CARE NICARAGUA

Child Survival XIV

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FINAL EVALUATION

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ACRONYMS

Acronym	Meaning
BHR/PVC	Bureau of Humanitarian Assistance/Private Voluntary Cooperation
BF	Breast feeding
CDC	Community development committee
CHW	Community health worker
CMC	Community movement council
CS	Child Survival
GM	Growth monitoring
HQ	CARE headquarters in Atlanta
IEC	Information, Education, Communication
IMCI	Integrated management of childhood illness
IPPF	International Planned Parenthood Federation
KPC	Knowledge, practice, and coverage survey
MOH	Ministry of Health
MINSA	Ministry of Health
MSH	Management Sciences for Health
NGO	Non-governmental Organization
ORS	Oral rehydration solution
PAHO	Pan-American Health Organization
PVO	Private voluntary organization
Q of C	Quality of care
RH	Reproductive health
SILAIS	Regional MOH administrative unit
USAID	US Agency for International Development

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A. Summary

A.1 Program Description

The overall goal of CARE/Nicaragua's Child Survival (CS) Project is to contribute to the reduction of infant and child morbidity and mortality within the municipality of Matagalpa, Nicaragua. Project goals are to improve the capacity of MOH health personnel in community outreach and provision of quality services, including health education; empowerment of communities to organize, analyze health and nutrition problems, and seek feasible solutions; and enabling families to practice healthy behaviors, to identify and resolve health risks, and to have access to quality services.

The target area for the project consists of 94 communities and urban neighborhoods in the municipality of Matagalpa, located in the central region of Nicaragua. Approximately 8,540 children age 0-23 months are beneficiaries of project interventions. Project interventions include: pneumonia case management, control of diarrheal disease, nutrition and micronutrients, and breastfeeding promotion. General project strategies include: joint implementation between CARE and the MOH, integrated management of childhood illnesses (IMCI), community outreach, service provision by community health workers, health education in schools, home food production, certification of baby friendly health units, establishment of Base Houses for distribution of ORS, chlorine and acetaminophen, evaluation of sick children and referrals, and management of community census information.

A.2 Program Accomplishments

Key achievements of CARE's CS Project include the implementation of child survival activities in 94 communities and urban neighborhoods, support of community health activities by 366 CHWs, joint implementation of activities is on-going with 15 MOH health posts with staff trained in IMCI and quality of care, participation of 64 schools. Over 42,000 women and children are benefiting from primary health care interventions.

Important results in the area of sustainability include improved linkages between communities and the MOH, institutionalization of quality of care assessments at MOH health posts, formal agreements between the MOH and the MED to continue providing health education in schools, and the formation of a savings and loan cooperative to continue providing credit to families for commercial and agricultural endeavors. Fourteen of the 15 health posts in the municipality of Matagalpa implement clinical IMCI, community outreach, referral and counter-referral systems, and information systems. Accreditation by UNICEF as Baby and Mother Friendly Health Units was awarded to all the health posts and the Municipal Policlinic.

Each health post undertakes quarterly quality assessments and make action plans to address problem areas. Ninety-seven communities have functioning Base Houses, 94 manage referral and counter referral systems, 84 meet monthly with the health post to plan and evaluate activities, and 51 implement the AIN growth monitoring system. The

new *Survival Savings and Loan Cooperative* is beginning with a fund of $US 11,000, with 150 members, 21 loans have been given and 51 communities are represented. The CS Project has developed an excellent relationship with MOH municipal and health post services, and progress has been made in strengthening quality of care at health facilities. Capacity building for CARE and the MOH has been significant, and both institutions are making valuable contributions to child survival in Nicaragua.

A.3 Highlights

Nutrition and Micronutrients

The Project's strategy to ameliorate nutritional status was successful and included complementary activities such as community growth monitoring nutrition education and counselling; improvement of breastfeeding practices through women's support groups; and improving access to food through home food production, micro credit for seeds, plants and fertilizer, and training in home financial management.

A comparison of data from the Baseline Knowledge, Practice and Coverage Survey (KPC) in 1999 and the Final Survey in 2002 show that families with home food production increased from 33.8% to 40.1%. There was a dramatic increase in the number of children under two years of age who were fed five times a day, from 3.5% to 37.6%, indicating that the AIN[1] growth monitoring and counseling strategy was extremely successful. Regarding possession of the child growth cards, the 1999 KPC indicates that 84.9% of children had cards, and of these 70.9% had been weighed at least once in the last 4 months. These figures improved significantly by 2002, when almost all children had a card (95%) and the majority (81%) had been weighed at least twice in the last 6 months. A comparison of the baseline and final KPC Surveys show positive changes in child feeding practices: giving tea to children decreased from 40% to 32.8%; use of powdered milk was reduced from 54.7% to 45.5%; consumption of soy products increased from 12.7% to 24.4%; and incorporation of green leaves in the diet increased from 3.3% to 14.7%.

Breastfeeding Promotion

The findings show that the CS Project's approach to promote breastfeeding has been effective in increasing both exclusive and prolonged breastfeeding among mothers of children less than two years of age. KPC data show that exclusive breastfeeding and continued breastfeeding increased significantly by 20% and 18% respectively. Regarding immediate breastfeeding within one hour after delivery, the KPC data show an increase of 20% (from 54.3% to74.2%). A comparison of mothers with children under two years of age who were breastfeeding at the time of the KPC shows an increase from 56.8% (n=158) to 76.6% (n=223), a dramatic change over the three year period, considering the penchant for bottle feeding the in project area. Although the final KPC shows an increase in the percentage of women who discontinued breastfeeding before their child reached 4 months of age, there was a decrease in the real numbers of women as follows: in 1999 45

[1] AIN: Atención Integral a la Niñez (Integrated Child Care)

out of 120 women discontinued breastfeeding, as opposed to 27 out of 68 in 2002. For women who discontinued breastfeeding when their child was between 4 and 6 months of age, the data show a significant decrease, from 34.2% to 22%.

Pneumonia Case Management

The combined efforts of CARE and the MOH to improve the quality of care at health centers, coupled with IMCI training for all MOH technical personnel and monitoring of community case management and referrals were key factors in the achievement of the PCM objectives. Data from the final KPC indicate that 84.9% of mothers seek appropriate medical treatment for children with rapid or difficult breathing, an increase of 15.9% as compared to the baseline, and exceeding the Project's goal of 80%. Mothers' knowledge regarding two danger signs of pneumonia increased dramatically from 2.4% to 54.5%. The final KPC Survey shows that a majority of mothers (80.9%) recognized rapid and difficult breathing as a danger sign, an improvement of 26.2% since the baseline (54.7%). Knowledge levels improved significantly for the following danger signs: intercostal retraction (from 8.7% to 20.7%), fever (15.3% to 37.8%), and coughing (from 18% to 41.1%).

Control of Diarrheal Disease

Activities in CDD form an integral part of the IMCI strategy currently being implemented as part of MOH policy in Nicaragua. The CS Project focused on improving both clinical and home management of diarrhea cases, with the provision of ORS and chlorine tablets through community Base Houses. The results from the KPC Survey show increases for all the Control of Diarrhea Disease (CDD) objectives, indicating that project strategies were effective. There was a significant decrease in the number of mothers who gave less food or withhold food during diarrhea episodes, from 39% to 9.3%, far exceeding the goal of 15%. The number of children with diarrhea during the two weeks prior to the survey that received more liquids increased by 14.7% (from 24% to 34.7%), however fell short of the project goal of 50%. Regarding the number of mothers who can list 3 signs of dehydration and 2 signs of severe diarrhea, percentages rose by 16% and 67% respectively, a dramatic change from the baseline figure of 2.1%.

A.4 Conclusions

One of the outstanding achievements of CARE's CS Project has been the development of public health leadership in the community, in the Municipal Ministry of Health and within CARE Matagalpa. The leadership style of the CARE/MOH CS Team was characterized by a commitment to service. Service leaders "somehow know that opportunities for recognition, esteem and actualization are the most powerful motivators

for people working at their productive and creative best"[2]. The example set by the CS Team enabled continuous improvement and innovation through a selfless commitment to seeing co-workers from different disciplines as knowledge resources. Team leaders at the MOH and CARE approached project management holistically, maximizing the combined talents of project staff, MOH counterparts, schoolteachers and students, and communities. The success of CARE's CS Project is largely due to the actions of dedicated staff that helped others adopt positive values and new health behaviors through the dynamic force of example.

The CARE CS Project has achieved its objectives in a spirit of enthusiasm and dedication, in a country recovering from decades of autocratic dictatorship, a devastating civil war and a catastrophic hurricane. Both MOH and CARE staff embodied a resoluteness won from the dire hardships of the past decades in Nicaragua. Most had lost family members, friends and colleagues. In spite of this, MOH nurses and physicians and CARE supervisors and extension agents were out in the communities living with present moment awareness and totally engaged in the mission of saving lives.

[2] Schwahn and & Spady, Total Leaders: Applying the Best Future-Focused Change Strategies to Education, Doubleday, 2001.

B. Assessment of Results and Impact of the Program

B.1 Summary of KPC Results

PROJECT OBJECTIVES	Goal	KPC February 1999	KPC August 2002
Nutrition & Micronutrients (35%) 1. Increase the number of children age 0-23 months weighed in the previous 4 months.	80	60	81
2. Increase from 3.5% to 20% the children between 1 and 5 years who are offered food 5 times a day.	29	3.5	37.6
3. 30% of families with children under 5 eating new foods (fruits, vegetables, proteins).	30	0	N/A
4. Increase from 33% to 50% the families with children under 5 who produce some food in their yard.	50	33	40.1
5. Increase from 10% to 30% the children under 5 who are offered Vitamin A-rich food 3 times a week.	30	10	53.8
6. Decrease the number of families that have no food in the house around noon on Saturday	0	8	14
Breastfeeding Promotion (25% of Effort) 1. Increase the number of mothers who exclusively breastfeed for the first 6 months	30	10	50.8
2. Increase the number of mothers who continue breastfeeding their child between 12 and 24 months.	50	14.5	68.7
3. Reduce the number of mothers who discontinue breastfeeding before 3 months of age.	20	36	39.7
Pneumonia Case Management (20% Effort) 1. Increase from 69% to 80% those who seek medical care for a child with rapid or difficult breathing.	80	69	84.9
2. Increase from 2.4% to 50% the mothers who can describe 2 signs of pneumonia.	50	2.4	54.5
3. Increase 20% over baseline the number of children under 5 diagnosed with pneumonia that receive their antibiotic from MINSA	N/A	N/A	N/A
4. Decrease from 56% to 46% the number of families with children under 5 cooking over a wood fire.	46	56	64.9
Diarrhea Case Management (20% Effort) 1. Decrease from 39% to 15% the number of mothers who give less food or withhold food during diarrhea episode.	15	39	9.3
2. Increase the number of children that receive more liquids during the two weeks prior to the survey	50	24	38.7
3. Increase from 2.1% to 40% the mothers who can list 3 signs of dehydration and 2 of severe diarrhea.	40	2.1	18.1(1) 69.2(2)

(1) Dehydration (2) Severe Diarrhea

B.2 Results: Technical Approach

B.2.a Overview

CARE Nicaragua implemented a four-year Child Survival (CS) project in the municipality of Matagalpa in north-central Nicaragua in conjunction with the Municipal level Ministry of Health (MINSA), from October 1998 to September 2002. The purpose of the project was to:

1. Improve the capacity of the Ministry of Health personnel in community outreach, and delivery of quality services, including health education;
2. Empower communities to organize, analyze health and nutrition problems, and seek solutions; and
3. Enable families to practice healthy behaviors, identify and resolve health risks, and access quality services.

The initial target area consisted of 70 rural communities and urban neighborhoods in the Municipality of Matagalpa. Implementation increased to 150 communities by the end of the second year of the project in order to reach the number of beneficiaries indicated in the Detailed Implementation Plan (DIP). During the Mid-Term Evaluation (MTE) a set of criteria was used to reduce the number of communities to allow for effective interventions on behalf of the MOH and CARE Extensionists. A total of 94 communities were selected based on the number of children under two years of age and the commitment of the community to work with the CS Project. Activities were centralized in the larger communities and included mothers and children from smaller villages. Approximately 24,210 children age 0-59 months were beneficiaries of project interventions. Project intervention included: 1) pneumonia case management (20%), 2) control of diarrheal disease (20%), 3) nutrition and micronutrients (35%), and 4) promotion of breastfeeding (25%). Following is a brief description of the general project strategies.

Joint Implementation Between CARE and the MOH

The CS Project called for joint planning, implementation and evaluation of activities between CARE and the MOH designed to strengthen the municipal health system. Principal activities included: assessments of quality of care provided by the Municipal Policlinic and Health Posts; training of MOH physicians, nurses and auxiliary nurses in IMCI, rational use of antibiotics, and supervision; training and supervision of CHWs; strengthening of referral and reporting systems; training in IEC strategies focused on adult education techniques; and collection and use of qualitative and epidemiological data for program planning and decision-making.

Integrated Management of Childhood Illnesses (IMCI)

The main strategy for improving prevention and treatment of childhood illnesses was the implementation of community and clinical IMCI, which has been adopted by the central MOH as part of the national protocol. Matagalpa Department was chosen as one of two

pilot sites for the initiation of IMCI in Nicaragua. IMCI activities included: training of MOH physicians and nurses in IMCI protocols; formation of Community Base Houses where children could receive evaluation and treatment based on the IMCI approach; and training of CHWs to use IMCI classification guidelines and to refer patients according to the protocols; reproduction of IMCI materials developed by Pan American Health Organization (PAHO) and field tested in other Latin American countries.

Community Outreach

A significant effort of the project was to strengthen linkages between communities and health services. Community outreach activities included: training of volunteers in Base House functioning and IMCI protocols; organization of monthly growth monitoring sessions with assistance of community volunteers; formation of breastfeeding support groups; and training and implementation of home food production through garden promoters. The relationship between communities and health posts was strengthened through monthly planning and supervision meetings.

Service Provision by Community Health Workers

Community outreach efforts were complemented by a program of training, supervision and accompaniment of community volunteers by MOH auxiliary nurses with support from CARE Extensionists. Volunteer personnel carried out activities in growth monitoring, breastfeeding promotion, and CDD and PCM based in the IMCI approach. At project start-up there were approximately 292 volunteer CHWs called *brigadistas* in the municipality, but many were not active. The CS Project focused on improving supervision and competency based training to build the capacity of CHWs in provision of basic services and education in the communities. CARE assisted the MOH to define the functions of volunteers, conduct training needs assessments, and implement training and supervision programs with the intent of creating a cadre of well-trained, active volunteers.

Establishment of Community Base Houses

The CS Project planned to strengthen and expand child survival services through Base Houses in each community, as a strategy to improve coverage of CDD activities, evaluation and follow up of sick children based on the IMCI approach, and referral and counter-referral. Base House volunteers are responsible for preparing a map and doing a community census to identify all children under five years of age and pregnant and lactating women. The Base House is the focal point for local health activities such as the AIN weighing sessions, meeting of breastfeeding support groups and Integrated Municipal Visits.

Baby Friendly Hospitals

The MOH asked CARE to assist them in achieving Baby-Friendly Health Unit status, a take-off program from UNICEF's Baby-Friendly Hospital Initiative, which certifies health units that meet criteria for promotion of exclusive breast-feeding. This involved

training MOH staff, recruiting and training breast-feeding counselors, starting mother-to-mother support groups in the *barrios* and communities, and in advocating for policy changes within the health units.

Health Education in Schools

CARE and the MOH developed a strategy to train at least one primary school teacher in each community, who trains other teachers in simple health and nutrition messages for children. The action-oriented messages focused on healthy behaviors that children could practice at home with younger siblings or demonstrate to parents.

Community Development Committees

CARE and the MOH planned to work with Community Movement and the Ministry of Social Action to integrate health into the community organizations (CDCs) they have formed. The CS project planned to teach these committees how to collect and analyze data on local health problems and assist them in making plans to solve these problems. The community development committees were to implement health promotion activities at the community level, using the "Base Houses" as a focal point for activities.

Home Food Production

This strategy was implemented to foster the introduction of new foods into the diet. Agriculture Promoters trained and helped families grow fruits and vegetables in their patios to increase the consumption of Vitamins A and C and iron. Laying hens were given to families to increase the use of eggs and as an income generation strategy. A CARE agricultural Extensionist trained community garden promoters in home garden practices, using containers such as old tires, buckets and other recipients as planters in homes without a garden.

Community Medicine Chests

The CS Project increased access to basic medicines for treatment of common health problems through the establishment of community medicine chests on a pilot basis. The CMCs function through a revolving fund that generates resources for re-supply and a small profit. CMC volunteers receive training in the prescription of essential medicines through a methodology developed by PAHO. Only volunteers who pass the final exam are permitted to manage a CMC. OXFAM Belgium has been promoting CMCs in Nicaragua for several years, however during the last Government of Nicaragua (GON) administration, legislation regarding medications and pharmacies prohibited the functioning of CMCs. The new government is in the process of reviewing the CMC strategy and has a favourable position to revoking the former legislation.

B.2.b. Progress Report by Intervention Area

NUTRITION & MICRONUTRIENTS

(i) Comparison of Baseline and Final Evaluation Surveys

PROJECT OBJECTIVES	Goal	KPC February 1999	KPC August 2002
Nutrition & Micronutrients (35%) 1. Increase the number of children weighed in the previous 4 months.	80	60	81
2. Increase from 3.5% to 20% the children between 1 and 5 years who are offered food 5 times a day.	29	3.5	37.6
3. 30% of families with children under 5 eating new foods (fruits, vegetables, proteins).	30	N/A	N/A
4. Increase from 33% to 50% the families with children under 5 who produce some food in their yard.	50	33	40.1
5. Increase from 10% to 30% the children under 5 who are offered Vitamin A-rich food 3 times a week.	30	10	53.8
6. Decrease the number of families that have no food in the house around noon on Saturday	0%	8	14

Although global nutritional status has improved over the past 3 years (weight for age), chronic malnutrition has worsened (height for age). Immediate causes of malnutrition are inadequate food intake coupled with a high prevalence of infectious diseases, particularly diarrheal disease and respiratory infections, with two-week prevalence rates of 25% and 44% respectively (KPC 2002). Contributing causes include: insufficient food; food distribution practices in the home; a lack of time to prepare frequent meals for children; poor access to health services; lack of potable water and sanitation; insufficient education and information; and inadequate breastfeeding and complementary feeding practices.

The baseline and final KPC surveys included anthropometric measurements of 300 and 299 children respectively age 0-23 months. A comparison of the results shows a reduction in global malnutrition from 24.7% to 6% (>= –2 SD). Data for children with chronic malnutrition shows an increase from 5.0% to 20%(>=-2SD). (See **Annex D** for the final KPC report, which includes anthropometric data for 1999 and 2002.)

The Project's strategy to ameliorate nutritional status included: community growth monitoring, nutrition education and counselling, institutionalisation of the AIN[3] methodology as part of the MOH system; improvement of breastfeeding practices through women's support groups; and improving access to food through home food

[3] Atención Integral a la Niñez (Integrated Child Care)

production, micro credit for seeds, plants and fertilizer, and training in home financial management.

The AIN approach was used to implement community growth monitoring in concert with the MOH. CARE Extentionists, Rural Auxiliary Nurses (RAN) and CHWs were trained in the AIN methodology and in nutritional counselling based on the growth pattern of each child. Currently 51 rural communities and/or urban neighbourhoods are implementing the AIN weighing system, which includes a baseline census, weighing, charting, preparation of a summary sheet with nutrition indicators, and counselling the mother In light of the improvement in project objectives and the reduction in global malnutrition rates, it is evident that this strategy has been effective in increasing mothers' knowledge of sound nutritional practices.

The MOH provides one capsule of Vitamin A every six months for children over six months of age, as part of the vaccination program. Home production of foods rich in beta-carotene such as papaya, cantaloupe, and mangos was promoted, and families were encouraged to give these fruits to their children. Provision of laying hens to families improved access to eggs, which increased Vitamin A and protein in the diet. Improved registration systems assisted CS staff and the MOH to track coverage rates for the Vitamin A supplementation program. Educational sessions promoted use of foods high in Vitamin C and iron.

Provision of Vitamin A, as registered on child growth cards improved during the CS Project. The administration of the first doses increased from 40.9% to 62.7% and the second from 9.1% to 22.5%. Regarding iron supplements 17.2% were registered for the first doses and 4.2% for the second at the time of the final evaluation. Baseline data is not available on this indicator. Although it is MOH procedure to provide iron supplements to each child for four consecutive months before he/she completes one year of age, the supplements either are not given or not registered on the growth cards.

