



**CARE INTERNATIONAL – ANGOLA
Child Survival Project -- Kuito
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**Final Evaluation Report
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List of Abbreviations and Acronyms

BCC	Behavior change communication (IEC, social marketing)
CCF	Christian Children's Fund
CHW	Community health worker ("Activists")
CORE	Association of US-based PVOs with USAID/BHR/PVC child survival projects
CRS	Catholic Relief Services
CS	Child Survival
DMS	Municipal Department of Health
DPS	Provincial Department of Health
HIS	Health information system
HTP	CARE's Health Transition Project
IDP	Internally displaced persons
IEC	Information, education, communication (BCC, social marketing)
IMCI	Integrated management of childhood illness
ITN	Insecticide treated mosquito nets
KPC	Knowledge, practices and coverage survey (30-cluster method)
LQAS	Lot quality assurance sampling
MOH	Ministry of Health
MSF/B	Médecins Sans Frontières, Belgium
OCHA	Organization for the Coordination of Humanitarian Assistance (UN organization, previously known as UCAH)
ORS	Oral rehydration salts (sachets)
ORT	Oral rehydration therapy
SSS	Salt-sugar solution
TBA	Traditional birth attendant
TT	Tetanus toxoid
USAID	United States Agency for International Development
WFP	World Food Programme (United Nations)

A. Summary

The CARE International – Angola Child Survival project was one of a group of four Child Survival projects funded by USAID Angola in August 1998 as part of a trial effort to gradually shift its focus from emergency activities toward development programs. All these projects suffered disruptions with the outbreak of renewed fighting at the end of 1998. Whereas CARE originally planned to implement the project in 80 rural villages, the project was modified to serve a somewhat larger population of about 90,000 in nine camps for displaced persons within the security perimeter around Kuito.

The CS project was designed to reduce maternal and child mortality (under five years) by improving maternal health, and reducing mortality due to malaria and diarrhea. The focus on these interventions remained unchanged during the life of the project. The principal strategies chosen to achieve this objective were changing behaviors and improving knowledge of caretakers at the household and community levels and improving the quality of health services at health facilities through training and supervision of health facility personnel.

The team provided training and supervision for 190 CHWs and 93 TBAs, as well as forming 9 Health Committees. In addition, a total of 124 MOH nurses received continuing education.

Some of the most important results in maternal care include an increase in early breastfeeding from 62% to 77%, documented prenatal care coverage (at least one visit documented by a card) from 12% to 40%, documented chloroquine prophylaxis during the last pregnancy rose from 4% to 36%, and deliveries by qualified personnel rose from 1% to 51% during the life of the project. The success of the strategy of identifying, training and supervising TBAs was one of the more interesting aspects of the project and sets it apart from most other similar projects in Angola.

In the malaria intervention, the rise in chloroquine prophylaxis during pregnancy was the most notable achievement, from 38% of those with a prenatal care card to 78% of those with a card. In addition, the percentage of caretakers that name the mosquito as the cause of malaria rose from 30% to 65%. For the diarrhea intervention, the ORT use rate rose from 23% to 82% during the life of the project, and access to clean water as well as latrine use were nearly 100%.

The prevalence of malaria did not fall, though it also did not rise in spite of overcrowding. In addition, knowledge about danger signs in any of the three interventions showed little improvement. Improved home management of diarrhea could not be consistently documented. These failings were probably due to the fact that the CS team lacked the skills and experience to design a systematic high-quality BCC/IEC effort. As noted in the mid-term evaluation, CARE would require outside technical assistance to improve the quality of its BCC/IEC activities, but this assistance was not obtained.

Monitoring posed a significant challenge throughout the project, as the population size and composition were constantly shifting. CARE adopted a monitoring system based on periodic short rapid sample surveys which successfully allowed monitoring

in spite of the changing population. The mobility of the population also posed a challenge to continuity and community mobilization activities.

Among the more interesting outcomes of the project were the success in improving the quality of care provided by TBAs and greatly improving their acceptance and utilization in the communities. This project demonstrated that meaningful improvements in primary health care can occur even in emergency situations.

Perhaps the most important factor in the success of this project was the dedication and continuity of CARE's staff in the face of very trying circumstances. Also important was limiting the scope of the project to only three high-priority but relatively straightforward interventions.

The team will work in the final months of the project to help guarantee the continuity of the volunteer health workers by issuing training certificates and registering them with the appropriate MOH authorities, who have agreed to continue to provide them with at least minimal support. In addition, the team will emphasize danger signs and home management of diarrhea during upcoming refresher training for all health workers. Logical follow-on activities for future projects may include trial introduction of ITNs, family-planning and HIV/AIDS prevention, community-based distribution of some essential medications such as chloroquine and antibiotics, village birthing centers for TBAs and a pneumonia intervention.

B. Assessment of Results and Impact

1. Summary Chart of Results: see appendix F

2. Technical approach

a. Overview

The CARE International – Angola Child Survival project was one of a group of four Child Survival projects funded by USAID Angola in August 1998 as part of a trial effort to gradually shift its focus from emergency activities toward development programs. The project was originally designed with the goal of lowering maternal and child mortality in 80 rural villages with a total population of about 60,000 in the Province of Bié surrounding the provincial capital, Kuito. The project began on schedule: staff were hired, and the baseline survey carried out.

A few months after the project began, the armed conflict, quiescent since the signing of the 1994 Lusaka Accord, erupted once again in December 1998. Personnel were evacuated from Kuito, and IDPs began arriving in the city. During the early months of 1999, camps were established, most of CARE's staff returned to Kuito, and the team redefined the project zone to include IDP camps within the security perimeter, first including five camps, and expanding to nine camps after the mid-term evaluation. The total population reached by the project is difficult to measure, but is estimated at between 79,000 and 115,000.

The CS project was designed to reduce maternal and child mortality (under five years) by improving maternal health, and reducing mortality due to malaria and diarrhea. The original design built on the success of its previous HTP project which aimed at rebuilding essential health infrastructure, technical standards and management of health services in key rural municipalities. The CS project extended health activities to focus on key household health-related behaviors and was a next logical step in a health and development strategy aimed at lowering morbidity and mortality among the most vulnerable groups, women of childbearing age and young children. At the same time, the child survival project was designed to complement CARE's other development efforts in agriculture and demining.

CARE's intervention package addresses some of the principal causes of mortality among women and young children, including high perinatal and maternal mortality as well as the two principal direct causes of infant and under-five mortality: malaria, and diarrheal disease. In addition, improving antenatal care, including malaria and anemia prophylaxis aimed to reduce both perinatal and maternal mortality. Africare's proposed intervention in immunization and vitamin A supplementation for Bié Province made it unnecessary for CARE to include these interventions. The attention to malaria is critically important. Malaria is the number one cause of infant mortality, under-five mortality, and among the most important contributing factors in maternal mortality.

In CARE's extension proposal, a very limited HIV/AIDS intervention was added. This consisted of primarily data-gathering on knowledge and practices regarding HIV

transmission and condom use and availability, as well as limited education on prevention of transmission for young people. Given the recent rapid spread of HIV in Angola and the lack of information, this activity would seem reasonable as a first step toward planning future programs.

The only potentially important interventions that CARE did not include are infant nutrition and breastfeeding, and family planning. The justification for the omission of the former is the relative complexity and high cost of these activities. In retrospect, given the other difficulties faced by the project and its beneficiaries, as well as the limited experience in Child Survival and specifically in behavior change communication, keeping the intervention mix focused and simple was probably a wise decision. CARE decided during the project's planning stages not to include family planning, as knowledge and acceptance found during the baseline assessments were so low that the level of effort needed to achieve meaningful improvement in coverage was considered unfeasible. Again, in the interest of keeping this project simple and focused, this appears to have been a wise decision.

In spite of the radical change in circumstances, both the intervention mix and overall project strategy remained quite true to the original proposal. One important negative effect of the move from rural villages to IDP was the inability to build on the infrastructure improvements achieved by the HTP project. However, some of the management improvements, especially as regards the supervision and medication management systems remained intact and could be reinforced.

The principal strategies of the project are relatively standard for Child Survival projects:

1. changing behaviors and improving knowledge of caretakers at the household level, especially as regards use of prenatal care, knowledge of danger signs for pregnant women, household management of diarrhea, prevention of diarrhea and malaria, and appropriate care-seeking for pregnancy, delivery, malaria, and diarrhea.
2. limited improvement in the quality of health services through training and supervision of health facility personnel.

The first of these was to be accomplished by training volunteer community health workers to perform regular home visits, educate caretakers, and provide case-finding and referral services. In addition, TBAs were trained to improve care during pregnancy, delivery, and post-partum. And finally, Health Committees would be formed for community mobilization, oversight of TBAs as CHWs, and facilitating referral of complicated cases. These community-based workers, together with health facility workers and the CARE CS team itself were responsible for transmitting key messages aimed at changing caretakers' behavior. This occurred during scheduled home visits, clinical consults, and through special events such as theater presentations and educational talks for various groups. In addition to changing behaviors, the use of volunteer workers and health committees was used to help communities mobilize in support of their own health problems. Regular supervision and monitoring of activities by the CS team helped guarantee the quality and continuation of these activities.

The second strategy involved the training of health-facility workers along with minimal provision of equipment supplies (most health facility equipment and supplies were provided through CARE's essential medication project). The training focused on all aspects of health provision, with special emphasis on the three CS interventions. CARE also provided logistical support for transportation of DPS supervisory staff and supplies, evacuation of patients requiring emergency hospital referral, and support during immunization campaigns.

Changes from the activities and strategies outlined in the original proposal but not executed include the following:

- Health Promoters who work in health facilities were to receive training and act as supervisors of community health workers. In order to alleviate the critical shortage of trained nursing personnel in health facilities, the MOH has eliminated the position of Health Promoter, preferring instead to upgrade their positions through training as nurses and absorbing them into the health facility staff. This change in policy unexpectedly affected prospects for sustainability of project activities.
- Management training for DPH personnel was mentioned in the extension proposal. This did not occur due to time constraints and difficulty in locating appropriate technical assistance to carry out the training.
- Emergency planning was planned for villages as part of the maternal health component. After the shift in geographic focus from the original rural villages to IDP camps, this planning was not felt to be necessary, as access to communication and timely transportation to health facilities is much easier in the camps than in rural villages.
- The HIV/AIDS intervention, added during the extension proposal, was limited to data-gathering. The planned education activities for adolescents were not carried out due to time constraints.

The principal strategies appear to have been appropriate as designed. Among the alternatives that could have been attempted that were identified and discussed by the evaluation team are the following:

- consideration of a pilot project distribution of insecticide-treated mosquito nets for malaria, and investigation of fumigation in camps for malaria prevention
- employment of a more systematic approach to BCC/IEC, including evaluation of the possible use of radio to attain wider coverage
- organization of more than one Health Committee in the largest of the camps may have been beneficial
- training of a larger number of CHWs so that each would have fewer households under their responsibility and to allow for drop-out and out migration

The team discussed the possibility of cost-recovery, but the idea was discarded as it was considered to be unfeasible given the dire financial situation of the majority of project beneficiaries. In addition, although the MOH is discussing cost recovery at the national level, the DPS of Kuito Province feels it is not timely due to the emergency.

As a final note in this overview, CARE's HIS included reporting of deaths by Health Committees. These reports began in the year 2000 and were thought by the team to be relatively accurate and complete. Whereas from September to December 2000, when the total camp population in the project area was reported by WFP to be just over

62,000 people, there were 80 deaths reported among children 0-5 years of age. In the same period in 2001, with a camp population of just over 79,000, only 66 child deaths were reported. Although these estimates are likely to contain inaccuracies, it is encouraging that the figures point to both a downward trend as well as an absolute rate far below that reported for the rest of Angola.

b. Interventions

i). Maternal Health

The maternal health intervention was the most important of the project, with an estimated 65% level of effort. Reducing maternal and perinatal mortality is a relatively complex activity requiring successful intervention at the household, community and at the health facility levels, and requires significant inputs in medication, equipment for health workers and health facilities, transportation and communication. The project design was based on the findings of CARE's qualitative reproductive health assessment carried out in Bié province in January 1998. Whereas the situation and geographic focus of the project have changed considerably since then, the principal findings and conclusions from that study still apply.

CARE designed this intervention to take the greatest advantage of the HTP project's investment in infrastructure and training of health facility personnel. The move from rural villages to IDP camps had surprisingly little effect on the intervention, however. Many health professionals and 36 of the 50 TBAs trained under the HTP project moved with the population. Although the rehabilitated health facilities were no longer included in the new project zone, vastly improved access to emergency communication, transportation and hospital delivery more than compensated for this. Access to health posts/centers and to the provincial hospital, and thus to prenatal and emergency obstetrical care also improved. Finally, hygiene, including access to clean water and use of latrines is also better in the camps than in the rural villages. The principal negative effects of relocation include poor maternal nutrition, crowding, poverty, psychological stress, and a likely increased prevalence of malaria due to crowding.

CARE's original proposal aimed to provide refresher training for the 50 nurses who had been trained under the HTP project. It also intended to identify and train an additional 30 new TBAs. A total of 36 of the original TBAs were located in the IDP camps and were given refresher training. In addition, CARE trained an additional 57 new TBAs in a three-week course followed by a one-week practicum in the maternity hospital. They received basic equipment and supplies and regular quarterly supervisory visits by CARE CS staff together with the DPS nurse responsible for the MOH TBA program. TBAs were encouraged to seek out pregnant women and encourage them to attend prenatal care and take their iron/folate and chloroquine. They were also encouraged to perform deliveries, be alert for danger signs, and perform post-partum checks.

In addition to the TBAs, CHWs received training in danger signs and were encouraged to locate and register pregnant women, encourage them to attend prenatal care consults and to take their medications correctly, and to be alert for danger signs.

*CARE Angola Child Survival Project, Kuito
Final Evaluation Report Summary; April 2002*

Health Committees were instructed in procedures for evacuating women with complications and in problem-solving when families would not seek appropriate care.

The original objectives, indicators and targets outlined in the proposal include the following:

Objective, target	Baseline survey 11/98	Final survey 2/02
-80% of women in villages where CARE works will report breast-feeding their last born baby within the first hour of delivery	62%	77%
-60% of pregnant women in project villages will take iron and folic acid according to MOH protocol following their initiation of pre-natal care	<p>Not asked during 11/98 baseline. According to 1996 KPC survey, 69% reported at least one prenatal consult. 12% had a prenatal care card for last pregnancy (18% said they had lost the card)</p> <p>56% of those with a card said they had taken iron during last pregnancy</p> <p>Dosage of iron not asked</p>	<p>66% report having gone for prenatal care during last pregnancy (75% of those with child <2 y)</p> <p>21% had a prenatal care card for last pregnancy (32% said they had lost the card)</p> <p>40% of those with a child <2 have a prenatal care card (46% with child <2 lost it)</p> <p>76% of those with a card said they had taken iron during last pregnancy (83% of those with child <2y)</p> <p>70% of these could state that they received and took 30 pills</p>
-100% of project villages will have discussed and developed a plan to evacuate laboring women with complications to the nearest health center or hospital	None	Formal evacuation plans deemed unnecessary by CS team as access to communication and timely transportation was good in the camps.

