

PN-ACB-036
94661

**PRELIMINARY ANALYSES OF THE
GROWTH AND SUSTAINABILITY OF
LA LECHE LEAGUE, GUATEMALA**

June 22-June 27, 1996

Sandra L. Huffman, Sc.D.

BASICS Technical Directive No. 000 HT 54 013
USAID Contract No. HRN-6006-C-00-303 1-00

1

TABLE OF CONTENTS

ACRONYMS

EXECUTIVE SUMMARY	1
PURPOSE OF TRIP	2
BACKGROUND	2
La Leche League	2
Latin American Nutrition Strategy and INCAP	2
TRIP ACTIVITIES	3
La Leche League	3
Latin American Nutrition Strategy and INCAP	3
RESULTS AND CONCLUSIONS	3
La Leche League Surveys	3
Data Collection Methods	3
Coverage Survey in Limón	4
Survey Design	4
Results	4
Survey of <i>Monitoras</i>	5
Survey Design	5
Results	6
Latin American Nutrition Strategy and INCAP	7
FOLLOW-UP ACTION REQUIRED	8
La Leche League	8
Latin American Nutrition Strategy and INCAP	8

APPENDIXES

APPENDIX A	CONTACT LIST
APPENDIX B	PRELIMINARY RESULTS: Coverage Survey
APPENDIX C	PRELIMINARY RESULTS: Monitors Survey

ACRONYMS

ARI	Acute Respiratory Tract Infections
ILSI	International Life Sciences Institute
INCAP	Instituto de Nutricion de Central American y Panama
LLLG	La Liga de la Leche de Guatemala
LLLI	La Leche League International
NGO	Non-governmental organization
ORT	Oral Rehydration Therapy
PVO	Private Voluntary Organization
WHO	World Health Organization

EXECUTIVE SUMMARY

Purpose of Trip

I went to Guatemala in June 1996 to help the staff of La leche League of Guatemala (LLG) review the data collected and develop analysis plan for two surveys to assess the sustainability of their volunteer network of breastfeeding counselors.

Background

The LLLG has worked in low income communities of Guatemala City since 1989 to promote breastfeeding through volunteer breastfeeding counselors (*monitoras*). The counselors run support groups and counsel women through home visits and informal contacts. They also make referrals to health centers for ARI, diarrhea, prenatal care, and child spacing. These activities have continued since 1992, in spite of severe funding cuts. BASICS is supporting LLLG in its attempt to assess reasons for the sustainability of these efforts.

Trip Activities

Along with LLLG staff, I reviewed the results of two surveys and helped them develop analysis plans. In the coverage survey, 501 women of reproductive age were interviewed in 1 *colonia* outside Guatemala City (Limon) to assess the reach of the counselors. The purpose of the survey of 101 *monitoras* was to assess the level of activities of volunteer counselors.

Dr. Barry Smith, BASICS regional advisor, and I also met staff at INCAP to discuss a possible role for BASICS to help INCAP with private sector marketing of products to improve nutritional status of young children and women of fertile age. They were quite interested in pursuing this activity.

Results and Conclusions

Both active and non-reporting *monitoras* were involved in infant feeding support activities: 93 percent of the active and 77 percent of the non-reporting *monitoras* had held informal counseling sessions with mothers in the last three months, and 84 percent and 37 percent, respectively, had made home visits. Seventy-one percent (71%) of all *monitoras* had made referrals to women for health services in the last three months.

Follow-up Action Required

I will review the results of the analyses as they are produced by LLLG and will review the draft report once it is written.

1

9

I will discuss the possibility of working with INCAP on private sector with BASICS. I will contact ILSI about Maggie Fischer attending the July conference in Washington on processed weaning foods and discuss with Camille Saadé his possible attendance at the INCAP conference in August.

PURPOSE OF TRIP

La Leche League of Guatemala completed two surveys during the months of April and May 1996 to assess sustainability of their activities. I went to Guatemala to review the data and help develop the analysis plans.

I also met with Dr. Barry Smith to discuss the BASICS nutrition strategy for Latin America and the role that INCAP can play, especially in relation to private sector activities.

BACKGROUND

La Leche League

LLLG has been working with low income mothers since 1989 to develop a network of mother-to-mother support to promote optimal feeding practices. They have trained 214 *monitoras* from 8 *colonias* in peri-urban areas of Guatemala City. These *monitoras* form a volunteer network of women who provide support within their communities to help mothers breastfeed and to refer them, as necessary, to local health services.

The maintenance of the volunteer network, from 1992-1996, with minimal funding led to this study to determine how the network functioned and the characteristics of the *monitoras* who continued to work in the program. The purpose of this study was to assess the sustainability of activities in peri-urban areas of Guatemala City.

