CARE-MOZAMBIQUE

Final Evaluation

CHILD SURVIVAL XII

IMPROVING MATERNAL AND CHILD HEALTH IN RURAL COMMUNITIES OF NAMPULA PROVINCE

September 30, 1996 to September 30, 2000
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Prepared by:
Sunny Wijesinghe, MPH, RN
External Consultant

CARE USA Contact:
Judiann McNulty, Deputy Director
CARE USA
Atlanta, GA 30303

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H. REPORT OF THE FINAL SURVEY

ACRONYMS & DEFINITIONS

ACD	Assistant Country Director
ACNM	American College of Nurse Midwives
APE	*Agente Polivalente Elementar* - a community health worker trained by the MOH to provide basic preventive and curative health services
ARI	acute respiratory infection
CC	Community Health Council
CS	Child Survival
DDS	district-level MOH
DIP	Detailed Implementation Plan
DPS	provincial-level MOH
EPI	Expanded Programme of Immunization
HIS	health information system
HQ	headquarters
HPU	Health & Population Unit
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illnesses
JSI	John Snow International
KPC	knowledge, practice and coverage
MCH	maternal child health
MIS	management information system
MOH	Ministry of Health
MTE	Mid-Term Evaluation
NGO	non-governmental organization
ORS	oral rehydration solution
ORT	oral rehydration therapy
PHC	primary health care
PLA	Participatory Learning Assessment
PSI	Population Services International
RTA	Regional Technical Adivsor
TBA	traditional birth attendant
TOT	training of trainers
USAID	United States Agency for International Development
VIDA	CARE Mozambique's agriculture project
WHO	World Health Organization

A. SUMMARY

A.1.a) Project overview

The goals of the four-year Child Survival-XII project were to reduce maternal, infant and child morbidity and mortality from selected preventable and treatable diseases, and to improve selected practices of caretakers, community health providers, and Ministry of Health personnel in the districts of Malema, Mecuburi and Ribaue, in Nampula province (see map, **Annex A**).

A.1.b) Project objectives

1) Increase the number of complicated obstetric cases managed in the health care system to 10% of all cases.
2) Increase from 32% to 50% women who give birth with a qualified attendant.
3) Increase from 41% to 60%, the proportion of women who receive presumptive treatment of anaemia during prenatal care.
4) Increase from 40% to 60% the proportion of caretakers who correctly manage their child's diarrhea episode with the usual or increased amounts of food, fluids and breast-milk.
5) Eighty percent of all cases of pneumonia for 0-5 children seen in the health posts will have correct classification, diagnosis and treatment.
6) Eighty percent of all uncomplicated cases of malaria for children 0-5 and pregnant women seen in both health posts and in selected communities will have correct treatment of malaria, according to national protocol.
7) Eighty percent of families in three communities participate in the bed-net pilot project.

The project strategy developed along a two-pronged approach. The first involved training and supervision activities designed to improve the quality of service delivery within the formal health care system. This involved work with health center and rural health post staff as well as adjunct non-formal personnel (community health workers and traditional birth attendants). The second involved empowering communities and households to assess their own overall health status, evaluate their capacity to respond to health problems and acquire resources to address those problems. Both approaches were based on initial qualitative and quantitative research.

A.2) Project achievements

By the end of September 2000, the following achievements had resulted from the project:

- Ninety-one TBAs trained and equipped with birthing kits;
- Sixty-seven MOH staff and 46 APEs trained in sequential management of childhood illnesses
- Fifty-seven APEs received refresher courses (refer to **Annex F**) and equipment (**Annex E**);
- Establishment of a supervision system to monitor technical competencies of health facility personnel as well as APEs and TBAs;
- Structural and material support to rehabilitate the health centers and posts as well as providing basic obstetric equipment;
- Fifty-one community councils (637 individuals) trained and active in delivering key health messages employing a comprehensive IEC strategy;

- Establishment of a community referral system to identify early danger signs of childhood illness and pregnancy;
- Promotion and sales of mosquito nets;
- Development of an emergency transport system including SOS alert flags, bicycle ambulances and plans for medical emergencies; and
- Organization of two mobile theater groups to transmit messages.

A.3) Highlights of the KPC results

A quantitative Knowledge, Practice and Coverage (KPC) survey took place in August 2000. The resulting data, when compared to the baseline survey data collected in February 1997 showed that project had achieved positive behavior changes in all its intervention areas:

A.3.a) Diarrhea case management

More mothers in the project communities gave more breast milk, more liquid and more solid food when their children had a bout of diarrhea, and more mothers could recognize danger signs of dehydration.

A.3.b) Case management of malaria

More mothers knew that a mosquito net could prevent malaria, and despite the cost, more families owned a mosquito net. An even larger percentage of families planned to purchase nets when they obtained sufficient funds.

A.3.c) Case management of acute respiratory infections (ARI)

More mothers in project communities could recognize danger signs of ARI, and an increased percentage of mothers sought medical help when their children had these symptoms.

A.3.d) Maternal health

More mothers sought prenatal care and possessed a maternal health card. Increases were seen in the numbers of mothers who had received two tetanus shots, the percentage of pregnant women receiving iron supplements, and the number of births that were attended by a trained attendant (TBA, nurse-midwife). In addition, more pregnant women in project communities reported having a birth plan and having purchased a new razor blade for severing the umbilical cord. Some had even managed to put money aside in case of a birth-related emergency.

The final evaluation (September 2000) concluded that:

- The CS-XII project made major strides toward meeting its objectives, despite a lag in community-level achievement during the first two years. An opportunity to continue project's accelerated efforts could bring greater benefits to project communities.
- A variety of factors, related to health infrastructure, the socio-economic and political environment in Mozambique, the level of MOH cooperation and difficulties at the project management level, influenced the attainment of project objectives. Given more time, the project could have overcome more of these challenges. Sustainability of behavior change improvements depends largely on the continued application of knowledge and skills acquired by the health personnel and community members. The cooperation of the MOH could greatly enhance efforts to sustain the project's benefits by providing reinforcement.

B. PROJECT RESULTS AND IMPACT

B.1) Summary Chart

Objectives	*Corresponding KPC Indicators*	*Baseline KPC (1997)*		*Final KPC 2000*			
				Project communities		*Other communities*	
		N	%	N	%	N	%
Maternal Health Care 1) Increase the number of complicated obstetric cases managed in the health care system to 10% of all cases, by Sep 2000* 2) Increase from 32% to 50% women who give birth with a qualified attendant, by Sep 2000 3) Increase from 41% to 60%, the proportion of women who receive presumptive treatment of anemia during prenatal care by Sep 2000	Mothers who had 2 or more doses of TT	NA	NA	50	20.1	23	9.2
	Mothers who sought pre-natal care (one or more times) during pregnancy	161	50.9	204	81.6	169	67.6
	Mothers who received iron supplements during pregnancy	181	56.9	168	67.2	121	48.4
	Mothers who had a birth plan	NA	NA	122	48.8	73	29.2
	Mothers who saved money for a birth-related emergency	NA	NA	88	35.2	43	17.2
	Births attended by trained personnel	102	32.1	106	42.6	84	33.9
	Mothers who had a new razor-blade for severing the umbilical cord	NA	NA	91	36.5	37	14.8
Management of ARI 80% of all cases of pneumonia for 0-5 year old children seen in the health posts will have correct classification, diagnosis, and treatment by Sep 2000*	Prevalence of ARI during the last 2 weeks	96	29.6	39	15.6	54	21.6
	Mothers who sought medical help in 1./2./3. place when child had ARI during the last two weeks	23 4 0	42.6 7.4 0.0	11 6 7	47.8 26.1 30.4	17 8 3	45.9 21.6 8.1
	Mothers/c child with ARI treated with antibiotics during the last two weeks	29	30.9	8	21.6	8	14.3
	Mothers who know rapid respiration as a danger sign for pneumonia	168	51.9	205	82.0	163	65.2
	Mothers who did not know any signs	49	15.1	17	6.8	37	14.8
Malaria 1) 80% of all uncomplicated cases of malaria for children 0-5 and pregnant women seen in both health posts and in selected communities will have correct treatment, according to the national protocol. * 2) 80% of families in three communities participate in malaria bed net pilot project, by Sep 2000	Incidence of malaria during the last 2 weeks	219	67.6	63	25.2	77	30.8
	Mothers with child with malaria who sought medical help in 1./2./3. place during the last two weeks	165 43 0	50.9 13.3 0.0	23 21 19	36.5 33.3 30.2	21 27 14	27.3 35.1 18.2
	Families who owned a mosquito net	NA	NA	25	10.0	9	3.6
	Families who knew a mosquito net could prevent malaria	3	6.5	149	59.6	44	17.6
	Families who planned to buy a mosquito net	NA	NA	159	71.0	115	47.9
Control of diarrheal diseases Increase from 40% to 60% the proportion of caretakers who correctly manage their child's diarrhea episode with usual or increased amounts of food, fluids and breast milk, by Sep 2000	Prevalence of diarrhea during last two weeks	207	63.9	66	26.4	93	37.2
	Mothers who breastfed more during child's diarrhea during the last two weeks	42	20.3	23	35.4	13	14.0
	Mothers who gave more liquids during child's diarrhea during the last two weeks	40	19.3	16	29.1	12	17.4
	Mothers who gave more solid food during child's diarrhea during the last two weeks	33	15.9	13	23.6	7	10.1
	Mothers who gave home-made ORS during child's diarrhea during the last two weeks	11	7.4	10	18.2	4	5.8
	Mothers who gave ORS from packet during child's diarrhea during the last two weeks	59	39.9	23	41.8	26	37.7

NA = not available

** Due to loss of loss of project database just prior to the final evaluation, these objectives could not be measured*

B.2) Results: Technical approach

B.2.a) Project Approach

The Child Survival-XII project was one of two health projects for CARE Mozambique. The complementary Reproductive Health project worked in the same districts with a different approach. CS-XII provided technical assistance, and material, logistical and human resources to the MOH at the Provincial and District levels, contributing to existing government programs targeting health problems that affect women and children 0-5 years.

Project Intermediate Objectives

1) Increase the number of complicated obstetric cases managed in the health care system to 10% of all cases.
2) Increase from 32% to 50% women who give birth with a qualified attendant.
3) Increase from 41% to 60%, the proportion of women who receive presumptive treatment of anaemia during prenatal care.
4) Increase from 40% to 60% the proportion of caretakers who correctly manage their child's diarrhea episode with the usual or increased amounts of food, fluids and breast-milk.
5) Eighty percent of all cases of pneumonia for 0-5 children seen in the health posts will have correct classification, diagnosis and treatment.
6) Eighty percent of all uncomplicated cases of malaria for children 0-5 and pregnant women seen in both health posts and in selected communities will have correct treatment of malaria, according to national protocol.
7) Eighty percent of families in three communities participate in the bed net pilot project.

Location

CS-XII operated in Nampula Province in northern Mozambique. The project was active in the districts of Mecuburi, Ribaue and Malema, reaching a total of 51 communities and 26 health facilities with their entire catchment areas.

Intervention Mix

The project interventions employed two general strategies. The first was to assist the MOH to provide quality Child Survival services. The second was to develop community and household level capacity to access and use health care services and to take preventive measures. These strategies were applied to the following interventions:

<u>Case Management of Diarrhea</u>

1) Household level recognition of danger signs and timely referral
2) Increased home care with usual or more fluids, breast feeding, and solid food
3) Improved diagnosis and treatment at health facilities

At baseline, 40% of children in the three Western districts of Nampula were given ORT, 30% were breast-fed less and 44% were given less food during a diarrhea episode. These figures, combined with an extremely low recognition of danger signs, led CARE to focus its community education project for diarrhea on all aspects of home management.

Case Management of Malaria

1) Household level recognition of danger signs and timely referral
2) Improved diagnosis and treatment at health facilities
3) Prevention of malaria with bed nets

Project messages identified the fundamental danger signs for malaria and the importance of timely treatment and referral. Training projects improved the skills of health personnel to diagnose and treat malaria in pregnant women and children 0-5 years. A pilot bed net project was introduced in each district, promoting the sale and use of bed nets and private sector commercialization at the local level.

Case Management of Acute Respiratory Infections

1) Household level recognition of danger signs and timely referral
2) Increased access to first line antibiotics via improved stock management
3) Improved diagnosis and treatment at health facilities

Due to the rapid evolution of respiratory illness into serious infection, project activities for ARI promoted prompt care-seeking and recognition of danger signs. Increased access to first-line antibiotics was facilitated by collaborating with the Department of Logistics and Stock Management at the DPS for training in stock management and distribution at the district level and down. District level personnel received a general course in diagnosis and treatment of ARI, as well as a refresher course coupled with the training in stock management.

Maternal Health

1) Increased number of births attended by a trained traditional midwife or health worker
2) Training for presumptive treatment of anemia in pregnant women
3) Household and health facility-level recognition of danger signs of pregnancy and childbirth
4) Increased capacity to treat complicated obstetric cases managed in health facilities
5) Promotion of Tetanus Toxoid for women of childbearing age

The MOH capacity to reach pregnant women with services was geographically limited, and thus continued to rely on traditional birth attendants. The project collaborated to train and equip TBAs with the basic skills for performing non-complicated deliveries and providing pre-natal and post-partum care. In addition, the project worked to improve the skill level of health personnel at health posts and centers to manage basic and complicated obstetric care. Facilities upgrades were conducted, focusing on basic obstetric equipment and supplies.