Objective, target	Baseline survey 11/98	Final survey 2/02
-50% of women of CBA and their significant caretakers will be able to identify three danger signs indicating a need for medical evacuation	Baseline survey 11/98: >=3 signs: 14% Individual signs: -heavy vaginal bleeding 29% -swollen ankles or feet 28% -baby doesn't move 10% -labor >12 hours 12% -water breaks w/o labor 3% -labor >12 hours 3% -water breaks w/o labor 1% >=1 sign 64%	Final survey: >=3 signs: 17% 29% 14% 30% 27% 11% >=1 sign 76%
-90% of deliveries attended by TBAs will include monitoring during three days post-partum for infection, hemorrhage, and breast-feeding counseling	TBA or nurse cut cord: 1% TBA visited after delivery: 8%	TBA cut cord: 32% TBA or nurse cut cord among mothers of children <2y: 51% Of deliveries by TBA, post-partum check done by TBA: 77%

The evaluation team agreed that in retrospect, the following objectives would perhaps have also been included:

- % of pregnant women attending at least one prenatal care visit (by self-report)
- % of pregnant women attending 2 or more prenatal care visits (by card and/or self report) (baseline 88% of the 12% of those with a card=10% of all women; final 72% of the 40% of those with a child under 2 years of age who have a card=29% of all women).
- % of women reporting taking chloroquine during their last pregnancy (baseline 38% of the 12% of those with a card=4% documented; final 90% of the 40% those with a child under 2 years of age with a card =36% documented)
- % of deliveries attended by trained personnel (1% at baseline, 51% at final) A special cluster sample survey of 323 caretakers with children under 2 years of age performed in January 2002 indicated that fully 69% of deliveries were performed either by a TBA or a nurse.

Note that malaria prophylaxis was originally included in the maternal health intervention. It has been separated out in this report under the malaria intervention. For the above indicators, there are significant differences on the final survey between answers of those caretakers with children under two years of age and those whose children are two or over, reflecting changes occurring *after* they arrived in the IDP camp and were exposed to project interventions.

The KPC survey included the following further questions whose analysis sheds light on the impact of the maternal health intervention:

Source: KPC baseline and final surveys

Indicator	Baseline 11/98	Final 2/02
% saying that a woman should go for prenatal	64%	79%

Indicator	Baseline 11/98	Final 2/02
care during the 1 st trimester		
% saying they received 30 iron pills during previous pregnancy	N/A	70%
% saying they took 1/day	55%	72% of those who took them
% with correct answer to why take iron/folate pills	34%	63%
% with correct answer to how they took chloroquine (2/week)	55%	70%
% of pregnant women with malaria during pregnancy (self report)	20%	17%
% of these treated with chloroquine	70%	68%
What foods are good to prevent a lack of blood in a pregnant woman?		
% answering eggs, meat	48%	55%
% answering beans, green leafy vegetables	66%	88%

CARE designed a mini-survey with a reduced set of questions that the CS team applied quarterly to a cluster-sample of caretakers. The samples were comprised of clusters of 50 caretakers (the first selected at random) who had lived in the camp six or more months, with one cluster from each camp. Results relevant to the maternal health intervention are summarized as follows:

Source: quarterly mini cluster surveys N=450

Indicator	6/00	12/02
Breastfeeding during the first hour after delivery	75%	87%
% of women able to name 3 or more danger signs requiring referral (prompted for 3 signs)	72%	84%
% of women reporting that the TBA monitored them for 3 days post-partum	93%	94%
% of women with 2 or more TT doses (self-reported doses)	89%	91%

It should be noted that data-gathering and compilation using the mini-surveys did not begin until mid-way through the project. It is clear that coverage is high for the indicators measured. However, they are also much higher than that indicated by the KPC survey. The two explanations put forward by the team for this discrepancy are a possible sampling bias favoring families registered by CHWs over those not registered, and slightly different ways of asking the questions. The largest discrepancy occurred in the question on danger signs. Nonetheless, the mini-survey results agree well quarter by quarter and showing consistent gradual increases from June 2000 through December 2001.

A final source of quantitative information comes from the registration information provided by the CHW registration forms. These were completed quarterly by CHWs and compiled by the CS team, though compilation began only in the year 2000. Some demonstrative indicators are illustrated as follows:

Source: CHW reporting forms

Indicator	Jan-Mar 2000	Jan-Feb 2002
% of pregnant women attending prenatal care	71%	98%
% of pregnant women taking iron/folate	60%	97%
% of pregnant women taking chloroquine	57%	93%
% of pregnant women with TT2	33%	78%
% breastfeeding within 1 hour post-partum	95%	97%
% receiving counseling on breastfeeding post-partum	72%	98%
% receiving post-partum visit 3 days after delivery	93%	96%

These indicate also that there was improvement in most indicators, and that coverage and compliance are quite good. These percentages are considerably higher than those indicated on the KPC survey. The CHW information is likely to be somewhat optimistic, as CHWs have some incentive to report positive data. Also, in spite of the fact that all families allegedly receive regular visits, it is likely that there are some who are not visited, and therefore true coverage is likely somewhat lower. Nevertheless, the information is encouraging.

The KPC showed no significant change in recognition of danger signs in the newborn. Unfortunately, the percentage of women reporting that they ate less food than usual during their last pregnancy rose from 29% at baseline to 53% at the final, probably reflecting the degree of poverty experienced by being displaced.

On visiting the camps and interviewing TBAs, Health Committee members, CHWs and mothers, it was clear that the TBAs are well-respected, relatively knowledgeable, well-equipped and sought-after. Many typically perform several deliveries each month, and they compete with each other to win the services of pregnant women. Recently many TBAs have reportedly taken to performing most of their deliveries in their own homes, which they have set up as simple birthing centers. The January 2002 special survey on TBAs found that 82% of caretakers had heard that TBAs perform either "excellent" or "good" work.

During 2001, the only year for which data from the TBA reporting system was tabulated, TBAs reported performing 2761 deliveries. This includes deliveries performed in the IDP camps as well as those performed by trained TBAs who have returned to their villages but still send reports, or who travel back and forth between the camp and their village. This number would correspond to about half the estimated number of deliveries being performed in a standard population of about 140,000 people, and roughly agrees with the estimates drawn from the KPC survey and other sources of data. Of these deliveries, 15% were referred to a higher level. They reported 16 maternal deaths among the 2737 live births, giving a maternal mortality ratio of 584 per 100,000 live births if the data are accurate (compared with some estimates of up to 1500/100,000 births for Angola). Although the numbers are small and possibly too unreliable to reach firm conclusions, it is quite possible that maternal mortality has fallen.

The CARE CS project has provided the TBAs with certificates, bucket, basin, pot for sterilizing, kidney basin, sterile and non-sterile gloves, aprons, ground sheet, scissors, razor blades, forceps, candle holder, umbilical ties, cotton, disinfectant, soap, antibiotic ophthalmic ointment, raincoats, folder, pen/pencil and travel bag along with the new MOH TBA manual. TBAs were observed to be demonstrably proud of their improved status and abilities, though they complained that it was now more difficult than ever to convince families to reimburse them for any services rendered. They report that families are poorer than before, and that many believe the TBAs are paid by CARE. CARE has not interfered in any way with financial arrangements for TBAs' services.

The CARE CS team developed a simple referral system based on a model developed by CARE for another CS project in Mozambique. Patients needing referral are sent with a simple form filled out by a member of the health committee. This system is reportedly working well, and patients are reportedly being well-received at facilities. In addition, when TBAs refer women to health facilities they regularly accompany them. In many cases they are allowed to perform the deliveries themselves at the facility if there are no mitigating factors to contraindicate their doing so.

The team agreed that the numerical targets set out in the original proposal were unrealistically high. Nevertheless, it is clear that there was significant improvement in most indicators during the life of the project. Prenatal care attendance for at least one visit increased moderately, and there is ample evidence that the percentage taking iron/folate and chloroquine increased significantly. Far more women are now having their deliveries performed by qualified personnel, and over half appear to be receiving post-partum visits by a trained health worker, usually a TBA, during the first three days post-partum. There were even modest gains in the already high percentage of mothers giving breast milk within the first hour after birth.

Increase in knowledge of danger signs during pregnancy, delivery and post-partum was very modest, and there was no demonstrable increase in knowledge of danger signs in the newborn. The evaluation team thought this probably reflects a lack emphasis on the constant systematic dissemination of these messages. However, the team agreed that home knowledge of these signs is less important under the current circumstances than it would have been in the rural villages, as pregnant women and newborns are visited frequently by TBAs and other trained health workers.

Successes and lessons learned

CARE's decision to emphasize the role of TBAs is a different strategy from that adopted by most other PVOs working in Angola. CARE's baseline survey showed that the role of TBAs is traditionally a very limited one, in agreement with data gathered elsewhere in Angola. Given the concentration of population around urban centers, most PVOs have opted to encourage facility-based care and prompt care-seeking at a health facility rather than train and supervise TBAs. Although Angolan MOH has an official policy that supports the role of the TBA, in practice support for facility-based care has been the rule.

The apparent success of CARE's strategy is one of the more interesting aspects of this CS project. They have shown that with training and adequate material and supervisory support the role of the TBA can be expanded in Angola. It appears that important

factors in their success are acceptance by the formal health sector and a functioning referral system. The interaction of the TBA with the CHW in casefinding together with the Health Committee's role in social mediation, problem-solving, and referral also appear to be important. As CARE has not interfered in the TBAs' "fee for service" model, activities will probably be relatively sustainable in the future. It will be interesting to observe the sustainability of this change as families return to their villages as it becomes safe to do so.

Constraints and Challenges

A long list of difficulties was encountered during project implementation and challenges to sustainability loom as the project draws to a close. Among the most important cited by the team are:

The inability to take full advantage of the health facility strengthening achieved during the HTP project may harm project sustainability in the long run. This is especially important with respect to expected improvements in health system management at the municipal level, which were simply not possible to achieve due to security concerns. As activities move back to rural villages, increasing dependence on the municipal health departments and their poor infrastructure poses a challenge to the sustainability of all of the interventions. CARE is working with the DPS to register all trained health workers. In addition, the project is providing all trained CHWs, TBAs and Health Committee members with certificates of training. The DPS, in turn, has pledged to facilitate the handover of responsibility for supervision of these workers to municipal health departments.

The problem of communication and transportation from rural villages to health facilities will not be as easily resolved. In theory, each village will need a Health Committee and evacuation plan, though the project will have ended before a significant percentage of villages can be reached safely and this can be achieved.

Monitoring has posed a challenge throughout the project due to the rapidly shifting population size and composition. Commonly used types of information, such as health service statistics, become almost useless, because denominators change and the population composition is non-standard, making calculations of coverage and monitoring of trends almost meaningless. CARE wisely adopted a survey-based approach to monitor its principal indicators. With some small refinements this method could be adapted to using LQAS as a sampling frame and interpretation method. This would achieve more precise monitoring with an even smaller sample size.

Challenges relating to working with IDPs instead of rural villagers arose frequently. The abject poverty encountered made any thought of cost-recovery impossible. TBAs cited the difficulty in obtaining any payment at all from families. Families depend largely on donated food and have little control over their diet, making most nutrition interventions futile. The almost total dependence on others leads to passivity and lack of initiative, making community mobilization more difficult. The high mobility of the population leads to disorganization. The exceptionally high rate of prenatal card loss (46% on the final survey) is one result of this mobility.

TBAs should have a mechanism to replace essential supplies needed for clean deliveries. Some may be obtained through the health system at the municipal level.

Others may have to be purchased by the TBAs themselves through fees. Minimum essential supplies are the easiest to obtain, and include soap, fuel (for boiling and sterilization), clean cloth, and candles for illumination at night. Recommended supplies would include new blades, gloves, umbilical ties, and ophthalmic ointment. These are more expensive and harder for a rural TBA to obtain on her own.

The maternal health intervention encountered a problem with the structure of the KPC sample frame. CARE chose to interview caretakers of children under five, instead of the more common practice of restricting the sample to caretakers of children under two. Whereas this did not significantly affect questions regarding child care, on the final survey questions about the last pregnancy could easily refer to a pregnancy that occurred *before* the beginning of the project. This would be expected to dilute the effects of the interventions as measured by the survey. This problem was partly overcome by restricting analysis to answers from caretakers of children two for those maternal health questions referring to the previous pregnancy. Fortunately, CARE's decision to use a larger sample than usual (766 questionnaires from 76 clusters vs. the more common 30 clusters) made this type of analysis possible without compromising the conclusions.

One minor problem that was encountered arises from the way the objectives, indicators and KPC questions try to measure knowledge about danger signs, a problem which applies to all three primary interventions. The indicators were written "% of caretakers who can identify three or more danger signs of...". The KPC then asks an open-ended question about danger signs and accepts any number of answers until the person being interviewed "runs out" of answers. In practice, however, caretakers most commonly stop after one or two answers, and rarely name three or more even if they know them. In the future, wording the question "can you name three or more danger signs ...?" may produce more favorable responses. Otherwise, it may be best to set individual targets for each danger sign.

A final future challenge to maternal health is the end of hostilities and subsequent withdrawal of MSF/B support to the referral hospital in Kuito. Although this is not likely to be eminent, MSF/B support is substantial and its withdrawal must be planned-for or access to surgical intervention, transfusion, and other more advanced procedures will be threatened.

Recommendations and next steps

The team made some recommendations for logical next steps and follow-on activities that would complement the gains of the CS project. These may include expanding the role of the TBAs through further training so they may assume more responsibilities in the more isolated rural setting. Support for the establishment of facility-based birthing centers in municipalities where TBAs could participate is advisable and follows MOH policy. As family planning supplies are available in most facilities, refresher training of health workers and promotion of birth spacing would also be a logical next step, and could complement HIV/AIDS activities.

ii). Malaria

The malaria intervention was not included as a separate intervention in the original proposal, but rather was included in the maternal health component. It originally

included activities related only to prophylaxis during pregnancy, recognition of signs of malaria during pregnancy and encouragement of careseeking and proper treatment. In practice, however, the scope of activities related to malaria warrant its being considered as a separate intervention.

CARE's baseline survey found that few people know that mosquitoes transmit, and that malaria is often treated by traditional healers. These findings are similar to those encountered by other organizations doing similar surveys in Angola. CARE's approach to lowering mortality due to malaria was to educate caretakers and communities as to the cause of malaria, ways to reduce the number of mosquitoes and exposure to them, and to encourage early recognition of symptoms and seek appropriate care at a health facility. This included the fact that malaria is treated with chloroquine. Finally, and according to the original objectives, pregnant women were encouraged to take chloroquine prophylaxis.