Latin American Nutrition Strategy and INCAP

In 1993, in a meeting of the presidents of Central America, a resolution was signed which instructed INCAP to provide technical support to the Initiative for Food and Nutrition Security in Central America and Panama. One part of the nine components in INCAP's strategy is to work with the private sector, especially on the formulation, production, and processing of nutritionally improved foods. While INCAP has had much experience in the technological aspects of the development of highly nutritious low cost foods for women and young children (*Incaparina*—a processed weaning food, *Galleta Escolar*—a school biscuit, and a recently developed biscuit for women—*Galleta para mujeres*), it has only limited expertise in the marketing of such foods. Thus, while widely available, *Incaparina* has had limited impact on improving the nutritional status of poor children.

TRIP ACTIVITIES

La Leche League

The La Leche League staff and I reviewed the frequencies to assess the accuracy of the data and the preliminary cross-tabulations to assess preliminary results. We then developed the plans for additional analyses. I helped familiarize Maritza de Olive, the researcher responsible for data collection and analyses, with recoding in Epi-Info. We then went over desired analyses and the breakdowns into groups for comparison purposes.

Latin American Nutrition Strategy and INCAP

Smith and I met with Dr. Hernan Delgado, Maggie Fischer, and Veronika de Palma to discuss a possible role for BASICS in helping INCAP to market products they have developed to improve the nutritional status of women and young children.

Appendix A gives the people contacted during this trip.

RESULTS AND CONCLUSIONS

La Leche League Surveys

Data Collection Methods

In April and May 1996, LLLG conducted two surveys, one among women of reproductive age in Limon (coverage survey) and the other among *monitoras* throughout the eight *colonias* where LLLG has worked (*monitoras* survey).

There were four interviewers who collected the data for this survey. Three of these women had previously worked with LLLG and thus, were familiar with the areas covered by the survey. Initially the interviewers were trained for one and one-half days.

The questionnaires were designed and pre-tested in another *colonia* where *monitoras* were working (Santa Fe). The questionnaires were then modified and the interviewers trained for two half-days. One of the interviewers acted as the supervisor who was in the field with the interviewers.

Once the data were collected, they were checked for completeness by the supervisor and entered into Epi-Info 5.1. They were then re-entered to check for consistency and any errors noted were corrected.

Coverage Survey in Limón

In order to assess the coverage of the *monitoras*, a survey was conducted among women of reproductive age living in a defined area within one of the eight *colonial* where LLLG has been working over the last eight years. The *colonia* of Limón was chosen because it has a high proportion of active *monitoras* and because the *monitoras* are concentrated within a fairly defined area. There is also a government health center (Santa Elena) located nearby, with which the LLLG collaborates closely and in which a support group is run.

Limón, with a population of about 12,000, is divided into 10 sectors. There are about 83 *manzanas* (blocks) within the 10 sectors, with a population of about 145 people per *manzana*. The number of houses (*lotes*) in each *manzana* ranges from about 1-35. Additional people live within several *asentamientos* (settlements) where immigrants have invaded the land in the last year, but are outside the sectors. While *monitoras* also work within the *asentamientos*, because these areas have not been included in a census, we do not know the population size of this area and thus, they were not included within the sampling frame for this survey. Also many living in the *asentamientos* only recently moved to Limón.

There were 10 active *monitoras* working in Limón in October 1994 (the date of the last completed count of *monitoras*) out of 20 who were trained.

Survey Design

Based on discussions with the *monitoras*, the sites where they lived were noted on a map of the area which illustrated sectors, *manzanas* (blocks), and *lotes* (houses). The range in the number of houses within each sector often varied greatly. It was determined that an area of five sectors out of the ten sectors within Limón encompassed the primary focus of activities of the *monitoras*. The survey to assess the reach or coverage was started within the five sectors (2, 6, 7, 8, 9), but was extended to parts of sectors 10 and 3 when 500 women of reproductive age were not found in the initial five sectors.

All houses within the selected were included in the survey, and one woman of reproductive age living in each household was included. First mothers of children less-than-2-years were included, and then if there was a pregnant woman, she was included. Finally any woman of reproductive age (15-44 years of age) was included.

Results

There were 501 women included in this survey, including 46 pregnant women. There were fairly equal numbers of mothers of infants in each 6 month age grouping under age 1 year, but fewer than expected infants of 12-23 months of age (33 percent were less than 6 months; 34 percent were 6-11 months; 21 percent were aged 12-18 months; and 11 percent were 19-23 months of

age.) For the purposes of this study, the smaller proportion of older children in these two latter age groups is not a problem.

