IMPROVING THE HEALTH OF MOTHERS AND CHILDREN OF RURAL JINOTEGA, NICARAGUA:
An Integrated Approach in Partnership with the Public and Private Sector Providers in Coffee-Growing Areas

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MidTerm Evaluation Report

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ACRONYMS

AMAS	MOH Health Facility Supervision System
AMATE	Animation, Motivation, Appropriation, Transference, Evaluation educational approach
ARI	Acute Respiratory Infection
BCC	Behavior Change and Communication
BF	Breastfeeding
CDD	Control of Diarrheal Diseases
CHW	Community Health Worker
COPE	Client-Oriented Provider Efficient (EngenderHealth)
CORE	Child Survival Collaborations and Resources Group
CORU	Community Oral Rehydration Unit
CRS	Catholic Relief Services
CSP	Child Survival Project
CSHGP	Child Survival Health Grant Program
CSTS+	Child Survival Technical Support Project
DIP	Detailed Implementation Plan
DPSV	Life saving skills (Destrezas Para Salvar Vidas)
ECMAC	Community Based Distribution of Family Planning Methods
EPI	Expanded Program of Immunizations
FP	Family Planning
GIK	Gift-In-Kind
HC	Health Center
HIS	Health Information System
HP	Health Post
HQ	Headquarters
IDRE	Introduction, Development, Reflection, Evaluation educational approach
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illnesses
KPC	Knowledge, Practice, and Coverage Survey
LAM	Lactational Amenorrhea
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MMR	Measles, Mumps and Rubella
MOH	Ministry of Health (MINSA in Spanish)
MSH	Management Sciences for Health
NGO	Non-Governmental Organization
NICASALUD	Network of PVOs in Nicaragua
ORS	Oral Rehydration Solution
PCI	Project Concern International
PCM	Pneumonia Case Management
PDA	Personal Digital Assistant (Handheld PC)
PROCOSAN	MOH integrated community health program, similar to AIN
PVO	Private Voluntary Organization
SICO	Community Information System
SILAIS	Sistemas Locales de Atención Integral en Salud-Departmental level of MOH
TA	Technical Assistance
TBA	Traditional Birth Attendant
TQM	Total Quality Management

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A. SUMMARY

Project HOPE is implementing a five-year Child Survival Project aimed at improving the health status of children under five and women of reproductive age in the Department of Jinotega, Nicaragua—with a focus on rural populations, including those working on coffee plantations. The main partners in implementation are: Ministry of Health (MOH) at the Departmental level (SILAIS), Health Centers/Posts, and private sector coffee growers.

Specific program health interventions and level of effort include: maternal and newborn care (30%), nutrition/micronutrient deficiencies (13%), breastfeeding promotion (10%), control of diarrheal disease (15%), pneumonia case management (10%), immunization (7%), child spacing (10%), and HIV/AIDS/STIs (5%). The proposed interventions are being implemented in accordance with Nicaragua's PROCOSAN initiative, a program based on community growth monitoring sessions as an opportunity for incorporating IMCI. Other MOH programs being implemented include community-based family planning, Maternal Newborn Care; and the newly introduced supervisory system for health facilities.

Key strategies include:

- building the service-delivery capacity of health facilities and improving the quality of care;
- strengthening cooperation among public, private and community stakeholders;
- empowering consumers, particularly women, to take greater responsibility for personal and family health maintenance decisions;
- improving timely care- seeking behaviors, through recognition of danger signs, system of referral and counter-referral, and the formation of emergency committees;
- improving the knowledge and skills at the community level by strengthening the work of Brigadistas and TBAs and strengthening of the Community Information System.

The target population includes the entire population of Jinotega department due to the project focus on strengthening the SILAIS and all health units within the department. The population includes 62,451 children under five and 67,461 women of reproductive age (129,912 total beneficiaries). The MOH and CSP selected 80 priority communities where the project provides more direct support, but all HC/HP staff has been involved in institutional strengthening activities

The main accomplishments during the first half of the project were:

- Support to ongoing or newly introduced MOH programs in child health, maternal health, quality improvement, and family planning;
- Provision of logistical support (transportation), materials, and medicines;
- Monthly or bimonthly meetings as linkage between MOH and community;
- Improved access to health services, by working in isolated communities
- Training for Brigadistas, TBAs, community committees and MOH staff; 368 Brigadistas had attended at least one training event and 234 TBAs had attended at least one training event
- A KPC Survey was conducted as part of the mid term evaluation and showed an increase in vaccination coverage, use of modern family planning methods, improved knowledge of prevention of HIV/AIDS and improved care seeking during diarrhea;
- Committees for emergency transportation during obstetrical emergencies have been formed in 63 communities with 104 committee members trained in the formation of emergency

brigades, collecting funds to help cover medical emergencies, recognition of danger signs, etc.

- PROCOSAN has been implemented in 76 priority communities, selected by the MOH.
- Community based child spacing has been established in 36 of the 80 priority communities, plus an additional 22 communities selected by the CSP and MOH (total 58), with trained counselors who distribute some contraceptive methods in the communities. Project records show there are 49 counselors in the 80 priority communities and 27 counselors in other communities.
- The CSP is supporting, through training, materials and supervision, the implementation of the official national MOH program for Maternal Newborn Care in 58 of the 80 priority communities plus five additional communities
- A qualitative study was carried out by HOPE/MOH on maternal preferences for home vs. institutional birth.
- The Humanitarian Assistance Program provided donations of pharmaceutical products. The national donation level during the life of this project has been 9.5 million dollars, 2.77 million of that going to Jinotega

The project however has some weaknesses which need to be addressed:

- No monitoring of process indicators;
- Deviation from M&E plan due to misunderstanding of the use of some instruments and introduction of SIGHOPE;
- Lack of follow-up on the CSTS Sustainability Framework and HOPE Nicaragua Institutional Assessment.
- Greater emphasis on the use of information for decision making

<u>Priority Recommendations</u>

- The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored.

- An institutional assessment should also be conducted with SILAIS to identify specific actions for capacity building based on the needs of SILAIS.

- Develop a sustainability plan based on the work started with the CSSA model, including planning with communities, based on the use of local resources for problem solving.

- Strengthen analytical abilities in the communities, Brigadistas, TBAs, MOH and HOPE staff.

The CSP staff and partners will develop a revised work plan as part of the MTE process according to the following schedule.

June 1 – 10	- MTE report and Chapters A& E of the DIP translated into Spanish; - Develop guides regarding work to be done by CSP and partners in preparation for writing the work plan and revised DIP
June 13 – July 15	- CSP team follows guides to study the MTE recommendations and begin writing work plan and revised DIP - Develops the workshop plan
July 19 – 22 or August 1-4	Workshop to finalize work plan and revised DIP

B. Assessment of progress made in achievement of program objectives

1. Technical Approach:

a. General Overview

Project HOPE is implementing a five-year Child Survival Project (CSP) aimed at improving the health status of children under five and women of reproductive age in the Department of Jinotega, Nicaragua—with a focus on its rural populations, including those working on the region's many private coffee plantations. The program builds on HOPE's long term work in other departments of Nicaragua and previous work in three municipalities of Jinotega. HOPE has an office in the city of Jinotega, capital of Jinotega Department, as well as a central coordinating office in Managua. The main partners in the implementation of this project are: the Ministry of Health (MOH) at the SILAIS (Departmental level of MOH) and Health Centers (HC) and Health posts (HP), and private sector coffee growers.

According to the DIP, the overall objective of the CSP in Jinotega is "Improved the health of women of reproductive age and children younger than 5 years old in Jinotega's rural areas". This is being done by: "building the service-delivery capacity of HC/HPs; increasing the skills of health care providers; strengthening cooperation among public, private and community stakeholders; and empowering consumers, particularly women, to take greater responsibility for personal and family health maintenance decisions."

Key health objectives include: improve the quality of prenatal and postpartum care, and nutritional practices for pregnant women; increase the percentage of newborns and infants who are breastfed; improve nutritional status of children through better feeding practices; improve case management of diarrheal disease and practices to prevent diarrheal episodes; improve management of acute respiratory infections (ARIs) and care-seeking behaviors; increase immunization coverage for young children; increase the use of family planning methods and extend birth intervals; and increase knowledge regarding prevention of HIV/AIDS/STIs.

Specific program health interventions and level of effort include: maternal and newborn care (30%), nutrition/micronutrient deficiencies (13%), breastfeeding promotion (10%), control of diarrheal disease (15%), pneumonia case management (10%), immunization (7%), child spacing (10%), and HIV/AIDS/STIs (5%). The proposed interventions are being implemented in accordance with Nicaragua's PROCOSAN (Programa Comunitario de Salud y Nutrición) an evolving national program based initially on the AIN model for child health from Honduras with later phases to incorporate maternal health. The program is based on community growth monitoring sessions as an opportunity for incorporating IMCI (Integrated Management of Childhood Illnesses) services. Other MOH programs being implemented by the CSP include ECMAC (Entrega Comunitaroia de Métodos AntiConceptivos) or the Community-based Distribution Agents model; CEON (Cuidados Obstétricos y Neonatales esenciales) or Maternal Newborn Care; and AMAS (Abordaje para el Mejoramiento de la Atención en Salud) the newly introduced supervisory system for health facilities.

Other key strategies include:
1) improving the quality of care;
2) improving timely care- seeking behaviors, through recognition of danger signs, system of referral and counter-referral, and the formation of emergency transportation committees,

3) improving the knowledge and skills at the community level by strengthening the work of Brigadistas and TBAs and strengthening the SICO (Community Information System).

The target population includes the entire population of Jinotega department due to the project focus on strengthening the SILAIS and all health units within the department. The revised population presented in the DIP is 62,451 children under five and 67,461 women of reproductive age (129,912 total beneficiaries). The MOH and CSP selected 80 priority communities (approximately 10 in each of the eight municipalities of Jinotega) where the project would provide more direct services, but all HC/HP staff has been involved in institutional strengthening activities which benefit the entire department (731 communities).

Municipalities	1	2	3	4	5	6	7	8	Total
	Jinotega	San Rafael	La Concordia	Yalí	Pantasma	Wiwilí	El Cuá	Bocay	
# Health Centers	1	1	1	1	1	1	1	1	8
# of Health Posts	11	3	2	5	6	5	9	2	43

During the month of May 2005, a Mid Term Evaluation (MTE) was conducted utilizing a participatory methodology with a 15-member multi-disciplinary evaluation team, lead by an external evaluator, principal author of this document. Recommendations within this document are written in **Bold** and summarized in the Conclusions and Recommendations section. The MTE team visited nine communities during a three day period to interview mothers, health committees, Brigadistas (community volunteers), Traditional Birth Attendants (TBAs) and MOH staff. (For complete details on the MTE methodology, see Annex C, Evaluation Assessment Methodology, Annex B, Evaluation Team Members, and Annex D, Persons interviewed and contacted.). These visits also provided an opportunity to share and analyze some results from the recently conducted KPC survey with mothers and health committees. The following tables summarize the results of the KPC Survey conducted in March 2005. A complete report from the KPC Survey is included in Annex F.

RESULTS INDICATORS (With 95% Confidence Intervals)	Baseline	MTE	Final Target
Maternal and Neonatal Care (30%)			
1. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	89% (85.2–92.8)	94% (91.1–96.9)	95%
2. % of children aged 0-23 months old whose birth was attended by a doctor or nurse.	51% (45.2-56.8)	54% (48.3-59.7)	60%
3. % of mothers who report having had at least one postpartum visit.	32% (24.1-39.9)	33% (25.1-40.9)	45%
Nutrition / Micronutrients (13%)			
4. % of children aged 0-23 months, weighed in the last four months according to growth monitoring card.	68% (62.0-74.0)	86% * (81.5-90.5)	91%
5. % of children aged 0-23 months old with satisfactory growth according to weight for age (<2Z)	92% (88.5-95.5)	93% (89.5-96.5)	92%
6. % of children aged 0-23 months old with no anemia. Hb > 11 mg/dl	58% (51.9-64.1)	53% (48.2-57.8)	70%
Breastfeeding (10%)			
7. % of children aged 0- 23 months old who were breastfed within the first hour after birth	68% (62.1-73.9)	71% (65.4-76.6)	75%

8. % of infants aged 0-5 months who received only breast milk in the past 24 hours	56% (43.5-68.5)	52% (43.0-61.0)	70%
Immunizations (7%)			
9. % of children 12-23 months fully immunized (BCG, OPV3, Pentavalente 3, and MMR) by 12 months	69% (60.8-77.2)	81% (74.1-87.9)	80% #
Control of Diarrheal Disease (15%)			
10. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child	46% (36.5-55.5)	45% (34.6-55.4)	55%
11. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	69% (60.2-77.8)	71% (61.6-80.4)	80%
12. % of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheas episode.	36% (27.2-44.8)	53% (43.1-62.9)	50% #
13. % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	19% (14.1-23.9)	11% (7.1-14.9)	35%
14. % of mothers of who can identify at least two danger signs for diarrhea	27% (21.5-32.5)	17% (12.4-21.6)	35%
Pneumonia Case Management (10%)			
15. % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit	60% (49.4-70.6)	55% (44.3-65.7)	85%
16. % of mothers who identify fast breathing as a danger sign of pneumonia	76% (70.8-81.2)	78% (72.9-83.1)	85%
Child Spacing (10%)			
17. % of children aged 12 to 23 months old that were born at least 24 months after previous surviving child	84% (79.5-88.5)	86% (81.6-90.4)	90%
18. % of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method	65% (56.3-73.7)	90% * (84.6-95.4)	70% #
HIV / AIDS / STIs: (5%)			
19. % of mothers of children aged 0-23 months who know at least two ways to prevent HIV / AIDS / STIs	6% (2.8-9.2)	14% * (9.8-18.2)	15%

*Shows a statistically significant change # MTE results meet or exceed final target

Rapid Catch Indicators	**Baseline**	**MTE**
1. % of children aged 0-23 months with low weight (weight for age) (<2Z).	7.6% (4.1-11.1)	7.5% (4.0-11.0)
2. % of children aged 0-23 months who were born at least 24 months after the previous surviving child.	84% (79.5-88.5)	86% (81.6-90.4)
3. % of children aged 0-23 months whose birth was attended by a doctor or nurse.	51% (45.2-56.8)	54% (48.3-59.7)
4. % of mothers of children aged 0-23 months that received two doses of the dT vaccine during the last pregnancy, according to health card.	No data	35% (29.1-40.9)
5. % of infants aged 0-5 months who received breast milk only in the past 24 hours.	56% (43.5-68.5)	52% (43.0-61.0)
6. % of children aged 6-9 months who received breast milk and complementary feeding in the past 24 hours.	87% (78.1-95.9)	77% (65.8-88.2)
7. % of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card	69% (60.8-77.2)	81% (74.1-87.9)
8. % of children aged 12-23 months that received the MMR vaccine according to the growth monitoring card	70% (61.9-78.1)	81% (74.1-87.9)

9. % of children aged 0-23 months who slept under an impregnated mosquito net the previous night	No data	26% (20.6-31.4)
10. % of mothers of children aged 0-23 months that know at least two signs of childhood illnesses indicating the need for treatment	47% (40.8-53.2)	91% (87.5-94.5)
11. % of children aged 0-23 months that received more liquids and continued feeding during an illness in the last two weeks	53% (44.6-61.4)	14% (8.0-20.0)
12. % of mothers of children aged 0-23 months who know at least two ways to prevent STIs-HIV/AIDS	6% (2.8-9.2)	14% (9.8-18.2)
13. % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	19% (14.1-23.9)	11% (7.1-14.9)

b. Progress report by intervention area.

Maternal and newborn care (MNC) 30%

a. Activities proposed in DIP (Detailed Implementation Plan)

- training healthcare providers on obstetric and neonatal emergencies, quality delivery care (110 providers);
- improving the management of normal births at HCs and early recognition and transport to the referral hospital when there are complications;.
- utilizing standard protocols for all procedures relating to care of the pregnant and postpartum mother and newborn;.
- improving the skills of TBAs;
- promoting prenatal care and nutrition, (Vitamin A, folate, and iron supplements; tetanus toxoid injections), recognition of danger signs, transport plans in case of complications and the need for a trained birth attendant;
- encouraging and improving post-partum care;
- developing emergency plans to ensure that transportation can be accessed when necessary.
- increasing access to quality care. Clinic self-assessments will review gaps in care and help prioritize areas for improvement;.
- strengthening referral networks, linking communities to health facilities, including maternity waiting houses;
- strengthening Health Councils to solve problems and adequately plan;
- increasing donor supplies of essential commodities and supplies through its Gift-in-Kind (GIK) program.

b. Progress Made

1. The CSP is supporting, through training, materials and supervision, the implementation of the official national MOH program for MNC (Plan de Parto) in 58 of the 80 priority communities plus five additional communities. The program includes aspects of essential care; emergency care, including recognition of danger signs, referral and establishment of emergency transportation committees; and use of a birth plan. One of the limitations to implementation has been numerous changes on a national level with this program; including revisions to the format used for birth planning, and implementation policies.
2. A colorful well designed format for birth planning has been developed which includes monitoring of prenatal control, who will attend the birth, where the birth will take place, who will accompany the woman, savings to pay for transportation and other expenses,

transportation, who will donate blood in case of an emergency, who will take care of other children, and danger signs during pregnancy, labor, postpartum and in the newborn. MOH staff uses the format at each prenatal visit to work with the woman and her family on making decisions to facilitate a safe and healthy birth.

3. The Birth Planning program includes the establishment and use of Maternal Waiting Houses. Maternity Waiting Houses has been adopted by the MOH as part of the Health Sector Modernization program of the World Bank and are a valuable tool for reducing maternal mortality by providing access to institutional births. Project HOPE supported the Community of Wamblan for the drafting of a proposal for construction and equipping of the Maternity Waiting Home and provision of labor and delivery medical equipment for the Health Unit. With the technical support of Project HOPE and financial support of the Japanese Embassy, the home was built equipped and commissioned. The Wamblan Maternity Waiting Home is now averaging 4.5 pregnant women guests per month. Proposals for the construction of two Maternity Waiting Houses were developed, but only one has been approved so far.
4. There are five maternity houses in the department. A strong link has been established with the houses both through the birth planning process and the referral/counter-referral system which includes referrals to the Maternity Waiting Houses.
5. Committees for emergency transportation during obstetrical emergencies have been formed in 63 communities with 104 committee members trained in the formation of emergency brigades, collecting funds to help cover medical emergencies, recognition of danger signs, etc. An additional training in community mobilization was conducted for 48 committee members.
6. A qualitative study was carried out by HOPE/MOH on maternal preferences for home vs. institutional birth. One of the results from this study has been a greater openness to involve TBAs within the institutional setting. It was reported that the TBA accompanies women to the HC and in some places are able to assist with the delivery at the center.
7. Maternal death analysis is carried out by each municipality with assistance from the Central MOH.
8. Training

TBAs, Brigadistas and counselors with the ECMAC (community based family planning) were all trained in topics related to MNC. A summary of the number of training sessions provided to personnel by subject and by position is included in the following table (see Annex E for a summary of CSP training).

Training Topic	TBA	Brigadistas	ECMAC counselors
Life Saving Skills	65	14	
Danger Signs (Maternal)	205		
Birth Planning	66		23
Reproductive Risks	37		
Low Risk Births	30		
Maternal Health		68	
MNC phase 1		100	
MNC phase 2		21	
Essential Obstetric and Neonatal Care		112	
Preparation before birth		22	

The target for training TBAs (incorrectly referred to as midwives) is confusing in the DIP. According to the Two-Year Operative Plan (Attachment 10 of DIP) 80 midwives will be trained in MNC (Maternal Newborn Care) "according to midwife curricula" and 240 CHVs (Community Health Volunteers) will be trained in IMCI related topics, including educational methodologies. In the body of the DIP, the number 400 is used, alternately 400 midwives and 400 CHVs. It is difficult to interpret whether 240 is the target for the first two years (although this is further confused by use of the target 400 in the two year work plan (pp 31-46 of DIP) or if the term CHV does not include TBAs and the DIP proposes to work with 400 TBAs and 400 Brigadistas. At the time of the MTE, the CSP staff was proposing to train 240 Brigadistas (80 communities times 3 Brigadistas) and 80 TBAs (one per priority community). According to project training records 368 Brigadistas had attended at least one training event and 234 TBAs had attended at least one training event. A further complication is that in many cases a single person could be both Brigadista and TBA. A further discussion on training is included in section B.2c.v. Training.

Health personnel

The target for training MOH personnel is much clearer as it is stated as 110 (80 nurses and 30 doctors) in both the education plan (Attachment 10 of the DIP) and the two-year work plan. Information reported by the CSP showed only 17 staff trained in Birth Planning (Plan de Partos) in 2004. This information is alarming in that either the proposed training has not been completed, or the system for collecting training information is not accurate.

c. Progress in Relation to Benchmarks

A review of the three results indicators for MNC shows a favorable trend, although none of the changes are statistically significant. It was not possible to review the process indicators for the project, as they are not being monitored.

	Baseline	MTE	Final Target
1. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	89% (85.2–92.8)	94% (91.1–96.9)	95%

The above indicator was chosen by the project as a results indicator, but if a more in-depth analysis had been conducted at the time of the baseline, a much more serious problem would have been revealed. At baseline only 36% of mothers interviewed in the KPC Survey had received two or more prenatal visits with a doctor or nurse as verified by maternal card, during the MTE KPC the percent had declined to 35%. **It is suggested that Results Indicator 1 be changed to measure two or more prenatal visits, since the data is available for baseline and MTE surveys and represents a more alarming trend in adequate prenatal attention.**

	Baseline	MTE	Final Target
2. % of children aged 0-23 months old whose birth was attended by a doctor or nurse.	51% (45.2-56.8)	54% (48.3-59.7)	60%
3. % of mothers who report having had at least one postpartum visit.	32% (24.1-39.9)	33% (25.1-40.9)	45%

A postpartum visit is defined by the MOH as within 45 days of delivery. In order to have an impact on neonatal deaths by increasing postpartum consultations those consultations need to happen soon after delivery. This could be a good advocacy opportunity for the CSP to work with the MOH on changing this definition of postpartum care.

d. Follow-up and Next Steps

In the original project design a Specialist in Maternal Health was included. That position was initially filled but has been vacant since September 2004 (except for < 1 month when a person was hired who later left). This has weakened the staff's ability to implement MNC and they admit that the MNC component is weak due to the huge time commitment needed to implement PROCOSAN.

Specific recommendations will be made in later sections for improving training, supervision, and monitoring and evaluation (M&E) of the CSP.

Child spacing 10%

a. Activities proposed in DIP

- improving access to family planning (FP) in remote areas;
- providing quality services, including improving provider performance in registering, screening, counseling, and tracking clients;
- piloting of Community-based Distribution Agents (ECMAC counselors) in areas where there is poor access;.
- collaborating with PROFAMILIA, one of Nicaragua's premier FP organizations, using their model, and training and teaching materials;
- training to MOH staff to supervise the counselors in their catchment area;.
- training of ECMAC counselors and 110 MOH supervisors in FP, counseling, distribution, and management;
- establish 80 distribution points, phased in gradually over the project; 20 to be piloted in the first 2 years;
- 400 CHVs trained in providing information about FP and making referrals;
- development of a system for monitoring clients including FP use, numbers of new acceptors, number of referrals and the reasons for the referrals;
- assessing the efficacy of FP activities using techniques including exit interviews and verbal case reviews;
- improving the tracking of contraceptive supply to ensure the timely and consistent supply of resources and training all health facility staff in logistics management.

b. Progress Made

1. The CSP provides support through training, materials and supervision to the national MOH program ECMAC (community based distribution of family planning methods). The program is just beginning in the department, and the CSP is piloting in communities that were prioritized by the MOH according to number of pregnancies and access to FP services.
2. ECMAC has been established in 36 of the 80 priority communities, plus an additional 22 communities selected by the CSP and MOH (total 58), with trained ECMAC counselors who distribute some FP methods in the communities (mainly injectables and pills). Project records show there are 49 ECMAC counselors in the 80 priority communities and 27 counselors in other communities. Most communities have one trained counselor. According to interviews with mothers during the MTE, access to FP methods at the community level was one of the activities of the project they thought had the most impact.

3. Training sessions for 81 ECMAC counselors and 94 MOH staff, plus 497 Brigadistas in ECMAC. Training sessions were also held for 265 Brigadistas and 47 TBAs in Family Planning.
4. HOPE/MOH staff has received training in CycleBeads which is based on the Standard Days Method, a natural family planning method, which has proven to be more than 95% effective in preventing unplanned pregnancies. CycleBeads were developed by the Institute for Reproductive Health at Georgetown University. The method offers a natural alternative which has achieved acceptance on a small, but important, scale.
5. Through advocacy and negotiation during the roll out of ECMAC activities the counselors have been able to improve easy access to FP methods. They used to be able to distribute methods for coverage for only one month, now they can provide coverage for two months.
6. ECMAC Counselors have received training in the ACCEDA (Attend, Converse, Communicate, Elect, Describe and Agree on follow-up visit) approach developed by Johns Hopkins University, Center for Communication Programs. This approach has been shown to be an effective counseling tool.

c. Progress in Relation to Benchmarks

The following results indicators relate to Child Spacing:

	Baseline	MTE	Final Target
1. % of children aged 12 to 23 months old that were born at least 24 months after previous surviving child	84% (79.5-88.5)	86% (81.6-90.4)	90%
2. % of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method	65% (56.3-73.7)	90% (84.6-95.4)	70%

The first indicator demonstrates a positive trend and will probably meet the final target. The second indicator showed excellent progress and has surpassed the final target. The difference between the baseline and MTE results is statistically significant.

It was not possible to include the analysis of the process indicators, as they have not been monitored. A discussion of the indicators will be included in the M&E section. The indicators for family planning used by the MOH are different from those used by the CSP making follow-up difficult to monitor. As a review of indicators will be recommended, this would be a good time to try and incorporate MOH indicators if at all possible.

d. Follow-up and Next Steps

The ECMAC implementation has been the crown jewel of this project; a significant increase was seen in the percentage of women using modern family planning.

HIV/AIDS/STIs 5%

a. Activities proposed in DIP

- integrate HIV/AIDS prevention education into health staff training at all levels
- encourage prevention counseling at health facilities
- educate the population about HIV/AIDS reinforcing the key message that a person can avoid getting HIV/AIDS through the use of condoms, abstinence, and reducing the number of sexual partners.

b. Progress Made

This intervention represents a very small level of effort and the activities mainly focus on incorporation of HIV/AIDS education within other CSP activities. Training sessions have been held for 125 Brigadistas and 21 TBAs on HIV/AIDS.

c. Progress in Relation to Benchmarks

	Baseline	MTE	Final Target
% of mothers of children aged 0-23 months who know at least two ways to prevent HIV / AIDS / STIs	6% (2.8-9.2)	14% * (9.8-18.2)	15%

This indicator also showed impressive gains, the difference is statistically significant and almost reached the final target.

d. Follow-up and Next Steps

The technical level of CSP staff is low in this intervention, staff admits they have little basic knowledge in HIV/AIDS and need technical assistance (TA). The MOH has not received training due to this gap. **HOPE staff should receive technical assistance on HIV/AIDS.**

IMCI (Combined level of effort 55%)

The IMCI approach is being used by the project within the official framework of the MOH to include the interventions of Nutrition, Breastfeeding, Control of Diarrheal Disease (CDD), Pneumonia Case Management (PCM) and Immunizations (EPI). Each intervention will be assessed separately, but as the five interventions have many common elements within IMCI, a general discussion on IMCI strategies will serve to introduce the interventions.

a. Activities proposed in DIP

- implement a community-focused IEC approach to promote care-seeking practices and timely recognition of danger signs;.
- explore cultural barriers to find a way to overcome them;.
- training and supervising of 400 CHWs to support and monitor community-based activities, including providing counseling to mothers;
- peer-to-peer counseling among community members, including those who are participating in mothers' groups;.
- coordinate with other agencies (e.g., agricultural associations, women and men clubs, NGOs and PVOs conducting Title II and other food programs), that are carrying out other interventions and to improve the effectiveness of activities and to avoid duplication of efforts;
- identify 10 communities per municipality (80 priority communities) for conducting PROCOSAN;
- teach facility-based IMCI and counseling- providers to use every contact with mothers as a integrated health (including vaccinations) and counseling opportunity;
- strengthen referral networks for emergency cases through training health facility staff and community volunteers in making appropriate referrals and counter-referrals, using tools and processes developed by the MOH;
- endeavor to procure antibiotics for use in the CSP through HOPE's Humanitarian Assistance Program.
- facilitate improvements in the HIS and planning at SILAIS and municipality levels including timely feedback to the community for local decision making;

- conduct health facility worker and Brigadista performance assessments and develop organized approaches with partners to diminish gaps and weaknesses in performance;
- provide training for MOH staff facilitators in quality assurance;
- train 54 MOH facilitators in collaboration with the SILAIS and work with them during training sessions to strengthen their training skills;
- establishment of Municipal Quality Committees.

b. Progress Made

1. PROCOSAN- the adaptation in Nicaragua of the AIN (*Atención Integral del Niñez* Integrated Childhood Attention) project from Honduras provides some IMCI services at the community level based on participation in monthly growth monitoring activities for children under two. The PROCOSAN program will eventually include an MNC component. Currently it focuses on growth monitoring, counseling on child nutrition, education on danger signs and home management in CDD and ARI, monitoring of vaccination status and breastfeeding practices, and the presence of MOH staff during growth monitoring sessions. PROCOSAN has been implemented in 76 priority communities, selected by the MOH. In MTE interviews, the most frequently observed changes in practice were the attendance at PROCOSAN sessions and an increased use of health services.

2. A large amount of training has taken place in topics related to IMCI. (See Annex E for complete summary of training) but the most important training is shown in the following table that represents the number of training sessions provided to personnel by subject and by position.

	2003 Brigadistas	2004 Brigadistas	2005 Brigadistas	2003 TBA	2004 TBA	2005 TBA
ARI	213	221		14	18	
CDD	717	263	11	34	19	5
EPI	258	259	203	8	9	13
BF	96	19	59	20	6	
Nutrition	38	28				
PROCOSAN		218			6	
ARI/CDD		121			22	
SICO		471	137		90	4
ARI/CDD Refresher			51			8

MOH staff was also trained in CDD (18), Nutrition (5) EPI (80), PROCOSAN (75) and SICO (68).

3. Clinical IMCI was introduced in Nicaragua several years ago. SILAIS estimates that 90% of the staff is trained in IMCI and has the basic materials for implementation, some of which were provided by HOPE. During the MTE all three of the Health facilities visited had basic IMCI materials, particularly drugs. One was lacking a refrigerator for vaccines, one lacked IMCI algorithms, and two lacked both a watch and a chronometer for counting respirations. There is some report of IMCI not being consistently used, although it is one of the main focuses during supervision visits. All MOH staff is encouraged to ask mothers if their child has been ill (diarrhea, respiratory infection, fever) whenever a child makes contact with the health system, (whether through growth monitoring sessions, during immunization campaigns, etc). and will be

treated according to IMCI protocols and guidelines. The CSP has provided some Clinical IMCI training. According to training records, 97 people received training in Clinical IMCI phase 1 (or a non-specific clinical IMCI session) and 38 received clinical IMCI phase 2 training.

4. Supervision of PROCOSAN is carried out periodically by HOPE and MOH staff.

5. The CSP strategy of training a cadre of 54 MOH trainers has not been implemented. The project has formed MOH training teams in each municipality of two people. Other NGO projects have also trained additional trainers in some municipalities. SILAIS staff have also been trained in some topics, for example 12 SILAIS staff are currently receiving training in AMATE/IDRE educational methodology during weekly sessions. All training carried our by the CSP is facilitated by HOPE and MOH trainers.

6. MOH Municipal Quality Committees have been established in seven of the eight municipalities to monitor the quality of the health services. These committees include representatives from the health centers and posts and theoretically meet each month to monitor service statistics, review maternal deaths reported, and discuss current issues and problems that need to be resolved. This activity needs further strengthening as many of the committees are not active and do not link to a related committee formed at the SILAIS, as was originally planned.

7. Revolving drug funds have been established in six haciendas primarily in coordination with private sector coffee grower partners. The funds are managed by PROSALUD (a local NGO), with the capital being provided by the coffee growers. HOPE provides technical and logistical support for the establishment and ongoing implementation of the funds. The funds provide access to low cost essential drugs for employees of the coffee growers, as well as surrounding communities. PROSALUD has an office in Dario, Matagalpa that works with the revolving drug funds. Resupply orders are coordinated among haciendas and PROSALUD delivers drugs to each hacienda. Efforts are being made to open a sub-office in Jinotega to provide services to the drug funds within the department.

8. The project has strengthened the referral/counter-referral system through training and supervision. The MOH format is a three part form; 1.) A copy for the CHW on diagnosis and patient identification, 2) Information for the HC/HP about the patient and the reason for the referral; including high risk pregnancy, difficulty breastfeeding, referral to a maternal waiting house, and other morbidity, to be taken by the patient to the HC/HP 3.) Counter-referral to be filled out by health staff and returned to the CHW by the patient with instructions for follow-up. According to information collected during the MTE the system is functioning well.

9. Educational materials have been provided by the CSP, through the reproduction of standardized PROCOSAN materials including flipcharts for counseling on child feeding and morbidity, reminder charts for agreements reached with the mothers, and charts plotting the child's growth status, as well as registration books for tracking children participating in PROCOSAN.

10. Mothers' Clubs have been formed in 52 of the 80 priority communities and five additional communities. The purpose of the clubs is to receive health talks from community, MOH and CSP workers and to provide support for the PROCOSAN weighing sessions. Some of the clubs are also linked to Breastfeeding Support Groups, a concept being implemented in a variation

from the traditional "support groups". Fifteen HC/HPs have established support groups, with representatives from various communities. These groups receive additional health education, not necessarily in breastfeeding, which they share with the Mothers' Club in their respective community, thus "supporting" the Mothers' Club.

c. Progress in Relation to Benchmarks
There are no project indicators specific to IMCI

d. Follow-up and Next Steps
Some of the issues pending in relation to IMCI are:

The PROCOSAN program is a modified IMCI model based on monthly growth monitoring of children and customized counseling for mothers. The Nicaraguan MOH conceives of PROCOSAN as an integrated community based health package, linking communities and health facilities and including services for children and eventually, women. HOPE is in an excellent position to support the implementation of the model to ensure that all interventions (immunization, ARI, diarrhea and maternal interventions) are strengthened. **Using the PROCOSAN methodology all communities are supposed to have quarterly meetings to discuss health issues based on children's growth. These are rarely carried out and would be an excellent future activity for the CSP to strengthen the use of nutrition, and IMCI information.**

The principal method for the dissemination of IMCI messages currently is through individual counseling. A complementary activity could be the dissemination of messages on a larger scale. Recommendations from the MTE team included the use of murals and radio spots to increase knowledge of IMCI messages. Radio time is expensive but given the number of PVO/NGOs in the department implementing maternal-child health interventions, the project should look into cost sharing of messages with other organizations. The MOH is currently introducing a new communication strategy. The CSP should develop a comprehensive IEC plan for the remainder of the project taking into account the new MOH strategy and the use of alternative means for the dissemination of IMCI and MNC messages.

Control of diarrheal disease (15%)

a. Activities proposed in DIP

- operations research analyzing the utilization of Community Oral Rehydration Units (CORUs or *"casa bases" in Spanish*) where Brigadistas manage children with diarrheal episodes and offer ORS/ORT, counseling, and referrals;
- training and supervision of the use of diagnosis and treatment guidelines in compliance with MOH IMCI norms;
- distance-learning modules on case management of diarrhea;
- create linkages with agencies working on water and sanitation programs in Jinotega.
- training for the MOH in the management of ORS/ORT supplies and antibiotics;
- obtain antibiotics to treat diarrheal diseases through its Humanitarian Assistance Program;
- teach mothers when it is important to wash their hands;
- use the AIN/IMCI guidelines, an existing and validated flowchart/procedure chart and a photographic album, to assist with proper classification and referral of cases.

b. Progress Made

Progress made in this intervention was previously covered in the IMCI section.

c. Progress in Relation to Benchmarks

The following results indicators correspond to the CDD intervention.

	Baseline	MTE	Final Target
% of mothers of children aged 0-23 months with a diarrheal episode in the la two weeks who report giving as much or more food to their child	46% (36.5-55.5)	45% (34.6-55.4)	55%
% of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	69% (60.2-77.8)	71% (61.6-80.4)	80%
% of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheal episode.	36% (27.2-44.8)	53% (43.1-62.9)	50%
% of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	19% (14.1-23.9)	11% (7.1-14.9)	35%
% of mothers of who can identify at least two danger signs for diarrhea	27% (21.5-32.5)	17% (12.4-21.6)	35%

Three of the five indicators showed a negative trend, but none of the changes are statistically significant. The decline in the indicator for hand washing is of concern and in future projects, the indicator should reflect the suggested format for measuring hand washing in the KPC 2000+ module. Further discussion on this issue is included in Annex E KPC Issues.

There are a number of problems with the last indicator-recognition of danger signs. As the indicator is stated in the KPC 2000+, the correct responses would be prolonged diarrhea, bloody diarrhea and dehydration. The CSP has interpreted this indicator as the signs of dehydration-sunken eyes, decreased urination, dry mouth, etc. During the MTE, the only responses collected were those related to dehydration.

Due to an outbreak of rota-virus caused diarrhea, the MOH conducted a massive national campaign on danger signs which merited a visit to a HC/HP beginning in February 2005 and continuing to the present. The signs promoted were fever, vomiting and abundant diarrhea. The signs the project is promoting (and measuring in the KPC) are signs of dehydration. This has caused a decline in the recognition by mothers of the signs of dehydration. There is also some concern by HOPE staff that the question is not clearly understood by mothers, the staff has begun some initial investigation as the understanding of this question, for example the use of the words *signo, senal* or *sintoma* as the best translation for "signs". This same campaign probably influenced the percentage of mothers seeking health care during a diarrheal episode.

d. Follow-up and Next Steps

The qualitative study planned for utilization of the CORUs should be completed. The project needs to take a serious look at the effectiveness of this activity. Is the CORU worth doing? If the main function of the CORU is to distribute ORS packets, is it necessary to have a "site" for this activity? Few of the CORUs have basic materials (container for mixing, cup, spoon) to actually rehydrate a child, even though all CORUs were equipped in the past, most recently in some

municipalities by CRS. In MTE interviews with mothers they said out of five functioning CORUs all distribute ORS packets and show mothers how to prepare it; most CORUs reportedly provide malaria treatment (4/5); and three of the five CORUs are used for weighing sessions, meetings or as a point for vaccinations during campaigns. Of the nine Brigadistas interviewed during the MTE, only four said that they actually had ORS available.

During MTE interviews a number of people mentioned the use of homemade sugar and salt rehydration solution when ORS packets were not available. It is generally not recommended to use homemade sugar and salt solutions due to the difficulty in correctly measuring the quantities of sugar and salt. **The CSP should investigate traditional locally available liquids such as rice water, barley water or coconut water and encourage the use of these liquids during episodes of diarrhea.**

Pneumonia case management (PCM) 10%

a. Activities proposed in DIP

- Provide on-the-job training and supervision of facility and community health providers to ensure compliance with both Clinical and Community IMCI norms;
- Include identification and referral protocols in training and supervision for clinic and community-based volunteers in areas where access to clinical services is difficult;
- Promote the early recognition of danger signs of pneumonia/ARIs by mothers and early visits to health facility for classification and appropriate treatment;
- Pilot distance-learning modules on identifying pneumonia signs and case management;
- Provide TA to the MOH in logistics management of supplies and resources, including antibiotics;
- Improve epidemiological surveillance of ARIs;
- Increase the number of sources for IEC messages, such as radio spots and health fairs;
- Discourage mothers from obtaining or purchasing antibiotics unless a trained health provider has directed her to do so;
- Reactivate CURIM (Committee for Rational Use of Medical Supplies) and conduct workshops for CHWs and health facilities to educate them about the rational use of antibiotics;
- Train 240 CHWs on effective counseling techniques to improve healthcare for children with ARIs at community level.

b. Progress Made

Progress made in this intervention was previously covered in the IMCI section.

c. Progress in Relation to Benchmarks

	Baseline	MTE	Final Target
% of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit	60% (49.4-70.6)	55% (44.3-65.7)	85%
% of mothers who identify fast breathing as a danger sign of pneumonia	76% (70.8-81.2)	78% (72.9-83.1)	85%

It is difficult to interpret the results of the first indicator, especially when the same survey showed increases in care-seeking behaviors when children had diarrhea. This tendency requires further study by the project to identify barriers to care seeking, particularly since the percentage of women that recognize a danger sign of pneumonia essentially did not change.

Nutrition/micronutrient deficiencies (13%)

a. Activities proposed in DIP

- monthly community-based growth monitoring and counseling for mothers/caretakers regarding improved feeding practices;
- identify nutritional deficiencies and those children who are failing to thrive;
- train health personnel in home-based nutritional rehabilitation;
- use Positive Deviance/Hearth methodology to identify the "positive deviants" and to develop messages based upon health nurturing practices;
- explore amongst mothers preparations using local foods and recipes ;
- increase both the coverage and quality of "routine" anthropometric data collected during growth monitoring and promotion as an early warning system;
- create links with PVOs conducting Title II and other food programs in case there is a need for a rapid response;
- improve the capability of the SILAIS to monitor micronutrient deficiencies, particularly iron deficiency (anemia) by monitoring hemoglobin levels through the use of the Hemocue;
- support the MOH by providing resources in the field to facilitate Vitamin A and Iron campaigns.

b. Progress Made

- The PROCOSAN program has been implemented in 76 communities consisting of monthly growth monitoring and counseling for mothers, and community and MOH staff trained as outlined in the IMCI section
- Two weighing sessions were observed during the MTE, using an observation checklist which focused on correct weighing procedure and counseling. Some of the observations included not calibrating the scale, incorrectly using the educational materials, and not reaching an agreement with the mother on a behavior change. In general the CHWs doing the weighing were able to correctly calculate the nutritional status of the child and correctly read the weight. Counseling sessions observed were generally of good quality.
- Measurements for weight, height, and hemoglobin levels were taken for children under two years of age, and hemoglobin levels for mothers during the KPC Survey at baseline and midterm.

c. Progress in Relation to Benchmarks

	Baseline	MTE	Final Target
% of children aged 0-23 months, weighed in the last four months according to growth monitoring card.	68% (62.0-74.0)	86% (81.5-90.5)	91%
% of children aged 0-23 months old with satisfactory growth according to weight for age (<2Z)	92% (88.5-95.5)	93% (89.5-96.5)	92%
% of children aged 0-23 months old with no anemia. Hb > 11 mg/dl	58% (51.9-64.1)	53% (48.2-57.8)	70%

The first indicator showed a statistically significant improvement in the percentage of children being weighed, clearly showing the impact of the PROCOSAN program. The indicator for children with anemia demonstrated an increase in cases; this may be due to the lack of an adequate supply of iron, resulting in it only being used for the treatment of anemia, not for prevention.

The indicator on malnutrition (weight for age) was a maintenance target, which the project achieved. The way in which the indicator is expressed: percent of children with "satisfactory growth", is misleading, as the anthropometric measurement weight for age gives the nutritional status at a specific point in time, it is an indication of underweight or normal weight, but does not necessarily measure "growth". The way the indicator is worded as a Rapid Catch Indicator more clearly defines what the weight for age measurement actually measures (% of children aged 0-23 months with low weight (weight for age) (<2Z)).

d. Follow-up and Next Steps

One of the planned activities in IMCI was the training of MOH staff in logistics management. This has not been done, but obviously logistics could be one of the factors limiting the adequate supply of essential drugs and supplies.

PD Hearth was included in the DIP but is not recommended due to other priorities on staff time, the lack of sufficient MOH staff to monitor the strategy, and the level of malnutrition which at 31%, (according to the MTE KPC survey for children <1 z score below the mean) is lower than the 35% suggested by Hearth guidelines.

During MTE interviews various stakeholders were asked about the changes in health behaviors which resulted from CSP activities. One of the most commonly mentioned changes was an increased appreciation and validation of local foods. The high use of overly processed foods is increasingly becoming an important issue in Nicaragua. An educational emphasis on the detrimental effects of soda pop, snack foods, candy, etc. and on use of locally available nutritious foods, particularly sources of Vitamin A and iron is critical.

There is an important issue in the comparison between the traditional child's health card (Road to Health) and the PROCOSAN definition of adequate growth (based on expected weight gain), both of which are routinely used. A child could be classified as growing well in one system and growing poorly in the other. The issue came up during the MTE at both the community and the health facility level. **The CSP should work with SILAIS and/or NICASALUD to identify guidelines for resolving the discrepancy between the child health cards and the PROCOSAN definition of adequate growth.**

Breastfeeding promotion (BF) (10%)

a. Activities proposed in DIP

- conduct formative research to identify the key determinants that influence the early initiation of BF and exclusive BF for the first six months of life;
- 400 CHW will be trained in BF and Lactational Amenorrhea (LAM);
- 110 MOH providers will be trained in counseling techniques;
- create an environment of support and encouragement for optimal BF within health facilities and among staff;
- increase awareness among community members about the benefits of breastfeeding;
- mothers' clubs will be formed in the 80 priority communities and fathers will be invited to participate in select activities;
- support the MOH's Baby and Mother Friendly strategy;
- 200 communities will receive educational materials on BF.

b. Progress Made

In 1998 all of the HCs and the hospital were certified by UNICEF as baby friendly health units. The annual recertification was never conducted. There was good evidence in the facilities visited during the MTE that a focus on encouraging breastfeeding continues as a priority and the 11 steps for breastfeeding are being followed.

Mothers' Clubs are formed in 52 of the 80 priority communities. The involvement of men in these groups was not documented, but anecdotal information suggests that at least some of the groups involve men.

Completed training was detailed in the IMCI section.

c. Progress in Relation to Benchmarks

	Baseline	MTE	Final Target
% of children aged 0- 23 months old who were breastfed within the first hour after birth	68% (62.1-73.9)	71% (65.4-76.6)	75%
of infants aged 0-5 months who received only breast milk in e past 24 hours	56% (43.5-68.5)	52% (43.0-61.0)	70%

The changes in the two indicators for BF were not statistically significant, but it is of concern that the percent of infants who are exclusively breastfeeding shows a declining tendency.

d. Follow-up and Next Steps

Due to the decrease in exclusive breastfeeding the CSP needs to further study the key determinants that influence the early initiation of breastfeeding and exclusive breastfeeding for the first six months of life.

The formation of support groups was an activity mentioned in the DIP, but the conception of this strategy differs from what is normally thought of as support groups. The MOH, on the municipal level, forms a group of women from different communities who receive training in health topics to act as support to mothers' clubs for their community. The topics covered include all maternal-child health topics. Follow-up is needed to determine the effectiveness of this approach and to determine what additional support is needed to make these groups more effective in encouraging exclusive BF.

Immunization (EPI) 7%

a. Activities proposed in DIP

- provide technical and logistical assistance to the MOH to increase immunization coverage;
- strengthen the skills of health staff in applying IMCI protocols for child immunization;
- work with the SILAIS to strengthen the management of vaccine supply and fortify the cold chain;
- support the MOH during National Vaccination Campaigns;
- diminish the 'lost opportunities' to vaccinate children.

b. Progress Made

- The CSP has provided logistical support for national vaccination campaigns;

- Immunization status is routinely monitored during PROCOSAN weighing sessions;
- Children without vaccinations are referred to the nearest HC/HP;
- Training in EPI for Brigadistas, TBAs and MOH personnel was detailed in the IMCI section.

c. Progress in Relation to Benchmarks

	Baseline	MTE	Final Target
% of children 12-23 months fully immunized (BCG, OPV3, Pentavalente 3, and MMR) by 12 months	69% (60.8-77.2)	81% (74.1-87.9)	80%

The indicator for immunization showed an increase, and has surpassed the final target. The difference is not statistically significant.

d. Follow-up and Next Steps

The main focus of the CSP has been to provide logistical support to the MOH in national vaccination campaigns. This methodology is increasingly being questioned as to its effectiveness when vaccination rates are relatively high. The provision of vaccines house-to-house encourages people to not go to the health facility for integrated care, but to only receive the vaccine. This would be an interesting topic for research on the effectiveness of campaigns when coverage is high. Some facilities do not offer routine immunizations, particularly health posts, some of which lack refrigerators.

c. New tools or approaches

Operations Research

According to the DIP, the following Operations Research was planned:

> Operations research will be implemented to 1) evaluate the perceived quality of care for mothers having deliveries in health units using tools from the *Guide*; 2) evaluate adequacy of the *Guide's* (FFHU) tools to monitor quality in health facilities; 3) identify barriers for early initiation of breastfeeding and exclusive breastfeeding; 4) document the introduction of Community Based Distribution Agents in areas that lack access to FP and assess the quality of FP counseling offered by the Community Based Distribution Agents, and 5) to identify success stories and lessons from CORUs. Additional Operations Research opportunities may be identified in cooperation with the SILAIS, and may include 1) evaluating distance learning modules and methodologies (in collaboration with the Automous University of Nicaragua), 3) field testing new HIS forms, and 4) creating job aids for health facility staff, especially in the area of normal births.

Only the first mentioned qualitative study has been carried out. It is not recommended to simply complete the other planned research. **The CSP needs to develop a workplan for the next two and a half years, including well defined qualitative studies to help guide their work in the future.**

Involvement of Private Sector

An interesting new approach taken by this project has been the involvement of private sector coffee growers. Some of the growers are part of an association which works with the CSP, while others collaborate individually. The coffee growers helped to plan the project and provided information about their population for the development of the DIP.