Prevention messages included burying garbage and trash, drainage of standing water, spreading oil on water, elimination of grass and tall plants such as banana plants and sugar cane, encouragement to use ITNs and using smoke to clear mosquitoes from homes. It was discussed with the team that some of these, such as clearing brush, have not yet been proven to be efficacious.

CARE did not include distribution or sale of insecticide-treated mosquito nets as part the project. The reasons given were the fact that when the project was designed there were no organizations in Angola working with ITNs, high cost, little prospect for cost recovery, and the very small size of homes in the camps which would make using ITNs impractical.

CARE's original objective and target for malaria was "80% of mothers in project villages will be able to identify signs and symptoms of malaria and know the appropriate chloroquine dose for treatment". The team later decided that this objective should be reworked, as it is more important to recognize when and where to seek care and how to prevent malaria. The dosage of chloroquine is more appropriate for health workers than caretakers. There were no questions on the surveys to measure the objective as written.

Other indicators, however, can be used to measure the impact of the malaria intervention. The following come from the KPC survey:

Indicator	Baseline KPC 11/98	Final KPC 2/02
% of pregnant women taking chloroquine	38% of those with card	78% of those with card
% who name mosquito as the cause of malaria	30% include among answers, 26% single answer	65% (single answer)
% of children with fever in the previous 2 weeks treated with chloroquine	46%	47%
% of caretakers of a child under 2 who	70%	68%

Indicator	Baseline KPC 11/98	Final KPC 2/02
report having had malaria during the previous pregnancy who sought treatment at a health facility		

In addition to the evidence above, the CS team reported that families readily accepted and understood that malaria was caused by mosquitoes and took measures to eliminate them and avoid contact with them. In five camps, Health Committees, CHWs and residents worked to drain standing water in the camps to eliminate mosquitoes. On visiting the camps, it was easy to observe that most water sources were covered, and families reportedly often used leaves from the eucalyptus and "deme" trees to chase mosquitoes out of their houses. Camps have been cleared of standing water, brush, and garbage, a situation quite different from three years earlier according to reports. Camps were observed to be very clean and free of trash and garbage. By the end of 2001, CARE's monitoring mini-surveys were finding that over 90% of respondents could name three ways to prevent malaria.

The CS team, CHWs and Health Committee members all stated that acceptance of and compliance with chloroquine prophylaxis during pregnancy had improved markedly during the life of the project. This is also supported by CHW registration forms, which showed an increase in compliance from 47% at the end of 1999 to 93% by the end of 2001. This occurred despite the previously widely held belief that abortion during pregnancy is caused by the chloroquine and not malaria. It is curious to note that the surveys could find no evidence of increased care-seeking for either children or pregnant women when they had fever, however. In children, the occurrence of fevers due to causes other than malaria may dilute the results somewhat, but one would expect some improvement. The team was unable to explain this apparent failing with certainty.

One worrisome explanation is the occurrence of frequent stockouts of chloroquine at health facilities. This was a curious phenomenon, as CARE had a complementary project that supplied essential medications, including chloroquine, to all health facilities in the Kuito area. (Note that supply of essential medications was *not* part of Child Survival). When health workers were asked about stockouts of chloroquine they alleged that it was a rare occurrence. The DPS medication supervisor stated the same thing. However, closer examination of health-post records revealed that stockouts of chloroquine occurred in most health posts most months, often as early as mid-month. In these cases, patients were referred to "the market" to buy chloroquine. CARE supervisors admitted that frequent chloroquine stockouts were likely in spite of its availability through the essential medication program.

This program supplied medication to health facilities regularly in fixed amounts based on the number of consults. An examination of supervision records notes that the amount of chloroquine distributed to health facilities was roughly appropriate to treat the number of malaria cases reported. In addition, health facilities rarely ordered more chloroquine after stocks ran out; with very few exceptions, the amount being distributed was constant. CARE staff suggested that the likely reason for stockouts in spite of apparent adequate supplies was deviation of the free medications for sale on the private market by health workers, in spite of attempts by CARE and DPS supervisors to thwart this practice.

When stocks of essential medications run out, the word spreads quickly and patients simply do not seek care. Also, they may be less likely to seek care for other ailments, and the credibility of the health system suffers. During the past several months CARE's essential medication program increased the frequency of supervision visits to twice monthly to try to overcome this problem, though the results were mixed.

Successes and lessons learned

The greatest lesson learned by this intervention is the importance of being able to guarantee that services are available before attempting to increase demand for them. As Bié province was not included in the MOH's essential medication program during the life of this project, and without CARE's essential medication project the malaria intervention would have been largely futile.

Although CARE's drug program closed together with Child Survival, Bié has recently been included in the MOH's national drug program, and the first shipment of medications for all of Bié's health facilities just arrived in the DPS warehouse. With luck stocks of chloroquine will be guaranteed, though the problem of "stock shrinkage" (theft) will continue to pose a challenge.

Constraints and Challenges

Probably the most important challenge to reducing mortality due to malaria is the lack of inexpensive easy yet effective preventive measures. The proportion of cases of malaria reported fell only slightly from an average of 60% of all reported illnesses in project health facilities in 2000 to 50% in 2001. The percentage of children reported to have had malaria in the past two weeks and the percentage of women reporting having had malaria during their previous pregnancy did not change significantly between the baseline and the final KPC surveys. Preventing malaria is not easy. Perhaps in the densely packed environment of the IDP camps, simply the fact that the incidence of malaria did not rise may be interpreted as a victory.

As mentioned earlier, the abject poverty of most families and physical conditions of homes in the camps made introduction of ITNs, unfeasible, though it is one of the more effective means prevention available at this time.

Finally, there are increasingly frequent reports of treatment failures with chloroquine. The most recent data from MSF/B, which monitors the rate at its hospital, is close to 20% failure. This has reached WHO's "Action Period" level, where the MOH should be investigating the pattern further in preparation for changing its policy on first-line drug selection. When this change occurs, this will certainly imply increased costs for the health system as well as for patients.

Recommendations for next steps and for future projects

The project should work closely with the DPS during the final two months of the project to tighten the medication supervision system in order to minimize disappearance of essential drugs in the future. Future projects should be encouraged to seek creative solutions for cost-recovery for introduction of ITNs, especially as families return to their villages. They should also investigate the feasibility of spraying of insecticide as a preventive measure for those in densely packed IDP camps.

Newer protocols for diagnosis and management of ill children include joint diagnosis and management of respiratory infection and malaria, in recognition of the highly overlapping symptomatology. These newer protocols, including "difficult breathing" as a danger sign, should be adapted and included in training of health workers and CHWs in the future.

As families return to their villages and will be further from health facilities, access to timely treatment for malaria will be more difficult. According to the provincial health officer, there is no MOH policy supporting community-based distribution of anti-malarials (or any other medications, for that matter) by CHWs. Nevertheless, future projects may wish to explore this option in order to improve access to these life-saving medications. This strategy could also be extended to include iron/folate for pregnant women, antiparasitic drugs, antibiotics for pneumonia, oral rehydration salts, and even family planning supplies.

iii). Diarrhea

The original project design assigned a 35% level of effort to the diarrhea intervention. Although malaria remains the number one cause of mortality and morbidity, diarrhea is a potentially even more deadly problem in IDP camps than in rural villages. The prevention efforts included in this intervention (and by other organizations working in the same camps) almost certainly contributed to the fact that, despite very precarious circumstances, there were no serious outbreaks of cholera or dysentery among camp residents during the life of the project.

The strategies chosen by CARE to reduce mortality due to diarrhea include use of IEC as above to encourage hygienic behaviors including clearing brush and burying trash, using latrines properly, washing hands before eating and after using the latrine, use of water from protected sources, heating left over food, covering food, as well as proper home management of diarrhea (more breast milk, liquids, and feeding). In addition, caretakers and communities were taught to recognize danger signs requiring care at a health facility, including signs of dehydration, and bloody, very frequent, or prolonged diarrhea. The team also taught proper preparation of ORS and SSS in the home. Although the latter is no longer considered to be state-of-the-art practice, it continues to be included in MOH protocols in Angola.

While working to change behaviors, the CARE CS team also trained facility-based health workers in proper counseling, diagnosis and management of diarrhea as well as appropriate referral procedures for children requiring intravenous therapy (Note that, according to Angolan MOH policy, intravenous therapy is available only at hospitals, not at health posts and health centers.) Health facilities received basic equipment and supplies for preparation and administration of ORT through CARE's essential medication program.

The objectives for the diarrhea intervention and results of the baseline and final KPC surveys are as follows:

Objective / target	Baseline survey 11/98	Final survey 2/02
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Objective / target	Baseline survey 11/98	Final survey 2/02
-80% of mothers of children under two in villages where CARE works will be able to describe three signs of dehydration.	15%	17%
-70% of mothers of children under two will report increasing fluids during an episode of diarrhea occurring during the previous two weeks.	Increased 17% Same 56%	Increased 3% Same 55%
-80% of diarrhea cases diagnosed in the health centers will also have been given ORT	Not directly verifiable with existing instruments. All health centers properly equipped and stocked at baseline. Most cases reaching a health center probably receiving ORT.	Not directly verifiable with existing instruments. All health centers properly equipped and stocked at final. Most cases probably receiving ORT.
-70% of women in project villages will be able to report at least 5 hygiene behaviors to prevent diarrhea	5 or more behaviors: 1% 3 or more behaviors: 5%	7% 37%

The evaluation team agreed that although the first objective as written refers only to signs of "dehydration", in practice what was meant was "danger signs", as the team included bloody diarrhea, very frequent diarrhea, and prolonged diarrhea among the danger signs. With regard to the second objective, health workers at facilities reported almost always giving ORS to dehydrated children, and workers at some facilities reporting having to rehydrate up to 20 dehydrated children per day, though this could not be verified from the records and no children were actually observed in the process of rehydration during the evaluation visits. All facilities visited during the evaluation had proper equipment for rehydration, including water filters, packets of ORS, pitcher, table, etc. though none were actually in use during any visit. According to the KPC survey, the reported overall ORT use rate rose significantly from 23% at baseline to 82% at the final.

Stockouts of ORS at health facilities were reportedly rare, thanks to CARE's essential medication program, and a rapid review of medication stock records supports this observation. In fact, the number of packets distributed averaged 13 packets for every reported case of childhood diarrhea during 2000 and 2001! There was likely some deviation of stock to the private sector, but contrary to the case of chloroquine, stocks of the packets generally remained adequate throughout.

As with the maternal health intervention, the team felt that the objectives and targets set for the caretaker knowledge questions (danger signs and behaviors for prevention) were too ambitious. Given the way the questions are usually asked during the KPC, it was unrealistic to expect a caretaker to spontaneously list three danger signs or five preventive behaviors without being prompted to do so. The fact that 37% actually spontaneously named three preventive behaviors without prompting is impressive. CARE's mini-surveys used for monitoring showed that, when asked specifically to

name three means of preventing diarrhea, 87% were able to do so by the end of the project (compared to 74% in September of 2000 when monitoring began). And when specifically asked to name three danger signs, 88% were able to do so at the end of the project (compared to 70% in September 2000).

Other indicators from the KPC that help evaluate the diarrhea intervention include the following:

Objective / indicator	Baseline KPC	Final KPC
-% of children with diarrhea in the previous two weeks receiving more food than usual	More: 9% Same: 24%	2% 20%
-% of children with diarrhea in the previous two weeks receiving more breast milk than usual	More: 31% Same: 45%	4% 43%
-% of children with diarrhea in the previous two weeks receiving ORT	23%	82% (includes 8% whose answer was "health post", assuming health post gave ORT).

All those interviewed agreed that basic hygiene in the camps had improved markedly since the project's outset. There is no trash or garbage visible anywhere, and residents, most of whom had never used a latrine before are now using them. There is no evidence at all that residents are defecating in the open air. Although at the beginning of the project it was reportedly common for residents to take their water from unprotected sources and open streams in the same areas where washing was done, today almost all either use water from wells or other protected sources for consumption. The team also reported that hand washing, reheating leftover food and covering food are also much more common now than at the project outset.

The very positive results seen with respect to prevention and hygiene reflect a strong emphasis on these messages by CARE and other collaborating partners, including Oxfam, who installed latrines and water sources, as well as MSF/B and others. Prevention takes on a much more important role in a crowded IDP camp than in a rural village, as outbreaks of dysentery and cholera pose deadly threats.

As mentioned earlier, efforts to educate caretakers about danger signs and encourage appropriate care-seeking were also probably nearly as effective as those for prevention, according to the mini-surveys. Efforts to change home management of diarrhea, however, were not so successful. There was no significant improvement in increased breastfeeding, giving of liquids, or increasing food during diarrhea between the baseline and the final surveys. The mini-surveys showed a rise in the percentage of mothers reporting giving the same or more fluids during the previous episode of diarrhea, from 74% in September 2000 to 91% in December 2001. The discrepancy between the results of the KPC surveys and mini-surveys may reflect the confusion of caretakers when they are asked these rather complicated questions on the KPC survey as opposed to the simpler wording used by CARE in the mini-surveys.

On further analysis, however, the evaluation team agreed that the failure to meet targets with regard to home management of diarrhea reflects the lack of emphasis given to these messages. CHWs performed frequent home visits to families. During these visits, they closely inspected conditions in the home, especially noting hygiene and sanitation, inquired about illnesses, examined sick children and referred those requiring attention. Systematic education and dissemination of messages was a much less common activity. Furthermore, a review of supporting audiovisual materials used by the CS team during educational talks and training found dozens of drawings and images illustrating preventive measures, perhaps half a dozen illustrating danger signs, several referring to giving liquids, and only one or two showing feeding during illness.

The evaluation team did recognize that in IDP camps, where residents live in crowded and precarious conditions, an emphasis on hygiene and prevention is appropriate. Aggressive case-finding and referral are also important strategies, as access to health facilities is good, but due to the prevailing mood of despondency and passivity families may not be inclined to seek care for ill children. Home management, then, may take a back seat to prevention and referral. Nonetheless, once families return to their rural villages, the importance of proper home management will increase.

Successes and lessons learned

As stated at the outset of this section, probably the best indicator of success in the diarrhea intervention was the lack of any significant outbreaks of dysentery or cholera during the life of the project. This is likely due to the aggressive measures taken by all those working in the camps to ensure good sanitation and hygiene. Many development programs strive to change behaviors regarding latrine use and use of clean water, but these behaviors have often proven very difficult to change. The new behaviors acquired by camp residents during the life of this project will likely go with them as they return to their rural villages.

The CS project's diarrhea intervention was strengthened by the presence of many complementary projects in the camps, including Oxfam's installation of wells and latrines, and education on prevention, sanitation and hygiene by Oxfam, MSF/B and others. Also, the presence of ORS and rehydration equipment and supplies in health facilities was largely the result of CARE's essential medication project.