About half of the “mothers” in the survey were other women of reproductive age who either did not have children (n=72) or who had children over-2-years of age (n= 244). Of the 244 mothers of older children, 42 percent had children aged 2 to 5 years of age (Table 1, Appendix 2).

For purposes of analyses, women in the survey were divided into three groups: pregnant women and mothers of infants less-than-6-months of age, women with children 6-23 months of age, and other fertile women in the community. Pregnant women and those with young infants are the focus of efforts to promote exclusive breastfeeding. Those with children under-2 are those that *monitoras* should target in order to promote breastfeeding, referrals for child health services, family planning, and other services for women.

The mean age of the pregnant women and those with infants less-than-6-months of age was 24 years, 25 years for those with children under-age-2, and 32 years for other fertile women in the community (Table 2 in Appendix B). The mean number of children were 2.2, 2.5, and 2.7, respectively.

The coverage of these women was quite high. Of all women, 31 percent knew of a woman who promotes breastfeeding in the community, and in most cases, this woman was in fact a *monitora*. Of pregnant women and those with infants under-6-months of age, two-thirds had been visited in their home by a *monitora*. Additional preliminary results of this survey are shown in Table 3 of Appendix B

Survey of Monitoras

The purpose of the *monitora* survey was to obtain information on all *monitoras* who had been trained and supervised by LLLG since its work began in the peri-urban areas of Guatemala City. We were interested in learning about the activities of active *monitoras* and the non-reporting *monitoras* who continued to reside in their communities.

Survey Design

Since the inception of the program in 1988, LLLG has trained 214 *monitoras*. However, of those, 48 were *monitoras* who had been trained in 1992 for the Mormon Church and were excluded because they were supervised by the staff of the church, not LLLG. There were an additional 20 members of the Salvation Army who no longer worked in the communities, and 5 *monitoras* who worked in the Hospital Roosevelt. Thus, there were a total of 141 *monitoras* eligible for inclusion in the survey.

Interviewers tried to locate all 141 *monitoras* and interview them about their activities; 101 were located for an interview. The others had either moved out of their communities and one had died.

The completion rate was, therefore, 72 percent. For the analyses, the *monitoras* were divided into two groups: 1) “active *monitoras*,” those who had handed in monitoring forms during the preceding year, and 2) “non-reporting *monitoras*” who had not handed in forms. There were 45 “active” and 57 “non-reporting” *monitoras*.

Results

Nearly all (88%) the *monitoras* knew how to read and write. Their average age was 45 years, much higher than the women that they were working with, and on average, they had 4.1 children (Table 4 in Appendix B). There were few differences in socio-demographic characteristics based on whether they were active or non-reporting, except that active *monitoras* were more likely to be involved in other volunteer activities (84% versus 56%). Both groups were equally likely to also be working in paid employment (51%) (Table 5 in Appendix B).

Both active and non-reporting *monitoras* were involved in infant feeding support activities: 93 percent of the active and 77 percent of the non-reporting *monitoras* had held informal counseling with mothers in the last three months, and 84 percent and 37 percent, respectively, had made home visits. Seventy-one percent (71%) of all *monitoras* had made referrals to women for health services in the last three months (Table 6 in Appendix B).

The major difference between active and non-reporting *monitoras* was whether they held support groups: 76 percent of active volunteers had held one in the last year as compared to only 12 percent of non-reporting *monitoras*.

The number of paid professional staff of LLLG was reduced to two part-time positions in 1992, who supervise the activities of the *monitoras* with the help of six coordinators and four subcoordinators. These volunteer workers meet with LLLG staff in the LLLG office once a month for “mini-tallers” where the coordinators hand in the reporting forms they have collected from the *monitoras* in their area. The two paid staff also make field visits monthly to supervise the activities of the coordinators as they work with *monitoras*.

The preliminary results of these surveys suggest that this supervision plan has been one means to help maintain this program. While 26 percent of the *monitoras* had received a visit from a coordinator, nearly twice that percentage (45%) reported that they had received support from the coordinators, and 62 percent felt that they had received support from LLLG staff, with active *monitoras* much more likely to receive support from coordinators and LLLG staff. However even without continued supervision, non-reporting *monitoras* continue to provide support to women in their communities.

Future reports being compiled by LLLG staff on financing and other administrative aspects of the program will help provide additional information to illustrate factors associated with the sustainability of these efforts.

