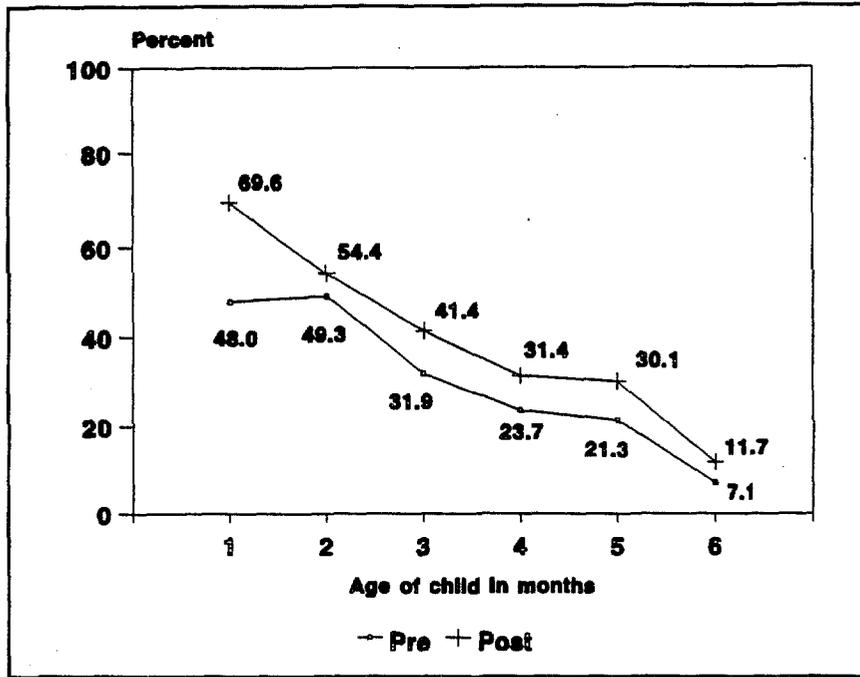
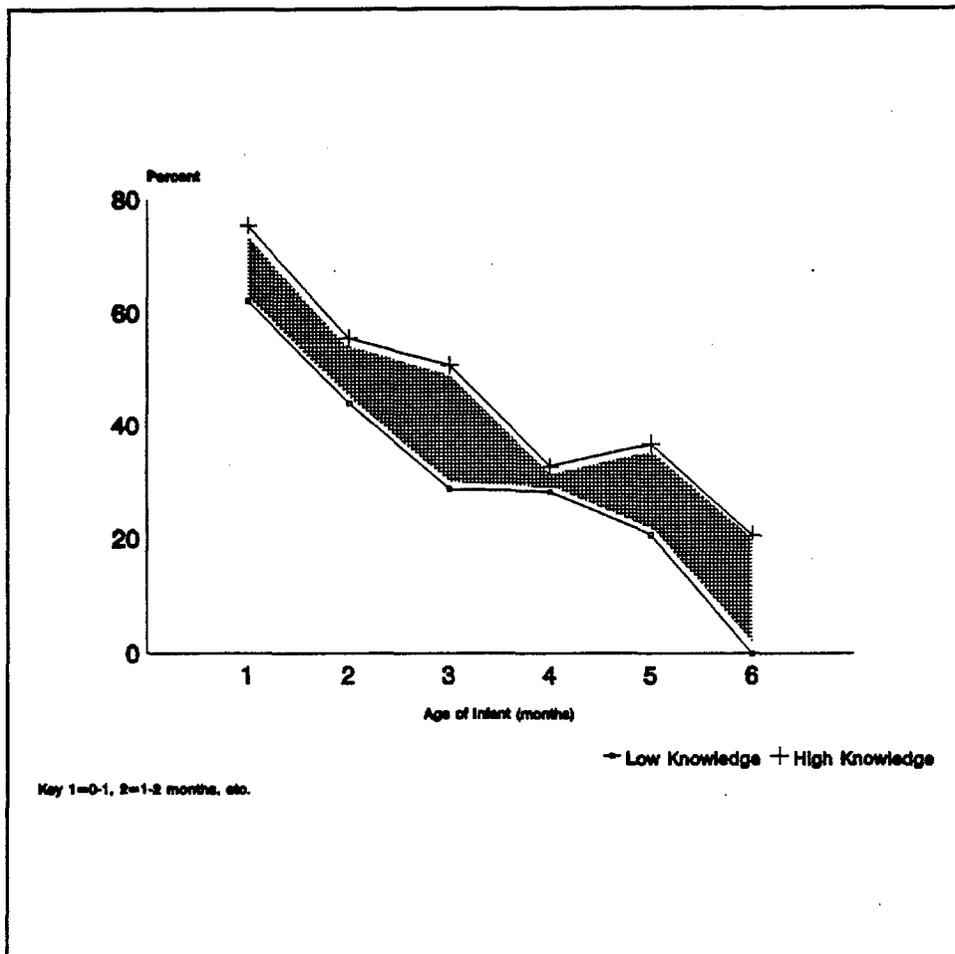


FIGURE D
Exclusive Breastfeeding by Age of Child and
by Knowledge Level of Mother at Post Measurement



While there was a generalized tendency among all mothers to abandon exclusive breastfeeding as the child got older, the persistence of exclusive breastfeeding was markedly higher among high knowledge women, and the magnitude of the difference was maintained across age groups. Among mothers of children between five and six months of age, exclusive breastfeeding was practiced by 7% of all mothers at the baseline and by 21% of high knowledge mothers at the time of the final survey. This difference suggests that improved knowledge has the potential to improve practices across the first six months, and not simply raise the proportion of women who initiate exclusive breastfeeding.

The largest and most statistically significant difference in breastfeeding practice was observed between the baseline group and the high knowledge mothers at the post measurement in the case of mothers with children up to one month of age. For that age group, the percentage of mothers

surveyed who practiced exclusive breastfeeding increased from 48% to 75% between measurements. The likely explanation for this sharp increase is the effect of radio spots broadcast over a five-week period in Region V shortly before the conduct of the final survey, since, as can be seen in Figures E and F below, a steep increase was observed in Region V and only a modest increase in Region VII. It is hypothesized that mothers who had recently delivered were the most influenced by these messages.

Figure E shows that in Region VII--the lower intensity intervention site--there was an improvement in exclusive breastfeeding among all age groups, with the largest gains occurring among the youngest children. The largest pre-post increase of 9% occurred among children being exclusively breastfed in the first month of life. This improvement begins to taper off at four months, when it drops to 6.5%. At six months of age, the percentage of exclusively breastfed children is practically the same in both the baseline and final measurements.