The work with the project varies from farm to farm, but in general the coffee growers are providing:

- A place to have PROCOSAN sessions (14 per month);
- Time off for the Brigadista to conduct the weighing and time off for mothers to attend;
- Some overseers encourage the attendance of mothers at the sessions;
- Capital and training for revolving drug funds through PROSALUD;
- Purchase of some materials-scales, etc.;
- A salary for one person to run the health clinic who is trained and supported by MOH/HOPE through monthly visits;
- Infrastructure for the clinic. Some had a health post previously, but now have medicines available;
- Health services for the surrounding communities and their permanent staff;
- Formation of mothers' clubs in some haciendas in coordination with nearest health facility;
- Transportation in cases of health emergencies.

HOPE and PROSALUD provide supervision of the revolving drug funds and MOH supervises epidemiological reporting, hygiene and living conditions, and use of pesticides. The organization PROFAMILIA provides FP services. The use of SODIS (Solar disinfection of water) is encouraged on the coffee growing haciendas.

Recommendations for Section B.1. Technical Approach include the following:

1. **It is suggested that Results Indicator 1 be changed to measure two or more prenatal visits, since the data is available for baseline and MTE surveys and represents a more alarming trend in adequate prenatal attention.**

2. **HOPE staff should receive technical assistance on HIV/AIDS.**

3. **Using the PROCOSAN methodology all communities are supposed to have quarterly meetings to discuss health issues based on children's growth. These are rarely carried out and would be an excellent future activity for the CSP to strengthen the use of nutrition, and IMCI information.**

4. **The CSP should investigate traditional locally available liquids such as rice water, barley water or coconut water and encourage the use of these liquids during episodes of diarrhea.**

5. **The CSP should work with SILAIS and/or NICASALUD to identify guidelines for resolving the discrepancy between the child health cards and the PROCOSAN definition of adequate growth.**

6. **Due to the decrease in exclusive breastfeeding the CSP needs to further study the key determinants that influence the early initiation of breastfeeding and exclusive breastfeeding for the first six months of life.**

7. **The CSP needs to develop a workplan for the next two and a half years, including well defined qualitative studies to help guide their work in the future.**

2. Cross-cutting approaches

a. Community Mobilization

In general, communities have responded favorably to the project activities and see a potential role in the future for sustaining activities through increased organization. The three main strategies for community mobilization used by the CSP are:

1. Use of community health workers to provide community level health activities and a link with governmental health services (Brigadistas and TBAs)
2. Formation of mothers' (and in some cases fathers') clubs for education sessions and to help with PROCOSAN sessions
3. Formation of community committees for health emergencies

Brigadistas and TBAs The longevity of the Brigadistas and TBAs is impressive. Of the nine Brigadistas interviewed during the MTE, four had worked for longer than five years, and an additional four had worked between two and five years. Of the eight TBAs interviewed, five had more than 20 years of experience. More than half of the Brigadistas and all of the TBAs interviewed were women. The CSP staff feels that the Brigadistas and TBAs are not motivated, and that the project should provide some material stimulus such as hats, raincoats, or tee shirts.

All staff and volunteers, at all levels, need to be motivated, mainly through non-economic stimulus such as public recognition of good work, opportunities to exchange experiences, diplomas for completing training activities, identification cards, etc. Simple things like hats or tee shirts should also be considered for stimulus and team building.

Most Brigadistas and TBAs said that they received regular supervision and many specified that either HOPE or MOH visited on a monthly basis. Two mentioned that they were not visited regularly, but they were able to coordinate activities during the bimonthly meetings. The majority of Brigadistas and TBAs are reporting monthly and using the referral system.

Formation of community committees for emergency planning in cases of adverse obstetric and/or pediatric health situations is a major focus of the MNC strategy. Their role includes the organization of emergency transportation brigades and the collection of funds (usually through raffles) that can be borrowed by community members for transportation to a HC or hospital. There have been differing experiences in the pay back rates of these "loans".

The committees interviewed during the MTE were composed of approximately 50% women. This strategy provides an opportunity for women to develop leadership skills within the community.

The current committees are focused on a narrow task. In MTE interviews they expressed their main role as transportation and secondary role as providing counseling when someone was ill. They also provide a support system for the Brigadista and TBA (who are usually also members of the committee).

The strengthening of community organizations was not a specific project strategy, but from a sustainability point of view is an important component of any health or development project. One of the keys to sustainability is having social involvement and a strong community structure, linked with municipal authorities. **HOPE and MOH should jointly develop a strategy for the formation of community committees; to expand their role in the community if there is a gap, or to coordinate with existing community structures.** The role of the committee should be determined according to the needs of the community. Part of the strategy should be to encourage coordination with other organizations and the municipality and to obtain recognition by Mayor's office. The CSP has had several positive experiences in the development of community committees with a wider area of influence than caring for health emergencies.

Barriers

An important factor that has impacted project implementation is competing community priorities due to the presence of multiple organizations in the department. Project Concern International, Catholic Relief Services (CRS)/Caritas and the Partners of the Americas-Wisconsin projects all implement similar USAID funded maternal child health activities within Jinotega, as well as other governmental projects. Some of the projects provide cash stipends through paid community members, rather than volunteers. Other projects provide food donations. All of these factors make working within the department a challenge of coordination and because of differing levels of benefits, especially food distribution. Some community members are not motivated to participate in a project that offers no tangible benefits.

When community members were asked during the MTE if there were families with small children who were not participating in project activities, in most communities the response was "yes, some". The reasons for the non-participation included:

- People seek care from private clinics/doctors
- Children are being weighed by another project (Red de Proteccion)
- Lack of interest

The CSP is active in coordinating with other organizations at both a local and national level through involvement in networks such as NicaSalud and departmental committees. According to interviews as part of the MTE process, community workers actively seek out families that do not participate in PROCOSAN activities.

b. Communication for Behavior Change

The main strategy for BCC is the use of counseling during PROCOSAN sessions, home visits and at health facilities. The ECMAC (family planning) counselors have received training in counseling using the ACCEDA method, as was previously discussed in the section on Child Spacing. Counseling skills are also incorporated into other training courses, for example PROCOSAN.

The PROCOSAN counseling method incorporates negotiating with the mother on new practices which she can adopt. A poster is given to each mother on child feeding behaviors as a reminder of the new practice she has agreed to try. Brigadistas have flipcharts on child feeding to use in counseling sessions. Both of the above mentioned materials are very complex and require excellent training and follow-up with the Brigadistas to ensure they are being used effectively.

The quality of all training activities needs to be monitored so that if strategies are not working, they can be modified. If they are effective in transferring knowledge, a system for monitoring how that knowledge is being put into practice needs to be developed. **A system for monitoring the quality of training and the effectiveness of counseling and other communication methods needs to be developed.** This monitoring system should include a definition of indicators, selection of instruments for monitoring, and planning of follow-up activities.

The CSP has introduced a good system for adult education (see Highlights page); AMATE-for training of more than four hours and IDRE-for training of less than four hours. These methods are also used for planning monthly meetings for Brigadistas and TBAs and have been taught to Brigadistas for planning health talks with mothers. The DIP described the methodology as follows.

> The methodology used in this approach is called AMATE in Spanish and consists of five components: Animation ('Liveliness')—getting the audience prepared and interested in learning; Motivation—stimulating the curiosity of the audience, introducing the topic and finding out what the audience already knows; Appropriation—testing what the audience knows and challenging assumptions through exchange of knowledge, ideas, experiences and the introduction of new information and constructing/incorporating the new ideas/knowledge; Transference—applying the theory to practical situations, working with new knowledge and skills creatively; and Evaluation—demonstrating the integration and connection of new knowledge and skills as evidenced by the results (products) created.

IDRE is a simplified version for shorter training sessions and includes the steps of Introduction; Development of the topic; Reflection on use of the new information; and Evaluation. AMATE-IDRE is well liked as a methodology and has had a wider impact outside of the CSP as MOH and other NGO staff adopt the methodology. SILAIS staff has been receiving weekly training on its use.

The CSP has received good technical assistance from Hope's Regional Health Education Specialist, Marta Arce. Two manuals were developed –Yes, You Can Play with Health, for AMATE and Good Advice Is Easy to Follow for counseling. HOPE, MOH and other NGOs received training on the use of these two manuals.

In addition to the PROCOSAN materials, Project HOPE has the Mothers' Reminder Material Project, funded by GlaxoSmithKline as a multi-country initiative to provide mothers and caregivers with basic information to enable them to recognize and respond to the danger signs of childhood illness and before, during and after delivery. Nicaragua, along with Malawi and Ghana, was among the first of 9 countries where testing of these materials has taken place (prior to this CSP). These materials, which take into account the low literacy rates in Jinotega, have already been tested and refined by Project HOPE in Nicaragua. The materials, for mothers and mother-to-be, are in the form of two attractive, attention-getting calendars. The Mothers' Reminder Material on childhood illnesses was distributed prior to the beginning of this project. The CSP will distribute 10,000 copies of the Mothers-to-be Reminder Materials on maternal danger signs in Jinotega in the near future.

Community members felt that the project had been able to change behaviors in: increased use of FP and prenatal care, improved levels of vaccinations, and better hygiene. The CSP staff felt the

project had been able to change behaviors in: improved hygiene and use of latrines, more institutional births, more involvement of men, use of FP, and community organization. MOH staff felt that improved practices were the use of local resources for better nutrition and encouraging parents to be more involved in caring for their children.

Results from the KPC were mixed; some behaviors have changed, such as increased use of contraceptives and children being weighed. Other behaviors were not changed such as exclusive breastfeeding and home management of diarrhea.

The CSP should develop a comprehensive BCC plan which would include an IEC strategy and Training Plan, for the remainder of the project, including the uses of alternative means for the dissemination of IMCI and MNC messages. The plan should include how the quality of training can be monitored and how the effectiveness of different approaches can be measured; for example, how effective is counseling? Is the cascade approach working? Are home visits and mothers' clubs an effective way to reach families? The focus should be on checking assumptions that what is being done is having a real effect on the behaviors of the population. The plan should consider and respond to the following questions.

- What is the optimal size of groups to participate in training events?
- What are the training needs of the Brigadistas and TBAs as defined by their job descriptions and knowledge/ skills requirements and taking into consideration the training they have already received?
- What does a basic competency-based curriculum for Brigadistas and TBAs look like?
- What is the optimal length of time for training considering the needs of participants?
- How can training be made more practical?
- What system do we need to monitor changes in knowledge and practices amongst Brigadistas, TBAs, MOH and HOPE staff?
- How can other actors (men) be involved in educational events?
- How can the needs of the participants be taken into consideration?

c. Capacity Building Approach

There were no capacity building objectives or indicators developed for this project.

i. Strengthening the PVO Organization

Headquarters

Since January 2002, Project HOPE HQ has been engaged in a process of defining the strategic direction for its growth and development. The process has involved HOPE's staff, Board, donors, and partners in thirty-two countries. The process was led by a management consulting firm with experience in organizational strengthening, technology and operations.

This process helped Project HOPE develop a focused strategic approach centered on excellence in six "core themes": infectious diseases (HIV/AIDS and Tuberculosis), women and children's health, health professional education, health systems and facilities, humanitarian assistance, and the *Health Affairs* Journal. The inclusion of women and children's health was primarily due to Project HOPE's 20 years of experience implementing maternal and child health programs worldwide. Through USAID's CSHGP, Project HOPE has directly benefited more than 1.2 million children under five and more than 1.2 million women of reproductive age since 1985, when HOPE received a USAID Child Survival grant during the first funding cycle (CS-1).

Project HOPE has made strategic changes in its organizational structure, including the composition of HQ-based technical directors to provide expertise in core themes, particularly in HIV/AIDS and health of women and children. HOPE has recently adopted monitoring and evaluation standards for all its programs worldwide. These standards, aimed to improve Project HOPE's capacity to implement quality projects, are based on the "results-based" management practices followed by Project HOPE primarily from the 28 grants awarded by the USAID's CSHGP since 1985.

HOPE is continuously improving global knowledge dissemination through the use of innovative Information Technology tools and shares experiences with more than 35 PVOs at the international level through its active participation in the CORE group.

Capacity Assessment

The organizational capacity building assessment plan was described in the DIP as follows.

> Project HOPE also plans to conduct a capacity assessment of Project HOPE /Nicaragua and its main partner, the SILAIS. The capacity assessment is an intensive effort that will start with an assessment of Project HOPE/Jinotega starting in October 2003, followed later by an assessment of the SILAIS. The outside organization that will lead Project HOPE though the capacity assessment is Pact, the same entity that successfully worked with Project HOPE/Guatemala in a similar exercise last year. The assessment of Project HOPE/Jinotega will last about three weeks and leads the organization through a series of self-assessments in key areas of management, human resources, processes, etc. that influence organizational capacity.

An Institutional Assessment was carried out by PACT in October of 2003. PACT staff conducted a one-week workshop in Jinotega working with field staff to assess organizational strengths and weaknesses at Project HOPE/ Nicaragua with the purpose to improve overall performance. Some results were seen from this exercise, but in general, there was no follow-up to the action plan of sixteen lines of action developed during the process. The lack of follow-up may be attributed to the fact that the many tasks were not prioritized, making the effort seem unmanageable. A strategic planning session, lead by an outside consultant, was conducted during 2004 which helped HOPE/Nicaragua to redefine their future directions and potential expansion. No institutional assessment was conducted with SILAIS.

The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored. It is suggested that the implementation of the work plan be evaluated as part of the final evaluation. **An institutional assessment should also be conducted with SILAIS** (not the PACT methodology**) to identify specific actions for capacity building based on the needs of SILAIS.** If HOPE does not have the expertise to provide capacity building, links with organizations that can provide TA should be investigated. Assistance should be explored in management training, logistics, strategic planning, supportive supervision, and human resource management.

Networking/Coordination

The need for good coordination with other PVO/NGOs is critical in this project. PCI, CRS/Caritas and the Partners of the Americas-Wisconsin projects all implement similar USAID

funded maternal child health activities within Jinotega, as do other governmental projects. The Ministry of the Family (Red de Protección) receives funds from the World Bank as part of the poverty reduction initiative to provide services to the poorest families in two municipalities in Jinotega. They provide quarterly growth monitoring, vaccinations and cash stipends through paid community members, rather than volunteers. Other projects, such as Cuculmeca and PCI provide food donations in the area. All of these factors make working within the department a challenge of coordination with competing priorities and community perceptions of tangible vs. intangible benefits. Project HOPE is the only one with department wide coverage, the other organizations work within select municipalities. HOPE maintains good relations with the other organizations in Jinotega, as well as with CARE in neighboring Matagalpa. There are opportunities for sharing experiences and defining geographical areas but there is still substantial overlap. Many training sessions for MOH staff are conducted through cost-sharing between two or more PVOs, as most of the organizations have a joint objective of strengthening the MOH. In Jinotega, Project HOPE represents all NGOs working in the region on the Departmental Health Committee.

Project HOPE/Nicaragua is an active member, and currently a member of the Board of Directors, of NicaSalud, a PVO/NGO Network in Nicaragua that provides a forum for coordination and sharing of experiences, as well as providing technical assistance for its members. NicaSalud has improved coordination and sharing among organizations and advocacy has been strengthened through membership in NicaSalud. There are also regional sub-committees, for example PVOs in Jinotega and Matagalpa work together on information systems (CARE, HOPE, Partners in the Americas-Wisconsin, CRS, and PCI).

Another opportunity for networking exists through HOPE's involvement in USAID/Nicaragua's SO3 group. USAID arranges quarterly meetings of the organizations receiving funds in health and social development for sharing experiences and reporting advances.

PROSIC is a USAID funded maternal child health with approximately the same objectives and goals as the CSP, working also in Jinotega. Funds are channeled through NicaSalud, with TA provided by FANTA. In Jinotega PROSIC is being implemented by Project HOPE, PCI, CRS/Caritas and the Partners of the Americas-Wisconsin, and by CARE in Matagalpa. There are two other PROSIC projects, one being implemented by Plan International and Save the Children, and a third by ADRA.

ii. Strengthening Local Partner Organizations

Feedback from the MOH and other partners is generally positive as to the importance of the role HOPE is playing in providing technical and logistical support. In interviews it was mentioned that because the CSP implements MOH programs, the coordination is much easier than with other projects that utilize differing strategies. Some MOH staff reported being involved in the planning process and a few had copies of project objectives. There is a positive view that HOPE, is still able to motivate communities to participate, even though food is not distributed as part of health activities, This is attributed to health talks and counseling and encouraging people to use local resources.

Another important positive observation by the MOH concerning the CSP is that PROCOSAN is being implemented in at-risk communities, which were selected by the MOH and the project is working in isolated communities, not just the most accessible ones

One problem is that MOH staff sees the health strategies as "belonging" to the implementing NGO, not to them and as adding on extra work to their already busy schedule. PVOs need to learn to better negotiate with the MOH with a focus on how to change institutional culture and behaviors. One step that has fortified ties between the MOH and HOPE has been the institutionalization of some pilot programs such as Birth Planning, PROCOSAN, and SICO on a national level.

Though planned, no institutional assessment has been conducted with the principal partner, SILAIS, the departmental level of the MOH. No joint plan was developed for strengthening the capacity of SILAIS based on what SILAIS felt they needed strengthened. During the MTE, MOH team members were able to identify very concrete ways which the CSP could provide support, such as management strengthening, further guidance on TQM, management of files and strategic planning.

SILAIS staff has received training in TQM (Total Quality Management) and AMATE-IDRE and many were involved in the sustainability workshop conducted by CSTS. The training in AMATE-IDRE is an ongoing training being held in weekly sessions. The CSP Specialists felt that institutional strengthening of SILAIS has led to improved leadership at both that level and the municipal level. Work with the MOH has lead to a shared vision of quality and sustainability. There is a need to improve planning, monitoring, and evaluation between HOPE, SILAIS and the municipal levels. Additional activities conducted for strengthening health facilities and health workers are included in the next section.

According to the DIP:

> With respect to capacity building, HOPE will facilitate the establishment of Department- and Municipality-level Health Councils—to include representatives of SILAIS (MOH Department-level), municipalities, private coffee plantations and associations, PVOs, NGOs, community leaders, health providers, and international donors—to guide and extend the project. Program staff will work with constituent groups to train key leaders and supervisors, establish planning systems, develop informational tools and procedures for evaluation, and develop their overall capacities to design and effectively implement CS activities.

This strengthening of the municipal and departmental councils has not occurred, as the councils are formed by the MOH as ad hoc committees and only used for specific tasks, such as a disease outbreak or the national vaccination campaign. They are not an ongoing decision making body. Members include the MOH, HOPE and other international and local NGOs, such as AVODEC, Cuculmeca, PCI, CRS, etc.

Human resource problems dominate the MOH reality there is not sufficient staff, many are not adequately trained and they rotate very frequently. Some HPs are closed frequently due to staff shortages. Jinotega is considered by many to be an undesirable place to work due to the isolation and there is no financial incentive for working there. There are several supplementary funds for hiring staff, which also contributes to the frequent turnover. Due to the number of projects in the area, there is also a migration from the MOH to projects. SILAIS reported that there are 90

unfilled positions in the department according to MOH's plan. These limitations have made progress difficult and underscore the need for improved planning, coordination, and training.

One of the realities of working in Jinotega is the continuous rotation and shortage of human resources. **HOPE and MOH should develop strategies for working within the human resource limitations of the department, such as a self guided system for continuous training continuing education opportunities, and orientation for new staff.**

iii. Health Facilities/ Health Worker Strengthening

The CSP has focused their efforts on strengthening health facilities and health workers in four principal areas: 1) training (which will be discussed in the next section); 2) establishing links with the communities; 3) supervision; and 4) quality of care.

Links with the Community

The referral system has been strengthened through training, supervision and provision of referral forms. This vital link to the communities will need additional strengthening in the future but the majority of community workers interviewed during the MTE reported that the system was working well. This system provides a good means of improving communication between MOH staff and community workers.

The use of regularly scheduled monthly or bimonthly meetings has been an excellent strategy for indirect supervision of Brigadistas and TBAs. The meetings provide an opportunity for training, collection of information, re-supply of materials, and sharing of experiences. This strategy is a very sustainable way for the HC/HP staff to link with the vital community workers. This strategy could be further strengthened by limiting the size of the groups (some groups being as large as 50 –60 participants), through having sector meetings and using the meetings as an opportunity to analyze and use information for decision making.

A potential link, which has not been sufficiently exploited, is to strengthen the MOH involvement with community committees. During the MTE, one of the health facilities reported that they work with the community development committee with good success. Models where civil society is being involved in the functioning of health facilities could be identified and replicated.

Supervision

One of the main tools the MOH has for supervision and health facility assessments is the former Fully Functioning Health Unit tool, now called AMAS (*Abordaje para el Mejoramiento de la Atención en Salud*, Carrying out the Improvement in Health Care) . AMAS consists of standards and checklists focusing on thirteen key areas that impact quality of care and service delivery and focuses on the physical environment of the health facility, including equipment and supplies; the management and the quality of care provided by the staff; existence and stability of human resources; the satisfaction of clients; and the involvement of the community in creating a culture of quality health care. Each facility (health center and post) is expected to be assessed once every six months. The tool was recently modified with TA from Management Sciences for Health but has had limited use to date. There is software available for computerizing the results. The original plan in the DIP was to identify gaps in the AMAS system and supplement it with tools from the COPE (or similar) methodology, particularly focusing on health worker

knowledge and skills. The project decided they would not introduce additional tools. Other tools are available for supervision such as the IMCI Supervision checklist, and monitoring of quality standards.

Quality

Quality standards have been established by central level MOH for all major interventions. The Nicaraguan National University trained six municipal teams and the Project HOPE technical team in Total Quality Management (TQM). . Seven of the eight municipalities have a quality committee with responsibility for leading quality initiatives and monitoring quality standards. In an interview with the chairman of the quality committee in one municipality, she stated that activities have been started, but enthusiasm for meeting regularly and continuing with quality initiatives was limited.

Several studies were conducted by the CSP on organizational climate at the health facility level. These studies included patient flow, time studies, and user satisfaction. One was done in Bocay in August 2002 before this project started. An improvement plan was developed in Yali in March 2003, another in El Cua in September 2004 which included a presentation of steps to improving.

A study conducted in one HC in Pantasma in March 2004 found that 91% of a person's time was spent waiting and 9% in contact with health staff, this was repeated in July 2004 and improved to 83% spent waiting and 17% time with health personnel. In September 2004 a similar study was conducted in one HC in Bocay which found 86% of time is spent waiting and 14% in contact. There was no evidence of follow-up to this study but results were shared with the SILAIS.

CSP Staff felt there has been an improvement in the quality of health services, especially in caring attitude of health staff, prioritization of services based on triage, use of the birth plan, and referral system. MOH staff felt it has been beneficial for them to receive feedback from the communities through the monthly meetings and that there was now a better flow of information and counseling. During MTE interviews with community members the most common definition of quality of health care services is if they were given drugs. They also felt they were treated faster, that priority was given to very sick people, and that there was more education.

iv. Training

According to the DIP:

> The project's approach to training is somewhat different than what was presented in the proposal. Project HOPE had characterized its approach to training as a cascade—where the project would train master trainers, who would train the highest level of health care worker, who would in turn train the next level down, etc. This approach assumes that those trained are good trainers, and that little quality is lost as one progresses down through the system to the level of the community health volunteers, who are often the first point of contact for clients entering the system. In discussions with the SILAIS, the project developed an alternative approach to training where: 1) Project HOPE will assist the MOH to train a cadre of 54 facilitators who work for the SILAIS across Jinotega; 2) the facilitators will train other MOH staff, at first with assistance from Project HOPE, and 3) wherever possible, the facilitators would train teams of health care providers from the same area together, eliminating to the greatest extent possible the number of health providers who are not directly trained by a facilitator.

The training of a cadre of 54 trainers has not been done due to the rotation of personnel. Only 1-2 people per municipality have been trained. PROSIC and other NGOs have also trained additional trainers in some municipalities. In some cases Central MOH personnel trained national facilitators (including NGOs) to replicate the training at the municipal level. Other times Central MOH trained the SILAIS to replicate the training events at the municipalities. The CSP is currently training the SILAIS technical team in the AMATE/IDRE methodology so that they will be the multiplying agents for the methodology at the municipal level for trainers and educators of the MOH.

One of the strategies planned in the DIP was to offer self-learning modules for health staff as a way to improve skills and provide accreditation to staff through the university system. The proposal was to use a series of comprehensive distance-learning modules developed by MSH/Prosalud. Early feedback on the use of these modules indicated resistance to the onerous reading requirements in this type of training. Therefore, Project HOPE proposed to adapt the materials to be more user-friendly, i.e. experimenting with audiotapes and virtual interactive media.

This strategy has not been implemented. CSP staff reported an adverse experience by other organizations in using this strategy as the reason for not implementing it. This was based on the experience of Prosalud and MSH in other parts of the country. As a substitution for the planned activity, the project decided instead to focus on improving health staff knowledge and skills through supportive supervision in coordination with MOH.

d. Sustainability Strategy

There were no sustainability objectives or indicators developed for this project.

CSTS provided technical assistance to the HOPE CSP in February 2004 in the use of the Child Survival Sustainability Assessment Framework (CSSA). The HOPE/Nicaragua team and local partners engaged in a process of visioning a positive future for the community; classifying their key project activities along the dimensions of the framework; analyzing existing data to determine their present state in relation to the vision created, and planning strategically to improve the present state through building community and partner capacity to maintain health outcomes. The outcome of this technical assistance was the development of an action plan for increasing community and local partner capacities for implementing PROCOSAN, and identification of next steps required to secure partner buy-in to the action plan. This action plan focused on the gradual transition of implementation responsibilities to partners and communities over the remaining years of the project.

Because the CSSA was not conducted during the first half-year of the project the specific activities related to sustainability were not included in the DIP. Nevertheless, the TA did allow HOPE and partners to reflect on the multi-dimensional nature of sustainability within the context of the PROCOSAN program. Detailed work was only carried out on component 1 of dimension 2: Local organizational capacity. There has been little follow-up on the sustainability exercise and the action plan which was developed has not been monitored. A separate analysis using TQM tools was carried out on the same component. An action plan was developed, but not monitored.

During the MTE, community members were asked about what actions they felt they could take to sustain the health activities. Mothers in almost half of the groups interviewed said they could help the Brigadistas by paying for their transportation when they attend training, others said by helping them during weighing sessions, preparing lunch for them when they had to walk a distance, encouraging them to attend training, telling them how important their work was, and having raffles to help them. Communities have positive ideas but this potential means to promote sustainability is not being tapped by the project.

The CSP is using a revolving fund strategy for eight drug funds, the majority of which are being implemented by private sector coffee growers. By working within the existing PROSALUD structure the sustainability of these important activities to provide access to drugs is very plausible.

Many of the MOH programs which are being supported by the CSP rely heavily on expensive material inputs, particularly PROCOSAN. Currently educational materials are paid for by the project for PROCOSAN and maternal health. The question for the future is whether the MOH has sufficient funds, and political will, to pay for these inputs. A positive role for the CSP could be to investigate alternative sources of funding and cost-saving measures which would make the programs more sustainable. One example was the use of black and white Birth Plans rather than the more expensive color copies.

Project HOPE has an active Humanitarian Assistance Program, through which a large amount of pharmaceutical products are obtained as part of Gift-In-Kind (GIK) donations. The national donation level during the life of this project has been 9.5 million dollars, 2.77 million of that going to Jinotega. The long term impact of these donations has not been well studied and the long term commitment of the organization to continue is not ensured. Donations of medicines to the MOH have been an important role for HOPE and one of the most visible impacts of the CSP.

There are some issues still pending which will need to be addressed in the future.

- With improvements in referrals, links with communities and quality of care, demand has increased. This leads to improved coverage; but the question is, can the demand be met with current resources?
- Community definition of quality is whether drugs are available; the CSP is supplying drugs outside of the MOH's ability to provide them. When the CSP ends, will a shortage of drugs result in decreased use of health services?

These issues need to be addressed by all stakeholders and with continuing dialogue concerning the transition plan and long term sustainability. **Develop a sustainability plan based on the work started with the CSSA model, including planning with communities, based on the use of local resources for problem solving.** There have been a number of positive experiences within the project area and in neighboring departments that can be drawn upon in the development of this plan.

Recommendations for <u>B.2.Cross Cutting Approaches</u> include the following:

1. **All staff and volunteers, at all levels, need to be motivated, mainly through non-economic stimulus such as public recognition of good work, opportunities to exchange experiences, diplomas for completing training activities, identification**

cards, etc. Simple things like hats or tee shirts should also be considered for stimulus and team building.

2. **HOPE and MOH should jointly develop a strategy for the formation of community committees; to expand their role in the community if there is a gap, or to coordinate with existing community structures.**
3. **A system for monitoring the quality of training and the effectiveness of counseling and other communication methods needs to be developed.**
4. **The CSP should develop a comprehensive BCC plan, which would include an IEC strategy and Training Plan, for the remainder of the project, including the uses of alternative means for the dissemination of IMCI and MNC messages.**
5. **The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored.**
6. **An institutional assessment should also be conducted with SILAIS to identify specific actions for capacity building based on the needs of SILAIS.**
7. **HOPE and MOH should develop strategies for working within the human resource limitations of the department, such as a self guided system for continuous training, continuing education opportunities, and orientation for new staff.**
8. **Develop a sustainability plan based on the work started with the CSSA model, including planning with communities, based on the use of local resources for problem solving.**

C. Program Management

1. Planning

Project staff, partners and the community were all involved in developing the DIP. Staff reportedly review their workplans every two weeks and have a monthly meeting for evaluation and planning purposes. An annual analysis of KPC results is conducted, and a joint meeting held with MOH and HOPE to present information on project advances. Although communities and partners understand the general project goals (decrease infant/maternal mortality), they do not understand the project strategies and indicators. The DIP has never been translated from English to Spanish so the document could be effectively shared with partners. Only the workplan with results and process indicators was translated, but almost no partners reported that they had a copy.

Program monitoring of process indicators has not been used for planning and/or revising program implementation because the project has not been monitoring process indicators; only results indicators. Information collected during annual KPC Surveys was processed, discussed internally and then shared with the MOH and other partners. Data from this analysis is included in the preparation of the annual work plans HOPE and SILAIS.

One of the main suggestions made in MTE interviews with MOH staff was that the planning system between HOPE and the MOH needs to be improved and be based on decisions made as equal partners.

2. Staff Training

The eight HOPE/Nicaragua staff members entitled Educators came to the CSP with very good prior knowledge and substantial experience with other PVO/NGO projects. A test of technical knowledge was reportedly given to the Educators at the beginning of the project. The Educators

report receiving training in counseling, IMCI, AMATE-IDRE, Information management and use of Portable Digital Assistant devices (PDAs), Lot Quality Assurance Sampling (LQAS), Obstetric Emergencies, PROCOSAN, FP, ECMAC, MOH's HIS, and solar disinfection of water (SODIS).

All of the four original technical specialists held key roles in prior Project HOPE/Nicaragua projects. All of them have experience working for the MOH in Nicaragua, and many also have prior work experience with NGOs or PVOs. The IEC Specialist had the opportunity to travel to Peru to take part in a Regional Training activity of the Education Coordinators for all Latin American countries. The specific task for this meeting was the identification of key indicators for the monitoring process of the educational component of the projects.

3. Supervision of Program Staff

Supervision of the Educators and Specialists could be improved as there are no standards for the frequency of supervision visits, or a standardized supervision format, except for an IEC checklist for educational activities. Educators feel that they get good support for their activities, but joint field visits would strengthen their work and help in problem solving.

4. Human Resources and Staff Management

The Educators are a cohesive group who come to HOPE with good previous experience. They feel that HOPE has a very good reputation in the country and area and has become a major player in health activities and a leader in the department of Jinotega. They felt that the benefits received from HOPE were good in comparison with other NGOs, such as support for educational activities and the opportunity to purchase their own motorcycle.

Currently three administrative staff, three Specialists and three Educators are receiving educational subsidies, as well as two MOH staff. Morale is good amongst the Educators and they provide good mutual support.

The Educators were given the option (which they all took) of buying the project motorcycles through an installment plan over the life of the project ($32 X 92 payments= $1750). They thought this was a very fair arrangement and recognized the advantages of this opportunity. Specialists were offered a similar contract to purchase laptops ($1460) over a period of time.

Comments from HOPE Specialists include that there is good participation of staff within HOPE, without undue bureaucracy or rigid structures. They did note a confusion with the dual role they play as having both a geographical responsibility (each Specialist is responsible for two municipalities and supervises two Educators) and their specialty (child health, maternal health, IEC, M&E).

Staff turnover has been minimal amongst the Educators. All eight have been with the CSP for over two years. The position of Specialist for maternal health has essentially been vacant since October 2004 (the position was briefly filled April 2005 to May 2005). All other positions are filled with people who have been with HOPE for 5-7 years.

There is a human resources manual and all positions have written job descriptions. There were weaknesses identified with the administrative manual during the institutional assessment carried out in 2003. The problems were that the document was in English, was not available to staff, and

was a generic manual written by HQ and not specific to HOPE Nicaragua. These issues have been corrected and the Finance Manual was also translated into Spanish

Project HOPE has a good reputation for helping staff to gain new skills making them more employable when the project ends. Whenever possible HOPE transitions existing staff into new projects; all of the Specialists were employed in prior HOPE projects.

5. Financial Management

The CSP has an administrator in Managua and an Administrative Assistant in Jinotega. (The Administrative Assistant is also responsible for the PROSIC project implemented by HOPE.) There is good communication between the two via telephone or direct visits. There were some problems in the past with the accounting system, but a modified system was introduced in March 2004 which appears to be working well. Project HOPE HQ has established an Internet web page-based pipeline reporting system which has the most recent financial information updated monthly for use by the field offices.

6. Logistics

There have been no limitations to project implementation due to logistical concerns, nor are any anticipated in the future. The project has good transportation and communication systems available. A good strategy for ensuring the care of project motorcycles was described in point 4 above. Each of the Educators has a motorcycle.

7. Information Management

The CSP needs to seriously re-evaluate the purpose of their M&E activities. The system has numerous problems despite that fact that there are two full time staff (M&E Specialist and MIS Coordinator; who was not included in the proposal and not funded as a full time position in the budget), and receipt of outside technical assistance. There was a misunderstanding about how the KPC should be used within the project as an evaluation, not a monitoring tool, and there has been a deviation of project focus on the development of SIGHOPE, a computerized information system for HOPE with PROCOSAN information.

The PROCOSAN information is collected for all children monthly by HOPE Educators with Personal Digital Assistants (PDAs) from the PROCOSAN 'List of Children under 2 Register' in each community. This information includes: Child's name, date of birth, birth weight, age, weight, and monthly updates on weight gain compared with expected weight gain, growth tendency, use of iron supplement, completed immunizations, early stimulation, breastfeeding, introduction of food, morbidity treatments and referral to health unit.

This system is being developed in disregard for the statement in the DIP which says that the main activity would be to "Support SILAIS in updating and streamlining the government HIS so that managers can collect, analyze and use data at every level" and that "the collection of health information data by CHVs and health units will be the main source of information for monitoring of program indicators and activities progress. Project HOPE purposely will avoid creating a parallel system of data collection".

The SIGHOPE system is linked with a Geographical Positioning System. The DIP states; "Project HOPE is recently introducing the use of a Geographical Positioning System (GPS) that uses the same PDAs to map out all the rural communities in the program target area. To do so, a

geographical information system will be part of the overall HIS for program management decisions. Adding the GPS component will allow spatial presentation of data analysis results and more effective sharing of information with partners and stakeholders. These tools will expand the concept of the use of data for program management at all levels of project implementation with continuous feedback according to progress and problems identified during the monitoring process." Quite the opposite has occurred. The GPS, after 2 ½ years, still does not provide usable information and the focus has not been on the use of data. The system is dependent on technologies which the MOH will be unable to replicate and focuses on the input of information, without having a clear idea of results, or how the information will be used for decision making.

Training Database

Training information on who has been trained, in what topics, and when is included in a training database in Access. Training is being tracked on an individual basis for all TBAs and Brigadistas.

SICO Community Information System

The CSP has developed a system in Excel for monitoring the official MOH community information system (SICO), which appears to work well. The SICO itself, however, suffers from problems in implementation. For example, in the nine communities visited during the MTE, four did not have the SICO Daily Register and three did not have the monthly report form. Further to this, the information is not being used effectively. The CSP has an opportunity to help strengthen this system, particularly the use of information by the communities for problem solving and decision making.

Technical Assistance by the CSP related to Information Management

HOPE/Nicaragua's MIS person has provided technical assistance to the MOH in ECMAC and Birth Planning programs. During the month of September 2003, he traveled to Guatemala to provide training to Project HOPE's CSP staff in Quetzaltenango on how to use PDAs for their KPC mid-term survey scheduled for October 2003.

KPC

When CSP staff was asked about changes in behaviors attributable to the project, the most common response was that behavior change takes time. In view of this truism, it is difficult to understand the logic of completing four complete KPC surveys within two and a half years (March 2003, September 2003, September 2004, March 2005). There has been a miscommunication about the role of the KPC and the LQAS sampling method, in monitoring project progress. This has unfortunately resulted in an unnecessary investment in staff time and budget with little benefit.

A study on the utility of using Personal Digital Assistants (PDAs) in collecting field interview information for the KPC survey was planned but has never been conducted. During the baseline survey 100 cases (children 0-11 months) were collected through dual methods but a verification study was never run. During the MTE, all 300 cases were collected both on PDA and manually.

A detailed discussion concerning problems with the KPC is included in Annex E, and the full report of the KPC conducted at mid-term is included in Annex F.

Recommendations on how the KPC/LQAS could be used in the future to enhance project activities include:

- **The KPC survey should not be repeated until the final evaluation;**
- **LQAS could be used more creatively, for example, to monitor changes in Brigadistas, TBAs or health staff, not just mothers;**
- **Process indicators and a simple monitoring system need to be developed, and utilizing, when possible, existing instruments;**
- **MOH indicators should be incorporated into the CSP monitoring system when possible;**
- **Take into consideration the precision of evaluation methodologies when setting targets for results indicators. Many of the targets could never be shown to be statistically significant from the baseline; for example, the indicator for percent of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method showed at baseline a level of 65% and the final target was set at 70%. The KPC instrument, especially only measuring mothers with children 12-23 months old, would never show a significant difference between these two numbers. This is a limitation related to the number of interventions selected by the project (8) making it difficult to show measurable change in so many different areas,**
- **Information from the KPC is currently in Epi-Info and Access; one person has one system, another person the other. Project Management should select one software system for KPC data and define who will be responsible for analyzing KPC information;**
- **HOPE, with concurrence from the donor, should consider conduct the end-of-project KPC in the 80 priority communities, not the 730 total communities in the department, due to the large number of other PVO/NGOs working in the same area and the consequence inability to attribute changes to any one agency;**
- **LQAS should be part of an ongoing supervision system, not a separate survey activity.**

Qualitative investigation

A qualitative study was carried out in June 2004 on maternal preferences related to where they give birth and who attends them. Eleven focus groups were conducted with mothers, TBAs and health personnel looking at factors influencing of institutional vs. home delivery and being attended by health staff vs. TBAs. The investigation was conducted by HOPE and MOH in six of the municipalities of Jinotega and has been used to improve institutional practices, specifically in the involvement of TBAs in institutional births.

Use of Information

One of the main strategies for guiding the use of information, as presented in the DIP was the use of "Salas Situacionales" a forum which would provide Brigadistas and TBAs an opportunity to discuss findings from the information they routinely collect. This has not been done. The CSP has an excellent strategy of monthly meetings which would be a very appropriate opportunity for teaching analytical skills for decision making. **The monthly meetings for Brigadistas and TBAs should be strengthened to include analysis of information for improved decision making.** The concepts of problem solving and evidence-based decision making need to be the focus in the future.

The use of information at all levels for decision making needs to be a project priority during the second half of the funding cycle. **Strengthen analytical abilities in the communities,**

Brigadistas, TBAs, MOH and HOPE staff. The use of monthly meetings is an excellent strategy as a first step, but opportunities for using information need to be expanded to all levels.

8. Technical and Administrative Support

The following technical assistance visits were received by the project:

- November 2002 by Marta Arce, Regional Health Education Specialist to help draft new job descriptions and define the roles of each of the technical specialists and the introduction of AMATE
- January 2003 by Juan Carlos Alegre, HQ M&E Specialist to support field staff in the design and preparation for conducting the baseline assessment
- February 2003 by Ann Davenport, consultant and Virginia Lamprecht, HQ backstop to write the DIP and review objectives and strategies, select and 'finalize' key indicators, and create a "HOPE vision" for the project to be used in discussions SILAIS and stakeholders as part of the DIP process.

Additional TA was received from Rob Northrup in his role as Acting Director of MCH Unit at HQ from October 2002 through April 2005. Juan Carlos Alegre also provided some technical support for the same period. Bonnie Kittle was hired in April 2005 as the Director of the Health of Women and Children Unit and is now the technical backstop person for the CSP in Nicaragua. Ms Kittle attended the second half of the MTE. The Regional Director for the Americas (Bob Grabman) visited the project on four occasions for managerial oversight. The project also received the visit of Dr. Randy Wykoff, Senior VP of Project HOPE's International Division during the second quarter of the project.

Administrative support has been ongoing with the assistance of two HQ staff: the Assistant Regional Director and the Financial Program Manager mostly for financial issues as well as administrative support from the Administrative Assistant.

Marta Arce, Regional Health Education Specialist, has made annual visits to the project and conducts very specific V-classes (Internet conferencing) for staff on IEC issues. The CSP staff felt that this TA had been extremely useful. Other v-class sessions were felt to be too general to be of help with specific problems and were conducted in English. The staff expressed frustration at what they perceived as a lack of adequate TA during the first half of the project. The project will need further technical support in the use of data for decision making, and HIV/AIDS.

Recommendations for <u>C. Project Management</u> include the following:

1. **Recommendations on how the KPC/LQAS could be used in the future to enhance project activities include:**
    - **The KPC survey should not be repeated until the final evaluation;**
    - **LQAS could be used more creatively, for example, to monitor changes in Brigadistas, TBAs or health staff, not just mothers;**
    - **Process indicators and a simple monitoring system need to be developed, and utilizing, when possible, existing instruments;**
    - **MOH indicators should be incorporated into the CSP monitoring system when possible;**
    - **Take into consideration the precision of evaluation methodologies when setting targets for results indicators.**

- **Information from the KPC is currently in Epi-Info and Access; one person has one system, another person the other. Project Management should select one software system for KPC data and define who will be responsible for analyzing KPC information;**
- **HOPE, with concurrence from the donor, should consider conducting the end-of-project KPC in the 80 priority communities, not the 730 total communities in the department, due to the large number of other PVO/NGOs working in the same area and the consequence inability to attribute changes to any one agency;**
- **LQAS should be part of an ongoing supervision system, not a separate survey activity.**

2. **The monthly meetings for Brigadistas and TBAs should be strengthened to include analysis of information for improved decision making.**
3. **Strengthen analytical abilities in the communities, Brigadistas, TBAs, MOH and HOPE staff.**

D. Conclusions and Recommendations

The CSP in Jinotega being implemented in partnership by Project HOPE, SILAIS/MOH, and private sector coffee growers has been able to move forward during the first half of the project on a number of fronts:

- Support to ongoing or newly introduced MOH programs in child health, maternal health, quality improvement, and family planning;
- Provision of logistical support (transportation), materials, and medicines;
- Monthly or bimonthly meetings as linkage between MOH and community;
- Improved access to health services, by working in isolated communities
- Training for Brigadistas, TBAs, community committees and MOH staff; 368 Brigadistas had attended at least one training event and 234 TBAs had attended at least one training event
- A KPC Survey was conducted as part of the mid term evaluation and showed an increase in vaccination coverage, use of modern family planning methods, improved knowledge of prevention of HIV/AIDS and improved care seeking during diarrhea;
- Committees for emergency transportation during obstetrical emergencies have been formed in 63 communities with 104 committee members trained in the formation of emergency brigades, collecting funds to help cover medical emergencies, recognition of danger signs, etc.
- PROCOSAN has been implemented in 76 priority communities, selected by the MOH.
- Community based child spacing has been established in 36 of the 80 priority communities, plus an additional 22 communities selected by the CSP and MOH (total 58), with trained counselors who distribute some contraceptive methods in the communities. Project records show there are 49 counselors in the 80 priority communities and 27 counselors in other communities.
- The CSP is supporting, through training, materials and supervision, the implementation of the official national MOH program for Maternal Newborn Care in 58 of the 80 priority communities plus five additional communities
- A qualitative study was carried out by HOPE/MOH on maternal preferences for home vs. institutional birth.

- The Humanitarian Assistance Program provided donations of pharmaceutical products. The national donation level during the life of this project has been 9.5 million dollars, 2.77 million of that going to Jinotega

The project has experienced some serious constraints during implementation:
- The finalization of the new MOH programs took longer than expected, causing delays in implementation and several times, having to redo previous work when changes were made
- Lack of ownership of initiatives by MOH staff;
- Rotation of MOH staff;
- Because of differing levels of benefits, especially food distribution, some community members are not interested in working with a project which offers no tangible benefits.

The project however has some weaknesses which need to be addressed:
- No monitoring of process indicators;
- Deviation from M&E plan due to misunderstanding of the use of some instruments and introduction of SIGHOPE;
- Lack of follow-up on the CSTS Sustainability Framework and HOPE Nicaragua Institutional Assessment.
- Greater emphasis on the use of information for decision making

Recommendations

B.1. Technical Approach

It is suggested that Results Indicator 1 be changed to measure two or more prenatal visits, since the data is available for baseline and MTE surveys and represents a more alarming trend in adequate prenatal attention.

HOPE staff should receive technical assistance on HIV/AIDS.

Using the PROCOSAN methodology all communities are supposed to have quarterly meetings to discuss health issues based on children's growth. These are rarely carried out and would be an excellent future activity for the CSP to strengthen the use of nutrition, and IMCI information.

The CSP should investigate traditional locally available liquids such as rice water, barley water or coconut water and encourage the use of these liquids during episodes of diarrhea.

The CSP should work with SILAIS and/or NICASALUD to identify guidelines for resolving the discrepancy between the child health cards and the PROCOSAN definition of adequate growth.

Due to the decrease in exclusive breastfeeding the CSP needs to further study the key determinants that influence the early initiation of breastfeeding and exclusive breastfeeding for the first six months of life.

The CSP needs to develop a workplan for the next two and a half years, including well defined qualitative studies to help guide their work in the future.

B.2.Cross Cutting Approaches

All staff and volunteers, at all levels, need to be motivated, mainly through non-economic stimulus such as public recognition of good work, opportunities to exchange experiences, diplomas for completing training activities, identification cards, etc. Simple things like hats or tee shirts should also be considered for stimulus and team building.

HOPE and MOH should jointly develop a strategy for the formation of community committees; to expand their role in the community if there is a gap, or to coordinate with existing community structures.

A system for monitoring the quality of training and the effectiveness of counseling and other communication methods needs to be developed.

The CSP should develop a comprehensive BCC plan, which would include an IEC strategy and Training Plan, for the remainder of the project, including the uses of alternative means for the dissemination of IMCI and MNC messages.

The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored.

An institutional assessment should also be conducted with SILAIS to identify specific actions for capacity building based on the needs of SILAIS.

HOPE and MOH should develop strategies for working within the human resource limitations of the department, such as a self guided system for continuous training, continuing education opportunities, and orientation for new staff.

Develop a sustainability plan based on the work started with the CSSA model, including planning with communities, based on the use of local resources for problem solving.

C. Project Management

Some recommendations on how the KPC/LQAS could be used in the future to enhance project activities include:

- The KPC survey should not be repeated until the final evaluation;
- LQAS could be used more creatively, for example, to monitor changes in Brigadistas, TBAs or health staff, not just mothers;
- Process indicators and a simple monitoring system need to be developed, and utilizing, when possible, existing instruments;
- MOH indicators should be incorporated into the CSP monitoring system when possible;
- Take into consideration the precision of evaluation methodologies when setting targets for results indicators.
- Information from the KPC is currently in Epi-Info and Access; one person has one system, another person the other. Project Management should select one software system for KPC data and define who will be responsible for analyzing KPC information;
- HOPE, with concurrence from the donor, should consider conducting the end-of-project KPC in the 80 priority communities, not the 730 total communities in the department, due to the

large number of other PVO/NGOs working in the same area and the consequence inability to attribute changes to any one agency;
- LQAS should be part of an ongoing supervision system, not a separate survey activity.

The monthly meetings for Brigadistas and TBAs should be strengthened to include analysis of information for improved decision making.

Strengthen analytical abilities in the communities, Brigadistas, TBAs, MOH and HOPE staff.

E. Results Highlight

Implementation of AMATE-IDRE: An Adult Learning Methodology for Health Education

Project HOPE's Child Survival (CS) project in Jinotega, Nicaragua has adopted the AMATE-IDRE adult learning methodology for conducting health education activities to key project partners: SILAIS-Jinotega (MOH) staff and community volunteers. The AMATE-IDRE methodology addresses the promotion of health as a physical, mental, and social well-being, within a dynamic and dialectic process between the person and her/his environment. The methodology, which promotes positive models, active decision making, taking responsibility, and adoption of key behaviors, focuses on improving on-the-job performance, increasing efficiency, building capacity to solve problems, and adopting reflective praxis.