Families with home food production increased from 33.8% to 40.1%. New foods that were introduced include: fruit (maracuya, granadilla, mango, papaya), soy products, and green and leafy vegetables. Although KCP data were not available, interviews with mothers during the Final Evaluation showed that most families have incorporated new foods into the diet. There was a dramatic increase in the number of children under two years of age who were fed five times a day, from 3.5% to 37.6%, indicating that the AIN growth monitoring and counseling strategy, combined with the Linkages materials developed through PROCOSI-Bolivia regarding complementary feeding was extremely successful.

The Linkages methodology includes an educational flip chart and training for health workers in application of the ORPA methodology with mothers. ORPA is an educational process for creating awareness and taking action, which the AED Linkages Project applied to nutrition education for rural women in Bolivia. The first step in an educational session is to observe flip charts, drawings or pictures. The next step is to reflect on the meaning of the

visual aids. The following step is "personalization", which involves talking about how each participant would behave in a similar situation. The final step is a discussion on the adoption of ideal practices. After the ORPA session, the facilitator presents the basic educational messages to the group.

A comparison of the baseline and final KPC Surveys show the following positive changes in child feeding practices: giving tea to children decreased from 40% to 32.8%; use of powdered milk was reduced from 54.7% to 45.5%; consumption of soy products increased from 12.7% to 24.4%; and inclusion of green leaves increased from 3.3% to 14.7%.

Regarding possession of the child growth cards, the 1999 KPC indicates that 84.9% of children had cards, and of these 70.9% had been weighed at least once in the last 4 months. These figures improved significantly by 2002, when almost all children had a card (95%) and the majority (81%) had been weighed at least twice in the last 6 months.

The CS Project initially planned to expand community feeding centers through the NGO "Community Movement" and others, as a means of teaching mothers positive deviant practices. The Feeding Centers function as day care centers, therefore mothers were not present to receive education in nutritional practices. The Centers are managed by several local NGOs, food was not always available, cleanliness was lacking, and the MOH felt that it was not feasible to implement AIN through the Centers.

(ii) Factors Affecting Achievement of Program Objectives

The achievement of the nutrition objectives was enhanced by the implementation of the AIN methodology in 51 project communities. As mentioned above, visual materials developed by Linkages with pictures of bowls and spoons showing the quantity of food required based on the age of the child were reproduced and included in community educational materials. Health personnel, CARE Extensionists, and CHWs were trained in growth monitoring and nutrition counseling. CHWs made follow-up visits to families with children who were not gaining weight, often in the company of the CARE Extensionist or the RAN. The importance of keeping the child growth card is stressed by the MOH, and parents are required to present the card as a requirement for consultations at the health center. Improvements of Vitamin A coverage for children age 12-23 months was enhanced by including administration of capsules as part of the MOH immunization program.

Demonstrations were given in each community by CHWs and Extensionists to teach mothers how to prepare Vitamin A and iron rich foods. Monthly growth monitoring enabled CHWs and mothers to assess children's growth tendencies and assist families to take corrective actions along with improved feeding practices using fruits, green leaves and soy products. The consumption of chicken and eggs increased due to the micro-credit program, and home gardens now produce a variety of fruits and vegetables year round. The use of soy became more popular among project families due to cooking demonstrations, promotion of foods made from soy products at local fairs, classes for school children on nutrition, and promotion of soy during school events.

Following is a summary of the findings gleaned from interviews during the Final Evaluation regarding nutritional improvement.

- CHWs completed all the recommended activities for the promotion of home food production.
- Many men participated as garden promoters and through this activity began to function as health volunteers.
- Children are eating food produced in the gardens.
- Some families sell extra produce and buy other foods with the money.
- Families learned how to make organic fertilizer.
- A cooperative was formed to provide credit to families who want to continue with home food production.
- Agricultural promoters trained in the CS Project are now working with other projects.
- Non-traditional irrigation mechanisms, such as drip systems, were implemented.

(iii) Contributing Factors for Objectives Not Fully Achieved

There has been improvement in the nutrition indicators as compared to the baseline, except in the case of families who have food in the house after marketing on Saturday. The percentage of families that had no food on Saturday afternoon increased from 8% to 14%, indicating that in spite of the CS Project interventions, the situation of poverty and food insecurity has increased in the municipality of Matalgapa. Many of the coffee growing municipalities have been hard hit by the drop in international coffee prices—from $US 75 per 100 pound bag to $35 in the year 2000. Princes have not improved during the last two years, causing many rural families to move to the larger towns and seek work in the informal sector or as day laborers.

Following are some areas that could be improved regarding the food security component, that were discussed during the Final Evaluation analysis workshop.

- Agriculture Promoters did not have enough educational materials regarding poultry production, pest management, and technical aspects of fruit and vegetable production.
- There was a lack of technical assistance for pest management.
- Mothers mentioned becoming discouraged with home food and poultry activities after having all their produce or chickens stolen by petty neighborhood thieves.
- Families did not receive support to make chicken coops, which may have prevented theft in some cases.
- Some of the families thought that seeds, plants and poultry were free of charge and therefore did not manage revolving funds.
- Limited access to water resulted in a lack of sufficient irrigation for home gardens.
- A diagnosis was not done to determine which families and which areas would have the most success with food security interventions.
- New emergency projects enter the communities and start giving things for free, and this erodes the empowerment focus developed during the past 4 years by the CS Project.

(iv) Lessons Learned

- Using nutrition as an entry point for IMCI implementation serves as a base for promoting additional behaviors and practices to enhance child survival. The AIN model, implemented in 51 communities served as a platform for the development of the other project interventions.
- It is important to provide counseling to mothers whose child is not gaining weight in privacy and with a certain amount of tact, so that she will not feel intimidated.
- Home food production can be a successful means to improving food security if families and communities are selected based on criteria that will insure the best possible results, and adequate technical and educational support are available.
- Food security activities are a good way to motivate participation, as families value their increased capacity to produce a variety of foods that improve both income and nutrition.
- Sustainability of behavior change in nutrition and IMCI practices is becoming a real possibility, with the increased capacity of CHWs to lead the community AIN meetings.
- Sustainability of food security activities has been enhanced by the formation of a cooperative that will continue to provide small loans to families for income generating activities in both agriculture and commercial endeavors.
- In cases where men serve as CHWs and garden promoters, there is better synergy between home food production and nutritional improvement in the home.

(v) Special Outcomes, Unexpected Successes, Constraints

The CS Project used the TIPS methodology (Trials in Improved Practices) in the nutrition component to improve feeding practices. Two sessions are held with groups of no more than10 mothers. In the first session mothers explore and reflect on inadequate practices and new practices are proposed and tried. During the second session the mothers share their experiences in adopting the new practice. New practices are then monitored through home visits and during AIN meetings. As a result of TIPS the project improved household recipes using accessible, low-cost foods and strengthened community growth monitoring.

Several innovative strategies were used to improve food security. Box gardens were established in households with smaller yards, using tires, terraces, barrels, and sacks to plant the following vegetables: squash, carrots, beets, cucumbers and onions. On-site training was given through agricultural promoters on reproduction of improved poultry and sanitary management; bio-intensive gardens, soil conservation, revolving funds, and garden establishment techniques. Fruit trees, vegetables and guide crops were planted in schools, with the participation of students and teachers. Using the evolving fund methodology, women received loans to develop small economic activities (commerce, food service and the purchase of poultry). Revolving fund management is controlled by community volunteer structures, which hold the funds in joint accounts with CARE. The community structures select the women who will receive loans and are in charge of monitoring credit and payments.

Growth-monitoring procedures were improved as recommended during the MTE, as follows: training of new communities and refresher training was given over a 5-day period; expected minimum weight percentiles were reviewed at 30 and 60 days; provision of training in counseling and negotiation about food; action guides and feeding posters for counseling on feeding were distributed to CHWs; improvements were made to the community registration system, allowing for observation of individual and collective nutritional status; and community assemblies were promoted to analyze the growth status of children.

(vi) Future Applications of Lessons Learned

Growth Monitoring

- Continue monthly AIN and growth monitoring meetings in each community, along with tracking of children under two to assure their participation in the program, along with expansion to the rest of the communities in the Municipality of Matagalpa.
- Continue to build on the AIN strategy to reinforce behavior change in the other CS interventions, based on the IMCI approach. The continual inclusion of new and interesting topics will keep mothers interested and motivated.
- Continue training of CHWs in participative educational methodologies.

Home Food Production

- Food security interventions should be tailored to the geographic area and based on a study of what will work best. If garden and small animal production is to be included, sufficient technical assistance and follow-up is required.
- Undertake a diagnosis of microclimates in each region and tailor food production strategies to each geographic area.
- Develop criteria for selection of families to participate in food production.
- Provide the database of CARE agriculture promoters to development agencies so they can continue to serve the community as volunteers for other projects.
- Include irrigation system development in future projects.
- Use of wastewater for irrigation of home gardens is a good strategy and should be continued.
- Continue efforts to engage men in an analysis of nutrition indicators and creative planning to improve nutritional status, such as home gardens and crop diversification.
- Consider using the positive deviance method to identify successful experiences with home food production and include peer education as part of future projects.
- Improve communication and coordination among institutions to avoid duplication of effort and adopt agreed-upon strategies based on an analysis of best practices.

BREASTFEEDING PROMOTION

(i) Comparison of Baseline and Final Evaluation Survey

PROJECT OBJECTIVES	Goal	KPC February 1999	KPC August 2002
Breastfeeding Promotion (25% of Effort) 1. Increase the number of mothers who exclusively breastfeed for the first 6 months	30	10	50.8
2. Increase the number of mothers who continue breastfeeding their child between 12 and 24 months.	50	14.5	68.7
3. Reduce the number of mothers who discontinue breastfeeding before 4 months of age.	20	36 (45/120)	39.7 (27/68)

The CS Project implemented the following strategies to improve breastfeeding: recruitment and training of volunteer breastfeeding counselors and subsequent formation of support groups in rural communities and *barrios*; use of criteria to supervise and support the counselors on a monthly basis; use of training and check lists to monitor quality of counseling; community education by CHWs during AIN sessions.

Exclusive breastfeeding for the first 6 months and continued breastfeeding between 12 and 24 months increased dramatically by 48% and 54.2% respectively, as shown in the table above. Regarding immediate breastfeeding within one hour after delivery, the KPC data show an increase of 20% (from 54.3% to74.2%). A comparison of mothers with children under two years of age who were breastfeeding at the time of the KPC shows an increase from 56.8% (n=158) to 76.6% (n=223), a dramatic change over the three year period, considering the penchant for bottle feeding the in project area. The group of women who were not breastfeeding at the time of the baseline and final survey consisted of 120 and 68 respectively. Although the final KPC shows an increase in the percentage of women who discontinued breastfeeding before their child reached 4 months of age, there was a decrease in the real numbers of women as follows: in 1999, 45 out of 120 women discontinued breastfeeding, as opposed to 27 out of 68 in 2002. For women who discontinued breastfeeding when their child was between 4 and 6 months of age, the data show a significant decrease, from 34.2% to 22%. The findings show that the CS Project's approach to promote breastfeeding has been effective in increasing both exclusive and prolonged breastfeeding among mothers of children less than two years of age.

(ii) Factors Affecting Achievement of Program Objectives

The CS Project implemented several strategies to increase exclusive and prolonged breastfeeding.
All 14 health posts and the Municipal Health Center were assisted to become certified as *Baby and Mother-Friendly Health Units*. The certification includes the following: staff

training and promotion of a breastfeeding policy; promotion and education of mothers regarding exclusive and immediate breastfeeding, feeding on demand, expressing and storage of breast milk; creation of support groups; censure of bottle feeding and use of baby formula.

In each community two breastfeeding counselors were selected and trained, and support groups for women have been formed. Information about breastfeeding is shared and counseling is given to individual women who are having problems. Messages about breastfeeding were reinforced thorough radio programs, skits and dramatizations at public places and events, and through health education in schools. Another initiative of the CS Project was to make employers and mothers aware of a Nicaraguan law that allows breastfeeding women one hour twice a day to feed her baby. Women who live close to their place of work have been able to take advantage of this opportunity.

Technical assistance from LINKAGES, combined with extensive training regarding breastfeeding, organization and facilitation of support groups, communication and counseling techniques and community information systems, was of great help in orienting the MOH and CARE staff regarding effective strategies to promote breastfeeding. Training events were tailored to the educational level of the group and were participatory in nature. The application of observation guidelines for counseling was useful for improving the quality of the sessions.

(iii) Contributing Factors for Objectives Not Fully Achieved

One of the factors that has influenced early discontinuance of breastfeeding is Nicaraguan health insurance that provides formula to men whose wives have recently given birth. There is a large water system project in Matagalpa and several factories in the area that employ men. Each family is entitled to several cans of formula for newborns. In addition to the availability of baby formula, poor women in Nicaragua tend to copy the practices of upper and middle classes in regard to bottle-feeding, as mentioned in the DIP. Local beliefs may also be a factor in limited breastfeeding. In Matagalpa many women have superstitions regarding breastfeeding, entertaining the belief that if the mother is upset or has been in the sun too much, her milk is no longer suitable for the baby.

(iv) Lessons Learned

- Following the steps to gain accreditation for each Health Post as a Baby and Mother Friendly Health Unit, helped MOH personnel to understand the clinical aspects of breastfeeding and to enthusiastically promote exclusive and prolonged breastfeeding.
- Learning how to organize and facilitate support groups and accompaniment from CARE and the MOH during initial sessions, gave community breastfeeding counselors the needed confidence to continue on their own.
- Although volunteer counselors have been well trained, their capacity to help women solve specific problems related to breastfeeding, such as milk extraction and storage, requires additional knowledge and skills.

- Once support group members learn about breastfeeding and are following the recommended practices they are not motivated to continue meeting unless new topics are included that are of practical interest.
- Home visits are a good way to reinforce topics and assist mothers with specific problems.
- In order to encourage better participation of mothers in support groups, a successful strategy was to include the group meeting as part of the AIN growth monitoring sessions.

(v) Special Outcomes, Unexpected Successes, Constraints

A special outcome of the breastfeeding intervention was the certification of all 14 Health Posts and the Municipal Health Center as Baby and Mother Friendly Health Units. This is the first municipality in Matagalpa to receive certification for 100% of its health centers.

(vi) Future Applications of Lessons Learned

- Study the situation of support groups and develop a methodology for the groups to evolve as continuous learning groups.
- Include training for breastfeeding counselors about how to extract milk and breastfeeding when the mother has to work outside of the home, and breast problems for CHWs.
- Lobby to prevent the distribution of powdered milk to new mothers whose husbands have health insurance.

PNEUMONIA CASE MANAGEMENT

(i) Comparison of Baseline and Final Evaluation Survey

PROJECT OBJECTIVES	Goal	KPC February 1999	KPC August 2002
Pneumonia Case Management (20% Effort) 1. Increase from 69% to 80% those who seek medical care for a child with rapid or difficult breathing.	80	69	84.9
2. Increase from 2.4% to 50% the mothers who can describe 2 signs of pneumonia.	50	2.4	54.5
3. Increase 20% over baseline the number of children under 5 diagnosed with pneumonia that receive their antibiotic from MINSA	N/A	N/A	N/A
4. Decrease from 56% to 46% the number of families with children under 5 cooking over a wood fire.	46	56	64.9

CARE and the MOH implemented the following strategies to improve pneumonia case management: quarterly quality of care assessments using an adaptation of the BASICS tool; IMCI training for CARE and MOH staff; training in counseling skills and appropriate communication skills; improving the availability of antibiotics through rational drug use; establishment of pilot community pharmacies; training CHWs in diagnosis, referral and follow-up of pneumonia cases; education of families in recognition of danger signs and prompt care seeking.

Data from the final KPC indicate that 84.9% of mothers seek appropriate medical treatment for children with rapid or difficult breathing, an increase of 15.9% as compared to the baseline, and exceeding the Project's goal of 80%. Mothers' knowledge regarding two danger signs of pneumonia increased dramatically from 2.4% to 54.5%. The number of families who cook over a wood fire did not decrease as planned, but rather increased by 8.9%.

The final KPC Survey shows that a majority of mothers (80.9%) recognized rapid and difficult breathing as a danger sign, an improvement of 26.2% since the baseline (54.7%). Knowledge levels improved significantly for the following danger signs: intercostal retraction (from 8.7% to 20.7%), fever (15.3% to 37.8%), and coughing (from 18% to 41.1%).

(ii) Factors Affecting Achievement of Program Objectives

The combined efforts of CARE and the MOH to improve the quality of care at health centers, coupled with IMCI training for all MOH technical personnel and monitoring of community case management and referrals were key factors in the achievement of the PCM objectives. Activities in PCM form an integral part of the IMCI strategy currently being implemented throughout Nicaragua. All of the health units have reorganized the flow of patients, the functions of each staff member, and the use of files and IMCI

instruments. Integrated Municipal Visits support the work of the Health Posts in that physicians provide direct services to community members. Since 2000, the project began applying the service quality survey guide, a monitoring instrument used by the Municipal Health Management Team three times per year in each of the 14 health posts. The instrument includes: 1) direct observations of consultations provided by health personnel, covering all aspects involved in IMCI strategy application; 2) a post-consultation interview with a mother to determine her level of comprehension of counseling offered on the administration of medication, feeding of the child, and danger signs; 3) verification of the existence of supplies that accompany the IMCI strategy in the health unit; 4) a guide to monitor training applied in the observation of counseling or an educational session. The CS Project has participated in national-level Ministry of Health sessions to validate the country's Official Community-based IMCI Manual.

Based on recommendations of the MTE, a greater focus was placed on IMCI training within communities, preventing isolated training in PCM and CDD and nutrition. The project adapted and reproduced the PAHO Community-based IMCI Procedures Manual. The manual was delivered to 90 Base Houses after re-training was offered to 175 community volunteers. Interviews with CHWs during the Final Evaluation indicated that the new manuals are in use, although some have difficulty understanding the flow charts for classification of a sick child.

(iii) Contributing Factors for Objectives Not Fully Achieved

MOH posts are often out of essential medicines, a key factor in treatment of pneumonia. The CS Project initially planned to promote Community Medicine Chests (CMCs), however the strategy was thwarted by the MOH. In spite of this, four CMCs were established in coordination with a local organization (PROSALUD). CARE provided start-up funds for the CMCs and PROSALUD provided the training, certification and monitoring of CMC management.

(iv) Lessons Learned

- Integrated Municipal Visits are a good way to provide medical care and other services to communities to reinforce the coverage and quality of services offered by the Health Post.
- CHWs have the capacity to use the IMCI model, however many had difficulty understanding the protocols and tended to go directly to the instructions for the presenting problem without looking for other symptoms.
- Use of forms to collect data on children seen at Base Houses and action taken has improved the community information system.
- The distribution of referral forms, with a counter-referral slip attached has facilitated the use of counter referrals by Health Posts.

(v) Special Outcomes, Unexpected Successes, Constraints

Although the strategy to reduce smoke in the home by improving stoves or using gas stoves is a good one, a majority of families continue using wood for cooking. An agreement was made with the Nicaraguan Community Movement through which 100 gas stoves were disbursed by means of a revolving fund. With support from the CUENCAS Project in the municipality, project personnel were trained in the construction of improved stoves. This training has been reproduced in the communities, resulting in the construction of 200 improved stoves.

(vi) Future Applications of Lessons Learned

- Include the IMCI approach as part of Integrated Municipal Visits.
- Continue to apply the quality of care evaluation every three months and use the results to continually improve service provision and outreach.
- Add indicators for the Integrated Municipal Visits to the quality of care instrument, and include supervision of Health Posts and CHWs.
- Include a CHW representative on the Municipal Technical Committee, to improve client satisfaction.
- Develop a simplified set of protocols for use by CHWs for the evaluation and classification of a sick child.
- Promote the establishment of more CMCs to improve the availability of essential medicines, including antibiotics for pneumonia cases.

DIARRHEA CASE MANAGEMENT

(i) Comparison of Baseline and Final Evaluation Survey

PROJECT OBJECTIVES	Goal	KPC February 1999	KPC August 2002
Diarrhea Case Management (20% Effort) 2. Decrease from 39% to 15% the number of mothers who give less food or withhold food during diarrhea episode.	15	39	9.3
2. Increase the number of children that receive more liquids during the two weeks prior to the survey	50	24	38.7
4. Increase from 2.1% to 40% the mothers who can list 3 signs of dehydration and 2 of severe diarrhea.	40	2.1	18.1(1) 69.2(2)

(1) Dehydration (2) Severe Diarrhea

Activities in CDD form an integral part of the IMCI strategy currently being implemented as part of MOH policy in Nicaragua. The CS Project focuses on improving both clinical and home management of diarrhea cases. At the community level messages recommend the use of ORS, home available liquids and proper nutrition during diarrhea episodes, avoiding self-medication and over-use of antibiotics, recognition of danger signs, and seeking of further treatment. MOH staff, CARE Extensionists, and CHWs have been trained in correct diagnosis and treatment. They educate mothers on control of diarrhea, including the recognition of danger signs for dehydration, correct dietary management and referral of severe cases. CHWs distribute ORS packets free of charge in their communities through the Base Houses, and provide demonstrations of proper preparation and use. Referral services are provided at Health Posts and at the Municipal level for more complicated cases.