FIGURE E
Exclusive Breastfeeding by Age of Child
Pre-Post Comparison, Region VII

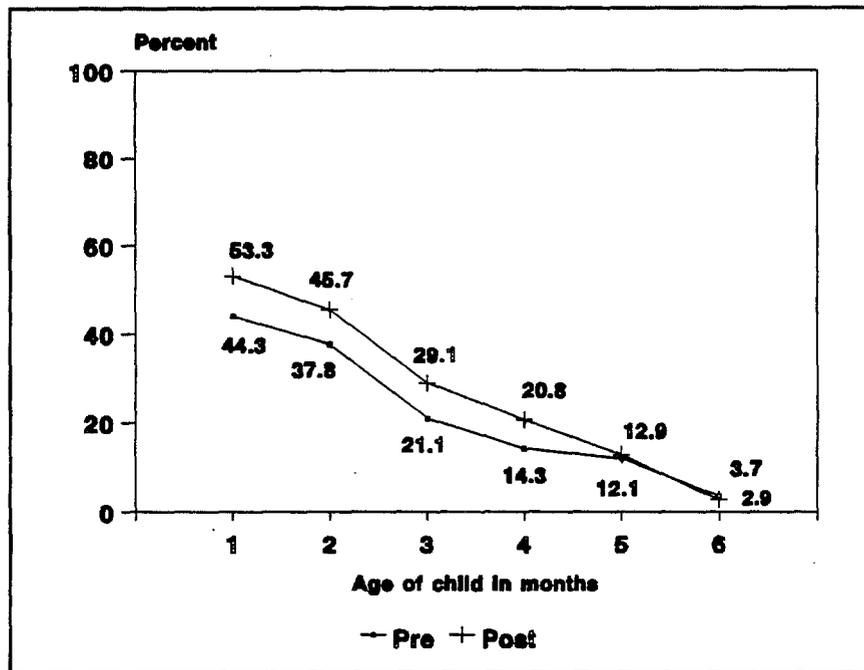
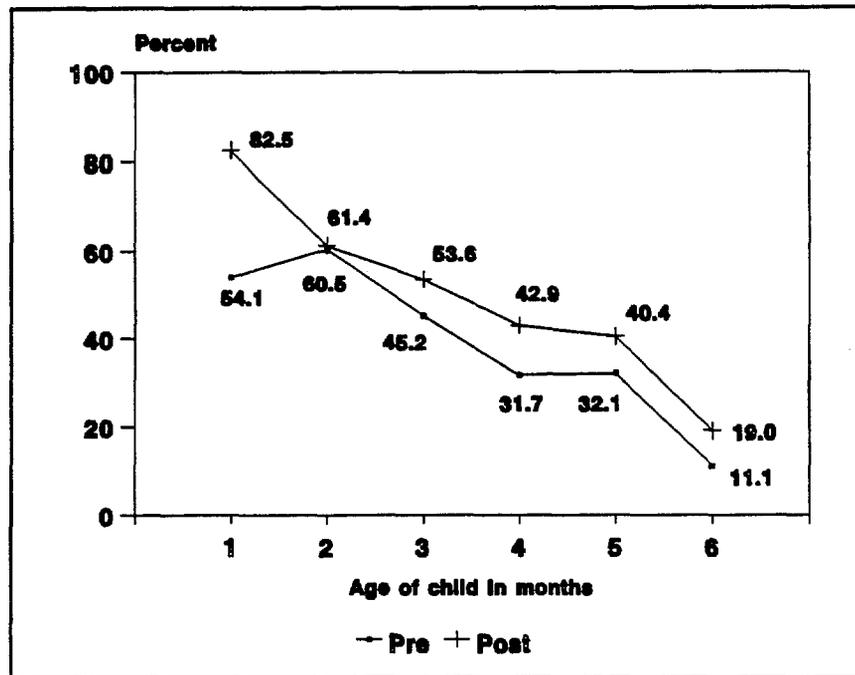


FIGURE F
Exclusive Breastfeeding by Age of Child
Pre-Post Comparison, Region V



A more sustained level of improvement in the practice of exclusive breastfeeding across age groups was seen from the pre to the post in Region V, the high intensity intervention area. Figure F shows that the largest absolute difference between the pre and post measurements occurred at one month of age, with exclusive breastfeeding rising from 54% to almost 83% of children, an increase of more than 28%. The magnitude of this increase makes it likely that it is attributable to the radio spots, which were broadcast only in Region V in the weeks before the final survey. Mothers with newborns who heard the spots promoting exclusive breastfeeding may have been particularly open to trying out a new feeding behavior.

An equally important improvement seen in Region V was the increase in the prevalence of exclusive breastfeeding among the later age groups, where pre-post differences of about 8% were maintained at five and six months, in contrast to the lack of difference found in Region VII at these two age groups. The regional differences found suggest a fairly broad range of potential for increasing the practice of exclusive breastfeeding in Honduras.

XII. CONCLUSIONS AND LESSONS LEARNED

A. Conclusions on the Impact of the Breastfeeding Promotion Program

In the aggregate, the communication program significantly increased the overall breastfeeding knowledge of health personnel and their specific awareness of the appropriateness of exclusive breastfeeding in the first six months of life. The intervention seems to have been instrumental in making service providers more knowledgeable about the concept of exclusive breastfeeding and the revised MOH norm which extended the recommended period for exclusive breastfeeding to six months.

The evaluation found that the intervention achieved its ultimate objective of increasing the prevalence of exclusive breastfeeding in the first six months of life. For mothers, exposure to the intervention--especially the radio component--was associated with knowledge gains in several areas. The more important result, however, was that increases in mothers' knowledge were strongly associated with increased practice of exclusive breastfeeding through the first six months and in particular, the sixth month.

With respect to the effectiveness of individual components of the breastfeeding promotion intervention, the evaluation concluded that:

- **Training** as carried out made little or no difference at all in improving knowledge or behavior of health workers. It is likely that the cascade approach used in the intervention resulted not only in wide variations in coverage by health area, but also in the quality and thoroughness of the training content received by health workers at the facility level. Further, the duration of the training may have been too short to deal with the main breastfeeding promotion messages with sufficient depth when several other child survival topics were also covered.
- **Print materials** demonstrated a positive effect on health worker knowledge. Access to posters and flip charts seems to have had a wider impact than did access to the reference guide. The impact of the reference guide seemed to be limited to certain content areas, and it appeared to have been more useful for physicians than for nurses. Because of the decision to spread the resources nationally and the consequent limitations on the amount of print materials that eventually reached the facility level, the exposure of mothers to the flip charts and comic books was limited, and thus their impact could not be fully assessed.
- Exposure to the **radio broadcasts** was strongly associated with higher scores for mothers on virtually all knowledge items and thus led indirectly to the observed increase in the prevalence of exclusive breastfeeding.

- **Counseling**, either individually or in groups, was not carried out as planned and consequently had no measurable impact on mothers' knowledge.

B. Recommendations for Future Programs

The final evaluation of the breastfeeding promotion program identified lessons that could be learned from the Honduras project to improve the effectiveness of similar interventions in the future. Recommendations are organized by major component of the breastfeeding communication program.

Behavioral Objectives and Strategy

- ▶ Breastfeeding interventions should set specific behavioral objectives. The Honduras project demonstrated that identifying specific breastfeeding-related behaviors to promote yields positive results. The focus on eliminating the practice of giving water and other liquids during the first six months worked well as a conceptual entry point to get mothers to begin eliminating harmful practices. Since it is not feasible to address all harmful practices at once, communication strategies should target a limited number of practices which are the most harmful and yet susceptible to change. The Honduras project achieved encouraging results in terms of modifying practices that pose a threat to infant feeding. Given that it takes time to change feeding habits, continued effort will be required to shift community norms about the optimal way to feed infants.
- ▶ The Honduras strategy emphasized facility-based activities and radio. Yet given the heavy counseling requirements posed by the promotion of exclusive breastfeeding, the potential effectiveness of a community component (such as mother-to-mother support groups) should be tested.