9

Latin American Nutrition Strategy and INCAP

Since malnutrition of young children begins during pregnancy, improving the nutritional status of women of fertile age to enhance their height and weight before they become pregnant, and then to help improve their nutritional status during pregnancy, is an important step in preventing malnutrition among children in Latin America. A snack food, such as a fortified biscuit, can help improve total calorie and nutrient intake because it is unlikely to replace other foods in the diet which are consumed during meals. The INCAP-developed *Galleta para mujeres* contains 278 calories, 4 gms of protein, and the appropriate micronutrients to help address the low intakes of many women. Its cost is estimated at \$0.07.

Another focus for improving diets is when children reach the age of 6 months, when breastmilk alone is no longer generally sufficient for growth. Between 6 months and 24 months, malnutrition increases dramatically and then generally by stabilizes by age 36 months. However, actions to improve complementary feeding have not often been successful because of the constraints families face in purchasing low cost, high nutrient foods; cooking several times per day; and encouraging young children to eat with sufficient frequency and supervision. The *Galleta Escolar* could be used for young child feeding because it does not require cooking. It could be mixed with liquids to provide a weaning food for children under age 1-year. The time needed for preparation would be reduced dramatically, allowing mothers and other family members to spend needed time in "active feeding." The *Galleta Escolar* contains 140 calories and costs about \$0.035.

Because BASICS has the expertise in working with the private sector, we were interested in exploring with INCAP ways that BASICS could help in obtaining private sector interest in marketing the *galletas* and other nutritionally enriched products in Central America.

INCAP is considering the use of public sector funds (including *Fondos de Inversion social-FIS* and *Fondo para la Paz*) to support some of the distribution of these *galletas* to low income groups. However, there is a role for the private sector to help market these foods to other groups as well, with the intention of encouraging consumption by all groups and preventing the products from being seen as "poor peoples' foods." INCAP has discussed the use of these product by higher income women since private physicians report difficulties in compliance by many of their private patients for consumption of vitamin/mineral supplements during pregnancy.

One of the next steps being taken by INCAP is a three day conference on the multiple mix foods for food technologists and nutritionists in Central America, with an open house to be held on the last day for the private sector. This conference will take place August 19-21. We discussed the possibility of Saadé from BASICS attending this meeting. Since the International Life Sciences Institute (ILSI), funded by the OMNI research project, is holding a similar meeting on processed weaning foods on July 29-30 in Washington, D.C., we also discussed the feasibility of Fischer attending the meeting.

Aside from these possible two next steps, we discussed the need for BASICS to develop a background strategy paper on this issue: how BASICS could work with INCAP in the future to market products to improve the nutritional status of young children.

FOLLOW-UP ACTION REQUIRED

La Leche League

1. LLLG will fax me the results as the analyses proceed so that I can check them.
2. Once a draft of the report is prepared, LLLG will fax it to me so that I can review it and make comments.

Latin American Nutrition Strategy and INCAP

1. Discussions will be held with Saadé and other BASICS staff to discuss the feasibility of working with INCAP.
2. If deemed feasible, a background project paper should be prepared which outlines the issues involved and details the type of technical assistance that BASICS could provide.
3. I will discuss the possibility of inviting Fischer to the ILSI meeting in July and the feasibility of Saadé attending the INCAP meeting in August. Saadé might also want to attend the July meeting at ILSI.

APPENDIXES

APPENDIX A
LIST OF CONTACTS

APPENDIX A List of contacts

La Liga de La Leche Materna de Guatemala (Staff)	Maryann Stone-Jimenez Mimi de Maze Martiza de Oliva	2-36-96
BASICS	Dr. Barry Smith	
USAID	Dr. Pat O'Connor	32-02-02
INCAP	Dr. Hernan Delgado Maggie Fischer Veronika de Palma	723-762

APPENDIX B

PRELIMINARY RESULTS OF LIMÓN COVERAGE SURVEY

APPENDIX 2. Preliminary results of Limón Coverage Survey

Table 1. Age distribution of children of mothers of fertile age				
Age distribution of infants	Pregnant Women	Other women	Unknown if Pregnant	Total Women*
< 6 months	1	60		61
6-23 months	12	109	1	122
24 months +	20	222	2	244
Doesn't have children	13	59		72
Total	46	450	3	499

* There were two cases where the youngest child's age was unknown.