Results from the KPC Survey show increases for all the CDD objectives. There was a significant decrease in the number of mothers who gave less food or withheld food during diarrhea episodes, from 39% to 9.3%, far exceeding the goal of 15%. The number of children with diarrhea during the two weeks prior to the survey that received more liquids increased by 14.7% (from 24% to 34.7%), however fell short of the project goal of 50%. Regarding the number of mothers who can list 3 signs of dehydration and 2 signs of severe diarrhea, percentages rose by 16% and 67% respectively, a dramatic change from the baseline figure of 2.1%.

(ii) Factors Affecting Achievement of Program Objectives

Several strategies enhanced the fulfillment of the CDD objectives. The IMCI strategy was implemented at health posts and at the community level to improve diagnosis and treatment of childhood illnesses, including diarrheal disease. CHWs learned to recognize danger signs and advise mothers regarding home management and immediate referral for severe cases. Eighty-six communities or barrios have Base Houses equipped with chlorine, oral re-hydration solutions, and referral and educational materials. CHWs

received on-going training and supervision in diarrhea case management through workshops and monthly meetings at the Health Post. Messages given by CHWs and MOH staff were reinforced through radio programs and spots including songs about hygiene and use of ORT.

Communities received orientation regarding environmental health, especially after Hurricane Mitch. Community education given by project staff is based on participatory methods, and is complemented by demonstrations of ORS preparation. Educational activities include information on prevention of diarrhea, the relationship between child nutrition and diarrheal disease, and the importance of using ORT and not antibiotics or anti-diarrheal medicine.

MOH support of the Base Houses was a key factor in improving utilization and coverage of services. Parents were instructed to first visit the Base House and then come to the Health Post with their referral slip, in cases of diarrhea without dehydration. This procedure eased the workload at Health Posts and enabled MOH staff to dedicate time to more serious cases. The MOH also promoted the Base House as a place where parents could receive follow-up for a child who had been treated at the Health Post.

Participation of schools in health education for students served to reinforce health messages and encourage healthy behaviors. Sixty-four schools participated in the CS Project by giving classes in hygiene and prevention of diarrhea, using CS materials developed or adapted by CARE. School health activities included the preparation of murals, organization of health fairs, and use of socio-dramas, music and theater to convey messages. The Ministry of Education (MED) is very interested in health education and plans to provide continued support and supervision to teachers. The schools coordinated with health posts and CHWs in the organization and implementation of regular community clean-up campaigns. Visits during the Final Evaluation confirm the overall neatness and orderliness seen in the project communities.

In the aftermath of Hurricane Mitch several projects prioritized the community need for clean water, and water filters were given to families, along with chlorine tablets. Approximately 6,000 water filters were distributed in the municipality of Matagalpa, with assistance from CARE and the MOH. The CS Project provided on-going training in the use and maintenance of the filters, along with education to CHWs and teachers. The MOH sponsors a chlorine distribution program through the Base Houses, which will continue after the CS Project ends.

(iii) Lessons Learned

- Use of water filters and chlorination of water, along with education regarding child-feeding practices during diarrhea episodes and hygiene have been effective in preventing cases of dehydration.
- Education about diarrheal disease and hygiene in the schools is an excellent strategy to improve home management of diarrhea.

- Use of theater and music to share messages is a good way to communicate health messages to the community.
- Schoolteachers can be excellent allies of MOH staff, if a process of training and integration takes place.

(iv) Future Applications of Lessons Learned

- Mothers' knowledge of signs of dehydration needs to be reinforced, as this is a key factor in prompt care seeking.
- Institutionalize the participation of schoolteachers and the inclusion of health topics in the school curriculum.

B.2.c Special Studies and Approaches

A number of studies have been conducted by the project to provide baseline information as well as to better understand local beliefs and limitations. A standard KPC was conducted in January 1999, which was used to develop the DIP and project strategies. A Food Security Assessment was conducted in coordination with the KPC, which included focus group interviews, household observation and a food security questionnaire. The methodology of Participatory Rapid Appraisal was utilized in February 1999 for information gathering and planning purposes. An anthropometric survey was carried out in June of 1999, the complete results of which were presented in the First Annual Report. A Quality of Care study, utilizing a tool developed by BASICS was done in all health posts and is used on a quarterly basis for continual improvement.

A qualitative study on breastfeeding attitudes and practices was completed in July 1999 with financial and technical support from LINKAGES to provide information on constraints to breastfeeding in the urban population. The findings were used to develop the behavior change strategy for improving exclusive and prolonged breastfeeding.

An important contribution of the CS Project was a management training program for MOH staff, developed jointly with CDC and complete with training guides. CARE Nicaragua has received a grant to continue to provide management training for another year, with assistance from CDC and in conjunction with the University Medical School in Managua.

An innovate approach of CARE and the MOH was to involve local schools as a method for disseminating health information the project entered into an agreement with the Ministry of Education (MED) to train teachers in health concepts which they would then use to teach children and their parents. The strategy has been highly successful and plans are underway to continue coordination between the health and education sectors in the Municipality of Matagalpa.

B.3 Results: Crosscutting Approaches

B.3.a Community Mobilization

(i) Community Mobilization Approach

The CARE/MOH community mobilization approach included five complementary strategies: 1) selection and training of CHW to provide front line primary health care services; 2) organization of monthly community growth monitoring and health education sessions; 3) strengthening, expansion, and promotion of Base Houses to support child survival activities; 4) development of home food production through CHWs specialized in agricultural promotion; and 5) participation of schools in community health education and promotion . This integrated approach, linking different levels of community participation to address child survival needs, is an effective one. Work with CHWs, implementation of growth monitoring sessions using the AIN methodology, and the formation of support groups began early in the project and is on-going, showing progressively greater impact in improved knowledge and health behaviors. Participation of schoolteachers has been excellent and will require continued support from the MED and the MOH if efforts are to continue over time.

The CS Project promotes savings to assist families to confront eventual crisis situations, as well as to favor women who are not subject to credit from financial institutions. The methodology involved the formation of groups of 30 to 35 people (mainly women) who begin to save small weekly amounts of money. After a 30-60 day period of consolidation, a process of granting loans begins at interest rates and terms defined by the group. Each group named a small Board of Directors to oversee the funds and keep records on each partner. The project currently covers 15 groups, including a total of 416 women.

The project is not focusing on the Community Development Committees (CDCs), as initially planned in the DIP. CARE is working more with community volunteers who dedicate themselves to health issues, and less with political structures such as the CDCs. Due to political controversies in the region, CARE decided to channel efforts towards the CHWs and women's groups, rather than focus on the CDCs, which have a political orientation. To enhance community members' health leadership capacity CARE provided training in conflict resolution, negotiations and self-esteem. Each Health Post elects a *CHW of the Month* and a *Mother of the Month* to motivate model behaviors and create a sense of healthy competition towards positive practices and behaviors.

(ii) Fulfillment of Community Mobilization Objectives

Even though the DIP did not include specific objectives for community mobilization, following are key results of the five above-mentioned strategies.

- A total of 539 CHWs were recruited and trained during the life of the project. Of these 67% (n=366) are currently active. The 366 health volunteers make an average of three monthly visits per community. Of these, 148 are carrying out growth monitoring in 51 communities; 86 are Base House volunteers and provide follow-up to referred patients. There is at least one breast-feeding counselor in each community making home visits or working with support groups.

- Of the 366 active volunteers, 155 serve as breastfeeding counselors, 148 are AIN monitors, 78 work as food security promoters, and 86 are Base House volunteers.

- Community maps are updated monthly in communities that carry out growth monitoring and every two or three months in the other communities.

- 84 communities have groups that meet every month at the Health Post and implement quarterly or monthly health action plans.

- Community growth monitoring and education meetings are held in 51 communities on a monthly basis, facilitated by the CHWs, and assisted by the CARE Extensionists and the RAN.

- 86 communities or barrios have Base Houses equipped with chlorine, oral re-hydration solutions, and referral and educational materials.

- 52% of households participated in at least one of the food security activities: gardens, credit, or family finances.

(iii) Lessons learned

- It is important to address some of the limitations to participation as part of the community mobilization approach, such as husband's attitudes and scheduling of meetings for women who work outside the home.
- If sufficient support is not provided to CHWs from health centers, many become discouraged and gradually drop out. It is important for CARE to continue to support the MOH in institutionalizing monthly meetings at the health centers and to improve the quality of the meetings in the areas of on-going training and supervision. This way CHWs see the impact of their work on improving coverage of MOH programs, and feel a sense of accomplishment.
- The home food production strategy was a key factor in motivating women to attend growth monitoring and breastfeeding support groups. It is important for women to feel that their time is being recompensed by a material incentive.
- The home food production strategy, combined with micro-credit for seeds and other items was an excellent way to include men in the CS Project.
- Schools will need further assistance in order to continue with health activities.
- The low level of education of parents and the lack of full participation at school meetings limited the extension of school health activities to all families.

- It is important to assure that all teachers have access to health education materials and that the materials are kept at the school, especially in the event that the teacher who was trained changes schools.
- The application of the cascade training method with school teachers was not effective for teaching how to use the arts to communicate messages.

(iv) Demand in the Community for Program Activities to Continue

During the final evaluation, group interviews were held as follows: 114 mothers in 16 communities, 48 CHWs in 16 communities, 7 schools, 1 CMC, and representatives from the MOH Regional Management Team, the Department of Education, and BASICS. (See **Attachment C** for a list of persons contacted.) It was clear from the group interviews that there is high interest and demand for project activities to continue. When asked what actions could be taken to make sure that CHWs remain active, and that monthly growth monitoring and Base Houses continue to function, respondents mentioned the importance of the monthly planning meeting at the Health Post and continued participation in training events. (See **Attachment B** for interview guides used during the final evaluation and answers.)

CHWs mentioned many factors that motivate them to continue working in the community. These included: love for the community and for children, joy in giving service, encouragement through support from community members, and learning about health and sharing this important information with friends, family and neighbors. Interviews with mothers during the Final Evaluation showed the following as a result of their participation in community health activities.

- Mothers groups have been meeting monthly for approximately 3 years
- Grandmothers participate in some of the groups to share experiences.
- New mothers are invited and encouraged to attend the groups by peers.
- Almost all mothers mentioned using new feeding practices, such as quantity and frequency of meals, and use of green leaves in cooking.
- Many mentioned adoption of breastfeeding practices.
- Mothers like being able to have their baby weighed in the community, and expressed a desire to continue meeting, indicating that want to learn more and they save money be not going to the health post.
- Mothers have positive regard for the RAN and value her assistance.
- Good relationships exist with the CHWs, based on trust and friendship.
- The Base House is well regarded and provides an important service, plus it is located in the community. The CHWs give immediate treatment and refer cases.
- Breastfeeding support groups later included the methodology for other topics such as improved food production.

There is a demand for health education in schools to continue. Interviews with schoolteachers and representatives from the Municipal Department of Education during the Final Evaluation showed the following.

- 64 schools (of a total of 104), 1,500 parents, 180 teachers and 1,800 students participated in the health education program
- MED assigned a staff member as liaison between them and the project, and the school director evaluates the health program.
- Students' learning is evaluated systematically and students do research projects on health topics.
- Students take health messages to the community.
- Although only one teacher is trained per school, he/she is active in training the other teachers.
- Teachers prepared their own materials based on the CARE flipcharts.
- Theater groups were formed and schoolteachers became the directors of the groups.
- Schools are coordinating with health centers to plan activities, presentation of theater groups, training topics, celebration of holidays, and clean-up campaigns.
- Teachers and schools have been integrated into the community activities.
- Children practice preventive behaviors in ARI and CDD, and hygiene and know about the Base House and its purpose.

(v) Sustainability Plans for Community Mobilization

In working with communities the MOH and CARE have strengthened sustainability potential
in two important ways. One is the relationship between the CHWs and families, which has been consolidated through monthly AIN meetings, support groups, assistance with home food production and the functioning of the Base Houses. These four community structures will continue to be supported by Health Posts through monthly meetings with CHWs and supervision visits to the communities in most need of support. The food production activities will be encouraged by the RAN, and requests for funds for agricultural endeavors will be channeled through the new cooperative which is has been aptly named the "Survival Cooperative". During the Final Evaluation analysis workshop, the following recommendations were made in light of the need to strengthen and continue with community outreach activities. Recommendations regarding the work of CHWs are presented in Section B.3.c (iv) *Capacity Building Approach: Strengthening Health Worker Performance*.

Participation of Mothers

- Define a strategy to increase the number of mothers who recognize the value added for time they spend in counseling and educational sessions.
- Improve the quality of counseling for mothers which a child is not gaining weight, since some women feel humiliated when their child is underweight and their peers hear about it.
- Include work with breastfeeding support groups as part of the AIN meeting, to encourage participation, as some women do not want to attend two meetings.

Community Medicine Chests

- During the new CS Project an area of need will be support of the local NGO PROSALUD to continue with the Establishment of Community Medicine Chests.
- CARE can work at the policy level to find creative solutions for the distribution of essential medicines.

Participation of School Teachers and Students

- Continue the process of joint planning with the MOH and the MED, and sign a formal agreement to institutionalize health education in schools. Part of the MOH contribution would be the development of a health education curriculum and teaching materials.
- Since CARE will continue supporting the school health program during the next CS Project, CARE should assist the MOH and MED to develop a sustainability plan. The plan should include the assignation of sufficient educational materials to each school library and the designation of a full-time position at the MED to assure good coordination and supervision of the program.
- Establish a joint supervision mechanism between the MED and the MOH to improve the quality of the health education program.
- Prepare more health materials for use in classrooms, add new content areas, and evaluate the results of study of health topics.
- Consider innovative funding alternatives, including support of families for school health events, such as charging a small fee per family.
- Since the cascade method was not an effective way to learn how to use the arts for health education, schoolteachers need to receive direct training from an expert in the organization of theater groups.
- Include health topics in the school ecological brigades.
- Use school events to obtain media coverage and to market health messages.

B.3.b. Behavior Change Communication

(i) Effectiveness of the BCC Approach

One of the goals of the CS Project was to enable families to practice healthy behaviors, to identify and resolve health risks, and to have access to quality services. CARE and the MOH used a variety of methods to foster the adoption of new behaviors for families, health personnel, students and teachers. The foundation of the successful BCC approach was the use of good educational theory to design and facilitate training at all levels. The MOH and CARE participated in a workshop on adult learning, given by Consultant Renee Charleston. As a result of this workshop, an important paradigm shift took place among CARE and MOH personnel. Instead of seeing themselves experts who provide education to others, the CS staff became real facilitators of a learning process. The new capacity to design adult learning experiences was further enhanced through the participation of CARE Extensionists and MOH health personnel in a workshop on empowerment. Linking the two approaches created an experience seldom seen in Child Survival Projects—a staff composed of people from the MOH and CARE working together with humility and dedication to empower communities, schools, health volunteers and mothers.

The success of the BCC approach was further solidified through the practice of spiritual values—sincerity, honesty, friendship, and trustworthiness—that became an example for communities to follow and motivated them to participate and emulate unity, empowerment and service as part of their work. The quality of work with support groups and home visits improved as the project personnel and CHWs became more attuned to the importance of helping others to help themselves. The interactive nature of all educational activities further fostered communication and negotiation regarding the adoption of new practices, especially regarding breastfeeding and nutrition.

The new empowerment approach opened doors to creativity and innovation. One of the most successful strategies was the use of the arts for communicating health messages. School children played a key role as participants in theater and music as a way to share new ideas with their parents and peers. Songs about breastfeeding and the prevention of diarrhea were written and sung with great enthusiasm, along with skits showing the need to use ORS, practice hygiene, and avoid baby bottles. The arts were also used in the preparation of attractive visual materials, such as murals and posters. Each of the schools and Health Posts visited during the Final Evaluation had colorful murals made by students, CHWs and mothers, which personalized health messages.

(ii) CBC Objectives

The results of the final KPC and interviews during the final evaluation show that mothers' behaviors have changed regarding care seeking practices and home management, especially regarding breastfeeding, child nutrition, diarrhea and respiratory infections. New health practices are promoted through monthly AIN sessions, support

groups, home visits, contacts with Health Posts and during Integrated Municipal Visits, and reinforced in the classroom and family by older children. Health fairs, puppet shows, cultural events and posters were used to communicate and reinforce new behaviors. Results of the BCC approach, as gleaned from interviews during the Final Evaluation include:

- Greater sharing and communication between CHWs, families and health personnel;
- Increased trust and acceptance of the services provided at Base Houses;
- Communities are empowered to implement support groups and AIN growth monitoring sessions on their own;
- Increased sense of health stewardship, knowledge about the community, and contacts with neighbors;
- Health personnel are more committed to community outreach;
- Increased demand for child and maternal health services; and
- Children share health messages with their peers, families and the community.

Mass communication through radio spots and programs extended the coverage of health education to families that were not served by the project and reinforced the other BCC strategies. A video was made with assistance from Johns Hopkins, which shows communities implementing growth monitoring, mothers who are practicing of breastfeeding, the role of the Health Post in community health, the participation of school children, and home garden production. Short T.V. spots were made from the video and shown during key viewing hours. Other presentations were also aired on T.V. as part of local news and radio spots have been aired with messages about breast-feeding, nutrition and control of infectious diseases.

(iii) Lessons Learned

- The secret of success for improving utilization of health services and community participation is treating others with respect and kindness and deepening friendships among CHWs, health personnel and community members.
- Teaching about health in the schools was an effective strategy for disseminating knowledge and motivating new health practices in the home.
- The implementation of adult education methodologies improved the CARE/MOH training program 100%.
- The changes that health personnel made to improve service delivery based on quality of care assessments were crucial to improving communication and acceptance of the services offered.
- Extensive training of CARE Extensionists, MOH personnel and community counselors on organization and facilitation of groups contributed to the success of breastfeeding support groups.
- The application of the ORPA model used in nutrition counseling can be effective in other interventions as well. The ORPA approach calls for identifying what the mother knows about a topic, providing information through dialogue, and making an agreement with the mother to make a change in behavior.

- Addressing additional topics and interventions with community support, such as lorena stoves, potable water, home food production, and income generation, opens doors for preventive health education.
- The educational flip charts on different topics have been useful to motivate reflection and communication for CHWs, school children and mothers.
- Groups are motivated to continue meeting if there are contests, recreational games, participatory methodologies, videos and topics of interest besides health topics.
- Cooking together using new recipes is a good way to improve nutritional practices.
- Health fairs are a successful way to promote new behaviors and use of health services, and to foster the participation of community members, local authorities and health volunteers.

(iv) How will these behaviors be sustained?

The sustainability strategy mentioned in the Section B.3.a will be a basis for continuing the communication for behavior change activities. Continuation of community health education through CHWs and schools, along with home visits and guidance during consultations with RANs at Health Posts will strengthen the practice of new behaviors. Base House operation, AIN meetings, and breastfeeding support groups have been adopted by the MOH, and there is strong community demand for these activities to continue.

B.3.c. Capacity Building Approach

(i) Strengthening the PVO Organization

The CS Project has strengthened CARE's capacity to design, implement and evaluate Child Survival Programs in a number of ways. Capacity building for CARE personnel in Nicaragua was extensive, not just in learning new technical topics but in learning how to do things differently. Interviews during the Final Evaluation with project staff revealed a feeling that the four years with CARE in Child Survival are comparable to a degree program in public health. All of the Extensionists mentioned learning far more than they have in any previous development job, and feeling prepared to face any challenge in the future. Part of doing things differently for CARE Extensionists meant teaching in a way that empowers others, preparing educational sessions based on *Learning-by-Doing* techniques, improving the quality of presentations by using PowerPoint, multi-media projectors and other technology, and evaluation of learning with pre and post tests.

CARE Nicaragua was strengthened through participation in scaling up of successful strategies, such as community IMCI, development of improved management systems, community and MOH health information system, and certification as Baby and Mother Friendly Health Units for the entire municipality of Matagalpa. Monitoring and evaluation systems have been improved, with the community information system linked to the MOH system. The use of data for decision-making was enhanced through the improvement of forms and the implementation of a new software program, based at the Municipal Health Center that summarizes data from outlying health posts and presents results in a user-friendly format.

Other CARE programs in Nicaragua have learned from the CS Project. The process of project design, including a baseline survey, establishment of indicators, and midterm and final evaluations used in the CS Project was adopted by other CARE projects in Nicaragua as a means to improve program quality. The only CARE project with a strong monitoring and evaluation component was the CS Project, which served as a model for the adoption of M&E indicators and assessments by other projects.