Project Strategies and corresponding activities

1) Improve access to health care in target communities through training of health care personnel, traditional birth attendants (TBAs) community health volunteers (APEs);
    - Ninety-one TBAs trained and equipped with birthing kits (plus 33 kits sold to Save the Children for their TBA activities);
    - Sixty-seven MOH staff and 46 APEs trained in sequential management of childhood illnesses
    - Fifty-seven APEs received supervision and equipment. (refer to **Annex F & E**)

2) Improve the quality of health service delivery through training of health personnel, MCH and elementary-level nurses (refer to **Annex F** for a complete list of trainings), and by assisting the District Health Services to identify supervision mechanisms:

   - Training and modeling in supervision. to monitor technical competency of health facility personnel level as well as TBAs and APEs;
   - Structural and material support to rehabilitate the maternity units at center and post levels, as well as providing basic obstetric equipment; **(Annex E)**
   - Logistical support for vaccination campaigns;
   - Logistical support for transport of medicines and Provincial Health Service goods; and
   - Financial support for technical scholarships.

3) Improve community health security through community-based participation in the formation of community health councils:
   - Fifty-one community health councils (637 individuals) trained and active in delivering key health messages using a variety of multi-media materials, mosquito net promotion, emergency transport systems and support to TBAs and APEs;
   - Establishment of a community referral system to identify early danger signs of childhood illness and pregnancy;
   - Promotion and sales for mosquito nets;
   - Development of an emergency transport system including SOS alert flags, bicycle ambulances and plans for medical emergencies; and
   - Organization of 2 mobile community theater groups to transmit project messages.

4) Promote improved basic household health practices through a multi-media communication project, including:
   - 5 Radio and audiocassette productions;
   - 5 Theater productions;
   - 5 Illustrated flip chart productions; and
   - 2 Flash card sets.

B.2.b) Progress Report of Interventions

(i)

A comparison of results from KPC surveys in February 1997 (baseline) and August 2000 (final) reveal positive changes in all intervention areas (refer to KPC 2000 report for specific percentages and a complete analysis of results). Not only was there an improvement in health behaviors over time within the project communities, but there was a difference in behaviors between the project communities and a non-project community (control group) surveyed in August 2000, with the project communities exhibiting healthier behaviors. The intervention-related results are as follows:

Case management of diarrhea

According to the KPC 2000 results, a greater percentage of mothers in the project communities gave more breast milk, more liquid and more solid food when their children had a bout of diarrhea. There was a modest increase in the use of cereal-based ORS, reflecting strong promotion from the MOH and project. More mothers could recognize some danger signs of dehydration from a list that included sunken eyes, dry skin, lack of tears, thirst and vomiting.

Case management of malaria

KPC results showed that more mothers in project communities sought medical help when their children had signs of malaria. A large percentage of mothers knew that a mosquito net could prevent malaria. Despite the cost, more families possessed a mosquito net, and even a larger percentage of families intended to purchase nets when they obtained sufficient funds.

Case management of acute respiratory infections (ARI)

More mothers in project communities could recognize danger signs of ARI and an increased percentage of mothers sought medical help when their children were afflicted. Antibiotic use for treating ARI was higher in project communities than in the control community, but was lower than that indicated in the baseline survey results, which might be a result of the Rational Use of Antibiotics training.

Maternal health

The greatest improvement in health behavior in the project communities was seen in the area of maternal health. The evidence showed that more mothers sought prenatal care, possessed a maternal health card and had received two tetanus shots. The percentage of pregnant women receiving iron supplements had increased and a larger number of births were attended by a trained personnel (TBA, nurse-midwife). In addition, many women in project communities reported having a birth plan and having purchased a new razor blade for severing the umbilical cord. Some mothers even had managed to put money aside in case of a birth-related emergency.

Other positive changes that cut across all interventions were the effectiveness of the radio messages and the residents' awareness of a newly acquired emergency transport system in the village. KPC results showed villagers in both the project and control communities had heard radio messages on mosquito nets and the emergency transport system. They had also heard theater broadcasts on topics such as diarrhea, malaria, ARI and birth planning.

(ii)

The above achievements could be credited to the project's two pronged strategy to assist MOH to provide quality child survival services and develop household level capacity to access and use health care services. The activities in the four intervention areas that led to these achievements are described in details in **Annex B.**

(iii)

Despite positive changes evident in the results of the 2000 KPC survey, the project did not always achieve percentages proposed in the DIP objectives. The following are factors contributing to the under-achievement of objectives.

Time constraints
At mid-point the project doubled its effort in order to compensate for the poor community-level performance during the first two years. Nevertheless, effects of the time lost continued to slow progress in a number of ways:

- *The expected improvements in project indicators were overly-ambitious*

Most of the targets for indicators were set in an arbitrary manner at the time the DIP was written. Given the health infrastructure, socio-economic and political conditions in Mozambique, the targets might not have been appropriate for a project that was not already challenged by limited time. Due to the lack of attention to the HIS system and later loss of the database, the project was not able to measure some of the intermediate objectives on utilization and quality of health services.

- *Several community councils had limited experience with their new tasks*

Despite attempts, the project lagged behind schedule in forming the new groups of councils (scheduled for January-February 1999 in the DIP, realized in February 2000). Community council members were volunteers, and had to fit the work they did for the council into their busy schedule of household and agricultural work. Time constraints may have prevented them from reaching the desired number of clients.

- *Limited use of the Health Information system (HIS)*

The original HIS was revised several times and finally replaced by a more comprehensive system in 1998. However, the field staff who collected the data neither fully understood the purpose of the system nor were sufficiently trained in analysis and use the data to respond to problems in the field - such as the inactivity of some council members.

- *The full potential of the IEC strategy was not realized*

A dynamic IEC strategy was developed in May 1998. The IEC consultant trained staff and supplied them with adequate IEC material and instructions for optimizing use. However, there was insufficient time to realize the full potential of this strategy. Three new field agents were hired in March 1999 and were trained in IEC in April 1999. New council members were trained and evaluated one year later. During the evaluation in September 2000, council members were still using the most convenient method of giving lecture-type health talks with or without the picture boards/flip charts. The field agents were not adept at assessing the effectiveness of a particular IEC method in a given situation and modifying their strategy accordingly. Nor were they skilled at transmitting adult education concepts to the council members.

Harsh economic conditions in the communities

In the campaign to promote mosquito nets, the project successfully overcame the " no demand, no supply" slogan of merchants and introduced a new product into the community market (details in **Annex C**). However, whether or not a family owned a mosquito net was finally determined by the family's ability to pay for one. Even the subsidized the price of 60,000 Meticais (about $4) was prohibitive for the villagers who had no disposable income. General poverty also limited the communities' contributions for purchasing a bicycle-stretcher, as part of the emergency transport system. Many villagers pointed out to the external evaluator that knowledge and good will were not in short supply; it was money that was in short supply. Harsh economic conditions also had an impact on the referral system. While council members practiced their referral system enthusiastically and encouraged residents to use available health facilities, the villagers whose ailments did not fall into categories related to "under-five", " pre-natal/delivery" and "emergency" had to pay 500 Meticais (about 3 cents) for health services. Even this sum inhibited some of them from seeking care.

The health care delivery system is characterized by weak infrastructure, poor management and political favoritism

Management difficulties in the MOH had a negative impact on the project at the field level. (This situation is common to all PVOs working in the province) Common problems were constant turnover in personnel, absences of health personnel from health centers/posts, inconsistent drug distribution schedules and inefficient communication between the provincial and district level regarding authorization for training and supervision activities all. Problems within the MOH Essential Medicines distribution system made it impossible to assure a regular supply of iron/folate, antibiotics, ORS and other essential supplies. The project worked with them to stabilize supplies towards the end of the project.

The distribution pattern of health facilities in the three districts varied largely. While the MOH policy dictates that the distance between heath facilities not exceed 25 kilometers, in some districts, health posts were situated much closer to each other, while in others they were very disperse. The evaluator visited two communities where residents had to walk 35 kilometers to the nearest health post. Those communities had not seen a DDS health mobile unit for an entire year except during the polio campaign. One district health director traveling with the evaluation team confirmed that mothers who walked long distances to get their children vaccinated often had to spend the night near the health facility. No explanation was given as to the uneven geographical distribution of health facilities, but politics are involved.

MOH policies regarding training of TBAs lacked clarity and purpose

CARE's CS-XII project was part of a consortium of organizations within Nampula Province that joined together in 1996 to work with the MOH on developing and enhancing the MOH's community-based TBA project. An initial workshop designed to revise the national curriculum and introduce a Life-Saving Skills Package was held in June 1998 and included representatives from the national MCH department. This workshop was conducted by an ACNM consultant. The workshop received mediocre reviews, and since then it has been very difficult for the consortium to act together and clarify the DPS position on the role of TBAs, supervision responsibilities and community participation in supporting TBAs. Subsequently, very few TBA training events have occurred. In addition, it has been difficult to put together TBA kits, which are vital to a TBA's

performance. This is due to the lack of clear guidance from the DPS regarding the contents and re-stocking procedures.

Nevertheless, the project has completed at least one training in each district, in cooperation with the district health services. DPS policy permitted a maximum of 12 participants per training, thus making unrealistic the project's plan to train 200 TBAs. The project provided provisional kits and trained 91 TBAs, but a rumor of the Ministry's eventual phase-out of TBAs stopped the project from training more TBAs.

A lack of systematic follow-up and support from the MOH/DPS/DDS following project-sponsored trainings considerably weakened the capacity building effect.

Despite sustained good communication and interaction with the district-level health services in the planning and execution of training events, the government did virtually no follow-up supervision or post-training verification of skills application. CS-XII's nurse trainers continued to supervise and support health agents on a monthly basis but were not intended to be a substitute for the MOH. In September 2000, the project expected a more formalized exchange of performance indicators and data gathered by the nurse-trainers, but this did not materialize.

Both the original project manager and assistant manager had strong clinical backgrounds and prioritized the clinical skills training and supervision during the first 20 months of the project. After the resignation of the assistant manager, this component received insufficient attention since the CARE nurse-trainers focused almost exclusively on the APEs.

Difficulties at management level impeded work in the community

During the first 2 years of the project, the assistant manager supervised the CARE nurse-trainers and the field coordinator oriented and supervised the field agents. Unfortunately, neither the nurse-trainers nor the field agents were given adequate direction and go-ahead to perform their intended functions until after the project implementation review in April of 1998. Even then, the distance between the three districts and logistical problems with transport resulted in the insufficient supervision of field agents, who themselves were responsible for supervising council members. Supervision of field agents improved considerably under the new field coordinator, but that individual did not receive adequate supervision from the project manager. Supervision of the nurse-trainers did not improve significantly under the new project management during the second phase of the project, particularly since the position of assistant project manager was unfilled for several months.

The project manager suffered from poor communication financial management personnel based in Maputo and had little information on which she could base financial decisions in regard to project activities. Having to deal with administrative problems at the sub-office meant the project manager had little time to be in the field, which limited her insight into field concerns and reduced her involvement with the DDS.

(iv)

A major, on-going constraint experienced by the project was the main local partner's inflexibility and less than enthusiastic cooperation. The MOH's prevailing attitude is that PVO interventions are "supportive" when they bring material benefits (buildings, equipment, and vehicles), and "donor politics" when they address community mobilization for behavior change. Because of this attitude, MOH was perceived as merely tolerating CARE's CS project. The project manager's communication with DPS/DDS regarding project plans, directions, requests for cooperation in training, invitations to gatherings, etc. either, at best, received delayed acknowledgment or were ignored all together. On several occasions during the evaluation process, the DPS/DDS asked questions related to project interventions that revealed their lack of awareness of what the project had achieved in communities. For example, a preventive health agent in one district, who was presumed to be active in his communities, admitted to the evaluator that he had neither encountered nor heard of any work completed by a community health council volunteer, and proceeded to discuss the 'evils' of donor politics. Further discussion with the same DDS staff member and the field facilitator in the area disclosed that the former- although he had been a classmate and friend of the field facilitator - had refused repeated invitations to meet the health council members in the area. Furthermore, field travel, accompanied by two district health directors during this evaluation, served as an excellent opportunity for the evaluator to notice the change in attitude of these officials after observing and listening to the community residents.

(v)

Main lessons learned:

- Time is required for even the best-tested IEC strategy and monitoring methods to be established in a community.

- In an atmosphere of deep-rooted socio-economic and political problems, personnel training, building renovations and supply of equipment may not be sufficient in bringing about substantial change in health behavior.

- Repeated internal evaluation of project progress (using similar methodology as the mid-term and final evaluation) could help detect problems that the monitoring and supervision fail to capture.

- Cooperation of the provincial and district government could add greatly to the efforts of an organization in bringing behavior change and sustainability of this change.

- It would be worthwhile to introduce DDS/DPS to the field interventions early in the project, in ways besides written reports.

- Cooperation with MOH was difficult, and the project could have benefited from lessons learned by other NGOs and assistance from PVO headquarters and donors.

B.2.c) New tools and approaches/ operational research/ special studies

The CS project conducted the following studies during the life of the project. A detailed description of some of these studies is found in **Annex C**.