The adoption of the AMATE-IDRE methodology in the five-year CS project implemented by Project HOPE in Jinotega, Nicaragua started since the beginning of the project (2002) and involved three phases as follows:

Phase I: Introduction of the methodology through the identification and training of Project HOPE health educators staff in Jinotega, with direct support from Project HOPE's regional educator for the Americas region. This phase included the provision of tools to promote the introduction and adoption of this methodology to the SILAIS-Jinotega.

Phase II: Strengthening Project HOPE-Nicaragua and SILAIS-Jinotega staff in planning health education sessions with the AMATE-IDRE methodology. It also included the supervision of Project HOPE-Nicaragua health educators in conducting effective health education sessions to community volunteers and traditional birth attendants.

Phase III: Strengthening skills of Project HOPE and SILAIS-Jinotega staff in designing and implementing health education training workshops to improve counseling skills among health workers and community volunteers.

The adoption of the AMATE-IDRE methodology by Project HOPE's CS project in Jinotega, Nicaragua has provided the following results:

- Thirty staff members (15 from Project HOPE-Nicaragua and 15 from SILAIS-Jinotega) trained in the AMATE-IDRE methodology;
- Project HOPE-Nicaragua facilitators planning with SILAIS-Jinotega and other NGOs staff training workshops targeted to health personnel, health promoters, TBAs, and mothers in all municipalities of the department of Jinotega;
- All Project HOPE-Nicaragua health educators conduct health education sessions following the AMATE-IDRE methodology. In response to SILAIS-Jinotega request, a cascading model for training health personnel at all municipal levels is being implemented;
- SILAIS-Jinotega is currently validating its "Plan de Parto" (birth plan) designed with the AMATE-IDRE methodology;
- Today, SILAIS-Jinotega staff uses the AMATE-IDRE methodology in most of their health education sessions without direct intervention from Project HOPE staff.

ACTION PLAN

In response to the mid-term evaluation recommendations, Project HOPE put together an action plan through a process that included active participation of Project HOPE-Nicaragua CS staff and SILAIS-Jinotega feedback. Project HOPE HQ staff provided technical support during a four-day workshop held in Jinotega and throughout the entire process. The following three matrices summarize the activities and results in response to the mid-term evaluation recommendations. Matrix 1 shows a summary of the findings, conclusions and recommendations form the mid-term evaluation. Matrix 2 shows the recommendations analysis, with decisions to accept or reject recommendations with respective evidence and explanations. Matrix 3 shows the detailed work plan for the period 2005-2007, with specific activities, timeframe, and persons responsible for those activities. The detailed work plan in Matrix 3 replaces any previous workplans.

Review of Mid-Term Evaluation Results and Workplan

Matrix 1: Findings, Conclusions and Recommendations

Intervention: Maternal and Newborn Care: 30%			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
94% of mothers of children aged 0-23 months report having had at least one prenatal visit with a doctor or nurse. (BL: 89%, Goal: 95%)	The above indicator was chosen by the project as a results indicator, but if a more in-depth analysis had been conducted at the time of the baseline, a much more serious problem would have been revealed.	It is suggested that Results Indicator "1" be changed to measure two or more prenatal visits, since the data is available for baseline and MTE surveys and represents a more alarming trend in adequate prenatal attention.	

Intervention: Nutrition / Micronutrients: 13%			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
There is an important issue in the comparison between the traditional child's health card (Road to Health) and the PROCOSAN definition of adequate growth (based on expected weight gain), both of which are routinely used.	A child could be classified as growing well in one system and growing poorly in the other.	The CSP should work with SILAIS and/or NICASALUD to identify guidelines for resolving the discrepancy between the child health cards and the PROCOSAN definition of adequate growth.	
Communities are supposed to have quarterly meetings to discuss health issues based on children's growth.	These are rarely carried out	Using the PROCOSAN methodology all communities are supposed to have quarterly meetings to discuss health issues based on children's growth. These are rarely carried out and would be an excellent future activity for the CSP to strengthen the use of nutrition, and IMCI information	
The level of malnutrition which at 31%, (according to the MTE KPC survey for children <1 z score below the mean)	Is lower than the 35% suggested by Hearth guidelines	PD Hearth was included in the DIP but is not recommended due to other priorities on staff time, the lack of sufficient MOH staff to monitor the strategy	

Intervention: Breastfeeding: 10%			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
% of infants aged 0-5 months who received only breast milk in the past 24 hours. BL: 56%, EMT: 52%, Meta: 70%	It is of concern that the percent of infants who are exclusively breastfeeding shows a declining tendency	Due to the decrease in exclusive breastfeeding the CSP needs to further study the key determinants that influence the early initiation of breastfeeding and exclusive breastfeeding for the first six months of life	

Intervention: Control of Diarrheal Disease: 15%			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
In MTE interviews with mothers they said out of five functioning CORUs all distribute ORS packets and show mothers how to prepare it; most CORUs reportedly provide malaria treatment (4/5); and three of the five CORUs are used for weighing sessions, meetings or as a point for vaccinations during campaigns.	Few of the CORUs have basic materials (container for mixing, cup, spoon) to actually rehydrate a child, even though all CORUs were equipped in the past, most recently in some municipalities by CRS	The qualitative study planned for utilization of the CORUs should be completed. The project needs to take a serious look at the effectiveness of this activity	
During MTE interviews a number of people mentioned the use of homemade sugar and salt rehydration solution when ORS packets were not available	It is generally not recommended to use homemade sugar and salt solutions due to the difficulty in correctly measuring the quantities of sugar and salt	The CSP should investigate traditional locally available liquids such as rice water, barley water or coconut water and encourage the use of these liquids during episodes of diarrhea	
% of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated decreased with respect to baseline BL: 19%, MTE: 11%.	The decline in the indicator for hand washing is of concern	In future projects, the indicator should reflect the suggested format for measuring hand washing in the KPC 2000+	

Intervention: Pneumonia Case Management: 10%			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
% of mothers with children 0 to 23 months old who can identify fast breathing as a danger sign of pneumonia. BL: 76% MTE: 78%, Goal: 85% % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit. BL: 60% MTE: 55%, Goal: 85%	This tendency requires further study by the project to identify barriers to care seeking, particularly since the percentage of women that recognize a danger sign of pneumonia essentially did not change	A further study is required by the project to identify barriers to care seeking	
Project HOPE has an active Humanitarian Assistance Program, through which a large amount of pharmaceutical products are obtained as part of Gift-In-Kind (GIK)	Donations of medicines to the MOH have been an important role for HOPE and one of the most visible impacts of the CSP	Support the provision of antibiotics, IV therapy and medical supplies for health units that admit patients.	

Intervention: Child Spacing: 10%			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
It was not possible to include the analysis of the process indicators, as they have not been monitored	The indicators for family planning used by the MOH are different from those used by the CSP making follow-up difficult to monitor	A review of indicators will be recommended, this would be a good time to try and incorporate MOH indicators if at all possible	Before developing indicators, review the ones used by the MOH

Intervention: HIV / AIDS / STIs: 5%			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
Staff admits they have little basic knowledge in HIV/AIDS and need technical assistance (TA)	The MOH has not received training due to this gap	HOPE staff should receive technical assistance on HIV/AIDS	

Intervention: Project Management			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
PACT staff conducted a one-week workshop in Jinotega working with field staff to assess organizational strengths and weaknesses at Project HOPE/ Nicaragua with the purpose to improve overall performance. Some results were seen from this exercise, but in general, there was no follow-up to the action plan of sixteen lines of action developed during the process	The lack of follow-up may be attributed to the fact that the many tasks were not prioritized, making the effort seem unmanageable	The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored	
		The KPC survey should not be repeated until the final evaluation	
		LQAS could be used more creatively, for example, to monitor changes in Brigadistas, TBAs or health staff, not just mothers	
The project has not been monitoring process indicators; only results indicators	Program monitoring of process indicators has not been used for planning and/or revising program implementation	Process indicators and a simple monitoring system need to be developed, and utilizing, when possible, existing instruments	
		MOH indicators should be incorporated into the CSP monitoring system when possible	
Many of the targets could never be shown to be statistically significant from the baseline; for example, the indicator for percent of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method showed at baseline a level of 65% and the final target was set at 70%. The KPC instrument, especially only measuring mothers with children 12-23 months old, would never show a significant difference between these two numbers. This is a limitation related to the number of interventions selected by the project (8) making it difficult to show measurable change in so many different areas		Take into consideration the precision of evaluation methodologies when setting targets for results indicators	

		Information from the KPC is currently in Epi-Info and Access; one person has one system, another person the other. Project Management should select one software system for KPC data and define who will be responsible for analyzing KPC information	
		HOPE, with concurrence from the donor, should consider conduct the end-of-project KPC in the 80 priority communities, not the 730 total communities in the department, due to the large number of other PVO/NGOs working in the same area and the consequence inability to attribute changes to any one agency	
		LQAS should be part of an ongoing supervision system, not a separate survey activity	
One of the main strategies for guiding the use of information, as presented in the DIP was the use of "Salas Situacionales" a forum, which would provide Brigadistas and TBAs an opportunity to discuss findings from the information they routinely collect. This has not been done	The use of information at all levels for decision making needs to be a project priority during the second half of the funding cycle.	Strengthen analytical abilities in the communities, Brigadistas, TBAs, MOH and HOPE staff	
Only the first mentioned qualitative study has been carried out	It is not recommended to simply complete the other planned research	**The CSP needs to develop a workplan for the next two and a half years, including well-defined qualitative studies to help guide their work in the future.**	

Intervention: Capacity Building			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
Human resource problems dominate the MOH reality there is not sufficient staff, many are not adequately trained and they rotate very frequently	One of the realities of working in Jinotega is the continuous rotation and shortage of human resources	HOPE and MOH should develop strategies for working within the human resource limitations of the department, such as a self guided system for continuous training continuing education opportunities, and orientation for new staff.	
PACT staff conducted a one-week workshop in Jinotega working with field staff to assess organizational strengths and weaknesses at Project HOPE/ Nicaragua with the purpose to improve overall performance. Some results were seen from this exercise, but in general, there was no follow-up to the action plan of sixteen lines of action developed during the process.	The lack of follow-up may be attributed to the fact that the many tasks were not prioritized, making the effort seem unmanageable	The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored	
No institutional assessment was conducted with SILAIS	Project HOPE also plans to conduct a capacity assessment of Project HOPE /Nicaragua and its main partner, the SILAIS	An institutional assessment should also be conducted with SILAIS (not the PACT methodology) to identify specific actions for capacity building based on the needs of SILAIS	

Intervention: Sustainability			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
There have been a number of positive experiences within the project area and in neighboring departments that can be drawn upon in the development of this plan.	These issues need to be addressed by all stakeholders and with continuing dialogue concerning the transition plan and long term sustainability	Develop a sustainability plan based on the work started with the CSSA model, including planning with communities, based on the use of local resources for problem solving	

Intervention: Community Mobilization			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
Some of the projects provide cash stipends through paid community members, rather than volunteers. Other projects provide food donations	All of these factors make working within the department a challenge of coordination and because of differing levels of benefits, especially food distribution. Some community members are not motivated to participate in a project that offers no tangible benefits. The CSP staff feels that the Brigadistas and TBAs are not motivated, and that the project should provide some material stimulus such as hats, raincoats, or tee shirts	All staff and volunteers, at all levels , need to be motivated, mainly through non-economic stimulus such as public recognition of good work, opportunities to exchange experiences, diplomas for completing training activities, identification cards, etc. Simple things like hats or tee shirts should also be considered for stimulus and team building.	
The current committees are focused on a narrow task. In MTE interviews they expressed their main role as transportation and secondary role as providing counseling when someone was ill. They also provide a support system for the Brigadista and TBA (who are usually also members of the committee).	The role of the committee should be determined according to the needs of the community.	HOPE and MOH should jointly develop a strategy for the formation of community committees; to expand their role in the community if there is a gap, or to coordinate with existing community structures	- One of the keys to sustainability is having social involvement and a strong community structure, linked with municipal authorities. - The CSP has had several positive experiences in the development of community committees with a wider area of influence than caring for health emergencies.

Intervention: Communication for Behavior Change			
Findings	**Conclusions**	**Recommendations**	**Lessons Learned**
The ECMAC (family planning) counselors have received training in counseling using the ACCEDA method, as was previously discussed in the section on Child Spacing. Counseling skills are also incorporated into other training courses, for example PROCOSAN	Both of the above mentioned materials are very complex and require excellent training and follow-up with the Brigadistas to ensure they are being used effectively	A system for monitoring the quality of training and the effectiveness of counseling and other communication methods needs to be developed	
Community members felt that the project had been able to change behaviors in: increased use of FP and prenatal care, improved levels of vaccinations, and better hygiene. The CSP staff felt the project had been able to change behaviors in: improved hygiene and use of latrines, more institutional births, more involvement of men, use of FP, and community organization. MOH staff felt that improved practices were the use of local resources for better nutrition and encouraging parents to be more involved in caring for their children.	Results from the KPC were mixed; some behaviors have changed, such as increased use of contraceptives and children being weighed. Other behaviors were not changed such as exclusive breastfeeding and home management of diarrhea	The CSP should develop a comprehensive BCC plan which would include an IEC strategy and Training Plan, for the remainder of the project, including the uses of alternative means for the dissemination of IMCI and MNC messages	

Matrix 2: Recommendations Analysis

Intervention: Maternal and Newborn Care: 30%			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all. Why?**
It is suggested that Results Indicator 1 be changed to measure two or more prenatal visits, since the data is available for baseline and MTE surveys and represents a more alarming trend in adequate prenatal attention		A new indicator will be added without changing the prior one	

Intervention: Nutrition / Micronutrients: 13%			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all. Why?**
The CSP should work with SILAIS and/or NICASALUD to identify guidelines for resolving the discrepancy between the child health cards and the PROCOSAN definition of adequate growth.			No, since there are no two cards. PROCOSAN uses a reminder material in the form of a poster used for monthly weighing sessions, which is totally different form the Health Card used by Health personnel to chart growth development.
Using the PROCOSAN methodology all communities are supposed to have quarterly meetings to discuss health issues based on children's growth. These are rarely carried out and would be an excellent future activity for the CSP to strengthen the use of nutrition, and IMCI information			No, the audience at these meetings is composed of community members an other organizations representatives (City Hall representatives in the communities, religious leaders, CHVs, MOH, NGOs, and other government organizations. The objective of the meeting is to share information about PROCOSAN ad factors that may be affecting advances (ware, sanitation, etc.) This space is used for strengthening of community committees. Child development nutrition and health issues are addressed at monthly weighing sessions and meetings of mothers and CHVs with Health Units
PD Hearth was included in the DIP but is not recommended due to other priorities on staff time, the lack of sufficient MOH staff to monitor the strategy	Yes, this is not a priority or necessary since there is only a 7% of malnourished children		

Intervention: Breastfeeding: 10%			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all. Why?**
Due to the decrease in exclusive breastfeeding the CSP needs to further study the key determinants that influence the early initiation of breastfeeding and exclusive breastfeeding for the first six months of life	Yes, the qualitative study will be conducted to identify key factors that influence early Breastfeeding initiation		

Intervention: Control of Diarrheal Disease: 15%			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all. Why?**
The qualitative study planned for utilization of the CORUs should be completed. The project needs to take a serious look at the effectiveness of this activity		The study will be conducted only in the Bocay Municipality, prior agreement of participation by the MOH and commitment to use the findings.	
The CSP should investigate traditional locally available liquids such as rice water, barley water or coconut water and encourage the use of these liquids during episodes of diarrhea			No, the MOH already has clearly defined the liquids to be used and how, for children with diarrhea
In future projects, the indicator should reflect the suggested format for measuring hand washing in the KPC 2000+			No, this recommendation is for future projects

Intervention: Pneumonia Case Management: 10%			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all. Why?**
A further study is required by the project to identify barriers to care seeking	Yes, this is a priority intervention and no changes are observed on mothers' behavior		
Support the provision of antibiotics, IV therapy and medical supplies for health units that admit patients		Support the provision to Health Units of antibiotics for ambulatory care of pneumonia cases	

Intervention: Child Spacing: 10%			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all. Why?**
The indicators for family planning used by the MOH are different from those used by the CSP making follow-up difficult to monitor. A review of indicators will be recommended, this would be a good time to try and incorporate MOH indicators if at all possible		Yes, incorporate MOH indicators but without proposing a review to MOH indicators. The CS project will use process indicators form the MOH for monitoring purposes	

Intervention: HIV / AIDS / STIs: 5%			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all Why?**
HOPE staff should receive technical assistance on HIV/AIDS			No, the level of effort is too low, the goal was almost reached and knowledge of staff is adequate to continue with activities of this intervention

Intervention: Communication for Behavior Change			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all Why?**
A system for monitoring the quality of training and the effectiveness of counseling and other communication methods needs to be developed	Yes, it is necessary since it permits that strategies can be evaluated and weaknesses identified, allowing a better informed decision making process		
The CSP should develop a comprehensive BCC plan which would include an IEC strategy and Training Plan, for the remainder of the project, including the uses of alternative means for the dissemination of IMCI and MNC messages	Yes, the program requires of a standardized plan regarding content, methodology, and results measuring techniques, which is also flexile to modifications in case of need		

Intervention: Community Mobilization			
Recommendations	***Accept the recommendation as it is Why?***	***Accept the recommendation with some modification or specification***	***Do not accept the recommendation at all Why?***
All staff and volunteers, at all levels, need to be motivated, mainly through non-economic stimulus such as public recognition of good work, opportunities to exchange experiences, diplomas for completing training activities, identification cards, etc. Simple things like hats or tee shirts should also be considered for stimulus and team building.		Provide non-economical stimulus to CHVs in the communities of direct intervention	
HOPE and MOH should jointly develop a strategy for the formation of community committees; to expand their role in the community if there is a gap, or to coordinate with existing community structures		To standardize and document the formation and performance of community development committees, according to the citizen participation law and through the PROCOSAN and Plan de Parto strategies, working with the committees but not with CHVs (Brigadistas and TBAs) individually	

Intervention: Capacity Building			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all Why?**
HOPE and MOH should develop strategies for working within the human resource limitations of the department, such as a self guided system for continuous training continuing education opportunities, and orientation for new staff.	Yes, due to the high rotation of personnel and the need to train new ones.		
The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored		Continue the process, documenting and systematizing current and future achievements and advances toward goals established in the workplan (HR and Administrative-Finance Manuals, organizational climate, HR development, fundraising identification of donors, networking, proposals, etc.	
An institutional assessment should also be conducted with SILAIS (not the PACT methodology) to identify specific actions for capacity building based on the needs of SILAIS			No, the MOH is not interested, they only would like to become acquainted with the tools

Intervention: Sustainability			
Recommendations	**E. Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all Why?**
Develop a sustainability plan based on the work started with the CSSA model, including planning with communities, based on the use of local resources for problem solving	Yes, current experience, already taking steps in this direction for communities to gather funds to replace materials, necessary for continuation of the community strategies activities being implemented, show good progress		

Intervention: Project Management			
Recommendations	**Accept the recommendation as it is Why?**	**Accept the recommendation with some modification or specification**	**Do not accept the recommendation at all Why?**
Strengthen analytical abilities in the communities, Brigadistas, TBAs, MOH and HOPE staff	Yes, in order to strengthen the decision making process at all project levels		
The CSP needs to develop a workplan for the next two and a half years, including well-defined qualitative studies to help guide their work in the future.	Yes, a workshop has already been carried out to develop the workplan for the next 2 ½ years of the project		
LQAS could be used more creatively, for example, to monitor changes in Brigadistas, TBAs or health staff, not just mothers			No, for monitoring of process indicators, the project records will be used
LQAS should be part of an ongoing supervision system, not a separate survey activity			No, LQAS is not appropriate for continuous supervision, it is best used for Monitoring and Evaluation
Take into consideration the precision of evaluation methodologies when setting targets for results indicators	Yes, quantitative goals will be revised for all results' indicators, the same as the number of interventions		
Process indicators and a simple monitoring system need to be developed, and utilizing, when possible, existing instruments		Review and adjust process indicators so that they can be monitored periodically	

Matrix 3: Workplan 2005-2007

Intervention: Maternal and Newborn Care: 42%										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
Lifesaving Skills for health personnel										
1. Training health personnel for 80% of priority health units negotiated with the MOH (54 health personnel)				X	X	X				Local Municipal Facilitator Pedro Ramirez HOPE
2. Supervising trained personnel					X	X	X	X		Local Municipal Facilitator Edgar Rodríguez HOPE
Lifesaving Skills in the community for 80 direct intervention communities										
3. Training 80 TBAs from direct intervention communities				X	X	X				Local Municipal Facilitator Pedro Ramírez HOPE
4. Supervising 80 trained TBAs					X	X	X	X		Local Municipal Facilitator Edgar Rodríguez HOPE
Strengthening TBAs network through semimonthly meetings with Health Units										
5. Training 260 TBAS during semimonthly meetings at the health units, according to MOH curricula defined subjects for 65% of the Health Units	X	X	X	X	X	X				Health Post Responsible – SILAIS Pedro Ramírez HOPE
Implementation and follow up to the Delivery Plan for Safe Motherhood (DPSM)										
6. Training CHVs network (Brigadistas, TBAs, Community Development Committees) (400 CHVs)	X	X	X	X						Local Municipal Facilitator Pedro Ramírez HOPE
7. Supervising DPSM activities	X	X	X	X	X	X	X	X		Local Municipal Facilitator Edgar Rodríguez HOPE
8. Monitoring and evaluation of Mother Reminder Materials distributed in priority communities.		X		X		X		X		Mario Ortega HOPE
9. Technical assistance to the Maternity Waiting Homes strategy	X	X	X	X	X	X	X			SILAIS AIM Responsible Alfredo Ortega HOPE

Intervention: Nutrition / Micronutrients: 13%										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
Joint work with SILAIS for follow up to application of IMCI norms										
10. Joint planning and execution with SILAIS technical team for supervision visits to health providers in their respective work areas		X	X	X	X	X	X			Resp. AINA SILAIS Alfredo Ortega HOPE
Updating health personnel regarding new Clinic IMCI norms										
11. Training 54 health personnel from Health Centers and Posts in new IMCI Norms				X	X					Local Municipal Facilitator Pedro Ramírez HOPE

Implementation and follow up to the Community Health and Nutrition Program (PROCOSAN):										
12. Training 240 Brigadistas conducting monthly effective PROCOSAN counseling		**X**	**X**							Local Municipal Facilitator Pedro Ramírez HOPE
13. Supervising PROCOSAN activities (Monthly community weighing sessions, Community delivery Iron, Home visits, quarterly meetings with the community, Monthly meetings with health units, etc.)	**X**	**X**	**X**	**X**	**X**	**X**	**X**			Responsible Health Post – SILAIS Edgar Rodríguez HOPE
14. Form (Organize and Train) and supervise mother an father clubs in the 80 priority communities	**X**	**X**	**X**	**X**	**X**	**X**	**X**			Responsible Health Post – SILAIS Alfredo Ortega HOPE

Intervention: Breastfeeding: 10%										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
Due to the decrease in exclusive breastfeeding the CSP needs to further study the key determinants that influence the early initiation of breastfeeding and exclusive breastfeeding for the first six months of life										
15. Implementing qualitative study to identify barriers that affect the practice of immediate breastfeeding (early latching) and Exclusive Breastfeeding during the first 6 months and defining key messages.		**X**								Mario Ortega HOPE
16. Form (Organize and Train) and supervise Breastfeeding Support Groups (53 groups, one for each health unit), based on the results of the qualitative study.		**X**	**X**	**X**	**X**	**X**	**X**			Responsible Health Unit SILAIS Alfredo Ortega HOPE
17. Training and updating health personnel on Breastfeeding subjects and promotion of the 11 steps for effective breastfeeding (established by UNICEF), through the continuing education processes	**X**	**X**	**X**	**X**	**X**	**X**	**X**			Local Municipal Facilitator Pedro Ramírez HOPE
18. Training and updating Brigadistas and TBAs on breastfeeding subjects and promotion of the 11 steps for effective breastfeeding (established by UNICEF), during the semimonthly meetings for 65% of the health units) (400 Brigadistas, 260 TBAs)	**X**	**X**								Local Municipal Facilitator Pedro Ramírez HOPE
19. Promoting practices breastfeeding subjects and promotion of the 11 steps for effective breastfeeding (established by UNICEF), during the PROCOSAN sessions	**X**	**X**	**X**	**X**	**X**	**X**				Responsible Health Post – SILAIS Edgar Rodríguez HOPE

Intervention: Control of Diarrheal Disease: 15%										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
The qualitative study planned for utilization of the CORUs should be completed. The project needs to take a serious look at the effectiveness of this activity										
20. Implementing qualitative study regarding utilization of CORUS-Casa Base, to identify successful lessons in the municipality of Bocay: a. Negotiation with MOH to identify scope and priorities b. Develop instruments or tools. c. Collecting information d. Information analysis, report and recommendations		**X**								SILAIS- Bocay Municipality Alfredo Ortega HOPE
Updating health personnel regarding new Clinic IMCI norms										
21. Training 54 health personnel from Health Centers and Posts in new IMCI Norms				**X**	**X**					Local Municipal Facilitator Pedro Ramírez HOPE
Implementation of the PROCOSAN morbidity module										
22. Train 54 health personnel form Health units where the program is being implemented in PROCOSAN (Mobility Module)	**X**	**X**								Local Municipal Facilitator Pedro Ramírez HOPE
23. Training 240 Brigadistas in promotion, education, counseling and identification of dehydration danger signs of diarrhea at the community level		**X**	**X**	**X**						Local Municipal Facilitator Pedro Ramírez HOPE
24. Supervising 240 Brigadistas to verify adherence to norms for diarrhea, during weighing sessions		**X**	**X**	**X**	**X**	**X**				Responsible Health Post – SILAIS Edgar Rodríguez HOPE

Intervention: Pneumonia Case Management: 10%										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
A further study is required by the project to identify barriers to care seeking.										
25. Implementing qualitative study to identify barriers to care seeking when pneumonia signs are identified, in order to define key messages to be promoted			**X**							Resp. AINA SILAIS Dr. Mario Ortega-HOPE

Updating health personnel regarding new Clinic IMCI norms										
26. Training 54 health personnel from Health Centers and Posts in new IMCI Norms				**X**	**X**					Local Municipal Facilitator Pedro Ramírez HOPE
Support the provision to Health Units of antibiotics for ambulatory care of pneumonia cases										
27. Strengthen management skills of SILAIS health personnel (all levels) of medical supplies donated by Project HOPE (8 personnel responsible for medical supplies in the municipalities and I SILAIS)		**X**	**X**							Edgar Rodríguez HOPE Marcela García HOPE Nic.
Implementation of the del PROCOSAN morbidity module										
28. Train 54 health personnel form Health units where the program is being implemented in PROCOSAN (Mobility Module)	**X**	**X**								Local Municipal Facilitator Pedro Ramírez HOPE
29. Training 240 Brigadistas in promotion, education, counseling and identification of dehydration danger signs of pneumonia at the community level		**X**	**X**	**X**						Local Municipal Facilitator Pedro Ramírez HOPE
30. Supervising 240 Brigadistas to verify adherence to norms and protocols for care of pneumonia in the community		**X**	**X**	**X**	**X**	**X**				Responsible Health Post – SILAIS Edgar Rodríguez HOPE

Intervention: Child Spacing: 10%										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
Strengthening and expanding the Community Delivery of FP Methods (ECMAC)										
31. Negotiation and selection with SILAIS of communities where the ECMAC strategy will be expanded		**X**	**X**							Municipal Direction Team Alfredo Ortega HOPE
32. Training health personnel and community counselors responsible for conducting the ECMAC strategy in their communities. (54 health personnel y 160 community counselors)			**X**	**X**						Local Municipal Facilitator Pedro Ramírez HOPE
33. Supervising health personnel and community counselors	**X**	**X**	**X**	**X**	**X**	**X**	**X**			Responsible health Post SILAIS Edgar Rodríguez HOPE
34. Strengthen the implementation of the Logistics and Information System for Supply of FP Methods (SIAL) in the health units implementing ECMAC.			**X**	**X**	**X**	**X**	**X**			Responsible AIM SILAIS Alfredo Ortega HOPE

Intervention: Communication for Behavior Change										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
A system for monitoring the quality of training and the effectiveness of counseling and other communication methods needs to be developed										
35. Review and identify with the SIALIS existent training quality and effectiveness of counseling verification instruments, and other communication methods .		**X**								Dr. Pedro Ramírez-HOPE Resp. Training SILAIS
36. Use identified instruments to monitor and evaluate the quality and effectiveness of SILAIS training activities, for health providers (Health Centers and Posts personnel) and CHVs (Brigadistas, counselors and TBAs).			**X**	**X**	**X**	**X**	**X**			Resp. Training Municipal Alfredo Ortega HOPE
The CSP should develop a comprehensive BCC plan which would include an IEC strategy and Training Plan, for the remainder of the project, including the uses of alternative means for the dissemination of IMCI and MNC messages										
37. Identify SILAIS priorities of the Behavior Change strategy for the official program (AIEPI, PROCOSAN, PPMS, y ECMAC), using the guidelines of the Strategy for Communication and Community Action (ECACS):										
- Use the communication strategy for behavior change to develop the project's IEC plan (identification of audience, current and desired behaviors, contributing factor for adoption of desired behaviors, actions to be executed, including the identification of key messages for adoption of these behaviors)		**X**								Dr. Pedro Ramírez-HOPE Resp. Training SILAIS
- Define the coverage, dissemination methods, and graduality (number of times the message will be repeated and number of messages to be disseminated per period)		**X**	**X**							Resp. Training Municipal Dr. Pedro Ramírez-HOPE
- Dissemination of messages and monitoring o the strategy's effectiveness				**X**	**X**	**X**	**X**			Resp. Training Municipal Edgar Rodríguez HOPE
38. Use the results of the Community Communication Strategy for Behavior Change of the MOH to develop the project's training plan										
- Define the training curricula (subjects and profiles) per intervention		**X**								Dr. Pedro Ramírez-HOPE Resp. Training SILAIS
- Develop methodological designs by subject		**X**	**X**	**X**						Resp. Training SILAIS Resp. Training Municipal Dr. Pedro Ramírez-HOPE

- Scheduling and execution of training activities agreed upon with the SILAIS			**X**							Resp. Training Municipal Dr. Pedro Ramírez- HOPE
- Monitoring y evaluation of the training plan.			**X**	**X**	**X**	**X**		**A.**		Resp. Training SILAIS Resp. Training Municipal Edgar Rodríguez HOPE

Intervention: Community Mobilization										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
Provide non-economical stimulus to CHVs in the communities of direct intervention										
39. Provide identification cards to CHVs (Brigadistas and TBAs in cooperation with the MOH and other partners) (240 Brigadistas, 80 TBAs, 160 Counselors)			**X**	**X**						Emergency Transport Brigades – SILAIS Alfredo Ortega HOPE
40. Provide training certification to CHVS that complete the training curricula per intervention (240 Brigadistas, 80 TBAs, 160 Counselors)		**X**	**X**	**X**	**X**	**X**	**X**			Dr. Pedro Ramírez- HOPE Resp. Training SILAIS
41. Equip CHVs (Emergency Transport Brigades, TBAs, Brigadistas) in direct intervention communities (boots, raincoats, flashlights, bags, hammock, hats y T-shirts) (240 Brigadistas, 80 TBAs, 80 Emergency Transport Brigades)			**X**							Municipal Direction Team Mario Ortega HOPE
Standardize and document the formation and performance of community development committees, according to the citizen participation law and through the PROCOSAN.										
42. Provide information to MOH and NGO partners regarding networks formation and Civil Participation as stated by the General Health a Civil Participation laws.		**X**	**X**							Emergency Transport Brigades – SILAIS Dr. Mario Ortega HOPE
43. Design and develop at the local level, an operative plan for the strengthening of the Community Development committees			**X**							Municipal Direction Team Alfredo Ortega HOPE
44. Document successful experiences in the formation and performance of the Community Development committees.			**X**		**X**		**X**			Dr. Alfredo Ortega HOPE

Intervention: Capacity Building										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
The institutional assessment for HOPE Nicaragua should be revived and the original work plan reviewed, implemented and monitored										
45. Review the original workplan, and document advances, identifying needs and priorities		**X**								Francisco Torres
46. Continue the implementation of the action plan and monitor the adherence to the same. (Organizational Climate II part, annual performance evaluation, document and systematize experiences with new technologies/methodologies. Develop a well defined and socialized structure for all levels, etc)			**X**	**X**	**X**					Francisco Torres Dr. Mario Ortega
47. Continue with activities of development of Human Talent for Project HOPE personnel (13 persons)	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**		Francisco Torres Dr. Mario Ortega
HOPE and MOH should develop strategies for working within the human resource limitations of the department, such as a self guided system for continuous training continuing education opportunities, and orientation for new staff.										
48. Forming 18 local Facilitators in all institutional and community strategies, who in turn will train new personnel on Lifesaving Skills, ECMAC, Plan de Parto and Clinical IMCI, ROCOSAN, and Effective Counseling.	**X**	**B. X**	**X**	**X**	**X**					Dra. Aricela Martínez-SILAIS Pedro Ramírez - HOPE
49. Training local Facilitators on the AMATE - IDRE methodology		**C. X**								Pedro Ramírez - HOPE

Intervention: Sustainability										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
FUNDAMENTAL ELEMENTS TO BE CONSIDERED: • **The project will focus its transfer activities in function of the strengthening of community structures: Community Development Committees, Emergency Transport Brigade, Brigadistas and TBAs.** • **Use dimension II: Community Capacity, form the CSTS sustainability model.** • **Use dimension II: Organizational viability, involving the Private Sector.**										

Develop a sustainability plan based on the work started with the CSSA model, including planning with communities, based on the use of local resources for problem solving										
50. Document all actions performed in the implementation of the CSTS tool PROCOSAN		**X**								Dr. Mario Ortega HOPE Dr. Alfredo Ortega HOPE
51. Review and adapt the sustainability plan developed with CSTS for PROCOSAN, to identify specific activities expected to be sustainable for the Plan de Parto and Community Delivery of FP Methods programs.			**X**							Municipal Direction Team Pedro Ramírez HOPE
52. Implement the sustainability plan using the CSTS tools for the Plan de Parto and Community Delivery of FP Methods programs		**X**	**X**	**X**	**X**	**X**	**X**			Municipal Direction Team Dr. Alfredo Ortega HOPE
53. Develop a monitoring plan for sustainability plans		**X**	**X**	**X**	**X**	**X**	**X**			Municipal Direction Team Edgar Rodríguez HOPE

Intervention: Project Management										
Activities	2005		2006				2007			Responsible
	III	IV	I	II	III	IV	I	II	III	
FUNDAMENTAL ELEMENTS TO BE CONSIDERED REGARDING THE SALAS DE SITUACIÓN: **Algorithm for decision-making**: Information collection, Graphic presentation of information, Analysis or Questioning of phenomena, and Making Decision.										
Strengthen analytical abilities in the communities, Brigadistas, TBAs, MOH and HOPE staff.										
54. Strengthen the implementation of the Salas de Situacion strategy at the health posts to improve the decision-making process										
a. Train 35 health personnel from health posts on information processing	**D.**	X	X							Epidemiology Municipal Dr. Edgar Rodríguez HOPE
b. Provide 35 health posts with graphic instruments for recording and presenting information	**E.**	X	X	X						Epidemiology Municipal Dr. Edgar Rodríguez HOPE

c. Supervise health and community personnel of 35 health posts for correct processing of information: record keeping, updating, information analysis during semimonthly meetings with CHVs, using the established algorithm for decision-making	**F.**		**X**	**X**	**X**	**X**	**X**			Epidemiology Municipal Dr. Edgar Rodríguez HOPE
55. Strengthen the implementation of the salas de situacion at the health center to improve decision-making										
a. Reinforce the knowledge regarding the salas de situacion use of information for decision-making, of health personnel from the 8 Health Centers	**G.**	**X**	**X**							Epidemiology SILAIS Dr. Edgar Rodríguez HOPE
b. Supervise the process of record keeping, updating and information analysis during meetings of technical committees with program and health posts responsible personnel, using the established algorithm for decision-making.	**H.**		**X**	**X**	**X**	**X**	**X**			Epidemiology SILAIS Dr. Edgar Rodríguez HOPE
56. Maintain open channels of communication with the central MOH-SILAIS to follow up performance of municipal level salas de situacion										
c. Promote the information analysis process and feedback on decisions made to the municipalities			**X**	**X**	**X**	**X**	**X**			Epidemiology SILAIS Dr. Edgar Rodríguez HOPE
57. Strengthen the capabilities of 17 Project HOPE technical personnel for the use and analysis of information of the salas de situacion strategy at the local level		**X**								Dr. Edgar Rodríguez HOPE
Application of AMAS (Formerly Fully Functional Health Units) tools										
58. Identify wit the MOH at the Department level, AMAS strengthening needs for all 8 municipalities	**X**									Deputy Direction SILAIS Dr. Edgar Rodríguez HOPE
59. Standardize implementation of AMAS in all project 8 municipalities	**X**	**X**								Deputy Direction SILAIS Dr. Edgar Rodríguez HOPE
60. Monitor 35 health units using the AMAS tools (Health Centers and Posts)		**X**	**X**	**X**	**X**	**X**	**X**			Dr. Edgar Rodríguez HOPE Municipal Direction Team
Take into consideration the precision of evaluation methodologies when setting targets for results indicators.										
61. The result indicators for the project were revised	**X**									Juan Carlos Alegre – HC Technical Team HOPE
62. Quantitative final goals were adjusted for result indicators	**X**									Juan Carlos Alegre – HC Technical Team HOPE
63. Quantitative indicators goals adjustments were negotiated with the MOH partners	**X**									Juan Carlos Alegre – HC Technical Team HOPE

Review and adapt process indicators to be monitored periodically										
64. Review and adjust process indicators to be monitored periodically using already available technology/methodology of the project (PDA´s y SIGHOPE)	**X**									Edgar Rodríguez - HOPE Marlon Rizo - HOPE
65. Improve the system for collecting and processing information regarding training and processes activities identified through the process indicators review exercise	**I. X**	**X**	**X**	**X**	**X**					Edgar Rodríguez - HOPE Marlon Rizo – HOPE Pedro Ramírez - HOPE
Increase the presence of HOPE technical and management personnel in the priority municipalities and communities										
66. Establish a supervisions and on-the-job training visits plan for the municipalities and communities where interventions are imp lemented.	**X**	**X**	**X**	**X**	**X**	**X**				Francisco Torres HOPE Mario Ortega HOPE
67. Monitor accomplishment of the supervisions visits plan to municipalities and communities where interventions are implemented	**J. X**	**X**	**X**	**X**	**X**	**X**				Francisco Torres HOPE Mario Ortega HOPE
Improve management of donated priority medical supplies and medicines										
68. Develop a transfer plan for direct access of the SILAIS to the central MOH for provision of Project HOPE donated medical supplies		**X**	**X**							Responsible Medical Supplies SILAIS Edgar Rodríguez HOPE Marcela García HOPE Nic.
Monitor Project activities, Transfer, and Final Evaluation										
69. Monitor process indicators		**X**	**X**	**X**	**X**	**X**	**X**			Edgar Rodríguez HOPE Marlon Rizo HOPE
70. Develop a transfer plan for priority interventions to the MOH-SILAIS		**X**	**X**							Mario Ortega HOPE
71. Perform KPC Survey and Final qualitative Evaluation at the end of the project								**X**	**X**	Mario Ortega HOPE

Notes to the workplan development process

1. The activities presented in the workplan are the result of a detailed analysis performed by the Project HOPE-Nicaragua Child Survival Project staff and the SILAIS-Jinotega, the project's main partner. In order to select and set priorities for the activities, two main criteria were used, the feasibility and viability of each activity. For the feasibility the following parameters were considered: Beneficiaries, Human resources, materials, and SILAIS expressed level of interest. For the Viability, the following were considered: The Project HOPE-Nicaragua CS project commitment, SILAIS Policies, management commitment, cost, and financial resources available.

2. For the Maternal and Neonatal Care intervention, the project will adopt the following additional indicator: '% of mothers with children 0 to 23 months old that report having had at least 2 prenatal control visits with a doctor or a nurse during the last pregnancy." This indicator will be calculated with already available data from the Baseline (2003) and Mid Term Evaluation (2005) studies.

3. The "Plan de Parto" referred to in the maternal and newborn care intervention is defined in the following manner: Plan de Parto for Safe Motherhood is a strategy which has the main purpose to contribute to the reduction of maternal and peri-natal mortality, through the development of capabilities of "Self Care" for pregnant women's health and the newborn. The Plan de Parto facilitators' guide is a document that will serve health personnel as a work tool to define roles and develop activities with stakeholders in the community, to guarantee safe maternity and correct care of the newborn. This strategy has seven structured units, which lead the facilitator in a simple and clear manner to achievement of proposed goals of each training activity.

4. The MOH-SILIAS curricula for training of TBAs include the following training subjects: Prenatal care, low risk delivery, post-partum care, family Planning Methods, Sexually Transmitted Infections, Community Participation, Immediate care of the Newborn. This training activity will be reduced systematically in effort all the way through the last quarter of the year 2006.

5. Follow up and supervision:
   The following definitions have been taken from official MOH strategy documents, in order to allow for a standardized terminology to be used with MOH partners in all project activities.
   - Monitoring: is the continuous and periodic vigilance of objectives, processes and established activities that allow for early detection of facilitating factors or barriers, for immediate decision making.
   - Supervision: is the process of assistance and training, provided to personnel, to ensure compliance with a norm.
   - Evaluation: is the measuring and comparison of the structure, processes and results obtained with respect to established objectives, goals, criteria or indicators for different programs or services[1].

[1] Definitions taken form the National Monitoring, Supervision and Evaluation Norm of the Ministry of Health of Nicaragua, Managua 1996

ANNEXES

Annex A. Baseline information from the DIP

Annex A. Baseline information from the DIP

There have been no substantial changes in the DIP in terms of population, geographical area, level of effort, or interventions. A number of activities planned in the DIP have not been completed during the first half of implementation such as an institutional assessment for SILAIS, qualitative investigations, and the use of self-teaching modules. Details of these issues were included in the body of the report.

Annex B. Evaluation Team Members and their titles

Annex B. Evaluation Team Members and their titles

	Position	Organization
Group # 1		
Pedro Ramírez	IEC Specialist	Project HOPE
Renee Charleston	External Evaluator	Consultant
Javier Méndez	Educator	Project HOPE
Santos Medina	External Relations	MOH-SILAIS
Celestino Lira	Brigadista	El Cua
Justo José Real	Educator	Project HOPE
Group # 2		
Edgar Rodríguez	M&E Specialist	Project HOPE
Nohemí Mercado	Educator	Project HOPE
Judith Rizo	Educator	Project HOPE
Bismark Pastrana	Brigadista	
Mario Ortega	Project Coordinator	Project HOPE
Group # 3		
Magda Sequeira	Epidemiologist	MOH-SILAIS
Alfredo Ortega	Child Health Specialist	Project HOPE
Horacio Cano	Educator	Project HOPE
Doris Gonzáles	Maternal Health	MOH-SILAIS
Francisco Javier Vargas	Brigadista	
Armando Zeledón	Educator	Project HOPE

Annex C. Evaluation Assessment Methodology

Annex C. Evaluation Assessment Methodology

I. OBJECTIVES OF THE EVALUATION

The purpose of the Midterm Evaluation was to;

1. Assess progress in implementing the DIP;
2. Assess progress towards achievement of objectives or yearly benchmarks;
3. Assess if interventions are sufficient to reach desired outcomes,
4. Identify barriers to achievement of objectives, and
5. To provide recommended actions to guide the program staff through the last half of the program.

The evaluation was carried out in accordance with USAID/GH/HIDN/CSGHP MTE guidelines August 2004 and the evaluation report follows the suggested format.

The objectives of the evaluation were:

- Identify the principal achievements of the project, focusing on which strategies were most effective and the barriers which were overcome during the implementation.
- Develop recommendations for improving project strategies in order to achieve greater impact during the next two and a half years.
- Develop recommendations on how to obtain sustainability in all aspects of the project using the CSSA focus.

II. COMPOSITION OF EVALUATION TEAM

The team was composed of Project HOPE staff, MOH staff, and community volunteers, plus an external consultant who served as team leader. The team leader was responsible for coordinating all evaluation activities, supervision of the team, meeting all specified objectives, collaborating with HOPE and MOH, and submitting a draft and a final report according to the defined timeline. Three team coordinators functioned as the coordinators of the teams for field data collection, including overall coordination, planning and logistical support of the team.

The analysis phase of the evaluation also included the participation of HOPE Headquarters' representative and Regional Director, HOPE Nicaragua's Country Director, staff from other NGOs, USAID Nicaragua representative, and municipal MOH representatives.

See Annex C for a complete list of participants in the evaluation.

III. METHODOLOGY

Using both a participatory approach and participatory methodologies, a multi-disciplinary term of key project stakeholders examined the implementation of CS activities using a variety of qualitative methodologies. Field visits allowed project participants and community volunteers to provide their inputs and suggestions to the evaluation process. The evaluation focused on the process of activities including; capacity building, communication for behavior change, planning, HIS, community participation, coordination with partners, and sustainability. The methodologies used to obtain information for the evaluation included:

- Document Review
- Key Informant Interviews with Brigadistas, TBAs and Health Center/Health Post Staff, and others listed in Annex D.
- Group Interviews with mothers and health committees
- Feedback and Analysis of KPC results with mothers and health committees
- Observations of Growth Monitoring Sessions (2), and UROS (Community Oral Rehydration Points).

The three teams involved the following people in community activities:

99	Mothers
9	Brigadistas
8	TBAs
64	Committee Members
6	Health Staff

IV. EVALUATION PLAN

The evaluation was divided into four phases:

Phase I Planning

- Preplanning (Formation of team, logistics, document review, selection of communities)
- Planning Workshop (Content, methodologies, development of instruments, review of KPC)

Phase II Data Collection

- Field Work visits
- Other interviews
- Document review

Phase III Data Analysis

- Team members summarized and organized information collected in the field
- Analysis of information by the evaluation team and other stakeholders (2 day Analysis Workshop)

Phase IV Presentation

- Written report in English
- Formal presentation and action plan is scheduled for after the report is finalized

The evaluation team was divided into 3 small groups to collect information from the field. Each team consisted of 5-6 people. The teams were in the field for 3 days to visit 9 randomly selected communities and 3 Health Centers/Posts previously selected for visits.

	Municipality	Community	Health Center/Post	Group
Saturday 7 May	San Rafael Norte	San Marcos de Abajo		2
	Jinotega	La Perla		1
		La Esmeralda		3
Monday 9 May	Yali	Santa Isabel		3
	El Cua	La Concepción		1
	Pantasma	Planes de Vilán	Planes de Vilán Post	2
Tuesday 10 May	Bocay	Luz de Bocay	Bocay Health Center	3
	Wiwili	Santa Rosa de Yakalwas*		2
	Wiwili	Las Vueltas*	Maleconcito Health Post	1

* Growth Monitoring Session

A two-day Planning Workshop was held for all team members to review the results of the KPC and to develop methodologies for collecting information through interactive field visits to communities and MOH health centers.

A two-day Analysis Workshop was held for all team members and other key stakeholders to present the results of the field work and to formulate recommendations for improving project implementation during the second half of the project.

K. EVALUATION OF THE PROCESS

Twenty-one evaluation team members and resource people completed an evaluation of the MTE process, during the Analysis Workshop. The results from the questionnaires were:

- 5/21 (24%) of participants felt that the process used was very effective, and 16/21 (76) % that it was effective.
- What people liked best about the process was the participatory nature of the evaluations, inclusion of representatives from the community the community visits, and the methodology for sharing the KPC results.
- The negative aspects of the evaluation were (10) that there was limited participation of the MOH, six people felt the time was inadequate, and other comments were that they did not like the defensive attitude of some presenters and that when people were tired, the activities were not dynamic.
- 13/21 (62%) felt the recommendations formulated by the team were adequate for guiding the project in the future. 8/21 (38%) felt the recommendations were very adequate.