The successful CS project helped build the credibility of CARE among other NGOs and the MOH in Nicaragua. Total Quality Management (TQM) was piloted in CARE Nicaragua during the CS Project, a part of the relationship with CDC. CDC Atlanta offers a course in concert with Emory University called Management for International Public Health. CDC and CARE collaborated to give the course in Nicaragua to15 Municipal Health Directors and to the members of the Municipal Health Team in Matagalpa. The course consisted of a week of intensive training in TQM, followed by 6 months of fieldwork, a written report and oral presentation of the results. CDC representatives were impressed by the quality of the work, and this lead to a decision to prepare a proposal with CARE for the establishment of a Management Training Unit ("Unidad de Capacitación Gerencial"). A second training cycle was launched to include CARE project managers, representatives from NGOs who are members of NICASALUD, MOH personnel, and professors of the State University School

of Medical Sciences in Managua ("Universidad Nacional Autonoma de Nicaragua – UNAN Managua").

The TQM training program was an important contribution of the CS Project to strengthen CARE and its partners in Nicaragua. The program will continue to function with separate funding for another year, and will expand to include students from other parts of Nicaragua and other Latin American countries. The new program will be co-sponsored by the State University in Managua, which will provide certification, credibility and sustainability to the program. Another feature of the TQM program will be scholarships for students who work in underserved areas and don't have the ability to pay tuition and monthly fees. The plan is for the MOH to assist with scholarships through bi-lateral funding.

Another area of capacity building for CARE was in the area of institutional leadership. Based on the MTE recommendation regarding increased collaboration with other NGOs and institutions in Matagalpa, CARE and the MOH spearheaded the formation of a Municipal Health Commission, linking all actors in health to a formal structure under the Municipal Department of Social Development. CARE wisely turned over the limelight to the MOH and facilitated the first inter-institutional meeting from the sidelines, allowing the MOH to assume its role as leadership in municipal health planning, coordination and organization.

Although some inroads have been made to improve collaboration among agencies, there is still a great need for better communication and joint strategy planning, based on the needs of the region as articulated by the MOH and municipal government. For example, Catholic Relief Services (CRS) is just finishing a centrally funded Child Survival project in La Dalia, where CARE has been working with local mission funds since 1998 under the SALUMAI project. CARE's new CS Project will include the La Dalia area, yet communication with CRS about lessons learned and best practices has been minimal. Better coordination and communication with other agencies will prevent the duplication of efforts and assist program managers to make better decisions regarding intervention strategies.

(ii) Strengthening Local Partner Organizations

The principal partner in this project is the Municipal Ministry of Health, which is responsible for public health services in 15 Health Posts located in urban neighborhoods and rural communities. The MOH jointly implemented the CS Project with CARE. The partner relationship between the two institutions is one of the highlights of this project. The integration of CARE staff and MOH personnel was such that outside observers could not discern who was who. The MOH was strengthened enormously due to the opportunity to implement a CS Project, hand-in-hand with a PVO. The MOH participated fully in the Final Evaluation and was the key presenter of the results to an audience with representatives from USAID, BASICS, Management Sciences for Health (MSH), the Ministry of Education, the Mayor's Office and nurses, physicians, CHWs and community members.

The MOH benefited from all the training activities and learned how to provide stewardship for a local health system management. The quality of care assessments have been institutionalized by the municipal MOH and are religiously undertaken with subsequent action planning. Areas addressed in the assessments include: infrastructure, equipment, supplies, personnel, training, monitoring and evaluation, community support, technical quality, and community outreach. The average ratings from the quality assessments have improved from 67.4% to 74.5% over the past year. The MOH has developed a questionnaire to evaluate client satisfaction during exit interviews that are done quarterly. The quality of care assessments and the exit interviews help health personnel to identify problem areas and come up with appropriate solutions based on the local context. The culture of continual improvement expressed by the Municipal MOH of Matagalpa is impressive.

A concern during the MTE was the quality of Integrated Municipal Visits. The visits are planned by the Municipal Management Team and provide services to communities in concert with Health Posts. The visits include direct services and medical consultations, as many Health Posts do not have physicians. Although the visits have improved based on the recommendations of the MTE, the Final Evaluation team identified a need to improve the use of IMCI protocols when evaluating children, and suggested that the integrated visits be used for supervision of CHWs and Health Posts. This would be a better use of time and resources as both supervision and services could be provided during one visit.

In addition to the MOH, the Ministry of Education was an important partner in the implementation of health activities in schools. A total of 64 schools participated in the CS Project. Each school prepared annual plans and received supervision from the MED. Coordination between teachers, health posts and CHWs is on-going, and there is good potential for sustainability of school health activities with support from Health Posts. Teachers have been trained in IMCI with a focus CDD and PCM, breastfeeding, and nutrition. The teachers trained in health topics give a short daily session on health and promote health fairs, plays, and cooking demonstrations. Monthly meeting with parents are used to reinforce health messages and to plan school/family health activities. See *Section B.3.a Community Mobilization* for results and lessons learned regarding schoolteachers and students.

(iii) Health Facilities Strengthening

The CS Project implemented a series of activities to strengthen the Municipal Policlinic and 14 outlying Health Posts. Capacity building efforts were centered on strengthening health facilities to improve technical capability and organizational expertise. Health post staff was trained in IMCI and planning and evaluation. Technical assistance provided by the CS Project improved linkages between communities and health facilities, a weakness identified early in the project by MOH staff. CHWs are now trained and supervised at the Health Post level, rather than from the central level in Matagalpa, making for a much

tighter well-managed local health system. Monthly meetings between volunteers and health posts have become an integral part of health management in the14 Health Posts.

Improvements have been made in both supervision and referral systems. A supervisory system was developed between CARE and the MOH, which has been adopted by outlying Health Posts. Forms have been reproduced are being used, based on a monthly action plan for each CHW. Results are assessed at the monthly CHW-Health Post meeting and new plans are made, based on an analysis of health data and community needs. The RAN plans visits to the communities in greatest need of support and requests transport from the central level in Matagalpa. Transportation is a problem and often the most remote communities are not visited frequently. However, the CHWs do attend the monthly meeting, which gives the RAN an opportunity to review his/her reports, provide supplies, and give technical assistance as needed. Visits during the Final Evaluation showed that the referral and counter-referral forms are being used, although the patient does not always return the counter-referral form to the CHW. Still this is a big improvement since the start of the Project, especially in regard to the support and buy-in on behalf of Health Post personnel.

RANs expressed a positive attitude towards the joint supervisory visits to CHWs. Some felt that supervision of volunteers is part of their job, which includes analysis of the information collected by the CHW, updating the information system, assisting CHWs with the monthly growth monitoring meeting, supervision of Base Houses, and home visits to mothers. All the RANs interviewed were committed to the monthly meeting with CHWs at the Health Post, and viewed this as a way to include CHWs in health activities.

The work of the Health Posts was reviewed as part of the Final Evaluation, and the following positive aspects were identified.

- Health staff has assumed a leadership role in the communities that goes beyond just the provision of services. RANs have assumed a public health leadership role with greater pro-activity in developing a local health system with the support of the Municipal MOH and network of volunteers.
- There was less rotation and absenteeism of staff during the CS Project
- There is an improved relationship between RANs and CHWs and increased accompaniment in community activities, planning and evaluation.
- A large network of CHWs assist the RAN and have become indispensable to her
- IEC activities are planned and implemented in coordination with other social actors
- RANs have assumed the responsibility for training CHWs in their area of jurisdiction and training has improved based on the adult education methodology, including planning and evaluation of sessions.

Some of the areas that need improvement analysed by the Final Evaluation Team include: clients from rural areas are poorly received at the Policlinic in Matagalpa; health posts treat people better who live in their area of jurisdiction, if someone else seeks treatment he/she is made to wait and not always well received; use of data for decision making

needs to be improved at the community and health post level; and lack of essential medicines at health posts is a serious problem.

The following actions would help to improve the quality of health post service provision and the linkage with CHWs:

- Include the IMCI approach as part of Integrated Municipal Visits.
- Continue to apply the quality of care instrument every three months and use the results to continually improve quality
- Add indicators regarding the Integrated Municipal Visits to the quality of care assessments.
- Include a CHW representative on the Municipal Technical Committee, to improve client satisfaction.
- A formal volunteer network should be formed and legally incorporated. This would give structure to the group of volunteers and facilitate planning, training, and access to funding sources, thus enhancing sustainability.
- Promote the establishment of CMCs and obtain political support by inviting the new Vice Minister of Health to visit the CMCs that are currently functioning.

(iv) Strengthening Health Worker Performance

The approach to strengthening health worker performance has been effective, especially with the implementation of the recommendations of the MTE. Health facility staff received extensive training in breastfeeding promotion, nutrition, IMCI, formation of support groups, community empowerment, adult education methodologies, community organization, planning and evaluation. The quarterly quality assessments are a way for health personnel to continually improve service delivery and the action plans developed give staff an opportunity to use knowledge and skills acquired during the CS Project.

Regarding the work of community health workers, the CS Project trained a total of 539 CHWs, and 366 are currently active. CHWs received training in the implementation of AIN growth monitoring sessions and nutrition, in IMCI with a focus on pneumonia case management and control of diarrheal disease, and in breastfeeding promotion. The establishment of a network of volunteers in each community has been an effective means for distributing the workload and creating a support group among volunteers. A discussion of the work of CHWs is presented in *Section B.3.a. Community Mobilization*.

Interviews with CHWs during the final evaluation showed that all had sufficient educational materials based on the IMCI approach for teaching families about diarrhea control, nutrition, pneumonia case management, and growth monitoring. CHWs knew the key messages and how to use the materials. The majority of CHWs had attended monthly meetings at the Health Post. The main activities at the meeting included presentation of reports using the information system sheet and reception of feedback from the RAN. The majority of CHWs interviewed had their information system forms in order, including a diagram of the community with all the homes marked with children

under two, growth monitoring information was up to date, as was the information system summary sheet.

CHWs receive supervisory visits by the CARE Extensionist or the RAN on a monthly basis. Activities during the supervision visit included: revision of the information system, education and guidance on use of materials and key concepts, joint home visits and assistance in counseling mothers, and assistance with the growth monitoring session. The MTE recommended better use of community maps prepared by CHWs, as a way to plan and evaluate activities and nutritional status. CARE provided refresher training to CHWs in the use of maps, census data and growth monitoring information for decision-making. As a result of the training, communities have updated their maps with data about children and pregnant women. Each Base House was given a bulletin board that facilitated the use of colored pins to indicate children under two, pregnant women, homes with gardens, and homes of volunteers.

The work of CHWs was a subject of analysis during the Final Evaluation. Following is a summary of the positive aspects gleaned from field visits and interviews with CHWs.

- There are now 366 active CHWs, and 80% use IMCI protocols, refer patients, and distribute ORS packets, chlorine and acetaminophen.
- Before the CS Project, the main role of CHWs was to call the community together for Health Days and the CHW did not have a close relationship with the Health Post.
- There is good coordination with the RAN and monthly planning and evaluation meetings take place between CHWs and RANs.
- Each CHW has an identification card.
- Base Houses did not exist prior to the CS Project, although their formation is MOH procedure. Base Houses have signs to designate the location.
- CHWs now know their community much better because they do a census and prepare a map.
- Use of referral slips has facilitated prompt attention of patients.
- Training of CHWs was done through the MOH and not separately by CARE, thus strengthening the relationship between the RAN and the CHWs.

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Areas that need improvement include: a limited understanding and practical use of the IMCI protocol was observed, with a tendency to focus on the health problem that the child presents and give the treatment procedure by memory; many community members expect the Base House to have more curative capacity, as there is a great need for first-aid; although CHWs collect valuable information in the community, there is a limited capacity to use the data for decision making.

The following actions would help to improve the quality of community health worker performance and motivation:

- Improve the use of Community IMCI protocols.
- Simplify the forms that the CHW uses to classify the child.

- Develop a mechanism for continuous learning for CHWs, as part of the MOH system during the next CS Project cycle.
- Strengthen the counter referral system for the Base Houses.
- Strengthen the capacity of CHWs to use the data they collect for analysis and decision- making.

(v) Training

The basic training strategy involved initial and refresher training for CARE and MOH staff in the four CS interventions. Once this was completed, CARE Extensionists and MOH personnel were responsible for training CHWs in the community, with assistance from the Project Manager and CS Specialist. The CHWs were responsible for giving messages to mothers of children under two years of age and motivating their participation in monthly growth monitoring sessions and breastfeeding support groups. Education for mothers in PCM, CDD, nutrition and breastfeeding took place during these sessions. Results from the final KPC and responses at group interviews during the final evaluation showed that this training approach has been effective.

The MTE recommended that an integrated training plan for CHWs be developed, including practical experiences to ensure application at the community level, with concurrent assessment of comprehension. CARE developed a training plan based on guidelines for adult learning, including case studies that will enhance the replication of topics in the communities. An observation guide was developed to assess home counseling and educational sessions to improve the quality of the sessions.

The training plan included the following topics: IMCI; use of community maps, growth monitoring; food preparation using soy and green leaves and improved recipes; use of the ORPA methodology involving reflection, personalization and action to improve nutritional status; complementary feeding, counseling and negotiation techniques, support group formation, food conservation, bio-intensive gardens, diverse crops, pest management and revolving funds for agricultural promoters.

The capacity of CARE and MOH personnel was strengthened in both managerial and technical topics. Training workshops were given on the following topics: TQM and use of the USTF[4] instrument for monitoring quality; strategic and operational planning; supervision and evaluation; community organization and empowerment; adult education and participative learning techniques; information system management and use of data for decision making; team building and conflict resolution; use of theater and puppets for community education; domestic violence; IMCI; CDD and Cholera; PCM; breastfeeding, nutrition, and LAM; and obstetric emergencies.

B.3.d. Sustainability Strategy

The stated sustainability objectives for the project are as follows:

[4] USTF: Unidades de Salud Totalmente Funcionando (Health Units Totally Functioning)

- 100% of MOH staff trained in skills and concepts for effective Child Survival.
- 100% of MOH staff using IMCI for assessing and diagnosing all children under five.
- An effective supervision and self-supervision system in place for MOH staff and CHWs.
- MOH staff using antibiotics to treat less than 30% of ARI cases.[5]
- The MOH central outreach team will be visiting each community every two months to provide immunizations, patient follow-up, growth monitoring, home visits, health education, CHW supervision and in-service training, and support to the community development committees.
- The MOH will have a long-term plan for supervising and training CHWs and BF counselors.
- The MOH will have adopted quality assurance as an integral part of operation.
- The MOH will have a long-term plan for assessing their own training needs and for in-service training.
- A referral-counter referral system will be functioning effectively between all CHWs and the health units.
- Seventy communities will have action plans and functioning CDCs.[6]
- Seventy communities will have a functioning base house used by residents.
- Fifty percent of households will be participating in at least one of the food security activities: gardens, credit, or family budgeting.
- Seventy breastfeeding counselors will be functioning and breastfeeding support groups will be established in each community or barrio.
- A minimum of 70 CHWs will be conducting home visits and tracking health status of 30 families each, conducting growth monitoring, providing education and counseling, making referrals and following up on patients counter-referred.
- 25% of the CDCs will be planning and executing self-help projects related to health.

CARE's CS Project has made exemplary progress towards its sustainability indicators, the majority of which have been surpassed. All MOH staff has been trained in Child Survival and IMCI, a supervision system is in place, TQM has been institutionalized assuring continuity of planning, evaluation, training, information system management, and community outreach. The referral and counter referral system is up and running, and sufficient supplies of forms exist for the next 2 years. Over 80 communities have a functioning Base House, and the number of breastfeeding counselors (155), AIN monitors (148) and Base House operators (86) far exceeds the stated objectives. Fifty-two percent of households are participating in at least one food security activity.

An analysis of the sustainability strategy during the Final Evaluation identified the following strengths.

[5] Data was not available at the time of the Final Evaluation to assess the objective regarding the use of antibiotics to treat ARI cases.

[6] Due to the fact that the CS Project changed the strategy of working with CDCs, this sustainability objective was not a priority.

- Linkages between the volunteer network and health posts have been strengthened and are supported by monthly meetings, joint planning and evaluation activities, and relationships based on trust which facilitate the communication and resolution of problems.
- Communities trust the capacity of the Base Houses to evaluate cases and facilitate solutions.
- The MOH has appropriated the community outreach strategy though the volunteer network.
- The MOH has institutionalized continual improvement to assure quality and client satisfaction, through the implementation of the USTF instrument and action planning on a quarterly basis.
- Responsibilities for public health stewardship were delegated from the municipal level to the Health Posts in a process of decentralization, facilitating increased leadership at the local level.
- A Municipal Health Commission was formed to improve communication and collaboration among public and private institutions that sponsor health and development activities.
- A Municipal Technical Board oversees the quality of services and outreach to new communities and urban neighborhoods.
- The Ministry of Education has signed an agreement with the Municipal MOH to continue collaborative efforts between schools and health posts regarding health education for students and parents.
- A savings and loan cooperative was established with a board of directors made up of representatives from over 50 communities, to support future income generation activities in agriculture and commercial endeavors.

Since CARE will continue to have a presence in the Matagalpa region through its new CS Project, an import area of endeavor will be to strengthen the sustainability strategies developed during this project. Important aspects include: fostering relationships between communities and development institutions that could give support in the future; improving collaboration and communication among public and private institutions to develop broad based development strategies for the Matagalpa region; continuing with a leadership and facilitation role for collaborative efforts; further developing linkages between MOH services and the volunteer network; and helping the MOH to collaborate with other social actors, such as the MED.

C. Program Management

C.1. Planning

The DIP was developed in concert with the MOH at the Department[7] and Municipal[8] levels. The joint planning process resulted in a true "marriage" between CARE and the MOH in the entire process of implementation. Subsequent operational planning was done jointly along with supervision, problem solving, and information analysis and decision-making. The DIP provided a practical guide to program implementation for both CARE and the MOH. The DIP was specific enough to guide project strategies, and was used as a working document. Field managers and supervisors made extensive use of the DIP as did CARE Extensionists.

In order to foster municipal health planning, CARE and the MOH sponsored the formation of a Municipal Health Commission. The purpose of the Commission is to improve coordination and collaboration among agencies to improve the quality and coverage of health care. . A role of the Commission is to visit communities and assess current activities and future needs, which will be taken into consideration during planning sessions. The round of site visits focused on service provision and health education, and ended up becoming community fairs, as community members gathered around and prepared food. The Commission can also recommend policy changes and lobby for new legislation. Barriers between agencies have been broken through initial group dynamics and the development of friendships in the group. Meetings are held approximately once a quarter. The sustainability of the Health Commission will be strengthened by the following: a representative of the Mayor's Office has been serving on the Commission since its inception, and will continue to do so; the Mayor's Office has included the Commission as part of the Municipal Development Committee, under the Social Commission; and CARE will continue to support the Commission under the new CS Project.

C.2. Staff Training

CARE Nicaragua recently implemented a new plan for staff development that includes self-evaluation to identify needs and interests of each staff member. Within the project, CARE staff has had the opportunity to receive training in a number of technical and managerial topics. The CARE Health Sector Coordinator, the CS Project Manager and CS Specialist have participated in three international conferences on topics of empowerment, supervision, and sustainability. The project takes advantage of the regularly scheduled Monday meetings as an opportunity for continuous training of staff, based on identified needs and areas of weakness.

CARE and the MOH have received extensive training, as mentioned in Section B.3.c (v) *Training*. Topics included: community empowerment, adult education methodologies,

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[7] SILAIS-Sistema Local de Atención Integral de Salud
[8] MINSA-Ministerio de Salud

formation and organization of support groups, AIN growth monitoring, breastfeeding support groups, strategic, operational and individual planning, team building, nutrition-negotiation and counseling for mothers, IMCI (3 day course), theater and puppets, total quality management, formation of quality teams, plus Stehpen Covey's " 7 Habits of Highly Effective People". Resources assigned to staff training were adequate.

As a result of opportunities to learn and apply new knowledge through the CS Project, all team members have become experts in managerial and technical components of community health care. Each person has been empowered to express latent talents and abilities to improve their work. Even though the CARE Extensionists did not all have a background in health, the training enabled each team member to implement Child Survival activities with a high level of competency. The relationship between CARE Extensionists and MOH personnel served as continuous in-service training in community development and health interventions. A workshop on empowerment was extremely useful to improve leadership and empowerment strategies, and was later replicated for Project Concern International staff.

C.3. Supervision of Program Staff

The MTE recommended that CARE strengthen the supervision system in order to improve the quality and efficiency of Child Survival personnel. CARE designed a plan for the accompaniment of Extensionists to improve the quality of their work. Each Monday the CS team meets to review of the previous week's activities, analyze difficulties, and make plans for the coming week. CS team members take turns presenting a training topic and share best practices. The Project Manager and CS Specialist plan supervision visits based on needs identified at the weekly meetings, and spontaneous visits are also made. The CS Project Manager and the CS Specialist accompany the MOH in supervision visits to health posts every Wednesday, where the work of CARE Extensionists is also reviewed. CARE Extensionists and MOH personnel were taught how to supervise each community using checklists, observation and interviews with CHWs and mothers.