- Rapid assessment of current practices of pre-natal care : Year two
- Rapid assessment of current home care practices for treating diarrhea, malaria and pneumonia: Year one
- Participatory Learning Appraisal: Year two
- Rapid assessment of IEC impact in project communities: Year three
- Community-based opinion survey: Year three
- Rapid market research for mosquito net availability: Year three
- Focus groups on obstetric emergencies and transport: Year three
- Physical assessment and inventory of health facilities: Year four

B.3) Results: Cross-cutting Approaches

B.3.a) Community Mobilization

(i)

The CS project approached community mobilization through the formation of community health councils. The project aimed to introduce key health messages, promote mosquito nets, launch an emergency transport system, establish a community referral system and extend support to TBAs and APEs with the help of these health councils. Community mobilization also included the organization of two mobile theater groups.

When selecting communities, the project consulted DDS and took their recommendations for those communities considered most in need of intervention. The finalists for the community council members (12-15 in number) came from a list selected by members in the respective communities or the village chief. The project staff gave preference to those who showed a genuine interest in community work and had prior experience related to community mobilization.

The volunteer council members underwent two months of training over time. The first month's training covered such topics such as " How to contact community leaders and start a community meeting", "How to explain objectives of activities", "Responsibilities of the council/community" and "How to begin an open discussion with the community". The volunteers received training in key health messages during the second month (2-3 messages per week). The curriculum also covered the following: analyzing the health situation in a community, encouraging the community to use the referral system, making home visits, teaching about danger signs, promotion of birth plans and emergency transport system. During the third month, the volunteers practiced what

they had learned in their communities while the field agents supervised them, evaluating their preparedness as council members.

Despite the delayed start, by the end of September 2000 the project had trained 51 community councils that were actively participating in health promotion activities. The evaluation team was unable to assess their skills in carrying out their roles, but the interviews did reveal their dominion of the key messages and their motivation.

ii)

Interviews with a large number of council members, community residents, health post staff, TBAs demonstrated that the objectives for community mobilization were successfully met. All council members could articulate the objectives of the council and their duties, and they had retained what they had learned in training. They reported doing the following activities: planning and organizing their work as a group, delivering health messages, referring residents to health facilities, keeping statistics, cleaning the health post, assisting with child weighing and helping ill residents with house work.

(iii)

Lessons learned:

- Asking the community leader to propose potential council members may not result in identification of the strongest candidates. The APEs and TBAs might be better able to identify the most able and willing individuals.
- DDS may be politically biased in its selection of communities – which could result in the neediest communities being passed over.
- Building health councils onto already existing community associations (church groups, farmers' associations, youth groups etc), could add to the sustainability of the councils.
- In the areas where they overlapped, the three CARE projects (CS-XII, Reproductive Health and agriculture) could have enhanced sustainability by jointly identifying one entity (council/association) through which the projects would work.

(iv)

There was a great demand in the communities for the continuation of the project. Those interviewed, including mothers, fathers, councils (as a group), individual council members, APEs, nurses and TBAs all regretted the end of the project and asked the evaluator help find a way to make this project continue. It was clear that communities were just "coming out of the dark", and it was too soon to terminate the project. Health post personnel stressed that they appreciated the training and had learned a lot. They were proud to demonstrate how they used the medical equipment they had received. Even the two DDS directors who participated in the evaluation mentioned that the project had just begun mobilizing the population, and that the project would have achieved a great deal more with more time. The communities without access to a health post were most affected by the end of the project. According to people in these communities, when they completed the HIS forms and received supervisory visits, they felt better connected to the health system, which motivated them. Even the non-literate TBAs found ways to keep track of the

work they did, because they had a sense of pride in communicating how many children had been delivered with their help.

(v)

Sustainability of project activities:

The project had originally considered the councils as temporary, and they were not incorporated into the sustainability plan. However, they have become veritable community institutions in which villagers participate and on which they depend. Motivation is still an issue, however. "Acquiring new knowledge", motivated many of the council members interviewed, and supervisory visits were an integral part of this motivation. After DDS directors observed the councils working, they proposed that the DDS could continue limited support of the council work. Field agents believed that those members with common interests (members of another community-based organization such as church) would continue their work.

Several of the project's activities will continue for several more years through CARE's sister projects: the reproductive health, agriculture and micro-credit projects. The reproductive health project will continue CS-XII's maternal health components such as training in danger signs, referrals and emergency transport systems. The agriculture and micro-credit projects will continue to promote mosquito nets.

B.3.b) Communication for Behavior Change

(i)

CS-XII introduced an IEC package as part of the project's strategy for behavior change. The IEC strategy was based on the idea that certain harmful behaviors contributed to an undesirable state of health and welfare. The formative research stage identified desirable behaviors and outlined a process for moving from harmful to healthful behaviors. A complete description of the components of this strategy and effectiveness of each IEC method, can be found in **Annex D.**

The IEC strategy was flexible enough to allow experimentation with different kinds of message delivery. However, the previous training that the field agents had received did not encourage creative experimentation, resulting in their reluctance to try out new methods. Field staff and council members would have benefited from training in how to incorporate IEC messages into day-to-day activities, such as through songs sung during agricultural work, or through lullabies and proverbs etc. The trained theater groups were very popular and exposed large numbers of people to health messages, but organizing transport for the groups proved difficult. It might have been useful to encourage villagers to produce skits or theatre of their own, using field agents/council members to correct any errors in their messages. The project would have benefited from operational research on local leisure and entertainment activities.

(ii)

The KPC 2000 results showed that the IEC strategy contributed to positive changes in knowledge and behavior in all four intervention areas. However, the project's original behavior change

objectives were not fully attained, given the short period of time during which the IEC strategy was implemented.

(iii)

Lessons learned:

- A better way to retain health knowledge and sustain health behaviors would have been to include young audiences in the IEC strategy, for example, through school presentations and the creation of youth groups and sports clubs.
- Alternative IEC methods could have been explored, such as the adoption of local songs, proverbs and dances, and the community should been encouraged to replicate the theater groups' activities. Alternative IEC materials might have included local artwork, using wood, bark or traditional dyes, for example, or even sand art.
- Prior investigation of pre-existing theater groups (those trained by DDS or other NGOs) could have helped lower the costs and promoted better relations with DPS.

(iv)

Sustainability of health behaviors

During interviews in the communities, it was clear that both council members and health personnel were appreciative of the knowledge they gained from the project. As mentioned, most community volunteers cited " acquiring knowledge" as their main motivation for becoming a council member. It is expected that community council members will retain what they have learned through the IEC, and that it will be translated into sustained behavior change and they may continue to influence community norms.

CARE's reproductive health project has taken over support of the CS project's theater groups, and the agriculture and micro-credit projects will continue promotion of mosquito nets. More importantly, the two DDS directors have realized the project's efforts to mobilize the community for behavior change. After their observation of evaluation activities, the DDS directors showed encouraging signs of making a plan for assisting the councils with their work.

(v)

Feasibility of the sustainability plans

The CARE sister projects are expected to be effective for sustaining community involvement in CS activities for several more years. However, a commitment from DDS would be more successful in sustaining the behavior changes in these communities over the long term. There is always the issue of the DPS lacking resources to do the supervision and follow-up necessary for community work, an issue which never seems to be addressed by the donors who fund bi-lateral projects with the MOH even though such projects very often promote community intervention.

B.3.c) Capacity Building Approach

(i)

Strengthening the PVO

This grant has improved the capacity of the PVO to design and implement effective child survival projects in the following management areas:

- The PVO is more conscientious about the qualifications necessary for a Project Manager. It does not underestimate the importance of language ability and the need to hire project managers who have the complete complement of technical, inter-personal, and management skills.
- The PVO realizes that the Project Manager should have a complete orientation. They should arrive at the project site with familiarity with personnel, resource, and financial policies, and disciplinary measures. It is unrealistic to expect the new manager to learn from the procedure manual.
- The PVO recognizes that even the most qualified manager will need support from the headquarters and country office. HQ backstop personnel must understand the language and the project context.

(ii)

Strengthening the Local Partner Organizations

The project's only partner was the Ministry of Health. In order to enhance MOH's institutional and performance capabilities, the project conducted several needs assessments. Subsequently, the project undertook training of health personnel and provision of material and equipment. The questions pertaining to health facilities strengthening (iii), health worker performance (iv) and training (v) are discussed together, below. Additional information on training is in C.2 "staff training" section.

The physical assessment and inventory of health facilities was conducted during October and November of 1999 (described in **Annex C** section 2.c.5). This assessment led to rehabilitation and provision of equipment to health units in a total of twenty-two health centers and posts. The list of equipment provided can been found in **Annex E**.

Improving the delivery of clinical services related to the interventions depended largely on supervision by the nurse-trainer and monitoring of individual performance at the health unit. Unfortunately, it is impossible to summarize the progress made in behavior-based competencies, due to problems in the project data collection and processing system (HIS). However, a review of supervision forms by category yielded the following observations for the period of October 1999 to June 2000:

- In general, elementary nurses made improvements in their working environment, especially regarding workplace hygiene (a critical factor in most health units).
- Nurses continued to meet the minimum requirements for work and workplace organization, including maintaining regular hours, proper management of drug supplies, practicing triage for urgent cases, etc.

The project felt it had made a considerable contribution to the effective and efficient use of resources within clinical service delivery, but these areas deserve continued attention.

As discussed in section 2.c.6 (**Annex C**), the project also organized focus group discussions and individual interviews to better understand what health personnel themselves perceived as barriers to improved quality of health care.

Lessons learned from the capacity building of the local partner (MOH):

- The training of district nurses needs to be on-going rather than one-time.
- Focusing on improving clinical skills is not a comprehensive approach to improving service delivery.
- Training needs to be accompanied by development and implementation of a performance-based supervision system that can be maintained by the DDS.
- Lack of medicines at the provincial level is rarely the reason that the peripheral levels do not receive their medical kits. Poor logistics management, corruption and favoritism appear to be the most significant factors. In the future, projects should endeavor to clarify from the beginning what obstacles might impede an effective drug supply system and work diligently with the decision-makers within the MOH to affect changes.

(iii) – (v)

Health Facilities / Health Worker Performance Strengthening and Training

Health facilities strengthening, attention to health worker quality and training will be sustained since the project has established a foundation for the transfer of knowledge. CS-XII trained MCH nurses in TOT, supervision and modeled supervision to the DDS. Another important training was Rational Drug Use. Those trained are expected to transfer their skills to other personnel within the health system.

The new USAID mission-funded health program contracted to JSI will soon pilot IMCI training in Ribaue District. This will serve to reinforce the training in Sequential Management of Childhood Illness (based on the IMCI algorithm) which CARE gave to all DDS staff. Presumably, the new training will be accompanied by efforts to improve DDS supervision of staff. All of this, while not planned by the project, will lead to sustainability of the capacity-building provided to the DDS.

B.3.d) Sustainability Strategy

Progress in meeting sustainability goals and objectives (as articulated in the revised DIP):

Goal	*Related to Objectives*	*Progress*
1) MOH staff and APEs provide care per MOH (WHO) guidelines for pneumonia, malaria and maternal care.	# 3, #4 and #5	1) Trained all health personnel and APEs in MH and management of childhood illnessess 2) Referral system implemented 3) Rational Use of Antibiotics training and improved logistics 4) Quality of care assessments completed for MH
2) DDS professional staff better able to train others	All seven objectives	1) DDS staff became trainers in 3 subsequent training events 2) Implemented a system for staff nurse trainers to supervise TBAs closer to a post.
3) DDS staff better able to perform community-based health activities	# 1, #3, #6 and #7	Attempts to coordinate work of CARE facilitators and their counterpart AMPs succeeded only in isolated cases
4) Form a better link between MOH services and the community	All seven objectives	Community council members successfully familiarized about the roles, functions and tasks of MOH staff with whom they related
5) Guarantee community use MOH services	# 1, #2, #3, #4 and #5	1) Community council members successfully familiarized about health activities in closest health centers 2) Increased use of services
6) Guarantee that the community recognized danger signs which require referral	# 1, #2, #4 and #5	1) Basic key messages emphasized 2) Supervision system for CCs developed and implemented 3) CCs trained in recognizing danger signs and making referrals 4) Referral system implemented
7) Guarantee that the community is able to perform home-based prevention or treatment of selected diseases and able to perform safe deliveries for non-complicated cases	# 6 and #7	1) All CCs trained in prevention of dehydration, improved hygiene, use of mosquito nets 2) All CCs provided with IEC material to teach prevention and home care. 3) TBAs trained in danger signs of pregnancy, safe deliveries, and provided with essential supplies. 4) TBAs and CCs trained in promoting birth plans

8) Community recognition and support of role of APEs and TBAs	# 1, #2, #3, #4, #5 and #6	1) Communities sensitized about APEs and TBAs role, but limited support for them in some communities due to the belief that they receive benefits from MOH and/or from the NGO 2) No sensitization of DDS needed
9) Rational use of available drugs	# 3, #4 and #5	MOH staff and APEs trained in Rational Use of Antibiotics.
10) Development of emergency transportation system in selected communities	# 1, #2, #4 and #5	Emergency transport system in place with plans and flags. Ten CCs purchased bicycle stretchers.

The project's sustainability strategy was based on the idea that MOH will maintain and transfer their new knowledge. Introducing approaches for building financial sustainability was not part of the project.