Annex D. List of persons interviewed and contacted

Annex D. List of persons interviewed and contacted

Name	Position	Organization
Dr. Olinda Alvarado	Director Yali Health Center	MOH
Dr. Claritza Tercero	Head of Integrated Maternal Health, Yali Health Center	MOH
Dr. Guillermo Rodriguez	Head of Integrated Child Health, Yali Health Center	MOH
Byron Chavarria	Educator, Yali Health Center	MOH
Noel Moreno	Mayor	Yali Municipality
Doris Rivera	Municipal Planner	Yali Municipality
Francisco Torres	Country Director, Nicaragua	Project HOPE
Mario Ortega	Project Coordinator	Project HOPE
Edgar Rodríguez	M&E Specialist	Project HOPE
Alfredo Ortega	Child Health Specialist	Project HOPE
Pedro Ramírez	IEC Specialist	Project HOPE
Javier Méndez	Educator	Project HOPE
Horacio Cano	Educator	Project HOPE
Armando Zeledón	Educator	Project HOPE
Justo José Real	Educator	Project HOPE
Eugenio Arbizu	Educator	Project HOPE
Justo Pastor Ortiz	Educator	Project HOPE
Nohemí Mercado	Educator	Project HOPE
Judith Rizo	Educator	Project HOPE
Marlon Rizo	MIS Coordinator	Project HOPE
Bob Grabman	Regional Director, Latin America	Project HOPE
Bonnie Kittle	MCH Director, HQ	Project HOPE
David Zelaya	Auxiliary Nurse	Santa Maura Finca
Dr. Luis Rugama	Integrated Mother, Child, Adolescent Health (AIMNA)	MOH-SILAIS
Johana Rivas	Coordinator, PROSIC	Partners in the Americas/Wisconsin
Fredy Picado	Coordinator, PROSIC	CRS/Caritas
Marlon Rizo	MIS	Project HOPE

Karen Loasiga	Administrative Assistant	Project HOPE
Osmany Altamirano	Child Health Coordinator	NICASALUD
Dr. Ivan Tercero	Project Liaison	USAID Nicaragua

The following people participated in the Analysis Workshop the 12th and 13th of May

Name	Position	Organization
Emig Bravo	PROCOSAN	SILAIS-MOH
Milton Quiñones	Municipal Director	MOH - Bocay
Pedro Ramírez	IEC Specialist	Project HOPE
Horacio Cano	Educator	Project HOPE
Francisco Javier Vargas	Brigadista	SRN
Justo Real	Educator	Project HOPE
Doris Gonzáles	MNC Coordinator	SILAIS-MOH
Celestino Lira	Brigadista	El Cua
Edgar Rodríguez	M&E Specialist	Project HOPE
Justo Pastor Ortíz	Educator	Project HOPE
Eugenio Arbizú	Educator	Project HOPE
Nohemí Mercado	Educator	Project HOPE
Bismark Pastrana	Brigadista	Pantasma
Judith Rizo	Educator	Project HOPE
Alfredo Ortega	Child Health Spec.	Project HOPE
Mirna Zelaya	Nutrition Coordinator	MOH Central
Javier Méndez	Educator	Project HOPE
Armando Zeledón	Educator	Project HOPE
Magda Sequeira	Epidemiologist	SILAIS-MOH
Iván Tercero	Project Liaison	USAID
Freddy Picado	Coordinator	PROSIC - CARITAS
Johana Rivas	Coordinator	PROSIC - Wisconsin
Osmany Altamirano	PROCOSAN	NICASALUD
Mario Ortega	CSP Coordinator	Project HOPE
Bonnie Kittle	MCH Director	HOPE Center
Renee Charleston	Consultant	
Bob Grabman	Regional Director	HOPE Center
Francisco Torres	Country Director	HOPE Center

Annex E. Training Conducted/KPC Issues

Annex E. Training Conducted/KPC Issues

Training Reported for 7 municipalities (excluding Wiwili)

2003	CHW	TBA	MOH	Other	ECMAC
ARI	213	14	0	20	
CDD	717	34	15	45	
MNC-1	100	6	0	7	
MNC-2	21	3			
ECMAC	278	14	51	18	5
Prenatal Care	0	31	2	0	
CEON	375	0	3	200	
FP	80	14	0	0	
Nutrition	38	0	5	0	
BF	96	20	0	0	
Emergency Transport				62 committee members	
Birth Plan	0	0	0	23	
EPI	258	8	22	12	
Maternal Health	68	0	0	9	
Danger Signs (maternal)	3	8		5	
Life Saving Skills	0	65	0	0	

2004	CHW	TBA	MOH	Other	Counselor
ARI	221	18	0	1	
CDD	263	19	0	1	
PROCOSAN	218	6	75	9	
SICO	471	90	65	34	
ECMAC	219	4	43	64	
Prenatal Care	14	44	0	4	
Essential Obstetric and Newborn Care	11			90	
FP	105	20		30	
Nutrition	28				
BF	19	6	1	103	
HIV/AIDS	125	21		14 mothers	
EPI	300	9	58	59 mothers	
Reproductive Risk	11	37			
Danger Signs (Maternal)	51	106	8	50	
DPSV		47			
Low risk birth		30			
Reorganization of services			42		
ARI & CDD	121	22			
Community Tools			43		
Preparation before birth	22				
First Aid	53				
Clinical IMCI either phase 1 or undefined	14		81	2	
Clinical IMCI phase 2			38		
AMATE IDRE			20		
Birth Plan	4	79	34	4	

2005	CHW	TBA	MOH	ECMAC	Other
EPI	283	13			
CDD	21	7	3		
SICO	137	4	3		
Refresher in ARI/CDD	51	8			
DPSV	14				
Technical Council			21		
Experience sharing	81				
Child Spacing	80	13	8		9
BF	59				

KPC Issues

Indicator 1 % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.

A discussion of this indicator was included in the technical section on Maternal Newborn Care. It is recommended that this indicator be changed to women who had two or more prenatal visits.

Indicator 9 % of children 12-23 months fully immunized (BCG, OPV3, Pentavalente 3, and MMR) by 12 months

It is difficult to determine if indicator 9 was corrected calculated, the Indicator Construction Table in Table 4 of the KPC report only states as the numerator if the child received all required vaccines. The indicator states received all vaccines before their first birthday. It is unclear whether that was taken into consideration. The denominator used was all children 12-23 months, not just those children with cards. According to the KPC 2000+ the calculation should be:

Rapid CATCH indicator:	Percent of children aged 12-23 months who received BCG, DPT3, OPV3, and measles vaccines before the first birthday
EPI Coverage /	No. of children aged 12-23 months with BCG, DPT3, OPV3, and measles (card-confirmed, Q.3) before first birthday / Total no. of children aged 12-23 months with cards x 100

Indicator 10 **% of mothers of children aged 0-23 months with a diarrheal episode in the** last two weeks who report giving as much or more food to their child

Indicator 11 % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child

The translation into Spanish for indicators 10 and 11 is incorrect; it states the % of mothers who gives more food /liquids/breastmilk rather than the same or more. The calculation of indicator 10 was correctly made according to Table 4 of the KPC report Indicator Construction; indicator 11 however was incorrectly calculated as it should include either intake of breastmilk or intake of liquids (numerator should be: DM4=2 or 3 or DM3=2 or 3) . The KPC 2000+ has simplified this question, for future reference:

3. "When (NAME) was sick, was he/she offered less than usual to drink, about the same amount, or more than usual to drink?"

1. LESS THAN USUAL
2. SAME AMOUNT
3. MORE THAN USUAL

Increased Fluid Intake During a Diarrheal Episode	Percent of children aged 0-23 months with diarrhea in the last two weeks who were offered the "same" or "more" fluids during the illness No. of children with response= "2" or "3" for Q.3 _____ x 100 No. of children with responses to Q.3

Indicator 13 % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated

It is very difficult to measure when a woman spontaneously mentions four instances for hand washing. For future reference, the KPC 2000+ recommends dividing the question into subcomponents.

Maternal Handwashing Before Food Preparation	Percent of mothers who usually wash their hands before food preparation No. of mothers with response= "A" for Q.3, sub-module B _____ x 100 Total no. of mothers with responses to Q.3, sub-module B
Maternal Handwashing Before Infant/Child Feeding	Percent of mothers who usually wash their hands before feeding children No. of mothers with response= "C" for Q.3, sub-module B _____ x 100 Total no. of mothers with responses to Q.3, sub-module B
Maternal Handwashing After Defecation	Percent of mothers who usually wash their hands after defecation No. of mothers with response= "D" for Q.3, sub-module B _____ x 100 Total no. of mothers with responses to Q.3, sub-module B

Indicator 14 % of mothers of who can identify at least two danger signs for diarrhea

The project is actually collecting the signs are of dehydration, not diarrhea. It is recommended that the indicator be changed to reflect the emphasis on dehydration.

Indicator 18 % of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method

According to the Indicator Construction Table, the indicator was incorrectly calculated; the filters for women desiring no more children or who were not sure were not used. The correct calculation is as follows:

5 Do you want to have another child?
YES 1
NO 2
DON'T KNOW 8

6 When do you want to have your next child?
WITHIN 2 YEARS. 1
MORE THAN 2 YEARS
FROM NOW 2
UNSURE WHEN 8

Contraceptive Use Among Percent of nonpregnant mothers who desire no more children in the next two years, or are not sure, who are using a modern method of child spacing

Mothers Who Want to Limit or Space Births

No. of mothers with (response=2 or 8 for Q.5 or Q.6)
AND (response= 2 through 10 for Q.7)
_____ x 100
Total no. of mothers with responses=2 or 8 for Q.5 or Q.6

Indicator 19 % of mothers of children aged 0-23 months who know at least two ways to prevent HIV / AIDS / STIs

It is difficult to determine if indicator 19 was corrected calculated, the Indicator Construction Table incorrectly states the indicator as % mothers who identify one way to prevent HIV/AIDS> The actual indicator is two ways.

F. RAPID CATCH INDICATORS

Rapid Catch indicator 10-% of mothers of children aged 0-23 months that know at least two signs of childhood illnesses indicating the need for treatment was incorrectly calculated as including only those mothers that said dehydration was a danger sign. The Rapid Catch is trying to capture information on IMCI danger signs with the following question (responses B-H are correct):

10. Sometimes children get sick and need to receive care or treatment for illnesses. What are the signs of illness that would indicate your child needs treatment? *DO NOT PROMPT. CIRCLE ALL MENTIONED.*

A. DON'T KNOW
B. LOOKS UNWELL OR NOT PLAYING NORMALLY
C. NOT EATING OR DRINKING
D. LETHARGIC OR DIFFICULT TO WAKE
E. HIGH FEVER
F. FAST OR DIFFICULT BREATHING
G. VOMITS EVERYTHING
H. CONVULSIONS
I. OTHER _____
(SPECIFY)
J. OTHER _____
(SPECIFY)
K. OTHER _____
(SPECIFY)

Rapid catch indicator 11- % of children aged 0-23 months that received more liquids and continued feeding during an illness in the last two weeks was incorrectly calculated as it only includes children who continued feeding, not children who

received increased liquids and continued feeding (numerator should be: DM4=3 and DM5=2 or 3)

Annex F. Midterm KPC Report

Improving the Health of Mothers and Children of Rural Jinotega, Nicaragua: An Integrated Approach in Partnership with the Public and Private Sector Providers in Coffee-Growing Areas

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Cooperative Agreement No. HFP-A-00-02-00026-00

KPC MIDTERM SURVEY REPORT

Project Location: Department of Jinotega, Nicaragua

Submitted to:
USAID/GHB//HIDN
Child Survival and Health Grants Program
Room 3.7.75, Ronald Reagan Building
1300 Pennsylvania Avenue
Washington, DC 20523-3700

Submitted by:
Project HOPE – The People-to-People Health Foundation, Inc.
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April 30, 2005

HQ Contact person:
Bonnie Kittle
Director, Health of Women and Children

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Francisco Torres, Country Director
Project HOPE Nicaragua

ACKNOWLEDGMENTS

To all the mothers that gladly accepted to take part in the whole process of the interviews and provided a valuable contribution to the information obtain.

To the Community Health Volunteers (CHV) that served as guides identifying the communities and facilitated travel among them.

To the health personnel of the SILAIS Jinotega, who facilitated maps and census of most of the surveyed communities.

To the technical teams from Facultad de Medicina, UNAN, Managua, Dr. Adelina Barrera and Dr. Margarita Pérez who made available the complete team of facilitators for training anthropometrical measurements and blood sampling for the hemoglobin testing, and Lic. Mirna Zelaya MINSA Central.

To all the participants in the survey process, listed below.

INTERVIEWERS	SUPERVISORS	QUALITY CONTROL	DRIVERS
Edgar Alberto Rodríguez	Alfredo Alaníz López	Mario Ortega	Daniel García
Eugenio Arbizú Laguna	José Uriel Pineda	Marlon Rizo López	Francisco Ortega
Justo Pastor Ortiz	Leonel Martínez	Doris González (MOH)	
Luis Alfredo Ortega	Pedro Ramírez Mora		
Justo José Real	Damaris Centeno		
Horacio Castillo Cano	Agustina Gaitán		
Noemí Mercado Palacios	Víctor Zelaya Rojas		
Armando Zeledón López	Wigberto Rodríguez		
Francisco Xavier Méndez	Gerald Núñez		
Judith Rizo López	Francisco Sánchez		

TABLE OF CONTENTS

ACRONYMS

AIN	Integrated Services to the Child
ARI	Acute Respiratory Infection
BCC	Behavior Change and Communication
BF	Breastfeeding
CAs	Cooperating Agencies
CDD	Control of Diarrheal Diseases
CHV	Community Health Volunteer
CHW	Community Health Worker
CORE	The Child Survival Collaborations and Resources Group
COL-VOL	Volunteer Collaborator for Malaria Control
CORU	Community Oral Rehydration Unit
CSTS	Child Survival Technical Support Project
CS	Child Survival
DHS	Demographic Health Survey
DIP	Detailed Implementation Plan
DR	Decision Rule
EPI Info	Immunization and Epidemiological Data System, WHO
EON-C	Obstetric and Neonatal Emergencies in the Community
FAM	Financial and Administrative Manager
FFHU	Fully Functional Health Unit
FP	Family Planning
GM	Growth Monitoring
GMP	Growth Monitoring and Promotion
GIK	Gift-In-Kind
GON	Government of Nicaragua
H/C	Health center
H/P	Health post
HQ	Headquarters
HIS	Health Information System
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IUD	Intra-Uterine Device
KPC	Knowledge, Practice, and Coverage
LAM	Lactational Amenorrhea Method
LQAS	Lot Quality Assurance Sampling
MCH	Maternal and Child Health
MMR	Measles, Mumps and Rubella
MN	Micronutrients
MOH	Ministry of Health
MTCT	Mother-to-Child Transmission
MSH	Management Sciences for Health
MWH	Maternity Waiting Homes
NFP	Natural Family Planning
NGO	Non-Governmental Organization
NICASALUD	Network of PVOs in Nicaragua
OR	Operations Research
ORT	Oral Rehydration Therapy
ORS	Oral Rehydration Salt
ORT	Oral Rehydration Therapy
PAHO	Pan American Health Organization
PAININ	Program for Integrated Services to Nicaraguan Children

PDA	Personal Digital Assistant (Handheld PC)
PHC	Primary Health Care
PROCOSAN	Programa Comunitario de Salud y Nutrición (Health and Nutrition Community Program)
PVO	Private Voluntary Organization
QA	Quality Assurance
RAAN	Northern Atlantic Autonomous Region
RDA	Recommended Dietary Allowance
RH	Reproductive Health
SILAIS	Sistemas Locales de Atención Integral en Salud
SO/IR	Strategic Objectives/Intermediate Results
STI	Sexually Transmitted Infections
TA	Technical Assistance
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
TIPS	Trials of Improved Practices
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
VA	Vitamin A
VAD	Vitamin A Deficiency
VCT	Voluntary Counseling and Testing
VHB	Village Health Bank
W/MCH	Woman/Maternal Child Health

EXECUTIVE SUMMARY

During the month of March 2005, Project HOPE with the cooperation of the Ministry of Health of Nicaragua, community agents, and the population in the target communities planned and implemented a Knowledge, Practices, and Coverage (KPC) survey among mothers with children under two years of age. The KPC survey, which sampled communities from all eight municipalities in the Department of Jinotega, served to provide key information on maternal and child health knowledge and practices. Results of the survey provided quantitative data to identify advances and successes achieved during the first half of the life of the Child Survival (CS) project.

The technical team of Project HOPE Jinotega and external personnel with experience in this type of surveys carried out the KPC survey. Also, technical support was provided by the Universidad Nacional Autonoma de Nicaragua (UNAN), the Ministry of Health (MINSA) for the training process and monitoring of the anthropometrical measurement samplings, the Director of Project HOPE Nicaragua, and technical assistants of Project HOPE Headquarters personnel.

To obtain the MidTerm information, the Project HOPE team used the Lot Quality Assurance Sampling (LQAS), a stratified random sampling methodology. In addition, parallel sampling was used to better understand two groups: mothers with children 0-11 months of age, and mothers with children aged 12-23 months. For each of these groups, slightly different instruments were used, which have already been validated by the Child Survival Technical Support (CSTS) These instruments had already been used in prior KPC surveys with some adaptations and inclusion of questions about reproductive health, danger signs, diarrhea, feeding practices and fluids intake during infant diseases episodes, and HIV/AIDS. Measurements for weight, height, and hemoglobin levels were also taken for children under two years of age, and hemoglobin levels for mothers, using the universally accepted HEMOCUE equipment. The team composed of UNAN, MINSA Central, and Project HOPE provided training for weighing, height measuring, hemoglobin, sampling, and LQAS methodology. The sample size was 19 mothers with children under two years of age in each of the two groups 0 to 11 and 12 to 23 months of age, for each Supervision Area (SA=8), with a subtotal of 152 mothers by age group, and a grand total of 304 interviewed mothers selected randomly.

Data collection took place approximately within a two-week period. Ten survey teams were formed with one supervisor and one interviewer in each team. Three staff members from Project HOPE and stakeholders did the quality control, using a quality control checklist during the interview process. In addition, this CS program pilot-tested the use of electronic Portable Digital Assistants (PDAs) for data capturing and analysis.

The analysis was done using LQAS tabulation forms in the field. Average coverage rates (non-weighted) were calculated for CS indicators —including Rapid CATCH ones— for the entire program area. In addition, adjusted coverage rates (weighted) were calculated for each indicator based on population size. Finally, 95% Confidence Intervals (CI) were calculated for each indicator considering population size for each SA.

<u>The KPC survey information collected provided the following results</u>:

The average age for interviewed mothers was 25 years old, with the youngest being 16 years old and the oldest 45 years of age.

Breastfeeding practices for mothers of children from 0 to 23 months of age showed an average of 71 % of the children receiving breast milk during the first hours after birth. The municipality found below this average was Bocay. All municipalities were found to be equal or above this average. The percentage of children 0 to 5 months of age that received breast milk in the last 24 hours was 52.0% (95% CI = +/- 12.5%).

Regarding the nutritional practices of mothers, more than two thirds (86%) of children 0 to 23 had weight measurements recorded in their health cards in the last four months. The municipality of Bocay was found below the average.

Stunting in the 0 to 11 months old group was 6.6% (non-weighted average) and for the group of children 12 to 23 months of age was 26.3% (non-weighted average). This number is higher than the national average of 22.2% for the 12 to 23 months old group according to ENDESA 2001.
The results for hemoglobin determination for the project area showed that 47% of children under two years of age have anemia (levels below 11mg/dl.)

The results of the immunization coverage for the project area reflect that more than 3/4 (81%) of children 12 to 23 months old received all vaccines at the moment of their first birthday. The municipality of Cua and Bocay was found to be below this average coverage.

Regarding diarrhea, the KPC survey revealed low knowledge of danger signs re cognition by the mother. Surveys results found that 15.79% (non-weighted average) of mothers could recognize at least two danger signs (dehydration signs) during diarrhea episodes for children aged 0 to 11 months old. In the 12 to 23 months old group 21.71% (non-weighted average) of mothers could recognize at least two danger signs. The municipality of Wiwili is the only one below this average.

As for the demand of services, results showed a significantly low rate of utilization. The average number of children with diarrhea seen by qualified medical personnel or at the Community Oral Rehydration Unit (CORU) was 50% (non-weighted average) for the 0 to 11 months old group. For the 12 to 23 months old group the result was 49.06% (non-weighted average). Overall, only 53% of children aged 0-23 months with diarrhea sought help at a health facility or CORU (95% CI= +/- 8.8%).

Regarding the percentage of mothers that reported having given equal amount or more food to their child during the last diarrheal episodes for both groups (0 to 11 and 12 to 23 months old), the result was 45%.
The percentage of mothers that reported having given equal amount or more liquids to their child during the last diarrheal episodes for both groups (0 to 11 and 12 to 23 months old) was 57%.

With respect to Acute Respiratory Infections (ARI) management, the percentage of children 0 to 23 months old with fast breathing that were seen at a health unit was 55%. Regarding pneumonia danger signs knowledge, 80.3% (non-weighted average) of mothers for children 0 to 11 months old can identify fast breathing as a danger sign. The municipality of San Rafael Norte and Bocay was found to be below the average coverage. For the 12 to 23 months old group the result was 77.6% (non-weighted average) and the municipality of Cua were found below the average.

Regarding maternal and newborn care, the percentage of mothers who reported that during their last pregnancy received the tetanus vaccine (dT) was 90.1% (non-weighted average) for the 0 to 11 months old group and 89.5% (non-weighted average) mothers with children 12 to 23 months of age. For both groups, the municipality found to be below the project area average was Bocay.
Only 37.5% (non-weighted average) of mothers with children 0 to 11 months old reported having at least one postnatal visit. The municipality of Cua and Bocay is the only one below the project area average.
A more half of children (54%) 0 to 23 months of age had their birth attended by qualified medical personnel (doctor or nurse). The municipalities of Pantasma, Wiwili, Cua and Bocay were found to be below the average.

With respect to birth spacing, the percentage of children 0 to 11 months old that were born at least 24 months after their previous surviving child was 88.2% (non-weighted average). The municipality of Bocay was found to be below the average for the project area. For the 12 to 23 months old group, the average was 84.9% (non-weighted average). The municipality of Jinotega was found to be below the project area average.
Regarding mothers with children 12 to 23 months of age that stated using some type of modern family planning method, the average coverage was 90%.

With regard to STIs and HIV/AIDS, the percentage of mothers that know at least one way to prevent was 15.1% (non-weighted average) for the 0 to 11 months group. For the mothers with children 12 to 23 months of age the result was of 19.7% (non-weighted average).
In general, the municipalities that present the greatest limitations regarding knowledge, practices and coverage for child survival interventions are, in order of priority: Bocay, El Cua, Wiwili, Jinotega, Yali and Pantasma.

I. BACKGROUND

The department of Jinotega is located in the north region of Nicaragua, with an area of 9,389 km^2 (8% of the total country surface). The estimate of population for the year 2005, according to the Instituto Nicaraguense de Estadisticas y Censos (INEC), is 248,162 inhabitants, with a density of 26.2 person per km^2, much lower than the national average of 75 people per km^2. Jinotega borders at the north with Honduras, to the south with the department of Matagalpa, to the east with the Region Autónoma del Atlántico Norte (RAAN) and to the west with the departments of Nueva Segovia, Madriz and Esteli.

Politically, the department is divided into eight municipalities: Jinotega, San Rafael del Norte, La Concordia, San Sebastián de Yali, Santa Maria de Pantasma, Wiwili, El Cua, and San José de Bocay. The department can be described as mountainous, with warm weather but with specific weather characteristics in each municipality, ranging from very humid to dry. The city of Jinotega is the capital of the department, and is located 161 kilometers from the country's capital Managua. Accessibility by road with Matagalpa and Managua is good through paved roads and with Esteli via unpaved roads usable all year. The municipalities are joined between them by unpaved roads in poor conditions, some municipalities such as Wiwili and San Jose de Bocay have communities that are accessible via the rivers in a large portion of the territories. The main rivers in the department are: the Coco River, the longest and largest in Central America, the Bocay and Amaka Rivers which feed into the Coco River and cross the municipalities of El Cua, and San Jose de Bocay.

Jinotega is characterized by being a region producing staple grains, coffee, and non-traditional products, and a limited cattle industry. The mountainous areas of Jinotega, Wiwili, El Cua, Bocay, Yali and San Rafael are perfect for the production of coffee. The municipality of Pantasma produces different crops such as staple grains, vegetables, and tobacco. Some of the areas are classified as "*zona seca*" (very hot climate) in which there is no production whatsoever due to lack of rain. Jinotega also generates electricity by means of the hydroelectric plant of Lake Apanas, which produces about 30% of the national electrical energy.

The social and economic situation of the department of Jinotega has been depressed in the latest years by the return of large populations to their original homes after the war, and by the fall of the international coffee prices, the main source of financial income for Jinotega.

Housing

The percentage of families that own a house is 52.3%; from these, 51.4% are made out of wood. Only 23.2% of the houses have electricity (ENDESA 2001).

Water and sanitation
In the urban area 40% of the houses have drinking water as compared to only 10% in the rural area. The percentage of houses that have latrines is 41.3% for the whole department of Jinotega (ENDESA 2001).
Poverty
The dependency relation is 11:1. According to the poverty map of the UNDP and the Technical Secretariat of the Presidency for the year 2000, the municipalities of El Cua, Bocay and Wiwili are classified as of extreme poverty; Yali, San Rafael del Norte and Pantasma are classified as high poverty; La Concordia and Jinotega are medium poverty. The municipalities with severe poverty represent 41% of the department's population.
The Ministry of Education (MECD) estimates that the number of education centers covers only 40% of the territory. According to ENDESA 2001, a 39.9% of the population cannot read or write and 41.5% of women have never attended school. Regarding the education level of heads of family, 55% do not know how to read or write, only 10% have attended secondary school or higher studies and 35% completed primary education. Of the heads of family, 20% are single mothers.

The depressed social and economic conditions, directly impact on health indicators of the general population with a greater risk of illnesses or death. Women of reproductive age and children younger than five years old are the group at greater risk, comprising 51.2% of the total population. The latest survey carried out by the MINSA's Nutrition Office in 1994 ranked Jinotega as high risk regarding micronutrients deficiency.

L. TABLE 1: HEALTH INDICATORS – SILAIS JINOTEGA

Pathology	Rate Dept./ 2000	ENDESA /2001 Rate	Rate Dept./ 2004
Mortality from diarrhea	11.8	N/A	
Mortality from ARIs	13	N/A	
Maternal mortality	98.6 x 100,000 NVR	N/A	224.1 x 100,000 NVR*
Infant mortality	18 x 1000	40** x 1,000	11.3 * x 1
Perinatal mortality	19.8	21	17 *
Diarrhea prevalence	N/A	19.6	
ARIs prevalence	N/A	35.4	

* Probably the reason for this difference is the official under-reporting of live births. In the case of the infant mortality rates of the SILAIS-Jinotega, it is clear that this reduction is a direct effect of the reduction of the mortality rate from diarrhea among children younger than five years of age.

** This information corresponds to the infant mortality for the period of five years before the survey (1996-2001), calculated from the history of births and deaths obtained from the interviews to women of reproductive age.

The women's health indicators for the year 2004 present a coverage of prenatal control of 84.1% with a concentration of 3.2 visits per pregnant woman. Coverage for postnatal care was 52%, family planning coverage was 31.6% with a preference for injections (Depo-Provera). The ENDESA 2001 presents a coverage for modern family planning methods of 52% and the knowledge of women regarding HIV/AIDS as 81% of them having heard about the subject and 42.6% knowing two or three forms to avoid the disease.

Table 2: Department of Jinotega Demographics

Municipalities	Population 2003	%	Km²	Density
Jinotega	58,788	24.0	1,239	46.7
San Rafael del Norte	16,978	7.0	468	36.3
La Concordia	7,658	3.0	224	42.1
San Sebastian de Yali	21,803	9.0	595	39.2
Pantasma	39,555	16.0	546	68.5
Wiwili	35,847	14.0	2,444	13.9
El Cua	42,572	17.0	3,872	9.9
San Jose de Bocay	24,961	10.0	N/A	N/A
Total	248,162	100.0	9,388	26.2

Program's description (September 2002 – March 2005)
Project HOPE is implementing the Child Survival Project in all 8 municipalities of the Jinotega Department. The identified strategies and activities have been implemented thorough the: Programa Comunitario de Salud y Nutrición –Health and Nutrition Community Program (PROCOSAN), Entrega Comunitaria de Métodos Anti Conceptivos –Community Based Delivery of Family Planning Methods (ECMAC), and Emergencias Obstétricas y Neonatales en las Comunidades –Obstetrics and Neonatal Emergencies in the Community (currently known as Plan de Parto para la Maternidad Segura –Birth Plan for Safe Motherhood), carried out in cooperation with our main partner, the Ministry of Health-SIALIS Jinotega, Community Health Volunteers, Private Sector Coffee Growers and partner NGOs, such as CARE, CARITAS-CRS, Wisconsin, PCI and other local civil society organizations.

The target population includes 60,031 children under five and 70,827 women of reproductive age (130,858 total beneficiaries). The goal of this program is to reduce morbidity and mortality rates of children under five and women of reproductive age in the department of Jinotega's primarily rural communities. This is being accomplished by building the service-delivery capacity of local health facilities and organizations; increasing the skills and elevating the morale of health care providers; strengthening cooperation among public, private and community stakeholders; and empowering consumers, particularly women, to take greater responsibility for personal and family health maintenance decisions.

The program includes a specific set of capacity-building activities and objectives as well as health-related interventions. With respect to capacity building, HOPE will facilitate the establishment of Department- and Municipality-level Health Councils—to include representatives of SILAIS, municipalities, private coffee plantations and associations, PVOs, NGOs, community leaders, health providers, and international donors—to guide and extend the project.

II. PROCESS AND PARTNERSHIP BUILDING

A. Specific roles of local partners/stakeholders in the KCP Survey

Project HOPE/ Jinotega coordinated the planning and the implementation of the Midterm KPC survey. The following is a list of local partners and stakeholders involved in the implementation of the KPC and their specific roles.

MINSA—At the national level, MINSA provided one facilitator, Lic. Mirna Zelaya, who participated in the training of interviewers in how to weigh children with the special Salter scales. At the SILAIS level, MINSA provided population (census) data and detailed local maps that were used to select communities and households, and loaned equipment, including HEMOCUE machines that were used to take hemoglobin measurements. The maps had been drawn in January 2005 by local "Brigadistas" (Community Health Volunteers), and were very helpful in orienting the survey team and locating households once they arrived in a particular community.

B. Constraints in making the process more participatory

The participation of the MINSA personnel during the data collection process of this MTE was mainly with coordination of visits to the communities, partaking in some of the visits, and supervision for quality control of some of the survey activities. One of the factors limiting the participation of the MINSA during the period of the surveys, 15 days, was the impossibility of medical personnel to abandon their duties for such an extended period of time from their Health Centers or Posts.

C. Participatory research used in the study

Data collection in the field for the KPC survey was carried out in two manners: Using Handheld Computers (Portable Digital Assistants -PDAs) to improve data collection practices and minimize data errors, which are part of the Project HOPE Project Information Management System SIGHOPE), and using printed versions of the questionnaires, to double check for possible errors with the PDAs, which were negligible.

III. METHODS

A. Questionnaires

Questionnaire development process

The sections and questions included in the midterm Project HOPE/ Jinotega KPC Survey are based on the model questions and modules contained in KPC 2000+ Questionnaire Manual (Spanish version). Project HOPE Jinotega staff is experienced in developing and implementing cross-sectional maternal and child health surveys: four surveys have been carried out for monitoring of the project (1 Base Line, 2 Monitoring and 1 Midterm). The two monitoring rounds did not include size and weight measurements, and were conducted during regular work using the same tools of the baseline study, avoiding in this way any extra cost and providing valuable information. Project HOPE/ Nicaragua staff has also participated in numerous workshops and trainings on LQAS hosted by NicaSalud.

The questionnaires used are the same ones that were adapted and validated during the Baseline Study, 2002, including new variables to collect data for the USAID Rapid Catch indicators not researched during the Baseline survey for the program.

The research methodology used during this midterm evaluation is the same one utilized for the Baseline Study and annual monitoring rounds conducted during the first half of the project, LQAS was chosen as the sampling methodology (versus the more traditional 30-cluster sampling developed by WHO). It was also decided to use parallel sampling, thus two questionnaires were developed, one for those mothers with infants 0-11 months, and the other for mothers with children 12-23 months. Parallel sampling is designed to target the most appropriate sub-target group with the most appropriate questions for that subgroup, allowing for a relatively fewer number of questions to be administered to any one subgroup. Another advantage is that recall bias may be reduced, as the question content will focus on behaviors or experiences relatively recent or current to a particular subgroup. Parallel sampling may also provide higher quality data, as shorter interviews are less likely to trigger 'interview

fatigue' compared to longer ones. Lastly, parallel sampling may produce more precise point estimates, because data from questionnaires with common questions can be pooled, allowing relatively larger sample sizes for particular items.

Scope of survey, survey length, and versions of the questionnaire

Modules included in the survey questionnaires correspond roughly to the proposed interventions included in the project proposal submitted to USAID/ Washington in December 2001. The two questionnaires included the following modules:

Table 3: Number of Questions by Questionnaire

Module	Number of Questions*	
	0-11 months	12-23 months
Identification	14	14
Background	5	5
Nutrition and Breastfeeding	7	7
Growth and Monitoring	8	8
Immunization	-	2
Sick Child	4	2
Diarrheal Management	9	9
Acute Respiratory Infections	9	9
Malaria **	4	4
Prenatal Care ***	8	5
Intrapartum and Newborn Care	5	2
Family Planning	5	7
HIV/AIDS	3	3
Water and Sanitation	2	2
Anthropometry and Hemoglobin	4	4
Total	87	83

* A few questions contain fields for more than one variable

** This module was not included in the baseline study. Starting with the first monitoring, 4 questions were included in both questionnaires (0-11 y 12-23 months old), to include the missed Malaria Rapid Catch indicator.

*** This module also had one question added, to obtain another Rapid Catch indicator.

The final versions of the questionnaires for both age groups can be found in Appendix B.

B. KPC Indicators

The following table lists the main indicators proposed for the program with the respective construction:

Table 4: Indicators construction

Indicator	Numerator	Denominator	Question Reference
1. % of children aged 0-23 months weighed in the last 4 months according to growth monitoring card	Children aged 0-23 months weighed in the last 4 months according to growth monitoring card	Total children 0-23 months with growth monitoring card	CD2
2. % of children aged 0-23 months with low weight (weight for age) (<2Z)	Children aged 0-23 months with low weight (weight for age) (<2Z)	Total children 0-23 months in the study	AH1 / Pi 14
3. % of children aged 0-23 months stunted (height for age) (<2Z)	Children aged 0-23 months stunted (height for age) (<2Z)	Total children 0-23 months in the study	AH 2 / Pi 14
4. % of children aged 0-23 months with anemia	Children aged 0-23 months with hemoglobin less than 11mg/dl.	Total children 0-23 months in the study	AH 3
5. % of mothers of children aged 0-23 months who report having breastfed within the first hour after birth	Mothers of children aged 0-23 months who report having breastfed within the first hour after birth	Total mothers of children 0-23 months in the study	LN 2
6. % of mothers of children aged 0-23 months who report having breastfed within the first eight hours after birth	Mothers of children aged 0-23 months who report having breastfed within the first eight hours after birth	Total mothers of children 0-23 months in the study	LN 2
7. % of infants aged 0-5 months who received only breast milk in the past 24 hours	Infants aged 0-5 months who received breast milk only in the past 24 hours	Total infants 0-5 months in the study	LN6 A = 1, LN6 B-U = 0 / Pi 14 < 6
8. % of mothers of children aged 0-23 months that know at least two signs of dehydration due to diarrhea	Mothers of children aged 0-23 months who can mention at least two of the following signs: sleepy, sunken eyes, folding skin, thirsty, restless or cranky.	Total mothers of children 0-23 months in the study	DM 9 = D
9. % of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheal episode	Mothers of children aged 0-23 months which had diarrhea in the last two weeks that report having sought assistance or counseling from a health unit or CORU	Total mothers of children 0-23 months in the study who had diarrhea in the last two weeks	DM7= A,B,C & F / DM1 = 1
10. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child	Mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child during this episode	Total mothers of children 0-23 months in the study who had diarrhea in the last two weeks, excluding children 0-5 months with exclusive breastfeeding	DM5= 2 or 3 / DM1 = 1 – [(Pi 14 < 6) + (LN6 A = 1, LN6 B-U = 0)]
11. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	Mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child during this episode	Total mothers of children 0-23 months in the study who had diarrhea in the last two weeks	DM4= 2 or 3 / DM1 = 1
12. % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit	Mothers of children aged 0-23 months with cough and fast breathing in the last two weeks who report having taken the child to a health unit	Total mothers of children 0-23 months in the study with cough and fast breathing in the last two weeks	IR7= A or B or C / IR2 = 1
13. % of mothers of children aged 0-23 months who can identify fast breathing as a danger sign for pneumonia	Mothers of children aged 0-23 months who can identify fast breathing as a danger sign for	Total mothers of children 0-23 months in the study	IR 9 = B

Indicator	Numerator	Denominator	Question Reference
	pneumonia		
14. % of children aged 12-23 months with all recommended vaccines according to the growth monitoring card	Children aged 12-23 months with one dose of BCG, OPV3, 3Pentavalente and one MMR at the moment of their first birthday	Total children 12-23 months in the study	IN 2 = A - H
15. % of mothers of children aged 0-23 months who know at least one way to prevent STIs-HIV/AIDS	Mothers of children aged 0-23 months who can mention at least one of the followings: abstinence, use of condom, having only one sex partner / being faithful	Total mothers of children 0-23 months in the study	VS 3 = B or C or D or E
16. % of children aged 0-23 months who were born at least 24 months after the previous surviving child	Children aged 0-23 months born at least 24 months after the previous surviving child plus only child	Total children 0-23 months in the study	PF 3 (Child DOB 1 - Child DOB 2) > 24 months + only child
17. % of mothers of children aged 12-23 months who desire no more children in the next two years, who are using some type of modern child spacing method	Mothers of children aged 12-23 months who are not pregnant, desire no more children or are not sure and report using one of the following modern child spacing methods: norplant, injectables, oral, IUD, condom / diaphragm, gel / foam, male or female surgical sterilization	Total mothers of children 12-23 months in the study, excluding pregnant women	PF 4 = 0 + PF 7 = 02 – 10 / 152 – PF 4 = 1
18. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse	Mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse	Total mothers of children 12-23 months in the study	AP 1 = B
19. % of mothers of children aged 0-23 months that report receiving on their arm the dT vaccine during the last pregnancy	Mothers of children aged 0-23 months that report receiving on their arm the dT vaccine during the last pregnancy	Total mothers of children 0-23 months in the study	AP 2 = 1 (12 to 23 m) AP 3 = 1 (0 to 11 m)
20. % of mothers of children aged 0-11 months who report having had at least one postpartum visit	Mothers of children aged 0-11 months, who report having had at least one postpartum visit	Total mothers of children 0-11 months in the study	PF 4 = 2 or 3
21. % of children aged 0-23 months whose birth was attended by a doctor or nurse	Children aged 0-23 months whose birth was attended by a doctor or nurse	Total children 0-23 months in the study	RN 2 = A or B

Table 5: Rapid CATCH Indicators

Indicator	Numerator	Denominator	Question Reference
1. % of children aged 0-23 months with low weight (weight for age) (<2Z)	Children aged 0-23 months with low weight (weight for age) (<2Z)	Total children 0-23 months in the study	AH1 / Pi 14
2. % of children aged 0-23 months who were born at least 24 months after the previous surviving child	Children aged 0-23 months born at least 24 months after the previous surviving child	Total children 0-23 months in the study	PF 3 (Child DOB 1 - Child DOB 2) > 24 months
3. % of children aged 0-23 months whose birth was attended by a doctor or nurse	Children aged 0-23 months whose birth was attended by a doctor or nurse	Total children 0-23 months in the study	RN 2 = A or B
4. % of mothers of children aged 0-23 months that received two doses of dT vaccine during the last pregnancy, according to health card	Madres de niños de 0 – 23 meses que tienen registradas al menos dos dosis de dT en su tarjeta de embarazo.	Total de madres de niños de 0 – 23 meses con tarjeta de embarazo	AP6=2 0-11m / AP5=2 12-23m / AP4=1 0-11m + AP3=1 12-23m
5. % of infants aged 0-5 months who received breast milk only in the past 24	Infants aged 0-5 months who received breast milk only in the	Total infants 0-5 months in the study	LN6 A = 1 / LN6 B-U = 0

Indicator	Numerator	Denominator	Question Reference
hours	past 24 hours		Pi 14 < 6
6. % of children aged 6-9 months who received breast milk and complementary feeding in the past 24 hours	Mothers of children aged 6-9 months that report having given breast milk and complementary feeding in the past 24 hours	Total mothers of children 6-9 months in the study	LN 6 A = 1 LN 6 B to U = 1 (minimum 1) LN 7 > 0
7. % of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card	Children aged 12-23 months with one dose of BCG, OPV3, 3Pentavalente and one MMR at the moment of their first birthday	Total children 12-23 months in the study	IN 2 = A - H
8. % of children aged 12-23 months that received the MMR vaccine according to the growth monitoring card	Children aged 12-23 months that received the MMR according to the growth monitoring card	Total children 12-23 months in the study	IN 2 = A - H
9. % of children aged 0-23 months who slept under an impregnated mosquito net the previous night	Niños de 0-23 meses que durmieron la noche anterior con mosquitero impregnado	Total children 0-23 months in the study	CM1=2 CM4=1 both questionnaires
10. % of mothers of children aged 0-23 months that know at least two signs of childhood illnesses indicating the need for treatment	Mothers of children aged 0-23 months who can mention at least two of the following signs: looks tired, does not eat or drink, sleepy or hard to awake, has high fevers, has fast breathing, vomits all food or drinks, has seizures	Total mothers of children 0-23 months in the study	DM 9 = D
11. % of children aged 0-23 months that received more liquids and continued feeding during an illness in the last two weeks	Mothers of children aged 0-23 months that had diarrhea or ARI in the last two weeks that report having given more liquids and continued feeding during an illness in the last two weeks	Total mothers of children 0-23 months with diarrhea or ARI in the last two weeks in the study	DM5= 2 or 3 DM1 = 1 – [(Pi 14 < 6) + (LN6 A = 1, LN6 B-U = 0)]
12. % of mothers of children aged 0-23 months who know at least one way to prevent STIs-HIV/AIDS	Mothers of children aged 0-23 months who can mention at least one of the followings: abstinence, use of condom, having only one sex partner / being faithful	Total mothers of children 0-23 months in the study	VS 3 = B or C or D or E
13. % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	Mothers of children aged 0-23 months that mentioned the 4 situations when hands must be washed: before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	Total mothers of children 0-23 months in the study	AS1 = B, D , E & F

C. Sampling Design

Universe: 248,162 inhabitants of the Department of Jinotega
Sampling size: A random stratified sampling method, known as LQAS (Lot Quality Assurance Sampling), was used. Through LQAS, a sample size of 19 interviews per lot was obtained. Eight lots were identified, corresponding to each municipality in the Department of Jinotega. In addition, parallel sampling was used to better understand the knowledge, practices, and coverage of mothers with children 0-11 months, and mothers with children 12-23 months. Thus, slightly different questionnaires were used for each group (see Appendix D for the instruments used). The sample sized used gave a total of 38 interviews per supervision area, or 152 interviews from each age group, or a grand total of 304 interviews for the total area of the project (Department of Jinotega).

For the purpose of the KPC midterm study, eight supervision areas were defined as follows:

- SA 1: Jinotega
- SA 2: San Rafael del Norte
- SA 3: La Concordia
- SA 4: San Sebastian de Yali
- SA 5: Santa Maria de Pantasma
- SA 6: Wiwili
- SA 7: El Cua
- SA 8: San Jose de Bocay

For the selection of the communities, a random sampling framework was used based on the population of communities within each supervision area. The result was the identification of communities to be sampled, which are listed in Appendix E. For each selected community the census and maps were updated, all of this in close coordination with MINSA personnel and CHVs.

According to the sampling framework, each one of the homes was numbered within the respective community map, selecting at random the homes to be interviewed. Following, also at random, if there was more than one informer or a mother had children both 0 to 11 and 12 to 23 months old, only one of them was selected for each home. In case that at the selected homes there were no informers to complete the sampling set, the nearest home was identified. No two interviews were ever made to the same mother, nor were two interviews carried out at the same home.

A sampling set was considered complete after having completed both interviews (0 to 11 and 12 to 23 months old). An interview was considered complete after filling out the questionnaire, weighting and measuring the child and taking the blood sample both from the mother and child. Only at this point a new home was selected to start the new sampling set. Following this procedure all sets identified for each community were completed until finishing the 19 corresponding set for each supervision area.

D. TRAINING

In preparation for the use of the LQAS methodology, technical and support personnel received training from Project HOPE´s Specialists, with expertise in the use of LQAS methodology for baseline and other assessments in Nicaragua. Training was also provided to all personnel in anthropometrical measurements, blood sampling and hemoglobin determination, with the support of the MINSA Central and the Facultad de Medicina, UNAN, Managua.

For the hemoglobin determinations, HEMOCUE[2] photometers were utilized, which used the principle that after erythrocytes are hemolyzed by sodium deoxycholate, hemoglobin is released. Hemoglobin is converted to methemoglobin by sodium nitrate, which together with sodium azide, give azidemethemoglobin. The absorbance is then measured at two wavelengths (570 and 880 nm) in order to compensate for turbidity in the sample. The sample is collected from arterial or venous blood and place on a microcuvette. For the sampling and survey, procedures and recommendations outlined in the HEMOCUE Operating Manual were followed.

For the measurement of weight on children, SALTER scales graduated in kilograms were used; and for height measurement locally manufactured measuring boards graduated in centimeters were used. Procedures outlined in the Manual for Determination of Nutritional Status[3] were followed. In order to achieve the standardized performance of the survey teams for all these procedures, field tests were conducted to assure quality of measure among survey personnel.

[2] HemoCue, Blood Hemoglobin Photometer. Operating Manual. Bergstens, HBG H. US 2003

[3] COMO PESAR Y MEDIR NINOS. Procedures Manual for Measuring Nutritional Status, UN, Department of Technical Cooperation for Development and Office of Statistics. New York, 1988.

E. DATA COLLECTION AND QUALITY CONTROL

The technical team from Project HOPE Jinotega and external personnel conducted the KPC data collection with experience in this type of surveys. The collection of data took place approximately within an intensive two-week fieldwork period. Project HOPE Jinotega used ten survey teams, which were composed by one supervisor and one interviewer in each team. Quality control was done by two staff members from Project HOPE and stakeholders who used a quality control checklist (see Appendix F) during the interview process. The Child Survival project manager, Dr. Mario Ortega was responsible for quality control with the technical assistance from the following persons: Ing. Marlon Rizo (Project HOPE Jinotega – Responsible for Information Systems and Dr. Doris González (SILAIS Jinotega – Responsible for Maternal Care). The average time of the interview for anthropometrical measurements and hemoglobin determination was forty-five minutes.

Project HOPE's technical personnel collected the information using the PDAs (Surveyors), and supervisors (mainly external personnel used pen and paper.
Both roles were performed by personnel with vast experience in these types of studies. Surveyors were selected based on their experience with the use of the PDAs, which obviously are all members of the technical staff of the Project HOPE CS project in Jinotega. The supervisors were members of different organizations, the MINSA-SIALIS Jinotega, PCI-San Rafael del Norte and Project HOPE. This methodology also served to validate the effectiveness of the technology now being used by Project HOPE for all processes related to data collection and analysis supporting each one of the strategies and indicators monitored by the project.

MAIN SURVEY PROBLEMS IN THE FIELD

Giving the survey process it was found that some women declined to be interviewed but an effort was made to collect basic information about them and possible reasons for their decision.

TABLE 6: RESPONDENTS REJECTION TO THE SURVEY BY MUNICIPALITY

Municipalities	No.	Age	Background	Child's Age	Reasons for denial
El Cua	1	18	Rural	0-11	The decision was the mother's
	2	19	Rural	0-11	The decision was the mother's
San José de Bocay	3	26	Rural	0-11	The decision was the mother's

Mothers that refused to be interviewed did it mainly because they did not want to have blood samples taken from their children and themselves for the hemoglobin test.

F. DATA ANALYSIS

The information systems specialist of Project HOPE Jinotega entered all the information-collected data into the Access program. Data analysis was made by comparing the specific results obtained for each supervision area with the average project coverage and with statistical data from the SILAIS and ENDESA 2001. The results of the survey are presented in LQAS summary tables in the Appendices, Appendix B.

The information regarding weight, size and age was analyzed by way of the statistics program EpiNut of the Center for Disease Control (CDC) using the 1978 reference population of the US National Center for Health Statistics recommended by the World Health Organization, which is used to describe the nutritional status of children through the indicators of height for age and weight for age. The use of this reference population is based on the premise that all well nourished children, from all population groups, follow very similar growth patterns. For this MTE, with the support of the Ministry of Health at the central level, field personnel were standardized for size and weight measurements. Size determinations were made with children lying down (length)

WEIGHTED POPULATION

It is important to remark that when information from different areas is collected, the specific estimates obtained for each area will not be exact, for this reason an estimation of coverage (with respective confidence intervals) must be calculated for the total project area with enough precision by combining all areas. This is accomplished by weighting the results of each supervision area according to the total population in the project area.

In other words, the weighted population is simply the proportion of the total programmed area population living within a specific lot or area. Furthermore, this weighted population can be used to calculate coverage for the total project area as well as confidence intervals.

Even though the weighted estimates are considered more precise than the non-weighted, the difference between this two is generally not big. In order to carry out the comparison of data between all supervision areas and the total project area the population was weighted for each one of the areas.