Job descriptions were developed based on the DIP and have been revised periodically to reflect the actual responsibilities of CS Project staff. Performance evaluations were done every 6 months based on the key responsibilities of each staff member. Evaluations are performed as follows: The CS Project Manager is evaluated by the Health Sector Coordinator based in Managua. The CS Manager evaluates the CS Specialist, who in turn evaluates the Extensionists. Evaluation criteria include an assessment of results, personality, behavior, and skills demonstrated during the evaluation period.

The supervision system is part of the CARE organizational structure and has been institutionalized for several years now. Although supervision was adequate, field staff feels that the results of the 6-month evaluations did not truly reflect the extent of their work and the sacrifices involved, such as working nights and weekends, and the degree of commitment to the communities. Extensionists indicated that more field visits on behalf of supervisors would have helped them improve their work.

The TQM approach has helped the MOH to improve supervision systems. CARE sponsored a workshop which focused on the development of guides and forms to track indicators. The MOH has implemented improvements through weekly supervisory visits to Health Posts. The work of MSH, which was instrumental in developing the quality of care assessments, is helping to refine the supervision process by detecting areas of weakness and the development of action plans.

C.4. Human Resources and Staff Management

The CS team is made up of 14 health post managers, 7 CARE Extensionists, 1 CARE CS Specialist, 1 CARE Project Manager, plus the MOH Municipal Management Team (6 members: Director, Sub-Director, Education Specialist, Integrated Health Specialist, Head of Nursing, and the Health Educator). CARE CS staff participates in the Municipal Technical Board and have assisted the MOH to improve the efficiency of board meetings including the preparation of an agenda, problem analysis, definition of plans, and determination of the responsibilities of each person. The improvement in the meeting methodology helped the MOH to assume a stronger leadership role in the municipality.

The following mechanisms are in place to assure the continuation of CS activities after the project ends: the MOH supervision system has been improved an is functioning smoothly; there are strong links between Health Posts and communities assuring supervision of CHWs and community health activities; a Municipal Health Commission has been formed to foster collaboration among agencies; and the Municipal Technical Board oversees quality, coverage and expansion of basic preventive and curative health care.

Motivation among both CARE and MOH staff is high. There is a sense of teamwork and self- motivation and commitment and dedication to the fieldwork. At the time of the MTE one Extensionist had left and 4 new people entered the project. A redistribution of communities was done to extend the Extensionist's time per community. Other than this, there has been little rotation of personnel at CARE and hardly any rotation of staff at the Municipal MOH or at the Health Posts. The stability of staff has been a key factor in the success of the CS Project. Due to a physicians strike, the Municipal MOH named RANs as heads of Health Posts. The RAN is generally more permanent while the physicians rotate based on their obligatory service as part of their medical training. Currently 2 physicians and 12 nurses head the14 Health Posts.

CARE is assisting project staff to locate other jobs, now that the CS Project is ending. All staff that could be relocated with other CARE projects has been reassigned. Training has been provided to staff in English and computer skills, which will enhance their opportunities for employment. The Human Resources Officer at CARE Managua gave a workshop to the staff on how prepare curriculum vitas and to do well during job interviews.

C.5. Financial Management

No significant changes were made in the budget. The CARE national office helps with the annual budget. Capacity building in this area was not done with the MOH because funds are centrally managed and distributed to each SILAIS and then to the municipalities.

Resources exist to finance some of the Child Survival activities after the end of the project. The savings and loan cooperative will provide funds for income generation activities to families. Decentralization of training of CHWs with greater responsibility assigned to Health Posts will reduce costs. The improved supervision system can be implemented with limited expenses, now that the forms have been printed and reproduced in bulk. Field visits are planned based on risk factors, so the MOH can use limited resources for areas of greatest need. The Health Posts and CHWs are looking for ways to provide refreshments for training and planning meetings. CARE's new CS Project will work to change financial policies so that proceeds from the production of services can be used to strengthen local health systems. The new CS Project will continue to support the continuance of MOH management systems, including training and supervision.

CARE received technical assistance for financial planning from Ramon Lopez of CARE Managua, regarding use of the new SCALA software, which was introduced recently. The new system provides a more complete package of information, including sub-categorization, inventory control, planning and a network of management information. Technical assistance was not received to undertake planning for financial sustainability. CARE should include financial sustainability planning as part of its work with the MOH during the next CS Project cycle.

C.6. Logistics

Logistics management was adequate, and staff interviewed during the Final Evaluation indicated that they did not lack for support regarding transportation and equipment required to undertake their duties. A concern is the lack of transportation for the MOH to continue with community outreach work. One recommendation is for Health Posts to plan visits to communities well in advance and to request assistance with transportation from the Municipal Health Team.

C.7. Information Management

Information management has been improved during the life of the project. The DIP included process indicators, which were tracked and analyzed on a quarterly basis by project staff. The use of information for decision-making has functioned at the community level, where information from Base Houses and AIN sessions is consolidated and monitored. The analysis of monthly child growth indicators and evaluations was used for planning. The CS Project contributed to the MOH data collection system through the development and reporting of community indicators. Capacity to analyze and use the data by health centers and CHWs was improved, and analysis takes place at monthly meetings and supervisory visits.

A recommendation of the MTE was to review the reporting requirements for Extensionists and collect the minimum amount of data necessary to detect problems and advances. In response to this recommendation the project reduced indicators to be reported on a monthly basis, based on the operating plans of each Health Post. Software was designed to respond to the information collection system, facilitating the tabulation of data from the communities. This system was installed in the MOH, and personnel have been trained in its use.

Another recommendation of the MTE was to improve data collection and analysis at the MOH municipal level. CARE and the MOH developed a management sheet to summarize indicators. The sheet reflects the most significant indicators of each component, improving the MOH capacity to analyze health data and plan accordingly.

Program staff, headquarters staff, local MOH partners and the communities are clearly aware of what the CS Project has achieved. The Project's impact data will be shared with USAID, BASICS, MSH and other NGOs in Nicaragua, along with other CARE CS projects.

The CS Project carried out several studies including: focus groups to develop the DIP, a qualitative study on breastfeeding practices, and AIN baseline surveys. Quality of Care studies were done to assess health services functioning with support from MSH. See Section B.2.c. *Special Studies and Approaches* for more information of the studies.

C.8. Technical and Administrative Support

Technical support included visits from CARE USA headquarters by the former Deputy Director of Child Health, Judiann McNulty, and more recently from the new Technical Specialist in Child Health, Elena McEwan. Several visits were made during the LOP to support planning and evaluation activities. The Project received technical assistance from Brian Larson, formerly of CARE Niger, to develop a strategy for savings and loan groups. CARE and MOH staff has made visits to other countries to visit successful projects and share experiences including Kenya, Honduras, Peru and Bolivia. Through the CARE headquarters' partnership with the Centers for Disease Control, CARE sponsored training in Total Quality Management, which was then replicated with Extensionists and MOH personnel.

Renee Charleston visited the Project in September 2000 for 2 weeks to assist with follow-on CS Project planning and worked with the CS team in writing a proposal draft. Her visit included strategy sessions, visits to MOH officials and field sites, and support regarding information system management. The proposal is in the process of being approved by USAID for a five-year follow-on project.

C.9. Management Lessons Learned

- Joint planning and implementation beginning with the development of the proposal and detailed implementation plan paved the way for the success of CS Project interventions and sustainability.

- CARE’s commitment to service oriented leadership and empowerment built capacity among the members of the MOH Municipal Management Team to assume roles in health stewardship in the Municipality of Matagalpa.

- Creation of permanent structures such as the Municipal Health Commission and the Survival Cooperative laid the groundwork for sustainable health benefits.

- The competency based training approach characterized by *learning-by-doing*, with the concurrent delegation of responsibility, built excellent managerial and technical capacities of CARE Extensionists and MOH staff.

- CS staff comments about the lessons they have learned personally include:
  - “Work with a multi disciplinary team improved the quality of our activities.”
  - “Weekly team meetings helped us to stop and reflect on what has been done and use the results to improve implementation.”
  - “We feel that this project has been a school where we have learned how to do things differently and better, and how to evaluate our own strengths and weaknesses and ask for help.”
  - “We learned to use a different type of language to eliminate top-down attitudes and prejudice in community work.”
  - “The most important thing is we learned how to facilitate and not do everything ourselves, even though it took longer.”
  - The men on the team experienced a paradigm shift regarding machismo, a valuable experience in shortening the gap between men and women in Nicaragua

- The implementation of TQM along with quarterly assessments, exit interviews and the development of supervision systems, guides, and checklists contributed to a culture of quality improvement and improved the utilization of services.

- The absence of staff turnover, especially within the MOH Municipal Team and Health Post personnel was crucial to building solid local health systems.

D. Other Issues Identified by the Team

All of the topics identified by the Evaluation Team as pertinent to this evaluation have been addressed in the previous sections of the report.

E. Conclusions and Recommendations

Conclusions

A review of the results of the KPC baseline and final surveys, the qualitative assessments and deliberations during the Final Evaluation resulted in unanimous agreement that this is a five-star Child Survival Project. The five stars are:

- Accreditation of all Health Posts/Centers in the municipality of Matagalpa as Baby and Mother Friendly Health Units by UNICEF;
- Integration and unity between MOH personnel and CARE CS staff;
- Fifty-one communities are implementing the AIN approach for community growth monitoring and promotion, with the support of community volunteers and accompanied by MOH Health Post personnel;
- Service oriented leadership demonstrated by the MOH Management Team and Health Post nurses and physicians has created a cadre of dedicated and talented community health volunteers; and
- Innovation and creativity on behalf of community agricultural promoters and CARE staff resulted in the formation of the *Survival Savings and Loan Cooperative*, with an initial fund of $US 11,000. The Survival Cooperative is legally incorporated and has a board of directors, secretary and accountant.

One of the outstanding achievements of CARE's CS Project was the development of public health leadership in the community, in the MOH and in CARE. Service oriented leaders can immediately be identified by the enthusiastic spirit, unified purpose and focused energy of those who work with them. "Because they are change agents, service leaders create the conditions, procedures, incentives and structures that enable genuine change to happen"[9]. The leadership style of the CARE/MOH CS Team ignited loyalty, synergy, accomplishment and shared vision among nurses, physicians, extensionists, CHWs, mothers, families, school children and teachers. Team leaders at the MOH and CARE approached project management holistically, combining the power of service with the combined talents of project staff, MOH counterparts and community partners. The success of CARE's CS Project is largely due to the actions of dedicated staff that helped others adopt positive, constructive values and behaviors simply by living these values and behaviors.

[9] Schwahn & Spady, *Total Leaders: Applying the Best Future-Focused Change Strategies to Education*, The Scarecrow Press, Inc., 2001)

A result of the service oriented leadership provided by the MOH and CARE is manifested in the achievements of CARE's CS Project, which in addition to the Five Stars, include the successful fulfillment of the original project goals. The first goal was to improve the capacity of MOH health personnel in community outreach and provision of quality services, including health education. This was achieved through the development of a total quality management culture within the MOH, giving rise to continual improvement. The practice of systems thinking, team learning, shared vision, personal mastery and mental models—the components of the Fifth Discipline[10] assisted the MOH and CARE to create a true learning organization, where the whole is greater than the sum of the parts. Team members quoted Senge's statement to express the essence of the CS Project: "*Give Me a Lever Long Enough…and Single-Handed I Can Move the World*". The point of leverage for the CS team was service oriented leadership combined with training and empowerment, approaches that were catalysts for ever widening reinforcing circles of influence.

The second goal was to empower communities to organize, analyze health and nutrition problems, and seek feasible solutions. The qualities of service, motivation and action expressed by CS Project leadership was extended to the community volunteers, who in turn became catalysts of change with mothers and families. Community mobilization, awareness and problem solving were fostered with the establishment of a volunteer network with a cadre of dedicated individuals serving as Base House Volunteers, AIN growth monitors, breastfeeding counselors and agriculture promoters. Teachers and students lent a hand to mobilize communities through fairs, demonstrations, and school health events where the entire community participated.

The third goal was to enable families to practice healthy behaviors, to identify and resolve health risks, and to have access to quality services. Communication for behavior change strategies such as interactive educational sessions, adult learning methodologies, organization of support groups, home visits, theater, music, art and peer education combined to improve home care and make better use of health services.

Achievements regarding expansion and coverage of the CS Project activities include: implementation of child survival activities in 94 communities and urban neighborhoods, support of community health activities by 366 CHWs, joint implementation of activities is on-going with 15 MOH health centers with staff trained in IMCI and quality of care, and participation of 64 schools. Over 42,000 women and children are benefiting from primary health care interventions.

The sustainability potential of CS Project strategies is good, with the following mechanisms in place: quality of care assessments and continual monitoring; decentralization of the municipal MOH with increased responsibility and authority at the Health Post level; the establishment of a Municipal Health Commission to improve communication and foster inter-agency collaboration; strong linkages between CHWs

[10] Peter Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization*, Doubleday, 1990.

and Health Posts; Base Houses functioning and serving their communities; and the formation of the *Survival Savings and Loan Cooperative*.

In spite of the overall success of the CS Project, there are some areas that will require additional attention. These are: use of data for decision making, availability of essential medicines, privacy when giving counseling to women whose child is not gaining weight. A particular area of concern is the entrance of NGOs into the community that provides material benefits in exchange for participation in health activities. The CARE Project has worked hard, along with the MOH, to develop of group of volunteers who serve their communities free of charge, and families who support those volunteers and participate for the joy of learning and improving the quality of life. Paternalistic approaches could jeopardize the hard work of the past four years. CARE and the MOH will need to assume a leadership role in lobbying with these organizations to determine the best strategies for regional development in the medium term, not just looking out for short term solutions.

Lessons Learned

The following are overall lessons learned during the implementation of the CS Project. Specific lessons learned for each technical intervention can be found in Section B. *Assessment of Results and Impact of the Program.*

- The secret of success for improving utilization of health services and community participation is treating others well, kindness and deepening friendships among CHWs, health personnel and community members.
- Joint planning and implementation between CARE and the MOH beginning with the development of the proposal and detailed implementation plan paved the way for the success of CS Project interventions and enhanced sustainability.
- The participation of the MOH in project design and the commitment to unity and sincerity as basic values in all relationships with partners fostered the success of the CS Project.
- The degree of motivation of the volunteer network and the creation of strong relationships between CHWs and Health Posts is a result of direct implementation through the MOH and not separately by CARE.
- Teaching about health in the schools was an effective strategy for disseminating knowledge and motivating new health practices in the home.
- The implementation of adult education methodologies improved the CARE/MOH training program 100%.
- The changes that health personnel made to improve service delivery based on quality of care assessments were crucial to improving communication and acceptance of the services offered.
- The stability of MOH staff has been a key factor in the success of the CS Project.
- Food security activities are a good way to motivate participation, as families value their increased capacity to produce a variety of foods that improve both income and nutrition.
- Home food production activities were an excellent way to include men in health activities.

Recommendations

Following is a summary of the principal recommendations. Specific recommendations regarding each intervention can be found in Section B.

- Training and skills regarding the use of IMCI protocols by Base House volunteers needs to be improved. The development of a simplified set of protocols for CHWs would be helpful for better understanding and use of the protocols.
- CHWs are doing a good job of registering information at Base Houses and during AIN sessions, however more attention should be paid to the use of information for decision-making at the community level.
- Continual improvement regarding client satisfaction and community outreach would be enhanced by the presence of a representative of the volunteer network on the Municipal Technical Board.
- Supervisory visits to Health Posts should be included as part of the Integrated Municipal Visits to take advantage of the presence of a qualified health team at the site and to maximize resources, now that transportation will be less available.
- Strengthen the distribution and availability of essential medicines to communities through establishment of more community medicine chests or implementation of another appropriate strategy.
- Share best practices regarding community growth monitoring sessions and the IMCI approach using the AIN weighing system at the national and departmental levels.
- Strengthen the volunteer network through the establishment of an association of CHWs, as a sustainability mechanism.
- Undertake a diagnosis of microclimates in each region and tailor food production strategies to each geographic area.
- Improve information, education and training in food security interventions with the reproduction of technical guides, flip charts and other relevant materials.
- Food security interventions should be tailored to the geographic area and based on a study of what will work best. If garden and small animal production is to be included, sufficient technical assistance and follow-up is required.
- Continue the process of joint planning with the MOH and the MED, and sign a formal agreement to institutionalize the inclusion of health education in schools. Part of the MOH contribution would be the development of a health education curriculum and teaching materials.
- Improve communication and coordination among institutions to avoid duplication of efforts. Inter-institutional meetings can discuss the adoption of agreed-upon strategies based on an analysis of best practices with a focus on sustainability, and analyze paternalistic approaches to determine how activities can be re-focused to create empowerment rather than dependence.

F. Results Highlight

A highlight of CARE's Child Survival Project in Matagalpa, Nicaragua, was the extremely successful breastfeeding promotion strategy. A comparison of the data from the Baseline Survey done in February 1999 and the final Knowledge, Practice, and Coverage Survey in August 2002 shows dramatic results. Exclusive breastfeeding for the first 6 months increased by 40.8% (from 10% to 50.8%). Continued breastfeeding between 12 and 24 months rose from 14.5 to 68.7%, an improvement of 54.2%. A comparison of mothers with children under two years of age who were breastfeeding at the time of the KPC shows an increase from 56.8% (n=158) to 76.6% (n=223), a dramatic change over the three year period, considering the widespread practice of bottle feeding the in project area. Regarding immediate breastfeeding within one hour after delivery, the KPC data show an increase of 20% (from 54.3% to74.2%).

The outstanding results CARE and the MOH achieved are due largely to a joint effort in which all 15 health posts in the Municipality of Matagalpa achieved certification from UNICEF as *Baby and Mother-Friendly Health Units*. The certification is based on the fulfilment of quality standards including staff training, promotion of a breastfeeding policy, creation of support groups, censure of bottle feeding, and education of mothers regarding exclusive and immediate breastfeeding.

Key strategies included recruitment and training of volunteer breastfeeding counselors, formation of support groups in rural communities and *barrios*, use of criteria to supervise and support the counselors on a monthly basis, and community education by CHWs during monthly growth monitoring sessions using the AIN[11] methodology. Messages about breastfeeding were reinforced thorough radio programs, skits and dramatizations at public places and events, and through health education in schools. An initiative of the Child Survival Project was to make employers and mothers aware of a Nicaraguan law that allows breastfeeding women one hour twice a day to feed her baby. Women who live close to their place of work have been able to take advantage of this opportunity.

Technical assistance from LINKAGES, combined with extensive training regarding breastfeeding, organization and facilitation of support groups, communication and counseling techniques and community information systems, was of great help in orienting the MOH and CARE staff regarding effective strategies to promote breastfeeding. Community training events were tailored to the educational level of the group and were participatory in nature. The application of observation guidelines for counseling was useful for improving the quality of the sessions.

The excellent results of the quantitative and qualitative assessments of the Final Evaluation attest to the success of the joint efforts of CARE and the MOH to promote exclusive and prolonged breastfeeding. The challenge facing the Municipal Ministry of Health and CARE at this juncture is to assure continuity of the successful strategies implemented in the communities, schools and health posts of Matagalpa, giving tomorrow's children a better chance of survival.

[11] Atención Integral a la Niñez (Integrated Child Care)

ATTACHMENT A

EVALUATION TEAM MEMBERS

1. Lynn Johnson, External Consultant
2. Nick Mills, Assistant Country Director, CARE Nicaragua
3. Elena McEwan, Technical Specialist in Child Health, CARE Atlanta
4. Ivette Arauz, CS Project Manager
5. Harold Rugama, Child Survival Specialist
6. Abundio Jarquin, Food Security Specialist
7. Eric Castro, Extensionist
8. Elizabeth Rodriguez, Extensionist
9. Maritza Manzanares, Extensionist
10. Santos Jiménez, Extensionist
11. Wilfredo Vargas, Extensionist
12. Priscila Zeledon, MOH Rural Auxiliary Nurse
13. Lourdes Haslam, MOH Municipal Health Educator

ATTACHMENT B

ASSESSMENT METHODOLOGY AND RESULTS

FINAL EVALUATION PLAN

CARE INTERNACIONAL EN NICARAGUA

PROYECTO DE SUPERVIVENCIA INFANTIL PN-76

TERMINOS DE REFERENCIA PARA LA EVALUACION FINAL

I. ANTECEDENTES

CARE Internacional en Nicaragua inició en octubre de 1998, en coordinación con el Ministerio de Salud, un proyecto de Supervivencia Infantil en los barrios y comunidades del municipio de Matagalpa. El proyecto concluye en septiembre del 2002.