Training

- ▶ The five-day integrated child survival training model used in Honduras proved difficult to replicate at the local level. Trainings which integrate a broad range of topics may require well-structured follow-up in order to have impact, especially if several new content areas are being introduced.
- ▶ The way in which training activities are organized and conducted should consider alternatives that would adapt the training approach to the resources available at the local level. Greater flexibility in the format for presenting the breastfeeding content at the facility level is required to meet the knowledge and skills needs of the different levels of health worker. The use of self-teaching approaches (in the context of professional continuing education) may be an appropriate alternative for physicians and licensed nurses.

- ▶ Given their importance as providers of pregnancy and post-partum care in Honduras, midwives need to be the focus of a concerted training effort to improve the persistent breastfeeding knowledge gaps identified in the pre- and post-measurement surveys.

Print Materials

- ▶ More fine-tuned audience segmentation would enhance the impact of print materials. It may be more appropriate to view physicians, nurses and nurse auxiliaries as different target audiences for certain print materials (e.g., reference guide) to ensure that the level of detail and language are appropriate to the respective health worker's training and job description.
- ▶ There is a particular need for the development and widespread dissemination of print materials to support midwives and community-based workers in their activities to promote breastfeeding, such as the manual developed in collaboration with the Liga de la Leche of Honduras.
- ▶ In view of the evaluation results, in future campaigns, consideration should be given to producing fewer types of materials but ensuring that sufficient quantities are available at the local level to enable their intended use. Each medium has its own characteristics which govern the number needed to attain a desired saturation level. These ratios must be worked out in each country context.

Radio

- ▶ The impact of radio on mothers' knowledge and practices underscores the value of repeated transmission of key messages through multiple campaign waves, instead of "one-shot" approaches.
- ▶ Because popular national radio stations seem to have a greater reach than regional stations, future mass media campaigns should reassess the cost/benefit trade-offs of broadcasting more messages on fewer, mainly national stations, versus fewer messages on a larger number of regional and local stations. The mix of national, regional and local stations now used by the MOH for its communication campaigns may need adjustment from time to time as listenership and broadcast costs change.
- ▶ The use of radio programming other than short spots (e.g., the breastfeeding series presented on the weekly radio call-in show) proved popular and should continue to be supported. The possibility of targeting radio programming at health workers should also be assessed.

Interpersonal Communication by Health Workers

- ▶ In view of the limited practice and effectiveness of breastfeeding promotion as part of routine patient-health worker encounters in health facilities, future interventions should explore in more depth the constraints to counseling which exist in many primary care settings (e.g., patient flow, task allocation, time availability) to develop alternatives to the traditional health talks and unstructured patient education which often predominate. More intensive training of professional and community personnel in interpersonal communication is needed as well as improved supervision and support systems that adopt a quality assurance approach.
- ▶ Tools to support interpersonal communication on optimal breastfeeding practices--such as check lists, counseling cards, and flip charts--should be more widely disseminated to all health workers who deal with mothers. Having a range of basic materials may help health workers to respond more effectively to the different counseling/education time frames and opportunities that they encounter.
- ▶ Further experimentation is recommended to identify practical and cost-effective packages of training and support materials to foster effective counseling in different clinic contexts.

Monitoring/Evaluation Activities

- ▶ Process indicators that are collected from the intervention's start-up and that permit program managers to monitor the degree to which the intervention is being carried out as planned, should be incorporated into the evaluation plan for future interventions. Such documentation is essential to understanding the "why" behind evaluation results.
- ▶ The monitoring of process and impact indicators in future breastfeeding promotion interventions would be strengthened by being linked, as much as is feasible, to routine supervision activities. For example, supervisors could apply brief observation check lists to determine how well pertinent aspects of the intervention are working. Similarly, supervisors could be trained to do rapid exit interviews with mothers to see if the messages are getting through.
- ▶ The costs of implementing each intervention component (i.e., training, support, materials, mass media, etc.) should be measured and related to impact data, to inform policy decisions about how best to invest scarce resources.
- ▶ Training interventions should preferably be evaluated soon after the training has occurred. Ideally, training should be evaluated using both immediate and delayed measurements to document the short-term and more lasting effects of training activities.

- ▶ Evaluations of mass media interventions should explicitly examine the impact of radio broadcasts on health worker knowledge to determine if and how radio programs targeted to mothers affect health workers. Although radio is not often targeted at health workers, the medium may have more broad-ranging impact than heretofore found in evaluation studies.

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ANNEXES

- ANNEX 1: Final Scope of Work for NCP Assistance in Honduras**
- ANNEX 2: Photographs of Key Educational/Promotional Materials**
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- ANNEX 4: Distribution of Other Promotional Materials**
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ANNEX 1
Final Scope of Work for NCP Assistance in Honduras

October 23, 1989 through August 15, 1993

1. Develop and implement educational programs to promote growth monitoring and improve breastfeeding. The breastfeeding program will have two rounds of communications activities and will include formative research (both qualitative and quantitative) of the target population; development of a comprehensive implementation plan (covering objectives, specific messages, target groups, media strategies, and evaluation plan); design and pre-test of two rounds of materials; production of one round of materials; training of health and community personnel; and monitoring and evaluation. The growth monitoring program will include development of a communication strategy and a training design for interpersonal communication.
2. Provide support to the La Leche League/Honduras in developing educational materials for breastfeeding counselors and mothers. This activity will be carried out in coordination with the MOH and will include formative research, design and pre-testing of materials.
3. Conduct on-the-job training, in coordination with HealthCom, for the Ministry of Health on communications planning; research; mass media campaign development and implementation.
4. Conduct pre-campaign training of health and community workers in message content and counseling skills for priority nutrition areas and in decision-making techniques for growth monitoring.
5. Provide technical assistance to the Ministry of Health in designing the new growth monitoring promotion program. This may include assistance in developing a pilot program and training plan for growth monitoring personnel.
6. Evaluation of the breastfeeding communication program.
7. Provide the USAID/Honduras Health Sector II project officer with two quarterly and one final reports summarizing the resident advisor's progress in executing the activities comprising the scope of work.