Table 7: Total estimate sample with weighted population:

Supervision area	Sampling size (n)	Population (N)	Weighting (w_i)
1. Jinotega	38	58,788	58,788 / 248,162 **= 0.24**
2. San Rafael del Norte	38	16,978	16,978 / 248,162 **= 0.07**
3. La Concordia	38	7,658	7,658 / 248,162 **= 0.03**
4. Yali	38	21,803	21,803 / 248,162 **= 0.09**
5. Pantasma	38	39,555	39,555 / 248,162 **= 0.16**
6. Wiwili	38	35,847	35,847 / 248,162 **= 0.14**
7. El Cua	38	42,572	42,572 / 248,162 **= 0.17**
8. Bocay	38	24,961	24,961 / 248,162 **= 0.10**
TOTAL PROJECT AREA	**304**	**248,162**	

The following formulas were used to calculate adjusted (weighted) coverage rates for the entire region, and 95% Confidence Intervals (C.I.) for stratified random sampling using weighted coverage rates:

$$p_w = \sum wt_i * p_i$$

$$\text{C.I.} = \pm 1.96 * \sqrt{\sum \frac{wt_i^2 * p_i q_i}{n_i}}$$

where:

- p_w = adjusted coverage rates for a region with multiple Supervision Areas
- C.I. = confidence interval for a coverage proportion for a region with multiple Supervision Areas
- 1.96 = Z score for the 95% confidence interval
- wt_i = the weight for the *i*th Supervision Area described in Table 10
- p_i = the coverage proportion for the *i*th Supervision Area
- q_i = $1 - p_i$
- n_i = the sample size from the *i*th Supervision Area

The formula for the C.I. was taken from Valadez, Joseph J. "*Assessing Child Survival Programs in Developing Countries*" Harvard School of Public Health. Boston. Massachusetts. p94. 1991.

See Appendix G for a complete list of all calculations by indicator, including average coverage rates, adjusted coverage rates (by population weigh), and confidence intervals calculations.

Table 8: KPC Midterm results by indicator – Department of Jinotega, Nicaragua

Indicator (for the entire project area)	Baseline March 2003			Midterm March 2005		
	Average Coverage Rates (%)	Adjusted Coverage Rates (%)	95% C.I. (+ / -)	Average Coverage Rates (%)	Adjusted Coverage Rates (%)	95% C.I. (+ / -)
1. % of children aged 0-23 months weighed in the last four months according to growth monitoring card.	73.7	67.9	**6.0**	86.6	86.1	**4.5**
2. % of children aged 0-23 months with low weight (Weight-For-Age) (<2Z).	6.6	7.6	**3.5**	5.9	7.5	**3.5**
3. % of children aged 0-23 months stunted (Height-For-Age) (<2Z).	19.1	19.8	**4.9**	16.4	17.2	**4.7**
4. % of children aged 0-23 months with anemia (hemoglobin level < 11mg/dl).	39.8	41.9	**6.1**	47.4	47.0	**6.2**
5. % of mothers of children aged 0-23 months who report having breastfed within the first hour after birth	67.8	67.8	**5.9**	83.2	81.6	**5.6**
6. % of mothers of children aged 0-23 months who report having breastfed within the first 8 hours after birth.	82.4	82.4	**4.7**	82.4	82.4	**4.9**
7. % of infants aged 0-5 months who received only breast milk in the past 24 hours.	58.2	56.0	**12.5**	40.8	51.8	**9.0**
8. % of mothers of children aged 0-23 months that know at least two signs of dehydration due to diarrhea.	28.3	26.9	**5.5**	18.8	16.8	**4.6**
9. % of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheal episode.	33.6	35.7	**8.8**	49.5	52.5	**9.9**
10. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child.	46.0	45.5	**9.5**	44.0	44.9	**10.4**
11. % of mothers with children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	69.7	69.1	**8.8**	69.7	71.0	**9.4**
12. % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit.	60.4	59.7	**10.6**	54.9	54.7	**10.7**
13. % of mothers of children aged 0-23 months who can identify fast breathing as a danger sign for pneumonia.	74.3	76.0	**5.2**	78.9	77.6	**5.1**
14. % of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card.	70.4	68.7	**8.2**	80.9	80.5	**6.9**
15. % of mothers of children aged 0-23 months who know at least one way to prevent STIs-HIV/AIDS.	44.1	43.3	**6.0**	17.4	14.0	**4.2**
16. % of children aged 0-23 months who were born at least 24 months after the previous surviving child.	83.9	83.9	**4.5**	86.5	85.7	**4.4**
17. % of mothers of children aged 12-23 months who desire no more children in the next two years, who are using some type of modern child spacing method.	62.3	65.3	**8.7**	91.4	90.3	**5.4**
18. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	89.1	89.0	**3.8**	93.4	93.5	**2.9**
19. % of mothers of children aged 0-23 months that report receiving on their arm the dT vaccine during the last pregnancy.	85.5	85.4	**4.2**	89.8	90.2	**3.5**
20. % of mothers of children aged 0-11 months who report having had at least one postpartum visit.	37.5	32.4	**7.9**	37.5	32.5	**7.9**
21. % of children aged 0-23 months whose birth was attended by a doctor or nurse.	52.3	51.4	**5.8**	56.6	53.7	**5.7**

IV. Results:
Discussion and Analysis

A total of 304 mothers with children 0 to 23 months old were interviewed, mothers had an average age of 25 years, 7% were less than 18 years old, and 4% were more than 39 years old. The youngest and oldest mothers were 16 and 45 years old respectively.

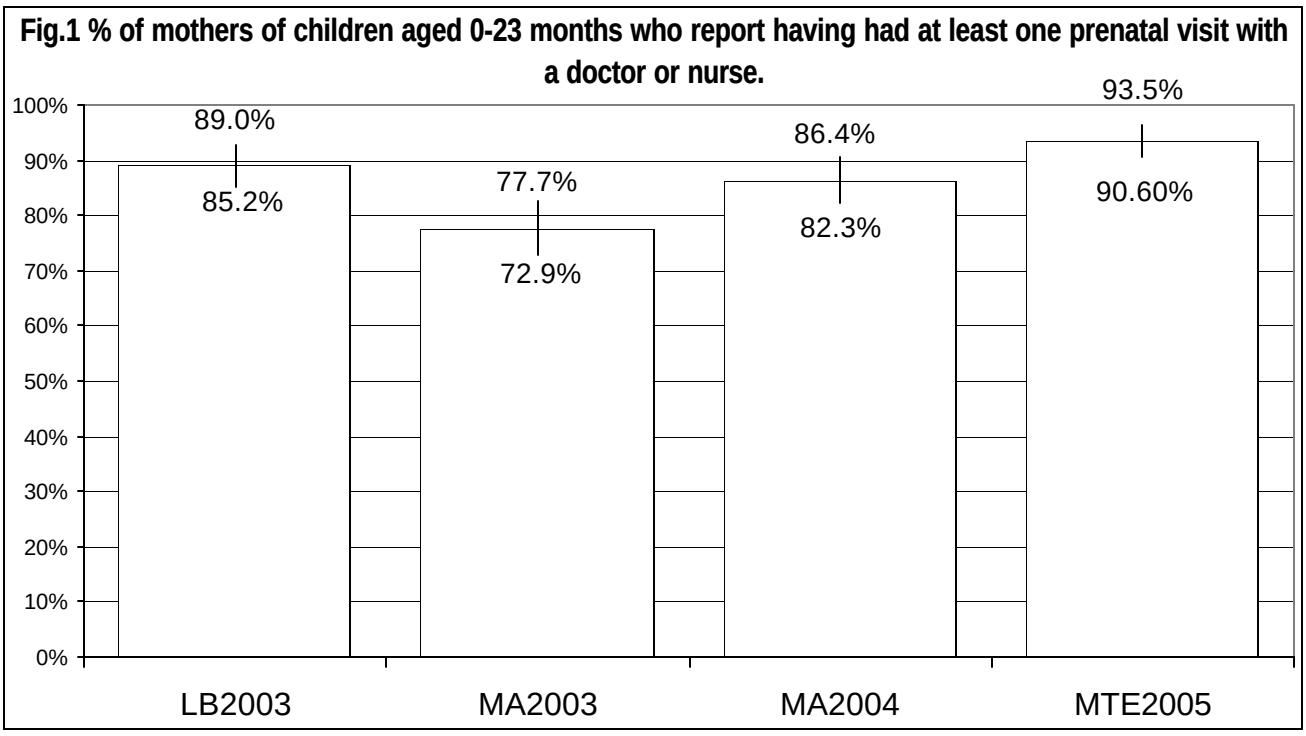
The distribution for children less than two years old by gender was 53% females, 47% males. For the age group of 0 to 11 months of age, the distribution was even (50% for both genders)

The average age for children 0 to 11 months old was six months, with a standard deviation of 3.4 months. The mean for this group was 9 months. 50% 0f children were less than 6 months old, 24% was between 6 and 8 months old, and 26% was between 9 and 11 months old. The average age for the group of children 0 to 23 months old was 18 months, with a standard deviation of 3.5 months and a mean of 18 months. 83% of mothers had attended some level of grammar school, and only 15% had attended some level of high school. 34% of mothers do not know how to read or write. 16.5% of all interviewed mothers do some kind of work to earn money, 29% take their children with them when they go out of their homes, 27% leave the younger children under the care of older siblings, and grandmothers cared for 31.3% of children.

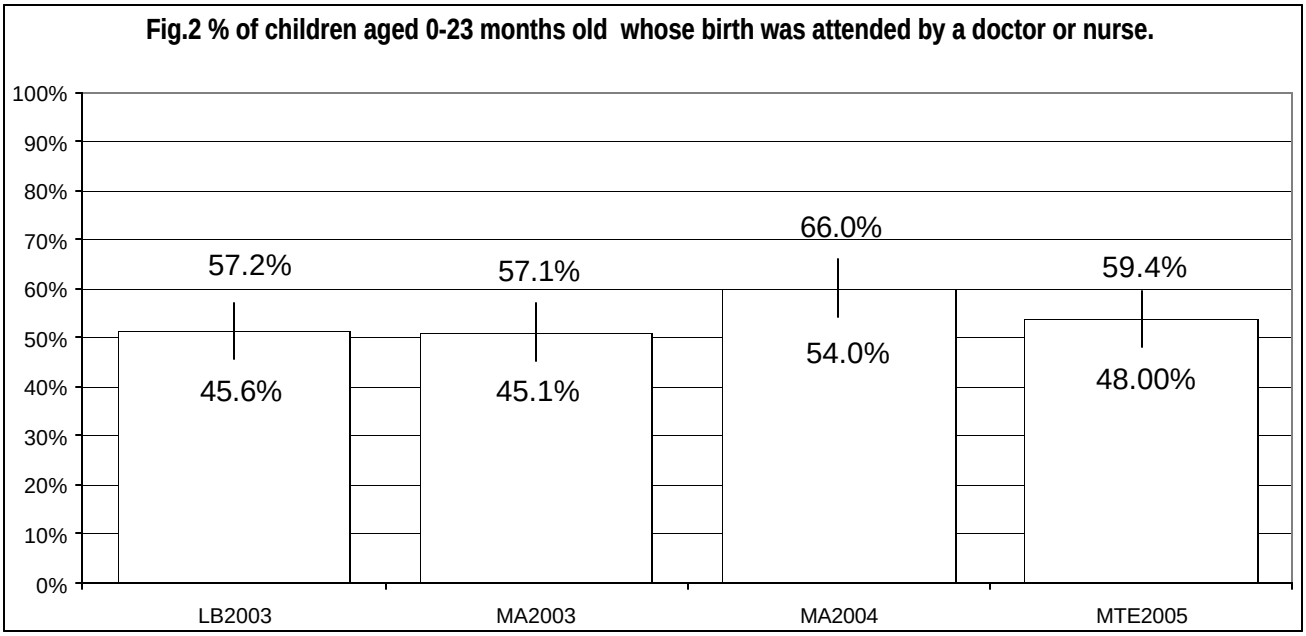
The 19 key Project indicators are presented in the following graphs, also showing the confidence intervals for all 4 studies conducted: Baseline study, March 2003; Annual monitoring rounds, September 2003 and 2004; and Mid Term Evaluation, March 2005.

Maternal and Newborn Care

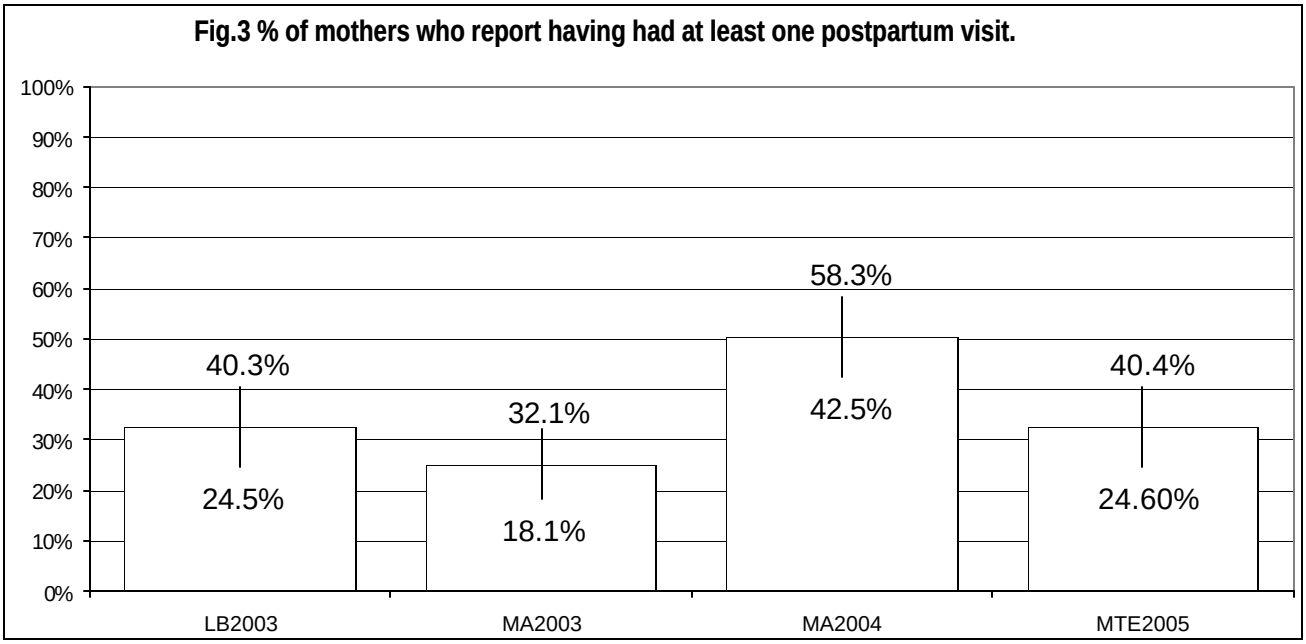
Fig.1 % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.



One of the main strategies of the MOH, to try to reduce maternal mortality, is the prenatal care, which must have the following characteristics: early, periodic, complete, and of wide coverage. The Project investigates, through references from the mothers, the coverage rates for prenatal care for mothers with children 0 to 23 months old. There was not a statistically significant variation between the baseline and midterm studies (as shown by de confidence intervals) and is close to the proposed goal of 95%. The result of the midterm study is also above the results obtained by the MOH for 2004 period, 84%. See Fig 1.



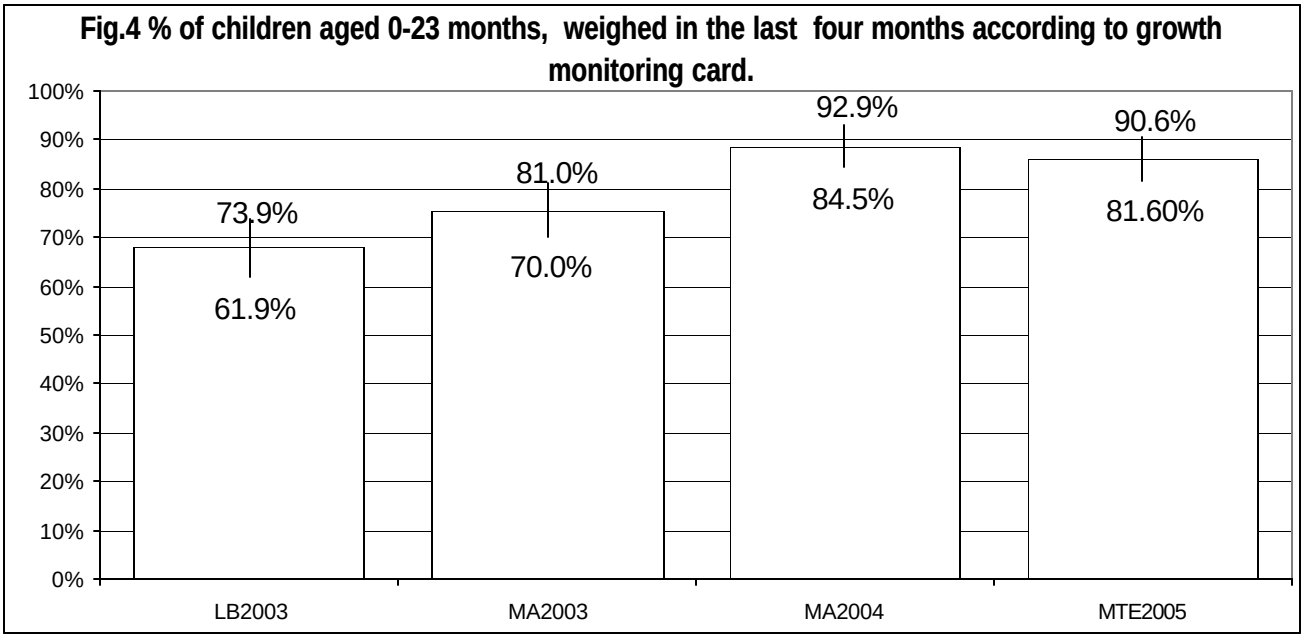
The same as with the prior indicator for reduction of maternal mortality, the MOH has included the institutional delivery as one of the four pillars for a safe motherhood. The geographical characteristics of the Jinotega Department make it difficult to get close to the optimal accessibility for institutional deliveries (above 80%). In this study it was found that deliveries attended by a doctor or a nurse were only 54%. Even though there was a 2 percent points improvement over the Baseline, this is not significant (included within the confidence interval), but it is close to the proposed goal of 60%. See figure 2. In order to improve the coverage for institutional deliveries, the MOH with support of other organizations –including Project HOPE, is developing the Delivery Plan for safe motherhood strategy, which is now being implemented in 56 communities in Jinotega.



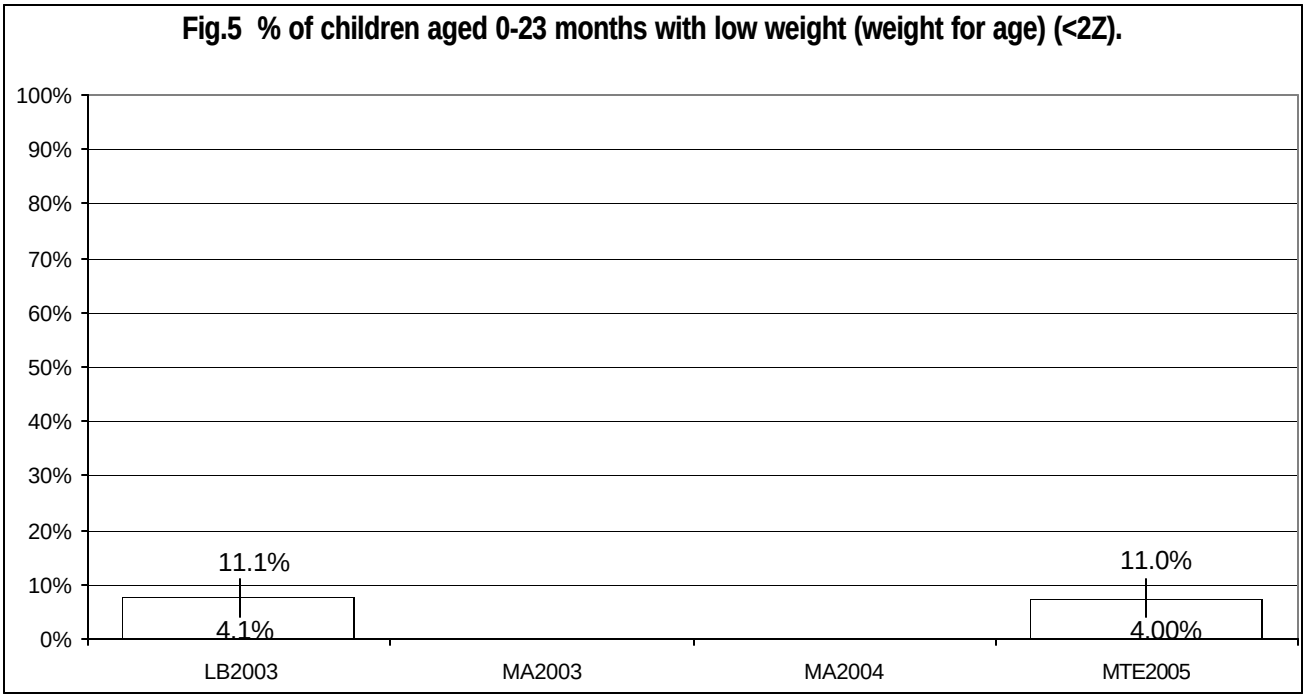
More than half the maternal deaths in Nicaragua occur during the puerperal period. According to the MOH norms, mothers should receive at least one pos-natal control after the first week following delivery. The Mid term study

found that 33% of mothers with children 0 to 23 months old stated having had at lest one post-natal visit with a doctor or a nurse. No significant difference is observed in comparison with the Baseline Study. According to the MOH the coverage for the puerperal period care is 52%, but his may be due to the fact that the first post natal care performed at the time of birth, before being released, is sometimes counted wrongly as a post natal visit. Besides this, the denominator used by the MOH for this indicator is a population estimate. See fig. 3

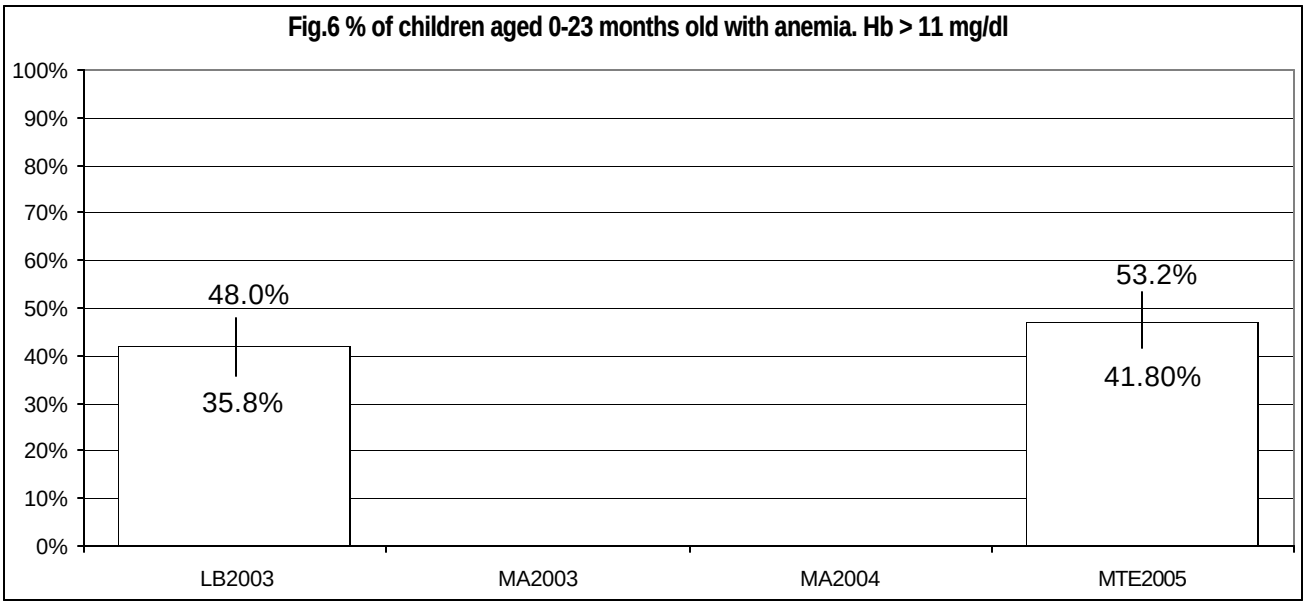
Nutrition / Micronutrients



For Growth Monitoring and Promotion of children less than two years of age, the MOH with support of other organizations –including Project HOPE, is implementing the PROCOSAN strategy in approximately 30% of all communities accessible by land in the Jinotega Department. According to the program, children must be weighed every month in the community. In the last two years a 20-point improvement is observed for children weighed during the last 4 months, according to the health card. With a change form 68% at the time of the Baseline study to 86% during the midterm evaluation, an adequate progress is observed with respect to the proposed goal of 91%. See fig. 4.



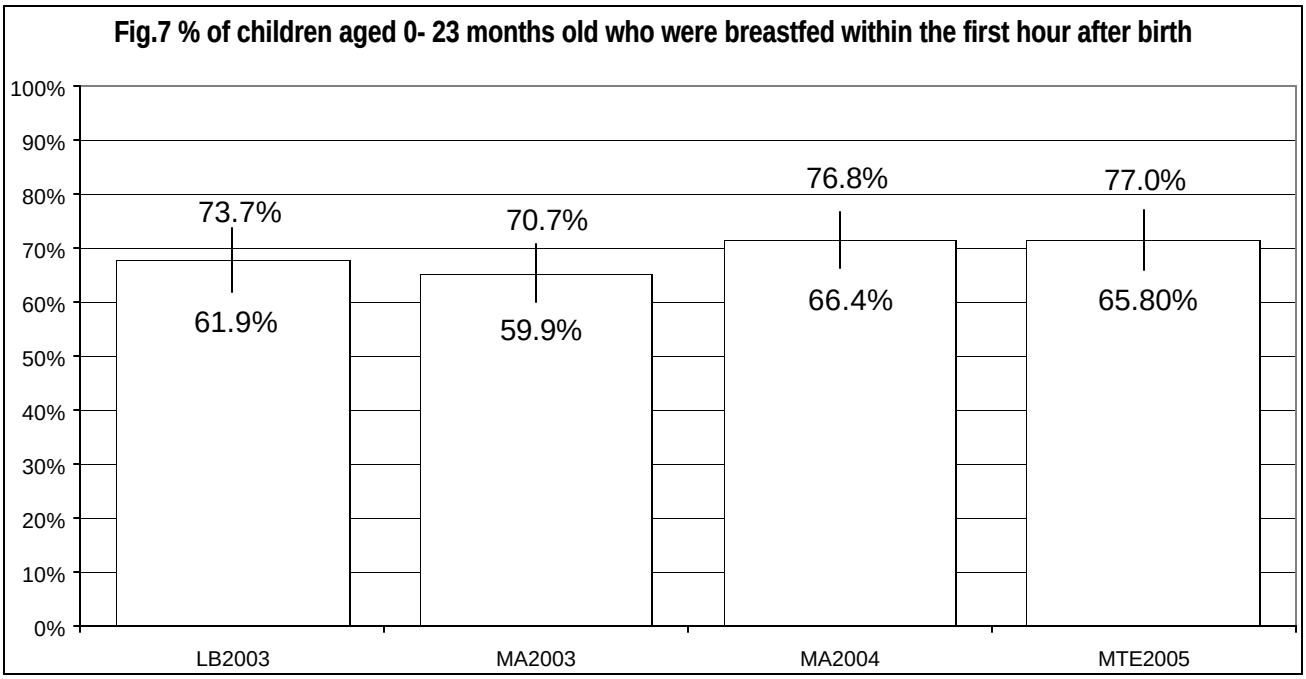
The main problem associated to child mortality by diarrhea and pneumonia is malnutrition. The PROCOSAN emphasis is to improve the nutritional status of children through the use of locally available high nutritional value foods associated to behavioral changes related to childcare. The study does not show significant differences as compared to the baseline. Still, it is worth noting that this result is one third of the number of children with low weight reported by the MOH. In three municipalities ((Jinotega, El Cuá y Bocay), the World Food Program and the DAP programs implemented by CRA-CARITAS and Project Concern International, provide food to communities in extreme poverty. This indicator was not monitored during the annual monitoring rounds, only for the baseline and MTE. See fig. 5



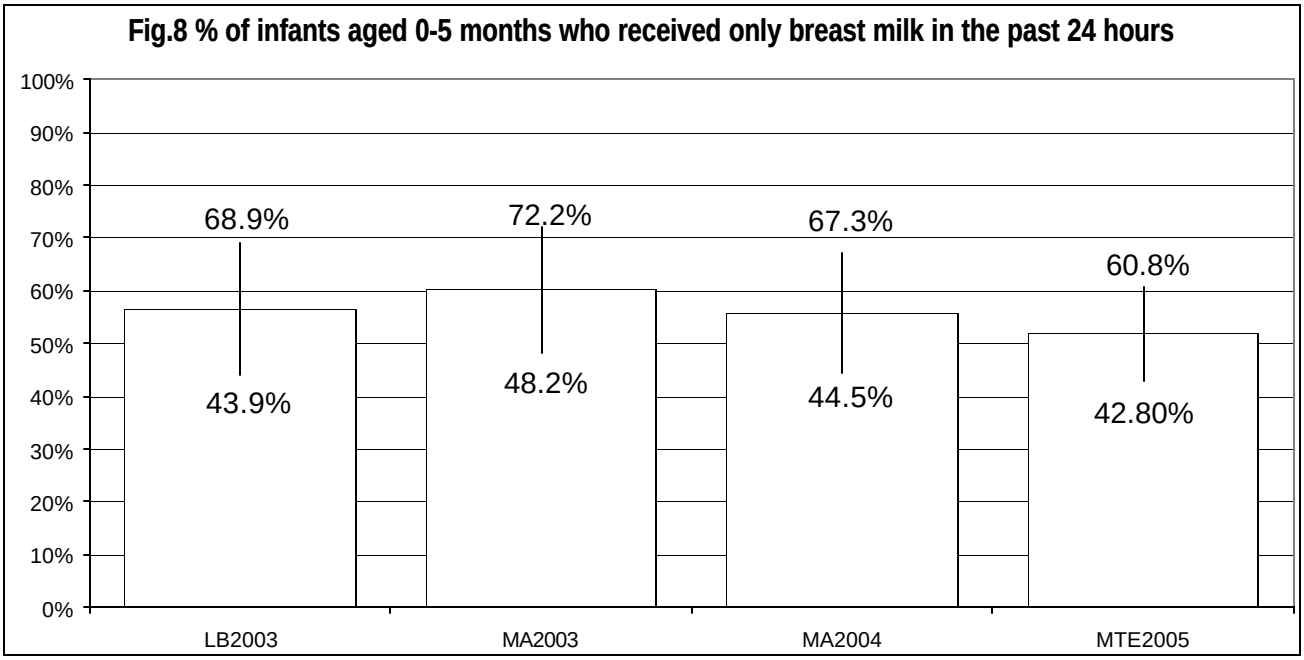
One of the MOH strategies to reduce the prevalence of Anemia is the fortification of flour with Iron and provision of iron supplements to all children younger than 5 years of age. This study shows a 5% increase in anemia as compared to the baseline, from 41.9% to 47%, for children 0 to 23 month old. The group with the highest prevalence was the 0 to 12 months old (See annexes, table 11). This could be associated with an early introduction of complementary foods in children less than 6 months old, and the reduction of exclusive breastfeeding (See annexes, table 10). The numbers found during this study almost double the numbers reported by the MOH, 26%. The variability in this indicator is due to the difference between age groups (IC > 6). This indicator is now farther from the proposed goal of 30%. See fig 6.

Breastfeeding

Fig.7 % of children aged 0- 23 months old who were breastfed within the first hour after birth

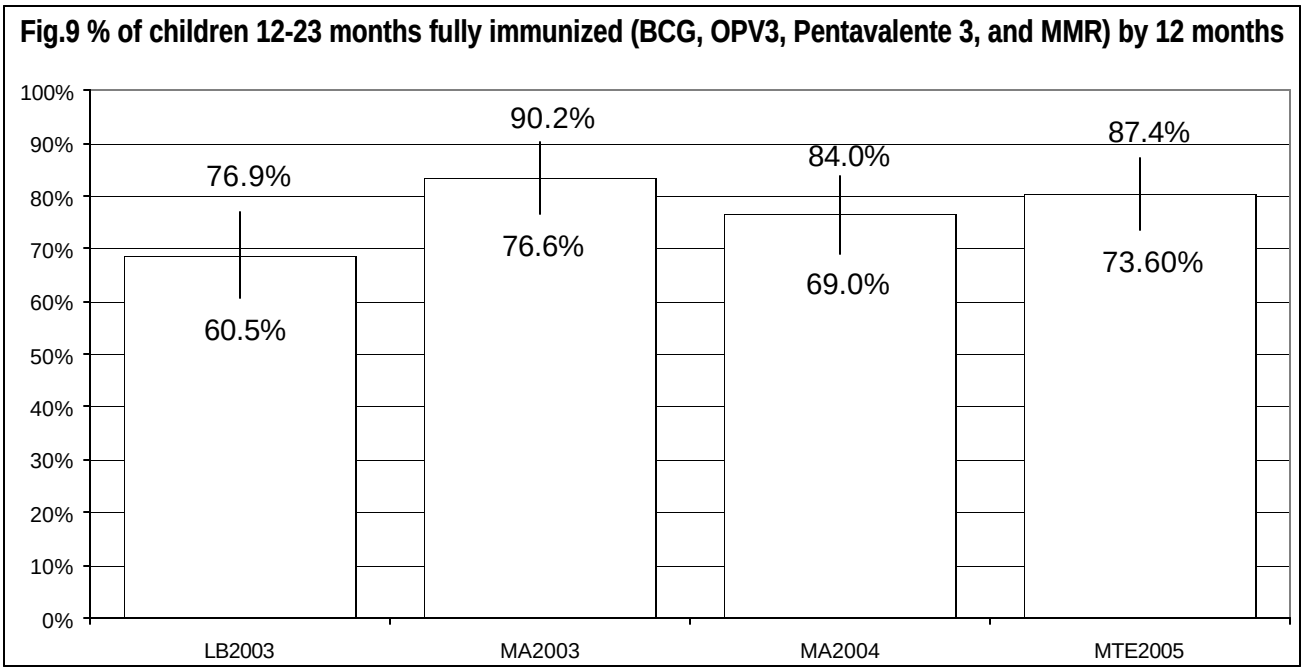


One of the eleven steps for successful breastfeeding is early latching; the MOH has continued the work with "Mother and Child Friendly Health Units". In this study, the number of mothers with children 0 to 23 month old that breastfeed their children within the first hour was maintained, with a 3% improvement over the baseline, but this increase is included within the CI. Improvements to this indicator depend on the coverage for Institutional childbirth and support of the TBAs, regarding counseling about breastfeeding done during the prenatal care. See fig. 7.



One of the sixteen healthy practices promoted by the WHO is Exclusive Breastfeeding. The results of this study indicate that 525 of children less than6 month of age received exclusive breastfeeding in the last 24 hours before the survey, with a 4 percent decrease as compared to the baseline. The CI for this indicator is wide, depending on the sample size. The result of the MTE study is within the CI limits (12.5). See fig. 8.

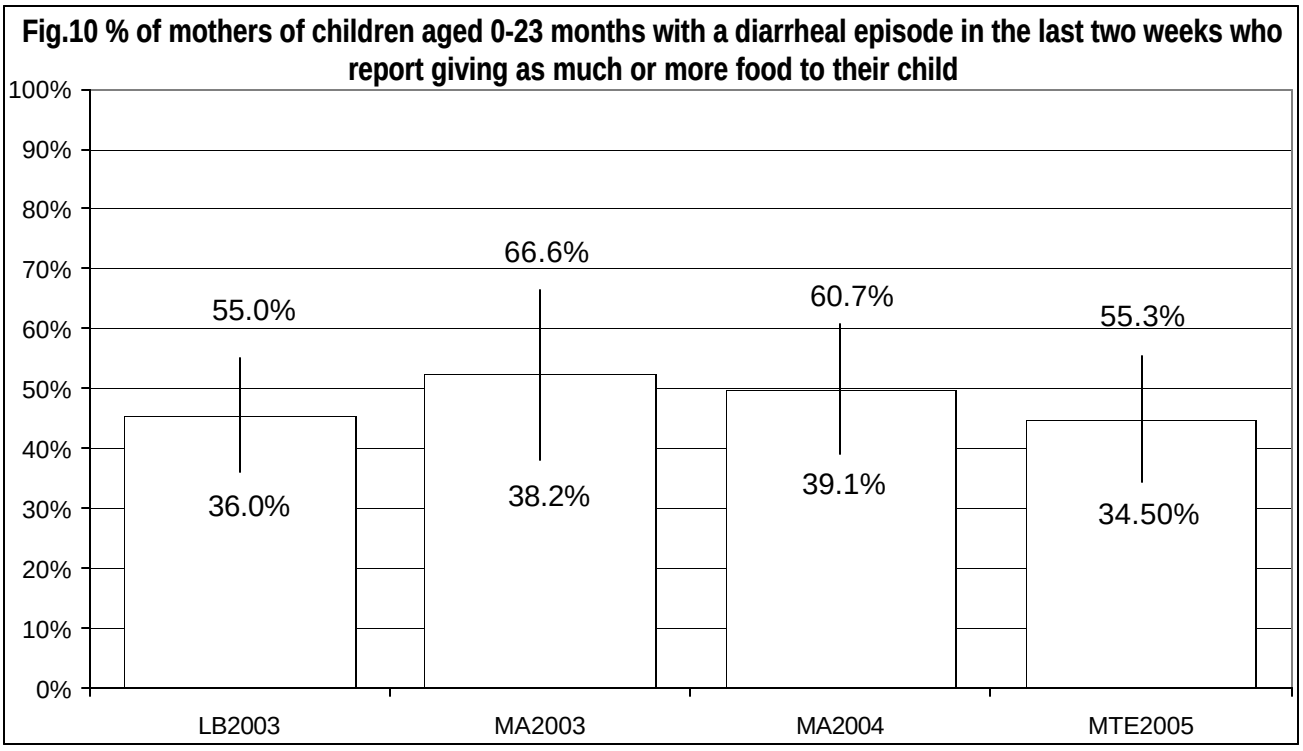
Immunization



One of the main efforts of the MOH in support of children, is to provide necessary vaccination to all children according to the national vaccination schedule, in order to avoid preventable diseases. The MTE study shows an 81% coverage for children 12-13 months old with all vaccines, 12% higher than the one found during the baseline.

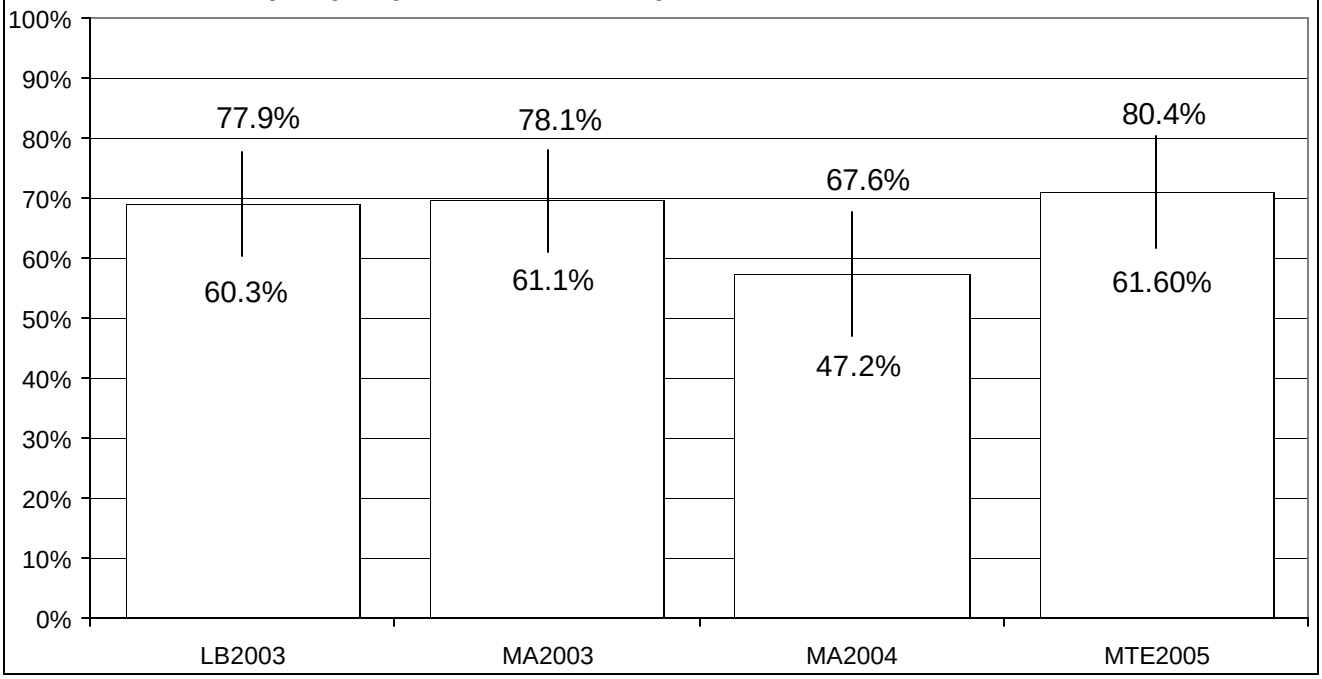
The two main strategies used by the MOH are: the National Health Campaigns and the systematic vaccination of children though the reduction of missed opportunities both for sick and healthy children who are seen at the health units or during the visits of health personnel to the communities. The communities where Project HOPE and other partner organizations implement PROCOSAN are beneficiaries of these two strategies. This indicator cannot be compared with information from the MOH, because the EPI program registers coverage by individual vaccines and the denominator is an estimated population. Even though for this indicator, the original goal of 80% is surpassed, the quality of the immunization related to the interval between doses is low (a 6 month old child must be immunized with BCG, OPV and three doses of Penta-Valente, and at 12 months of age, he must receive a Measles dose in order to be considered having completed the schedule). The goal of the MOH is to immunize 100% of children with all vaccines. See fig. 9.

Control of Diarrheal Disease



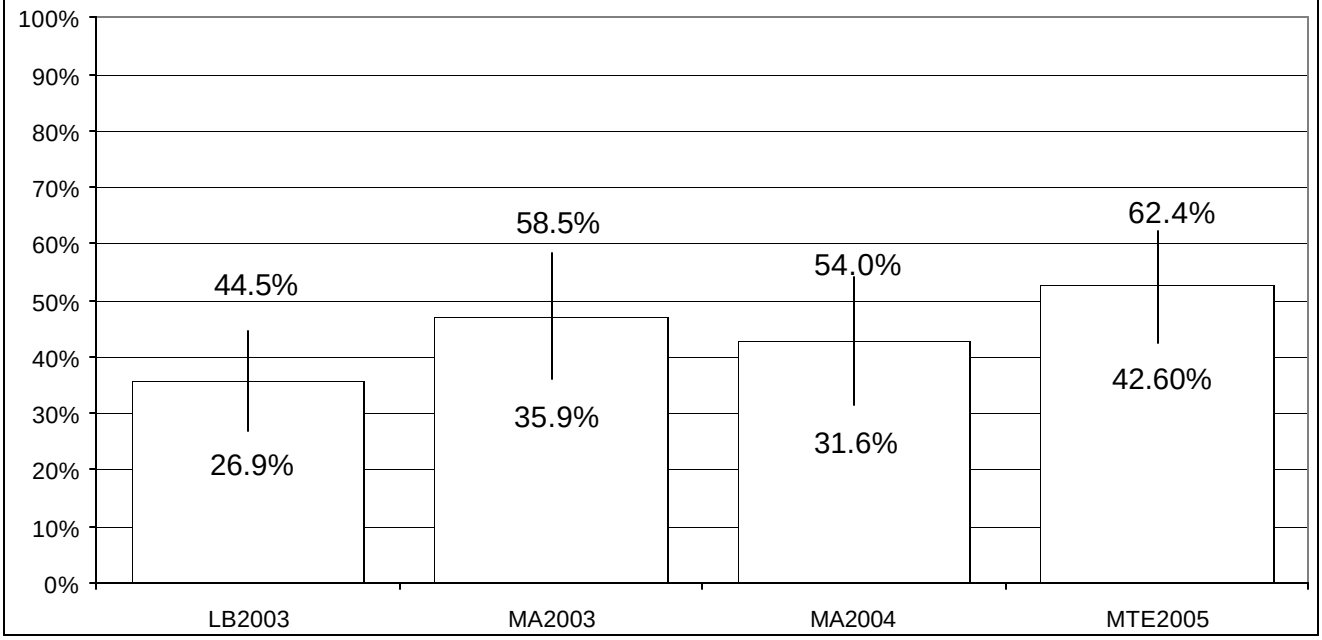
One of the behaviors promoted for management of Children with Diarrhea, Is to provide equal or greater amount of food during the diarrheal episode. No significant differences were found with respect to the baseline study, even though a decrease in the number of diarrhea cases was observed. See Fig. 10

Fig.11 % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child



The same as with the prior indicator, this behavior is promoted for the management of children with diarrhea, no significant differences are shown with respect to the baseline study. See Fig 11**.**

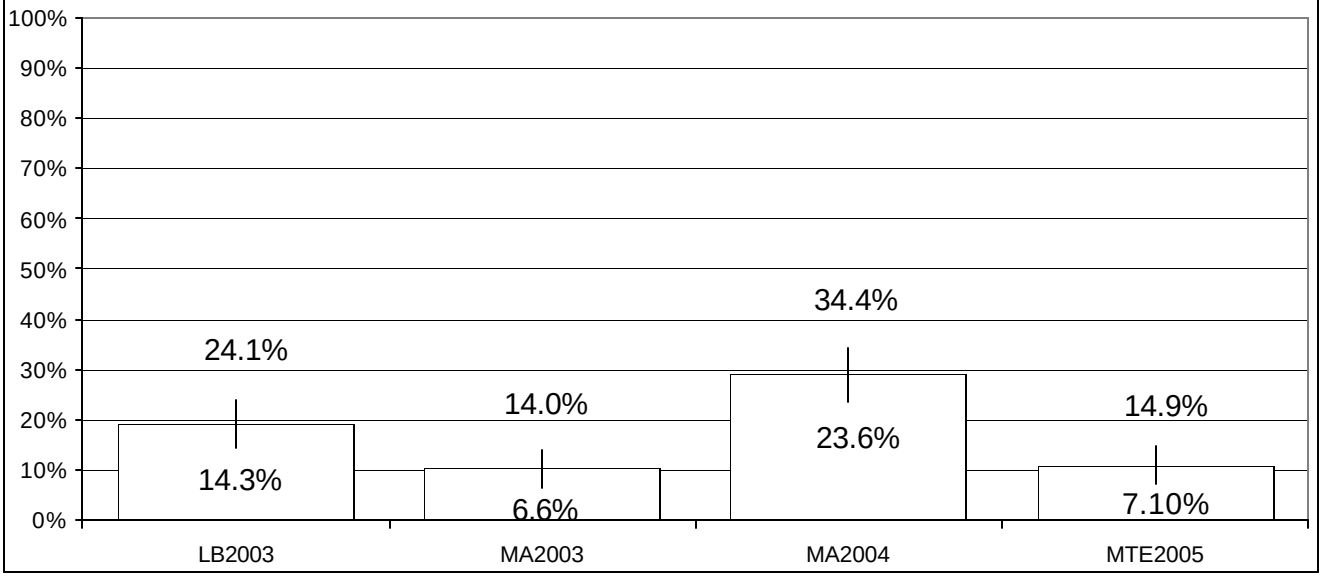
Fig.12 % of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheas episode.