As explained earlier, the Reproductive Health project is assuming the theater troupes, promotion of mosquito nets and bicycle stretchers and promotion of community emergency transportation plans. The agriculture and micro-credit projects have assumed promotion of mosquito nets since the high prevalence of malaria also affects agricultural and economic productivity. Phase-over of these activities began in July.

PROJECT MANAGEMENT

C.1) Planning

While the proposal for this project was well thought out, CARE did not have any health staff in country and the agriculture project was the main activity in Nampula province after the end of emergency relief activities. There was no prior relationship with the DPS nor an understanding of the complex attitude of officials. The project manager who was hired did not have an opportunity to discuss the proposal with the consultant who prepared it. The HQ backstop person originally assigned to the project, did not have an understanding of the proposal nor the context of the project. The project manager had been on site only a month when the KPC needed to be conducted, which was followed immediately by the arrival of the HQ representative to write the DIP. Relations had not yet been built with the DPS, DDS, or communities and few project staff were on board. Therefore, the original DIP as written by the project manager and HQ representative was not totally adequate for the situation. That compounded the difficulties of start-up in the incredibly difficult and complex environment.

When the new HQ technical advisor visited the project in early 1998, it was very apparent that a new implementation plan was needed. While referred to as the "revised DIP" this document, did not change the overall strategy, interventions, or target population. Rather it adapted the work plan, sustainability plan, training schedule, and job descriptions to the reality of the project. This was submitted to USAID with the mid-term evaluation.

This evaluation used the revised (second) DIP and the mid-term evaluation as its point of reference. The second DIP was prepared with the full participation of project staff. The partner organization (MOH/DPS/DDS) was informed about the changes to the original project implementation plan, but it had little involvement in the planning process due to time constraints.

The DIP work plan was practical in the sense that it gave the project direction, and was occasionally referred to by the Project Manager. However, she found it difficult to adhere to the work plan closely, due to her lack of understanding of the importance of some efforts and to circumstances outside the control of the project. An internal amendment to the second DIP work plan was introduced by the new manager in December 1998 to reflect circumstances at that time. (This was not approved by HQ.)

When the revision was written, it was completely understood by the then project manager and assistant project manager. However, it may not have been explicit enough for the new manager and assistant who came later. There was not enough explanation of the priority of certain activities over others and not enough detail about the HIS and supervision systems.

C.2) Staff Training

During the CS-XII project, both the project and partner's (MOH) staff benefited from a total of 23 training sessions. A list of these trainings is found in **Annex F**. All training curricula included a pre and post test for evaluating what participants learned from the sessions. However, a tool for

monitoring the overall application of knowledge, skills and competencies of the project and partner staff was never developed.

Nevertheless, the evaluator noticed strengths among the project staff that could be attributable to the training they had received. Although she could not make a valid before and after comparison, the evaluator has had previous experience with a CS-XII project in the same province, working in a similar atmosphere, with staff of similar educational and ethnic backgrounds. This gives her a point of reference. In particular, she noticed that CARE's CS-XII project staff exhibited strong communication skills. The staff were able to give a comprehensive overview of the project to an audience that included the DPS members and other PVO staff. They spoke with confidence and were able to answer difficult questions, articulate work-related problems, suggest feasible solutions and and analyze hypothetical situations. There was reason to believe that the project staff, especially nurse trainers and field facilitators, had transferred some of their self-confidence to those with whom they worked in health posts and village health councils. The district health director of Mecuburi (the district where the external evaluator saw the least progress in community work of all three districts) commented that in comparison to health committees/councils he had seen in Angoche (another district in southern Nampula), council members in Mecuburi were confident speakers. Discussions with the two supervisory level staff members further revealed knowledge/skill acquisition in the areas of computers and research techniques. Staff members also reported increased ability to work in teams and avoid conflicts.

Concerning MOH staff progress, the evaluator (a nurse) tested health workers' knowledge by asking technical questions from some of the areas in which health workers had been trained. All those questioned gave appropriate answers, which may or may not be attributable to staff training provided by the CS-XII project.

Obviously, this one project could not meet all training needs of project and partner staff. Both need additional training and practice in order to learn to take initiative in their work and to analyze data and technical information. Considering the low level and quality of education in Mozambique, promoting these skills is a remaining challenge for all PVOs.

The project had adequate resources dedicated to staff training. In fact, training was one of the largest investments of the project.

Overall lessons learned about building the capacity of project staff:

- It is important to conduct needs assessments prior to training sessions and to modify the training curriculum accordingly.
- Ensure the presence of a DDS and DPS representative at all staff training. For MOH staff training, obtain prior approval of the curriculum by the DPS.
- It is important to remember that the fact that staff's previous training may be in non-participatory pedagogical methods. If so, they will need additional time to adapt to new techniques.
- Project staff need to be trained at the beginning of the project in the skills that they will use in the community and transfer to community volunteers.

C.3) Supervision of Project Staff

The assistant manager was responsible for supervising the field coordinator and nurse trainers. The field coordinator supervised field facilitators/agents. During supervisory visits (every 4-6 weeks), supervisors completed a cumbersome 3-page form that evaluated the workers on their ability to complete assigned tasks, their professional behavior, and their skill in administration and logistics. The large geographical area covered by the project and the distance between communities made it difficult for the two supervisors to keep track of the movements of nine field staff. The assistant manager suggested that an integrated coordinator/supervisor should have been posted at each satellite field office (one per district). This person could have supervised the staff of all three CARE projects sharing the office, and would have had more control over the movement of the motorcycles, need to replenish fuel and other supplies, and coordination of field activities between the projects.

Under the second project manager, the supervisors were not given adequate instruction or modeling in supervision. This resulted in a lack of performance-based supervision of technical work of field staff. For example, some staff were still teaching councils to make cereal-based ORS six months after the project had been asked to desist from this in favor of promoting use of any home available fluid to prevent dehydration from occurring.

There is some evidence that the DDS, particularly in Ribaue District will continue improved supervision. If project motorcycles are relinquished to the DDS as planned, pending official approval, this will greatly facilitate continued supervision by the DDS. Lack of transportation is the biggest impediment to maintaining adequate supervision.

C.4) Human Resources and Staff Management

Since program operations are not continuing, there are no personnel policies and procedures in place.

April 1998 was a was turning point for the project staff morale and cohesion. During the first 20 months, the three nurse trainers and three field facilitators were attached to health facilities. While the nurses were able to model clinical procedures and supervision, the facilitators were unable to function as counterparts to the ambulatory health agents as anticipated. The staff was unclear about the scope of their work and their morale was low. Morale improved after job descriptions were re-written and they were able to work independently without waiting for DDS counterparts. The lack of supervision and support continued to be an issue, however. It was not until March 1999 that the new manager organized a staff retreat with both old and new staff to set new policies and to communicate the new project direction to staff. The field staff reported experiencing a sense of cohesion and direction since then. The assistant project manager said that except for few disagreements (“that is common among those originating from different provinces” in his own words), the staff worked as a team.

Staff turnover throughout the life of the CS-XII project has been relatively low. The replacement of the project manager took very little time, but perhaps more time should have been taken to look for the most suitable person. A new position for a Field Coordinator was created and filled. The

loss of the assistant project manager for health reasons not only set back the clinical work but also the loss of her overall vision affected the project. Hiring her replacement took over 6 months, due to the lack of educated Mozambicans, particularly in the province. This seriously affected field supervision as described earlier.

Regarding staff transition to other paying jobs at the end of project, the management felt that staff had been given adequate notice; staff members knew they had signed a limited contract. They were trained, given work experience, helped to prepare their curriculum vitae, and informed of job opportunities with other PVOs. Additional job search activities are seen as their own responsibility.

C.5) Financial Management

There was no adjustment in the overall project budget. The changes made between line items were within USAID regulations.

Financial management, however, posed problems for the project. Staff were neither sufficiently trained nor supported in estimating costs or programming based on the budget. The Maputo office had a full finance section that handled the finance activities for all CARE projects in Mozambique, while the finance officer in the Nampula sub-office was responsible for posting charges and paying daily bills. Initially, the project manager generally did not have enough information to manage the budget properly. Budgetary analysis was constantly delayed and it usually took several months to obtain a statement from the Maputo finance office about expenditures for activities. Pipeline analyses originating from PVO headquarters in Atlanta often took six months to reach the Project Manager's desk. Starting in 1999, this problem was corrected and the project manager received monthly expense report. Many more improvements are currently being implemented in CARE Mozambique administration and finance systems.

The other CARE projects have the necessary resources to continue the specific activities previously described. It was never expected that the MOH would assume financial responsibility for any of the activities and the strategy was implemented with this in mind. It is a plus that they are now considering supporting the community councils and that JSI will be following up in one district with IMCI training and supervision.

No technical assistance to develop financial plans for sustainability was intended in the cooperative agreement.

C.6) Logistics

The project experienced difficulties in regard to logistics. Firstly, equipment and supplies came from a great distance, from Maputo and South Africa. This resulted in delays related to air and sea freight. Secondly, the project had a motor pool (cars and motorcycles) that required constant repair and the quality of locally available mechanical assistance was inadequate for the task at hand. The distance between the Nampula office and the three satellite field offices in the districts and the lack of services there created problems. For example, all fuel to be used in two of the

districts has to be taken there by CARE in bulk. Motorcycles were the only form of transport available to nurse trainers and facilitators for reaching their assigned communities. For them to do their field work required the regular delivery of fuel, but the vehicle designated to transport fuel to the field offices often had break-downs, and other alternatives were time-consuming and costly. Communication with Maputo regarding procurement was often an issue as the Maputo office often did not understand the urgency of the request nor the exact needs. This is another system in CARE Mozambique that is currently being re-vamped to be more responsive to the field offices.

The logistics system is not intended to support CS-XII operations and activities beyond this cooperative agreement.

C.7) Information Management

The CS-XII project designed a comprehensive system for gathering information from all levels of health facilities where the project staff was working. There were 10 forms in circulation and field agents and nurse trainers completed five forms each.

In the communities, each health council member kept a notebook of activities showing the type of activity, topic and number of people attending for each date. The head council member collected this information weekly and submitted the forms to the field facilitator each month. The facilitator summarized this information on a one-page table and submitted the summary to the field supervisor, along with a monthly report of additional community events and vital statistics. The field supervisor entered this data onto a computer. On the clinical side, nurse trainers collected monthly epidemiological and preventive activity reports from health posts. They also completed a trimester supervisory form and which was submitted to the assistant project manager in Nampula. This form is described below.

Form A: Guidelines for supervising health personnel

The six-page form was completed by the three nurse trainers in the health facilities. The form covered inspection of the following areas:

- The environment of the health facility
- The organization of work
- Accuracy in the areas of: pediatric triage, vaccination, case management of diarrhea, pneumonia, malaria, pre-natal consultation and obstetric exams
- Frequencies (statistical data) of diarrhea, dysentery, malaria, prenatal consultations, births, transfers
- Status of drug stock
- Accuracy in handling deliveries in maternity
- Accuracy in handling deliveries in community (destined for TBAs)

Health personnel could use the comprehensive form for self-evaluation. In addition to evaluating health workers' performance, the form helped collect statistical information in the intervention areas, which was intended to monitor project progress towards meeting the objectives.. Because the data was incomplete, this purpose was never achieved.

Although many pieces of paper passed hands, staff members had a poor understanding of the purpose of this system. In some cases, field agents inflated numbers to prove the effectiveness of their work in communities. Some council members finished or lost their notebooks and stopped keeping statistics without informing the facilitators. Statistics kept by the nurse trainers were more accurate because their forms because their forms were more quantitative. However, there were gaps in the information they collected.

There was an attempt by the office in Nampula to analyze the statistics in order to identify areas where additional health education was needed. However, since the system was poorly managed, entries on the monthly forms did not always represent reality in the communities. Additionally, a large amount of the data collected had no significance for project monitoring and only added to volume.

The project staff would have benefited from more training in HIS, especially data analysis at a lower level (i.e. performance of council members), and training in use of information.

There was no systematic data exchange between the project staff and the government of Mozambique. Occasionally, project staff submitted some of the TBA and APE's forms to the DDS but this was not planned into the project. The MOH generally looked upon data collection by PVOs with suspicion, and the only numbers relayed to DDS/DPS were those in the trimester report describing project progress.

The project manager kept project and headquarters staff current of project achievements through staff meetings and progress reports. The local partner, MOH was informed of all project activities through trimester reports, and was invited to participate in trainings, etc. However, the level of communication between the project and MOH was not sufficient to keep the DPS/DDS informed of project's achievements. Except for one DDS director, most DDS/DPS personnel were only vaguely familiar with project's achievements.

Project monitoring and impact data will serve as an input for advocating with CARE Mozambique leadership for seeking funding to continue health activities in Nampula.

C.8) Technical and Administrative Support

CS-XII received ample external assistance throughout the life of the project. A record of assistance received and the names of technical advisors/consultants appears in **Annex G.** Project Managers were pleased with the utility, quality and the timeliness of technical assistance they received. The only exception was the 8-month delay in the arranging for the consultant from the American College of Nurse Midwives (ACNM), which held up the progress of training of traditional birth attendants. Since the Ministry of Health refused to use the curriculum suggested by the consultant and reverted to the use of the original TBA curriculum, this long awaited external technical assistance proved to be a disappointment.