Los componentes del proyecto son:

- Manejo de Enfermedades Diarreicas
- Manejo de Neumonía
- Lactancia Materna
- Nutrición y Micro-Nutrientes

Los cuatro componentes del proyecto fueron desarrollados en 94 comunidades del municipio de Matagalpa dentro del área de intervención de 14 puestos de salud. Los ejecutores fueron los líderes y brigadistas de salud de estas comunidades, el personal del MINSA de estos puestos, y 13 trabajadores de CARE (extensionistas y especialistas de supervivencia infantil y seguridad alimentaría).

Las principales estrategias que se desarrollaron fueron (a) fortalecimiento de los sistemas gerenciales del Ministerio de Salud, (b) implementación de las casas base en las comunidades, (c) formación de consejeras y grupos de apoyo a la lactancia materna, (actividad contemplada en la Iniciativa Unidades de Salud Amigas de la Niñez y de la Madre), (d) Atención Integral a la Niñez en la Comunidad (AIN Comunitario), (e) huertos de patio y fondos revolventes para actividades productivas, (f) programa de ahorro y crédito, y (g) promoción en escuelas de educación primaria.

En enero de 1999, se realizó el estudio de línea de base que consistió en una encuesta sobre conocimientos, prácticas y coberturas (CPCC) a 300 hogares del municipio de Matagalpa. En agosto del 2000, se realizó una evaluación de medio término que abordó aspectos cualitativos del desarrollo del proyecto enfocando la calidad de las estrategias que se estaban desarrollando y redireccionar esfuerzos en los últimos dos anos.

La evaluación final del proyecto debe presentar aspectos **cuantitativos** y **cualitativos** de los logros alcanzados en términos de efecto e impacto.

- La evaluación **cuantitativa** contempla una encuesta de conocimientos prácticas y coberturas, un diagnóstico rápido participativo de seguridad alimentaria, antropometría a menores de dos anos, una evaluación del programa de ahorro y crédito, una evaluación de la calidad de atención en las unidades de salud con una entrevista de salida a usuarias, y una evaluación de la organización de los servicios de salud con la herramienta de diagnóstico Unidades de Salud Totalmente Funcionales.

- La evaluación **cualitativa** está destinada a realizar un análisis de los resultados de las evaluaciones cuantitativas, determinar la calidad de las intervenciones desarrolladas, y evaluar la sostenibilidad de las intervenciones.

La intención de estos términos de referencia es para orientar las actividades a realizarse para cumplir con la parte cualitativa de la evaluación final del proyecto de Supervivencia Infantil, la que tomará en cuenta los resultados de la parte cuantitativa, que será realizada bajo otra consultoría.

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II. OBJETIVOS DE LA EVALUACION

El propósito de la evaluación final del Proyecto Supervivencia Infantil es proporcionar a las partes interesadas detalles sobre los logros del proyecto y recibir retroalimentación sobre el proyecto de los participantes y donantes, miembros y líderes de la comunidad, trabajadores de la salud, administradores del sistema de salud, socios locales, y representantes de otras organizaciones. La evaluación tendrá los siguientes propósitos generales:

a. determinar si el proyecto cumplió con las metas y objetivos establecidos
b. analizar la efectividad de la metodología técnica empleada
c. identificar las lecciones aprendidas del proyecto
d. elaborar una estrategia para comunicar estas lecciones a la organización ejecutora y a los socios.

Específicamente el trabajo a realizarse bajos estos Términos de Referencia incluirá:

- ♦ La comparación de los datos de línea base y finales para evaluar el impacto a través de estudios CPCC.
- ♦ Evaluación del desempeño del programa según cada objetivo. Comparación de las actividades planificadas con los resultados reales, analizando las limitantes que obstaculizaron el logro de las metas y los factores que facilitaron su consecución.
- ♦ Elaboración de lecciones aprendidas al nivel de las actividades del proyecto, su ejecución, o la metodología adoptada.

- Identificación de prácticas prometedoras y oportunidades para multiplicarse, replicarse o aplicar el enfoque dentro de un contexto más amplio.
- Recomendaciones, incluyendo: gerencia, SIS, capacitación, M y E, coordinación con la comunidad, MINSA y otros componentes pertinentes.
- Retroalimentación y análisis sobre la sostenibilidad del proyecto, incluyendo relaciones entre partes interesadas del mismo tales como el MINSA, voluntarios comunitarios y otros.

III. RESPONSABILIDADES DE LA CONSULTORA

La consultora será la responsable del diseño y ejecución de la evaluación y velará siempre por su feliz desarrollo de acuerdo con los objetivos y los planes establecidos. Específicamente, tendrá bajo su responsabilidad la coordinación de todas las actividades de la evaluación; la conformación, capacitación y supervisión del equipo de apoyo; el logro de los objetivos especificados; la colaboración con CARE en el desenvolvimiento de todas las actividades; y la presentación de un informe borrador y un informe final según los plazos definidos. Ivett Arauz y otras personas asignadas por CARE fungirán como coordinadores de los equipos para la recopilación de datos de campo, incluyendo la coordinación general, planificación y apoyo logístico del equipo de apoyo.

IV. METODOLOGIA

La metodología para la evaluación final del Proyecto Supervivencia Infantil sigue los lineamientos presentados en la "Guía para la Evaluación Final 2001" (USAID/BHR/PVC). Como punto de partida, la evaluación incorporará un enfoque participativo que, además de proporcionar información útil, también ayuda a que la evaluación sea una experiencia de aprendizaje para PVC, la OPV y los socios locales. Para ese efecto, el equipo de evaluación incluirá representantes de CARE, el equipo de dirección municipal, representantes de las comunidades, SILAIS Matagalpa, USAID y ONGs que colaboran con el proyecto.

Se realizará un taller de planificación con el equipo evaluador a fin de planificar las actividades para las visitas de campo y formular instrumentos para la recopilación y análisis de los datos. Estos instrumentos serán utilizados durante las visitas a las comunidades del proyecto y a las unidades de salud. Se harán visitas de campo y observaciones en las comunidades seleccionadas en el taller de planificación.

Se seleccionarán a comunidades y barrios de las áreas geográficas donde el proyecto es implementado, incluyendo comunidades y barrios en distintas etapas de avance hacia las metas y objetivos del proyecto. Esto permitirá al equipo evaluador estudiar tanto las fortalezas como las debilidades de la estrategia de implementación, y formular estrategias innovadoras para superar las barreras que pudieran presentarse en la implementación de actividades futuras.

Mediante metodologías participativas, un equipo multidisciplinario de evaluación analizará el grado en que el proyecto ha alcanzado sus metas y objetivos relativo a lo establecido en el Plan Detallado de Implementación; también tomará en cuenta los resultados de la evaluación de medio término. El equipo examinará el proceso de implementación mediante una variedad de metodologías cuantitativas y cualitativas, incluyendo talleres de planificación y análisis, visitas al campo, entrevistas con informantes, y entrevistas grupales.

La evaluación se centrará específicamente en lo siguiente:

- resultados e impacto del programa
- enfoques transversales
- movilización comunitaria
- comunicación para cambio de comportamiento
- fortalecimiento de capacidad
- capacitación
- estrategias de sostenibilidad
- planificación
- capacitación y supervisión del personal
- sistemas de información, finanzas y logística
- manejo de la información

Las recomendaciones y lecciones aprendidas de este proyecto serán estudiadas con el fin de elaborar mejores estrategias para los próximos años.

El equipo evaluador será dividido en grupos pequeños para recopilar información de campo. Cada equipo consistirá de aproximadamente 5 personas. Los equipos trabajarán en el campo durante 4 días para visitar aproximadamente 16 comunidades. Las comunidades se seleccionarán en base de los siguientes criterios, que serán ratificados durante el taller de planificación:

1. Excluir comunidades inaccesibles debido condiciones climáticas.

2. Seleccionar al azar 16 comunidades y agruparlas según proximidad geográfica. Planificar programa de visitas.

3. Identificar al menos un centro de salud y dos puestos de salud para visitar dentro cada agrupación de comunidades.

4. Incluir comunidades representativas de tres niveles de avance relativo a los indicadores del proyecto: mínimo, intermedio y avanzado.

Se celebrará un taller de un día con el equipo evaluador para analizar los resultados de la CPCC y visitas de campo, organizar los datos y prepararse para la presentación formal. Se efectuará un Taller de Resultados de un día para todos los miembros del equipo más USAID, MINSA, y ONGs socios para conocer los resultados del trabajo de campo y otra

información recopilada durante la evaluación, y para formular recomendaciones para mejorar la calidad de la ejecución del proyecto en el futuro.

V. PLAN DE LA EVALUACION

La evaluación se realizará en cinco etapas:

1. Actividades preparatorias

   - Estudio de documentos (PDI, POA, Informes Anuales, EI y CPCC, SIS, M&E)

2. Planificación

   - Pre-planificación (Formación del equipo, logística, estudio de documentos)
   - Taller de planificación (contenido, metodologías, diseño de instrumentos)

3. Recopilación de datos

   - Visitas de campo
   - Entrevistas con informantes
   - Entrevistas colectivas

4. Análisis de datos

   - Resumen de datos
   - Análisis de los datos por el equipo

5. Presentación de resultados

   - Sesiones de análisis con personal de proyecto en Matagalpa
   - Presentación formal
   - Informe final aprobado

VI. CALENDARIO DE LA EVALUACION

Domingo	Lunes	Martes	Miércoles	Jueves	Viernes	Sábado
Sep. 15 Consultora llega a Managua Revisión de documentos	Sep. 16 Matagalpa Revisión de documentos y reuniones de planificación Selección de equipo evaluador	Sep. 17 Reunión para afinar instrumentos y Calendario Prep. Equipo y materiales	Sep. 18 Prep. Equipo y materiales	Sep. 19 Trabajo de campo 4 barrios o comunidades por día	Sep. 20 Trabajo de campo 4 barrios o comunidades por día (viaje de consultor a Managua para entrevistas con AID y CARE)	Sep. 21 Trabajo de campo 4 barrios o comunidades por día
Sep. 22 Trabajo de campo	Sep. 23 Matagalpa Organizar datos preliminares	Sep. 24 Matagalpa Organizar datos preliminares	Sep. 25 Matagalpa Organizar y analizar datos finales	Sep. 26 Matagalpa Preparar Taller de Resultados	Sep. 27 Matagalpa Taller de Resultados	Sep. 28 Sale consultora
Sep. 29 Redactar informe borrador	Sep. 30 Redactar informe borrador	Octubre 1 Redactar informe borrador	Octubre 2 Enviar borrador a CARE	Octubre 3 Recibir e incorporar comentarios y recomendaci-ones.	Octubre 4 Preparar informe final.	Octubre 5

TALLER DE PLANIFICACION
16--18 de Septiembre del 2002

DIA	ACTIVIDAD
Lunes 16	
	Organización de la Evaluación Introducción de Participantes Formación de Equipos Desarrollo del Plan de Salidas
Martes 17	
	Formulación de Preguntas para: Maestros de las Escuelas Brigadistas de las Casas Base Monitoras de AIN Consejeras de Lactancia Materna Promotores Agricolas Puestos de Salud Movilización Comunitaria
Miércoles 18	Preparación de Guias Finales

EVALUACION FINAL
Proyecto Supervivencia Infantil
CARE MINSA
RUTA LOGICA

Grupo	18 septiembre	19 septiembre	20 septiembre	21 septiembre
1 Elena, Eric Priscila	Apalili 65035	Waswali 65035	La amistad 65062	El porvenir A pie
2 Ivette, Maritza Thelma, Harold	Llano grande 65062	J. Centro 65062	Sn Pedro 65021	Pedro J. Ch. 65021
3 Lynn, Santos Wilfredo, Lourdes	Piedra de agua 65062	Qda Onda 65062	Juan P. II A pie	Mirador 65035
4 Abundio, Elizabeth, Karla Herrera	Banquitas 65021	J. Abajo 65021	El Tule 65035	Tejas 2 65062

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EVALUACIÓN FINAL
PROYECTO SUPERVIVENCIA INFANTIL
CARE- MINSA.

GUIA DE ENTREVISTA A MADRES

Observe y escriba el nivel de entusiasmo y pro actividad expresado por el grupo focal.

- Madres muy participativas, atentas a la conversacion, opinando, motivadas,entusiastas, optimistas, interesadas, alegres (10 grupos)
- Poca activas, pasivas , timidas, poco expresivas (3 grupos)
- Al inicio se mostraron timidas pero en el transcurso del dialogo se fueron integrando a la conversacion y se observo mayor participacion. (2)

1- ¿Se reúnen las madres en esta comunidad?

Si (15 grupos)
No (0 grupos

2- ¿Desde cuándo se reúnen, cada cuánto?

Desde hace tres anos (7)
Desde que empezo el proyecto (1)
Desde hace 30 meses (1)
Desde hace 16 meses (1)
Desde hace 2 anos (1)
Desde hace 3 anos (4)
Mensual (12)
2 veces al mes (3)

3- **¿Para qué se reúnen? (temas)**
Lactancia Materna (17)
Alimentacion del menor de dos anos, nutricion,edad para dar de comer, que cantidad y frecuencia dar a los ninos (17)
Seisones de pesaje, conocer y llevar control del nino (9)
Diarrea (6)
IRAs (5)
Signos de peligro (3)
Cuidados del nino (1)
Prevencion de enfermedades (1)
Para hablar de enfermedades (1)
Para conocer las vitaminas de las frutas (1)
Vacunas y vitaminas (1)
Produccion de patio (1)
Consejeria (1)
Planificacion familiar (1)

4- **¿Quiénes participan en estos grupos? (Embarazadas, lactantes)**
Madres con ninois menores de 2 anos (11)
Embarazadas (10)
Madres lactantes (4)
Madres de familia (4)
Madres con ninos tiernos (1)
Abuelas para transmitir experiencia a madres nuevas (1)

5- ¿Cuántas madres se reúnen periódicamente? Del total de madres que hay en la comunidad, cuántas aproximadamente no participan? Por qué?
Participan:
20 a 22 madres (1) no participan 3 madres no participan por que hacen otras gestiones en la ciudad
15 madres (3)
12 madres (2) No participan 4 por que no seles da nada , no les gusta, no tienen interes
10 madres (1) No participan 20 por que trabajan
De 20 madres participan 10 (1) por que salen a trabajar, por pereza, no les gusta
8 madres (1) No participan: 4 por que tienen trabajo, nunca han asistido
13 madres participan (1) el resto son abuelas

6- **¿Cómo hace para compartir mensajes con madres que no asisten?**
Cuando lavamos en el pozo o cuando nos encontramos hacemos comentarios (3)
No saben(1)
Cuando les preguntan (1)
Cuando llegan a nuestras casa aprovechamos para hablarles de los signos de peligro ,Visitas con los brigadistas las que no llegan (6)
En la iglesia les informan (1)
No lo hacen(1)
En el puesto de salud (1)

7- **¿Cómo hacen ustedes para integrar a nuevas madres en el grupo?**
Los brigadistas las invitan (8)
Se invitan entre madres (5)
La enfermera les invita (1)
Se aprovecha el pesaje para invitar a la proxima sesion (1)
Se visitan y se explica lo bonito e importante que es (1)
Cuando llegan a comprar les cuentan e invitan (1)
Visitas domiciliar (1)
En la celebracion de la iglesia (1)

8- ¿En qué les ha ayudado estos temas en el cuidado de sus niños? (comparar practicas anteriores con actuales, ejemplos)
Aprendemos a cuidar a nuestros ninos
Aprendemos elaboracion de comida con oja de zanahoria, platano ,jocote
Aprendimos a distinguir los signos de peligro y sabemos que hacer (4)
Sabemos que hacer y adonde ir con los temas impartidos , (3)
Conoci acerca de lactancia materna exclusiva (3)
Se cuando debo pesar al nino
Aprendi como alimentar al nino en la diferentes edades

Ahora contamos las cucharadas de comida y damos mas tiempos de comida al nino antes se la dabamos al calculo (4)

9- ¿Qué relación tienen y cómo es esta relación con los brigadistas de salud y la enfermera del puesto?

Brigadistas:

Es buena nos ensenan y nos visita seguido
Nos reunimos cada mes
En el pesaje nos explica cuanto pesa y cuando lo vamos a alimentar
Hay buena amistad
Ayuda bastante al darnos consejos
Nos visita (2)
Nos invitarnos a reuniones (2)
Nos comunicamos
Tienen mucha preocupacion para nosotros, son muy amables

Enfermera:

Amable , nos explica todo lo que nosabemos y eso es bueno
Nos explica cuando traer a sus ninos
Da consejos de cómo cuidar del nino enfermo
Durante la Jornada de vacunacion , da consejeria para que el nino no se enferme
Nos atiende , nos da medicamento
Nos visita para invitarnos al pesaje
Visitan a las comunidades

10- ¿Piensan ustedes continuar con las reuniones de los grupos ?

Pensamos continuar hasta que los ninos esten grandes
Si (15)

11- ¿Cómo consideran el servicio que recibe en la casa base?

Muy bueno (2)
Muy importante (2)
Muy valioso (1)
Bueno (10)
Nos dan cloro y suero o referencia (10)
Porque les dan atencion a las diarrea , dolor (2)
Las visitamos cuando estan enfermos , con temperatura (2)
Les orientan sobre las enfermedades (2)

12- **¿Cómo consideran el servicio de salud que reciben en el puesto de salud?**

Es buena (4) (Jucuapa,Banquitas,Llano Grande,Qda Honda)
Muy bueno (2) (apalili, El mirador.)
Nos sentimos bien con el trato de la Dra Castro y la Mireya, el problema es que no hay medicamentos.
(PGN)
EL problema es cuando no hay medicamento (3)

GUÍA DE ENTREVISTA A BRIGADISTAS

1. Cuanto tiempo tiene de trabajar como brigadista?

menor de 1 ano 3
de 1 a 4 anos 21
mas de 5 anos 15

2. Que le ha motivado para trabajar como voluntario (a) de salud en su comunidad?

deseo de aprender y ayudar a las madres y la comunidad
Necesidad de prevenir las enfermedades y así evitar que los niños se enfermen
Conocer a la gente y adquirir experiencias
Dar posibles soluciones a las necesidades de la gente
Mejorar la comunicación con las madres y tener mayores relaciones con ellas
les gusta el trabajo con la comunidad
disminuir las muertes en los niños

II. Especificas

3. Cual es su cargo como brigadista? Llenar la sección pertinente de acuerdo al cargo.

Monitor(a) de AIN 15
Consejera de LM 14
Responsable de Casa Base 15
Brigadista 13
Promotor Agrícola 10

a. Monitoras Atención Integral a la niñez (AIN-C)

4. Que actividades realiza en su labor como monitor de AIN?

(las actividades listadas son una ayuda para el entrevistador, y si el brigadista no las menciona espontáneamente, se debe preguntar si las realiza) de 15 comunidades encuestadas 1 no realizan sesiones de AIN

14 Planifica las sesiones .
14 Calcula peso minino esperado
14 Registra libro y tarjeta de control
14 Clasifica la situación nutricional
14 Da consejeria
12 Analiza resultados de la sesión AIN
14 Llena hoja para el puesto
14 Planifica las visitas
14 Realiza las visitas
13 Realiza asambleas comunitarias

5. ¿Con que frecuencia realizan las sesiones AIN en la comunidad?

de 14 comunidades entrevistadas con AIN todas refieren que realizan mensual.

6. ¿Como realiza la captación de los (as) niños (as) para ser atendidos en el AINC en su comunidad?

Visitas domiciliares

puesto de salud refiere al AIN a los niños nuevos que llegan al centro
captación precoz a mujeres embarazadas través de visitas domiciliares
coordinación con enfermeras del puesto de salud
monitoreo de censo y croquis.

7. ¿Que materiales utiliza para la consejería y visitas domiciliares?

Guías de acción
Rota folios
Láminas de AIN
Libro de visitas domiciliares

8. ¿Que éxitos y que barreras o limitaciones ha encontrado en su trabajo?

Éxitos:

AIN ha sido aceptado
Mejor coordinación con el puesto de salud
madres están pendiente de la fecha que les corresponden
madres no tienen necesidad de llevar a control a sus niños al puesto
mayor conocimiento de las monitoras
mayor compromisos de las madres en cuanto al cuido de los niños y como mejorar la alimentación
ha formado conciencias a otras brigadista no capacitados en apoyar el programa de AIN
Antes las madres tenían que ir a Matagalpa para controlar el crecimiento de sus niños y ahora lo llevan al AIN de la comunidad (ahorro de tiempo y transporte)
La salud ha mejorada hay menos casos de RDAS e IRAS
hacen uso en la alimentación del niño hojas verdes.