Constraints and challenges

The team cited several constraints to increasing feeding during diarrhea. First, there is reportedly an unexpectedly strong cultural bias against feeding during diarrhea, though this was not systematically investigated. Another unfortunate factor peculiar to IDPs arose as well: the fact that families are reportedly tempted to keep children ill and malnourished in order to qualify for increased rations. Aid workers and development workers, CHWs, and Health Committee members themselves reported that this behavior is common. The relative importance of this phenomenon is not known, however, but it bears investigation. Another constraint to increasing feeding is a widespread suspicion that the WFP rations may sometimes cause diarrhea. There is some anecdotal evidence that this may actually be true in some cases.

As with the other interventions, the extreme poverty and dependency of the camps poses a challenge to this intervention. Families often have very few possessions and often don't even have enough food to eat. Mixing ORS in the home can be difficult without proper utensils, for example. Finally, frequent migrations and turnover of the population make it difficult to change behaviors through education over a long period of time, as families frequently come and go.

Recommendations and next steps

The CS team is preparing a final refresher training course for CHWs which will include strong emphasis on appropriate home management of diarrhea. This will help them start to overcome the deficit in proper home management at the household level in the coming months.

Future projects that work with IDPs who receive food aid should be encouraged to investigate the importance of families purposefully keeping children ill and/or malnourished in order to qualify for food aid. If this phenomenon appears to be relatively, creative approaches to avoid it can be devised and tested.

iv). HIV/AIDS

The extension proposal added a very limited intervention in HIV/AIDS. The proposal states that the team will carry out a survey in the camps to assess HIV/AIDS knowledge level, provide HIV/AIDS education for adolescents and promote reproductive health counseling at the two MOH maternal/child health centers. Due to time constraints only the first of these activities was accomplished.

In fact, providing HIV/AIDS education for adolescents was likely to be relatively difficult for this project. Adolescents are a relatively inaccessible group, as they are often not in school, are not ill and so do not have frequent contact with health facilities, and are often engaged in some sort of income-generating activity, and so are often not at home. It was unrealistic to expect that the team could carry out the survey, develop an education strategy and supporting materials, educate large numbers of adolescents and evaluate the results in the ten months of the extension proposal.

The CS team carried out a cluster sampling survey in February 2002 with a sample of 943 residents of the urban area of Kuito between 12 and 45 years of age, and 726 residents of the IDP camps. The results were compiled and analyzed during the final evaluation. The complete results are found in the appendix at the end of this report.

The most significant and interesting results were:

- the two groups (urban Kuito residents and IDP camp residents) were similar with the exception of level of education. 30% of camp residents reported no formal education compared with only 8% of city dwellers. Of those with some formal education, 88% of camp residents had only primary school, compared to 47% of urban residents. The camp residents were somewhat older and the sample had slightly more female respondents.
- about half of both groups knew what a condom is (IDP camp residents slightly fewer than urban residents), but only about 20% of both groups of these ever use them at all. Fewer than 5% report using them all the time
- most condoms acquired at health facilities or in the market
- about two-thirds of both groups had heard of a sexually transmitted disease

- of these, just under half the urban women and three-quarters of women in the camps could not name any symptoms of a sexually transmitted disease. Curiously, 36% of urban men could not name any symptoms, but only 4% of men in camps could not name any.

- two-thirds of both groups had heard of HIV or AIDS, and 90% of these in both groups knew it was transmitted by sexual intercourse

- of those who have heard of HIV/AIDS, about 70% know transmission can be prevented by always using condoms, and 80% know that it can be prevented by having a monogamous relationship.

- 54% of camp residents and 63% of urban dwellers know that a healthy-looking person can be infected

- 71% urban and 64% camp know of vertical transmission

- 59% urban and 63% camp know of transmission through breastfeeding

- only just over 10% think there is medication to cure AIDS

It appears that the word is out: most people have heard of HIV/AIDS, know it is transmitted through sexual intercourse and vertically, and know how to prevent it. Yet, few are taking any precautions. In the desperate struggle to survive in Angola, it appears that daily life is a more important concern than the theoretical threat of a disease that few have seen that may strike some time in the future. This indicates a need for programs aiming to change behavior and rather than simply informing the public.

3. Cross-cutting approaches

This section examines some aspects of the CS project that cut across all the interventions. There is some unavoidable repetition of information for the sake of clarity and ease of reading for those interested in specific subjects.

a. Community mobilization

The proposal did not include any specific objectives with regard to community mobilization, though the team expended considerable effort in achieving a fairly high level of community involvement in health activities. The project's approach included the training of CHWs, TBAs and Health Committees together with supervision and support of their activities.

The original proposal envisioned selecting and training one male and one female CHW from each of 80 villages. They would have to be literate and willing to serve as volunteers 4-6 hours per week performing home visits and registration of women and children, community mobilization and education. Each couple would be responsible for about 100-150 households. In the end, CARE's strategy was modified only slightly. The CS team selected and trained 190 CHWs in the nine IDP camps. They were male or female, without preference, though they were required to be literate. Initially, it was thought that they would cover about 50-75 households each, but by the end of the project, as the population in the camps swelled and the number of active CHWs fell to 153, each became responsible for about 70-100 households. They were expected to work several hours each week performing home visits for case finding and education, and registering women and children. They also participated in group education activities, including theater, organized by the CS team.

Although the CHWs receive no pay, the CS project provides them with significant support. The CS project provided them with certificates of training, manual of infectious disease, the MOH Health Promoter manual, *Where There Is No Doctor*, bucket, basin, blanket, raincoat, boots, footwear, watches, used clothing and forms, pencils and one of the most sought-after items of all, soap. One or more CS team members accompanied the CHWs on their home visits three times each week, and every three months they were formally "supervised" (see section below).

TBAs were discussed above in the section on maternal health. Although they were not involved in community organization on a mass scale, they form an integral part of the community working to improve health.

The principal specific strategy for community mobilization was the formation of Health Committees. These were originally envisioned to exist in each village, but ended up being formed one in each of the nine camps instead. Each Committee consisted of a registrar, a scribe, one TBA, a religious leader, and a councillor. All of these positions exist formally in the villages and camps and were not created by the project. In addition, the CS teams and Health Committees interacted with the sobas from each area of each camp to ensure their collaboration. A total of 62 members received training and by the end of the project, 45 were still active. Each camp's Committee is still active in some form. While Committee members serve voluntarily, the CS project supported them with blankets, jackets, soap, toothpaste, and *Where There Is No Doctor*.

Health Committees were given the responsibility of registering deaths on a quarterly basis as reported to them by CHWs. They are also officially responsible for referrals, including filling out referral forms, organizing and informing the community about campaigns and programs, and for resolving problems affecting the health and well-being of individuals and the community. In this last role, for example, one or more members would be expected to visit a pregnant mother with danger signs who refuses to go to the hospital, or a household who will not clean the area around their house.

The arrangement of CHWs, TBAs and Health Committees functioned well according to all who were interviewed, though as is always the case, some camps were better-organized and cohesive than others. The constant turnover of residents posed a challenge to any sort of organization.

The CS team found it important to work with communities according to the community's schedule, attempting to schedule all activities outside of times when working in the fields was intense, and avoiding days when food distribution occurs. They also felt that frequent supervision was important to maintaining the motivation of volunteer workers.

The team cited the most serious difficulties in community mobilization occurred as the result of poor coordination between the various organizations working in the camps. Contradictory messages were often disseminated by different organizations (about appropriate dietary management of diarrhea, for example). Problems arose when different types of volunteer worker were trained by different projects but did not come under the coordination of the Health Committees. The CS team suggested that, in the future, the PVOs and other organizations working in the camps or communities

coordinate better at the central level before beginning activities. Leadership for this coordination could come from either the local MOH or, in the case of rural villages, from the Health Committees themselves.

CHWs and Health Committees who were interviewed felt that there was a high probability that work would continue at some level after the end of the project, and even after return to the villages, though they expressed concern about to whom they would report. A preliminary verbal agreement was reached between CARE and the DPS in which the latter pledged to facilitate the transition of supervisory responsibility to the municipal level of the MOH as villagers return to their homes. CHWs, Committee members and CS staff all felt that there was broad community support for continued activities, citing the fact that when CHWs fail to perform their scheduled home visits, community members often seek them out in their homes.

The approach used by CARE differed slightly from that taken by Catholic Relief Services (Benguela) and Christian Children's Fund (Lubango) in their Child Survival Projects.

CRS chose to select large number of volunteer workers, as did CARE, though they were all female and not required to be literate. While they also performed home visits, their role emphasized message transmission and education more than case-finding and registration. As with CARE, they each worked with a block of assigned homes, but visited each only once each month. They used flip charts as visual aids to help them educate caretakers. Message transmission and knowledge acquisition by caretakers was probably more rapid than in CARE's project due to the emphasis on education, though health-facility utilization and home hygiene did not improve as much as with CARE's more "intrusive" style of case-finding and referral and emphasis on home hygiene inspection.

CRS, like CARE, chose to form health committees, though instead of using existing authorities, they sought literate men as volunteers. Health committees were tasked with meeting with CHWs monthly to take a verbal report of their activities and relay it to CRS. This arrangement appeared to function well, especially as it provided opportunity for illiterate women to perform educational activities in the villages and it lifted the burden of paperwork from the CHWs.

CCF's approach was quite different. While they, too, trained CHWs, these received financial support from the project and were then expected to work full-time. A smaller number were selected and trained, as each could visit more households each month. Most were selected from the cadre of unemployed "Health Promoters" trained by the MOH under old policies, and so functioned at quite a high level. They handled a sophisticated registration and information system and played a role as at once case-finding/registration and education. They were strongly linked to their respective health facilities through an MOH nurse responsible for their constant supervision and support (and who also received a stipend from the CS project in return for this service). The community social-mediator role was played by special "community social workers" who were selected and trained in smaller numbers by the CS project. These workers are called upon when problems arise that are beyond the scope of the CHWs to resolve. They mobilize community resources and existing organizations and authorities to help mediate community-based solutions to health problems that affect

the community. This approach has led to some very creative solutions to intractable health problems in the community. The fact that CCF has chosen to pay the community workers has produced some rapid results with regard to coverage and behavior change, but it remains to be seen if the sustainability problem it creates leads to even greater problems after the project is completed.

b. Communication for behavior change

As this project placed great emphasis on behavior change at the household and community level, the IEC component is a critically important activity.

Messages being conveyed

Although a concise and specific list of the specific messages that the CS project aimed to communicate was never drawn up, the team agreed that the following list represents the most important ones:

Maternal care

- pregnant women should attend prenatal care beginning in the first trimester of pregnancy and return monthly
- pregnant women should take iron daily and chloroquine 2 pills per week
- watch for danger signs in pregnancy and seek care immediately if they occur: edema, fever, convulsions, hemorrhage, abortion, anemia, yellow color of eyes and/or skin
- pregnant women should take two doses of tetanus toxoid during pregnancy
- breastfeed during the first hour after delivery; give colostrum
- a child should continue breastfeeding until 2 years of age

Appropriate infant feeding 0-5 years of age**

- breastfeed exclusively 0-4 months
- after 4 months give breast milk plus cereal once a day**
- after 8 months give breast milk plus 2 meals a day of cereal and fruit**
- after one year give breast milk and 3 meals per day**

Other messages for pregnant women:**

- bathe daily, use loose clothing and flat shoes**
- pregnant women should eat more than usual each day**

During delivery, stay alert for the following danger signs and seek care at a health facility immediately should they occur: labor over 12 hours, premature rupture of membranes, hemorrhage, convulsions

After delivery stay alert for the following danger signs and seek care at a health facility immediately should they occur: infection (fever, foul-smelling discharge), heavy bleeding, infected breast or nipples, umbilical cord infection

Stay alert for the following danger signs in the newborn and seek immediate care at a health facility should they occur: newborn does not cry, difficult or irregular breathing, fever or cold skin, yellow color, will not breastfeed

Malaria

Mosquitoes transmit malaria

Signs and symptoms of malaria: headache, joint pain, diarrhea, fever, vomiting, convulsions; seek care for these at a health facility

Pregnant women should seek prenatal care and should take chloroquine prophylaxis

Preventive measures

- bury garbage, drain standing water, cut tall grass, banana plants, sugar cane*
- use smoke from dembi or eucalyptus to clear the house of mosquitos*

Diarrhea

Prevention

- wash fruits and vegetables before eating
- always use a latrine; when doing so, keep it clean and covered and throw ashes around it
- wash hands before eating or preparing food, and after using the latrine
- use water from a protected source (wells, protected springs); otherwise, boil the water
- heat leftover food before eating
- cover food to keep flies off*
- bury garbage, keep the area around the house swept clean

Definition of diarrhea: liquid stools 2 or more times per day**

Home management of diarrhea

- breastfeed more and more frequently during diarrhea
- give more liquids during diarrhea (water, tea, rice water, SSS, ORS)
- continue feeding during diarrhea, smaller and more frequent feeds
- watch for danger signs and seek care at a health facility if they occur: dry mouth, flaccid skin, crying without tears, little urine, dark urine, depressed fontanelle, sunken eyes, won't eat or breastfeed; diarrhea more than 4 times per day, diarrhea for more than 14 days, diarrhea with blood

Preparation of SSS: in one liter of clean water dissolve a flat palm-full of sugar and a pinch of salt***

*=not scientifically proven effective

**=message that was not included in the scope of this project

***=outdated message

On reviewing this list it is apparent that it is very long, and it is almost impossible to imagine that most caretakers will have learned all this and changed their behaviors by the end of the project. The team agreed that a more focused approach with a conscious and clearer definition of the most important messages would have been more effective and easier to handle.

In addition, some of the messages are either not scientifically proven effective (such as covering food to prevent diarrhea), outdated (teaching the preparation of SSS), or not specifically included in the objectives and scope of this CS project. These messages could have been safely eliminated or at least not emphasized. One minor point relates to the content of the signs of dehydration: the most sensitive indicator of dehydration in young children is excessive thirst. Increased thirst occurs well before any of the other signs and is easily recognized by mothers and reinforces the message to give extra liquids. However, this simple but important symptom is commonly omitted in most training manuals.

The CS team chose the following means of transmission of their messages:

Mass-media: transmission of messages to large groups: Talks by CS staff and CHWs, theater and songs

These activities were typically carried out together by CS staff and CHWs and were aimed either at the community at large or, in many cases, school children. Educational talks were most commonly done by CS team members themselves often before

starting home visits with CHWs. The team would ask a community leader or soba to have people gather. The speaker would often use flip charts as supporting material. Crowds of up to 500 people consisting of about half children, another 30-40% women, and the rest men were reportedly common.

Theater was used successfully as another mass educational activity. Early in the project the CS team worked with an amateur theater group comprised of young people from urban Kuito. After this group was absorbed by another organization for their own educational program (for pay), the CS team began working with CHWs themselves. The team prepared loose scripts illustrating key messages and rehearsed with CHWs before performing. Each camp was reached by a dramatization once each month, and crowds often reached 1000 or more. The skits were performed in clearings in the camps and used commonly available materials as props and costumes. They most commonly took the form of a comedy, contrasting a family with proper behavior with a family that does not follow the advice of CHWs, Health Committee, TBA and/or health facility worker. The scripts were not systematically recorded.