The project would have benefited from advice on how to deal with the attitude of MOH. Both project managers who approached the national, provincial, and district level governments through

the proper channels encountered difficulties, and dealings with the MOH were very unpredictable. A meeting of PVOs (sponsored by USAID or the PVO headquarters) to discuss PVO experiences with the MOH, lessons learned and recommendations, would have allowed CARE's CS-XII project to adopt ideas that had worked for others.

Technical assistance from the PVO headquarters to the CS-XII project has been commendable. The CS-XII technical advisors made seven visits to Mozambique throughout the life of the project at opportune times. She assisted the project with an amended DIP and a new set of objectives. She also introduced the concept of MIS and the referral system as well as providing technical guidance for all of the interventions. The project received the managerial assistance through the pipeline budgetary analyses from headquarters. The Nampula project manager reported that she was most successful with procurement from PVO headquarters; if mistakes were made, there were immediate efforts to correct them. The Nampula project manager had also received solid managerial assistance from the CARE Mozambique management staff. Regarding time involvement, PVO headquarters devoted 20-25% of its time to support the CS-XII project, while the country office ACD committed 25% of time to this project.

C.9) Management Lessons Learned

Overall management lessons learned are as follows:

- Pay closer attention to the qualifications of the candidates for Project Manager. Ability to learn the language and previous management experience as well as excellent interpersonal skills and a broad technical background are essential.
- Arrange adequate orientation for new project managers; they should arrive at the project site familiar with personnel, resource and financial policies, and disciplinary measures. Do not expect the new manager to learn these policies from the procedure manual.
- Anticipate that even the most qualified manager will need support from the headquarters and country office. Ensure that the backstop personnel understand the language and the context and have relevant experience as well.
- Allow the manager to dedicate his/her time to managing the CS-XII project (attending to fieldwork and visiting with DDS more often), by ensuring that tasks related to logistics and procurement are performed in a timely manner by the appropriate personnel.
- Develop a more efficient system for providing timely finance reports to the project managers.
- Communicate with project managers in a clear, concise and more streamlined manner about staff movement between offices, especially when the same facilities are used by several projects.
- Encourage project managers to coordinate/share resources among sister projects (Reproductive Health, agriculture and micro-credit) as much as possible at the province, district and community levels to overcome problems in logistics, procurement, monitoring and supervision.
- Encourage managers of all three projects to hold a staff meeting (inviting staff from all three projects), at least every three months, to discuss the coordination of field work for enhanced sustainability.

D. OTHER ISSUES IDENTIFIED

Another important issue that arose during the conversation with the project manager was the difficulty PVOs have in firing a host country staff member. Local disciplinary procedures are complex and often include legal action, which compels project managers to retain even the most inefficient worker, out of fear of losing project funds in litigation.

E. CONCLUSIONS AND RECOMMENDATIONS

E.1) Success of the Project in Meeting Objectives

Despite time constraints, the CS project made major strides towards achieving its objectives. KPC survey (2000) results showed that the project was successful in changing health behavior in all four intervention areas. Community health council members used various IEC activities to deliver key health messages, and radio announcements and theater groups emphasized the same messages. KPC Results showed that more mothers sought medical care when their children had ARI and malaria. More mothers knew a child with diarrhea needed more breast milk, more liquids, and more solid food. More mothers had also learned the importance of pre-natal care. More pregnant women sought pre-natal care, obtained their tetanus shots, planned for their birth and delivered with the help of a trained attendant. Mothers had were more willing to spend a few Meticias to buy a new razor blade for severing the umbilical cord and more mothers had decided put money aside in case of a birth-related emergency. More families knew that a net could prevent malaria bought mosquito nets, and in spite of the relatively high price, more had made plans to purchase a net when they had enough funds. The radio projects and education by council members had mobilized villagers to improve their access to transport for health-related emergencies. Even people from non-project communities had benefited from the radio projects sponsored by the project.

In addition to the behavior changes described above, the project has been successful in motivating health personnel to gain more knowledge and apply that knowledge in their work. Health personnel have come to appreciate their colleagues who assisted them in improving the quality of their work. Twenty-two health posts that received equipment and materials have enhanced their capacity to serve their clientele.

E.2) Achievements and Constraints

However, the project fell short of fully achieving its objectives for a number of reasons. Problems during the first two years of field work set the project back significantly. The socio-economic and political environment in the country, poor healthcare infrastructure, the minimal cooperation of the major partner and several management level problems also had negative effects.

E.3) Lessons Learned

Achievement of objectives:

- Time is required for even the best-tested IEC materials and monitoring methods to be established in a community.

- In an atmosphere of deep-rooted socio-economic and political problems, personnel training, building renovations and supply of equipment may not be sufficient in bringing about substantial change in health behavior.

- Repeated internal evaluation of project progress (using similar methodology as the mid-term and final evaluation) could help detect problems that the monitoring and supervision fail to capture.

- Cooperation of the provincial and district government could add greatly to the efforts of an organization in promoting and sustaining behavior change.

- It would be worthwhile to introduce DDS/DPS to the field interventions early in the project, in ways besides written reports.

- Cooperation with MOH was difficult, and the project could have benefited from lessons learned by other NGOs and assistance from PVO headquarters and donors.

Community Mobilization:

- Asking the community leader to propose potential council members may not result in identification of the strongest candidates. The APEs and TBAs might be better able to identify the most able and willing individuals.

- DDS may be politically biased in its selection of communities – which could result in the neediest communities being passed over.

- Building health councils onto already existing community associations (church groups, farmers' associations, youth groups etc) could add to the sustainability of the councils.

- In the areas where they overlapped, the three CARE projects (CS-XII, Reproductive Health and agriculture) could have enhanced sustainability by jointly identifying one entity (council/association) through which the projects would work.

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Communication for Behavior Change:

- A better way to retain health knowledge and sustain health behaviors would have been to include young audiences in the IEC strategy, for example, through school presentations and the creation of youth groups and sports clubs.

- Alternative IEC methods could have been explored, such as the adoption of local songs, proverbs and dances, and the community should been encouraged to replicate the theater groups' activities. Alternative IEC materials might have included local artwork, using wood, barks or traditional dyes, for example, or even sand art.

- Prior investigation of pre-existing theater groups (those trained by DDS or other NGOs) could have helped lower the costs and promoted better relations with DPS.

Capacity Building of Partner:

- The training of district nurses needs to be on-going rather than one-time.

- Focusing on improving clinical skills is not a comprehensive approach to improving service delivery.

- Lack of medicines at the provincial level is rarely the reason that the peripheral levels do not receive their medical kits. Poor logistics management, corruption and favoritism appear to be the most significant factors. In the future, projects should endeavor to clarify from the beginning what obstacles might impede an effective drug supply system and work diligently with the decision-makers within the MOH to affect changes.

Management:

- Pay closer attention to the qualifications of the candidates for Project Manager. Ability to learn the language and previous management experience as well as excellent interpersonal skills and a broad technical background are essential.

- Arrange adequate orientation for new project managers; they should arrive at the project site familiar with personnel, resource and financial policies, and disciplinary measures. Do not expect the new manager to learn these policies from the procedure manual.

- Anticipate that even the most qualified manager will need support from the headquarters and country office. Ensure that the backstop personnel understand the language and the context and have relevant experience as well.

- Allow the manager to dedicate his/her time to managing the CS-XII project (attending to fieldwork and visiting with DDS more often), by ensuring that tasks related to logistics and procurement are performed in a timely manner by the appropriate personnel.

- Develop a more efficient system for providing timely finance reports to the project managers.

- Communicate with project managers in a clear, concise and more streamlined manner about staff movement between offices, especially when the same facilities are used by several projects.

- Encourage project managers to coordinate/share resources among sister projects (Reproductive Health, agriculture and micro-credit) as much as possible at the province, district and community levels to overcome problems in logistics, procurement, monitoring and supervision.

- Encourage managers of all three projects to hold a staff meeting (inviting staff from all three projects), at least every three months, to discuss the coordination of field work for enhanced sustainability.

E.4) Recommendations for USAID/BHR/PVC for Future Projects

The lessons learned mentioned above, especially those in the area of management, serve as recommendations to PVC. An additional recommendation for USAID/PVC is not to underestimate the importance of building a solid foundation for cooperation with the host government before projects are designed. Donors/PVC should take the responsibility of making their policies clear, and outline the types of projects that are feasible within the limitations of donor funds. Host governments should have a role in the planning process. Efforts to convince the host government of the project's value only at the implementation stage, are often unsuccessful.

E. 5) How CARE will use these lessons-learned: [Judiann McNulty, CARE HQ]

Many of the lessons-learned are specific to the situation in Mozambique: a country office without adequate support systems and no previous experience in health, the remoteness of the project site and almost total lack of infrastructure, a very limited pool of educated nationals, and a Ministry of Health whose attitude was seriously affected by years of war and post-war paternalism. The management, administration and logistics issues discussed here affected all CARE Mozambique projects, not just the CSXII project. As a result, CARE Mozambique is currently under-going major reforms.

The other PVOs in Child Survival in Nampula project experienced similar constraints, particularly in building relations with the DPS/DDS. The first SAVE the Children project manager resigned in frustration. World Vision gave in to the DPS demands to pay DDS staff

salaries, provide direct health services and infrastructure, a solution CARE's policies for sustainability would never accept. With an abundance of donors, the DPS was not concerned about building relationships with those who did not meet their demands.

Some of the lessons in dealing with the DPS/DDS and communities have already been applied to the reproductive health project, which operates in the same districts. That project has become one of CARE's most successful reproductive health projects. This emphasizes the importance of having the right project manager, which is one of the biggest lessons CARE is taking away from this project.

Two lessons CARE is taking from this project to all others are 1) the importance of developing a functional monitoring system very early in the project, which includes self-evaluations to assure the project keeps on track, and 2) the importance of devising a way to fully engage the MOH partner from the beginning. While these are standard in other CARE CS projects, their lack in this case has served to reaffirm their importance.

A critical lesson for CARE HQ is assigning the appropriate backstop person. Language skills and a willingness to accept the reality of the context are essential.

A lesson-learned, not discussed by the external evaluator, has to do with the use of community councils as a strategy for health education and referrals. While forming and training the councils did leave a large body of individuals in each community with improved health knowledge, the process proved to be labor-intensive and not agile. Training one or two volunteers per community is much more time-efficient and makes it possible to have centralized training since those from various communities can be brought together. The community councils were not pre-existing groups and it is unlikely they will continue to meet and function except where the DDS gives them some recognition and support (Malema district). CARE will not apply this strategy again but rather will opt for more efficient, sustainable approaches of volunteers and pre-existing groups.

D. RESULTS HIGHLIGHT (tear out sheet)

See **Annex H**

Please see map attached in hard copy

Annex B

Activities for intervention areas

Diarrhea case management:

In order to train communities in home-based treatment and referral, the project facilitators provided training to the community-based health councils in the project's 51 target communities on the project's key messages concerning diarrhea. The council members have passed on these messages through health education sessions with community groups and through home visits when they know a child is suffering from diarrhea. Council members do referrals to the nearest health care unit. IEC materials were developed by the project and provided to each community council to facilitate their education work.

Following observations that some communities were introducing secondary messages on personal and household-level hygiene and performing laborious demonstrations on the preparation of cereal-based solutions, the project facilitators began re-focusing the messages with council members and in particular emphasized the importance of giving "immediate liquids".

At the clinical level, project supervision visits showed that the diagnosis of complicated diarrhea is usually accurate. In September 1999, the quality care rating for diagnosing and treating diarrhea showed that three quarters of the health personnel were performing exactly and completely according to protocol, where one quarter was in the insufficient range. The correct use of antibiotics was also shown to be questionable among health care workers. The project's nurse trainers continued to work with health post staff to improve their clinical skills in the treatment of children with diarrhea.

Case management of malaria

The project strategy to train the communities in malaria danger signs included the use of cue cards (drawn images). In small groups, the community councils use the cards that show danger danger signs to watch for in malaria cases and the steps which should be taken if these signs are present. They also use a flip chart storyboard on malaria, which was developed by the project. Since December 1998 the two theater groups have been presenting a play on malaria, touring the different project communities. An audio play was produced and distributed on cassettes in May 1999.

Another important aspect of the fight against malaria was the promotion and sales of mosquito nets. The project developed a a strategy for introducing mosquito bednets on a small scale in order to test reception and behavioral compliance. A simple, non-scientific survey on net use and demand was drawn up and conducted by key members of the health councils in selected communities. The survey was also a promotional opportunity as each member of the team had a bednet to display and demonstrate its use. Results of

the survey indicated that only 3 out of 600 people owned a net. Only 32% had actually seen one or knew what its purpose was.

The project proceeded with plans to develop educational messages on the proper use and maintenance of the nets, as well as promotional messages via radio and flyers. In November 1999, a commercial vendor put a stock of 365 untreated mosquito nets at the disposal of the project to organize sales in the communities. Community councils were then trained in the use and maintenance of the nets, and together with the facilitators in each district, set up net sales days. Though early sales were low (the project eventually had to subsidize the price), over 340 nets had been sold by the end of April 2000. Radio promotion of nets was so successful that independent vendors began bringing in nets to sell in the district-level markets. The project maintained close contact with Population Services International (PSI) throughout this experience, and in May 2000 PSI approved the idea of making available its supply from neighboring Zambezia Province. The project decided not to manage this stock, however, but to promote a price list and display sample nets via the facilitators in all district stores and marketplaces.