Limitaciones o barreras:

- Algunas madres no asisten a la sesión de AIN porqué no se les da comida.
- madres no aceptan cuando sus niños están bajos de peso
- Mucha papelería hay que llenar lo que implica dedicar mas tiempo a las madres por lo cual tienen que trabajar hasta de noche.
- Los niños asisten pero no con su mamá porque trabajan.
- Algunas mamas creen que las monitoras ganan un salario.

Consejera de Lactancia Materna

9. Explíquenos cuales son las actividades que realiza como consejera

15 Planifica las sesiones.
15 Prepara el tema de la sesión
14 Facilita las sesiones
15 Registra actividades en su hoja
13 Da consejeria y establece compromisos
13 Prepara informe para el puesto de salud
14 Realiza visitas domiciliares

Observaciones: Cuando no sesionan los grupos de apoyo las consejeras realizan visitas domiciliares y les hablan sobre lactancia materna y nutrición.

10. ¿Con que frecuencia realizan las sesiones de grupo de apoyo en la comunidad?
de 15 comunidades entrevistadas 13 mencionan que sesionan mensualmente y 2 las realizan cada 15 días porque el grupo de madres es muy grande

11. ¿Como realiza la captación de madres nuevas en el grupo?

- A través de visitas domiciliares.
- con ayuda del Censo
- Las mismas madres invitan a otras madres.

12. Que éxitos y que barreras o limitaciones ha encontrado en su trabajo?

Éxitos:

- Ha aumentado el número de madres que dan de mamar se han presentado casos de madres que han hecho relactación
- Mayor confianza de las madres en expresar sus sentimientos.
- Mas comunicación entre las madres.
- el trabajo de consejera ha permitido obtener mas conocimiento y relacionarme con la comunidad.
- menor índice de enfermedades diarreicas .
- Practican buenos hábitos de higiene y alimentación del niño.
- Sostenibilidad en los grupos de apoyo
- Esposos apoyan a las mujeres la asistencia a los grupos de apoyo.
- Se gana el respeto de la comunidad
- Brigadistas crean habilidades paran hablarle a las mujeres
- Nos llenamos de conocimiento porque las madres nos transmiten experiencias.
- Mayor confianza de las madres para expresar sus inquietudes.

Limitaciones o barreras: - Algunas madres son poco expresivas no participan en el grupo.

- Algunas madres solteras no asisten al grupo porque salen ha trabajar fuera de la comunidad.
- algunos maridos no las dejan participar por que no les gusta

Responsable de CASAS BASES
13 . Explíquenos que actividades realiza como responsable de casa base

15 Visitas domiciliares
15 Atención a niños menores de 5
14 Usa los cuadros de procedimientos
13 Registra producción
13 Prepara informe
13 Refiere pacientes
13 Da seguimiento a la contrarreferencia
15 Distribución SRO, Cloro, acetaminofen.

14. ¿Explique como usa el cuadro de procedimientos AIEPI en la atención al niño enfermo? (le pedimos la demostración)Marque con una x si explica los siguientes pasos:
14 Evaluación
14 Clasificación

14 Que hacer
Observaciones: En una casa base se encontró dificultad para evaluar y clasificar (uso del manual de aiepi) Detecta los signos de peligro de una una forma practica pero no hace uso del manual.

15.¿Que problemas tiene con el sistema de referencias y contra referencia?

El hospital no regresa la contra referencia .
El PGN la enfermera de admisión ni si quiera la acepta y se disgusta cuando le llega un paciente con referencia y no envían la contra referencia.
Muy poca papelería de referencia y contra referencia ya que en las comunidad se trabaja sectorizado y este material se encuentra sola mente en la casa base.
De 15 casas bases encuestada 5 dicen que el PGN no envía la contrarreferencia.
4 Responsables de casas bases dijeron no recibir la contra referencia del HRCAM.
2 Responsables de casas bases dijeron que las madres se quedan con la contra referencia .
4 Responsables de casas bases manifestaron no tener problemas.

16. ¿Que éxitos y que barreras o limitaciones ha encontrado en su trabajo?

Éxitos:

Mejor abastecimiento de la casa base
Identificación con rótulos delas casas bases.
Brigadista están mejor capacitados, y aprendimos como clasificar y detectar los signos de peligro en los niños(Evaluar , Clasificar y Que hacer). .
Mejor relación con el personal de salud de los puestos .
Hay menos enfermedades diarreicas .las madres reconocen la importancia de la casa base .
Mayor cantidad de madres hacen uso del SRO.

Limitaciones o barreras:

Abastecimiento 4
Tiempo disponible 1
Puesto de salud cerrado 1
Tener demasiados cargos 1
Material de curaciones 1
La personas quieren que los atiendan rápido con la referencia.1
No tener problemas 6

Promotores Agrícolas

17. ¿Explíquenos que actividades realiza como promotor agrícola?

13 Visitas domiciliares
11 Capacitación a madres
13 Visitas a huertos
11 Sesiones demostrativas
13 Distribución de semillas e insumos
8 Recuperación de fondos.

Observaciones:

Familias que no apoyan 1
Problema de plagas 1
Problema de seguía 1

No se encontró el promotor agrícola 2

18. ¿Cuántas familias con niños menores de 5 años, han participado en las actividades de patio?

de 15 comunidades encuestadas se beneficiaron ha un total de 497 familias con un promedio de 33 familias por comunidad.

19 ¿Cómo ha hecho el seguimiento y asistencia a las familias con huertos (explique como lo hace).

Visita domiciliar
reuniones con beneficiario
brindando orientaciones sobre el riego por goteo

20. ¿Como realizara el seguimiento a las familias en el futuro al promotor?

- Coordinando con otros proyecto
- Aprovechar la presencia de otros proyectos que entren con actividades agrícolas.
- Diversificar los huertos para mantener.
- Realizar almácigos de papaya, maraculla, granadilla para darle a otras familias
- Compromisos de otros brigadistas de continuar con los huertos.
- Visitas y reuniones con madres
- Continuar organizando a las madres y pedir recolecta para compra de semilla(Zanahoria, rábano, Cebolla)
- Promover el levantamiento de Parras de maraculla y granadilla

21. ¿Que éxitos y que barreras o limitaciones ha encontrado en su trabajo?

Éxitos:

- Las Plantas están Frutando
- Los niños están consumiendo lo que producen en los huertos y las madres están vendiendo los sobrantes para completar la dieta alimenticia.
- aprendieron hacer abono orgánico
- El peso ha mejorado en los niños.
- Familias con escasos recursos económicos tuvieron la oportunidad de ser beneficiado con crédito de Aves y huertos
- Madres aceptan las plantas con mucho entusiasmo e interés

Limitaciones o barreras:

-No obtener crédito para sembrar porque no tienen prendas para se candidatos a prestamos .
-Falta de Agua
-Animales las destruyen (Gallinas)
-Perdidas de Aves se murieron y se perdieron
-Hay plagas.
- Terrenos pedregosos.

III Sistema de información y monitoreo (para todos los cargos)

22.¿**Explíquenos como registra la información de las actividades que usted realiza como voluntario de salud? Pedirle que muestre los formularios que usa para recopilar la información de sus actividades como voluntario .**

- Se usan los formularios ; libro de AIN , Registro de Grupo de apoyo, registro de casa base, Agenda de planificación mensual, Cuaderno de visitas domiciliares, Cuaderno de informe de AIN, Registro de informe mensual , hojas de entrega de huertos créditos. todas las comunidades y barrios entrevistados presentaban su información en orden y en el mes .

23. ¿Explíquenos como hace llegar la información al puesto de salud?
En los encuentros mensuales que se realizan con la red en puestos de salud, se entrega el resumen mensual de actividades realizadas en el mes.

24.¿Como utiliza la información que recopila en la comunidad y con el puesto de salud?

-Para solucionar problemas que se encuentran en el barrio
-Posibles acciones a tomar
-Planificar actividades a ejecutarse el próximo mes

- Apoyar a cumplir las metas del puesto de salud
- Abastecimiento de cloro , SRO según las necesidades.
- Para Compartir información y valorar lo planificado
- Para evaluar los avances realizados en el mes.

25.¿Ha recibido visitas del MINSA, cada cuanto y para que?

De 15 comunidades entrevistado todas mencionaron haber recibido visitas del MINSA mensualmente para ser supervisión de manejo de papelería y supervisión de consejería realizada por los brigadistas, captación de madres inasistentes a controles, revisar planes, apoyo al AIN, planificar visitas de grupo de apoyo, para coordinar trabajo, ver los filtros, para jornada de vacunación , para ver como están trabajando los brigadistas, orientar el llenado de la tarjeta

IV. Seguridad Alimentaría: (para todos)

26. ¿Qué cambios han observado a partir de la actividad de huertos en su comunidad?

- se ha mejorado la nutrición de los niños
- Ayuda en la economía del hogar ,no gastan dinero en comprar las frutas.
- Consumen lo que cosechan
- Las madres están utilizando las hojas de las hortalizas
- El consumo y producción de Papaya es algo nuevo en la comunidad.
- Mayor aceptabilidad de las madres en los huertos
- No sabían el valor de los huertos frutales en la nutrición de los niños.
- lograron vender parte de la producción para comprar otros artículos

27. ¿Qué hacen con la producción de los huertos establecidos en sus patios?

las 15 comunidades entrevistadas mencionaron utilizar el producto para el consumo de la familia y 5 dijeron que vendieron parte de lo cosechado para comprar otros artículos.

28. ¿Qué alimentos nuevos, considera que han introducido en la dieta de las familias?

Maracuya, Soya, Granadilla, Papaya, Hojas Verdes, Cáscara de Plátano, Plátano, Espinaca, Maranon, Ayote, Yuca.

29. ¿Qué logros ha obtenido con el establecimiento de las actividades de patios en esta comunidad?

- Tienen los alimentos al alcance de sus manos.
- ha mejorado la nutrición de sus niños
- Las madres están utilizando la soya y las hojas verde
- En los últimos anos se ha aumento la producción y consumo de papaya y Granadilla.
- Se ha aumentado el numero de familias que venden frutas.
- Las familias consumen frutas (maracuya,Granadilla,Papaya) antes no lo hacían y por lo tanto los niños se enfermaban con mayor frecuencia..
- Aprendieron hacer recetas mejoradas
- Ha venido a mejorar el ingreso de la familias y balancear la alimentación de los niños
-

30. ¿Qué prácticas aplican en esta comunidad para el manejo de las actividades de patio

15 Riego por goteo
13 Aplicación de mulch
12 Como hacer abono y repelente orgánico
15 Preparación de suelo
11 Conservación de suelo y agua
9 Manejo y sanidad de animales
14 Establecimiento de huertos
9 Establecimiento de viveros.

31. ¿Qué planes tienen para continuar las actividades de patio (de donde van ha obtener los recursos, como semilla, materiales vegetativos etc).

- Obtener semillas de las frutas
- obtener prestamos de las cooperativas.
- Realizar gestiones con otras ONG.
- Guardar las semillas para sembrar
- Coleccionando las semillas y beneficiar familias nuevas.
- se colectas con las madres para comprar semillas.

V. Conclusiones

32. ¿Cual ha sido su relación con el puesto de salud y como la valora ?
- Trabajar coordinado con la responsable del puesto de salud
- Hay confianza para comunicarle los problemas

33. ¿Cual ha sido su relación con las madres de la comunidad?
El total de encuestadas respondieron Mayor confianza y mejoría de la asistencia
Mayor credibilidad (las llegan a buscar a su casa asisten al llamado de las reuniones), y solidaridad entre ellas, las madres se visitan entre ellas par solucionar sus problemas

34. ¿Que cambios ha observado en la comunidad?

15 de 15 Mejores practicas en las madres
15 de 15 Mejor estado de salud de los niños
12 de 15 Menor mortalidad
15 de15 Mayor participación de las familias
10 de15 Mayor autogestión

Observaciones: 1 esta capacitado para trabajar con otros proyectos.
CARE nos a apoyado con lo del transporte.
asisten mas al puesto de salud y control de embarazos.
se ha notado los cambios en la salud de los niños.
Buscan mas rápido asistencia a la casa base.
La madres muestran mas cariño a sus hijos por ejemplo antes los de3jaban sin comida ahora se encargan de dejarles algo para comer antes no había atención a los nonos ahora si e incluso a mujeres

35.¿Como ha cambiado su trabajo como brigadista,(a partir del apoyo del proyecto MINSA y CARE)? De ejemplos

ANTES las brigadistas no se involucraban en el trabajo, no había casa base, no había apoyo, el brigadista era solo para invitar a la vacuna y trabajaba mas por que solo había uno, se le tenia temor a las enfermeras, eran brigadista solo de nombre, no se conocía a las madre s de la comunidad, no se brindaba consejeria

AHORA se relacionan mas con los brigadista, existe casa base, mayor apoyo, hay mas brigadistas por lo que el trabajo se ha reducido, los brigadistas han creado un buen acercamiento con la población. ahora ya están capacitados en salud para tratar a los niños, ahora se conoce a todas, ahora a todas las madres se le brinda consejería.

36.¿Como piensa continuar realizando las actividades con el puesto de salud?
15 de 15 seguiremos reuniéndonos igual que siempre por que el beneficio es para nosotros, asumiremos el refrigerio nosotros para no dejar caer el proyecto.

GUIA DE ENTREVISTA A PUESTOS DE SALUD

1. ¿Cuánto tiempo tiene de trabajar como responsable de puesto de salud?

de las cuatros entrevistadas tienes como experiencia mínima de laborar para cada puesto entre 3 a 6 años de experiencia.

¿Cuál es su rol dentro de las actividades que impulsa el proyecto supervivencia Infantil?

A las entrevistadas se les pregunto sobre el rol que ellas desempeñan en apoyo al proyecto las cuales respondieron.
Capacitaciones en AIN
Formación de huertos familiares.
Capacitación a consejeras.
Facilitadores en el proceso de selección de miembros de la red.
Capacitación en IRA, EDA.
Apoyo a los extensionistas que visita a las comunidades.
Grupos de apoyo.
Visitas domiciliares.
Jornadas de higiene y limpieza.
Reuniones con los brigadistas.
acompañar sesiones de AINC Y grupos de apoyo.
Reuniones mensuales para elaboración de planes mensuales
Capacitar a madres en recetas mejoradas

2. ¿Qué actividades organizativas realiza con la comunidad?

La selección de brigadista para la formación de diferentes grupos para que trabajen de manera voluntaria.
Visitas domiciliares , jornadas de limpieza, jornadas de vacunación, AIN comunitario,
Encuentro con madres con niños menores de seis meses.
Organizar madres en grupos de apoyo.
Organizar jornadas de higiene y limpieza.
Organizar las capacitaciones.

3. ¿Qué tipo de voluntarios existe en el área de influencia del puesto de salud?

consejeras
monitoras de AIN
Promotores agrícolas.
brigadistas
consejeras de lactancia materna.
parteras
colvol.
rep de casa base
alcaldes
delegados de la palabra

4. ¿De qué manera, coordina, apoya o le da seguimiento a las actividades que realiza la red de voluntarios de salud de su área?
   4 Encuentros mensuales con la red
   4 Acompañamiento a actividades de AIN de los monitores.
   4 Visitas domiciliares en conjunto con los brigadistas (acompañamiento)
   4 Acompañamiento a las sesiones de grupos de apoyo
   4 Acompañamiento a actividades de nutrición.
   4 Abastecimiento y Supervisión de casas bases

   Anote comentarios:
   En las sesiones de AIN se realizan los grupos de apoyo y en la misma visita se aprovecha para supervisar la casa base.
   Se necesita financiamiento para equipar comunidades en las cuales no esta el proyecto y tienen la disposición para realizar AIN.
   Participar en asambleas comunitarios informativas o para buscar respuestas organizativas.

5. ¿Podríamos ver Actas de reunión entre los voluntarios y la unidad de salud o cualquier evidencia de actividades de comunicación entre ambos (con una periodicidad no mayor de 3 meses)?
   ¿Podría mostrarnos su plan de trabajo?
   Anual: Tiene: 3 No tiene 1

   Mensual: Tiene : 4

6. ¿Qué actividades de supervisión a las comunidades refleja el plan de trabajo mensual ?
   Anotarlas
   En el plan de agosto y septiembre estas reflejados Visitas de supervisión a de Monitoreo a:
   1 Casas Bases.
   3 AINc.
   3 Grupos de apoyos.
   2 Actividades de Lactancia Materna.
   1 Captación oportuna de CPN y Puerperio.
   4 Encuentro evaluativos con la red comunitaria.

7. ¿Por qué eligió las comunidades que se reflejan en su plan para realizar actividades de seguimiento? *(En el caso de que tenga salidas a las comunidades)*

Necesitan conocer como están funcionando las sesiones de:
AINc,
2 Grupos de apoyos.
4 Plan de prioridad de actividades.

Por que han tenido muy poco acompañamiento y hay que reforzar los conocimientos.
Se visitan los lugares donde se presentan niños bajo peso frecuentemente.

8. **¿Por qué no planificó actividades de salida a terreno en este mes?**
   (En el caso de que no tenga planificado salidas a las comunidades / barrios.
   No hizo el plan d trabajo del mes, puesto de salud las Banquitas

9. ¿Qué actividades de IEC ha realizado dentro de su zona?
   3 *Talleres*
   4 *Teatro*
   4 *Sesiones educativas*

   Anote comentarios:

se han realizado presentaciones de cine móvil para dar educación a las madres.
Con ayudad de los profesores se da educación en salud en las escuelas.
Con los Brigadistas se elaboran afiches y se realizan otras actividades como la celebración de la semana de la lactancia materna.
Promoción de alimentación a base de apoya y hojas verdes de forma practica.
Concurso de murales.
A través de pápelografos los brigadistas promueven educación desde sus casas
Asambleas comunitarias.
Visitas en actividades de lactancia materna y AINc.
Actividades de jornadas de limpieza.
Actos en las escuelas con el apoyo de los maestros.

10. ¿**Utiliza algún formulario para supervisar las consejerías u otra actividad educativa de los brigadistas? ¿Nos lo podría enseñar? Si 2 No 2**

Comentario**: Las entrevistadas respondieron que hace muy poco que se le entregaron los formatos. No se les orienta sobre el llenado de los formatos, lo hacemos de manera personal.**
Solo enseñaron el monitoreo de Ain, grupos de apoyo, supervisión de casas Bases, sesiones educativas, visitas domiciliares.

11. ¿En que temas ha capacitado en su área de trabajo?

AIEPI
IRA
EDA
Grupos de apoyo.
AINc.
Pasantias a voluntarios de la red.
intercambio con otros voluntarios.
Alimentación del niño menor de 6 meses.
Recetas mejoradas.
Empoderamiento comunitario.
Fondo revolvente.
Manejo de filtros.
Técnicas de huertos.

12. A quienes?

A brigadistas que no tenían mucho conocimientos
A los voluntarios consejeras, red, monitores y voluntarios, col vol, parteras, promotor agrícola, madres con niños menores de dos años.

13. ¿Qué metodología utiliza en sus actividades de capacitación?

Metodología participativa e intercambio con brigadistas de otros puestos de salud.
Educación de adultos.
Afiches, rota folios, lluvia de ideas, pápelografos adecuando la información al nivel de los participantes.
Trabajos de grupos de forma practica.

14. En el área de capacitación, qué cosas está haciendo actualmente que no hacía antes del proyecto?

Antes no se realizaban PRE y pos-tez ahora si se realizan.
La capacitaciones no se dan con los maestros alumnos, se comparten conocimientos entre facilitadores y participantes.
Reuniones mensuales, se capacitan a manera de lluvia de ideas.
Antes llegaban a capacitar a hora lo hacemos de forma integral.
El brigadista actúa por si solo, al final de la capacitación se evalúan los conocimientos obtenidos.
Capacitación en nutrición, charlas a madres sobre alimentación dl niño de acuerdo a la edad.

Relación del trabajo entre el comunitario y el personal de salud, se acompaña en visitas domiciliares.
Manejo del niño sobre signos de peligro, cuando es necesario trasladarlo al puesto de salud o si se dará remedios caseros.
Realizan plan metodológico, utilizando educación participativa.
Elaboración de planes mensuales con brigadistas.
Sesiones de ain en las comunidades, grupos de apoyo que antes no se hacían en las comunidades y ahora si.

15. ¿Cómo sabe usted que los brigadistas están aplicando lo que aprendieron en las capacitaciones?

En las visitas de pesaje.
En la consejeria a madres con el Brigadista
En la supervisiones a grupos de apoyo.
En nutrición.
En la referencia y contra referencia.
Las madres a aprendido nuevos hábitos de higiene y los han puesto en practica.
Signos de peligro en los niños, realizan consejeria a las madres.

16. Nos podría explicar como funciona el sistema de información de actividades que se realizan a nivel comunitario en el área que cubre este puesto de salud?