Songs provided another way of transmitting messages. The team modified lyrics illustrating key messages and set them to about 20 well-known tunes. These songs were often used before and after talks and theater presentations to reinforce messages as well as to attract a crowd and gain their participation. As with the scripts for the skits, these lyrics have not been systematically recorded.

For each activity or event, the CS team recorded the approximate number and composition of the audience reached, date, theme, duration, location and group or person executing the activity. Themes were coordinated each month to cover a range of topics, giving priority to problems noted or anticipated (such as diarrhea and malaria during the rainy season).

In order to estimate the coverage of mass-media activities, the evaluation team tabulated the health education forms. An estimated 49,995 people were reached by all mass-media activities during the year 2000, and 84,630 were reached during 2001. This represents approximately one contact per resident per year, which means that, on average, each resident was presented with one theme and its messages one time each year through mass media activities.

Although reaching over 120,000 people through live presentations is quite a feat, the evaluation team admitted that it is not sufficient to expect that through this medium the population would be able to learn the dozens of messages the project hoped to transmit. There was no systematic method of determining whether the audience understood or remembered the messages being communicated except through occasional informal interaction or random verbal questions and answers. The evaluation team also discussed the relative effectiveness of mass media compared to other means of communication, and the fact that it is usually more effective at increasing knowledge than in changing behavior.

Songs are an especially interesting means of communicating messages, as they are easily remembered and can aid those who learn them to remember complex messages. They are also a very common means of expression in the local culture. Expanding their use in a systematic way may prove to be particularly effective projects in

disseminating complex messages, such as long lists of danger signs or proper infant feeding.

The possible use of radio was mentioned in several project documents, though the idea was not developed further. Access to radio was not formally assessed, and on visiting the camps the sound of radios playing is completely absent. Nevertheless, the CS team believes that most people have some access to radio through friends and relatives, and that its use may have been another useful medium of mass communication.

Individual message transmission through home visits by the CS team, CHWs and TBAs

Families were visited by a CHW or CS team member on average several times each month. During these visits the health worker inquired about illness in the family, observed conditions in the home, checked on medication prescribed, and was able to make specific recommendations about referral or management of problems. This would likely prove to be a very effective means to communicate messages, as the content can be tailored to the needs of the individual family at that moment, and the communication is personal and individual.

In practice, home visits typically focused on case-finding and referral rather than education and communication. CHWs and CS team members performing home visits were not equipped with audiovisual materials such as flip-charts, and there was no systematic attempt to educate caretakers about messages during the visits if no problems were observed in the household at the moment of the visit. The results of the KPC survey directly support this conclusion: care-seeking improved dramatically as did hygiene, a directly observable behavior. However, recognition of danger signs and home management of diarrhea improved much less.

The team felt that in future projects, volunteer CHWs should be responsible for no more than about 52 houses each, so a larger number of CHWs would have to be trained and supported. They were generally satisfied with the coverage and quality of work of the CHWs and support a strategy of using volunteer workers and would not change the selection criteria. There were no perceived differences in the effectiveness of male versus female workers. The use of small material incentives was thought to be effective in motivating workers, though the team admitted that most workers are hoping to eventually be absorbed into a paid position with the MOH. This is interesting in light of the Provincial Health Director's comments about volunteer health workers. He described that twice before in the history of Angola, once during the colonial period and again during the socialist period the MOH created a cadre of volunteer community health workers, only to see them eventually hired and absorbed into the health facilities. He was therefore skeptical about the long-term sustainability of the CHWs trained by CARE.

Counseling during consults at health facilities

This means of communication is highly individualized and comes from a respected authority and therefore can be quite effective. Access to health facilities was good and their utilization was relatively high. Around 85,000 adult and pediatric consults for illness were performed in project area health facilities each year, and that many again for well-child checks and prenatal care. It would be expected that a disproportionate

percentage of patients are women and young children (with their mothers). The opportunity for effective and widespread communication by this means certainly exists.

Health facility workers were trained in all the priority programs and messages through the CS project. However, the CS team was not responsible for supervision of these workers. This fell to the staff of CARE's essential medication program jointly with staff from the DPS. The supervision forms in use contain sections for recording an assessment of the quality and completeness of consults and patient counseling for the various programs. However, this information was being used only on an individual basis and not being compiled. The essential medication project supervisors were not available for interview during the CS evaluation, so the quality and completeness of communication during consults could not be directly assessed. It was ascertained that the MCH center in Kuito makes a systematic effort to educate patients as they wait for their consults in the waiting room.

The CS team's opinion is that counseling during consults does occur, though not in a systematic fashion. Health facility personnel had very little in the way of complementary materials with which to educate patients.

CARE's quarterly mini-surveys proved to be an efficient and timely way to measure the ongoing impact of BCC/IEC activities for selected indicators.

Despite plans described in the proposal, the team did not perform any focus groups or other qualitative studies to help in planning its BCC/IEC strategy. This activity is relatively easy and can yield very useful insights into specific language, attitudes and practices, and barriers and facilitating factors toward desired knowledge and practices that aid in crafting and disseminating messages. This shortcoming was likely due to the CS team's lack of experience with qualitative data-gathering techniques.

Aside from the songs and loose scripts for skits, the team developed several hand-drawn posters for its BCC/IEC activities. These included the following:

- poster depicting the immunization schedule and vaccine-preventable diseases
- poor hygiene and sanitation as a cause of diarrhea
- modes of transmission of diarrhea and other diseases
- scabies
- use and care of a latrine
- diarrhea and the need to replace fluids, signs of dehydration
- proper infant feeding by age group

The CS team also used a number of flip-charts and other materials developed by other programs:

Diarrhea prevention flip-chart developed by UNICEF/MOH Only diarrhea prevention
Diarrhea flip-chart developed by CARE for the HTP project. It includes many pages on prevention, one on danger signs, as well as home
Basic sanitation flip-chart from UNICEF—many pages illustrating prevention, but includes one page illustrating signs of dehydration and another on how to mix ORS and SSS

“Ana’s Pregnancy” by Save the Children, Mozambique. Illustrates the need for special food, rest and prenatal care

Manual for the TBA, MOH 1st edition and 2nd editions. These books are in the form of brightly colored illustrations and are quite detailed. They include illustrations on prenatal care, prophylaxis for anemia and malaria, danger signs in pregnancy, labor, delivery, and the newborn, feeding during pregnancy, TB, icterus, pneumonia, gonorrhea, and basic child care including management of diarrhea and the need for immunization

The project faced constraints of the almost total lack of access to mass media such as radio and television to communicate messages. Also, the fact that the population is largely Umbundo-speaking and is mostly illiterate limited the use of written materials. On the other hand, the relative ease of access to the population due to its high density, and good access to health facilities presented an opportunity for communication.

The CS team’s need for technical assistance in improving its BCC/IEC activities was noted and strongly emphasized in the mid-term evaluation, and was found to be a common need among all of Angola’s Child Survival projects. None of the projects were successful in obtaining this assistance, however. CARE’s CS project developed an effective means of monitoring community knowledge and practice through mini-surveys, and the team became adept at administering them. However, the BCC/IEC component would probably have been more effective if technical assistance could have been obtained to help the team make the following modifications:

- baseline qualitative investigations to define who makes decisions regarding child care, specific language used to describe key CS concepts, facilitating and inhibiting factors for desired behaviors, and specific beliefs and taboos about child care would have helped focus the activities and messages and define specific target audiences
- messages could have been more clearly and specifically defined and delimited for the team and helped avoid “information overload” from extraneous or irrelevant messages
- development and testing of a wider range of support materials and media would have made communication more effective and appropriate to the specific circumstances
- use of a wider range of media may have reached more people. This may have even included radio
- a more systematic approach to communicating messages during home visits and better supervision of post-consult counseling and orientation would have improved communication

It would be helpful if the team can compile and document the songs that were developed, as others projects and programs may benefit as well in the future. As the Angolan MOH implements IMCI in the coming years, systems will be put in place to systematically improve the quality of health-facility based diagnosis and treatment as well as post-consult counseling.

Finally, USAID could play an active role in coordinating technical assistance for all PVOs working in BCC/IEC activities in all sectors. As almost all projects in all sectors of development have some BCC/IEC component, and weakness in BCC/IEC

is a nearly universal observation among organizations engaged in development activities, improving the effectiveness of BCC/IEC in Angola through such assistance would likely have wide-ranging benefits across all sectors. Most projects have resources for technical assistance, so this need not imply additional costs.

c. Capacity building

Capacity building was not a central aspect of CARE's CS project. The DPS as the principal counterpart had received considerable input towards improving its infrastructure and management capacity through CARE's HTP project. The CS project activities were seen as a means to continue to consolidate those gains rather than carry out any new specific institutional strengthening activities.

i). Strengthening CARE Angola

The presence of the CS project as a follow-on to the HTP project allowed some continued application of the institutional experience gained in that project. In addition, the presence of the CS project created the opportunity for other complementary health projects, including the participation of CARE in CORE group's polio eradication effort, the development of a follow-on proposal to USAID for maternal care, as well as helping complement the essential medication project. In addition, the CS team improved the health situation in the CARE office by providing assistance in tracking the source of an outbreak of typhoid fever among employees to the water source. Furthermore, thanks to the CS project, several key health staff that will remain with CARE after the CS project is over were able to attend training sessions in other African countries, broadening their experience and abilities.

Finally, as a result of Child Survival CARE/Angola now has permanent staff adept at performing high-quality rapid quantitative sample surveys and analyzing them using EpiInfo. These skills can be applied not only to future health programs, but in other sectors as well.

ii). Strengthening the DPS and its health workers and facilities

A limited number of activities included in the project were intended to strengthen the DPS. The first, discussed more fully below, is training in technical issues, supervision, and community education. Through the essential medication program, CARE and DPS supervisors performed regular joint supervision of all sixteen accessible health facilities in the Kuito area. Supervision forms were adapted and simplified from older MOH forms and systematically applied. These included a detailed assessment of the medication system, evaluation of the physical state of the post and its equipment and supplies, direct observation of consults using checklists, and post consult interviews with patients to ascertain their degree of understanding of the orientation they received. This information was used by the supervisors on an individual basis to target actions to improve health facility and health worker performance. The information on the forms was not tabulated or systematically monitored. This system will continue to function after the CS and essential medication projects are ended.

In addition to formal refresher courses for nurses, the CS team began organizing continuing education seminars for these workers. Each Friday staff from one health

post is responsible for presenting an assigned topic and leading a discussion. All nurses from all health posts are invited and most reportedly participated regularly. The role of the CS team has been limited to selection of topics, guiding the groups' preparation, and organizing time and place. These continuing education seminars should also be sustained after the end of the CS project.

The proposal originally envisioned training 20 Health Promoters, who are MOH personnel based in health posts, in improved supervision of CHWs and TBAs. Unfortunately, the MOH has eliminated this level of health worker, as mentioned above, providing them with further training as nurses and integrating them into the health facilities as nurses. At the present time, there is no health post/center-based worker in MOH policy who is designated to supervise community-based health activities.

At the community level, the MOH official in charge of public health at the municipal and provincial levels accompanied CARE CS supervisors to the field on a monthly basis early on in the project. Unfortunately, during the past year they are only rarely going out with CARE staff. The exception is the nurse responsible for the Bié Province's TBA program, who regularly accompanies the CARE supervisor on supervision visits to TBAs. She will continue to perform this supervisory visits once the project is over, though lack of transportation may make it more difficult. It is unclear how much supervision will occur once TBAs return to their villages and are placed under the authority of the municipal health departments.

In addition to strengthening of the DPS's supervision and medication systems, CARE provided logistical support for distribution of essential supplies, evacuation of emergencies, and support during immunization campaigns.

CARE CS staff performed structured supervision visits quarterly to CHWs, TBAs and Health Committee staff. These visits consisted of the application of a standardized questionnaire consisting of knowledge questions. In fact, these "supervisions" had more characteristics of knowledge evaluations than supervision of performance. Nonetheless, they were systematic and helped point out weaknesses requiring attention by the team. The results of the assessments were regularly presented in CARE CS staff meetings where action plans for refresher training were developed based on the results. The results were not tabulated and monitored longitudinally over time.

During the evaluation these assessments were tabulated and analyzed. The first such assessments that were available during the evaluation for TBAs and Health Committee members were performed in July 2001, more than half-way through the project. Little change is noted between July 2001 and January 2002, as most questions were answered correctly by over 90% of the respondents. CHW assessments were available from January 2000 through January 2002. The average score rises from an average of 75% in 2000 correct to 91% in 2002, demonstrating steady improvement in CHWs' knowledge.

The following table summarizes the supervision system of the project:

Level of health worker	Frequency of supervision	Instrument used by supervisors	How information utilized and by whom
CHWs	Formally every 2 months	Supervision form testing knowledge applied verbally one by one by extensionist	Results evaluated periodically in staff meetings by CS staff. Used to assess refresher training needs
	Informally twice each month by CARE extensionists	No specific instrument used, direct observation of home visits	Information used on the spot to improve performance
TBAs	Formally every 3 weeks by trainer	Supervision form testing knowledge, applied verbally	Form tabulated and used during staff meetings to assess needs for refresher training. Used by the supervisor on the spot to correct mistakes.
	Direct observation of deliveries and home visits by TBAs approximately 1-2 times per year for each TBA	No instrument in use	Information used on the spot to correct errors
Health Committees	CS supervisors formally supervise every 2 months	Supervision form testing knowledge applied verbally to each Committee member	Form tabulated and used during staff meetings to assess needs for refresher training. Used by the supervisor on the spot to correct mistakes.
Health facility nurses	Every two weeks jointly by essential medication team and DPS supervisor	MOH supervision guide adapted by CARE/DPS, includes direct observation of consults, registration of physical condition of facility, post-consult interviews of patients, medications, record review	Information used on the spot by supervisors, not tabulated

Level of Health Worker	How performance is evaluated	Did it improve? Evidence of improvement
CHW	Through daily follow-up and on-the-job evaluation	Improvement observed. CHWs are better able to identify specific conditions and make appropriate referrals. Example: they were previously unable to identify measles, but can do so now with confidence.
TBA	Through formal supervision and occasional observation of deliveries	Yes, there was improvement. Best evidence is through increased percentage of deliveries being done by TBAs in community.
Health Committees	Through notification forms and supervision forms	Committees are educating the community, organizing hygiene and sanitation activities and coordinating immunization campaigns.
Health facility workers	Formal by-monthly supervision	Quality of health services being delivered and management of medications directly observed to have improved.