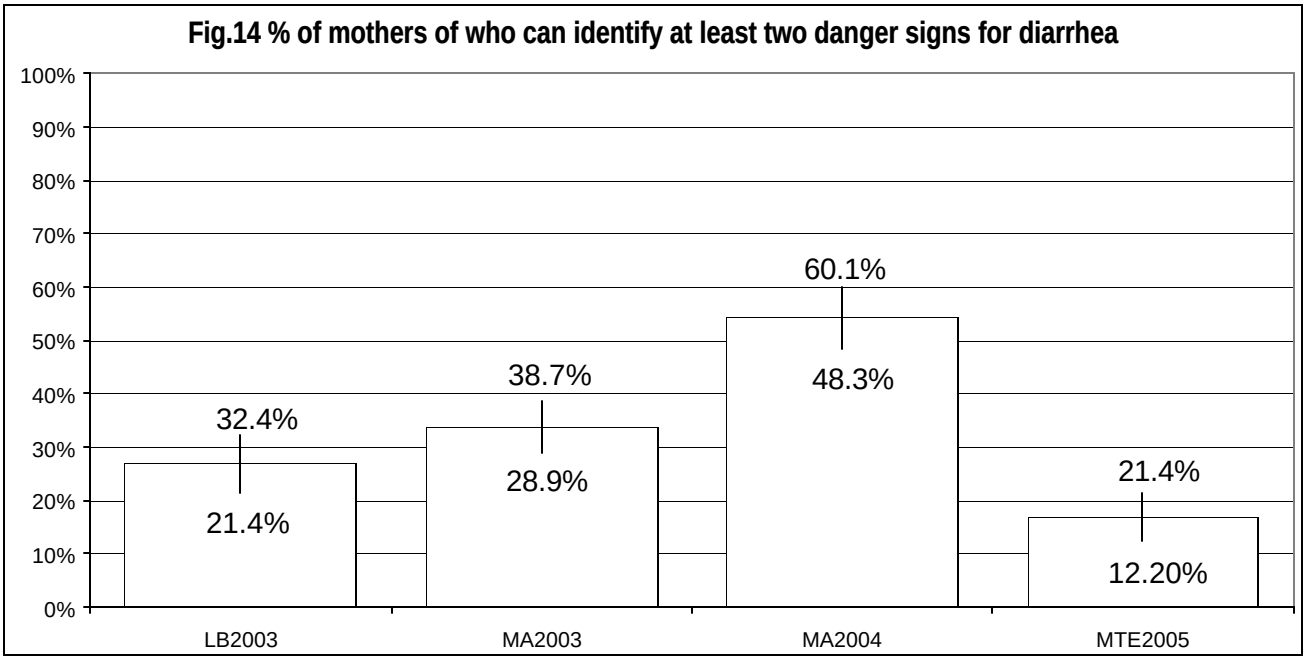
The behavior analysis of mothers with children having a diarrhea episode in the last two weeks before the study, indicates an almost 20% improvement for healthcare or counseling seeking practices from a Health Unit or CORU,

as compared to the baseline study, from 35% to 53%. This could be a side effect of the strong campaign carried out by the MOH a few months before the study, to combat a Rotavirus outbreak, which focused precisely on seeking care for any child with diarrhea, even without dehydration signs. See fig. 12

Fig.13 % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated

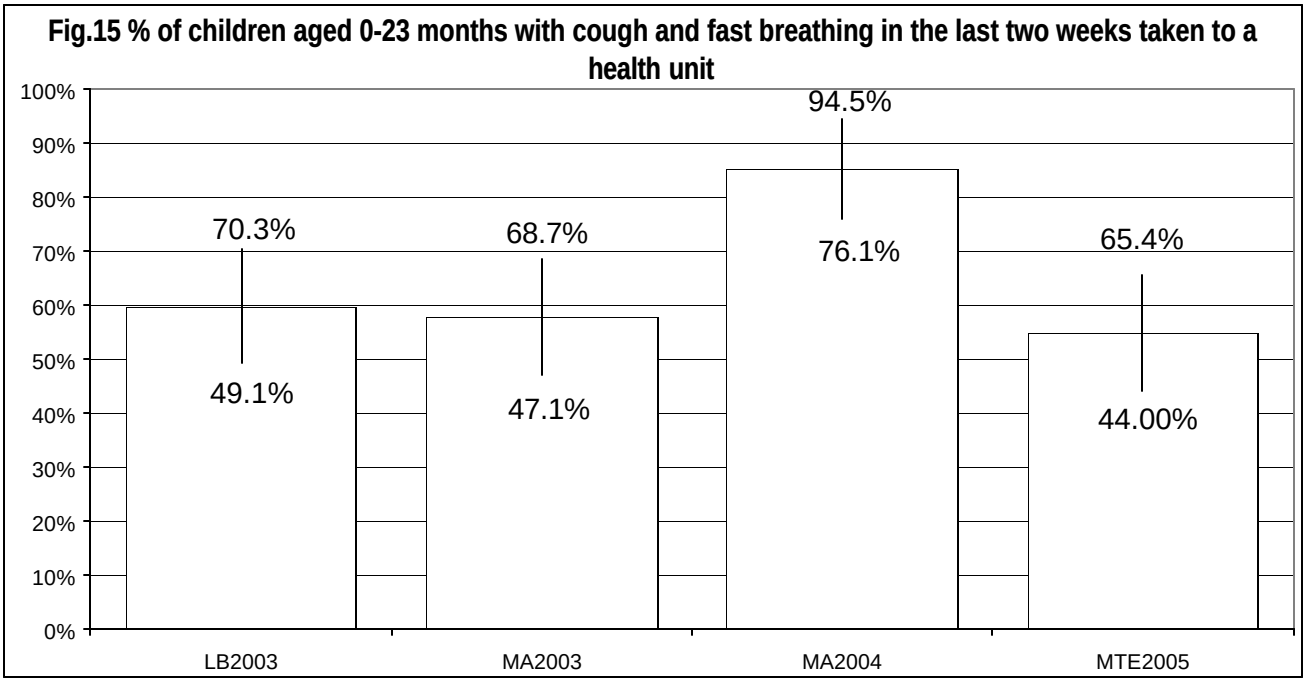


The most important behavior to reduce the incidence and prevalence of diarrhea is hand washing at key moments. The MTE study shows a decrease of almost 50% for the knowledge of key moments when mothers with children younger than two years of age, must wash their hands. This result could be influenced by the strong campaign of the MOH, reorienting the preferred behavior towards seeking immediate medical attention above all others for diarrhea cases, in order to combat the Rotavirus outbreak during the first quarter of 2005. See fig. 13

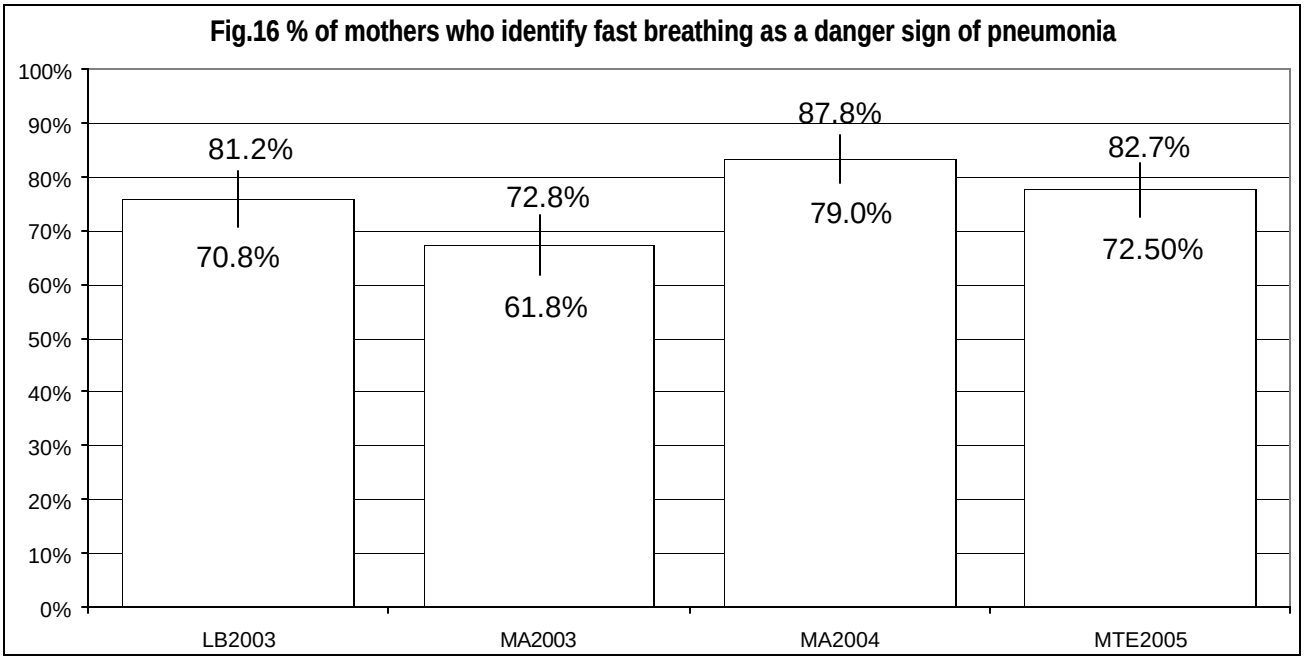


The main problem of diarrhea is dehydration. Learning to recognize it in time to avoid death is the challenge proposed by the WHO and UNICEF. The knowledge of mothers regarding dehydration signs decreased with respect to the baseline study and annual monitoring rounds, going from 27% to 17%. At the time of this study, the country faced a diarrhea outbreak caused by Rotavirus and to fight it, the MOH and other organizations working in health, focused all their efforts on a national campaign for prevention of diarrhea. The dissemination of messages through mass media, such as radio, was the main information strategy. The messages to which the mothers were exposed focused on recognition of symptoms caused by the Rotavirus (vomiting, fever and increased frequency and amount of bowel movements), without mentioning any signs of dehydration. See fig. 14.

Pneumonia Case Management

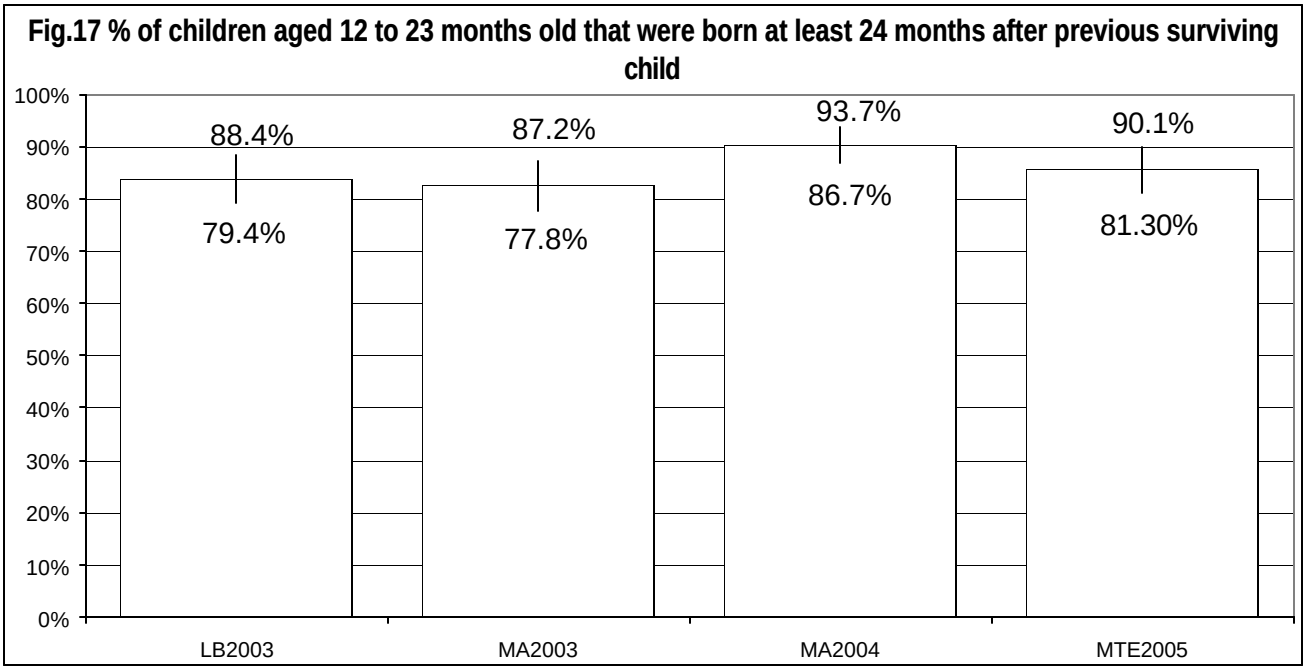


One of the main causes of child mortality in Nicaragua is pneumonia and its complications. The key sign for diagnostic of pneumonia is fast breathing according to the IMCI norm; the behavior promoted when this sign is identified is to quickly seek medical attention. The behavior of mothers to go to a health unit when a child presented fast breathing, showed a 5% decrease during this study, with respect to the baseline. Still, the smaller sample size increased the Confidence Interval (the denominator is equal to the number of cases), in this way the result is included within the CI of the baseline study. See fig. 15

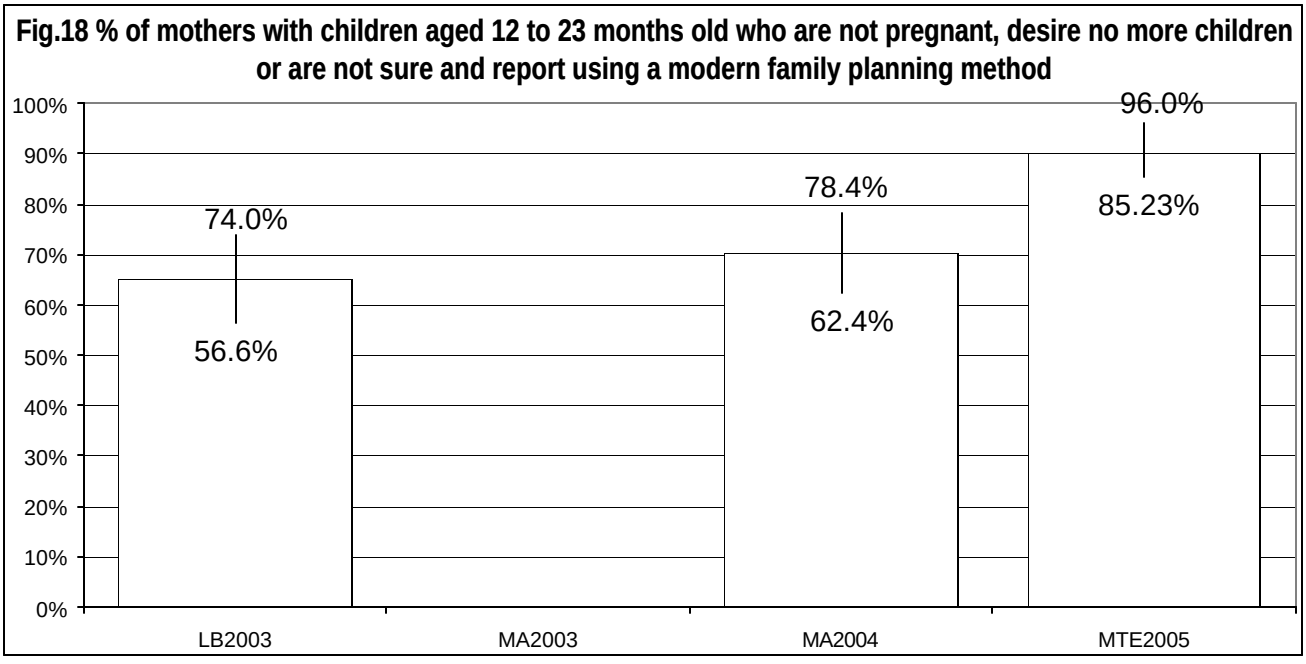


With fast breathing as the most important sign of pneumonia (not exclusive), the identification of this sign by mothers becomes crucial to opportunely seek attention. The MTE study does not shows a significant difference when compared to the baseline study. See fig. 16

Child Spacing



In order to ensure the survival of children less than 2 years of age and improve the quality of life of mothers and children, the UNFPA recommends a child spacing greater than 24 months. The MTE study found that 86% of children 0 to 23 months old had a spacing of at least 24 months with the older brother or did not have any brothers at the time of the survey, with the greatest difference shown by the 0 to 11 months old group. No significant differences are observed between the baseline and MTE studies. The proposed goal 90% is found within the confidence interval, upper limit 90.1%.

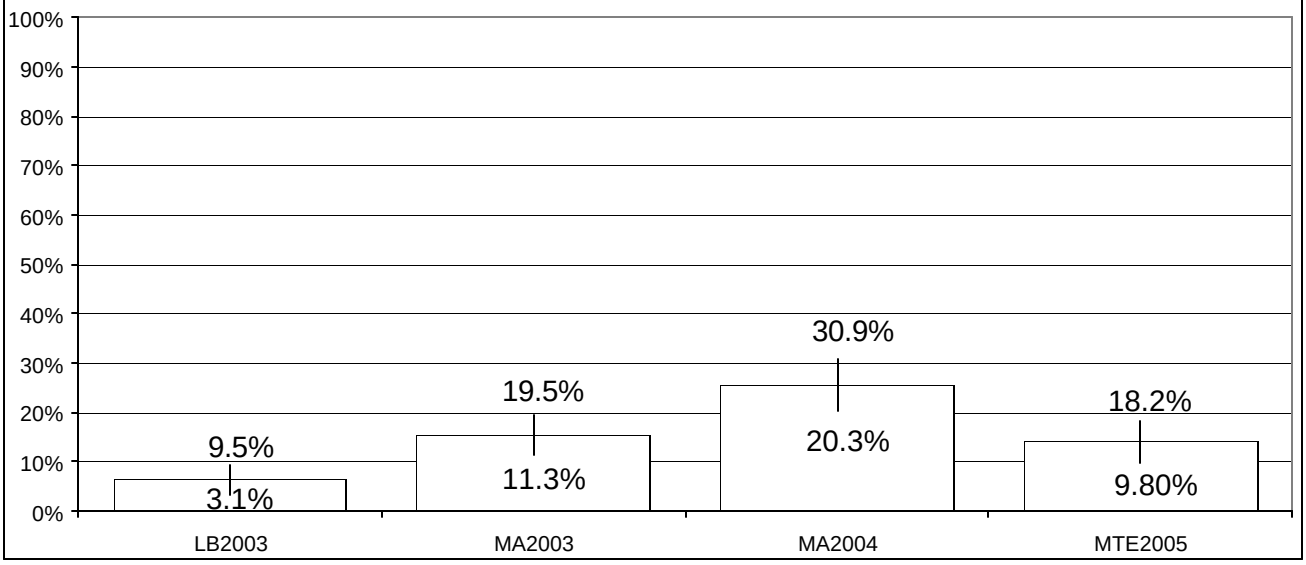


Family planning is one of the four pillars for safe motherhood, supporting the effort dedicated to FP, since it allows women to increase Child Spacing. The MTE found that 90% of mothers that; are not pregnant, do not desire more children or are not sure, use a modern FP method. This is an increase of 25% over the baseline study and

surpasses the proposed goal by 20% (70%) In order to achieve these results the CS Project is supporting the efforts of the MOH to implement the Community Delivery of Family Planning Methods strategy. The provision of FP methods to the Health Units is being supported with improved logistics at all levels of the MOH.

HIV / AIDS /STIs

Fig.19 % of mothers of children aged 0-23 months who know at least two ways to prevent HIV / AIDS / STIs



The MOH promotes two forms of preventing AIDS, the use of condom and fidelity. The CS project supports these two and includes a third one, Limiting the Number of Sexual Partners. The MTE study found an 8% increase in the knowledge of mothers about at least two form of preventing STI/AIDS, as compared with the Baseline study. This result is still very low when compared to the results of the ENDESA 2001. See fig. 19.

V. BIBLIOGRAPHY

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VI. APPENDICES

A. KPC Results by Indicator Table

VI. Appendices
Appendix A - KPC MTE results by indicator – Department of Jinotega, Nicaragua

Indicator (for the entire project area)	Numerator	Denominator	Average Coverage Rates (%)	Adjusted Coverage Rates (%)	95% C.I. (+ / -)
1. % of children aged 0-23 months weighed in the last four months according to growth monitoring card.	248	280	86.6	86.1	4.5
2. % of children aged 0-23 months with low weight (Weight-For-Age) (<2Z).	18	304	5.9	7.5	3.5
3. % of children aged 0-23 months stunted (Height-For-Age) (<2Z).	50	304	16.4	17.2	4.7
4. % of children aged 0-23 months with anemia (hemoglobin level < 11mg/dl).	60	304	19.7	19.8	4.8
5. % of mothers of children aged 0-23 months who report having breastfed within the first hour after birth	235	304	83.2	81.6	5.6
6. % of mothers of children aged 0-23 months who report having breastfed within the first 8 hours after birth.	248	304	82.4	82.4	4.9
7. % of infants aged 0-5 months who received only breast milk in the past 24 hours.	31	76	40.8	51.8	9.0
8. % of mothers of children aged 0-23 months that know at least two signs of dehydration due to diarrhea.	57	304	18.8	16.8	4.6
9. % of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheal episode.	54	109	49.5	52.5	9.9
10. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child.	48	109	44.0	44.9	10.4
11. % of mothers with children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	76	109	69.7	71.0	9.4
12. % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit.	50	91	54.9	54.7	10.7
13. % of mothers of children aged 0-23 months who can identify fast breathing as a danger sign for pneumonia.	240	304	78.9	77.6	5.1
14. % of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card.	123	152	80.9	80.5	6.9
15. % of mothers of children aged 0-23 months who know at least one way to prevent STIs-HIV/AIDS.	53	304	17.4	14.0	4.2
16. % of children aged 0-23 months who were born at least 24 months after the previous surviving child.	263	304	86.5	85.7	4.4
17. % of mothers of children aged 12-23 months who desire no more children in the next two years, who are using some type of modern child spacing method.	139	152	91.4	90.3	5.4
18. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	284	304	93.4	93.5	2.9
19. % of mothers of children aged 0-23 months that report receiving on their arm the dT vaccine during the last pregnancy.	273	304	89.8	90.2	3.5
20. % of mothers of children aged 0-11 months who report having had at least one postpartum visit.	57	152	37.5	32.5	7.9
21. % of children aged 0-23 months whose birth was attended by a doctor or nurse.	172	304	56.6	53.7	5.7

A1.KPC Results Rapid Catch Indicators Table

Appendix A1 - Rapid Catch Indicators

Indicator (for the entire project area)	G. Numerator	Denominator	Average Coverage Rates (%)	Adjusted Coverage Rates (%)	95% C.I. (+ / -)
1. % of children aged 0-23 months with low weight (weight for age) (<2Z).	18	304	5.9	7.5	3.5
2. % of children aged 0-23 months who were born at least 24 months after the previous surviving child.	263	304	86.5	85.7	4.4
3. % of children aged 0-23 months whose birth was attended by a doctor or nurse.	172	304	56.6	53.7	5.7
4. % of mothers of children aged 0-23 months that received two doses of the dT vaccine during the last pregnancy, according to health card.	114	304	37.5	35.0	5.9
5. % of infants aged 0-5 months who received breast milk only in the past 24 hours.	31	76	40.8	51.8	9.0
6. % of children aged 6-9 months who received breast milk and complementary feeding in the past 24 hours.	41	53	77.4	76.7	11.2
7. % of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card	123	152	80.9	80.5	6.9
8. % of children aged 12-23 months that received the MMR vaccine according to the growth monitoring card	124	152	81.6	80.7	6.9
9. % of children aged 0-23 months who slept under an impregnated mosquito net the previous night	83	304	27.3	25.5	5.4
10. % of mothers of children aged 0-23 months that know at least two signs of childhood illnesses indicating the need for treatment	275	304	90.5	90.7	3.5
11. % of children aged 0-23 months that received more liquids and continued feeding during an illness in the last two weeks	21	158	13.3	14.4	6.0
12. % of mothers of children aged 0-23 months who know at least two ways to prevent STIs-HIV/AIDS	53	304	17.4	14.0	4.2
13. % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	34	304	11.2	11.0	3.9

B. Indicators by CS Intervention

Appendix B - Indicators by Supervision Areas (LQAS)

The following LQAS tables summarize the results found from the KPC midterm survey. Appendix F shows each indicator by supervision area, along with decision rules and average coverage rates.

Table 1: Breastfeeding

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of mothers of children aged 0-23 months who report having breastfed within the first 8 hours after birth.	0-11 months	18	17	17	15	18	17	14	14	86.1	15	16	17	16	18	15	15	13	13	80.9	14
	12-23 months	14	15	18	17	16	16	10	12	78.7	13	15	17	17	16	16	16	15	18	85.5	15
	Total	32	32	35	32	34	33	24	26	82.4		31	34	33	34	31	31	28	31	83.2	
	Weighted	0.21	0.06	0.04	0.08	0.13	0.14	0.1	0.8	**0.84**		0.19	0.06	0.03	0.08	0.13	0.12	0.13	0.08	**0.82**	
% of mothers of children aged 0-23 months who report having breastfed within the first hour after birth.	0-11 months	15	14	12	13	14	11	14	12	69.5	11	14	15	13	16	15	13	13	9	71.1	12
	12-23 months	10	13	14	16	15	14	8	9	66.0	11	13	16	13	14	13	12	15	14	72.4	12
	Total	25	27	26	29	29	25	22	21	67.8		27	31	26	30	28	25	28	23	71.7	
	Weighted	0.16	0.05	0.03	0.07	0.11	0.09	0.1	0.07	**0.68**		0.17	0.06	0.02	0.07	0.12	0.10	0.13	0.06	**0.71**	
% of infants aged 0-5 months who received only breast milk in the past 24 hours.	0-11 months	5	8	5	8	5	3	4	8	58.2		5	6	2	3	4	5	4	2	40.8	
	Weighted	0.13	0.06	0.02	0.07	0.08	0.05	0.09	0.06	**0.56**		0.24	0.04	0.01	0.03	0.06	0.06	0.06	0.02	**0.52**	

Source: Primary data, Midterm Study, Child Survival – 2005.

M. TABLE 2: NUTRITION

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of children aged 0-23 months weighed in the last 4 months according to growth monitoring card.	0-11 months	11	19	18	18	16	6	14	10	83.0	14	15	18	17	19	16	17	15	9	82.8	14
	12-23 months	9	16	17	17	14	5	10	5	65.0	10	14	18	16	17	14	17	16	10	80.2	14
	Total	20	35	35	35	30	11	24	15	73.7		29	36	33	36	30	34	31	19	81.5	
	Weighted	0.15	0.06	0.04	0.09	0.13	0.05	0.11	0.06	**0.68**		0.20	0.07	0.03	0.09	0.13	0.14	0.15	0.06	**0.86**	

Source: Primary data, Midterm Study, Child Survival – 2005.

Table 3: Malnutrition and anemia prevalence

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of children aged 0-23 months stunted (height for age) (<2Z).	0-11 months	1	2	1	0	1	2	2	3	7.9		0	1	0	2	0	1	2	4	6.6	
	12-23 months	6	3	5	5	4	7	5	11	30.3		7	6	1	4	5	4	4	9	26.3	
	Total	7	5	6	5	5	9	7	14	19.1		7	7	1	6	5	5	6	13	16.4	
	Weighted	0.04	0.01	0.01	0.01	0.02	0.03	0.03	0.04	**0.20**		0.04	0.01	0.00	0.01	0.02	0.02	0.03	0.03	**0.17**	
% of children aged 0-23 months with low weight (weight for age) (<2Z).	0-11 months	0	0	1	0	0	0	2	0	2.0		0	0	0	0	0	1	0	1	1.3	
	12-23 months	5	0	3	0	3	2	0	4	11.2		5	1	0	1	4	1	1	4	11.2	
	Total	5	0	4	0	3	2	2	4	6.6		5	1	0	1	4	2	1	5	6.3	
	Weighted	0.03	0	0	0	0	0.01	0.01	0.01	**0.08**		0.03	0.00	0.00	0.00	0.02	0.01	0.00	0.01	**0.07**	
% of children aged 0-23 months with anemia (< 11mgr/dl).	0-11 months	8	9	6	6	8	7	10	5	38.8		6	11	8	12	8	10	9	14	51.3	
	12-23 months	8	4	6	9	13	5	7	10	40.8		8	8	5	6	11	10	8	10	43.4	
	Total	16	13	12	15	21	12	17	15	39.8		14	19	13	18	19	20	17	24	47.3	
	Weighted	0.1	0.02	0.01	0.04	0.08	0.04	0.07	0.05	**0.42**		0.09	0.03	0.01	0.04	0.08	0.08	0.08	0.06	**0.47**	
% of mothers of children aged 0-23 months with anemia (< 12mgr/dl). Not including 15 pregnant mothers.	Mothers	2	3	3	4	8	5	3	9	12.8		5	9	4	7	10	5	9	11	19.7	
	Weighted	0.01	0.01	0	0.01	0.04	0.02	0.02	0.03	**0.14**		0.03	0.02	0	0.02	0.04	0.02	0.04	0.03	**0.20**	

Source: Primary data, Midterm Study, Child Survival – 2005.

TABLE 4: IMMUNIZATION

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card	12-23 months	13	13	16	17	10	12	14	12	70.4	12	15	17	15	16	18	16	13	13	80.9	14
	Weighted	0.16	0.05	0.03	0.08	0.08	0.09	0.12	0.08	**0.69**		0.19	0.06	0.02	0.07	0.15	0.12	0.12	0.07	**0.81**	

Source: Primary data, Midterm Study, Child Survival – 2005.

TABLE 5: DIARRHEA

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of mothers of children aged 0-23 months that know at least two signs of dehydration due to diarrhea	0-11 months	2	7	8	6	2	7	5	3	26.3	3	3	4	4	1	4	4	1	3	15.7	1
	12-23 months	9	6	7	6	7	4	3	4	30.3	4	4	4	11	3	5	1	3	2	21.7	2
	Total	11	13	15	12	9	11	8	7	28.3		7	8	15	4	9	5	4	5	18.7	
	Weighted	0.07	0.02	0.02	0.03	0.04	0.04	0.03	0.02	**0.27**		0.04	0.01	0.01	0.01	0.04	0.02	0.02	0.01	**0.17**	
% of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheal episode.	0-11 months	5	1	3	1	2	3	5	1	36.2		3	2	2	4	6	3	4	4	50.0	
	12-23 months	5	1	6	2	0	3	0	2	31.1		4	1	6	3	4	0	6	2	49.0	
	Total	10	2	9	3	2	6	5	3	33.6		7	3	8	7	10	3	10	6	49.5	
	Weighted	0.15	0.01	0.03	0.03	0.02	0.05	0.04	0.02	**0.35**		0.15	0.03	0.03	0.06	0.11	0.02	0.1	0.03	**0.53**	
% of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child.	0-11 months	2	4	5	1	4	5	2	2	45.5		2	3	1	2	3	7	3	4	44.6	
	12-23 months	5	0	3	2	5	4	1	7	46.6		3	1	2	2	4	5	3	3	43.4	
	Total	7	4	8	3	9	9	3	9	46.0		5	4	3	4	7	12	6	7	44.0	
	Weighted	0.11	0.03	0.02	0.03	0.1	0.08	0.03	0.06	**0.46**		0.11	0.03	0.01	0.04	0.07	0.09	0.06	0.04	**0.45**	
% of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child.	0-11 months	5	4	5	1	7	6	5	5	65.5		2	3	1	3	6	7	6	9	66.0	
	12-23 months	6	2	6	3	6	9	3	10	73.8		6	2	5	4	7	6	5	4	73.5	
	Total	11	6	11	4	13	15	8	15	69.7		8	5	6	7	13	13	11	13	69.8	
	Weighted	0.17	0.04	0.03	0.04	0.13	0.1	0.09	0.08	**0.69**		0.09	0.04	0.02	0.04	0.16	0.05	0.08	0.09	**0.57**	

Source: Primary data, Midterm Study, Child Survival – 2005.

Table 6. Pneumonia case management:

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit.	0-11 months	3	5	1	4	5	3	5	4	62.5		4	2	3	2	5	4	3	1	52.2	
	12-23 months	4	1	5	4	2	0	6	6	58.3		3	3	3	2	3	2	4	6	57.8	
	Total	7	6	6	8	7	3	11	10	60.4		7	5	6	4	8	6	7	7	55.0	
	Weighted	0.15	0.04	0.03	0.06	0.1	0.04	0.1	0.08	**0.60**		0.13	0.05	0.02	0.04	0.11	0.06	0.09	0.05	**0.55**	
% of mothers of children aged 0-23 months who can identify fast breathing as a danger sign for pneumonia	0-11 months	16	14	15	13	15	12	16	15	76.3	13	17	13	18	15	15	17	14	13	80.3	14
	12-23 months	16	13	14	18	14	10	14	11	72.4	12	15	16	18	15	13	15	11	15	77.6	13
	Total	32	27	29	31	29	22	30	26	74.3		32	29	36	30	28	32	25	28	78.9	
	Weighted	0.2	0.05	0.03	0.07	0.11	0.08	0.13	0.08	**0.76**		0.2	0.05	0.03	0.07	0.12	0.12	0.11	0.07	**0.78**	

Source: Primary data, Midterm Study, Child Survival – 2005.

TABLE 7: MATERNAL AND NEWBORN CARE

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	0-11 months	18	19	19	19	16	17	16	13	90.1	16	19	19	19	18	18	18	18	15	94.7	16
	12-23 months	18	19	18	18	17	15	17	12	88.2	15	18	19	18	19	17	16	19	14	92.1	16
	Total	36	38	37	37	33	32	33	25	89.1		37	38	37	37	35	34	37	29	93.4	
	Weighted	0.23	0.07	0.04	0.09	0.13	0.12	0.14	0.08	**0.89**		0.23	0.07	0.03	0.09	0.15	0.13	0.17	0.08	**0.93**	
% of mothers of children aged 0-23 months that report receiving on their arm the dT vaccine during the last pregnancy.	0-11 months	18	19	19	18	16	14	16	12	86.8	15	18	19	18	17	17	17	17	14	90.1	16
	12-23 months	18	18	18	17	16	13	16	12	84.2	14	18	19	16	18	17	15	19	14	89.5	15
	Total	36	37	37	35	32	27	32	24	85.5		36	38	34	35	34	32	36	28	89.8	
	Weighted	0.23	0.07	0.04	0.09	0.13	0.12	0.14	0.08	**0.89**		0.22	0.07	0.03	0.08	0.14	0.12	0.16	0.07	**0.90**	
% of mothers of children aged 0-11 months who report having had at least one postpartum visit.	0-11 months	6	11	14	7	7	5	4	3	37.5	5	8	11	13	9	5	5	3	3	37.5	5
	Weighted	0.08	0.04	0.03	0.03	0.06	0.04	0.03	0.02	**0.32**		0.10	0.04	0.02	0.04	0.04	0.04	0.03	0.02	**0.32**	
% of children aged 0-23 months whose birth was attended by a doctor or nurse.	0-11 months	12	13	16	9	11	4	12	3	52.6	8	14	16	15	13	7	8	5	5	54.6	9
	12-23 months	13	12	14	12	10	5	11	2	52.0	8	15	17	14	14	10	4	10	5	58.6	9
	Total	25	25	30	21	21	9	23	5	52.3		29	33	29	27	17	12	15	10	56.6	
	Weighted	0.16	0.05	0.03	0.05	0.08	0.03	0.1	0.02	**0.51**		0.18	0.06	0.02	0.06	0.07	0.05	0.07	0.03	**0.54**	

Source: Primary data, Midterm Study, Child Survival – 2005.

Table 8: Child spacing:

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of children aged 0 to 23 months old that were born at least 24 months after previous surviving child	0-11 months	16	16	18	18	15	14	16	10	80.9	14	17	17	16	18	17	17	18	14	88.2	15
	12-23 months	18	17	19	15	17	14	16	16	86.8	15	13	17	17	18	15	19	16	14	84.9	14
	Total	34	33	37	33	32	28	32	26	83.9		30	34	33	36	32	36	34	28	86.5	
	Weighted	0.21	0.06	0.04	0.08	0.13	0.10	0.13	0.08	**0.84**		0.19	0.06	0.03	0.08	0.13	0.14	0.15	0.07	**0.86**	
% of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method	12-23 months	12	9	11	11	12	11	11	9	62.3	10	16	16	19	18	18	18	17	17	91.4	16
	Weighted	0.16	0.03	0.02	0.06	0.12	0.09	0.09	0.08	**0.65**		0.20	0.06	0.03	0.08	0.15	0.14	0.15	0.09	**0.90**	

Source: Primary data, Midterm Study, Child Survival – 2005.

Table 9: STIs-HIV/AIDS:

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of mothers of children aged 0-23 months who know at least two way to prevent STIs-HIV/AIDS.	0-11 months	2	0	0	1	1	2	1	0	4.61	0	4	6	5	1	2	1	2	2	15.1	1
	12-23 months	3	1	5	1	0	0	1	0	7.24	0	3	5	13	2	2	1	3	1	19.7	1
	Total	5	1	5	2	1	2	2	0	5.92		7	11	18	3	4	2	5	3	17.4	
	Weighted	0.03	0.00	0.01	0.00	0.00	0.01	0.01	0.00	**0.06**		0.04	0.02	0.01	0.01	0.02	0.01	0.02	0.01	**0.14**	

Source: Primary data, Midterm Study, Child Survival – 2005.

Table 10: RAPID CATCH:

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of mothers of children aged 0-23 months that know at least two signs of childhood illnesses indicating the need for treatment	0-11 months	9	7	6	6	6	10	10	8	40.8	6	18	18	18	17	16	17	16	17	90.1	16
	12-23 months	9	6	7	6	13	10	12	7	46.1	7	18	18	17	17	18	18	18	14	90.7	16
	Total	18	13	13	12	19	20	22	15	43.4		36	36	35	34	34	35	34	31	90.5	
	Weighted	0.11	0.02	0.01	0.03	0.08	0.07	0.09	0.05	**0.47**		0.22	0.06	0.02	0.07	0.14	0.13	0.15	0.08	**90.7**	
% of children aged 6-9 months who received breast milk and complementary feeding in the past 24 hours	6-9 months	5	4	5	3	5	6	6	3	80.4		6	6	4	5	6	5	4	5	77.4	
	Weighted	0.24	0.05	0.03	0.07	0.13	0.12	0.12	0.12	**0.87**		0.14	0.06	0.02	0.07	0.13	0.14	0.09	0.08	**76.7**	
% of children aged 12-23 months that received the MMR vaccine according to the growth monitoring card.	12-23 months	13	13	16	17	11	13	14	11	71.1	12	15	17	16	16	18	16	13	13	81.6	14
	Weighted	0.16	0.05	0.03	0.08	0.09	0.1	0.12	0.07	**0.70**		0.19	0.06	0.03	0.07	0.15	0.12	0.12	0.07	**0.81**	
% of children aged 0-23 months that received more liquids and continued feeding during an illness in the last two weeks (diarrhea or ARI).	0-11 months	3	6	5	5	5	6	7	9	55.4		1	1	1	1	2	1	1	0	9.64	
	12-23 months	7	2	8	4	4	7	3	9	57.9		2	2	1	2	2	3	1	0	17.3	
	Total	10	8	13	9	9	13	10	18	56.6		3	3	2	3	4	4	2	0	13.3	
	Weighted	0.16	0.04	0.03	0.05	0.08	0.07	0.07	0.07	**0.57**		0.03	0.01	0.00	0.01	0.03	0.02	0.01	0.00	**14.4**	

Indicator		Baseline March 2003										Midterm Evaluation March 2005									
		1	2	3	4	5	6	7	8	%	RD	1	2	3	4	5	6	7	8	%	RD
% of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	0-11 months	6	4	5	5	5	3	5	1	22.4	2	2	2	5	4	1	3	1	0	11.84	0
	12-23 months	4	2	7	3	4	3	1	0	15.8	1	3	2	2	0	1	3	4	1	10.53	0
	Total	10	6	12	8	9	6	6	1	19.1		5	4	7	4	2	6	5	1	11.18	
	Weighted	0.06	0.01	0.01	0.02	0.04	0.02	0.03	0	**0.19**		0.03	0.01	0.01	0.01	0.01	0.02	0.02	0	**0.11**	
% of children aged 0-23 months who slept under an impregnated mosquito net the previous night**	0-11 months	2	7	9	4	1	5	4	3	23.0	2	6	8	7	4	2	3	3	4	24.3	2
	12-23 months	0	7	11	4	0	1	3	7	21.7	2	4	7	7	6	5	4	9	4	30.2	4
	Total	2	14	20	8	1	6	7	10	22.3		10	15	14	10	7	7	12	8	27.3	
	Weighted	0.01	0.03	0.02	0.02	0.00	0.02	0.03	0.03	**0.16**		0.06	0.03	0.01	0.02	0.03	0.03	0.05	0.02	**0.26**	
% of mothers of children aged 0-23 months that received two doses of the dT vaccine during the last pregnancy, according to health card.**	0-11 months	10	12	10	12	10	6	6	1	62.0	10	9	12	13	11	10	11	10	6	53.9	8
	12-23 months	6	12	7	11	4	4	3	6	55.2	9	3	9	5	4	4	4	2	1	21.1	2
	Total	16	24	17	23	14	10	9	7	58.6		12	21	18	15	14	15	12	7	37.5	
	Weighted	0.20	0.05	0.02	0.07	0.11	0.08	0.05	0.03	**0.61**		0.07	0.04	0.01	0.03	0.06	0.06	0.05	0.02	**0.35**	

Source: Primary data, Midterm Study, Child Survival – 2005.

****For these two last indicators the baseline was the Monitoring of September 2003, since this information was not collected during the baseline study of March 2003**

C. Training Workshop

Workshop: Methodology LQAS - PDA's –
Anthropometry for Mid Term Evaluation with KPC

Agenda

Monday, Feb. 28 to Friday, March 4, 2005

Feb. 28
Inscription of participants
Introductory Words
Introduction to the LQAS Workshop and presentation of the participants
Generalities of the LQAS methodology

Snack Break

Selection of a random number – Use of the table of random numbers

Whom should I interview?
Session 1- Selection of homes
Session 2 – Selection of informants

Session 3 – Practice to number and choose homes and informants

Lunch

What questions should I include and how should I do them?
Session 1 – Review of the questionnaire and surveys
Explain how the questionnaire was designed. Sections of the questionnaire.

Session 2 – Reading and analysis of the questions

Simulated practice, to carry out role playing

March 1st
Previous Experiences in use of PDA (memory, batteries, KPC format)

Training Session on Use of PDA's for 10 Supervisors

Snack Break

Session on Training in the Use of PDA's for 10 Supervisors (Continued)

Lunch

Simulated Trials. Each pair will do at least one survey of each child.

Field Test. Carryout surveys with PDA.

Feedback on the difficulties found in the field test with the PDA's.

March 2nd
Simultaneous Review of printed KPC and survey data in the PDA

Simulated test with both instruments. Each pair should do at least one survey.

Snack Break

Plenary Session on results of the simulated surveys. Verification of the consistency of data between the printed KPC and the survey data in the PDA

Lunch

Field Test. Carry out parallel surveys with PDA's vs. printed questionnaires.

Plenary session and feedback on the experience of collection information with both instruments.

March 3rd
Techniques and procedures for measuring weight and length of children less than 2 years.

Practice taking weight and measuring length.

Snack Break

Practice taking weight and measuring length.

Orientation (Questions/Answers)

Lunch

Techniques and procedures for taking blood samples and measuring hemoglobin.
Common problems which can compromise the hemoglobin value.

Practice taking blood samples and measuring hemoglobin.

March 4th
Complete Field Practice (Survey, height, weight and Hemoglobin) - City of Jinotega

Lunch

Final Orientation (Questions – Answers)

March 7th
Beginning Field Work (Carrying out the Surveys.)

D. Survey Questionnaires

ENTREVISTA

MADRES CON NIÑOS (AS) ENTRE 12 a 23 MESES

ESTUDIO RÁPIDO DE CONOCIMIENTO, PRACTICAS Y COBERTURA (KPC)
Project HOPE Nicaragua – Jinotega

CONSENTIMIENTO INFORMADO

Hola. Mi nombre es _____, y yo estoy trabajando con Project HOPE. Nosotros estamos dirigiendo un estudio y apreciaríamos su participación. Me gustaría preguntarle por su salud y la salud de su niño menor de dos años. Esta información ayudará a Project HOPE a planificar y mejorar las actividades de nuestro proyecto. Esta entrevista normalmente tarda _____ minutos. Cualquier información que usted nos proporcione es estrictamente confidencial y no se mostrará a otras personas.

Su participación en esta entrevista, es voluntaria y usted puede escoger no contestar cualquier pregunta individual o todas las preguntas. Además de al entrevista, nosotros pesaremos y mediremos a su niño(a) para saber como esta su estado nutricional, también les tomaremos una muestra de sangre a usted y su niño(a) para ver si no tienen anemia. Sin embargo, nosotros esperamos que usted participe en esta entrevista, ya que sus opiniones son importantes.

¿En este momento, usted quiere preguntarme algo acerca de la entrevista?