Case management of acute lower respiratory infections(ALRI)

Once again, the community councils were in the forefront of carrying the message to their communities.

CS-12 project had a major role in reinforcing technical skills of the health personnel in the diagnosis and treatment of ARI. Drug management is a key factor in the effective treatment of respiratory infections. Many health personnel exhaust their limited supply of antibiotics on unnecessary treatments, leaving nothing for the child who really needs cotrimoxazole. In the final year of the project, a series of workshops for APEs (community health workers) on management, supervision and community participation emphasized the need for better drug management and administration. A total of 46 health personnel and 56 APEs from all three districts participated in the week–long training events. In two districts, members of the District Health Department (DDS) participated as trainers during the exercises for Rational Drug Use. At the end of the training, participants showed greater understanding of the relationship between symptoms, diagnosis and treatment; demonstrated improvement in planning skills and supervision; and expressed visible enthusiasm for the community referral system and support provided by community councils. Thermometers, wall clocks for respiratory counts, baby-weighing scales and reference books were provided to health facilities.

Maternal health

The project strategy to improve maternal health was comprised of four parts. They were
1) Reinforcement of TBAs,
2) Introduction a community council referral system
3) Development of a community based emergency transport system and
4) Rehabilitation and providing of equipment for maternal care units.

1) As an integral part of improving maternal health in the communities, a total of 91 Traditional Birth Attendants (TBAs) were trained by the project over the course of two years. TBAs living in communities with health councils are members of those councils and all TBAs trained by the project are equipped with a birthing kit and audio-visual materials.

Not withstanding the controversy over the contents of the TBA birth kits, with a verbal nod from the Maternal Health Division at the Provincial Health Department (DPS), the project went ahead discreetly developing, organizing and distributing kits. Two other Non-Governmental Organizations (NGOs) also carrying out TBA training obtained kits at cost from the CARE project. All kits included razor blades and not scissors since scissors are more easily contaminated due to negligent hygiene practices and are more difficult for the TBAs to manipulate. The supply problem for razor blades was addressed through the promotion of Birth Plans and via the community councils. The Birth Plan calls for the purchase of a new, unused razor blade by the expectant family.

2) A color-coded reference system that was introduced by the project has had considerable success at the community level. It was designed in consort with the 3-part reference form for council members that are literate. Council members use them in their meetings and home visits to identify potential danger signs for childhood diseases and pregnancy. The colored cards are coded by illness and are acknowledged at the health and APE posts as legitimate documents. The green card is for pregnancy referrals, which are always referred through the APE on to a post or health center. APEs have no mandate to do pre-natal care, despite receiving iron-folate tablets in the Kit C.

3) At the community level, the community councils stressed the importance of pre-natal consultations and birth plans. In an effort to address the problem of limited transport for emergency obstetric care, the project introduced a component on planning an emergency transport system. The activities include, but are not limited to, the subsidized purchase of a locally manufactured bicycle ambulance and a distress flag to attach to a bicycle or a local stretcher. A theater play and audio play were produced to promote medical emergency planning, and in an innovative attempt to collaborate with long-distance taxi drivers, the state driving manual was reproduced with the project messages included on each page for free distribution. A radio message campaign targeting the taxi drivers and police control posts urged them to assist with any medical emergencies they may come across on the road.

4) The project conducted a physical assessment and inventory of all 23 health facilities in the three districts, comparing this against the level of training of the health personnel posted at these units in order to learn what kind of equipment they were trained and authorized to use. The MOH equipment catalogues for the posts and centers were consulted as well, and out of this a plan was drawn up and executed to carry out basic rehabilitation to facilities and to supply basic equipment. A complete list of material and equipment is in (**Annex E**).

Annex C

Formative Research

2.c.1 Rapid Assessment of IEC Impact in Project Communities: 15-22 April 1999

The project conducted a rapid assessment of selected communities that have active councils, in order to get an impact reading on how well the project messages are being transmitted and applied. The new field staff conducted individual and group interviews at 4 health facilities, and 5 communities. Results were encouraging and also indicated areas that needed more attention. Some highlights:

- *Many mothers know danger signs and action messages*
- *In one health facility, the agent did not counsel on proper drug use and management, due to limited time. (The pharmacy clerk did provide some explanation when providing the medicine, however.)*
- *Some health facilities are poorly organized in terms of patient comfort, patient flow, cleanliness, and materials management.*

Based on the results, three principal actions were undertaken:

- *Focus groups with health personnel to explore their attitudes and practices regarding client care and general work management*
- *In-service training sessions that will address problems of attitude, time management, and basic organizational practices*
- *Community health councils were encouraged to use a wider variety of sites for education - including markets, water points, etc.*

2.c.2 Community-Based Opinion Survey: August-September 1999

CARE staff conducted interviews with DDS personnel and community councils, and conducted focus groups with residents of nine communities to determine their interstes and perceived needs in relation to the current project and a possible follow-on. Malaria and diarrhea were acknowledged as the major illnesses, affecting both adults and children. Health care personnel had moderately good knowledge related to treatment of malaria (due to CSXII training). Community members felt curative services were needed for nutritional problems and showed no conception of prevention of such. In the communities where health councils were functioning, the residents were appreciative of their efforts.

2.c.3 Rapid Market Research for Mosquito Net Availability: Jan.-Mar 1999

One of the project objective states: “80% of families in 3 communities will participate in a pilot mosquito net project by September 2000.” The basis for this objective was an intended collaboration in 1998 with PSI for the introduction of treated bednets in one

project district, using a social marketing strategy. This pilot activity was to follow on PSI's full-scale implementation of a net marketing project in neighboring Zambezia Province. PSI experienced major delays in its own Province, and ultimately did not launch net sales in n Zambezia until April 2000. The CSXII project did a rapid assessment of the larger stores in Nampula and the port city of Nacala, and learned that there were virtually no net supplies anywhere. The occasional trader from Tanzania or Malawi had 2 or 3 at most.

About the same time, a discrete survey was conducted in 20 project communities to determine whether nets were an item people knew about and/or used. 600 people were asked 9 questions, including price ranges for net purchase. The results basically confirmed what is common knowledge: almost no one uses nets (3/600). A third of those interviewed did not know what a net was nor what it was used for (interviewers had sample nets on hand).

Based on this and considering that the project's structure was not suitable for a net marketing activity, one option was to work within the existing commercial market system, persuading local merchants to stock and distribute quantities of nets through their district stores. In order to encourage them, the project would undertake promotional activities: radio spots announcing net sales in specific stores; banners at store sites, flyers at the community level, and demonstrations.

However, merchants resisted bringing in a net supply through their own channels and at their own expense. The majority did not feel that there was a market for mosquito nets; the procurement and import procedures were too complex for the small quantities in question (500-1000); and there was not enough of a profit margin to make it worth their efforts. Eventually, one large merchant in Nampula informed the project that they had purchased a supply of 365 nets shipped up from Maputo. The merchant put the supply at CARE's disposition, to sell at the community level. The community councils assisted the project field agents to set up Net Sales Days, and the promotional package was implemented. All proceeds returned to the merchant. Due largely to the promotional efforts of the project, nets started appearing at district level markets and among the stock of petty traders. Apart from the health benefits, the project can take some credit for opening up the local markets to a "new" product.

As a final activity, the project returned to the independent merchants that had participated in the preliminary market study with a list of the PSI net products and prices. Samples were shown, and contacts were made in the event that the merchants would like to purchase a stock. In addition, the list of merchants and prices were distributed to CARE's other projects that have field activities, notably farmers' associations and credit/savings groups, in the hope that they will find it beneficial to develop a net sales activity.

2.c.4 **Focus Groups on Obstetric Emergencies and Transport: May 1999**

Obstetric emergencies often result in death or permanent physical injury to a pregnant woman, due to delayed intervention for lack of transport to the nearest capable facility.

CSXII project had a mandate to investigate and promote emergency obstetric transport plans in its target communities as an accompaniment to its Maternal Health activities for safe childbirth The first phase of this activity consisted of a number of tasks:

- gather information concerning local beliefs on what is considered an emergency, and how people currently go about addressing emergencies. References for this information will be local leaders, traditional midwives, and community health workers;
- focus groups conducted with bush taxi drivers at park stations in the district and Nampula city to elicit their opinions and ideas about instituting an emergency notification system;
- identification and listing of all community means of transport in each target community;
- identification and listing of distances from each community to the next nearest community, to the nearest major road, and to the nearest health facility.

Results from this research revealed that:

- Different community members had different priorities for what constitutes an "emergency". For example, an elder always considered attendance at a funeral to require emergency transport.
- Bush taxi drivers had all assisted at least once with a medical situation, and the majority of those were obstetric emergencies. Their main obstacles to not providing more support included complications about who would disembark to allow for the patient, and difficulties with the police at the control stations along the road.
- All communities had bicycles owned by individuals. This would eliminate the need to provide a bicycle in addition to a wheel cart.
- Distances to main arteries are great, and many communities use bush tracks to cut corners. This would have impact on the kind of transport that might be proposed.

Following the research, the project began the development of action plans in the target communities. A package of options were proposed:

- development of an emergency identification system to alert taxi drivers of a nearby emergency;
- development of a network of bicycles or stretchers between communities;
- radio and print promotional campaign to taxi drivers and police officials.

The resulting system produced:

- a purchase scheme for a bicycle ambulance at a subsidy of 50%;
- red and yellow SOS flags distributed to every community council'
- a live theatre and audio play on obstetric emergencies;
- an adaptation of the national drivers' manual with project messages on each page that was distributed free of charge to all bush taxi drivers and police officials.

2.c.5 Physical Assessment and Inventory of Health Facilities: Oct.-Nov. 1999

CARE's Child Survival XII project conducted an inventory of the physical conditions at the project's target health facilities in order to assess the degree to which inadequate equipment and physical structures are impeding the timely and effective execution of safe childbirth services delivery. The project used the WHO definitions that identify the parameters of basic and emergency obstetric care.

The project confirmed that the Provincial Health Department (PHD) protocols conform to the WHO standards. A list was drawn up that identified the specific health facilities that are authorized to perform BEOC/CEOC. Next, the equipment and material catalogs for health centers and posts were consulted to determine what corresponding equipment and material was required in order to carry out the BEOC/CEOC functions. A review of the organizational charts indicated which category of health personnel has the qualifications to perform the respective services. Finally, the individual facility registers were studied to count the number and cause of obstetric referrals, as well as the categories listed for complicated deliveries. Neither category gave sufficient data, listing many cases as undiagnosed. A quick comparison with category listings of personnel and their qualifications suggested that this might be due to under qualified staff serving in place of their superiors, who are often called away for a variety of reasons.

The inventory revealed that the majority of the health facilities are operating without the basic equipment necessary to adequately conduct BEOC, much less CEOC. The findings included:

- Lack of medicine cabinets and shelves to properly store medicines; most end up on the floor;
- Lack of filing cabinets to store paperwork and health forms;
- Clients sit on the floor or on the ground outside the facility for lack of benches or chairs;
- One brand new facility built by an NGO was not equipped with a desk or chair for the nurses to work from;
- Some facilities do not have beds or bed linen for inpatient care;
- General lack of instrument boxes for needles, syringes, forceps, gloves, etc.;
- Some autoclaves that serve for sterilizing instruments are defective, impeding effective sterilization of equipment;
- Some of the maternity wards do not have obstetrical exam tables or beds for birthing, no IV poles, and no basic surgical equipment for the most basic obstetric interventions;
- Poorly maintained patient registers, without notations for referral causes, complicated births, or obstetric deaths;
- Poorly organized routines for maintaining stock records and conservation of medicines, as in many cases the senior nurse keeps the keys and when absent (which may be frequent) no one has access to medicine and material stocks;

- No efficient system for ordering and managing consumables (lanterns and petrol, aprons and sheeting, syringes and needles, etc.) exists at the central provincial level.

These results of this inventory justified the study's hypothesis that it was not just lack of material and equipment that is impeding effective service, but also the inadequate management of existing resources. Thus, simply supplying equipment and material that will not be properly used or maintained would not resolve the problems. The District Health Services management teams will need to work to ensure proper use and distribution of resources, maintenance of equipment and proper recording of data.

The study made the following recommendations that were discussed with Provincial and district level representatives:

- Provide the maternity wards with the minimum basic equipment and material necessary for conducting effective BOEC and COEC;
- Proceed with plans to conduct in-service training sessions in management and workspace organization at the facility level in collaboration with the DPS/DHS;
- Involve the facilities' senior MOH staff in studying how to solve the problem of inaccessibility to essential medicines and material when no senior staff is available;
- With the assistance of the nurse-trainers, re-organize the work environment in the maternity wards, including storage of medicines, patient flow, paperwork management, etc.;
- Coordinate with other donor organizations operating in the districts to share the equipment and material costs for the facilities.

Based on this, the project proceeded with plans to rehabilitate and equip the maternity units in health centers and posts. Contractors were identified and materials supplied to 22 different health facilities.