It was suggested to the team that, in the future, supervision forms would better reflect health worker performance if they contained a mixture of knowledge questions, checklists for observation of performance, and post-visit interviews with those visited by these workers.

iii). Training

The project proposal outlines training for new community workers, TBAs, and Health Committee members. In addition, 20 MOH Health Promoters were to be trained in project interventions and supervision. Whereas the training of all the community-based workers was carried out much as planned (with a lower number of Health Committee members than originally anticipated due to the reduced number of Committees formed), the training of Health Promoters was no longer possible, as they were eliminated by the MOH. The original plan envisioned providing only on-the-job training to 10 MOH nurses.

During much of the year 2000 the security situation was so unstable that sustained work in the newly-established camps was not possible. In the meantime, the CS team then shifted its focus to providing further training to health facility personnel. Thus, a far greater number of nurses received training than originally planned.

The table in Appendix E outlines the training carried out under the CS project. Training for TBAs included an additional week of supervised practicum in the MOH

Maternity Hospital. The curriculum used is that of the MOH TBA program and follows the content of the second edition of the TBA manual (1997).

It becomes evident from looking at the table that training duration was relatively long and that a complete list of subjects was included, some well outside the focus of the CS project itself. The repeated appearance of typhoid fever reflects an outbreak that occurred during project implementation. A second trend is the fact that CARE and the MOH collaborated in all training. With the exception of 24 CHWs trained for the Angolan Red Cross and the polio volunteers, all workers trained came either from project-supported IDP camps or were MOH personnel in Bié province.

Training of nurses and technicians included pretesting and post-testing, as did training for CHWs. Efficacy of training for TBAs and Health Committees was assessed through verbal questions and answers, as most are unable to read.

No new manuals were developed for the project. Content and supporting materials were drawn from existing materials, including *Where There Is No Doctor*, and the MOH's Health Promotor training manual as well as from other independent sources. The team developed written formal curricula and lesson plans for all training, and these remain in CARE's files. Training methods were relatively standard classroom methods, including lecture, demonstration and group work. The only training that involved hands-on practice with real patients was that of the TBAs.

Although the level of functioning of health workers at all levels was generally considered to be very good, CS staff feel that training time for all levels should have been extended by about twenty percent. The team felt that the greatest remaining need is for further CHW training in maternal health.

One recommendation for the end of the project is for the CS team to compile all training curricula so that a complete copy can be handed over to the DPS when the project is closed out.

iv). *Synergies and interactions with other projects and partners*

A number of other projects and programs administered both by CARE and other organizations had effects on and were affected by CARE's CS project, usually in a positive way. The following table outlines these projects and programs.

AFRICARE, through its USAID CS project, was responsible for supporting of all immunization activities in all of Bié province with the exception of that part of CARE's polio project. During training of CHWs, TBAs and health facility nurses, CARE and AFRICARE collaborated in the training, each covering those subjects for which their projects were responsible.

The Angolan Red Cross, which operates two health posts in the Kuito area outside the area of CARE's CS project, benefited from having 25 CHWs trained by CARE.

UNICEF provided CARE with some posters which were put in health posts as well as some equipment for ORT in health posts. The MOH through the DPS provided the

technical manuals for most training, including CHWs and TBAs, as well as some educational pamphlets and posters. The DPS also provided facilitators who collaborated with CARE CS staff during all training. In addition, DPS staff accompanied regular supervisory visits to health facilities (though this was a collaboration with CARE's medication program more than its CS project), quarterly visits to TBAs, and occasional supervisory visits to CHWs.

OCHA, the United Nations Office for Coordination of Humanitarian Assistance provided the project with regular security updates allowing the team to work safely.

Oxfam worked throughout much of the life of the CS project in water and sanitation, including installation of wells and protection of natural water sources as well as latrine installation. They also trained volunteers in supporting basic sanitation and hygiene, though this training was not coordinated with CARE's CS project.

Within CARE, the CAMRI mine-clearing program gave teams opened safe access to the IDP camps, the FARMER agricultural support program collaborated with logistical support and CARE's emergency program, together with other PVOs in the area, provided regular information on the number of residents in the camps. The polio project personnel helped perform the HIV/AIDS survey in 2002. Concern Worldwide was operating an agricultural support project in Cunhinga camp, but with little coordination with CARE's CS project.

Probably the most important synergism was with CARE's essential medication program, which provided equipment for all 16 health facilities in and around Kuito, including equipment for deliveries needed for the maternal health intervention. It also supplied essential medications, including chloroquine, iron/folate and ORS packets to health facilities. Without these, many of the CS interventions would have been much less effective than they were. In addition, the medication project provided the ongoing supervision of health facility staff.

General food distribution of provisions donated through the World Food Programme was done by CARE and Concern Worldwide. In addition, Concern Worldwide operates two supplementary feeding centers in the area, AFRICARE operates two community kitchens and MSF/B operates three therapeutic feeding centers, two in Kuito and one in Camacupa. These efforts helped keep the population healthy enough for the other interventions to be feasible.

These synergies and collaborations illustrate the importance of carefully coordinating limited resources for maximum benefit. CS as a stand-alone project would have otherwise been much less effective.

The team felt that whereas these collaborations were very fruitful, coordination between different organizations working in different sectors in the camps could have been better. MSF/B had little interaction with CS staff or the project, in spite of the fact that they were providing critical support to the referral hospital where emergency deliveries were performed and to where children with severe dehydration and patients with severe malaria were routinely referred. In addition, there was reportedly little coordination between CARE's CS project and the other groups working in water/sanitation, emergency nutrition and agriculture in the camps. There were

instances where volunteer different community workers were trained and set to work in the camps without knowledge or collaboration between the various groups of them.

d. Sustainability

The principal strategy for sustainability of the CS project rested on the permanence of behavior change at the household and community levels and attainment of sustained community mobilization for health through the work of volunteer CHWs, Health Committees and TBAs.

The sustainability objectives laid out in the proposal are as follows:

- Key household safe motherhood behaviors, including planning for hygienic delivery, immediate post-partum breastfeeding, and recognition of pregnancy/labor danger signs continue beyond the end of the project.
- Household treatment of mild diarrhea with ORT, recognition of dehydration and practice of good hygiene behaviors will continue beyond the end of the project
- Community Health Committees and health teams will manifest problem identification and solving skills during health management meetings
- Health promoters will independently do outreach and supervision from health centers at least once/week
- Provincial supervision systems will be in place and practiced

The proposal also mentions capacity-building of health services as important to sustainability, both clinically and improved management as important to sustainability.

The sustainability of projects such as these is difficult to attain under stable circumstances. The probable result of the recently-signed peace treaty and cessation of hostilities will mean that most IDPs will return to their villages in the coming months. There is very little time for the CS team to prepare for this transition and set up conditions in the villages where activities can be sustained. Household knowledge and behaviors learned in the camps will go with the residents. It is especially hoped that the new knowledge and behaviors learned in the camps with regard to hygiene lead to communities establishing clean water sources and building and using latrines. The CARE team has already planned intensified refresher training of CHWs in home management of diarrhea in order to try to fill the gap identified in the final survey. This will be important as families move back to villages and access to health services becomes more difficult.

Communities themselves clearly understand and value the work done by the CHWs, TBAs, and Health Committees and will likely continue to support them after people return to their villages.

Community health workers are well-trained and active. It is likely that a fairly large percentage of the CHWs will be willing to continue to perform their duties to some degree. The key to their continuation will be the ability of the DPS to help in the official transference of supervisory responsibility from the province to the municipalities. The elimination of the Health Promoters by the MOH leaves the health system without anyone at the health post level designated to work outside the facility. Municipal public health departments theoretically have this responsibility, though they often lack experienced personnel trained in supervision, and often lack vehicles.

There will be no time for CARE to prepare for this situation, and it will likely fall follow-on projects and the DPS. This is probably the greatest threat to continuation of Child Survival activities, and there is little CARE can do to remedy this situation given the short time available until the end of the project.

Whereas the nine Health Committees will likely continue in their coordinating role, more will have to be formed and trained if the 80 original villages are to continue their health activities. Unfortunately, once again CARE is left without enough time to organize their selection and training. The nine existing committees will be stretched to cover 9 villages each until this situation can be remedied.

TBAs are likely to continue, and may even play an even more important role once they are further from their health facilities. As the MOH health system has an official program to support TBAs and there are designated MOH TBA supervisors at the municipal level, their continued support is more likely than for the CHWs.

The influx of people into rural municipalities will place a strain on the health system at the municipal level. Many municipal health posts have been damaged and equipment is incomplete. Also, whereas the managerial and technical capacity at the provincial level is adequate, it is not certain that municipal health departments are as well prepared. One hopeful aspect is that many of the health workers working in health facilities the camps and which received training and supervision will be returning to municipal facilities with the population.

The CS team has few options for guaranteeing a smooth sustainable transition back to the rural villages, as significant numbers of people will actually return home only after the project has ended. The best that can probably be achieved is to help the DPS elaborate a plan for transition of CHWs, TBAs and Health Committees to municipal health authorities. CARE is already documenting all trained community workers and providing them with certificates.

e. Plan for dissemination

The evaluation team planned to share the key findings and lessons learned from the evaluation with key stakeholders. The written evaluation report will provide feedback to CARE/Angola and CARE International in the US and to USAID/Angola

The team will incorporate the evaluation's findings into the upcoming refresher training sessions for CHWs. In addition, the team is planning an event the third week in May for collaborating partners, including DPS, Health Committee Members, AFRICARE, and the Angolan Red Cross who were the key partners. They will make a formal presentation of the results of this evaluation during this meeting.

C. Program management

1. Planning

Program planning under the constantly changing circumstances presented a challenge to CARE throughout the life of the project. The need for flexibility was so great, that management staff did not prepare a Detailed Implementation Plan as the frequent

need for changes would have quickly rendered it obsolete. Nevertheless, the original objectives from the proposal were respected as far as possible.

Planning was carried out during weekly staff meetings and regular meetings with CHWs and camp authorities. In addition, joint training needs and content for health workers was planned together with DPS workers. In addition, there was considerable tactical coordination and planning for supervision of health facilities and for the essential medication system. However, whereas strategic planning of overall program direction was responsive to the perceived needs of the beneficiaries and partners, this planning was mostly ad-hoc and was carried out primarily by the team members and CARE management staff. The most important recommendations from the mid-term evaluation were largely implemented, in spite of the fact that the mid-term evaluation was not participatory in nature due to logistical limitations. The principal exception was the fact that CARE (like the other CS PVOs) did not procure technical assistance to improve the planning and execution of its BCC/IEC activities.

2. Staff training

The following table summarizes the training received by CARE staff during the life of the project:

Subject covered	Month/year and participants	Who administered	Evidence of impact
Supervision	10/99 X 5 days CARE office for 10 staff members	CARE/Angola office and Ministry of Health (national level)	How to evaluate and correct worker performance depending on type of worker. One result of the training was the design and implementation of new supervision forms for health-facility workers and a reduction in the frequency of supervisory visits.
Medication management	8/99 at CARE training room X 5 days for 10 staff	CARE/MOH	Preparation of medication kits for health facilities, how to verify rational use of medications—system instituted.
Gender and diversity	8/00 Luanda 2 days by CARE for staff 9/00 X 1 day for all CARE staff in Kuito CARE 2/02 1 day for 10 CS team members CS	CARE National staff Local CARE staff MINARS (Ministry of Social Welfare) contracted by	Covered subjects including that men and women can occupy the same professions, increased awareness about violence toward women. -resulted in CARE emergency team contracting more women

Subject covered	Month/year and participants	Who administered	Evidence of impact
		CARE	
Stress	10/00 for 10 CS staff	CARE-FARMER	Team learned how to overcome stress and the importance of doing so for productivity (note—training done during emergency period)
Training for rapid surveys	11/98 2-3/02	National Statistics Institute CS project manager	Pre and post-KPC surveys done, mini-surveys for monitoring, TBA survey, AIDS survey.
Partnership	2/02 Luanda 4 days for 6 CARE staff from all over Angola plus participants from other NGOs	Sponsored by CARE national office with participation by other NGOs.	Included how to form partnerships, especially between international NGOs and local NGO partners. No measurable impact to date due to recent nature.
Project design and proposal writing	1st quarter 2000 X 2 days	Internal project staff	6 proposals written, including polio project, CS extension proposal, essential medication proposal
Interchange visit by 1 CS staff member to CARE CS project, Mozambique	8/00, 1 CARE Angola CS staff member	Mozambique (CARE Angola sponsored)	Referral slip field to health facility, health post to hospital developed and implemented

It is clear from the table that all the training was carried out either by CARE itself, or by the Angolan MOH (or, in once case, MINARS). CARE does have a large and competent national staff, but it is interesting to note the lack of use of other in-country resources for training, including other international NGOs and multilateral agencies. Increased interagency collaboration to improve the quality and diversity of staff training as well as helping share experiences and standardize methodologies should be encouraged in future projects.

Staff felt that their technical abilities in CS interventions, supervision and monitoring were adequate, though some relatively minor weaknesses were identified during the evaluation (see above in sections on individual interventions). Aside from the need for technical assistance in BCC/IEC as mentioned above, the following were identified as training needs:

- Use of computers, especially EpiInfo. This was identified as a need, as the team identified this need as their ability to effectively use data for decision making was hampered by the fact that only two members of the team were

able to analyze and extract data from EpiInfo after it was put into the computer. The team felt that analysis and use of information would have been improved if each team member understood how to access the information.

- Interchange with other NGOs to exchange experiences. This need was felt to be especially important, as the team. They felt isolated in Kuito, with little opportunity for communication and interchange. This type of interchange was encouraged in comments in the mid-term evaluation, but was not able to be implemented. Future projects should consider this type of interchange.

In addition, the project would have benefited from training in qualitative research methods, such as use of focus groups and others to collect and analyze qualitative information. Training for DPS staff is covered in the section on training above.

3. Supervision of program staff

Supervision of community workers and health-facility staff is covered in sections above under health-worker and health facility strengthening. The CS team was supervised by the CS project manager on an ad-hoc basis through joint field visits and regular weekly CS staff meetings. Staff filed monthly activity reports which were consolidated by the CS trainer and the project officer. These reports were consolidated again, and sent quarterly in English to the CARE Angola country program officer and from there, to the US headquarters office. There were no formal supervisory systems developed for internal use by project management for project staff. Nevertheless, the team felt that the level of oversight and supervision was adequate, as the team was relatively small and informal communication constant.

4. Human resources and staff management

CARE is to be commended with respect to its staff management during the life of the project. Perhaps the most important contributor to the successes of the project was the continuity of the highly-dedicated CS team in Kuito, and especially the leadership of the CS Project Manager, Astrid Eisenlohr. This aspect is especially notable as the situation in Kuito was unstable and quite stressful during much of the life of the project. After the replacement of three technical nurses during the early months of the project, there was no turnover in technical staff, in spite of the evacuation in 2000. Three new staff members were added after the mid-term evaluation, and these remain until the end of the project. Staff cohesion and morale were surprisingly good. The relatively minor internal conflicts that arose among team members were dealt with, and reportedly had little effect on project outcome or staff performance.