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ANNEX 2

Photographs of Key Educational/Promotion Materials

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1 Calendar



2 Flipchart and guide



3 Comic book



5 T-Shirt



4 Cap and T-Shirt

ANNEX 3

Distribution of Educational Print Materials

MINISTERIO DE SALUD PUBLICA (MSP)

Asistencia Técnica: PCN/AED

**DISTRIBUCION DE MATERIALES EDUCATIVOS IMPRESOS
SOBRE LACTANCIA MATERNA 1992/1993 - PRIMERA ETAPA**

DESTINATARIO	POBLACION (En caso de Región)	# UPS (En caso de Región)	TOTAL CANTIDADES ENTREGADAS						
			AFICHE EDUCAT.	AFICHE PROMOC.	MINI ROTAFO.	GUIA USO ROT	GUIA BREVE	HISTOR. GRAFIC.	ROTAFO. TELA
Región Metro	767781	31	3800	3700	312	450	720	4282	36
Región # 1	387462	89	2750	2500	235	525	850	2600	92
Región # 2	459648	95	2850	2600	259	475	960	2900	98
Región # 3	1447353	124	5500	4800	408	700	1440	5300	127
Región # 4	531606	109	2750	2500	242	525	960	2900	114
Región # 5	521171	108	3100	2900	298	625	880	3400	113
Región # 6	566842	82	2900	2600	240	475	880	2900	87
Región # 7	268770	61	2200	2050	192	310	620	2300	66
Región # 8		16	1300	1100	57	50	54	200	22
MSP/NIV.CENTRAL			1500	2900	86	275	580	1800	15
OPD			700	1200	46	250	620	880	18
OTROS			650	1150	25	186	427	538	12
TOTAL ENTREGADO		715	30000	30000	2400	4846	8991	30000	800
TOTAL PRODUCIDO			30000 *	30000 *	2400	5000	10000	30000 *	800
EN EXISTENCIA AL 15-06-1993			0	0	0	154	1009	0	0

* 10,000 Ejemplares producidos por el UNICEF

ANNEX 4

Distribution of Other Promotion Materials

ANEXO #4

MINISTERIO DE SALUD PUBLICA (MSP)

Asistencia Técnica: PCN/AED

**DISTRIBUCION DE MATERIALES EDUCATIVOS
SOBRE LACTANCIA MATERNA, IRA Y TRO/SEGUNDA ETAPA
1992/1993**

DESTINATARIO	POBLACION (En caso de Región)	# UPS (En caso de Región)	TOTAL CANTIDADES ENTREGADAS			
			PAÑUELO IRA/LM	MOVILES TRO/LM	GORRAS LM	CAMISE- TAS/LM
Región Metro	767781	31	2000	1000	50	220
Región # 1	387462	89	1000	500	10	15
Región # 2	459648	95	1000	500	10	15
Región # 3	1447353	124	2000	1000	20	180
Región # 4	531606	109	1000	500	20	15
Región # 5	521171	108	1000	500	40	15
Región # 6	566842	82	1000	500	10	15
Región # 7	268770	61	1000	500	10	15
Región # 8		16	500	100	10	15
Nivel Central MSP			480	200	50	600
OPD			1300	250	20	325
OTROS			400	320	19	180
TOTAL ENTREGADO		715	12680	5870	269	1610
TOTAL PRODUCIDO			36000	10000	269	1610
EN EXISTENCIA AL 15-06-1993			23320	4130	0	0

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ANNEX 5

Training Events in which NCP Participated

SV

MINISTERIO DE SALUD PUBLICA (MSP)
Asistencia Técnica: PCN/AED

**EVENTOS DE CAPACITACION SOBRE
LACTANCIA MATERNA Y CONTROL DEL CRECIMIENTO**
(Fondos: Sector Salud II y UNICEF)

FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
1990 26/01 10, 17/02	DAN, Tegucigalpa	8	Educadores, Nutricionistas	Metodología de Comunicación y Educación. 4.5 horas c/evento.
26-27/03	Región #1, Tegucigalpa	11	Promotores, Educadores, Nutricionistas	Importancia de la Comunicación en Salud Pública . LM y SI. 2 horas
25-26/04	MSP, Tegucigalpa	13	Enfermeras, Médicos, Educadores, Nutric.	Discusión de Resultados de Investigación Cualitativa de LM. 2 horas
10/07	DES, Tegucigalpa	7	Diseñistas Gráficos, Educadores, Médicos	Taller Diseño de Comunicación y Educación para la Salud . 3 horas
28-31/08	DES/DAN, Tegucigalpa	24	Trabajadores Sociales, Nutric., Promotores, Estudiantes	Metodología Investigación Cualitativa , Capacitación Investigadores. 4 horas
1991 28/01	DES, Tegucigalpa	23	Trabajadores Sociales, Nutric., Promotores, Estudiantes	Presentación del Plan de Promoción de LM . Discusión sobre aspectos críticos de la inv.de línea de base.
12/03	DSMI, Tegucigalpa	30	Médicos, Enfermeras, Educadores, Trabajadores Sociales	Revisión de Estudios Cualitativos . Entrevistas en Profundidad. Grupos Focales. 3 horas.

FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
23/03	DES, Tegucigalpa	6	Educadores, Nutricionistas	Escritura de Guiones para Cuñas. 8 horas.
16/07	DSMI, Tegucigalpa	8	Enfermeras y Educadores	Presentación del Plan LM. 4 horas
07/08	DES, Tegucigalpa	26	Entrevistadores, Médicos, Educadores	Discusión de Patrones de Comportamiento sobre LM. Plan LM. 2 horas.
13/08	DAN, Universidad, Tegucigalpa	35	Enfermeras, Educadores, Médicos	Introducción al Proceso de Comunicación en Salud. Reorganización Currículo Enfermeras. 3 horas.
19/11	Universidad, Tegucigalpa	65	Enfermeras, Promotores, Estudiantes	Presentación Resultados Preliminares Estudios Realizados. 2 horas
5-6/12	Región Metropolitana, Tegucigalpa	23	Ingenieros Sanitarios, Promotores	Presentación Estrategias LM y Manejo de Materiales. 2 horas (Capacitación de Capacitadores)
1992 28-29/01	Región Metropolitana, Tegucigalpa	15	Médicos, Trabajadores Sociales, Nutric., Promotores, Ingenieros y Educadores	Presentación Estrategias de LM (Capacitación Capacitadores). 5 horas
4-5/02	Región Metropolitana, Tegucigalpa	10	Médicos, Promotores, Personal de Vectores, Región #8, La Mosquitia	Presentación Estrategias de LM (Capacitación Capacitadores). 5 horas
10-12/02	Región #5, Santa Rosa de Copán	15	Médicos, Enfermeras, Trabajadores Sociales, Vectores, Ingenieros	Presentación Estrategias de LM (Capacitación Capacitadores). 5 horas

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FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
24-25/02	Región #1, Tegucigalpa	17	Enfermeras, Trabajadores Sociales, Nutricionistas Promotores, Ingenieros, Educadores	Presentación Estrategias de LM (Capacitación Capacitadores). 5 horas
4-6/03	Región #6, La Ceiba	17	Enfermeras, Médicos, Promotores, Evaluadores de Vectores	Presentación Estrategias de LM, IRA Y Manejo Nutricional de la Diarrea. 15 horas
10-13/03	Región #7, Juticalpa	14	Médicos, Enfermeras, Promotores, Evaluadores de Vectores	Presentación Estrategias de LM, IRA y Manejo Nutricional de la Diarrea. 15 horas
24-27/03	Región #3, Santa Bárbara	27	Médicos, Enfermeras, Promotores, Evaluadores de Vectores	Presentación Estrategias de LM, IRA y Manejo Nutricional de la Diarrea. 15 horas
6-10/04	DES, Tegucigalpa	11	Consultora INCAP, Consultora Independiente Personal DES y DSMI	Diseño de Investigación Etnográfica para Alimentación Complementaria. 25 horas
15/05	Instituto de Alcoholismo y Drogadicción, Tegucigalpa	21	Promotores, Analistas, Capacitadores, Educadores	Taller sobre Metodología NCP. 5 horas
28-29/05	Universidad, Escuela de Enfermería y Extensión Universitaria, San Pedro Sula	16	Ingenieros, Nutric., Enfermeras, Educadores, Administradores	Aplicación de la Metodología a una Campaña de Huertos Familiares. 16 horas

FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
25-28/05	Región #4, Choluteca	24	Médicos, Enfermeras, Promotores, Vectores	Presentación Estrategias de LM, IRA y Manejo Nutricional de la Diarrea. 15 horas
16/06	Hotel Alameda, Tegucigalpa	64	Médicos, Enfermeras, Educadores, Nutric., Voluntarias LLL	Presentación de los Resultados del Estudio de Línea de Base LM en el Primer Encuentro de LM y Planificación Familiar.
25-26/06	Región #2, Hospital de La Paz	22	Médicos, Enfermeras, Educadores, Auxiliares de Enfermería	Presentación sobre la Estrategias de LM para el Componente de CCDI, Atención Integral del Niño (AIN). 6 horas
21/07	DES, Tegucigalpa	14	Educadores, Promotores, Enfermeras	Taller sobre la Preparación de una Campaña Educativa (próxima Campaña de LM). 4 horas
5/08	La Liga de la Leche, San Pedro Sula	110	Personal de OPD, Seguro Social, Gobierno y Particulares	Estrategias de Comunicación y Educación para Promover la LM. 2 horas
15/08	Hotel Plaza, Universidad, Tegucigalpa	68	Médicos, Enfermeras, Personal OPD, Gobierno, y Universidad	Conferencia "El Mercadeo Social y la LM". 2 horas
17-18- 19/08	Región #5, La Entrada, Copán	24	Médicos, Evaluadores de Vectores, Promotores Enfermeras, Nutricionistas	Capacitación del Personal del Área #3, de la Región #5 Metodología Educativa, Uso de Materiales de LM, Apoyo a Madres. 32 horas

FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
18/09	Hotel Maya, Universidad Nacional, Tegucigalpa	27	Docentes y Estudiantes de la Escuela de Enfermería	Taller sobre la Estrategia de Comunicación Educativa de LM del MSP/PCN. 4 horas
25/09	Hotel Maya, Programa Mundial de Alimentos (PMA), Tegucigalpa	28	Personal de las Regiones y Empleados de OPD	El Papel del Comunicador en los Programas de Alimentación y Nutrición. 2 horas
28/09	Región #2, Comayagua, La Paz	13	Médicos, Enfermeras	El Papel de la Educación en el Programa de CCDI. Atención Integral al Niño. 6 horas
30/09	Región #5, Santa Rosa de Copán	15	Médicos, Enfermeras Educadores, Nutricionistas	El Papel de la Educación en el Programa de CCDI. Atención Integral al Niño. 6 horas
8/10	DAN, Tegucigalpa	9	Médicos, Educadores, Nutricionistas	Presentación de borrador para Estrategia Educativa de Micronutrientes. 1 hora
4-6/11	Antigua, Guatemala	22	Voluntarias LLL, Médicos, Educadores	Taller sobre Diseño, Prensayo y uso de Materiales Educativos sobre LM. Apoyo Madre-Madre. 3 horas
10/11	Gloriales, Tegucigalpa	12	Asesores, Jefes de Divisiones MSP	Presentación de Proyecto Educativo y Presupuesto de Micronutrientes. 2 horas

FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
2-4/12	INFOP, Tegucigalpa	17	Enfermeras, Extensionistas, Médicos, Facilitadores, Administradores	Metodología PCN para OPD: Visión Mundial, Vecinos Mundiales, Apóstol de la Salud, PRODIM, Proyecto HOPE, AHLACMA, PRODAI, Comisión Cristiana de Desarrollo.
14-17/12	Aldea Las Mercedes, Comayagüa	26	Médicos, Enfermeras, Asesores	Ejercicio de Investigación Acción, Entrevistando a Madres y Entregando Información en Sesión Comunal. 8 horas
17/12	Hotel Maya, Tegucigalpa	48	Trabajadores Sociales	Taller sobre Orientación y Educación para la Madre en LM y Alimentación Complementaria. 4 horas
1993 27-29/01	Región #5, Santa Rosa de Copán y Areas	15	Médicos, Enfermeras, Educadores	Educación y Participación Comunitaria en el Programa de CCDI. 10 horas
9-11/02	Región #5, Santa Rosa de Copán y Areas	12	Educadores, Enfermeras, Nutricionistas	Investigación Cualitativa, Grupos Focales y Entrevista en Profundidad, CCDI. 10 horas
12/02	Región #1, Tegucigalpa	24	Equipo Regional	Presentación de Estrategia de AIN, CCDI. 3 horas
2/03	Región Metropolitana, Tegucigalpa	12	Equipo Regional	Presentación de Estrategia de AIN, CCDI. 3 horas
5-6/03	Región #7, Juticalpa	22	Equipo Regional	Presentación de Estrategia de AIN, CCDI. 3 horas

FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
8-10/03	Región #5, Santa Rosa de Copán	18	Equipo Regional	Taller sobre Investigación Cualitativa, Grupos Focales (GF), Entrevistas en Profundidad (EP). 16 horas
2/04	Hotel Plaza, WellStar/LLL, Tegucigalpa	52	Médicos, Enfermeras, Voluntarias, Educadores, otros	Promoción de la LM y el Mercadeo Social. 1 hora
14-15/04	Región #2, Siguatepeque	24	Médicos y Enfermeras Profesionales	Presentación de Estrategias de AIN, CCDI. 8 horas
16-17/04	Región #4, Choluteca	21	Médicos y Enfermeras Profesionales	Presentación de Estrategias de AIN, CCDI. 8 horas
20-22/04	Región #5, Santa Rosa de Copán y Areas	14	Médicos, Enfermeras, Educadores	Capacitación Personal Regional y de Area sobre Investigación Cualitativa 16 horas
26/04	OPS, Tegucigalpa	32	Cientistas Sociales, Asesores Internacionales, Funcionarios del GDH, personal de Salud	Presentación sobre la Investigación Cualitativa y su Papel en los Programas Educativos de Supervivencia Infantil. 2 horas
3-4/05	Región #4, Choluteca	13	Encuestadoras	Validación Instrumentos Segunda Toma de Datos, Investigación LM. 16 horas
10-15/05	Hotel Maya, OPS, Tegucigalpa	36	Periodistas del Sector Privado y Público de Centroamérica	III Curso Centroamericano de Periodismo y Salud: Nutrición y Enfermedades Crónicas. Conferencia La Comunicación Educativa y la Nutrición Infantil. 2 horas

FECHA	LUGAR	# DE PARTICIPANTES	TIPO DE PARTICIPANTES	DESCRIPCION DEL EVENTO
19-21/05	Región #2, Comayagua	14	Médicos, Enfermeras, Educadores	Taller de CCDI, con personal Regional y de Area. 16 horas
23-24/05	Región #5, Santa Rosa de Copán	13	Encuestadoras	Segunda Toma de Datos, Investigación de LM. Manejo de Instrumentos. 8 horas
25-27/05	Región #2, Comayagua La Paz	19	Médicos, Enfermeras, Educadores	Capacitación Investigación Cualitativa de CCDI. 16 horas

ANNEX 6

Text of the Radio Spots

MINISTERIO DE SALUD PUBLICA
DIVISION DE EDUCACION PARA LA SALUD

CUÑAS RADIALES
LACTANCIA MATERNA

SPOT # 1

TEMA: CALOSTRO
DURACION: 30 SEGUNDOS
FORMATO: DIALOGO

CONTROL BULLICIO DEL MERCADO... VA DE FONDO

MARIA (GRITANDO) Doña Cleotilde...