Hoja d registro del Brigadista.
En reuniones mensuales informan al puesto de salud.
El puesto de salud lleva consolidado el trabajo que realizan los comunitarios.
Control de grupos de apoyo que lleva la consejera.
Lleva informe al puesto de salud.
Informe de monitoreo de INAC.
Informe d productividad de casas bases.
El brigadista recoge toda ala información para luego pasarla al puesto, los responsables la consolidan y la envían al policlínico.

17. ¿Cuál es la utilidad de esta información?

conocer como se esta atendiendo y conocer como esta la comunidad.
Nos permite tomar decisiones en los problemas mayores que se nos presente.
Se analizan y se dan posibles soluciones a través de un plan de trabajo.
Se observan si se lograron los objetivos y se elevan nuevas propuestas.
Sirven para aumentar la productividad y conocer la problemática por comunidad.

18. ¿Qué apoyo requiere usted en el futuro? ¿En qué áreas?

Capacitación.
Movilización para la salidas a terrenos.
Capacitación en papelería y material educativo.
Más profundidad en temas de maternidad.
Consulta general.

Control prenatal.
Refrescamiento en AIEPI y NUTRICIÓN.
Financiamiento para integrar a nuevas comunidades en AINc.

GUÍA DE OBSERVACIÓN A RESPONSABLES DE CASAS BASES

A Observar	Tienen	No tienen	Observaciones
Libro d atención en C/B.	10	0	10 de 10 c/B supervisadas tienen libro
Censo con menores de 5 años.	7	3	
Mapas	10	0	10 c/b supervisadas tienen mapas
Gabinete C/B	9	1	una casa base no tiene gabinete
Rotafolio	9	1	
Materiales educativos.	9	1	
Libros de actas	7	3	7 de 10 c/b tienen libros de actas
Papelería de registro	10	0	las 10 c/b tienen papelería
Rótulos de c/B	8	2	8 c/b están rotulados de 10 supervisadas
Ref y C/Ref.	8	2	
Libros de visitas domiciliares.	8	2	
Libros de inf Mensuales	10	0	
Tienen Cloro	7	3	
Acetaminofen	7	3	
Suero Oral	10	0	
Libro De AIEPI	10	0	10 C/B entrevistadas 10 tienen.

RESULTADOS: TALLER DE ANALISIS INTERNO

MADRES		
ASPECTOS POSITIVOS	**ASPECTOS POR MEJORAR**	**RECOMENDACIONES/ ACCIONES ESPECIFICAS**
• Se reunen periodicamente , mensual • En todos los grupos hablan sobre aspectos de supervivencia infantil • Participan madres embarazadas, en periodo de Lact materna, y lact mas alimentacion ,ademas de abuelas para transmision de experiencias • Nuevas practicas de aliemtacion en menores de dos años. • Reduccion del uso de la pacha • Conocimiento y practicas sobre frecuencia y cantidad de alimentos • Conocimientos de MELA • Mejoró la relacion con el personal MINSA	• Estrategia para que las inasistentes conozcan el valor agregado de la asistencia a las reuniones o sesiones. • Privacidad al momento de realizar la consejeria • La consejeria y negociacion, (personalizarla) •	• Elaborar estrategia para que las inasistentes conozcan el valor agregado de la asistencia a las reuniones o sesiones. • Mayor privacidad al momento de realizar la consejeria • Fortalecer la calidad de consejeria y negociacion, (personalizarla)

<table>
<tr><td colspan="3">RESPONSABLES DE LA CASA BASE</td></tr>
<tr><th>ASPECTOS POSITIVOS</th><th>ASPECTOS POR MEJORAR</th><th>RECOMENDACIONES ACCIONES ESPECIFICAS</th></tr>
<tr>
<td>• En las comunidades existen casas base funcionando,antes no existian
• Los responsables de casa base realizan visitas domiciliares
• Usan los cuadros de procedimiento
• Se registra la produccion dcelas casas bases y se informa a la unidad de salud
• Realizan referencias y dan seguimiento a las contrarreferencias
• Estan abastecidas con cloro , suero, y acetaminofen
• Realizan el procedimiento de atencion evaluar, clasificar , que hacer.
• Muy buena relacion con los puestos de salud
• Hay confianza con el personal de salud para comuncar los problemas
• Se trabaja coordinado con los responsables del puestos de salud
• Se ha creado mayor confianza entre las madres y los resp de casa base.
• Mayor credibilidad de las madres
• Solidaridad
• Esta claro el flujo de la informacion de la casa base al puesto,
• Los brigadistas tienen otras funciones, anteriormente solo avisaban a la poblacion acerca de la jornada de vacunacion
• Se reunen mensual para planificar y evaluar
• Se realizaron pasantias en los puesto de salud de parte de los responsables de casa base.
• Se ha mejorado el abastecimiento a la casa base
• Estan identificadas con sus rotulos
• Brigadistas capacitados
• Mayor relacion con el personal MINSA
• Conocen mejor la comunidad ,</td>
<td>El abordaje del AIEPI en la casa base y el procedimiento evaluar , clasificar, actuar se esta realizando orientado al problema no de manera integral
• El sistema referencia y contrantrarreferencia de parte del Policlinico
• El responsable de la casa base tienen varios cargos lo que recarga el trabajo
• No tienen material de curaciones</td>
<td>Mejorar el abordaje del AIEPI en la casa base
• Trabajar mas con el personal del MINSA en cambios de actitud hacia la referncia de los brigadista especificamente en el policlinico.
• Sectorizacion de comunidades muy grandes
• Simplificar los protocolos de AIEPI
• Continuar la capacitacion a los brigadista en otros temas
• Fortalecer la contrarreferencia a las casa bases.
• Clarificar a los brigadistas la intencionalidad, la importancia de la recoleccion y uso de datos para toma de desiciones.</td>
</tr>
</table>

tienen croquis,censo • Hay mas brigadistas, se amplio la red de brigadistas activos • Se ha carnetizado , toda la red tiene su carnet que lo acredita como brigadista.		

MONITORAS DE AIN		
ASPECTOS POSITIVOS	**ASPECTOS POR MEJORAR**	**RECOMENDACIONES ACCIONES ESPECIFICAS**
• Implementacion del AIN comunitario en 41 comunidades • Acompañamiento del personal de salud en las sesiones de AIN • Los voluntarios conocen los procedimientos para realizar AIN (peso esperado,calculo de la edad , clasificar estado nutricional etc) • Analizan datos de resultados de las sesiones con la comunidad • La productividad de las sesiones pasan a formar parte de las estadisticas del sistema de salud • Se realizan sesiones mensualmente. • Ahorra tiempo , dinero , a las madres al realizar control en su propia comunidad • Las comunidades que realizan AIN hacen las sesiones con o sin acompañamiento del personal • El MINSA municipal deriva a los niños para su asistencia al AIN comunitario .	• El registro de la informacion en el listado • La confidencialidad de la consejeria • Tecnicas de negociacion	• Refrescamiento sobre tecnicas de negociacion y tecnicas de consejeria • Refrescamiento sobre uso de la informacion para toma de desiciones • Que cada unidad de salud defina un plan de acompañamiento a las actividades AIN.

<table>
<tr><td colspan="3">CONSEJERAS DE LACTANCIA MATERNA</td></tr>
<tr><th>ASPECTOS POSITIVOS</th><th>ASPECTOS POR MEJORAR</th><th>RECOMENDACIONES ACCIONES ESPECIFICAS</th></tr>
<tr><td>• Acreditacion del municipio como amigo de la niñez y la madres
• Consejeras capacitadas en formacion y facilitacion de grupos de apoyo
• Grupos de apoyo funcionando en el municipio
• Existe un flujograma de la informacion claro</td><td>Las consejeras tienen problemas en el dominio de temas relacionados a los problemas de produccion de leche y lactancia cuando la madre esta fuera de casa.</td><td>Impulsar las visitas domiciliares para reforzar los temas a las madres.

Reforzar mensajes en temas relacionados a los problemas de produccion de leche y lactancia cuando la madre esta fuera de casa.

Integrar otros temas bajo la metodologia de grupos de apoyo.

Incluir juegos educativas en las sesiones.</td></tr>
</table>

PROMOTORES AGRICOLAS – ACTIVIDADES DE PATIO		
ASPECTOS POSITIVOS	**ASPECTOS POR MEJORAR**	**RECOMENDACIONES ACCIONES ESPECIFICAS**
♦ Se han impulsado sesiones demostrativas en manejo de huertos en las comunidades y barrios. ♦ La comunidad aporto un voluntario dedicado a impulsar actividades agricolas y de seguridad alimentaria. ♦ La existencia de la red formada por el proyecto ,ha servido de apoyo a nuevos proyectos de CARE u otros ONGs. ♦ Muchos promotores agricolas en el transcurso del tiempo se involucraron en activides de salud en su comunidad. ♦ Los niños consumen lo que se produce en los huertos. ♦ Vende algun excedente para la compra de otros alimentos. ♦ Conocieron tecnicas para elaborar abono organico. ♦ Se introducido nuevas frutas y hortalizas en las comunidades que se han agregado a la dieta familiar ♦ Se ha formado una cooperativa de ahorro y credito	A los beneficiarios de gallinas no se les financió para hacer gallineros , esto favorecio la perdida de las aves por robo o victima de animales silvestres. Materiales de Informacion educacion y capacitacion para el area de seguridad alimentaria (guias tecnicas, rotafolios etc) **Comunidades organizadas que han creado cultura de pago , estan siendo atendidas con proyectos asistencialistas que regalan a la poblacion** **Limitaciones con el agua**	Establecer la recuperacion de fondo de los productos desde un inicio. Reproduccion de materiales de Informacion educacion y capacitacion para el area de seguridad alimentaria (guias tecnicas, rotafolios etc) Incluir en seguridad alimentaria el componente de riego. Diagnostico sobre los microclimas existentes en cada zona para adecuar el tipo de intervencion a realizar (areas muy secas , humedas propias para determinado cultivo) Tener una estrategia de recuperación de fondos desde el inicio del proeycto y establecer una entidad jurídica temprano en el proyecto para dar seguimiento y apoyo

PROFESORES – EDUCACIÓN EN SALUD		
ASPECTOS POSITIVOS	**ASPECTOS POR MEJORAR**	**RECOMENDACIONES ACCIONES ESPECIFICAS**
• Todas las escuelas (64) realizaron actividades de trasmicion de mensajes • Las escuelas tienen su plan anual de actividades • La capacitacion a niños está en los planes anuales , mensuales y diarios-Ficha didactica • Los niños llevan mensajes a la comunidad, escuela ,hogar • Integraron y ccordinaron actividades con el puesto de salud de parte del MECD • El supervisor evalua las actividades de salud en las escuelas • Monitorean el aprendizaje en los alumnos • Modalidades de educación: Civica Investigacion • Formacion de los grupos de teatro. • Cuentan con material de promocion para la trasmicion de mensajes. • Las profesoras se han convertido en directoras del grupo de teatro. • Los alumnos pertenecientes a los grupos de teatro perfeccionaron su calida de actuación. • La direccion del MECD destino a una persona encargada de las coordinaciones de supervivencia Infantil. • Los directores de NERA asumieron un rol activo en el seguimiento del plan de trasmision de mensajes. • Interes del MECD de extender este tipo de actividades a otras escuelas que no fueron atendidas • Firma de convenio de colaboracion MECD-CARE	• El tener solo un juego de materiales por escuela • No se definio la estrategia de sostenibilidad para la replica de talleres en algunas escuelas • Actividades extraplan • Algunos profesores dejaron la escuela de la comunidad y se llevaron el material • Falta de bibliografia adicional	• Continuar integrando los temas de salud en las fichas didacticas • Continuar elaborando material para el aula y el centro de estudio • Realizar evaluaciones del as actividades realizadas • Integrar nuevos temas de salud • Replicar la metodologia del ano 2002 que fue participativo. • Que todas las escuelas negocien y establescan acuerdo de cooperacion para realizar actividades de reproduccion de talleres y mensajes de salud • Que el MINSA trabaje en conjunto con el MECD sobre nuevos temas para preparar nuevas obras de teatro • Elaboracion de convenio MECD -MINSA • Evaluar y seguimiento a los planes en conjunto con el MINSA • Integrar el enfoque de sostenibilidad a las actividades con el MECD. • Capacitar a las profesoras que acompañan a los grupos de teatro en habilidades de direccion teatral. • Incluir temas de salud a las brigadas ecologicas que ya fiuncionan a nivel de las escuelas • Establecer mecanismos de supervision MINSA MECD.

PUESTOS DE SALUD		
ASPECTOS POSITIVOS	**ASPECTOS POR MEJORAR**	***RECOMMENDACIONES***
❑ No hubo rotación del personal durante los últimos 3 años ❑ Participación en capacitaciones a la red ❑ Acompañan a la red en actividades comunitarias y planificación y evaluaciones mensuales ❑ Realizan extensión comunitaria ❑ Organizan organizativos en la comunidad de acompañamiento y evaluación ❑ Capacitados en temas organizativos y de empoderamiento ❑ Hacen uso de metodologías participativas ❑ La red de voluntarios esta fortalecida lo que aumenta las acciones de salud en la comunidad ❑ Relación brigadistas-Responsable de puesto es estrecha ❑ Personal de salud realizan planes operativos anuales, trimestrales y mensuales ❑ Realización de actividades de IEC en coordinación otros actores sociales ❑ Las salidas integrales han mejorado ❑ El personal hace su diseño del plan de capacitación, son facilitadores, incluyendo pre y post tests, han asumido la responsabilidad de capacitar a los brigadistas de su área de influencia ❑ Sistema de información MINSA comunidad funcionando a todos niveles ❑ Intercambio de información entre puestos ❑ Mejor capacidad de realizar presentaciones	❑ Mejorar la atención al cliente en el Policlínico de Matagalpa en recepción. ❑ Reforzar el uso de planes, información y datos para la toma de decisiones y el uso cotidiano ❑ Mejorar la organización, orden, y limpieza de los puestos ❑ Falta de abastecimiento de medicamentos	1. Incluir el enfoque de AIEPI como parte de las visitas integrales 2. Seguir aplicando la USTF como metodología de mejoramiento de calidad: gerencia, contra-referencia, y uso de la estrategia AIEPI para la atención del niño en las salidas integrales. 3. Incluir la visita integral como parte de la Visita Integral. 4. En vez de hacer visitas separadas de supervisión, realizar la supervisión junto con las visitas integrales para maximizar recursos y mejorar la calidad e las mismas. 5. Incluir un representante de los brigadistas en el Comité Técnico a nivel municipal 6. Formar una asociación de brigadistas con su directiva, personería jurídica. 7. Gestionar la apertura de botiquines comunitarios. Traer a la Vice-Ministra de Salud para que vea el funcionamiento de los botiquines. 8. Se sugiere que el MINSA busque la forma de compartir mejores prácitcas en AIN Comunitario y promoción de lactancia materna a nivel departamental y nacional

❑ Sistema de información comupartizado a nivel municipal ❑ Aplicación del AIEPI clinico en los puestos de salud ❑ El liderazgo de los responsables de salud se ha fortalecido ❑ Pro-actividad de gestión administrativa de sus unidades y uso de los datos para la toma de decisiones ❑ Inmersos en una cultura de calidad: el mejoramiento continúo ❑ Actitud positiva y de reconocimiento al trabajo de la red de voluntarios ❑ Sistema de referencia y contrarreferencia funcionando ❑ Trabajo en equipo MINSA-Comunidad ❑ Mistica, compromiso, auto-estima fortalecida ❑ Mayor productividad de los indicadores trazados de supervivencia infantil		

ATTACHMENT C
LIST OF PERSONS INTERVIEWED AND CONTACTED

CARE

14. Nick Mills, Assistant Country Director, CARE Nicaragua
15. Elena McEwan, Technical Specialist in Child Health, CARE Atlanta
16. Ivette Arauz, CS Project Manager
17. Harold Rugama, Child Survival Specialist
18. Abundio Jarquin, Food Security Specialist
19. Eric Castro, Extensionist
20. Elizabeth Rodriguez, Extensionist
21. Maritza Manzanares, Extensionist
22. Santos Jiménez, Extensionist
23. Wilfredo Vargas, Extensionist

BASICS

Dr. Ofilio Mayorga, Nicaragua Representative

Comunities Visited

1. Juan Pablo II
2. El Porvenir
3. San Pedro
4. Piedra de Agua
5. El tule
6. Solingalpa
7. El Mirador
8. Jucuapa Centro
9. Apalili
10. Las Banquitas
11. Jucuapa Abajo
12. Waswali arriba
13. La Florida
14. Quebrada Honda
15. Llano Grande

Mothers (n=114)

Mercedes Torrez Maria Sixta Ramos Doribel Montenegro Maria Elsa Garcia
Vilma Navarrete Marta Ivania Suarez Nora M Diaz Saenz Marta E Montenegro
Silvia Leyva Danelia Vilchez Celsa Montenegro Margarita Montenegro Leticia
Luque Maribel Mendez Maria Diaz Ch Kenya Ponce
Janet Lopez Ileana Orozco Elba Montenegro Karla Armas
Paula Flores Marta Lorena H Virginia Cruz Mercedita Lopez
Luz Marina Garcia Marta Lopez P Heriberta Rivera D Esther Jarquin
Floriselda Gomez Vidania Blandon R Sorayda Mairena Santos Picado
Katty Martinez Rosa Ochoa Cecilia Salmeron Mercedes Flores
Karolina Valenzuela Sandra Gonzalez Sugey Figueroa Angela Picado
Reyna Silva Jamilet Rodriguez Lelia Diaz Saenz Heriberta Herrera D
Yolanda Rodriguez Ruh Castro C Yolanda Sanchez Maria Angelica Molina
Maritza Orozco Claribel Mendez Mayra del S Mendez Mirna Rayo
Paula Davila Luisa A. Ramos Rafaela Perez Ma Elena Zeledon
Helen M Martinez Maria del S Ramos Carmen Flores H AuxiliadoraQuintero
Petrona del S Mendez Fatima del C Cruz Veronica Montenegro Elbia Fca Zeledon
Agueda Arauz M Esmilda Montenegro Lucila Montenegro Janet Garcia Saenz
Aura M Benavidez Francis Martinez Julia Mendez Modesta Sanchez
Alba Luz Gonzales Rosibel Martinez Maria Lidia Gonzales Justa Sanchez
Martha Sanchez Julia Diaz Genara Gonzales Mireyda Flores
Maria C Gonzales Angelica Sanchez Angelica Mejia Ramona Sanchez
Carmen Blandon Z Arlen Blandon G Lilly Saenz Martha M Diaz
Alba Fca Obregon Maria Lourdes Rivera Felipa Montenegro Rosibel Ramos
Maria E Granados Janet Cruz Lucila Torrez Celsa Cruz
Maritza Sanchez Fabia Sanchez Otilia Sanchez Marlene Flores
Juana Fca Gonzalez Vicenta Flores Zeneyda Lopez Ivania Castro
Ramona Aguilar Idalia Castillo Carmen Lopez Yamilet Montenegro
Juana Centeno Reyna Artola Catalina Castro Ana Ma Sobalvarro
Xiomara Montenegro Nuncia Arauz

Health Centres Visited:

1. Policlínico Guevara Narves
2. Quebrada Honda.
3. Palcila.
4. Banquitas.
5. Jucuapa Abajo.

Health Personnel Interviewed

1. Jamileth Alegria, Director Policlínico
2. Erlinda Cuadra, Head of Nursing
3. Nilda Espinosa, Head of Maternal, Adolescent and Child Health
4. Amelia Reyes, Responsible for Teaching
5. Luz Marina Matamoros, RAN
6. Guadalupe Paz, RAN
7. Aura Delia Cruz, RAN
8. Jeannette Zelaya Centeno, RAN

School Teachers

1. Yadira Montenegro Campos
2. Jorge Emilio Flores Rugama
3. Eveling Rodriguez Aguila
4. Silvia Elena Irias
5. Maria Salome Guardado
6. Janet Otero Granado

CHWs[12] – Total Interviewed = 48

1. Gilma Riso
2. Manuela Chavarria
3. Ana Maria Herrera
4. Marta Montoya
5. Valentin Herra
6. Toni Gil
7. Marcelo Ruiz
8. Apolonia Sánchez
9. Ismael Salgudo
10. Jesús Flores
11. Pedro Tiburcio
12. Ana Julia Montenegro
13. Flor Suarez
14. Francisco Matuz
15. Antonio Matuz
16. Paula Matuz
17. Sevila Leiva
18. Ronald Leiva
19. Janeth Lopez
20. Jerónima Rivera
21. Arcky Davila
22. Fania Blandon
23. Sayda Rodríguez
24. Cristina Zamora
25. Juan Arauz

[12] Names are not available for all the CHWs interviewed

ATTACHMENT E
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