CARE has written job descriptions for all staff, who are clearly aware of them. Procedures are in place for annual written performance review. During the evaluation, the team stated that a larger number of technical staff would have improved the frequency of CHW supervision, though the frequency was high compared with other similar projects. Staffing was deemed adequate by management staff, although better BCC/IEC and computer skills may have improved project outcomes.

CARE reports that the most important local technical staff members are being transferred to other projects in Angola, though some are being sent to other offices. Other team members will necessarily be laid off. CARE will provide these ex-team

members with letters of reference on request in order to help them seek other employment.

5. Financial and logistics management

CARE staff in Luanda were responsible for procurement for the project, and despite formidable logistical challenges, only minor delays in purchasing and transportation were reported by the team. These did not affect programming. Logistical support for the activities that are expected to continue after the end of the project will continue in Kuito and Luanda through support from other projects.

Likewise, financial management was remarkably smooth and did not affect programming or payment of personnel. This, in spite of the fact that there are no banks in Kuito, and all transactions were carried out in cash. Financial sustainability of project activities rests principally with the DPS, which has its own internal systems. No significant cost-recovery systems were implemented due to the poverty and unstable local environment, so partners' financial management needs are minimal. CARE will leave behind financial personnel in Kuito and Luanda through funding from other projects.

6. Information management

Much of the discussion regarding information management has appeared above in previous sections.

Due to the rapidly changing population size, CARE thoughtfully designed and implemented mini-KPC surveys to track progress toward achieving project objectives. These were executed quarterly, and were supplemented by information from the health facility HIS. The results of these surveys were quickly tabulated by computer and returned to the team for discussion during weekly CS staff meetings. As mentioned above in the sections on each intervention there were some difficulties with this monitoring, however. For some indicators, especially those relating to caretaker knowledge, the mini-surveys provided a more optimistic estimate of caretaker knowledge than resulted from the final KPC survey. Another difficulty was the centralization of information from the HIS in the computer, which only the project officer was able to extract. Though mini-survey data were tracked, HIS data was most often not compiled longitudinally, so trends were not apparent to the team. A more consistent feedback system from the computerized data system to the CS field team would have allowed them to make better management decisions.

The results of the special studies undertaken, including the study on TBAs and the HIV/AIDS studies are presented elsewhere in this report. No special qualitative studies were undertaken, probably because the team had not been trained in these methods.

The special problem of shifting population size and composition deserves special mention. CARE approached this problem by using population estimates from data gathered by other organizations, such as OCHA, MSF/B and the DPS. This approach proved inadequate, as reliable estimates were difficult to obtain. This was due to the various incentives to either over- or underestimate the population size in each of these estimates, as they are all tied in some way to resource allocation and distribution. The CS team felt the best approach in the future was a periodic (quarterly?) recounting by

their own CHWs. As these were performing regular systematic home visits, this would not have introduced a significantly increased time burden on them. This approach would seem reasonable, and should be considered in future projects in areas with large population fluctuations.

Other problems identified by the team was that the original project documents, including the proposal and mid-term evaluation were not available in Portuguese. Also, there was a tendency for information to travel up the management chain, but little direct feedback of consolidated information from management back to the team nor from the team down to counterparts and communities. Improving the flow in this direction would have improved the quality and responsiveness of the project.

7. Technical and administrative support

CARE headquarters and regional offices provided some technical support to the project. This consisted of recommending sites on the internet for researching background for the AIDS component, help in writing the proposal, help with the design and report of the baseline KPC survey as well as several visits by HQ staff. In addition, CARE sponsored one Angolan CS staff member visit to CARE's CS project in Mozambique, and CARE attended one interagency CS meeting with CRS and AFRICARE in June 2001.

D. Conclusions and recommendations

CARE's Child Survival project was able to demonstrate many significant gains in spite of formidable obstacles. Although the target population changed from rural villages to IDP camps, the original objectives were maintained, as were most of the proposed strategies. Significant gains were seen in prenatal care coverage, malaria prophylaxis during pregnancy, deliveries performed by qualified personnel, understanding of the cause and symptoms of malaria, hygiene (clean water and latrine use, disposal of garbage) and ORT use. Health service quality improved, and utilization rose. In addition, volunteer workers trained will likely be able to continue to provide services after the end of the project, as will the supervision system for health facility workers.

The principal weakness in the project results was little improvement in caretaker knowledge about danger signs and diarrhea management. This was probably due to a lack of a systematic high-quality BCC/IEC effort due to the team's lack of experience with BCC/IEC and the lack of availability of technical assistance to overcome this problem. Whereas in the IDP camps access to health services is relatively good, the recent cessation of hostilities and the imminent return to rural villages where access will be more difficult will make home management and caretaker knowledge more important.

Several factors contributed to the success of the project. The continuity of staff under difficult circumstances was key to attaining the achievements of the project. In addition, the project was limited to three interventions and a relatively straightforward approach, which helped keep the project focused. In addition, it built on some of the outcomes of CARE's previous Health Transition Project.

One interesting aspect of the project was the success in upgrading the skills of TBAs, which rapidly gained acceptance in the communities and will likely be sustainable. The rise in deliveries performed by TBAs from under one percent to nearly half was impressive in such a short time. Another interesting success of the project was CARS's use of rapid cluster sample surveys for monitoring purposes, which overcame problems caused by the rapidly shifting population size and composition.

CARE's CS team will take several steps in the coming months to help insure sustainability. They will emphasize home management and danger signs during refresher training scheduled during the coming months. In addition, they will help ease the upcoming transition from the Provincial to Municipal level as workers return to their villages by providing workers with training certificates and by registering them with Provincial authorities who are willing to pass this on to Municipal authorities when the time comes. The problem of future logistical and material support for CHWs and TBAs remains to be resolved.

Opportunities for follow-on activities that would build on CS project successes include introducing family planning and HIV/AIDS prevention, ITNs for malaria prevention, community-based distribution of some essential medications including chloroquine, antibiotics and iron/folate, and experimentation with cost-recovery schemes for essential medications. Introduction of a pneumonia intervention, which would overlap with malaria, would also be a logical next step.

Appendix A: Evaluation team members and their titles

CARE Angola Staff

Astrid Eisenlohr	Child Survival Project Manager
Beatriz Júlia	Trainer
Dionísia A. Handanga	Extensionist
Fernanda Elalo	Extensionist
Helena Martinho	Extensionist
Angêlina Lúcia	Supervisor
Eva Castro	Supervisor
Marcolino Saugila S. Artur	Supervisor
Constantino C. H. Simão	Extensionist
Esperançoso David	Supervisor

Donald T. Whitson, MD, MPH
External evaluator

Appendix B: Assessment methodology

The final evaluation was carried out as a collaborative effort by the CS team itself. The team completed the final KPC survey before the evaluation began, and data were available to the team. In addition, special studies on HIV/AIDS and TBAs were also available. Although partners (including DPS and others) were invited to participate as part of the evaluation team, they did not appear.

The team carried out a series of site visits and key informant interviews with mothers, community leaders, CHWs, TBAs, and health committees. Local institutional partners were also interviewed, including the DPS, DMS, and health workers from numerous health facilities. In addition, the team directly observed BCC/IEC activities, supervision visits, and consults in patient facilities. The team also reviewed all training curricula and materials, BCC/IEC materials in use, and collated samples of information from supervision and reporting forms as well as data from the MIS/HIS. The evaluator conducted key informant interviews with key CARE staff in-country, both in Kuito and Luanda.

The evaluator then moderated group discussion by the team using an adapted version of the BHR/PVC CS final evaluation report guidelines as the basis for discussion and jointly elaborating conclusions and recommendations. These conclusions and recommendations are summarized in this report, and will be disseminated to partners, communities, and other stakeholders as described above under the section on the dissemination plan.

Appendix C: Contacts

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Astrid Eisenlohr	Child Survival Project Manager
Robert Jan Bulten	Acting Country Director
Zakari Madougou	Regional Director, Kuito
Artur Caires	Regional Director, Lubango
Delfina Jacinto	Administrative Assistant, Luanda

CHILD SURVIVAL TEAM

Beatriz Júlia	Trainer
Dionísia A. Handanga	Extensionist
Fernanda Elalo	Extensionist
Helena Martinho	Extensionist
Angêlina Lúcia	Supervisor
Eva Castro	Supervisor
Marcolino Saugila S. Artur	Supervisor
Constantino C. H. Simão	Extensionist
Esperançoso David	Supervisor
Jaime Horácio	Project officer (did not participate in evaluation
meetings)	

USAID

Jeffrey Ashley, Health Officer
Rua Kwame N=Krumah #31
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Appendix D: Results of special studies-KPC, HIV/AIDS, TBA usage

CLUSTER SAMPLE SURVEY MEASURING KNOWLEDGE ABOUT HIV/AIDS IN URBAN KUITO AND IDP CAMPS CARE / ANGOLA KUITO, FEBRUARY 2002

Question	Answers	Urban residents	IDP Camp residents
		n=943 34 clusters of 23-25 (1X2, 1X3, 1X4) 12 neighborhoods	n=726, 30 clusters of 22-28 9 IDP camps
1. Sex of person interviewed	F M	56% 44%	68% 32%
2. In your place of origem, did you reside in:	a. capital city b. village c. Kuito	51% 20% 29%	32% 67% 0.3%
3. What year were you born?	a. year b. don't know c. did not respond	Not analyzed	Not analyzed
4. What age were you on your last birthday?	a. years b. don't know c. no answer	Median 22 yrs Mean 25 yrs Range 12-45 yrs Don't know 2%	Median 26 yrs Mean 27 yrs Range 12-45 yrs Don't know 10%
5. Have you ever studied?	a. yes b. no c. don't know	92% 8%	70% 30%
6. If you ever studied, what is the highest grade you reached?	a. primary b. secondary c. higher	Among those who studied n=868 47% 36% 18%	Among those who studied n=508 88% 11% 1%
7. Do you know what a condom is and what it is used for?	a. yes b. no c. don't know	55% 45%	40% 60%
8. Do you and your partner use a condom when you have sexual relations?	a. yes, always b. yes, sometimes c. no d. don't know	Among those who know n=521 5% 17% 77% 1.5%	Among those who know n=290 3% 15% 81% 1%

Question	Answers	Urban residents	IDP Camp residents
9. Where do you get condoms?	a. store b. market c. health facility d. friend c. bar d. stand e. no answer f. others	Among those who use n=114 4% 22% 49% 7% 15% 3% 0% 0.3%	Among those who use n=49 0% 20% 57% 12% 0% 0% 1% 14% Others: MSF 8% Husband 2% NGO 2% Military 2%
10. How much do you spend to buy condoms?	_____ Kwanzas for _____ condoms (Exchange rate approx 38 Kwanzas / US\$)	Price / condom N=36 <1 Kwz : 4 1 Kwz: 11 1.1-4.9 Kwz: 9 5 Kwz: 12 >5 Kwz: 2	Price / condom N=14 <1 Kwz: 1 1 Kwz: 1 1.1-4.9 Kwz: 5 5 Kwz: 0 >5 Kwz: 5
11. Why don't you and your partner use condoms during sexual relations?	I or my partner don't what to Don't like Not necessary Use other family planning method Never thought of using No money / expensive Don't know No answer Others -only 1 partner -trust partner -don't know where to get -don't have or never had sexual relations	Among those who know but don't use N=396 4% 8% 17% 0% 5% 3% 29% 6% 22% 2% 4.5% 5% 6%	Among those who know but don't use N=233 6% 8% 21% 1% 3% 3% 12% 7% 37% 4% 9% 9% 11%

Question	Answers	Urban residents	IDP Camp residents
12. Have you ever heard of a disease transmitted by sexual relations?	a. yes b. no c. don't know	66% 34%	65% 35%
13. What are the symptoms you know? Women only	a. abdominal pain b. painful urination c. ulcers / sores on genitals d. vaginal discharge e. foul smelling discharge f. inguinal pain g. don't know	Among women who have heard N=318 Multiple answers 15% 29% 8% 24% 21% 1% 43%	Among women who have heard n=294 Multiple answers 24% 58% 10% 25% 6% 1% 74%
14. What are the symptoms that you know? Men only	a. painful urination b. discharge from penis c. genital swelling e. pain / swelling in groin d. don't know	Among men who have heard N=301 Multiple answers 46% 46% 8% 4% 36%	Among men who have heard N=177 Multiple answers 67% 58% 9% 13% 4%
15. Have you heard of HIV or AIDS?	a. yes b. no c. don't know	67% 33%	63% 37%
16. How can you get HIV / AIDS?	a. from food b. from sexual relations c. from mosquitos d. from water e. don't know	Among those who have heard N=632 1 answer 1% 91% 0.6% 0.5% 6.5%	Among those who have heard N=456 1 answer 1% 92% 0.4% 0% 6%
17. Can people prevent themselves from getting HIV/AIDS by using condoms every time they have sex?	a. yes b. no c. don't know	Among those who have heard N=632 77% 5% 18%	Among those who have heard N=456 69% 11% 20%

Question	Answers	Urban residents	IDP Camp residents
18. Can people prevent themselves from getting HIV/AIDS by having relations with only one partner who is not infected?	a. yes b. no c. don't know	Among those who have heard N=632 80% 11% 9%	Among those who have heard N=456 84% 8% 8%
19. Can people prevent themselves from getting HIV/AIDS by abstaining from sexual relations?	a. yes b. no c. don't know	Among those who have heard N=632 56% 32% 12%	Among those who have heard N=456 56% 30% 14%
20. Do you think people that look healthy could be infected with HIV/AIDS?	a. yes b. no c. don't know	Among those who have heard N=632 63% 20% 17%	Among those who have heard N=456 54% 28% 17%
21. Can a pregnant woman infected with HIV/AIDS transmit the disease to the baby in her uterus?	a. yes b. no c. don't know	Among those who have heard N=632 71% 11% 17%	Among those who have heard N=456 64% 14% 21%
22. Can a woman infected with HIV/AIDS transmit the disease through breastfeeding?	a. yes b. no c. don't know	Among those who have heard N=632 59% 19% 22%	Among those who have heard N=456 63% 18% 18%
23. Are there medications to cure AIDS?	a. yes b. no c. don't know	Among those who have heard N=632 12% 50% 39%	Among those who have heard N=456 15% 40% 45%
24. Are there medications to reduce the progression of AIDS?	a. yes b. no c. don't know	Among those who have heard N=632 16% 37% 47%	Among those who have heard N=456 18% 35% 47%