2.c.6 Client and Clinic Management focus group discussions and individual interviews: March –May 2000

This exercise began with the hypothesis that technical training and material/equipment support were not enough to assure delivery of quality health services. The critical missing factor appeared to be poor morale and behavior-based performance management. In an effort to identify outstanding obstacles (apart from technical competence and material support) to improved service delivery, it was important to listen to the health personnel themselves, and to understand the difficulties and barriers they face. Both health projects collaborated on the effort. Focus Group Discussions (FGD) and individual interviews (II) were conducted at the health centers in March 2000. Prior to initiating this activity, project staff selected to conduct the discussions participated in a 2-day training to review and learn the specific techniques involved. Three FGDs were held with 5 participants in each District. The experience level and professional capacity of the participants varied, allowing for a more interesting range of perspective and opinion on the topics discussed. 21 individual interviews were conducted across a range of job levels.

Results identified an number of trends. Notions of time management and work organization were practically non-existent, as personnel responded to the task at hand. Mistrust and resentment were prevalent between clinic staff and their clients. There appeared to be a significant information gap between what the health personnel expected from clients and vice versa. In addition, a significant number of personnel appeared to be performing duties for which they have no training. The results were finalized and shared with the DPS and DDS, following which a variety of interventions were initiated:

Annex D

Results – Cross Cutting approaches

(ii) Communication for Behavior Change

ii.a. The project IEC strategy

The project IEC strategy was developed based on the premise that certain harmful behaviors contributed to an undesirable state of health and welfare. During the formative research activities, desirable behaviors were identified, and the process for moving from harmful to helpful behavior was outlined:

- Justify the desired behavior with authoritative supporting information and the promised benefits;
- model the new behaviors; initially through surrogate characters as is possible in drama and visual aids and eventually in the form of local model mothers, for example;
- carefully identify the steps in the behavior change and ensure they are feasible to accomplish;
- repeat the desired behaviors (multiple exposures to media modeling behaviors);
- correct and encourage new, desired behaviors;
- repeat new, desired behaviors.

ii.b Summary of project research activities

CS XII conducted a considerable amount of formative research, destined to inform both the IEC strategies and provide direction for training needs. Following is a list of the various research activities, and their intended use.

Type of research	Intended use of results
Situation analysis – trained TBAs	Baseline for training evaluation
Skills assessment of health workers: Diagnosis/treatment of ARI	Baseline for evaluation of project objective #4
Focus Group Interviews: pregnancy and childbirth - mothers, fathers, grand mothers	Design of IEC materials: identifying constraining/enabling behaviors (ref. Behavior Change Schematic)
Focus Group Interviews: childhood illness/ARI – mothers, fathers, grandmothers	Design of IEC materials: identifying constraining/enabling behaviors (ref. Behavior Change Schematic)
"Access Mapping"; review of all health facilities	Reference decisions on first-line antibiotic supplies; rehabilitation of facilities

ii.c. Project Target Groups

The target populations for the project were segmented into three groups:

1. women of reproductive age and pregnant and lactating women;
2. children ages 0-5;
3. persons having household and community-level influence and decision-making power over the above two groups.

ii.d. Choice of Channels and Message Approach

Taking a cue from the success of the "Enter-Educate"[*] approach, the media that was used for the messages included: live theater performances; audio cassette presentations for listening clubs; print storyboards in flip chart form, and motivational materials kits for the field agents.

The project employed the "Near Peer" model, whereby the principle characters in the media materials are drawn from a profile of the typical target group member, but enhanced with project desired behaviors. Target population members aspire to be like the "Near Peer", and can see the real possibility of attaining this status.

ii.e Project IEC Activities

ii.f.1 Short term promotional campaigns

Model Mother campaigns were designed to reinforce the modeling behavior promoted through the theater, audio programs and visual aids. The community councils identified the mothers, organized the ceremonies, and presented certificates. The mothers' names were announced on the radio. A Well-Baby photo contest was planned but due to time and material constraints, this was not executed. The Community Self-Image Campaigns were not developed for the same reasons.

Mosquito Net sales campaigns were held in every community. These amounted to a day planned by the local health council to demonstrate how to use and to sell nets. The project provided banners and flyers, and buckets. Radio messages ran for two months advertising the sales days. Beyond the short-term publicity run, the nets continued to be delivered and sold.

A campaign to promote and sell bicycle ambulances was also launched. This involved a radio promotion over three months, demonstrations of the bicycle in each community, a drivers' manual for taxi drivers and police that included project messages and encouraged these groups to assist during road emergencies.

ii.e.2 Mobile theatre groups

[*] Johns Hopkins University/Population Communication Services , Baltimore, Maryland.

The project organized two theatre groups to conduct mobile performances throughout the three districts. Each group had 5-7 performers who were trained in both educational theatre techniques and a repertoire of 6 scenarios. A "soap opera" format was adopted, and the same characters appeared in different situations in each scenario. This medium proved to be extremely popular, although expensive. Five training events were conducted over two years, and performance costs included transport, meal and lodging costs and minimal costumes. Each training cost around $700, and one tour for four days cost approximately $180. Between the two health projects, 96 presentations were made, to a total of 18,972 spectators.

ii.e.3 Audio Listening Clubs

The theatre performances were recorded professionally in the studios of Radio Mozambique, and duplicated on to audio cassettes. Cassette players were provided, one to each community. The council members organized groups of listeners, relying on existing social, religious, co-op, etc. networks. After a listening session, the council members hosted a discussion. The radio cassette activity was the most performed activity, although the notion of an established "club" never really caught on.

ii.e.4 Message Cue Cards and Discussion Starters and Card Games for ORS

For the cue cards, project key messages were printed individually on 8x11 paper with key data and supporting information to justify the message. These cards were intended to reinforce the educational activities and knowledge base of the project facilitators when answering questions from council members.

The discussion starters were 8x5 cards with open-ended questions; corresponding message and tips for answers on the other side. The ORS card games were a set of 8x5 laminated cards detailing the ORS mixing procedure in pictures only. For use with small groups While all products were very useful tools, it was not monitored adequately to determine how they were used.

ii.e.5 Storyboards or Flip Charts

The storyboards were flip charts with pictures and text of the same story displayed in the theatre and audio cassettes. This was the third media channel by which the messages were reinforced. They were used constantly. One drawback was that they were written in Portuguese. However, it has been observed that while everyone speaks Macua language, very few people can read it, and those that are literate tend to be literate in Portuguese.
People enjoyed the visual aspect of the drawings. Due to the high number of storyboard productions to be made, the quality of composition was modest at best – black and white line drawings on card stock. The contracted artist was not very accomplished.

ii.e.6 Radio broadcasts

Radio broadcasts were not written into the initial strategy. The 1997 DHS statistics reported only 15% of the population had access to radio, and considering the broadcast costs at the time, it was not judged very cost-effective. However, in the last six months of the project the entire series of audio cassettes were broadcast in an effort to be able to evaluate increased listening capacity. The final KPC survey revealed that 62% of all those interviewed had heard the theatre and promotional messages.

All in all, the IEC materials provided a variety of approaches for council members to educate and mobilize their target audience and hold their interest. Making the most of the products depended heavily on how the council members were instructed in their use, and the opportunities they were able to create for message dissemination.

Annex E

List of Material and Equipment Provided to Health Facilities

Material/Equipment	Level	Year
WHO Algorithm maps and ARI wall clocks	Health Posts	1997-98
WHO diarrhea algorithm maps	Health posts/APEs	1997-98
Radio Cassette players	Community councils	1998-2000
Set of 5 audio cassette plays	Community councils	1998-2000
Set of 5 flip chart plays	Community councils	1998-2000
Set of 2 flash card games	Community councils	1998-2000
Rational Drug Use Guide	Posts/APEs	1999
Medical Registers/rulers	APEs	1999
Waiting room benches	Health Centers/Posts	April-June 2000
Neo-natal tables	Health Centers/Posts	April-June 2000
OB/GYN step ladder	Health Centers	April-June 2000
Medical storage cabinets	Health Centers	May 2000
Buckets, waste cans	Health Posts	May 2000
Anemia Technical Manual	Posts	June 2000
TBA kits	Community TBA (91)	1999-2000
"Where there is No Doctor" books	Community APE (60)	July 2000
Thermometers	Community APE (120)	July 2000
Baby-Weighing (SALTAR) scales	Community APE (60)	July 2000
OB/GYN exam tables	Health Centers (3)	July 2000
Manual Vacuum Aspirators	Health Centers/Posts (5)	July 2000
Adult scales	Health Centers/Posts(5)	July 2000
Baby scales (tray style)	Health Centers/Posts (5)	July 2000
Manual steam sterilizers	Health Centers/Posts (8)	July 2000
Bed pans	Health Centers/Posts (9)	July 2000
Instrument Boxes (various sizes)	Health Centers/Posts (44)	July 2000
Kidney pans and lotion bowls	Health Centers/Posts	July 2000
Ophthamaloscope	Malema Health Center	July 2000

Annex F

MATERNAL AND CHILD HEALTH PROJECT – Training Events 1997-2000

Date	Participants		Title and Content	Days	Trainers	Locale
	#/level	Institution				
1. Aug 97	3 trainers 28 health staff	CARE NGO & MOH/DPS	Training of Trainers	5	Asst PM; 2 DPS	Nampula
2. Nov 97 – Apr 98	67 EMCH, EE, AMP, AMC	MOH-DDS	Sequential Management of childhood illnesses	12	Asst PM; Field Coor., 3 CARE trainers; 3 MOH trainers	3 districts, 2 tours per district
3. March 98	3 nurse trainers 3 facilitators	CARE	Participatory Learning Assessment	5	PM; Field Coord.; local consultant	Nampula
4. April 98	3 nurse trainers 3 facilitators	CARE	Community Organisation	5	PM, Field Coord., Asst PM with local consultant	Nampula
5. April 98	3 nurses 3 AMP 21 EE	DDS – 3 Districts	Sensitization about Community Organizing	1	Field Coord., Asst.PM, 3 facilitators	3 Districts
6. May 98	3 facilitators	CARE	TOT for content of CSXII messages	5	Asst PM; Field Coord., DPS & DDS	Nampula
7. May 98 – ongoing	Community Leaders in 51 communities	Community Councils	Training Package for Council Health Education Activities	2 months; 1 session per week	Field Coord.; 3 Facilitators, 3 Nurse trainers	51 community councils
8. June 98	12 PMs, nurses	DDS, 6 PVOs	TOT in obstetric first aid to teach TBAs	3	Marylou Carr, ACNM	Nampula

EMCH = nurse; EE = elementary nurse; AMP, AMC = health technicians; PM = project managers

Date	Participants		Title and Content	Days	Trainers	Locale
	#/level	Institution				
9. July 98	46 APEs, first aid workers, servants	Communities in 3 districts	Sequential management of childhood illnesses	5	Mr. Sumalgy/DPS; Asst. PM, 3 CARE nurse trainers	3 districts (5 tours)
10. July 98, March 99, June 99, Dec.99 March 2000	17 community theatre actors	Namina, Metacusse councils, Casa Velha Cultural Center	Basic techniques in using theatre for health communications; rehearsals for 5 plays	10 days each	Performance artists from Casa Velha and Casa Cultural	Nampula
11. Sept. 98	19 District & field staff	CARE, 3 NGOs, DDS, DPS	Supervision techniques – planning	5	Asst. PM; DDS Ribaue	Malema
12. Oct. 98	10	CARE, DDS	Supervision techniques – application	4	Asst. PM; DDS Ribaue	Ribaue
13. Nov. 98	16 EMCHs, midwives and nurses	CARE, MOH/Maputo, DPS/DDS	TOT for provincial and district level nurses to train TBAs	15	National Director MOH/MCH; Pathfinder, SALAMA	Malema
14. April .99 May 99, July 99, August 99 March 2000, May 2000, June 2000 August 2000	91 Traditional Birth Attendants	CARE, communities with councils	4 week training in Basic techniques for TBAs; using MOH national curriculum and supplemented by project guidelines on community involvement, emergency transport, and developing a birth plan.	28 days	3 Project nurse trainers; 4 district MCH nurses (training included Lalaua district)	4 District health centers
15. March –July 2000	53 community council leaders	CARE, community councils	Council to council peer education training	3 days each	CARE, council members	3 districts
16. March 99	15 project staff	CARE	Project retreat for performance standards, CARE policies, and work ethics	3 days	Project Manager	Nampula

Date	Participants		Title and Content	Days	Trainers	Locale
	#/level	Institution				
17. April 99, May 99	34 EE, EB, AMG	CARE, DDS field personnel	Refresher training for field personnel in diagnosis and treatment of specific ARI illnesses	3 days each	DDS, Project nurse trainers, consultant	Each of 4 Districts (including Lalaua)
18. April 99	3 project facilitators 1 project nurse trainer	CARE	Orientation and IEC training for staff new hires (field agents)	4 days	Project Manager	Nampula
19. June 99, July 99, August 99	48 EE, EB, AMG, pharmacy clerks, some APEs	CARE, DDS field personnel	Orientation to DPS new system of drug distribution and inventory management	3 days each	DPS Drug Distribution Unit	Each of 4 Districts
20. Dec. 99	3 project nurse trainers 6 project facilitators 2 project management	CARE	TOT in community development and IEC training	17	PM, Assistant PM, Field Coord., consultant	Nampula
21. Feb/March 2000	56 APEs and first aid workers	CARE, DDS	Refresher training for APEs in organizational management, community participation	3 days each	Assist. PM, Nurse trainers, facilitators	3 districts
22. March 2000	9 project staff	CARE – CSXII project and RH project	Training in Focus Group Discussion techniques	2 days	Project Managers, Assist. PMs	Nampula
23. March – July 2000	53 council leaders	Care, community councils	Peer Training – Council to Council	2 days each	Field Coord., Facilitators	X communities in 3 districts

Annex G

List of external technical assistance

Date	Source	Activity
Jan-Feb.97	Unuversity Alabama Intern	Design & implementation of baseline survey
March May 98	BASICS	Concepts & techniques of IEC
May 98	Consultant (Marydean Purves)	Designing IEC strategy & developing supporting material
May 98	CARE Atlanta sponsored workshop in Nicarauga	Child survival workshop on supervision with other child survival managers (Assistant project manager and a DDS partner participated)
May 98	HAI (Mozambican NGO from Manica)	Sharing experience in community organization
June 98	American College of Nurse-midwives (consultant) Mary Lou Carr	TBA curriculum & training
July 98	Local consultant	Training 13 rural Mozambicans in using basic theater techniques
Sep 98	Mary Ruth Horner (External evaluator)	Mid-term evaluation
Sep 00	Sunny Wijesinghe (External evaluator)	Final evaluation

ANNEX H

Results Highlights: "Theatre as a Behavior Change Tool"

Taking a cue from the success of the "Enter-Educate"[*] approach, one of the media channels chosen by the project included establishing mobile theatre groups to present live theater performances. Theatre in Mozambique is universally popular and used for education and entertainment alike; by government and public sector as well as the private commercial sector. The project deliberately decided not to work with a professional group, choosing instead to host contests in the target districts to select willing volunteers. Two groups were thus organized, and participated in a highly successful first workshop in July 1998. A renowned local performance artist transformed the rural inhabitants into a tightly knit team that continued throughout the two years of the project to develop both professionally and personally. In large part, the overwhelming success of the theatre interventions was due to the cohesiveness and dedication of the two groups. Each group had five to seven performers who were trained in both educational theatre techniques and a repertoire of six scenarios. A "soap opera" format was adopted, and the same characters appeared in different situations in each scenario.