Table 2. Demographic characteristics of women by reproductive status					
Characteristic	Pregnant women and those with infants < 6 months (0-182 days)	Women with children under two	Other women of reproductive age	All women (n)	Statistical difference (p value)
Mean Age (years)	24	25	32	29 (497)	<.001
% of women in different age categories					<.001
< 20	26%	20%	16%	19% (93)	
20-24	33%	31%	14%	22% (107)	
25-29	18%	27%	11%	16% (78)	
30-34	15%	11%	15%	14% (70)	
35-39	7%	6%	18%	13% (65)	
40+	2%	5%	27%	17% (84)	
All	100%	100%	100%	100% (497)	
Mean number of children	2.2	2.5	2.7	2.6 (497)	<.05

16

Table 3. Knowledge and Access to a *Monitora*

Characteristic	Pregnant women and those with infants < 6 months (0-182 days)	Women with children under two	Other women of reproductive age	All women	Statistical difference (p value)
Had anyone ever talked about breastfeeding	60% (106)	74% (110)	75% (283)	72% (499)	<.01
% less than 3 months	36% (63)	14% (81)	9% (209)	15% (353)	<.001
Who (several responses possible)					
% Health center staff	49% (63)	48% (81)	38% (212)	42% (356)	<.01
% <i>Monitora</i>	9% (63)	6% (81)	7% (212)	7% (356)	<.05
Know of woman who knows about breastfeeding	26% (106)	35% (110)	31% (283)	31% (499)	n.s.
% who know her name	89% (27) ^Δ	88% (40)	92% (88)	90% (155)	n.s.
% of these women who are <i>monitoras</i>	81% (26)	77% (39)	76% (86)	77% (151)	n.s.
% who know where she lives	96% (26)	92% (39)	90% (87)	91% (152)	n.s.
% who have ever looked for her for advice	81% (26)	77% (39)	68% (88)	72% (153)	n.s.
% who the <i>monitora</i> had visited the mother in her home	67% (21)	53% (30)	36% (61)	46% (112)	n.s.

est of the
HC staff
from the
2000

10/10/06

17
Completed
part 11

BEST AVAILABLE COPY

10/10/06

21 of 106 women who know
someone who knows about
breastfeeding
of 21 women either pregnant with child < 6 months
she knew a *monitora* 16 (67%)

APPENDIX C

PRELIMINARY RESULTS OF *MONITORA* SURVEY

APPENDIX 3: Preliminary Results of *Monitora* Survey

Table 4. Demographic Characteristics of Active and non-reporting <i>monitoras</i>				
Characteristic	Active <i>Monitoras</i>	Non-reporting <i>Monitoras</i>	All <i>Monitoras</i>	Statistical difference (p value)
Mean Age (years)	45	41	43	n.s.
% of women in different age categories				
< 20				
20-24				
25-29				
30-34				
35-39				
40+				
Mean number of children	4.4	3.9	4.1	n.s.
Grade completed				n.s.
None	16%	12%	13%	
Some Primary	36%	19%	27%	
Completed Primary	24%	30%	28%	
Some or completed Secondary	22%	17%	19%	
Other	2%	21%	13%	
Total	100%	100%	100%	
% who know how to read and write	84%	91%	88% (102)	n.s.

Table 5. Work patterns of Active and non-reporting *monitoras*

Characteristic	Active <i>Monitoras</i>	Non- reporting <i>Monitoras</i>	All <i>Monitoras</i>	Statistical difference (p value)
% with Paid work	51%	51%	51%	n.s.
Types of paid work				
% midwives				
% work in health center				
% work in NGO				
% other				
% with other volunteer work	84%	56%	69%	<.01
Types of volunteer work				
%				
%				
%				
%				

Table 6. Activities and reporting of *monitoras*

Characteristic	Active <i>Monitoras</i>	Non- reporting <i>Monitoras</i>	All <i>Monitoras</i>	Statistical difference (p value)
Last time had informal contact	(n=45)	(n=57)	(n=102)	n.s.
% less than 3 months	93%	77%	84%	
% more than 3 mo.	4%	16%	11%	
No contact	2%	7%	5%	
Mean no. of contacts in the last year	90	54	72	
Last time made home visit			(n=102)	<.001
% less than 3 months	84%	37%	58%	
% more than 3 mo.	9%	18%	14%	
No contact	7%	46%	28%	
Mean no. of home visits in last year (for those who made home visits)	29(n=38)	37 (n=21)	32(n=59)	n.s.
Last time made referral			(n=102)	n.s.
% less than 3 months	78%	65%	71%	
% more than 3 mo.	9%	5%	7%	
No contact	13%	30%	23%	
Mean no. of referrals made in last year	26 (n=34)	13 (n=35)	19 (n=69)	n.s.
Last time held support group			(n=102)	p<.001
Less than one year	76%	12%	40%	
More than one year	24%	88%	60%	
Median time spent per month			8 hours	
Mean time spent (question 32) per month	34 (n=38)	24 (n=47)	29 (n=85) 20 hours (excluding 3 women who reported 200 or more hours per month)	n.s.