CLEOTILDE (DE SEGUNDO A PRIMER PLANO) ¿Qué andas haciendo miya?

MARIA Comprando las cosas, ya me va a tocar... y a propósito, usted que es partera; que leche me recomienda para mi tierno al nacer.

CLEOTILDE La primera leche

MARIA ¿La primera leche?

CLEOTILDE (RIENDO) Si, es la que tiene toda madre cuando el niño nace.

MARIA ¡Ah, una que es como aguita!

CLEOTILDE Y que después se hace espesa y de color amarilla.

MARIA ¿Y será buena?

CLEOTILDE Es es lo mejor. No hay que darle otra cosa. La primera leche lo llena, le limpia el estómago, y le sirve de vacuna porque lo protege.

CONTROL BAJA EL BULLICIO Y SALE JINGLE

LOCUTOR MINISTERIO DE SALUD PUBLICA

SPOT # 2

TEMA: ALIMENTACION DE LA EMBARAZADA Y LACTANTE

DURACION: 30 SEGUNDOS

FORMATO: DRAMATIZACION

CONTROL JINGLE... VA DE FONDO.

MARIO Hey Luis, últimamente veo que estás comiendo bien...

LUIS ¿Por qué decís eso?

MARIO Todos los días llevas algo, que frijoles, que arroz, que verduritas, se nota que estás comiendo bien.

LUIS Eso no es para mi hombre.

MARIO ¿Y para quien, pues

LUIS Son para mi esposa.

MARIO ¿Para tu esposa?

LUIS Claro toda mujer que está embarazada y dando de mamar debe comer más.

MARIO ¿Comer más?

LUIS Así es...

MARIO ¿Y cuando nazca el niño le vas a comprar alimentos

LUIS Si, pero para dársela a mi mujer y a mi hijo lo vamos a alimentar sólo con pecho y nada más.

CONTROL SUBE MUSICA

LOCUTOR MINISTERIO DE SALUD PUBLICA

SPOT # 3
TEMA: LACTANCIA EXCLUSIVA
DURACION: 30 SEGUNDOS
FORMATO: DIALOGO

CONTROL: JINGLE... LIGA CON LLANTO DE TIERNO EN SEGUNDO PLANO... VA DE FONDO

ANA ¡Hola Cristina!...¿Pero que esta haciendo?

TINA Una sopita para mi tiernito que tiene hambre.

ANA Pero si esta muy chiquito, déle mejor su leche materna.

TINA ¿Mi leche materna?

ANA Si... En los primeros seis meses no debe darle ninguna otra cosa, ni agua, ni otras leches, ni tes, ni chupón, ni tampoco otros alimentos.

TINA ¿Por qué?

ANA Porque la leche materna tiene todo lo que el niño necesita.

TINA (CON PICARDIA) Entonces esta sopita me la voy a tomar y a mi tiernito, en los primeros 6 meses solo pecho y nada más.

LOCUTOR MINISTERIO DE SALUD PUBLICA

SPOT # 4

TEMA: ALIMENTACION DESPUES DE LOS 6 MESES

DURACION: 30 SEGUNDOS

FORMATO: DIALOGO

CONTROL JINGLE... BULLICIO DE CALLE... VA DE FONDO.

MARTA ¡Caramba Juanita, ya días no lo miraba!

JUANITA Ah, es que ahora paso más tiempo en la casa atendiendo a mi hijo.

MARTA ¿Ya ha de estar grande, verdad?

JUANITA Si... Ya cumplió los 6 meses y ando comprando unas verduritas para él.

MARTA ¿Ya no le da pecho?

JUANITA Si y le voy a seguir dando hasta que tenga dos años, pero de los 6 meses en adelante es necesario darle también otras comiditas.

JUANITA Para que crezca sano.

MARTA Para que crezca sano.

CONTROL DESAPARECE BULLICIO... SALE MUSICA...

LOCUTOR MINISTERIO DE SALUD PUBLICA.

SPOT # 5
TEMA: PRODUCCION DE LECHE
FORMATO: CONSULTORIO RADIOFONICO
DURACION: 30 SEGUNDOS

CONTROL AMBIENTE DE CENTRO DE SALUD

SEÑORA Doctor, ¿Qué debo hacer para tener siempre suficiente leche para mi niño?

DOCTOR Déle en los primeros seis meses sólo leche materna y nada más.

SEÑORA ¿Por qué Doctor?

DOCTOR Porque... La producción de leche en la madre está relacionada con las veces que amamanta el niño... Entre más mama, más leche produce la madre.

SEÑORA ¿Y que pasa si uno le da otras comiditas o bebidas?

DOCTOR Por cada comidita el niño, pierde una amamantada... y si el niño mama menos, la leche de la madre comienza a secarse.

SEÑORA Para produccir suficiente leche, en los primeros seis meses a mi niño le daré sólo pecho y nada más.

DOCTOR Muy bien.

CONTROL JINGLE

SPOT # 6

TEMA: LACTANCIA MATERNA Y PREVENCIÓN DE LAS DIARREAS

FORMATO: DIALOGO DOCTOR/MADRES

DURACION: 30 SEGUNDOS

CONTROL JINGLE... VA DE FONDO

LOCUTOR 1 Doctor ¿Qué alimentos debo darle al niño para que crezca sano y fuerte?

DOCTOR Déle sólo leche materna y nada más

LOCUTOR 2 ¿Y para evitar las diarreas que debo darle?

DOCTOR Déle sólo leche materna y nada más

LOCUTOR 3 Doctor ¿Es verdad que al amamantar al niño uno lo protege contra el cólera?

DOCTOR Si sólo le da pecho sí... Pero si le da pepes, agua o comidas lo puede contaminar por eso den a sus niños leche materna y nada más, la leche de la madre no contamina, siempre es limpia y saludable.