Firma de entrevistador: _____ Fecha: _____

ACEPTA SER ENTREVISTADA?.....1	NO ESTÁ DE ACUERDO SER ENTREVISTADA?.....2→FIN

PAGINA INICIAL: IDENTIFICACIÓN INFORMACION

2 PI_2	MUNICIPIO:	JINOTEGA.....1 SAN RAFAEL DEL NORTE….....……2 LA CONCORDIA.....3 SAN SEBASTIAN DE YALI.....4 SANTA MARIA DE PANTASMA.....5 WIWILI.....6 EL CUA.....7 BOCAY 8
3 PI_3	NUMERO DEL RESPONDIENTE:	I_____I I_____I
4 PI_4	FECHA DE ENTREVISTA: (AÑO / MES/ DIA)	+-------++-------++-------++-------+ / +-------++-------+ / +-------++-------+ A A A A M M D D
5 PI_5	FECHA DE RE: ENTREVISTA: (AÑO / MES/ DIA) (COMPLETE ESTA PREGUNTA SOLAMENTE SI LA ENTREVISTA FUERA DADO EN DOS PARTES)	+-------++-------++-------++-------+ / +-------++-------+ / +-------++-------+ A A A A M M D D
6 PI_6	NOMBRE DEL ENTREVISTADOR:	_____
7 PI_7	NOMBRE DEL SUPERVISOR:	_____

8 PI_8	TIPO DE COMUNIDAD: _____ (NOMBRE DE LA COMUNIDAD)	URBANA .....1 RURAL.....2
9 PI_9	NOMBRE DE MADRE:	_____
10 PI_10	EDAD DE MADRE (EN ANOS)	I_____I I_____I
11 PI_11	NOMBRE DEL NIN@:	_____
12 PI_12	SEXO DEL NIN@:	MASCULINO.....1 FEMENIÑO.....2
13 PI_13	FECHA DE NACIMIENTO DEL NIN@:	+-------++-------++-------++-------+ / +-------++-------+ / +-------++-------+ A A A A M M D D
14 PI_14	EDAD DEL NIN@: (EN MESES)	I_____I I_____I

SECCIÓN 1: ANTECEDENTES DE LA MADRE Y NIÑO

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 AN1	¿Alguna vez ha asistido a la escuela?	NO .....0 SI 1	→ 3
2 AN2	¿Hasta que nivel llego?	PRIMARIA .....1 SECUNDARIA.....2 TÉCNICO .....3 UNIVERSITARIO 4	 → 4 → 4 → 4
3 AN3	¿Puede leer y entender una carta o periódico fácilmente, con dificultad, o no sabe?	FACILMENTE .....1 CON DIFICULTAD .....2 NO SABE 3	
4 AN4	¿Realiza algún trabajo para ganar dinero, durante el año? EN CASO NEGATIVO, CIRCULE "A" (NO TRABAJA) En caso AFIIRMATIVO, ¿qué clase de trabajo hace? ANOTE TODO LO QUE SE MENCIONE.	NO TRABAJA ..... A ARTESANIAS/ TEJIDO/ ETC .... B AGRICULTURA ..... C GANADERIA ..... D VENDIENDO COMIDAS/ PRODUCTOS PREPARADOS ..... E SERVICIOS DOMESTICOS .....F DUENO DE TIENDA / PULPERÍA G TRABAJADORA ASALARIADA .. H	→ LN1

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
		OTROS_____X (ESPECIFIQUE)	

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
5 AN5	¿Quién cuida a (NOMBRE DEL NIÑ@) mientras Ud. trabaja o está fuera de su casa? ANOTE TODO LO QUE SE MENCIONE.	VA CON LA MADRE ..... A ESPOSO/ COMPAÑERO ..... B HERMANOS MAYORES ..... C OTROS PARIENTES ..... D _____ (ESPECIFIQUE) VECINOS / AMIGOS ..... E EMPEADA DOMESTICA ..... F CDI/ CICO ..... G OTROS_____ X (ESPECIFIQUE)	

SECCIÓN 2: NUTRICIÓN INFANTIL

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 LN1	¿Alguna vez le dio de mamar a (NOMBRE DEL NIÑ@)?	NO ..... 0 SI 1	→ 6
2 LN2	¿Cuánto tiempo después después del parto tardo en pegarse al pecho a (NOMBRE DEL NIÑ@) ?	DURANTE LA PRIMERA HORA TRAS EL PARTO.....1 ENTRE LA PRIMERA HORA HASTA 8 HORAS DESPUES 8 HORAS.....3 NO SABE ACUERDA.....4	
3 LN3	¿Durante los primeros tres días después del parto le dio a (NOMBRE DEL NIÑ@)) su primera leche?	NO ..... 0 SI ..... 1 NO SABE 8	
4 LN4	¿Actualmente le está dando de mamar a (NOMBRE DEL NIÑ@)?	NO ..... 0 SI 1	→ 6
5 LN5	¿Durante cuánto tiempo le dio el pecho a (NOMBRE DEL NIÑ@)? SI MENOS DE UN MES, ANOTE '00' MESES	MESES ☐☐	

NO	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
6 LN 6	Ahora quisiera preguntarle acerca de los tipos de líquidos que (NOMBRE DEL NIÑ@) bebió ayer durante el día y la noche. ¿Bebió (NOMBRE DEL NIÑ@) algunos de los siguientes líquidos **ayer durante el día ó la noche?** PUEDE MARCAR MAS DE UN RESPUESTA Bebió (NOMBRE DEL NIÑ@) . .		
A	¿Leche materna?	NO ..... 0 SI 1	
B	¿Agua o cocimiento?	NO ..... 0 SI 1	
C	¿Leche de vaca, de cabra, o en polvo?	NO ..... 0 SI 1	
D	¿Jugo de frutas?	NO ..... 0 SI 1	
E	¿Te o café?	NO ..... 0 SI 1	
F	¿Algún otro líquido como gaseosas (sodas) refrescos, o sopas?	NO ..... 0 SI 1	
	Ahora quisiera preguntarle acerca del tipo de comidas que (NOMBRE DEL NIÑ@) comió ayer durante el día y la noche, ¿Comió (NOMBRE DEL NIÑ@) algunas de las siguientes comidas **ayer durante el día y la noche?** PUEDE MARCAR MAS DE UN RESPUESTA		
G	¿Cualquier alimento hecho de granos como maíz, arroz, trigo, avena?	NO.....0 SI 1	
H	¿Algún alimento fortificado con vitaminas o minerales como azúcar, harina fortificada, o sal?	NO.....0 SI 1	
I	¿Ayote, pijibay o zanahorias?	NO.....0 SI 1	
J	¿Algún comida como papas, yuca, quequisque, malanga?	NO.....0 SI 1	

NO	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
K	¿Algún vegetal que tenga hojas verdes oscuras como hoja de ayote, o yuca?	NO.....0 SI 1	
L	¿Mango maduro?	NO.....0 SI 1	
M	¿Algún otro vegetal o fruta como chaya, naranja, o banano o otras?	NO.....0 SI 1	
N	¿Carne como cerdo, res, etc.?	NO.....0 SI 1	
O	¿Aves como pollo o pato?	NO.....0 SI 1	
P	¿ Pescado, o mariscos?	NO.....0 SI 1	
Q	¿Huevos?	NO.....0 SI 1	
R	¿Alguna leguminosas? (frijoles, lentejas, frijol de soya, etc?)	NO.....0 SI 1	
S	¿Algun tipo de mani o cacahuate?	NO.....0 SI 1	
T	¿Queso, crema, cuajada, mantequilla, otros?	NO.....0 SI 1	
U	¿Algún alimento frito con aceite, manteca o mantequilla?	NO.....0 SI 1	
7	¿Cuántas veces comió (NOMBRE DEL NIÑ@) alimentos sólidos o semisólidos (p.ej, mogos de carne, cuajadas) ayer durante el día o la noche? SI FUERON 7 VECES O MAS, ANOTE '7'.	NUMERO DE VECES ☐☐ NO SABE.....8	

SECCIÓN 3: CONTROL DEL CRECIMIENTO Y DESARROLLO

NO	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 CD1	¿Tiene (NOMBRE DEL NIÑ@) una tarjeta infantil para el control del peso? EN CASO AFIRMATIVO: ¿Me la puede mostrar por favor?	NO DISPONIBLE/ PERDIDA/ EXTRAVIADA ..... 0 SI, LA VI ..... 1 NUNCA TUVO TARJETA ..... 2 NO SABE 8	→ 8 → 8 → 8
2 CD2	FIJESE EN LA TARJETA DE INFANTIL DE CONTROL DE CRECIMIENTO DE (NOMBRE DEL NIÑ@) Y NOTE SI HA SIDO PESADO EN LOS ULTIMOS CUATRO MESES.	NO FUE PESADO..... 0 SI FUE PESADO..... 1	→ 4
3 CD3	¿Dónde fue pesado el niño en los últimos 4 meses?	LA UNIDAD DE SALUD.....1 EN SESIONES DE PESAJE EN LA COMUNIDAD.....2 OTROS.....3 _____ (ESPECIFIQUE)	
4 CD4	MIRE TAMBIEN LA TARJETA DE CONTROL DE CRECIMIENTO E INDIQUE SI HAY ESPACIO PARA REGISTRAR LAS CAPSULAS CON VITAMINA 'A'	NO HAY ..... 0 SI HAY 1	→ 6
5 CD5	SI LA TARJETA TIENE ESPACIO PARA REGISTRAR VITAMINA A, ANOTE LA ULTIMA FECHA EN QUE SE SUMINISTRÓ LA CAPSULA DE VITAMINA A. SI NO HAY FECHA, DEJAR EL ESPACIO EN BLANCO	|___|___|___|___||___|___||___|___| D D M M A A A A	
6 CD6	MIRE TAMBIEN LA TARJETA DE CONTROL DE CRECIMIENTO E INDIQUE SI HAY ESPACIO PARA REGISTRAR LAS DOSIS DE 'HIERRO''	NO HAY ..... 0 SI HAY 1	→ 8
7 CD7	SI LA TARJETA TIENE ESPACIO PARA REGISTRAR EL HIERRO, ANOTE LAS FECHAS EN QUE LE SUMINISTRARON LAS DOSIS DE HIERRO EN LOS ULTIMOS 6 MESES	1. |___|___|___|___||___|___||___|___| D D M M A A A A 2. |___|___|___|___||___|___||___|___| D D M M A A A A 3. |___|___|___|___||___|___||___|___| D D M M A A A A	
8 CD8	PARA LOS NIÑOS MAYORES DE 12 MESES: ¿Ha recibido (NOMBRE DEL NIÑO) desparasitante en los últimos seis meses?	NO ..... 0 SI ..... 1 NO SABE 8	

SECCIÓN 4: INMUNIZACIÓN DE NIÑOS/AS

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION									SALTAR
1 IN1	¿Tiene Ud. la tarjeta de vacunas de (NOMBRE DEL NIÑO)? SI LA RESPUETA ES AFIRMATIVA: ¿Puedo verla por favor?	NO DISPONIBLE/ PERDIDA/ EXTRAVIADA ..... 0 SI, VISTA POR ENTREVISTADOR ..... 1 NUNCA TUVO TARJETA ..... 2 NO SABE..... 8									→NE1 → NE1 → NE1
2 IN2	(1) COPIE LA FECHA DE VACUNACION PARA CADA VACUNA DE LA TARJETA. (2) ANOTE '88' EN LA COLUMNA ? DIA? SI LA TARJETA MUESTRA QUE SE DIO LA VACUNA, PERO SIN INDICAR FECHA.	(DIA/ MES / ANO) D D M M A A A A									
A	BCG	BCG									
B	POLIO 1	P1									
C	POLIO 2	P2									
D	POLIO 3	P3									
E	PENTAVALENTE 1	PENTA 1									
F	PENTAVALENTE 2	PENTA 2									
G	PENTAVALENTE 3	PENTA 3									
H	MMR / Anti-Sarampión	MMR									

SECCIÓN 5: NIÑO/A ENFERMO/A

SECCIÓN 5a : ENFERMEDADES PREVALENTES EN LA INFANCIA Y EN LOS NIÑOS

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACIÓN	SALTAR
1 NE1	A veces los niños se enferman y necesitan atención o tratamiento contra enfermedades. ¿Cuáles son las señales de peligro que pudieran indicar que su niño necesita atención inmediata? ANOTE TODAS LAS QUE SE MENCIONEN	NO SABE.....A TIENE MAL ASPECTO O NO JUEGA NORMALMENTE.....B NO COME NI BEBE…….....C LETARGICO O DIFICIL DE DESPERTAR.....D FIEBRE ALTA.....E RESPIRACION RAPIDA O DIFICULTOSA.....F VOMITA TODO LO QUE COME O BEBE.....G CONVULSIONES.....H OTROS _____ I (ESPECIFIQUE) OTROS _____J (ESPECIFIQUE) OTROS _____K	→ 2

		(ESPECIFIQUE)	

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACIÓN	SALTAR
2 NE2	¿En las ultimas dos semanas (NOMBRE DEL NIÑ@) tuvo alguno de los siguientes cosas? LEA LAS OPCIONES Y ANOTE TODAS LO QUE SON AFIRMATIVAS ¿Diarrea? ¿Sangre en las heces? ¿Tos? ¿Respiración difícil/ rapida o acererada? ¿Respiración rápida o acelerada? ¿Fiebre? ¿Malaria? ¿Convulsiones?	DIARREA.....A SANGRE EN LAS HECES.....B TOS.....C RESPIRACION DIFÍCIL/ RAPIDA/ ACERERADA.....D FIEBRE.....E MALARIA.....F CONVULSIONES.....G NINGUNA.....H	

SECCIÓN 5b: DIARREA (MANEJO DE CASOS DE DIARREA)

NO.	PREGUNTAS Y FILTRO	CATEGORIA DE CODIFICACION	SALTAR
1 DM1	¿Ha tenido (NOMBRE DEL NIÑ@) diarrea en las últimas dos semanas?	NO .....0 SI.....1 NO SABE 8	→ 9 → 9
2 DM2	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea, recibió algún tratamiento? ¿Algo más? ANOTE TODO LO MENCIONADO.	NADA ..... A SRO ..... B SUERO CASERO ..... C SOLUCIONES A BASE DE CEREALES O ATOLES..... D MEDICINAS ANTI-DIARREICAS O ANTIBIOTICOS ..... E (IV) INTRAVENOSO..... F REMEDIOS CASEROS/ MEDICINAS BOTANICAS.....G OTROS_____ X (ESPECIFIQUE)	→ 3
3 DM3	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea le dio el pecho, menos que lo normal, aproximadamente lo mismo o más que lo usual?	MENOS .....1 IGUAL .....2 MAS.....3 NO DIO PECHO .....4 NO SABE 8	

NO.	PREGUNTAS Y FILTRO	CATEGORIA DE CODIFICACION	SALTAR
4 DM4	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea le dieron además de su pecho, menos que lo usual para beber, aproximadamente lo mismo, o más de lo usual?	MENOS .....1 IGUAL .....2 MAS .....3 NADA DE BEBER .....4 NO SABE 8	
5 DM5	¿Cuando (NOMBRE DEL NIÑ@) tenia diarrea le dieron menos que lo usual de comer, aproximadamente lo mismo, o más que lo usual?	MENOS .....1 IGUAL .....2 MAS .....3 NADA DE COMER.....4 NO SABE 8	
6 DM6	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea ¿Pidió consejo o ayuda?	NO .....0 SI 1	→ 8
7 DM7	¿Dónde pidió el consejo o ayuda para la diarrea de (NOMRE)? ANOTE TODO LO MENCIONADO SI LA FUENTE ES UN HOSPITAL, CENTRO DE SALUD O CLÍNICA, ANOTE EL NOMBRE DEL SITIO: _____ (NOMBRE DEL SITIO)	HOSPITAL.....A CENTRO/PUESTO DE SALUD.....B MÉDICO/CLINICA PARTICULAR.....C FARMACIA.....D TIENDA.....E BRIGADISTA/UROC.....F CURANDERO.....G PARTERA.....H AMIGO/PARIENTE.....I OTROS:_____J (ESPECIFIQUE)	
8 DM8	¿Durante el período en que (NOMBRE DEL NIÑ@) se recuperaba de la diarrea, le dio menos de lo usual a beber y comer, aproximadamente lo mismo, o más que lo usual?	MENOS .....1 IGUAL .....2 MAS .....3 AUN CON DIARREA.....4 NO SABE 8	

NO.	PREGUNTAS Y FILTRO	CATEGORIA DE CODIFICACION	SALTAR
9 DM9	¿Cuándo un nino esta con diarrea, ¿Cómo se da cuenta que esta grave? ANOTE TODO LO MENCIONADO.	SOMNOLIENTO.....A OJOS HUNDIDOS.....B PLIEGUE/ PIEL.....C BEBE CON SED.....D INQUIETO/ IRRITABLE.....E NO SABE.....F OTROS_____K (ESPECIFIQUE) OTROS_____K (ESPECIFIQUE) OTROS_____K (ESPECIFIQUE)	→ IR1

SECCIÓN 5c: INFECCIONES RESPIRATORIAS AGUDAS

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 IR1	¿Ha estado (NOMBRE DEL NIÑ@) enfermo con tos en las últimas dos semanas?	NO ..... 0 SI ..... 1 NO SABE 8	→ 9 → 9
2 IR2	¿Ha estado (NOMBRE DEL NIÑ@) con dificultad en respirar, o respiraba como cansado (disnea) o respiraba más rápido que lo usual en forma entrecortada y poco profunda?	NO ..... 0 SI ..... 1 NO SABE 8	→ 9 → 9
3 IR3	¿Qué cantidad de líquidos le dio a (NOMBRE DEL NIÑ@) durante la enfermedad?	MAS DE LO NORMAL..... 1 LA MISMA CANTIDAD..... 2 MENOS ..... 3 LE DABA SOLO PECHO 4	 → 5
4 IR4	¿Qué cantidad de alimentos le dio a (NOMBRE DEL NIÑ@) durante la enfermedad?	MAS DE LO NORMAL..... 1 LA MISMA CANTIDAD..... 2 MENOS 3	
5 IR5	¿Ha pedido Ud. consejo o tratamiento para (NOMBRE DEL NIÑ@) para la tos/ respiración rápida?	NO ..... 0 SI 1	→ 8
6 IR6	¿Cuánto tiempo después llevo a (NOMBRE DEL NIÑ@) para consejos o tratamiento contra la tos y respiración rápida?	El MISMO DIA ..... 1 DIA SIGUIENTE ..... 2 DOS DIAS ..... 3 TRES DIAS O MAS..... 4	

NO.	PREGUNTAS Y FILTRO	CATEGORIA DE CODIFICACION	SALTAR
7 IR7	¿Dónde recibió consejos o tratamiento para (NOMBRE DEL NIÑ@) contra la tos y respiración rápida?[1] ANOTE TODO LO MENCIONADO SI LA FUENTE ES UN HOSPITAL, CENTRO DE SALUD O CLINICA, ANOTE EL NOMBRE DEL SITIO: _____ (NOMBRE DEL SITIO)	HOSPITAL GENERAL..... A CENTRO/ PUESTO DE SALUD. B MEDICO/ CLIN. PARTICULAR .. C FARMACIA ..... D BRIGADISTA / URO..... E CURANDERO.....F PARTERA ..... G AMIGO/ PARIENTE ..... H OTROS_____ X (ESPECIFIQUE)	
8 IR8	¿Cuándo (NOMBRE DEL NIÑ@) tenia tos y respiración rápida/ dificultosa, ¿Recibió algún tratamiento? ¿Cual? ANOTE TODO LO MENCIONADO	NADA ..... A PENICILINA PROCAÍNICA ..... B PANADOL ..... C AMOXICILINA ..... D ERITROMICINA ..... E TRIMETROPIN SULFA.....F OTROS_____X (ESPECIFIQUE)	→ 9
9 IR9	¿Cuándo un nino esta con una enfermedad respiratoria, ¿Cómo se da cuenta que esta grave? ANOTE TODO LO MENCIONADO	NO SABE ..... A RESPIRACIÓN RAPIDA AGITADA/ DIFICIL ..... B RETRACCIONES INTERCOSTALES ..... C PERDIDA DEL APETITO..... D FIEBRE ..... E TOS.....F OTRO_____ X (ESPECIFIQUE)	→CM1

SECCIÓN 5d : CONTROL DE MALARIA

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 CM1	Tiene usted algún mosquitero en su casa?	NO.....0 SI.....1	→ Sec. 6a
2 CM2	Quién usó anoche el mosquitero para dormir?	NIÑO (A) (NOMBRE).....1 ELLA (LA ENTREVISTADA).....2 ESPOSO O COMPAÑERO.....3 OTRO_____96	
3 CM3	Cuánto tiempo hace que usted (es) compraron u obtuvieron ese mosquitero?	MESES _____ _____ NO SABE.....88	
4CM 4	Fue el mosquitero remojado en un líquido para ahuyentar los zancudos?	NO.....0 SI .....1 NO SABE.....88	

N. SECCIÓN 6A: ATENCION PRENATAL

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 AP1	¿Consultó a alguien para recibir cuidado prenatal cuando estaba embarazada de (NOMBRE DEL NIÑ@)? EN CASO AFIRMATIVO: ¿A quién consultó? ¿Alguien más? TRATE DE AVERIGUAR EL TIPO DE PERSONA Y ANOTE TODAS LAS PERSONAS MENCIONADAS POR LA MADRE	NADIE.....A MEDICO / ENFERMERA.....B PARTERA TRADICIONAL.....C BRIGADISTA.....D OTROS _____ X (ESPECIFIQUE)	→ RN1
2 AP2	¿Cuando estuvo embarazada de (NOMBRE DEL NIÑ@) le aplicaron en el brazo la vacuna contra de tétano?	NO .....0 SI.....1 NO SABE 8	
3 AP3	¿Tiene usted una tarjeta de control del embarazo?	NO DISPONIBLE .....0 SI, LA VI.....1 NUNCA TUVO 2	→ RN1 → RN1
4 AP4		NINGUNO .....0 UNA .....1 DOS O MAS 2	
5AP 5		NINGUNO .....0 UNA .....1 DOS O MAS 2	

O.

SECCIÓN 6B: PARTO Y CUIDADO INMEDIATO DEL RECIEN NACIDO

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
1 RN1	¿Dónde dio a luz a (NOMBRE DEL NIÑ@)? SI ES UN HOSPITAL, CENTRO DE SALUD O CLINICA, ANOTE EL NOMBRE DEL SITIO. _____ (NOMBRE DEL SITIO))	EN CASA .....1 HOSPITAL.....2 CLINICA .....3 CENTRO DE SALUD .....4 PUESTO DE SALUD .....5 OTRA_____6 (ESPECIFIQUE)	
2 RN2	¿Quién le atendió el parto de (NOMBRE DEL NIN@)? ANOTE TODOS LOS MENCIONADOS	MEDICO ..... A ENFERMERA ..... B PARTERA ENTRENADA ..... C PARTERA EMPÍRICA TRADICIONAL ..... D TRABAJADOR DE SALUD COMUNITARIO ..... E FAMILIAR_____F (ESPECIFIQUE) OTRO _____G (ESPECIFIQUE) ELLA MISMA ..... H	

SECCIÓN 7: PLANIFICACIÓN FAMILIAR

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
1 PF1	¿Cuántos niños que viven en este hogar son menores de cinco años?	UN NIÑO.....1 DOS NIÑOS.....2 TRES O MAS 3	→ 4
2 PF2	¿Cuántos de esos niños son hijos biológicos suyos?	UN NIÑO.....1 DOS NIÑOS.....2 TRES O MAS 3	→ 4
3 PF3	¿Cuál es el sexo y fecha de nacimiento de los dos niños más jóvenes?	HIJO/A #1 (NOMBRE DEL NIÑ@) SEXO VARON .....1 HEMBRA .....2 FECHA DE NACIMIENTO DIA ____ MES ____ AÑO ____ HIJO/A #2 (PROX. MAYOR) SEXO VARON .....1 HEMBRA .....2 FECHA DE NACIMIENTO DIA ____ MES ____ AÑO ____	

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
4 PF4	¿Está embarazada actualmente?	NO .....0 SI.....1 NO ESTA SEGURA.....8	→ VS1
5 PF5	¿Quiere tener otro niño?	NO ..... 0 SI..... 1 NO SABE 8	→ 7 → 7
6 PF6	¿Cuándo quiere tener su próximo niño?	2 AÑOS O MENOS ..... 1 MAS DE 2 AÑOS ..... 2 NO ESTA SEGURA 8	
7 PF7	¿Está haciendo algo actualmente o usando algún método para demorar o evitar el embarazo? SI NO, CIRCULE '01' [NINGUN METODO] EN CASO AFIRMATIVO, pregúntele, "¿Cuál es el método principal que usan usted o su esposo/ pareja para evitar/ aplazar el embarazo?"	NINGUN METODO.....01 NORPLANT..... .....02 INYECCIONES.....03 PÍLDORA .....04 DIU.....05 METODO BARRERA/ DIAFRAGMA..... 06 CONDON.....07 ESPUMA / GELATINA..... 08 LIGAMIENTO DE TROMPAS/ ESTERILIZACION..... .09 VASECTOMIA..... 10 AMENORREA DE LACTANCIA/MELA...11 RITMO.....12 ABSTINENCIA ..... 13 COITO INTERRUMPIDO/RETIRO..... 14 OTROS_____ 15 (ESPECIFIQUE)	

SECCIÓN 8: VIH/ SIDA

NO	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
1 VS 1	**Tengo unas preguntas más que quisiera hacerle. Algunas tratan de temas personales y sensibles, y quisiera recordarle que no tiene que contestar ninguna pregunta si no lo desea. ¿Ha oido alguna vez hablar de la enfermedad del SIDA?**	NO ..... 0 SI..... 1	→ AS1

NO	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
2 VS 2	¿Hay algo que se pueda hacer para evitar que nos de el SIDA?	NO ..... 0 SI..... 1 NO SABE 8	→ AS1 → AS1
3 VS 3	¿Qué se puede hacer? ¿Algo más? ANOTE TODO LO MENCIONADO	NO SABE.....A ABSTENERSE DEL SEXO.....B USAR CONDONES.....C LIMITAR EL SEXO A UNA PAREJA/ SER FIEL A UNA PAREJA.....D LIMITAR EL NUMERO DE PAREJAS SEXUALES.....E EVITAR EL SEXO CON PROSTITUTAS.....F EVITAR EL SEXO CON PERSONAS QUE TIENEN MUCHAS PAREJAS.....G EVITAR RELACIONES CON PERSONAS DEL MISMO SEXO.....H EVITAR EL SEXO CON PERSONAS QUE SE INYECTAN DROGAS INTRAVENOSAS.....I EVITAR TRANSFUSIONES DE SANGRE.....J EVITAR INYECCIONES.....K EVITAR BESOS.....L EVITAR PICADURAS DE MOSQUITO.....M OBTENER PROTECCIÓN DE UN CURANDERO TRADICIONAL.....N EVITAR COMPARTIR NAVAJAS/ HOJAS DE AFEITAR.....O OTROS_____W (ESPECIFIQUE) OTROS_____X (ESPECIFIQUE)	→ AS1

SECCIÓN 9: AGUA Y SANEAMIENTO

NO.	PREGUNTAS Y FILTROS	CATEGORIAS A CODIFICAR	SALTAR
1 AS1	¿Cuándo se lava usted las manos con jabón? ANOTE TODO LO QUE SE MENCIONE.	NUNCA.....A ANTES DE PREPARAR LA COMIDA..... B ANTES DE COMER..... ....C ANTES DE ALIMENTAR A LOS NIÑOS D TRAS DEFECAR/ ORINAR.....E TRAS ATENDER A UN NIÑO QUE HA DEFECADO.....F DESPUES DE BOTAR LAS HECES DEL BEBE..... ....G CUANDO ME BANO.....H OTROS_____ X (ESPECIFIQUE)	→ 2
2 AS2	¿Donde hace sus necesidades usualmente usted y su familia?	LETRINA O SANITARIO.....1 EN ALGUN ESPACIO DE SU PROPIEDAD..... .....2 AL AIRE LIBRE..... 3 DIRECTAMENTE EN EL RIO..... .....4 OTRO_____5 (ESPECIFIQUE)	

P. SECCIÓN 10: ANTROPOMETRÍA Y HEMOGLOBINA

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
DEL NIÑO			
1 AH1	**PESO (Kg / grs)**	____ ____ ▪ ____ ____	
2 AH2	**TALLA (CENTÍMETROS)** **METODO DE MEDICION: ACOSTADO**	____ ____ ▪ ____ ____	
3 AH3	**HEMOGLOBINA (gr. / dl)**	____ ____ ▪ ____ ____	
DE LA MADRE			
4 AH4	**HEMOGLOBINA (gr. / dl)**	____ ____ ▪ ____ ____	

ENTREVISTA

MADRES CON NIÑOS (AS) ENTRE 0 a 11 MESES

ESTUDIO RÁPIDO DE CONOCIMIENTO, PRACTICAS Y COBERTURA (KPC)
Project HOPE Nicaragua – Jinotega

CONSENTIMIENTO INFORMADO

Hola. Mi nombre es _____, y yo estoy trabajando con Project HOPE. Nosotros estamos dirigiendo un estudio y apreciaríamos su participación. Me gustaría preguntarle por su salud y la salud de su niño menor de dos años. Esta información ayudará a Project HOPE a planificar y mejorar las actividades de nuestro proyecto. Esta entrevista normalmente tarda _____ minutos. Cualquier información que usted nos proporcione es estrictamente confidencial y no se mostrará a otras personas.

Su participación en esta entrevista, es voluntaria y usted puede escoger no contestar cualquier pregunta individual o todas las preguntas. Ademas de al entrevista, nosotros pesaremos y mediremos a su nino(a) para saber como esta su estado nutrcional, tambien les tomaremos una muestra de sangre a usted y su nino(a) para ver si no tienen anemia. Sin embargo, nosotros esperamos que usted participe en esta entrevista, ya que sus opiniones son importantes.

¿En este momento, usted quiere preguntarme algo acerca de la entrevista?

Firma de entrevistador: _____ Fecha: _____

ACEPTA SER ENTREVISTADA?.....1	NO ESTÁ DE ACUERDO SER ENTREVISTADA?.....2→FIN

PAGINA INICIAL: IDENTIFICACIÓN INFORMACION

2 PI_2	MUNICIPIO:	JINOTEGA.....1 SAN RAFAEL DEL NORTE….....……2 LA CONCORDIA.....3 SAN SEBASTIAN DE YALI.....4 SANTA MARIA DE PANTASMA.....5 WIWILI.....6 EL CUA.....7 BOCAY 8
3 PI_3	NUMERO DEL RESPONDIENTE:	I_____I I_____I
4 PI_4	FECHA DE ENTREVISTA: (ANO/ MES/ DIA)	+-------++-------++-------++-------+ / +-------++-------+ / +------++------+ A A A A M M D D
5 PI_5	FECHA DE RE: ENTREVISTA: (ANO/ MES/DIA) (COMPLETE ESTA PREGUNTA SOLAMENTE SI LA ENTREVISTA FUERA DADO EN DOS PARTES)	+-------++-------++-------++-------+ / +-------++-------+ / +------++------+ A A A A M M D D
6 PI_6	NOMBRE DEL ENTREVISTADOR:	_____
7 PI_7	NOMBRE DEL SUPERVISOR:	_____

8 PI_8	TIPO DE COMUNIDAD: _____ (NOMBRE DE LA COMUNIDAD)	URBANA .....1 RURAL.....2
9 PI_9	NOMBRE DE LA MADRE:	_____
10 PI_10	EDAD DE MADRE (EN ANOS)	I_____I I_____I
11 PI_11	NOMBRE DEL NIN@:	_____
12 PI_12	SEXO DEL NIN@:	MASCULINO.....1 a FEMENINO.....2
13 PI_13	FECHA DE NACIMIENTO DEL NIN@: (ANO/MES/DIA)	+-------++-------++-------++-------+ / +-------++-------+ / +-------++-------+ A A A A M M D D
14 PI_14	EDAD DEL NIN@: (EN MESES)	I_____I I_____I

SECCIÓN 1: ANTECEDENTES DE LA MADRE Y NIÑO

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 AN1	¿Alguna vez ha asistido a la escuela? EL SALTO DE PREGUNTA PASA A LA RESPUESTA NO, ES LO COHERENTE.	NO .....0 SI 1	→ 3
2 AN2	¿Hasta que nivel llego?	PRIMARIA .....1 SECUNDARIA.....2 TÉCNICO .....3 UNIVERSITARIO 4	 → 4 → 4 → 4
3 AN3	¿Puede leer y entender una carta o periódico fácilmente, con dificultad, o no sabe?	FACILMENTE .....1 CON DIFICULTAD .....2 NO SABE 3	
4 AN4	¿Realiza algún trabajo para ganar dinero, durante el año? EN CASO NEGATIVO, CIRCULE “A” (NO TRABAJA) En caso AFIIRMATIVO, ¿qué clase de trabajo hace? ANOTE TODO LO QUE SE MENCIONE.	NO TRABAJA ..... A ARTESANIAS/ TEJIDO/ ETC .... B AGRICULTURA ..... C GANADERIA ..... D VENDIENDO COMIDAS/ PRODUCTOS PREPARADOS ..... E SERVICIOS DOMESTICOS .....F DUENO DE TIENDA / PULPERÍA G	→ LN1

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
		TRABAJADORA ASALARIADA .. H OTROS_____X (ESPECIFIQUE)	

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
5 AN5	¿Quién cuida a (NOMBRE DEL NIÑ@) mientras Ud. trabaja o está fuera de su casa? ANOTE TODO LO QUE SE MENCIONE.	VA CON LA MADRE ..... A ESPOSO/ COMPAÑERO ..... B HERMANOS MAYORES ..... C OTROS PARIENTES ..... D _____ (ESPECIFIQUE) VECINOS / AMIGOS ..... E EMPLEADA DOMESTICA ..... F CDI/ CICO ..... G OTROS_____ X (ESPECIFIQUE)	

SECCIÓN 2: NUTRICIÓN INFANTIL

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 LN1	¿Alguna vez le dio de mamar a (NOMBRE DEL NIÑ@)?	NO ..... 0 SI 1	→ 6
2 LN2	¿Cuánto tiempo después del parto tardo en pegarse al pecho a (NOMBRE DEL NIÑ@) ?	DURANTE LA PRIMERA HORA TRAS EL PARTO.....1 ENTRE LA PRIMERA HORA HASTA 8 HORAS DESPUES 8 HORAS.....3 NO SABE ACUERDA.....4	
3 LN3	¿Durante los primeros tres días despues del parto le dio a (NOMBRE DEL NIN@)) su primera leche?	NO ..... 0 SI ..... 1 NO SABE 8	
4 LN4	¿Actualmente le está dando de mamar a (NOMBRE DEL NIN@)?	NO ..... 0 SI 1	→ 6
5 LN5	¿Durante cuánto tiempo le dio el pecho a (NOMBRE DEL NIÑ@)? SI MENOS DE UN MES, ANOTE '00' MESES	MESES ☐☐	

NO	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
6 LN 6	Ahora quisiera preguntarle acerca de los tipos de líquidos que (NOMBRE DEL NIÑ@) bebió ayer durante el día y la noche. ¿Bebió (NOMBRE DEL NIÑ@) algunos de los siguientes líquidos **ayer durante el día ó la noche?** PUEDE MARCAR MAS DE UN RESPUESTA Bebió (NOMBRE DEL NIÑ@) . .		
A	¿Leche materna?	NO ..... 0 SI 1	
B	¿Agua o cocimiento?	NO ..... 0 SI 1	
C	¿Leche de vaca, de cabra, o en polvo?	NO ..... 0 SI 1	
D	¿Jugo de frutas?	NO ..... 0 SI 1	
E	¿Te o café?	NO ..... 0 SI 1	
F	¿Algún otro líquido como gaseosas (sodas) refrescos, o sopas?	NO ..... 0 SI 1	
	Ahora quisiera preguntarle acerca del tipo de comidas que (NOMBRE DEL NIÑ@) comió ayer durante el día y la noche, ¿Comió (NOMBRE DEL NIÑ@) algunas de las siguientes comidas **ayer durante el día y la noche?** PUEDE MARCAR MAS DE UN RESPUESTA		
G	¿Cualquier alimento hecho de granos como maíz, arroz, trigo, avena?	NO ..... 0 SI 1	
H	¿Algún alimento fortificado con vitaminas o minerales como azucar y harina fortificada, o sal?	NO ..... 0 SI 1	
I	¿Ayote, pijibay o zanahorias?	NO ..... 0 SI 1	
J	¿Algún comida como (papas, yuca, quequisque, o malanga)?	NO ..... 0 SI 1	

NO	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
K	¿Algún vegetal que tenga hojas verdes oscuras como hoja de ayote, o yuca?	NO ..... 0 SI 1	
L	¿Mango maduro?	NO ..... 0 SI 1	
M	¿Algún otro vegetal o fruta como chaya, naranja, banana?	NO ..... 0 SI 1	
N	¿Carne como cerdo, res, etc.?	NO ..... 0 SI 1	
O	¿Aves como pollo, pato, etc.?	NO ..... 0 SI 1	
P	¿ Pescado o mariscos?	NO ..... 0 SI 1	
Q	¿Huevos?	NO ..... 0 SI 1	
R	¿Alguna leguminosas (frijoles, lentejas, frijol de soya, etc.)?	NO ..... 0 SI 1	
S	¿Algun tipo de mani o cacahuate?	NO ..... 0 SI 1	
T	¿Queso, crema, cuajada, mantequilla, u otros?	NO ..... 0 SI 1	
U	¿Algún alimento frito con aceite, manteca o mantequilla?	NO ..... 0 SI 1	
7	¿Cuántas veces comió (NOMBRE DEL NIÑ@) alimentos sólidos o semisólidos (p.ej, mogos de carne, cuajadas) ayer durante el día o la noche? SI FUERON 7 VECES O MAS, ANOTE '7'.	NUMERO DE VECES ☐☐ NO SABE.....8	

SECCIÓN 3: CONTROL DEL CRECIMIENTO Y DESARROLLO

NO	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 CD1	¿Tiene (NOMBRE DEL NIÑ@) una tarjeta infantil para el control del peso? EN CASO AFIRMATIVO: ¿Me la puede mostrar por favor?	NO DISPONIBLE/ PERDIDA/ EXTRAVIADA ..... 0 SI, LA VI ..... 1 NUNCA TUVO TARJETA ..... 2 NO SABE 8	→ NE1 → NE1 → NE1
2 CD2	FIJESE EN LA TARJETA DE INFANTIL DE CONTROL DE CRECIMIENTO DEL BEBE (NOMBRE DEL NIÑ@) Y NOTE SI HA SIDO PESADO EN LOS ULTIMOS CUATRO MESES.	NO FUE PESADO..... 0 SI FUE PESADO..... 1	→ 4
3 CD3	¿Dónde fue pesado el niño en los últimos 4 meses?	LA UNIDAD DE SALUD.....1 EN SESIONES DE PESAJE EN LA COMUNIDAD.....2 OTROS.....3 _____ (ESPECIFIQUE)	
4 CD4	MIRE TAMBIEN LA TARJETA DE CONTROL DE CRECIMIENTO E INDIQUE SI HAY ESPACIO PARA REGISTRAR LAS CAPSULAS CON VITAMINA 'A'	NO HAY ..... 0 SI HAY 1	→ 6
5 CD5	SI LA TARJETA TIENE ESPACIO PARA REGISTRAR VITAMINA A, ANOTE LA ULTIMA FECHA EN QUE SE SUMINISTRÓ LA CAPSULA DE VITAMINA A. SI NO HAY FECHA, DEJAR EL ESPACIO EN BLANCO	|__|__|__|__| |___|___| |___||___| A A A A M M D D	
6 CD6	MIRE TAMBIEN LA TARJETA DE CONTROL DE CRECIMIENTO E INDIQUE SI HAY ESPACIO PARA REGISTRAR LAS DOSIS DE 'HIERRO''	NO HAY ..... 0 SI HAY 1	→ NE1
7 CD7	SI LA TARJETA TIENE ESPACIO PARA REGISTRAR EL HIERRO, ANOTE LAS FECHAS EN QUE LE SUMINISTRARON LAS DOSIS DE HIERRO EN LOS ULTIMOS 6 MESES	1. |__|__|__|__| |___|___| |___||___| A A A A M M D D 2. |__|__|__|__| |___|___| |___||___| A A A A M M D D 3. |__|__|__|__| |___|___| |___||___| A A A A M M D D	

SECCIÓN 4a: NIÑO/A ENFERMO/A

SECCIÓN 4a : ENFERMEDADES PREVALENTES EN LA INFANCIA EN LOS NIÑOS

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACIÓN	SALTAR
1 NE1	A veces los niños se enferman y necesitan atención o tratamiento contra enfermedades. ¿Cuáles son las señales de peligro que pudieran indicar que su niño necesita atención inmediata? ANOTE TODAS LAS QUE SE MENCIONEN	NO SABE.....A TIENE MAL ASPECTO O NO JUEGA NORMALMENTE.....B NO COME NI BEBE…….....C LETARGICO O DIFICIL DE DESPERTAR.....D FIEBRE ALTA.....E RESPIRACION RAPIDA O DIFICULTOSA.....F VOMITA TODO LO QUE COME O BEBE.....G CONVULSIONES.....H OTROS _____ I (ESPECIFIQUE) OTROS _____J (ESPECIFIQUE) OTROS _____K (ESPECIFIQUE)	→ 2
2 NE2	¿En las ultimas dos semanas (NOMBRE DEL NIÑ@) experimento algunas de las cosas siguientes? LEA LAS OPCIONES Y ANOTE TODAS LO QUE SON AFIRMATIVAS ¿Diarrea? ¿Sangre en las heces? ¿Tos? ¿Respiración difícil/ rapida o acelerada? ¿Fiebre? ¿Malaria? ¿Convulsiones?	DIARREA.....A SANGRE EN LAS HECES.....B TOS.....C RESPIRACION DIFÍCIL /RAPIDA//ACERERADA.....D FIEBRE.....E MALARIA.....F CONVULSIONES.....G NINGUNA.....H	

3 NE3	¿Cómo se da cuenta usted cuando un nino menor de dos meses esta muy mal y debe buscar atención medica y tratamiento inmediato? ANOTE TODAS LAS QUE SE MENCIONEN	NO SE.....A OMBLIGO ENROJECIDO O SUPURANDO.....B CONVULSIONES.....C QUEJIDO.....D ANORMALMENTE SOMNOLIENTO.....E DIFICULTAD PARA ALIMENTARSE.....F ALETEO NASAL.....G MOLLERA ABOMBADA.....H RESPIRACIÓN RAPIDA.....I OTROS_____J (ESPECIFIQUE)	→ 4

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
4 NE4	¿Cómo se da cuenta usted cuando un niño mayor de dos meses esta muy mal y debe buscar atención medica y tratamiento inmediato?	NO SE.....A DEJO DE COMER O BEBER.....B CONVULSIONES.....C VOMITA TODO LO QUE COME O BEBE.....D OTROS._____J (ESPECIFIQUE)	→ DM1

SECCIÓN 4b: DIARREA (MANEJO DE CASOS DE DIARREA)

NO.	PREGUNTAS Y FILTRO	CATEGORIA DE CODIFICACION	SALTAR
1 DM1	¿Ha tenido (NOMBRE DEL NIÑ@) diarrea en las últimas dos semanas?	NO .....0 SI.....1 NO SABE 8	→ 9 → 9
2 DM2	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea, recibio algún tratamiento? ¿Algo más? ANOTE TODO LO MENCIONADO.	NADA ..... A SRO ..... B SUERO CASERO ..... C SOLUCIONES A BASE DE CEREALES O ATOLES..... D MEDICINAS ANTI-DIARREICAS O ANTIBIOTICOS ..... E (IV) INTRAVENOSO..... F REMEDIOS CASEROS/ MEDICINAS BOTANICAS.....G OTROS_____ X (ESPECIFIQUE)	→ 3
3 DM3	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea le dio el pecho, menos que lo normal, aproximadamente lo mismo, o más que lo usual?	MENOS .....1 IGUAL .....2 MAS.....3 NO DIO PECHO .....4 NO SABE 8	
4 DM4	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea le dieron además de su pecho, menos que lo usual para beber, aproximadamente lo mismo, o más de lo usual?	MENOS .....1 IGUAL .....2 MAS.....3 NADA DE BEBER .....4 NO SABE 8	

NO.	PREGUNTAS Y FILTRO	CATEGORIA DE CODIFICACION	SALTAR
5 DM5	¿Cuando (NOMBRE DEL NIÑ@) tenia diarrea le dieron menos que lo usual de comer, aproximadamente lo mismo, o más que lo usual?	MENOS .....1 IGUAL .....2 MAS.....3 NADA DE COMER.....4 NO SABE 8	
6 DM6	¿Cuándo (NOMBRE DEL NIÑ@) tenia diarrea ¿Pidió consejo o ayuda?	NO .....0 SI.....1	→ 8
7 DM7	¿Dónde pidió el consejo o ayuda para la diarrea de (NOMRE)? ANOTE TODO LO MENCIONADO SI LA FUENTE ES UN HOSPITAL, CENTRO DE SALUD O CLÍNICA, ANOTE EL NOMBRE DEL SITIO: _____ (NOMBRE DEL SITIO)	HOSPITAL.....A CENTRO/PUESTO DE SALUD.....B MÉDICO/CLINICA PARTICULAR.....C FARMACIA.....D TIENDA.....E BRIGADISTA/UROC.....F CURANDERO.....G PARTERA.....H AMIGO/PARIENTE.....I OTROS:_____J (ESPECIFIQUE)	
8 DM8	¿Durante el período en que (NOMBRE DEL NIÑ@) se recuperaba de la diarrea, le dio menos de lo usual de beber y comer, aproximadamente lo mismo, o más que lo usual?	MENOS .....1 IGUAL .....2 MAS.....3 AUN CON DIARREA.....4 NO SABE 8	
9 DM9	¿Cuándo esta con diarrea, ¿Cómo se da cuenta que esta grave? ANOTE TODO LO MENCIONADO.	SOMNOLIENTO.....A OJOS HUNDIDOS.....B PLIEGUE/ PIEL.....C BEBE CON SED.....D INQUIETO/ IRRITABLE.....E NO SABE.....F OTROS_____K (ESPECIFIQUE) OTROS_____K (ESPECIFIQUE) OTROS_____K (ESPECIFIQUE)	→ IR1

SECCIÓN 4c: INFECCIONES RESPIRATORIAS AGUDAS

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 IR1	¿Ha estado (NOMBRE DEL NIÑ@) enfermo con tos en las últimas dos semanas?	NO ..... 0 SI ..... 1 NO SABE 8	→ 9 → 9
2 IR2	¿Ha estado (NOMBRE DEL NIÑ@) con dificultad en respirar, o respiraba como cansado (disnea) o respiraba más rápido que lo usual en forma entrecortada y poco profunda?	NO ..... 0 SI ..... 1 NO SABE 8	→ 9 → 9
3 IR3	¿Qué cantidad de liquidos le dio a (NOMBRE DEL NIÑ@) durante la enfermedad?	MAS DE LO NORMAL ..... 1 LA MISMA CANTIDAD ..... 2 MENOS ..... 3 LE DABA SOLO PECHO 4	 → 5
4 IR4	¿Qué cantidad de alimentos le dio a (NOMBRE DEL NIÑ@) durante la enfermedad?	MAS DE LO NORMAL ..... 1 LA MISMA CANTIDAD ..... 2 MENOS 3	
5 IR5	¿Ha pedido Ud. consejo o tratamiento para (NOMBRE DEL NIÑ@) para la tos/ respiración rápida?	NO ..... 0 SI 1	→ 8
6 IR6	¿Cuánto tiempo después llevo a (NOMBRE DEL NIÑ@) para consejos o tratamiento contra la tos y respiración rápida?	El MISMO DIA ..... 1 DIA SIGUIENTE ..... 2 DOS DIAS ..... 3 TRES DIAS O MAS 4	
7 IR7	¿Dónde recibió consejos o tratamiento para (NOMBRE DEL NIÑ@) contra la tos y respiración rápida?[1] ANOTE TODO LO MENCIONADO SI LA FUENTE ES UN HOSPITAL, CENTRO DE SALUD O CLINICA, ANOTE EL NOMBRE DEL SITIO: _____ (NOMBRE DEL SITIO)	HOSPITAL GENERAL ..... A CENTRO/ PUESTO DE SALUD . B MEDICO/ CLIN. PARTICULAR .. C FARMACIA ..... D BRIGADISTA / URO ..... E CURANDERO ..... F PARTERA ..... G AMIGO/ PARIENTE ..... H OTROS_____ X (ESPECIFIQUE)	

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
8 IR8	¿Cuándo (NOMBRE DEL NIÑ@) tenia tos y respiración rápida/ dificultosa, ¿Recibio algún tratamiento? ¿Cual? ANOTE TODO LO MENCIONADO	NADA ..... A PENICILINA PROCAÍNICA ..... B PANADOL ..... C AMOXICILINA ..... D ERITROMICINA ..... E TRIMETROPIN SULFA.....F OTROS_____X (ESPECIFIQUE)	→ 9
9 IR9	¿Cuándo un nino esta con una enfermedad respiratoria, ¿Cómo se da cuenta que esta grave? ANOTE TODO LO MENCIONADO	NO SABE ..... A RESPIRACIÓN RAPIDA AGITADA/DIFICIL ..... B RETRACCIONES INTERCOSTALES ..... C PERDIDA DEL APETITO..... D FIEBRE ..... E TOS.....F OTRO_____ X (ESPECIFIQUE)	→ CM1

SECCIÓN 4d : CONTROL DE MALARIA

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 CM1	Tiene usted algún mosquitero en su casa?	NO.....0 SI.....1	→ Sec.5a
2 CM2	Quién usó anoche el mosquitero para dormir?	NIÑO (A) (NOMBRE).....1 ELLA (LA ENTREVISTADA).....2 ESPOSO O COMPAÑERO.....3 OTRO_____96	
3 CM3	Cuánto tiempo hace que usted (es) compraron u obtuvieron ese mosquitero?	MESES _____ _____ NO SABE.....88	
4CM 4	Fue el mosquitero remojado en un líquido para ahuyentar los zancudos?	NO.....0 SI .....1 NO SABE.....88	

Q. SECCIÓN 5A: ATENCION PRENATAL

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
1 AP1	¿Consultó a alguien para recibir cuidado prenatal cuando estaba embarazada de (NOMBRE DEL NIÑ@)? EN CASO AFIRMATIVO: ¿A quién consultó? ¿Alguien más? TRATE DE AVERIGUAR EL TIPO DE PERSONA Y ANOTE TODAS LAS PERSONAS MENCIONADAS POR LA MADRE	NADIE.....A MEDICO / ENFERMERA.....B PARTERA TRADICIONAL.....C BRIGADISTA.....D OTROS _____ X (ESPECIFIQUE)	→ 7
2 AP2	Durante su control prenatal, le aconsejaron sobre lo siguiente: ¿Lactancia? ¿Espaciamiento de Embarazos? ¿Uso de la lactancia materna como método de planificación familiar, lo que conocemos como MELA ? ¿Señales de peligro durante el embarazo?	NO SI Lactancia.....0 1 Espaciamiento de embarazos.....0 1 MELA..... 0 1 Señales de peligro en Embarazo.....0 1	
3 AP3	¿Cuando estuvo embarazada de (NOMBRE DEL NIÑ@) le aplicaron en el brazo la vacuna contra de tetano?	NO .....0 SI.....1 NO SABE 8	
4 AP4	¿Tiene usted una tarjeta de control del embarazo?	NO DISPONIBLE .....0 SI, LA VI.....1 NUNCA TUVO 2	→ 7 → 7
5 AP5		NINGUNO .....0 UNA .....1 DOS O MAS 2	
6AP 6	REVISE LA TARJETA Y ESCRIBA EL NÚMERO DE DOSIS DE dT MIENTRAS ESTABA EMBARAZADA DE (NOMBRE).	NINGUNO .....0 UNA .....1 DOS O MAS 2	
7 AP7	¿Cuando usted estuvo embarazada de (NOMBRE DEL NIÑ@) tomó ó tabletas de hierro?	NO .....0 SI.....1 NO SABE 8	

NO.	PREGUNTAS Y FILTROS	CATEGORIAS DE CODIFICACION	SALTAR
8 AP8	¿En el embarazo, cuáles son los síntomas que le indican la necesidad de buscar urgentemente cuidados de salud? ANOTE TODO LO MENCIONADO.	NO SABE ..... A FIEBRE ..... B FALTA DE RESPIRACION ..... C HEMORRAGIA ..... D HINCHAZON DEL CUERPO O PIE/MANO/CARA.....E DOLOR DE PARTO ANTES DE TIEMPO ..... F LA CRIATURA NO MUEVE ..... G VOMITO INCONTENIBLE ..... H DOLOR DE CABEZA INTENSO Y CHISPERIO .....I OTROS_____ X (ESPECIFIQUE)	

R.

S. SECCIÓN 5B: PARTO Y CUIDADO INMEDIATO DEL RECIEN NACIDO

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
1 RN1	¿Dónde dio a luz a (NOMBRE DEL NIÑ@)? SI ES UN HOSPITAL, CENTRO DE SALUD O CLINICA, ANOTE EL NOMBRE DEL SITIO. _____(NOMBRE DEL SITIO))	EN CASA .....1 HOSPITAL.....2 CLINICA .....3 CENTRO DE SALUD .....4 PUESTO DE SALUD .....5 OTRA_____ 6 (ESPECIFIQUE)	
2 RN2	¿Quién le atendió el parto de (NOMBRE DEL NIÑ@)? ANOTE TODOS LOS MENCIONADOS	MEDICO ..... A ENFERMERA ..... B PARTERA ENTRENADA ..... C PARTERA EMPÍRICA TRADICIONAL ..... D TRABAJADOR DE SALUD COMUNITARIO ..... E FAMILIAR_____F (ESPECIFIQUE) OTRO _____G (ESPECIFIQUE) ELLA MISMA ..... H	
3 RN3	¿Se usó un equipo de parto limpio?	NO ..... 0 SI..... 1 NO SABE 8	

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
4 RN4	¿Qué instrumento se usó para cortar el cordón?	NAVAJA DE AFEITAR NUEVA....1 TIJERA ESTERIL.....2 OTRO INSTRUMENTO ....3 NO SABE/ NO RECUERDO.....4	
5 RN5	¿Quién le cortó el cordón a (NOMBRE DEL NIÑ@) ?	MEDICO.....1 ENFERMERA.....2 PARTERA TRADICIONAL.....3 BRIGADISTA .....4 FAMILIAR_____ 5 (ESPECIFIQUE) OTRO_____ 6 (ESPECIFIQUE) ELLA MISMA 7	

T.