The "Near Peer"[*] model was employed whereby the principle characters in the play were drawn from a profile of the typical target group member, but enhanced with project desired behaviors. Project qualitative research was consulted for this activity, as well as field visits to talk with some community people to discuss traits and personalities of people they admire. Target population members aspire to be like the "Near Peer", and can see the real possibility of changing their behavior.

Five training events were conducted over two years, and performance costs included transport, meal and lodging costs and minimal costumes. Each training cost around $700, and one tour for four days cost approximately $180. Between the two health projects, 96 presentations were made, to a total of 18,972 spectators.

The Reproductive Health project conducted an exit interview activity at the end of one performance. Ten simple questions were asked regarding the key messages and the spectator's impression of the show. Accuracy on the message retention was 90%, and people were extremely enthusiastic about the spectacle.

It is the opinion of the project management that one of the benefits for the project is that the group members themselves have become very adept at communication, and involved in the welfare of their own community and of those that they visit.

While generally IEC promotional activities such as this are doomed as unsustainable, there is optimism for these groups. Already they have the sponsorship of the Reproductive Health project. The nutrition component of CARE's agriculture program

[*] Johns Hopkins University/Population Communication Services , Baltimore, Maryland.
[*] Academy for Educational Development, Washington DC.

will be linking with the groups to insert another show into their repertoire. The Provincial Health Department and the District Health Services have asked for their contacts and the terms of their work, so they too may continue to support them.

Annex I

Evaluation Team Members

Azevedo, Amadu	Field facilitaor in Malema (CARE staff)
Bila, Ilda	Nurse Trainer in Mecuburi (CARE staff)
Braganca, Mucalava	District Health Director of Malema (DDS)
Cusse, Augusto saide	Field facilitaor in Ribaue (CARE staff)
Chaimite, Maria de Fatima	Nurse Trainer in Malema (CARE staff)
Francesa, Pedro	Driver (CARE staff)
Gil, Gorge Patricio	Field facilitaor in Ribaue (CARE staff)
Jose, Fernando	Assistant Project Manager (CARE staff)
Leopoldo, Alberto	Field facilitaor in Malema (CARE staff)
Marentes, Jose	Driver (also interviewer/interpreter) CARE staff
McNulty, Judiann	Deputy Director for Child Health (CARE Atlanta)
Mecedes, Marcilino	Field facilitaor in Mecuburi (CARE staff)
Purves, Marydean	Project Manager (CARE staff)
Sumalgy, Alberto	District Health Director of Mecuburi (DDS)
Wijesinghe, Sunny	External Evaluator (Independent)

Annex J

Assessment methodology and schedule

The evaluation team consisted of the CS-12 project manager, CARE atlanta representative, external evaluator, CS-12 project staff and DDS directors of Malema and Ribaue. DDS director from Ribaue was unable to attend. The names of the evaluation members are given in **Annex I.**

The selection of communities included, both, who showed rapid progress, and those who lagged behind in health promotion activites. The distance also played a major role in chosing the communities to visit during a three-day field visit.

Interviews conducted during the three day-visit were with the following personnel:

- Seven personnel of health facilities (either nurses or APEs)
- Six TBAs
- Six community councils (as collective groups)
- Fifteen members of community councils from different communities
- Ten mothers & farthers from different communities
- Two DDS directors
- Nine CS-12 staff members
- One APM
- One theater group

Each DDS director visited a district other than his own, and took an activie part in interviewing councils, council members, or mothers and fathers. Field agents (facilitators) accompanied the team to the communities where they worked, but assisted in interviews in communities other than their own to avoid bias in answers. The external evaluator conducted the majority of the interviews including those with the two DDS directors and nine CS-12 staff.

The questionnaires utilized in the interviews are given in **Annex K.**

The schedule of the interviews and visits follow.

Schedule of final Evaluation

Date	Team Members/participants	Event
9/7-9/9	Sunny Wijesinghe	Review reports
9/11 7.30 –10 a.m 2.00 p.m. 7.00 p.m	Sunny Wijesinghe Judiann McNulty CARE staff (project director, Assitant project manager, field coordinator, and field staff) 4 DPS members, 2 World Vision staff & Sunny Wijesinghe Judiann McNulty Sunny Wijesinghe Judiann McNulty	Travel to Nampula Presentation of program interventions by CARE staff Dinner-discussion with Judith, project manager of CARE family planning project
9/12 8-12 a.m 2.00-5.00 p.m.	Judiann McNulty Marydean Purves Sunny Wijesinghe Sunny Wijesinghe	 Planning for field trip/logistics Preparing interview questions Intervew with Eunice Queiroz about field work/supervision
9/13 a.m. p.m.	Judiann McNulty Marydean Purves Sunny Wijesinghe DDS director Ribaue Malema CS-12 staff Sunny Wijesinghe	<u>Murumbo</u>: intervew CCs, APE, mothers & fathers <u>Metacusse</u>: view theater presentation & interview thearter group Interview with Malema CS-12 staff Interview with DDS director of Malema
9/14 a.m. p.m.	Judiann McNulty Marydean Purves Sunny Wijesinghe DDS director Ribaue Malema CS-12 staff Sunny Wijesinghe	<u>Chilulu:</u> Interview health facility personnel <u>Intacasse:</u> interview TBA, APE, mothers & fathers Interview with MCH nurse at Malema health center
9/15 a.m.	Judiann McNulty Marydean Purves Sunny Wijesinghe DDS director of Ribaue DDS director of Malema Ribaue CS-12 staff Sunny Wijesinghe	<u>Mavil II:</u> interview with CCs, mothers & fathers <u>Matharia:</u> interview with APE, nurse-midwife <u>Chica</u>: Interview CCs, health facility, TBA personnel, mothers & fathers <u>Nauconhua:</u> visit health post & interview Interview Ribaue CS-12 staff

Date	Team Members	Event
9/16	Judiann McNulty Marydean Purves Sunny Wijesinghe	Discuss KPC results and other issues re: evaluation guideline
9/17	Sunny Wijesinghe	Interview with project manager Analysis of data
9/18 a.m. p.m.	Sunny Wijesinghe Fernando Jose Sunny Wijesinghe	Interview with DDS director in Mecuburi Metapua: Interview with TBA, APE, CCs, mothers & fathers Marririmu: Interview CC, mothers &fathers Melule: interview with TBA, visit health facility Interview CS-12 Mecuburi staff
9/19	Sunny Wijesinghe Fernando Jose	Ribaue: interview with MCH nurse, AMP, visit hospital & maternity Travel to Nampula
9/20	Sunny Wijesinghe	Analysis of data gathered, prepare final questions to staff members in Nampula and DPS
9/21 a.m p.m.	Sunny Wijesinghe Sunny Wijesinghe Marydean Purves Sunny Wijesinghe Marydean Purves	Nampula: Interview with Joana pedro, nursr-trainer of Ribaue Interview with Beatrice Biaz, DPS coordinator community education Interview with DPS director, Dr. Augstino Sunny Wijesinghe departs for Maputo
9/28 9 a.m. **9/22-9/30**	Sunny Wijesinghe	Interview with Marily, Assistant Country Director in Maputo Data analysis & writing the report

Annex K

English translation of questionaires used in evaluation

Questionnaire for community residents (mothers & fathers)

1) Do you know a member of the community health council in this village?

2) What do community members do in this community?

3) Did a member already visit your family? If yes, how many times have they come to your place?

4) Do you feel comfortable with a council member?

5) Did you learn any thing new from a council member?

6) Was this information useful? Yes/ No ?

7) Do you do some thing different now after she/he talked to you?

8) If yes, please give an example.

9) Do you know that these community council members are not paid for their work?

10) Why do you think they want to work for the community without any compensation?

11) Would you like to see them continue their work after the CARE project leaves?

12) Do you think the community could do some thing to keep these members motivated?

13) Explain what they could do?

English translation of questionaires used in evaluation

Questionnaire for the community council (as a group)

1) What are the objectives of this project?

2) What are the resposibilities of this council?

3) Do you participate in other community activities in addition to the duties of the council?

4) Please explain how the emergency transport system function in this community

5) Did you already use the referral system in the community? If yes, did the referred bring back the paper portion that shows counter reference?

6) Will you continue your work in the community when CARE project leaves?

7) What can the community do to motivate you to continue work?

8) What can district health department do to motivate you to continue to work?

Questionnaire for traditional birth attendants

1) Did you receive training or retraining during the last two years?

2) What did you learn from this training?

3) How did this training help you in your work?

4) Who supervises your work? How often?

5) Did you receive a KIT?

6) How does the KIT help you in your work?

7) What material in the KIT is the most useful ?

8) What do you do when items of the KIT are finished or lost?

9) Do families buy a new razor-blade for births?

10) Do you have a link to the nearest health post or APE?

11) Would you like to have more training? If yes, in what area?

12) What are the danger signs during delivery that prompt you to send a woman to the hospital?

Questionnaire for individual health council members

1) What are the objectives of this project?

2) What are your resposibilities as a council member?

3) What is the area in which you work? (for example how many families do you work with?)

4) How were you selected to be a council member?

5) Do you think that your training prepared you adequately to do this job?

6) How do you plan your work?

7) Please explain how you deliver messages in the community

8) Do you use the audi-visual methods?

9) If yes, were these methods useful? Explain how they are useful or why they are not useful.

10) What other material would have being useful in teaching in the village?

11) How do you keep track of your work in the community?

12) Has somebody come to supervise your work?, if yes how often?

13) Please explain how he/she supervises you?

14) How does this supervision affect your work? Do you feel motivated by someone observing your work, or do you work better when you are left alone?

15) How do you use the referral system?

16) How many times did you use this system so far?

17) What are the benefits of being a community council member?

18) What are the disadvantages of being a community council member?

19) For those council members who are also TBAs or traditional healers, how does being a council member affect your work?

20) Please explain how the emergency transport system works in this community?

21) Are some of the members also part of the family planning program (i.e ACSR Agents Comunitaria de Saude Reproductiva)? If so, don‘t others too have interest in participating in the program?

22) Do you think the behavior of the community changed because of the Child Survival project?

23) What motivated you to become a council member?

24) When the project has ended, would you still be working in the community?

25) What could the project have done to enhance your motivation?

26) What could the District Health Department have do to motivate you ?

27) What could your community do to motivate you?

Questionnaire for the personnel at the health facilities

1) What is your defined area (catchment area) of work?

2) How many people consult you daily (approximate number)?

3) How do you maintain your statistics?

4) What kind of a register do you use?

5) What Kit (A, B, or C) do you use?

6) What sort of training /retrainig did you receive?

7) Which training was very useful to you?

8) Training in what other area will be useful to you?

9) What recommendations would you give regarding training health personnel?

Questionnaire for Directors of District Health Departments

1) Do you know the objectives of the CS-12 program?

2) How did this program improve the Mother & Child Health Service?

3) How did this program help prevent Malaria?

4) How did this program help control and treat diarrhea?

5) How did this program help treat ARI?

6) How do you think the supervision (done at health posts) by CARE staff was helpful?

7) Do you have evidence that many more people use health services now, after CARE has worked in communities?

8) How does the existence of community councils help the health care system?

9) Have you heard about emergency transport system in villages? If yes, how does this help the work of DDS, and community?

10) Do you think the councils will continue their work once the project is gone?

11) What can the DDS do to motivate these councils to continue to work?

12) How do you characterize the relationship between the DDS and CARE along the life of the project?

13) What is the future of the APE and TBA programs?