LOCUTOR MINISTERIO DE SALUD PUBLICA

ANNEX 7

Radio Spot Broadcast Schedule: 1991, 1992 and 1993

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MINISTERIO DE SALUD PUBLICA (MSP)

Asistencia Técnica: AED/PCN

**INVENTARIO DE EMISIONES RADIALES
SEPTIEMBRE-DICIEMBRE, 1991
(Fondos: Contraparte Nacional, Sector Salud II/AID)**

COBERTURA	REGION/CIUDAD	EMISORAS	# CUÑAS POR DIA	HORARIO	PERIODO 122 DIAS	TOTAL
Nacional	Tegucigalpa	América	2	6:00 a.m y 8:34 p.m	Del 1-09 al 31-12	244
Regional	Región #4			Entre		
	Choluteca	Valle	20	4:20 a.m y 2:10 p.m	Del 1-09 al 31-12	2440
	Choluteca	Victoria	25	5:00 a.m y 5:00 p.m	Del 1-09 al 31-12	3050
	Choluteca	Juvenil	29	6:00 a.m y 8:00 p.m	Del 1-09 al 31-12	3538
	San Marcos de Colón	Meridiano	25	6:00 a.m y 9:30 p.m	Del 1-09 al 31-12	3050
San Lorenzo	La Voz del Pacífico	26	5:00 a.m y 4:00 p.m	Del 1-09 al 31-12	3172	
Regional	Región #5			Entre		
	Santa Rosa Copán	La Voz de Occidente	25	5:10 a.m y 8:00 p.m	Del 1-09 al 31-12	3050
	Santa Rosa Copán	Sultana	20	5:10 a.m y 9:00 p.m	Del 1-09 al 31-12	2440
	Santa Rosa Copán	Santa Rosa	29	5:15 a.m y 8:15 p.m	Del 1-09 al 31-12	3538
	Gracias	Ecos de Celaque	26	6:00 a.m y 6:15 p.m	Del 1-09 al 31-12	3172
Ocotepeque	La Voz de la Frontera Señorial	25	6:20 a.m y 6:10 p.m	Del 1-09 al 31-12	3050	
	GRAN TOTAL		252			30,744

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MINISTERIO DE SALUD PUBLICA (MSP)
Asistencia Técnica: AED/PCN

INVENTARIO DE EMISIONES RADIALES 1992
CAMPAÑA NACIONAL DE LACTANCIA MATERNA
(Fondos: UNICEF)

COBERTURA	REGION/CIUDAD	EMISORAS/ PROGRAMAS	# CUÑAS POR DIA	HORARIO	PERIODO 14 DIAS	TOTAL	
Nacional	Metropolitana Tegucigalpa	América	12	De 6:00 a 18:00	Del 24-7 al 07-08	168	
		La Verdad	2	19:00	Del 24-7 al 07-08	28	
		El Recuerdo	2	7:00	Del 24-7 al 07-08	28	
		Tegucigalpa	12	De 6:00 a 18:00	Del 24-7 al 07-08	168	
		R.C.N.	12	De 6:00 a 20:00	Del 24-7 al 07-08	168	
Regional	Región #1 Danlí	Danlí	25	De 5:00 a 20:00	Del 24-7 al 07-08	350	
		Paraíso	20	De 5:00 a 20:00	Del 24-7 al 07-08	280	
		Oriental	20	De 4:30 a 18:00	Del 24-7 al 07-08	280	
		Noticiero					
		Impacto	2	7:00	Del 24-7 al 07-08	28	
	Región #2 Comayagua	Impacto	15	De 6:00 a 21:00	Del 24-7 al 07-08	210	
		Corporación	15	De 6:00 a 21:30	Del 24-7 al 07-08	210	
		Dinorama	15	De 5:30 a 18:00	Del 24-7 al 07-08	210	
		Suari	20	De 5:00 a 18:00	Del 24-7 al 07-08	280	
		La Tribuna del Pueblo	2	12:00	Del 24-7 al 07-08	28	
	Región #3 San Pedro Sula	Tiempo	18	De 8:00 a 22:00	Del 24-7 al 07-08	252	
		Ondas del Ulúa	18	De 5:00 a 22:00	Del 24-7 al 07-08	252	
		La Voz del Atlántico	25	De 6:00 a 20:00	Del 24-7 al 07-08	350	
Noticias a las 12		2	12:00	Del 24-7 al 07-08	28		

COBERTURA	REGION/CIUDAD	EMISORAS/ PROGRAMAS	# CUÑAS POR DIA	HORARIO	PERIODO 14 DIAS	TOTAL	
Regional	Región #4 Cholulteca	Victoria	20	De 8:00 a 22:00	Del 24-7 al 07-08	280	
		Juvenil	18	De 14:00 a 23:00	Del 24-7 al 07-08	252	
	Región #5 Santa Rosa Copán	Santa Rosa	20	De 6:00 a 20:00	Del 24-7 al 07-08	280	
		Ecos de Celaque	20	De 6:00 a 19:30	Del 24-7 al 07-08	280	
		Ticante	22	De 5:00 a 18:00	Del 24-7 al 07-08	308	
	Región #6 La Ceiba	La Voz de Atlántida	20	De 6:30 a 20:00	Del 24-7 al 07-08	280	
		Trujillo	22	De 6:00 a 19:00	Del 24-7 al 07-08	308	
		Tocoa	25	De 6:00 a 20:00	Del 24-7 al 07-08	350	
	Región #7 Juticalpa	Juticalpa	18	De 6:00 a 19:30	Del 24-7 al 07-08	252	
		Majestad	16	De 5:30 a 18:30	Del 24-7 al 07-08	224	
		Catacamas	20	De 6:00 a 19:30	Del 24-7 al 07-08	280	
	Región #8 La Mosquitia	Sani	25	De 4:30 a 19:00	Del 24-7 al 07-08	350	
		GRAN TOTAL		483			6,762

MINISTERIO DE SALUD PUBLICA (MSP)
Asistencia Técnica: AED/PCN

INVENTARIO DE EMISIONES RADIALES 1993
SEGUIMIENTO
(Fondos: Contraparte Nacional, Sector Salud II/AID)

COBERTURA	REGION/CIUDAD	EMISORAS	# CUÑAS POR DIA	HORARIO	PERIODO 38 DIAS	TOTAL
Regional	Región #5 Santa Rosa Copán	Santa Rosa	17	De 5:00 a 21:00	Del 1-05 al 7-06	646
		Ecós de Celaque	26	De 5:30 a 18:30	Del 1-05 al 7-06	988
		Congolón	15	De 5:15 a 17:15	Del 1-05 al 7-06	570
		Soberanía	7	De 5:45 a 20:05	Del 1-05 al 7-06	266
		La Voz de La Frontera	15	De 6:15 a 17:45	Del 1-05 al 7-06	570
		Estereo Copán	11	De 6:25 a 22:25	Del 1-05 al 7-06	418
		Sultana	10	De 5:30 a 16:45	Del 1-05 al 7-06	380
		La Voz de Occidente	10	De 4:55 a 20:55	Del 1-05 al 7-06	380
		GRAN TOTAL		111		

ANNEX 8

Call-in Questions from Mothers on the Weekly Radio Program

Ministerio de Salud Pública
División de Educación para la Salud

Programa Radial de
Lactancia Materna
Preguntas elaboradas por las Madres Oyentes
(16-07-92)

1. ¿Cuánto tiempo se debe amamantar a los niños?
2. Mi niño no hace pupú ¿que hago?
3. ¿Estoy tomando antibiótico, afecta mi leche materna para dar de mamar?
4. ¿Por qué a veces los tiernos no quieren mamar?
5. Estoy dando Lactancia Materna Exclusiva a mi hijo de casi 6 meses.
 - a. ¿Por qué tiene anemia moderada?
 - b. ¿Por qué dice el doctor que está decrecido?
 - c. ¿Es verdaderamente justificable empezarle a dar leche en polvo especial?
6. ¿El niño hace pupú muy duro que hago?
7. Tomo pastillas anticonceptivas ¿afectan la leche materna? Tengo un tierno de 3 meses y le suspendí el pecho, ahora tiene 4 y quiere volver a mamar ¿hay algún impedimento?. ¿Qué hago? Me busca la chiche.
8. ¿Es peligroso dar de mamar con la menstruación?