SECCIÓN 6: PLANIFICACIÓN FAMILIAR

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
1 PF1	¿Cuántos niños que viven en este hogar son menores de cinco años?	UN NIÑO ..... 1 DOS NIÑOS ..... 2 TRES O MAS..... 3	→ 4
2 PF2	¿Cuántos de esos niños son hijos biológicos suyos?	UN NIÑO ..... 1 DOS NIÑOS ..... 2 TRES O MAS..... 3	→ 4
3 PF3	¿Cuál es el sexo y fecha de nacimiento de los dos niños más jóvenes?	HIJO/A #1 (NOMBRE DEL NIN@) SEXO VARON .....1 HEMBRA .....2 FECHA DE NACIMIENTO DIA ☐☐ MES ☐☐ AÑO ☐☐ HIJO/A #2 (PROX. MAYOR) SEXO VARON..... 1 HEMBRA ..... 2 FECHA DE NACIMIENTO DIA ☐☐ MES ☐☐ AÑO ☐☐	
4 PF4	¿Después de nacer (NOMBRE DEL NIÑ@) alguien le hizo a Ud. un chequeo de salud? EN CASO AFIRMATIVO, PREGUNTE: ¿Le dieron información acerca de planificación familiar o espaciamiento de nacimientos en esa ocasión?[1] CIRCULE LA RESPUESTA APROPIADA.	SIN CHEQUEO PUERPERAL.....1 CHEQUEO PERO SIN INFORMACION .....2 RECIBIO INFORMACION 3	→ VS1 → VS1

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
5 PF5	¿Le dieron información acerca del método MELA o Amenorrea de Lactancia?	NO ..... 0 SI ..... 1 NO RECUERDA 8	

SECCIÓN 7: VIH/ SIDA

NO	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
1 VS1	Tengo unas preguntas más que quisiera hacerle. Algunas tratan de temas personales y sensibles, y quisiera recordarle que no tiene que contestar ninguna pregunta si no lo desea. ¿Ha oido alguna vez hablar de la enfermedad del SIDA?	NO ..... 0 SI 1	→ AS1
2 VS2	¿Hay algo que se pueda hacer para evitar que nos de el SIDA?	NO ..... 0 SI ..... 1 NO SABE 8	→ AS1 → AS1

NO	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
3 VS3	¿Qué se puede hacer? ¿Algo más? ANOTE TODO LO MENCIONADO	NO SABE.....A ABSTENERSE DEL SEXO.....B USAR CONDONES.....C LIMITAR EL SEXO A UNA PAREJA/ SER FIEL A UNA PAREJA.....D LIMITAR EL NUMERO DE PAREJAS SEXUALES.....E EVITAR EL SEXO CON PROSTITUTAS.....F EVITAR EL SEXO CON PERSONAS QUE TIENEN MUCHAS PAREJAS.....G EVITAR RELACIONES CON PERSONAS DEL MISMO SEXO.....H EVITAR EL SEXO CON PERSONAS QUE SE INYECTAN DROGAS INTRAVENOSAS.....I EVITAR TRANSFUSIONES DE SANGRE.....J EVITAR INYECCIONES.....K EVITAR BESOS.....L EVITAR PICADURAS DE MOSQUITO.....M OBTENER PROTECCIÓN DE UN CURANDERO TRADICIONAL.....N EVITAR COMPARTIR NAVAJAS/ HOJAS DE AFEITAR.....O OTROS_____W (ESPECIFIQUE) OTROS_____X (ESPECIFIQUE)	→ AS1

SECCIÓN 8: AGUA Y SANEAMIENTO

NO.	PREGUNTAS Y FILTROS	CATEGORIAS A CODIFICAR	SALTAR
1 AS1	¿Cuándo se lava usted las manos con jabón? ANOTE TODO LO QUE SE MENCIONE.	NUNCA..... A ANTES DE PREPARAR LA COMIDA ..... B ANTES DE COMER..... ... ..C ANTES DE ALIMENTAR A LOS NIÑOS..... D TRAS DEFECAR/ ORINAR..... E TRAS ATENDER A UN NIÑO QUE HA DEFECADO ..... F DESPUES DE BOTAR LAS HECES DEL BEBE..... ....G CUANDO ME BANO.....H OTROS_____ X (ESPECIFIQUE)	→ 2
2 AS2	¿Donde hace sus necesidades usualmente usted y su familia?	LETRINA O SANITARIO.....1 EN ALGUN ESPACIO DE SU PROPIEDAD..... .....2 AL AIRE LIBRE..... ....3 DIRECTAMENTE EN EL RIO.....4 OTRO_____5 (ESPECIFIQUE)	

U. SECCIÓN 9: ANTROPOMETRÍA Y HEMOGLOBINA

NO.	PREGUNTAS Y FILTROS	CATEGORIA DE CODIFICACION	SALTAR
DEL NIÑO			
1 AH1	**PESO (Kg / grs)**	____ ____ ▪ ____ ____	
2 AH2	**TALLA (CENTÍMETROS)** **METODO DE MEDICION: ACOSTADO**	____ ____ ▪ ____ ____	
3 AH3	**HEMOGLOBINA (gr. / dl)**	____ ____ ▪ ____ ____	
DE LA MADRE			
4 AH4	**HEMOGLOBINA (gr. / dl)**	____ ____ ▪ ____ ____	

E. List of Communities, Time Schedule and Routes

Municipio: San José de Bocay

Unidad de Salud	No.	Nombre	Población estimada	Poblacón Acumulada	Ubicación de Entrevistas
C/S Ambrosio Mogorrón	1	San Francisco Oskiwas	144	144	
	2	Santa Teresa Kilambe	120	264	
	3	Luz de cristo	132	396	
	4	Cuatro Esquinas	126	522	
	5	Camaleona Arriba	120	642	
	6	Camaleona Central	168	810	
	7	Camaleona Abajo	132	942	873
	8	El Triunfo Oskiwas	150	1,092	
	9	La Esperanza	144	1,236	
	10	San Fco de Oskiwas	192	1,428	
	11	San Antonio de Oskiwas	210	1,638	
	12	San Pablo de Tasuas	270	1,908	
	13	Valle los Zelaya	210	2,118	
	14	Camino al Cielo	180	2,298	2187
	15	Elevay	120	2,418	
	16	Oskiwas Arriba	240	2,658	
	17	San Luis # 1	240	2,898	
	18	San Luis # 2	198	3,096	
	19	La Corona	168	3,264	
	20	Arenales Arriba	192	3,456	
	21	Arenales Abajo	156	3,612	3501
	22	El Toro	90	3,702	
	23	Los Olivos	126	3,828	
	24	Bambu # 1	144	3,972	
	25	Bambu # 2	252	4,224	
	26	Angeles	180	4,404	
	27	La Paz de Bocay	90	4,494	
	28	Bocay A	690	5,184	4815
	29	Bocay B	720	5,904	
	30	Bocay C	960	6,864	6129
	31	La Pimienta	198	7,062	
	32	Oskiwas Abajo	192	7,254	
	33	Colectivo	600	7,854	7443
	34	Linda Vista	144	7,998	
	35	Kaskita	144	8,142	
	36	Molejones Abajo	108	8,250	
	37	Molejones Arriba	150	8,400	
	38	Las Colinas	108	8,508	
	39	Aguasarca Arriba	240	8,748	8757
	40	Paz de Santata Rosa	120	8,868	
	41	Monte Cristo Abajo	150	9,018	
	42	Monte Cristo Arriba	138	9,156	
	43	Aguasarca Abajo	126	9,282	
	44	Santa Maria de Tapascun	180	9,462	

	45	Kaysiwas	192	9,654	
	46	Faro Divino # 1	192	9,846	
	47	Santa Rosa # 1	192	10,038	
	48	Piedra Colorada # 1	192	10,230	10071
	49	Cristo Rey	126	10,356	
	50	Piedra Colorada # 2	146	10,502	
	51	Santa Rosa # 3	192	10,694	
	52	Santa Rosa # 2	162	10,856	
	53	Callejones	138	10,994	
	54	San Miguel de Kininowas	210	11,204	
	55	San Antonio de Kininowas	210	11,414	11385
	56	Sto Domingo de Kininowas	210	11,624	
	57	Wisisi # 1	138	11,762	
	58	Wisisi # 2	138	11,900	
Casa Base San Juan	59	San Pedro Central	150	12,050	
	60	San Pedro Abajo	165	12,215	
	61	Union de San Pedro	150	12,365	
	62	Los Laureles	168	12,533	
	63	San Antonio de Aguasuas	120	12,653	
	64	San Juan # 1	168	12,821	12699
	65	San Juan # 2	240	13,061	
P/S Ayapal	66	Luz de Bocay	522	13,583	
	67	La Chaya	108	13,691	
	68	Wastary Abajo	210	13,901	
	69	Wastary Arriba	228	14,129	14013
	70	Peña Cruz	180	14,309	
	71	La Sarna	150	14,459	
	72	Runflin	450	14,909	
	73	Calichones	210	15,119	
	74	La Gloria	240	15,359	15327
	75	Aguas Calientes	270	15,629	
	76	Desmparados	120	15,749	
	77	Ayapal A	798	16,547	
	78	Nueva Alianza	180	16,727	16641
	79	Aposento Alto	210	16,937	
	80	Union de Ayapal	192	17,129	
	81	Cerro de Agua	150	17,279	
	82	Kantayawas # 1	180	17,459	
	83	Kantayawas # 2	240	17,699	
	84	Kantayawas # 3	180	17,879	
	85	El Porvenir	168	18,047	17955
	86	Belen	150	18,197	
	87	Las Nubes	90	18,287	
	88	Santa Fe de Parpar	210	18,497	
	89	Parparcito	204	18,701	
	90	Ayapal B	804	19,505	19269
	91	Yakalwas # 2	180	19,685	
	92	Yakalwas # 3	120	19,805	

	93	Ayapal C	348	20,153	
	94	Turuwas Abajo	210	20,363	
	95	Turuwas Central	210	20,573	
	96	Turuwas Arriba	210	20,783	20583
	97	Atapal Central ó Atapal 3	210	20,993	
	98	Atapal Arriba	222	21,215	
	99	Atapalon (Aguas Mansas)	222	21,437	
	100	Atapalito (Pueblo Amado)	231	21,668	
	101	El Torno	150	21,818	
	102	Aguas Mansas	210	22,028	21897
	103	Delirio de Wina	210	22,238	
	104	Nva Esperanza de Wina	228	22,466	
	105	Wina Arriba	240	22,706	
	106	Kayaska	270	22,976	
	107	Sabawas	294	23,270	23211
	108	Boca de Atapal	90	23,360	
	109	Siviwas	150	23,510	
P/S El Tigre	110	El Tigre	275	23,785	
	111	Golonfrina	324	24,109	
	112	Faro Divino 2	276	24,385	
	113	Kurasma	228	24,613	24525
	114	Las Torres	348	**24,961**	
TOTAL			**24,961**		
		Intervalo Muestral =	**1,314**		
		Número Aleatorio =	**873**		

Project HOPE Jinotega
Marzo del 2005

Cronograma de Actividades Encuesta KPC

Actividades	Feb	Marzo														
	28	1	2	3	4	7	8	9	10	11	12	13	14	15	16	1
Introducción a la metodología LQAS en Encuestas de Conocimientos, Prácticas y Coberturas a madres con niños menores de dos años	X															
Introducción y prácticas en la selección de Hogares e Informantes		X														
Introducción sobre los tipos de preguntas y su importancia.		X														
Prácticas de lectura de entrevistas y regsistro de la información en PDA y cuestionarios impresos		X	X													
Practicas para validar el conocimiento			X													
Como pesar, tallar y tomar nuestras en sangre y lectura en el HEMOCUE				X												
Prácticas de peso, talla y toma de muestra de sangre en el HEMOCUE					X											
Entrega de equipos y materiales para encuesta y traslado a Bocay						X										
Encuesta en el Municipio de Bocay							X	X								
Encuestas en el Municipio de El Cua									X	X						
Encuestas en el Municipio de Wiwili										X	X					
Encuestas en el Municipio de Pantasma												X	X			
Encuestas en el Municipio de San Sebastián de Yali													X	X		
Encuestas en el Municipio de La Concordia														X	X	
Encuestas en el Municipio de San Rafael Norte															X	X
Encuestas en el Municipio de Jinotega																X
Tabulación de Datos PDA y EPI INFO							X	X	X	X	X	X	X	X	X	X
Revisón de datos y su análisis														X	X	X
Elaboración del Informe en Borrador														X	X	X
Elaboración del Informe Final																

07 - 18 DE MARZO DEL AÑO 2005

Equipo	Municipio	Comunidad	Fecha	No	No.Set
G - 1 Edgar Rodríguez / Alfredo Alaniz	Bocay	Colectivo	8 Marzo	1	**6**
		Aguasarca Arriba	8 Marzo	1	**7**
		San Juan # 1	9 Marzo	1	**10**
	Cua	Santa Martha.	10-Mar	1	**11**
	Wiwili	La Joba 2	11-Mar	1	**2**
		Quebrada de Yakalwas	11-Mar	1	**3**
	Pantasma	Charcón 1	12-Mar	1	**2**
		Charcón 2	12-Mar	1	**19**
	Yali	La Bolsa	13-Mar	1	**1**
		Zona 6 Yali.	13-Mar	1	**2**
	La Concordia	Bo. Germán Pomares O.	14-Mar	1	**1**
		Bo. Germán Pomares O.	14-Mar	1	**2**
	San Rafael Norte	Zona # 1	15-Mar	1	**1**
		Zona # 2	15-Mar	1	**2**
		El Espino	16-Mar	1	**3**
	Jinotega	Paraiso	17-Mar	1	**1**
		Las Pilas	17-Mar	1	**2**
SUBTOTAL DEL EQUIPO NÚMERO				17	

F. Checklist for Survey Quality Control

Project HOPE Jinotega

Survey on KPC for mothers with children less than 2 years old

March 2005-10-19 Instructions to the Supervisor for Quality Control

Each supervisor should fill out the check list in at least one observed interview with each interviewer each day. During the observed interview, try not to interrupt the process. Limit yourself to marking on the questionnaire the observations which are given during the interview. Once the interview is ended by the interviewer, go with this person to another place to discuss any important topic. Remember to point out the strong points in the performance of the interviewer, as well as those aspects which need improvement.

Form for evaluating interviews

Protocol: Observe, at least, one interview made by each person on your team each day. Use this form. While you are observing the person, do not speak with him or her: only fill out this form. When he or she has finished the interview, go over the form together, in private, pointing out the strongest and weakest parts of their performance.
Remember: The purpose of this form is twofold:
1.) document the quality of the interviews, and
2.) improve the performance of the person who is giving the interview.

Project HOPE/Jinotega
Quality Control List for the KPC

Name of Interviewer:

Name of Supervisor:

Location of the Community:

Date: day/ month/ year

Indicate whether the interviewer	Did he do it Correctly? Yes or No
1. Chose the home correctly?	
2. Chose the mother correctly	
3. Introduced themself correctly?	
4. Read the declaration of consent at the beginning of the interview?	
5. Noted correctly the information on the cover (date of interview, name of the community, name of the mother/child, age/date of birth of the child, sex of the child)?	
6. Spoke clearly during the interview?	
7. Showed neutral body language (Did not react neither positively nor negatively to the questions of the mother?)	
8. Did not ask tricky questions which could have influenced the replies of the mothers?	
9. Read the questions just as they are written?	
10. Noted correctly and/or legibly the data in the PDA or questionnaire?	
11. Correctly followed voice patterns of emphasis?	
12. Read the answers in a loud voice when they should.	
13. Verified the answers in the documents requested (Vaccine card, VPCD Card) when they should/	
14. Insisted the mother give all the answers ("I asked is there anything more?" For questions that could have multiple answers?	
15. Correctly measured the child? (The child is lying flat in the center of the Height measure, the head touches the base of the Height Measure, the line of vision of the child is perpendicular to the floor, all the flat of the foot is touching the plate)	
16. Correctly weighed the child? (Undress the child, calibrates the scale before putting the child in the basket, read the weight when the needles ceases to move, places the mother close to the child, calms the child if he is crying a lot, repeat the weighing if it is necessary.)	
17. Took the blood sample of the child correctly? (Assure the exactness of the instrument, maintain the microcuvettes clean, dry and far from heat, clean the area before piercing, assure that the piercing was adequate, neither straighten nor pressure the finger, use the second or third drop of blood, does not mix alcohol with the blood of the interviewed, cleaned the hemocue adequately.)	

*On a scale of 1 (needs guidance, follow-up) to 10 (Excellent), judge the performance of the interviewer during the interview as the following: (Circle the number)
1 to 17

- Approximate time of the Interview: _____ minutes
- General notes on reverse.

Signature of the Supervisor:

G. Computation of Average, Adjusted Rates, and Confidence Intervals

Project HOPE CS-18 Program

Department of Jinotega, Nicaragua

Area	n	Population	Weighing
Jinotega	38	58,788	**0.24**
SRN	38	16,978	**0.07**
La Concordia	38	7,658	**0.03**
Yalí	38	21,803	**0.09**
Pantasma	38	39,555	**0.16**
Wiwilí	38	35,847	**0.14**
El Cua	38	42,572	**0.17**
Bocay	38	24,961	**0.10**
SILAIS	**304**	**248,162**	**1.00**

2005 KPC Midterm Evaluation

Ponderación de datos de cada lote para determinar la cobertura general
Cobertura de Pesaje de niños de 0 - 23 meses según tarjeta.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	35	29	0.83	0.24	0.1963	0.0561186	
SRN(2)	36	36	1.00	0.07	0.0684	0.00468061	
La Concordia(3)	34	33	0.97	0.03	0.0300	0.00095227	
Yalí(4)	37	36	0.97	0.09	0.0855	0.00771902	
Pantasma(5)	37	30	0.81	0.16	0.1292	0.02540576	
Wiwilí(6)	36	34	0.94	0.14	0.1364	0.0208658	
El Cua(7)	35	31	0.89	0.17	0.1519	0.02942914	
Bocay(8)	30	19	0.63	0.10	0.0637	0.01011704	
Aréa global del proyecto	280	248	**88.6%**		**86.1%**		

CI=1.

Ponderación de datos de cada lote para determinar la cobertura general
Ponderación de Niños de 0 a 23 meses con Malnutrrición crónica según talla/edad

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	7	0.18	0.24	0.0436	0.0561186	
SRN(2)	38	7	0.18	0.07	0.0126	0.00468061	
La Concordia(3)	38	1	0.03	0.03	0.0008	0.00095227	
Yalí(4)	38	6	0.16	0.09	0.0139	0.00771902	
Pantasma(5)	38	5	0.13	0.16	0.0210	0.02540576	
Wiwilí(6)	38	5	0.13	0.14	0.0190	0.0208658	
El Cua(7)	38	6	0.16	0.17	0.0271	0.02942914	
Bocay(8)	38	13	0.34	0.10	0.0344	0.01011704	
Aréa global del proyecto	304	50	**16.4%**		**17.2%**		

CI=1.

Ponderación de datos de cada lote para determinar la cobertura general
Ponderación de Niños de 0 a 23 meses con Peso bajo según peso/edad

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	5	0.13	0.24	0.0312	0.0561186	
SRN(2)	38	1	0.03	0.07	0.0018	0.00468061	
La Concordia(3)	38	0	0.00	0.03	0.0000	0.00095227	
Yalí(4)	38	1	0.03	0.09	0.0023	0.00771902	
Pantasma(5)	38	4	0.11	0.16	0.0168	0.02540576	
Wiwilí(6)	38	2	0.05	0.14	0.0076	0.0208658	
El Cua(7)	38	1	0.03	0.17	0.0045	0.02942914	
Bocay(8)	38	4	0.11	0.10	0.0106	0.01011704	
Aréa global del proyecto	304	18	**5.9%**		**7.5%**		

CI=1.

Ponderación de datos de cada lote para determinar la cobertura general
Ponderación de Niños de 0 a 23 meses con Anemia (Hemoglobina <11gr/dl)

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	14	0.37	0.24	0.0873	0.0561186	
SRN(2)	38	19	0.50	0.07	0.0342	0.00468061	
La Concordia(3)	38	13	0.34	0.03	0.0106	0.00095227	
Yalí(4)	38	18	0.47	0.09	0.0416	0.00771902	
Pantasma(5)	38	19	0.50	0.16	0.0797	0.02540576	
Wiwilí(6)	38	20	0.53	0.14	0.0760	0.0208658	
El Cua(7)	38	17	0.45	0.17	0.0767	0.02942914	
Bocay(8)	38	24	0.63	0.10	0.0635	0.01011704	
Aréa global del proyecto	304	144	**47.4%**		**47.0%**		

CI=1

Ponderación de madres(no embarazadas) con niños de 0 a 23 meses con Anemia (Hemoglobina <12gr/dl)

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	5	0.13	0.24	0.0312	0.0561186	
SRN(2)	38	9	0.24	0.07	0.0162	0.00468061	
La Concordia(3)	38	4	0.11	0.03	0.0032	0.00095227	
Yalí(4)	38	7	0.18	0.09	0.0162	0.00771902	
Pantasma(5)	38	10	0.26	0.16	0.0419	0.02540576	
Wiwilí(6)	38	5	0.13	0.14	0.0190	0.0208658	
El Cua(7)	38	9	0.24	0.17	0.0406	0.02942914	
Bocay(8)	38	11	0.29	0.10	0.0291	0.01011704	
Aréa global del proyecto	304	60	**19.7%**		**19.8%**		

CI=1

Ponderación de Niños de 0 a 11 meses con Anemia (Hemoglobina <11gr/dl)

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	19	8	0.42	0.24	0.1011	0.0576	
SRN(2)	19	9	0.47	0.07	0.0332	0.0049	
La Concordia(3)	19	6	0.32	0.04	0.0126	0.0016	
Yalí(4)	19	6	0.32	0.09	0.0284	0.0081	
Pantasma(5)	19	8	0.42	0.15	0.0632	0.0225	
Wiwilí(6)	19	7	0.37	0.14	0.0516	0.0196	
El Cua(7)	19	10	0.53	0.16	0.0842	0.0256	
Bocay(8)	19	5	0.26	0.12	0.0316	0.0144	
Aréa global del proyecto	152	59	**38.8%**		**40.6%**		

CI=1.9

Ponderación de Niños de 12 a 23 meses con Anemia (Hemoglobina <11gr/dl)

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	19	8	0.42	0.24	0.10	0.0576	
SRN(2)	19	4	0.21	0.07	0.01	0.0049	
La Concordia(3)	19	6	0.32	0.04	0.01	0.0016	
Yalí(4)	19	9	0.47	0.09	0.04	0.0081	
Pantasma(5)	19	13	0.68	0.15	0.10	0.0225	
Wiwilí(6)	19	5	0.26	0.14	0.04	0.0196	
El Cua(7)	19	7	0.37	0.16	0.06	0.0256	
Bocay(8)	19	10	0.53	0.12	0.06	0.0144	
Aréa global del proyecto	152	62	**40.8%**		**43.3%**		

CI=1.9

Ponderación de datos de cada lote para determinar la cobertura general
Cobertura de Apego Precoz en la primera hora después del parto

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	27	0.71	0.24	0.1683	0.0561186	
SRN(2)	38	31	0.82	0.07	0.0558	0.00468061	
La Concordia(3)	38	26	0.68	0.03	0.0211	0.00095227	
Yalí(4)	38	30	0.79	0.09	0.0694	0.00771902	
Pantasma(5)	38	28	0.74	0.16	0.1174	0.02540576	
Wiwilí(6)	38	25	0.66	0.14	0.0950	0.0208658	
El Cua(7)	38	28	0.74	0.17	0.1264	0.02942914	
Bocay(8)	38	23	0.61	0.10	0.0609	0.01011704	
Aréa global del proyecto	304	218	**71.7%**		**71.4%**		

CI=

Ponderación de datos de cada lote para determinar la cobertura general
Cobertura de Apego Precoz en las primeras 8 hora después del parto

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	31	0.82	0.24	0.1933	0.0561186	
SRN(2)	38	34	0.89	0.07	0.0612	0.00468061	
La Concordia(3)	38	33	0.87	0.03	0.0268	0.00095227	
Yalí(4)	38	34	0.89	0.09	0.0786	0.00771902	
Pantasma(5)	38	31	0.82	0.16	0.1300	0.02540576	
Wiwilí(6)	38	31	0.82	0.14	0.1178	0.0208658	
El Cua(7)	38	28	0.74	0.17	0.1264	0.02942914	
Bocay(8)	38	31	0.82	0.10	0.0821	0.01011704	
Aréa global del proyecto	304	253	**83.2%**		**81.6%**		

CI=

Ponderación de datos de cada lote para determinar la cobertura general

Cobertura de Lactancia Materna Exclusiva en niños < 6 meses, en las últimas 24 horas

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	5	5	1.00	0.24	0.2369	0.0561186	
SRN(2)	10	6	0.60	0.07	0.0410	0.00468061	
La Concordia(3)	8	2	0.25	0.03	0.0077	0.00095227	
Yalí(4)	10	3	0.30	0.09	0.0264	0.00771902	
Pantasma(5)	10	4	0.40	0.16	0.0638	0.02540576	
Wiwilí(6)	12	5	0.42	0.14	0.0602	0.0208658	
El Cua(7)	11	4	0.36	0.17	0.0624	0.02942914	
Bocay(8)	10	2	0.20	0.10	0.0201	0.01011704	
Aréa global del proyecto	76	31	**40.8%**		**51.8%**		

CI=1.

Ponderación de datos de cada lote para determinar la cobertura general
Conocimiento de las madres con niños de 0 a 23 meses sobre señales de peligro de EDA

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	7	0.18	0.24	0.0436	0.0561186	
SRN(2)	38	8	0.21	0.07	0.0144	0.00468061	
La Concordia(3)	38	15	0.39	0.03	0.0122	0.00095227	
Yalí(4)	38	4	0.11	0.09	0.0092	0.00771902	
Pantasma(5)	38	9	0.24	0.16	0.0378	0.02540576	
Wiwilí(6)	38	5	0.13	0.14	0.0190	0.0208658	
El Cua(7)	38	4	0.11	0.17	0.0181	0.02942914	
Bocay(8)	38	5	0.13	0.10	0.0132	0.01011704	
Aréa global del proyecto	304	57	**18.8%**		**16.8%**		

CI=1

Ponderación de datos de cada lote para determinar la cobertura general

Madres con niños de 0 a 23 meses con EDA que buscaron Consejo o Ayuda en una Unidad de Salud o UROC

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	11	7	0.64	0.24	0.1508	0.0561186	
SRN(2)	8	3	0.38	0.07	0.0257	0.00468061	
La Concordia(3)	9	8	0.89	0.03	0.0274	0.00095227	
Yalí(4)	10	7	0.70	0.09	0.0615	0.00771902	
Pantasma(5)	15	10	0.67	0.16	0.1063	0.02540576	
Wiwilí(6)	19	3	0.16	0.14	0.0228	0.0208658	
El Cua(7)	17	10	0.59	0.17	0.1009	0.02942914	
Bocay(8)	20	6	0.30	0.10	0.0302	0.01011704	
Aréa global del proyecto	109	54	**49.5%**		**52.5%**		

CI=1.9

Ponderación de datos de cada lote para determinar la cobertura general

Madres con niños de 0 a 23 meses con EDA que reportan haber dado mas ó igual cantidad de Comida durante el último episodio de diarrea

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	p
Jinotega(1)	11	5	0.45	0.24	0.1077	0.0561186	
SRN(2)	8	4	0.50	0.07	0.0342	0.00468061	
La Concordia(3)	9	3	0.33	0.03	0.0103	0.00095227	
Yalí(4)	10	4	0.40	0.09	0.0351	0.00771902	
Pantasma(5)	15	7	0.47	0.16	0.0744	0.02540576	
Wiwilí(6)	19	12	0.63	0.14	0.0912	0.0208658	
El Cua(7)	17	6	0.35	0.17	0.0605	0.02942914	
Bocay(8)	20	7	0.35	0.10	0.0352	0.01011704	
Aréa global del proyecto	109	48	**44.0%**		**44.9%**		

CI=1.96

Ponderación de datos de cada lote para determinar la cobertura general

Madres con niños de 0 a 23 meses con EDA que reportan haber dado mas ó igual cantidad de líquidos / lactancia materna durante el último episodio de diarrea

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	11	8	0.73	0.24	0.1723	0.0561186	
SRN(2)	8	5	0.63	0.07	0.0428	0.00468061	
La Concordia(3)	9	6	0.67	0.03	0.0206	0.00095227	
Yalí(4)	10	7	0.70	0.09	0.0615	0.00771902	
Pantasma(5)	15	13	0.87	0.16	0.1381	0.02540576	
Wiwilí(6)	19	13	0.68	0.14	0.0988	0.0208658	
El Cua(7)	17	11	0.65	0.17	0.1110	0.02942914	
Bocay(8)	20	13	0.65	0.10	0.0654	0.01011704	
Aréa global del proyecto	109	76	**69.7%**		**71.0%**		

CI=1.9

Ponderación de datos de cada lote para determinar la cobertura general
Madres con niños de 0 a 23 meses con Respiración rápida que fueron atendidos en una Unidad de Salud

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	p
Jinotega(1)	13	7	0.54	0.24	0.1276	0.0561186	
SRN(2)	7	5	0.71	0.07	0.0489	0.00468061	
La Concordia(3)	9	6	0.67	0.03	0.0206	0.00095227	
Yalí(4)	9	4	0.44	0.09	0.0390	0.00771902	
Pantasma(5)	12	8	0.67	0.16	0.1063	0.02540576	
Wiwilí(6)	15	6	0.40	0.14	0.0578	0.0208658	
El Cua(7)	13	7	0.54	0.17	0.0924	0.02942914	
Bocay(8)	13	7	0.54	0.10	0.0542	0.01011704	
Aréa global del proyecto	91	50	**54.9%**		**54.7%**		

CI=1.96

Ponderación de datos de cada lote para determinar la cobertura general
Conocimiento de las madres con niños de 0 a 23 meses que identifican Respiración rápida como señal de peligro de Neumonia

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	32	0.84	0.24	0.1995	0.0561186	
SRN(2)	38	29	0.76	0.07	0.0522	0.00468061	
La Concordia(3)	38	36	0.95	0.03	0.0292	0.00095227	
Yalí(4)	38	30	0.79	0.09	0.0694	0.00771902	
Pantasma(5)	38	28	0.74	0.16	0.1174	0.02540576	
Wiwilí(6)	38	32	0.84	0.14	0.1216	0.0208658	
El Cua(7)	38	25	0.66	0.17	0.1129	0.02942914	
Bocay(8)	38	28	0.74	0.10	0.0741	0.01011704	
Aréa global del proyecto	304	240	**78.9%**		**77.6%**		

CI=1

Ponderación de datos de cada lote para determinar la cobertura general
Cobertura de Inmunizacados en niños de 12 a 23 meses según tarjeta.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	19	15	0.79	0.24	0.1870	0.0561186	
SRN(2)	19	17	0.89	0.07	0.0612	0.00468061	
La Concordia(3)	19	15	0.79	0.03	0.0244	0.00095227	
Yalí(4)	19	16	0.84	0.09	0.0740	0.00771902	
Pantasma(5)	19	18	0.95	0.16	0.1510	0.02540576	
Wiwilí(6)	19	16	0.84	0.14	0.1216	0.0208658	
El Cua(7)	19	13	0.68	0.17	0.1174	0.02942914	
Bocay(8)	19	13	0.68	0.10	0.0688	0.01011704	
Aréa global del proyecto	152	123	**80.9%**		**80.5%**		

CI=1.

Ponderación de datos de cada lote para determinar la cobertura general
Conocimiento de las madres con niños de 0 a 23 meses que identifican al menos dos formas de prevenir el VIH/SIDA

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	7	0.18	0.24	0.0436	0.0561186	
SRN(2)	38	11	0.29	0.07	0.0198	0.00468061	
La Concordia(3)	38	18	0.47	0.03	0.0146	0.00095227	
Yalí(4)	38	3	0.08	0.09	0.0069	0.00771902	
Pantasma(5)	38	4	0.11	0.16	0.0168	0.02540576	
Wiwilí(6)	38	2	0.05	0.14	0.0076	0.0208658	
El Cua(7)	38	5	0.13	0.17	0.0226	0.02942914	
Bocay(8)	38	3	0.08	0.10	0.0079	0.01011704	
Aréa global del proyecto	304	53	**17.4%**		**14.0%**		

CI=

Nota: se toma como correcto tres formas prográmaticas según MINSA, estas son:

Abstinencia sexual, uso de condón y limitación de parejas sexuales/ser mutuamente fiel

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de niños de 0 a 23 meses nacidos al menos 24 meses después del hermano vivo anterior

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	30	0.79	0.24	0.1870	0.0561186	
SRN(2)	38	34	0.89	0.07	0.0612	0.00468061	
La Concordia(3)	38	33	0.87	0.03	0.0268	0.00095227	
Yalí(4)	38	36	0.95	0.09	0.0832	0.00771902	
Pantasma(5)	38	32	0.84	0.16	0.1342	0.02540576	
Wiwilí(6)	38	36	0.95	0.14	0.1368	0.0208658	
El Cua(7)	38	34	0.89	0.17	0.1535	0.02942914	
Bocay(8)	38	28	0.74	0.10	0.0741	0.01011704	
Aréa global del proyecto	304	263	**86.5%**		**85.7%**		

CI=1

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de mujeres con niños de 12 a 23 meses que refieren usar algún método de planificación familiar moderno

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	19	16	0.84	0.24	0.1995	0.0561186	
SRN(2)	19	16	0.84	0.07	0.0576	0.00468061	
La Concordia(3)	19	19	1.00	0.03	0.0309	0.00095227	
Yalí(4)	19	18	0.95	0.09	0.0832	0.00771902	
Pantasma(5)	19	18	0.95	0.16	0.1510	0.02540576	
Wiwilí(6)	19	18	0.95	0.14	0.1368	0.0208658	
El Cua(7)	19	17	0.89	0.17	0.1535	0.02942914	
Bocay(8)	19	17	0.89	0.10	0.0900	0.01011704	
Aréa global del proyecto	152	139	**91.4%**		**90.3%**		

CI=1

Nota1: se considera según normas internacionales métodos de planificación familiar modernos:
Píldoras, Inyectables, Esterilización Quirurgica, Implantes hormonales, DIU, Métodos de barrera.

Nota2: el denominador para éste indicador cambia debido a que no se toman para la medición a las madres que estaban embarazadas en ese momento, que son un total de **13** embarazadas.

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de madres que refieren haberse realizado al menos un control prenatal con medico o enfermera.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	37	0.97	0.24	0.2307	0.0561186	
SRN(2)	38	38	1.00	0.07	0.0684	0.00468061	
La Concordia(3)	38	37	0.97	0.03	0.0300	0.00095227	
Yalí(4)	38	37	0.97	0.09	0.0855	0.00771902	
Pantasma(5)	38	35	0.92	0.16	0.1468	0.02540576	
Wiwilí(6)	38	34	0.89	0.14	0.1292	0.0208658	
El Cua(7)	38	37	0.97	0.17	0.1670	0.02942914	
Bocay(8)	38	29	0.76	0.10	0.0768	0.01011704	
Aréa global del proyecto	304	284	**93.4%**		**93.5%**		

CI=

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de madres de niños de 0 a 23 meses que reportan haber recibido en su brazo la vacuna dT durante su último embarazo.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	36	0.95	0.24	0.2244	0.0561186	
SRN(2)	38	38	1.00	0.07	0.0684	0.00468061	
La Concordia(3)	38	34	0.89	0.03	0.0276	0.00095227	
Yalí(4)	38	35	0.92	0.09	0.0809	0.00771902	
Pantasma(5)	38	34	0.89	0.16	0.1426	0.02540576	
Wiwilí(6)	38	32	0.84	0.14	0.1216	0.0208658	
El Cua(7)	38	36	0.95	0.17	0.1625	0.02942914	
Bocay(8)	38	28	0.74	0.10	0.0741	0.01011704	
Aréa global del proyecto	304	273	**89.8%**		**90.2%**		

CI=

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de madres de niños de 0 a 11 meses que recibieron dos dosis de la vacuna dT durante su último embarazo según su tarjeta de salud.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	12	0.32	0.24	0.0748	0.0561186	
SRN(2)	38	21	0.55	0.07	0.0378	0.00468061	
La Concordia(3)	38	18	0.47	0.03	0.0146	0.00095227	
Yalí(4)	38	15	0.39	0.09	0.0347	0.00771902	
Pantasma(5)	38	14	0.37	0.16	0.0587	0.02540576	
Wiwilí(6)	38	15	0.39	0.14	0.0570	0.0208658	
El Cua(7)	38	12	0.32	0.17	0.0542	0.02942914	
Bocay(8)	38	7	0.18	0.10	0.0185	0.01011704	
Aréa global del proyecto	304	114	**37.5%**		**35.0%**		

CI=

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de madres con niños de 0-11 meses, que refieren haber tenido por lo menos una visita postnatal.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	19	8	0.42	0.24	0.0997	0.0561186	
SRN(2)	19	11	0.58	0.07	0.0396	0.00468061	
La Concordia(3)	19	13	0.68	0.03	0.0211	0.00095227	
Yalí(4)	19	9	0.47	0.09	0.0416	0.00771902	
Pantasma(5)	19	5	0.26	0.16	0.0419	0.02540576	
Wiwilí(6)	19	5	0.26	0.14	0.0380	0.0208658	
El Cua(7)	19	3	0.16	0.17	0.0271	0.02942914	
Bocay(8)	19	3	0.16	0.10	0.0159	0.01011704	
Aréa global del proyecto	152	57	**37.5%**		**32.5%**		

CI=

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de niños 0-23 meses, que su nacimiento fue atendido por personal calificado

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	29	0.76	0.24	0.1808	0.0561186	
SRN(2)	38	33	0.87	0.07	0.0594	0.00468061	
La Concordia(3)	38	29	0.76	0.03	0.0236	0.00095227	
Yalí(4)	38	27	0.71	0.09	0.0624	0.00771902	
Pantasma(5)	38	17	0.45	0.16	0.0713	0.02540576	
Wiwilí(6)	38	12	0.32	0.14	0.0456	0.0208658	
El Cua(7)	38	15	0.39	0.17	0.0677	0.02942914	
Bocay(8)	38	10	0.26	0.10	0.0265	0.01011704	
Aréa global del proyecto	304	172	**56.6%**		**53.7%**		

CI=1

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de madres con niños de 0-23 meses, que conocen al menos 2 signos de enfermedad de la niñez que indican la necesidad de tratamiento.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	36	0.95	0.24	0.2244	0.0561186	
SRN(2)	38	36	0.95	0.07	0.0648	0.00468061	
La Concordia(3)	38	35	0.92	0.03	0.0284	0.00095227	
Yalí(4)	38	34	0.89	0.09	0.0786	0.00771902	
Pantasma(5)	38	34	0.89	0.16	0.1426	0.02540576	
Wiwilí(6)	38	35	0.92	0.14	0.1330	0.0208658	
El Cua(7)	38	34	0.89	0.17	0.1535	0.02942914	
Bocay(8)	38	31	0.82	0.10	0.0821	0.01011704	
Aréa global del proyecto	304	275	**90.5%**		**90.7%**		

CI=

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de niños de 6 a 9 meses que recibieron lactancia y comida complementaria durante las últimas 24 horas.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	10	6	0.60	0.24	0.1421	0.0561186	
SRN(2)	6	6	1.00	0.07	0.0684	0.00468061	
La Concordia(3)	6	4	0.67	0.03	0.0206	0.00095227	
Yalí(4)	6	5	0.83	0.09	0.0732	0.00771902	
Pantasma(5)	7	6	0.86	0.16	0.1366	0.02540576	
Wiwilí(6)	5	5	1.00	0.14	0.1444	0.0208658	
El Cua(7)	7	4	0.57	0.17	0.0980	0.02942914	
Bocay(8)	6	5	0.83	0.10	0.0838	0.01011704	
Aréa global del proyecto	53	41	**77.4%**		**76.7%**		

CI=1

Ponderación de datos de cada lote para determinar la cobertura general

Porcentaje de niños de 12 a 23 meses que recibieron vacuna de MMR.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	19	15	0.79	0.24	0.1870	0.0561186	
SRN(2)	19	17	0.89	0.07	0.0612	0.00468061	
La Concordia(3)	19	16	0.84	0.03	0.0260	0.00095227	
Yalí(4)	19	16	0.84	0.09	0.0740	0.00771902	
Pantasma(5)	19	18	0.95	0.16	0.1510	0.02540576	
Wiwilí(6)	19	16	0.84	0.14	0.1216	0.0208658	
El Cua(7)	19	13	0.68	0.17	0.1174	0.02942914	
Bocay(8)	19	13	0.68	0.10	0.0688	0.01011704	
Aréa global del proyecto	152	124	**81.6%**		**80.7%**		

CI=1

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de niños de 0 a 23 meses que recibieron incremento de liquidos y continuaron la alimentación durante una enfermedad en las últimas dos semanas.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	20	3	0.15	0.24	0.0355	0.0561186	
SRN(2)	12	3	0.25	0.07	0.0171	0.00468061	
La Concordia(3)	16	2	0.13	0.03	0.0039	0.00095227	
Yalí(4)	16	3	0.19	0.09	0.0165	0.00771902	
Pantasma(5)	19	4	0.21	0.16	0.0336	0.02540576	
Wiwilí(6)	27	4	0.15	0.14	0.0214	0.0208658	
El Cua(7)	21	2	0.10	0.17	0.0163	0.02942914	
Bocay(8)	27	0	0.00	0.10	0.0000	0.01011704	
Aréa global del proyecto	158	21	**13.3%**		**14.4%**		

CI=1

Ponderación de datos de cada lote para determinar la cobertura general
Porcentaje de madres con niños de 0 a 23 meses quienes reportaron que lavan sus manos con jabón antes de la preparación de la comida antes de alimentar a niños, despues de la defecación y despues de atender a un niño que ha defecado.

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	5	0.13	0.24	0.0312	0.0561186	
SRN(2)	38	4	0.11	0.07	0.0072	0.00468061	
La Concordia(3)	38	7	0.18	0.03	0.0057	0.00095227	
Yalí(4)	38	4	0.11	0.09	0.0092	0.00771902	
Pantasma(5)	38	2	0.05	0.16	0.0084	0.02540576	
Wiwilí(6)	38	6	0.16	0.14	0.0228	0.0208658	
El Cua(7)	38	5	0.13	0.17	0.0226	0.02942914	
Bocay(8)	38	1	0.03	0.10	0.0026	0.01011704	
Aréa global del proyecto	304	34	**11.2%**		**11.0%**		

CI=1

Nota: La Prevalencia se muestra como porcentaje pero en las celdas están

Ponderación de datos de cada lote para determinar la cobertura general

Porcentaje de niños de 0 a 23 meses que durmieron bajo un mosquitero impregnado la noche anterior

LOTE	n_i	x_i	x_i/n_i	w_i	$w_i*(x_i/n_i)$	w_i^2	
Jinotega(1)	38	10	0.26	0.24	0.0623	0.0561186	
SRN(2)	38	15	0.39	0.07	0.0270	0.00468061	
La Concordia(3)	38	14	0.37	0.03	0.0114	0.00095227	
Yalí(4)	38	10	0.26	0.09	0.0231	0.00771902	
Pantasma(5)	38	7	0.18	0.16	0.0294	0.02540576	
Wiwilí(6)	38	7	0.18	0.14	0.0266	0.0208658	
El Cua(7)	38	12	0.32	0.17	0.0542	0.02942914	
Bocay(8)	38	8	0.21	0.10	0.0212	0.01011704	
Aréa global del proyecto	304	83	**27.3%**		**25.5%**		

CI=1

Nota: La Prevalencia se muestra como porcentaje pero en las celdas están

H. KPC Cost Information

Project HOPE Jinotega
Supervivencia Infantil
Encuesta KPC a madres con niños menores de dos años
Reporte de Gastos Ejecutados
Marzo, 2005

Rubros	Gastos C$	TC	Gastos U$
1. Capacitación (Taller LQAS, Encuestas KPC)			
1.1. Alimentación	9,708.00	16.465	589.61
1.2 Materiales y Suministros de oficina	0.00	16.465	-
1.3. Compensación a personal externo	8,580.00	16.465	521.11
Sub Total	**18,288.00**	16.465	**1,110.72**
2. Recolección de Información (Encuesta)			
2.1 Suministros de Oficinas (Tonner, Reproducción de cuestionarios)	3,500.00	16.465	212.57
2.2. Equipamiento (Mochilas, focos, batería para homecue, tallímetros)	4,982.01	16.465	302.58
2.3. Viáticos alimentación, alojamiento, pago alquiler bestias y baquéanos	22,605.00	16.465	1,372.91
2.4. Pago a Participantes Externos	8,041.30	16.465	488.39
2.5. Transporte (Combustible, aceite, reparación llantas)	14,555.17	16.465	884.01
Sub total	**53,683.48**		**3,260.46**
Total	**C$ 71,971.48**		**4,371.18**

Annex G. Project Data Sheet

Annex G. Project Data Sheet

Child Survival and Health Grants Program Project Summary

Oct-06-2005

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General Project Information:

Field Program Manager Information:

Name: Francisco Torres Address: Project HOPE/Nicaragua
Managua , Nicaragua Phone: 011-505-278-0116, 270 31 24 E-mail: hopenic1@cablenet.com.ni

Alternate Field Contact:

Name: Alejandro Soza Address: Colonia Los Robles No. 72 De la Funeraria
Managua , Phone: 011-505-270-3124 E-mail: hopenic2@cablenet.com.ni

Funding Information:

USAID Funding:(US $): PVO match:(US $)

Project Information:

Description:

Project Partners:
SILAIS Jinotega

General Strategies Planned:

Private Sector Involvement Strengthen Decentralized Health System Information System Technologies

M&E Assessment Strategies:

KPC Survey Health Facility Assessment Organizational Capacity Assessment with Local Partners Organizational Capacity Assessment for your own PVO Lot Quality Assurance Sampling Participatory Evaluation Techniques (for mid-term or final evaluation)

Behavior Change & Communication (BCC) Strategies:

Interpersonal Communication Peer
Communication Support Groups

Groups targeted for Capacity Building:

PVO	Non-Govt Partners	Other Private Sector	Govt	Community
Field Office HQ CS Project Team	(None Selected)	Business	Dist. Health System Health Facility Staff	CHWs

Interventions/Program Components:

Immunizations (7 %)

(IMCI Integration)

Nutrition (13 %)

(IMCI Integration) (CHW Training)
-Comp. Feed. from 6 mos.
-Growth Monitoring
-Maternal Nutrition

Pneumonia (10 %)

(IMCI Integration) (CHW Training)
-Pneum. Case Mngmnt.
-Access to Providers Antibiotics
-Recognition of Pneumonia Danger Signs

Control of Diarrheal Diseases (15 %)

(IMCI Integration) (CHW Training)

-Hand Washing
-ORS/Home Fluids
-Feeding/Breastfeeding
-Case Mngmnt./Counseling

Maternal & Newborn Care (30 %)

(IMCI Integration) (CHW Training)
-Recog. of Danger signs
-Newborn Care
-Post partum Care
-Delay 1st preg Child Spacing
-Normal Delivery Care
-Birth Plans
-Emergency Transport

Child Spacing (10 %)

(IMCI Integration) (CHW Training)
-Child Spacing Promotion

Breastfeeding (10 %)

(IMCI Integration) (CHW Training)
-Promote Excl. BF to 6 Months
-Intro. or promotion of LAM

HIV/AIDS (5 %)

(CHW Training)

Target Beneficiaries:

Infants < 12 months:	8,101
Children 12-23 months:	8,149
Children 0-23 months:	16,250
Children 24-59 months:	43,781
Women 15-49 years:	70,827
Population of Target Area:	254,192

Rapid Catch Indicators:

Indicator	Numerator	Denominator	Percentage	Confidence Interval
Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)	18	304	5.9%	2.7
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	263	304	86.5%	3.8
Percentage of children age 0-23 months whose births were attended by skilled health personnel	172	304	56.6%	5.6
Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of their youngest child	114	304	37.5%	5.4
Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours	31	76	40.8%	11.0
Percentage of infants age 6-9 months receiving breastmilk and complementary foods	41	53	77.4%	11.3
Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	123	152	80.9%	6.2
Percentage of children age 12-23 months who received a measles vaccine	124	152	81.6%	6.2

Percentage of children age 0-23 months who slept under an insecticide-treated bednet the previous night (in malaria-risk areas only)	83	304	27.3%	5.0
Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment	275	304	90.5%	3.3
Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks	21	158	13.3%	5.3
Percentage of mothers of children age 0-23 months who cite at least two known ways of reducing the risk of HIV infection	53	304	17.4%	4.3
Percentage of mothers of children age 0-23 months who wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated	34	304	11.2%	3.5

Comments for Rapid Catch Indicator

Annex H. Key Indicators

Annex H. Key Indicators

List of Key Results Indicators with Final Benchmarks
Child Survival Project in Jinotega – Project HOPE/Nicaragua

No.	Indicator	Baseline (2003)	Mid-term (2005)	Original Final Targets	Revised Final Target (2007)
1.	% of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse	89%	94%	95%	maintain coverage
2.	% of children aged 0-23 months old whose birth was attended by a doctor or nurse	51%	54%	60%	65%
3.	% of mothers who report having had at least one postpartum visit	32%	33%	45%	45%
4.	% of children aged 0-23 months, weighed in the last four months according to growth monitoring card	68%	86%	91%	90%
5.	% of children aged 0-23 months old with satisfactory growth according to weight for age (<2Z)	92%	93%	92%	maintain coverage
6.	% of children aged 0-23 months old with out anemia. Hb > 11 mg/dl	58%	53%	70%	70%**
7.	% of children aged 0- 23 months old who were breastfed within the first hour after birth	68%	71%	75%	80%
8.	% of infants aged 0-5 months who received only breast milk in the past 24 hours	56%	52%	70%	70%
9.	% of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child	46%	45%	55%	60%
10.	% of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	69%	71%	80%	80%
11.	% of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheas episode.	36%	53%	50%	50%
12.	% of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	19%	11%	35%	30%
13.	% of mothers of who can identify at least two dehydratation signs for diarrhea	27%	17%	35%	40%
14.	% of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit	60%	55%	85%	75%
15.	% of mothers who identify fast breathing as a danger sign of pneumonia	76%	78%	85%	90%
16.	% of children aged 12 to 23 months old that were born at least 24 months after previous surviving child*	84%	86%	90%	maintain coverage
17.	% of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method*	65%	90%	70%	85%

** The achievement of this final benchmark will be subject to the availability and distribution of iron in Jinotega, as well as the application of the norm for treatment and prevention, counseling through PROCOSAN, and the intake of locally available foods reach in iron.