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Programa Radial de
Lactancia Materna
(30-07-92)

1. Tengo un bebé de 2 meses y una semana, sólo le dí pecho por 39 días y no le volví a dar, porque estaba adelgazando mucho y le puse el pepé, siempre tengo leche y una amiga me aconseja que le vuelva a dar pecho al niño, pero otras personas dicen que es malo porque pasó mucho tiempo sin darle lactancia materna ¿que me aconseja?
2. Mi hija tiene una tierna y los pechos se le han puesto duros, congestionados cuando iba a dar de mamar, yo le puse pañitos tibios de pimienta gruesa y le bajó la leche. ¿Considera usted que este puede ser un buen método?
3. ¿Se puede sacar leche y tenerla en un pepito para estar dándole al bebé y cuánto tiempo puede mantenerse en buen estado sin ser tocada, y después de haber tocado el pepito el bebé cuánto tiempo puede durar la leche materna? Yo trabajo y me interesa dejarle a mi hijo leche materna para que tome.
4. Tengo un bebé que va a cumplir 11 meses y yo trabajo, ¿Cuánta cantidad de leche materna necesita y hasta que edad debo dejar de darle pecho?

Programa Radial de
Lactancia Materna
(23-07-92)

1. ¿Es malo planificar dando de amamantar?
2. ¿Qué se hace cuando la madre está enferma? ¿Hay que suspender la lactancia materna?
3. ¿Si hay otra persona que este dando de mamar (familiar, vecina o amiga) pudiera ésta amamantar a otro niño, que su madre se encuentre indispuesta?
4. ¿Si hay problemas que afectan al pecho (mastitis) hay que suspender el amamantamiento?
5. ¿Las medicinas que ingieren las madres, pueden afectar la leche materna y ser peligroso para el bebé?
6. ¿Dar de mamar y tener relaciones sexuales es dañino para la leche materna?
7. ¿Si estoy dando de mamar y quedo embarazada debe continuar la latancia materna?
8. ¿Qué se hace cuando la madre está hospitalizada y está dando de mamar?

Programa Radial de
Lactancia Materna
(13-08-92)

1. Tengo una hermana que tiene un niño de año y medio que al principio el niño no quería pecho, y ella empezó a darle pepe. Nosotros la regañabamos porque es mejor el pecho y ella decía que el niño rechazaba el pecho, ella está embarazada otra vez y creemos que puede suceder lo mismo y no le va a dar pecho ¿Qué podemos hacer?

El niño también sufre de mucha diarrea, ¿Es está la razón por la que ella no le dió pecho?

2. ¿A los seis meses se les puede dar comiditas, sopitas a los niños?
3. ¿Es cierto que los niños al darle de mamar hasta los tres años sobre todo los varones echan sangre por la nariz?
4. ¿Cuál es el tiempo indicado para quitarle el pecho a mi hijo? Tiene 14 meses ¿y qué método puedo usar para quitarle el pecho?
5. Tengo un niño de 5 meses y estoy trabajando y me saco leche, pero ayer no me saque porque no tenía lo suficiente y le estoy dando leche Nido, aunque sólo se toma 2 pepes al día y le doy comidita y jugos. ¿Cómo puedo hacer yo para sólo darle de mamar y quitarle el pepe? ¿O está bien así como lo estoy haciendo?

Programa Radial de
Lactancia Materna
(20-08-92)

1. Tengo un bebé que tiene 18 meses y dejó de mamar a los 7 meses, yo me operé (esterilice) pero mantengo siempre leche materna en mi busto. ¿Cree usted que debo amamantar a otro bebé o sacarme esa leche de mi busto aunque a mi no me molesta? Quisiera saber respecto a esto: Tengo un sobrino de 4 meses en la casa y él se pega, es bueno que yo lo amamante?
2. Tengo una niña de 1 año y dos meses, desde que nació le doy pecho, pero ahora ella está grande y los médicos me dicen que le quite el pecho, que no le dé más. ¿Cómo pudiera yo hacer para quitarle el pecho? ¿Y qué pudiera tomar? Tengo otro problema, tengo un busto más grande que el otro, ¿Cree que al dejar de dar de mamar vuelva al estado normal?
3. Mi tierno tiene 26 días y desde el lunes no hace pupú, y las veces que ha hecho fue el domingo y le dí maná y hizo duro, desde entonces no ha defecado. También como a las 6 ó 7 de la noche le doy pepito porque no me baja suficiente leche y él llora bastante, entonces la leche que le estoy dando es Prosovi y dice la lata que es para niños delicados del estómago; no sé si es eso lo que le está dañando.
4. ¿Qué clase de alimentación debe tener una madre que está lactando? ¿Es posible que el niño se contamine con alimentos con chile o alcohol que la madre ingiere?
5. Tengo un bebé de 5 días y ha estado haciendo pupú ralo y bien amarillo, quisiera saber a qué se debe esto, pues sólo le doy pecho.
6. Tengo un bebé de 6 meses y medio, la semana pasada estuve tomando Linasa con manzanilla el lunes, martes y miércoles, y la leche materna mermó. Lo comprobé porque quería dejarle 3 onzas y me costo mucho sustraerme la leche sólo pude conseguir 2 onzas y 1/2 ¿Cree usted que la Linasa seca las glándulas de mama? Sé que hay que tomar 8 vasos de agua al día, ¿Se cuenta los jugos entre estos 8 vasos o tienen que ser aparte para producir más lactancia materna?
7. ¿Qué puedo hacer para producir más lactancia materna, pues mi busto es pequeño? Mi bebé tiene 17 días y tengo que tomar bastante líquido pero no es suficiente, ¿qué puedo hacer?

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MFC/MLM

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Programa Radial de
Lactancia Materna
(10-09-92)

1. ¿Es cierto que la leche materna puede ser la causante de producirle diarrea a mi niño de 13 meses?
2. A mi niño le doy sólo leche materna y a otro niño de la misma edad se le ve más gordito y está alimentado con leche en polvo ¿a qué se debe esto?
3. Mi niña tiene 10 meses y la enfermera me dijo que tenía poco peso cuando la lleve a control de niño sano, me preocupa pues yo le doy comidita y jugos. Pesa 18 libras me gustaría que me aconsejara ¿qué puedo hacer?
4. Mi niño sólo tiene 6 meses y sólo le doy pecho, ¿qué otra cosa le puedo dar de comer? También tengo problema de un pecho, el bebé sólo quiere mamar de uno y el otro se me está secando la leche que debo hacer?
5. Tengo una niña que va a cumplir 6 meses, ella tiene vasca y diarrea, está evacuando seguido y sólo le estoy dando pecho, ¿qué puedo hacer?