Appendix E: Summary Table of Training under CARE Child Survival project

Type of Course	Dates and duration	Place	No. of participants and level	Subjects	Facilitators
Maternal Child Health Seminars	27.5h 5/99-7/99 4 times	Once for each of 4 health facilities	Total of 24 nurses	Common diseases Immunopreventable diseases Breastfeeding and child nutrition	MOH personnel + CARE personnel with CARE sponsorship
Maternal Child Health Seminars	27.5 hours 10/99	One for each of 3 facilities	10 nurses from 3 health facilities	Complications during pregnancy, labor and delivery Common diseases in pregnancy	MOH personnel + CARE personnel with CARE sponsorship
Maternal Child Health Seminars	27.5 hours 12/99		15 nurses from 3 facilities	Prenatal care consult Diagnosis of pregnancy Pregnancy risks and complications Use of the prenatal care card	MOH personnel + CARE personnel with CARE sponsorship
Maternal Child Health Seminars	60h 7-10/00	All units	20 nurses	Prenatal card, delivery, obstetrical emergencies, early breastfeeding, referral of at-risk mothers for family planning, post-partum and post-abortion consult, complications post-partum, child immunization, family planning, STDs, gynecological consult	MOH personnel + CARE personnel with CARE sponsorship
Maternal Child Health	1/01	27.5 hours	25 nurses from outlying municipalities	BCC/IEC for health, the consult, follow-up of the pregnant woman, prenatal care card, common diseases during pregnancy,	MOH personnel + CARE personnel with CARE sponsorship

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Type of Course	Dates and duration	Place	No. of participants and level	Subjects	Facilitators
				complications, history-taking from mothers in pediatric consults, physical examination in children, illnesses in children, calculation of medication doses in pediatrics, diarrhea management and ORT	
Training of CHWs	27.5 hours X 11 times 6/99-11/00	Various camps	190 CHWs	Profile of a CHW, responsibilities of a CHW, how to give an educational talk, hygiene and sanitation, immunization, diseases in pregnancy, complications during pregnancy, delivery and post-partum, breastfeeding and child feeding, typhoid fever, hepatitis	MOH personnel + CARE personnel with CARE sponsorship
Refresher training for CHWs	27.5 hours X 11 times 6/00 – 3/02	Various camps	206 CHWs	Hygiene and sanitation, diarrhea, how to do educational talks, malaria, intestinal parasites, typhoid fever, complications during delivery, immunization, hepatitis, complications during delivery and post-partum, measles	MOH personnel + CARE personnel with CARE sponsorship
Seminar on epidemic diseases for	27.5 hours X 6 times	Once each camp	117 CHWs	Meningitis, malaria, typhoid fever, hepatitis,	MOH personnel + CARE

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Type of Course	Dates and duration	Place	No. of participants and level	Subjects	Facilitators
CHWs	8/00-9/00			dysentery	personnel; with CARE sponsorship
Training for Health Committees	16.5 hours X 5 times 11/99 to 5/00	Once each in each camp	45 Health Committee members	Profile and responsibilities of the Health Committee, habits and customs, emergency referral and evacuation of ill patients, support to CHWs, how to define a problem and find a solution	MOH personnel + CARE personnel with CARE sponsorship
Refresher training for Health Committee Members	16.5 hours 12/01	Central	45 members	Evacuation plans, support to CHWs, problem definition and problem solving, habits and customs, responsibilities of the Health Committee	MOH personnel + CARE personnel with CARE sponsorship
Seminar on Supervision	10/99 X 27.5 hours	Central training center	9 CARE, 17 MOH staff	Introduction to supervision, how to supervise, profile of a supervisor	MOH personnel + CARE personnel with CARE sponsorship
Seminar with DPS community health technicians	27.5 hours 9/99	Central training center	Representatives from 5 camps 15 technicians	Common diseases, immunization, common illnesses in pregnancy, nutrition during pregnancy, breastfeeding, complications during delivery and post-partum	MOH personnel + CARE personnel with CARE sponsorship
Seminar on management of essential medications	4 times X 27.5 hours 11/99-5/01	Each camp plus Kuito	Health post personnel from all health facilities in Kuito area 102 technicians	Common illnesses, essential medication form, diagnosis and treatment of diarrhea, malaria, pneumonia, organization and	MOH personnel + CARE personnel with CARE sponsorship

Type of Course	Dates and duration	Place	No. of participants and level	Subjects	Facilitators
				administration of a pharmacy, responsibilities in managing medications	
Seminar on common diseases	27.5 hours X 3 times 2/00 – 3/01	Each camp	67 health post nurses	Diarrhea, pneumonia, intestinal parasites, typhoid fever, malaria, physical examination, immunization, skin diseases, jaundice	MOH personnel + CARE personnel with CARE sponsorship
TBA training	64.5 hours repeated 3 times	Groups of 3 camps	95 TBAs	Physiology of delivery, functions of the placenta, cord and amniotic fluid, physical examination of the pregnant woman, common diseases in pregnancy, complications during pregnancy, delivery and post-partum, emergency preparation, disinfection of equipment, the delivery period, true vs. false labor, immediate newborn care, complications in the newborn, hygiene post-partum, immunization in pregnancy, vitamin A, post-partum follow-up, notification of deliveries, diarrhea	MOH personnel + CARE personnel with CARE sponsorship
Refresher training for TBAs	10/01 X 25 hours 10/01	Three camps	18 TBAs	Same as above	MOH personnel + CARE personnel with CARE

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Type of Course	Dates and duration	Place	No. of participants and level	Subjects	Facilitators
					sponsorship
Training for polio project volunteers	12/00 – 1/01 X 11.5 hours X 5 times	Groups of 3 camps	85 volunteers	Polio, the profile and responsibilities of a of a volunteer, registration forms	MOH personnel + CARE personnel with CARE sponsorship
Growth monitoring in children	11/01 X 33hours	Central training center	32 MOH nurses	The Road to Health card, evaluation of child growth, evaluation of development, evaluation of the health status of the child, child nutrition and feeding, health education	MOH personnel + CARE personnel with CARE sponsorship

Appendix F: Project Summary used at USAID – Angola Mission briefing

CARE Angola Child Survival Project, Kuito Final Evaluation Summary

USAID-funded Child Survival Grant #AOT-G-00-98-00163-00

Original Amount: \$1,484,540
Original Dates: 8/14/98 - 8/31/01 (3 years)
Cost-extension: additional \$330,000 (plus remaining balance of \$223,849)
Dates extension: 9/1/01-6/30/02 (total project duration 46.5 months)
Total cost: \$1,814,540 Cost per year: \$453,635
Interventions: Maternal health, diarrhea, malaria. Later, HIV/AIDS (limited)
Evaluator: Donald T. Whitson, MD, MPH; dtwhitson@hotmail.com

Background

Part of package of 4 CS projects funded the USAID/Angola Mission at about the same in August 1998:

- CARE, Kuito, maternal health, diarrhea, malaria
- Africare, Kuito, immunizations and vitamin A
- Catholic Relief Services, Benguela Province: Cubal and Balombo; immunization, malaria, diarrhea, breastfeeding/nutrition
- FAS, Luanda, infrastructure

In addition, Christian Children's Fund won a 4-year USAID/BHR/PVC CS grant in 1998 for Lubango.

With the exception of the FAS project, all the USAID mission-funded projects were designed with the assumption of continued access to rural communities. The armed conflict erupted again shortly after the projects were inaugurated. All had to be redesigned to work within tight security perimeters and shifted their focus from rural villagers to IDPs in camps. This project shifted from 80 rural villages to 9 IDP camps. The final population was somewhat larger than that originally proposed.

Summary of main objectives (paraphrased—some of these were not explicitly stated in the project, but were implicit in project activities)

Increase prenatal care usage including prophylaxis for anemia and malaria
Increase recognition of danger signs in pregnancy, delivery, post-partum and in the newborn, and seeking of appropriate care, including emergency planning.
Increased proportion of deliveries being performed by qualified personnel.

Improved home management of diarrhea, and increased use of ORT at home and facilities

Improved diarrhea prevention

Better recognition of danger signs in diarrhea and care-seeking from qualified professionals

Improved recognition of mosquitoes as cause of malaria and implementation of measures that prevent exposure to mosquitoes
Improved care-seeking from qualified personnel for fever and convulsions

Principal Strategies

The principal strategies were not changed significantly from those outlined in the original proposal.

Behavior change at the household level through education, focusing on household management of diarrhea, recognition of danger signs (diarrhea, pregnancy/delivery/post-partum, and malaria) and increased seeking of care, increased use of facility-based prenatal care, including iron and chloroquine prophylaxis, and prevention of diarrhea and malaria. In addition, increased use of qualified personnel for deliveries (TBAs and health facilities).

Accomplished through training and supervision of over 150 volunteer CHWs, refresher training for TBAs, and establishment of health committees in IDP camps.

Strengthening of the MOH health system through training of facility-based personnel, joint supervision, monitoring, and training of facility-based personnel.

Evidence of Impact

Greatest impact seen in:

- prenatal care use, including prophylaxis for malaria and anemia
- tetanus toxoid coverage in pregnant women
- deliveries performed by qualified personnel
- preventive measures for diarrhea and malaria, especially general hygiene
- ORT use
- recognition of mosquitoes as the cause of malaria

Moderate impact seen in:

- recognition of danger signs in diarrhea, pregnancy/delivery/post-partum/newborn
- breastfeeding during the first hour after delivery (messages included in CHW training)

Least impact seen in:

- home management of diarrhea
- care-seeking and treatment for children with fever and/or convulsions

Principal constraints and facilitating factors

The population size and composition changed rapidly throughout the life of the project, and the population lived in a state of abject poverty and dependency. These factors hampered monitoring efforts and lessened efforts to attain sustainable impact. They also limited strategy options, especially with regard to cost-recovery and sustainability.

The relative isolation and inaccessibility of the project zone hindered access to technical assistance, especially for IEC/social marketing and monitoring. This in turn made these activities less effective than they might have otherwise been.

Increased proximity to health facilities and high population density increased access to and utilization of facility-based services and facilitated access by health workers of all levels to families. It also greatly facilitated referral to secondary and tertiary level facilities. Finally, the emergency concentrated other synergistic programs that benefited the same population, including water and sanitation and essential medications, which positively affected the outcome of child survival interventions.

Sustainability

The sustainability of the gains made by the project is threatened by the rapidly changing situation at the moment. Emergency programs, including MSF/B's support to the Kuito hospital, food aid to IDPs, and water and sanitation projects may be scaled back or closed. As IDPs return to their communities, access to health facilities will be reduced and support and supervision of CHWs, TBAs, and health committees will be less intensive. The MOH's elimination of the Community Health Promoter position leaves Municipal Health Departments without any worker designated to work directly with communities.

The project's focus on home knowledge and behaviors will help ensure sustainability. CHWs worked as volunteers, without depending on monetary incentives, and TBAs will continue to be able to charge for services. In addition, Kuito has recently begun to receive essential medications from the national program, which should help guarantee supplies of chloroquine and iron to rural facilities.

Principal recommendations

- during upcoming CHW training, re-emphasize home management of diarrhea, as this will become more important as families move back to their villages, far from health facilities
- coordinate with DPH to register all trained CHWs, TBAs and health committee members so DHP can mediate their transfer to their respective DMHs as they return to their villages.
- project staff will execute plans to disseminate the results of the project and final evaluation to relevant shareholders and stakeholders in the zone.
- logical follow-on projects in the rural villages could build on the successes of the CS project. Recommended activities might include awareness of HIV/AIDS prevention, infant and child nutrition, pneumonia recognition and care-seeking, social-marketing of insecticide-treated mosquito nets, establishment of birthing centers in rural health facilities, and support for proper management of essential medications in rural health facilities.

*CARE Angola Child Survival Project, Kuito
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	PROPOSED	ACTUAL	COMMENTS
Target population	60,000 total population 19,620 < 5y (33%) 16,860 WRA (15-44) (28%) 36,480 total beneficiaries	115,381 total population according to CARE extension proposal (source not cited) 701. Children < 5 21,000 (18%) WRA (15-44) 32,307 Total beneficiaries 53,307 79,249 total population according to registration by CARE's emergency program 1201. Children < 5 14,264 (18%) WRA (15-44) 22,190 (28%) Total beneficiaries 36,454	The percentages for under 5y and WRA used in the original proposal seem high, though they were used here to calculate cost per beneficiary in the proposal. The population age and gender structure are 'in standard'; therefore, the number of beneficiaries in subgroups (children under five, WRA, pregnant women) is unknown; population size and composition change rapidly over time with population movements. The latest total population estimate based on CHW registration is about 18% lower than the population estimate derived from CARE's emergency program. Most IDPs come from villages targeted in original proposal.
Day (LOP)	\$4069	\$4977	Cost per beneficiary at project end was based on CARE's emergency program population estimate 1201 at project start and population percentages.
Cost per beneficiary per year	\$1356	\$1244	These estimates are approximate at best. It is possible that the total number of people benefiting from some contact with the project was as much as 100% higher due to IDP turnover in the camps during the 4 years.

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	PROPOSED	ACTUAL	COMMENTS
Gogadi region	80 rural villages around 5 rural health posts in Bé Chingur, Chipeta, Catobá, Capelo, Chicala	9 IDP camps Chingur, Cambarda, Tiunba, Kuringa, Catobá, Chiunba, Guamba, Canacupa, and Chisimbó (4 added after mid-term evaluation)	Camps are more accessible than original communities, with a radius of 10 km around Kuito. 6 of the 9 camps have a health post built of mud bricks, straw roof, dirt floor. Municipal health staff and Municipal Health Delegates largely intact in camps.
Program areas	Maternal health including malaria Dartreal disease	Maternal health Malaria (child and maternal) Dartreal disease Breastfeeding (limited activities reinforced after mid-term evaluation) HIV/AIDS (limited activities added in the extension proposal)	Malaria was included only in the maternal health intervention in the original proposal, but in fact, also included in children. HIV/AIDS intervention included data collection and education for youth. Actually accomplished only the data collection.
Inputs Project staffing	1 project manager, 1 health trainer, 3 nurses, 3 supervisors, 3 extensionists	A mid-term survey proposed. After mid-term expanded to 1 project manager, 1 project officer, 1 trainer, 5 supervisors, 5 extensionists	Staff evacuated from Kuito 12/98-1/99 and 3/99. 3 nurses and 3 extensionists had to be replaced in early 1999. 2 additional supervisors and extensionists added after mid-term evaluation. All staff "técnicos de 2º or higher level."

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	PROPOSED	ACTUAL	COMMENTS
Outputs Training community level	160 CHWs - 1 male and 1 female per village, 50 TBAs (in place from HIP project), will train total of 80 TBAs Health committees (240 members, 3 from each of 80 communities) "Competency-based training with participatory assessment of observable indicators"	190 CHWs trained, 153 active (all 9 camps); male or female all are literate Of a total of 50 TBAs trained under the HIP project, 36 were located in the IDP camps and trained in a 41 workshop A total of 93 TBAs were trained, 90 are active at EOP. 9 health committees formed, 62 members received formal training, 45 are active at EOP.	MD staff participated in training sessions at all levels Health committees were composed of existing authorities New committees will have to be formed after IDPs return to their communities of origin
Training health professionals	20 MDH Promoters 10 MDH Nurses	No MDH Promoters trained 124 MDH Nurses (from 16 facilities) trained in bf, prc, diarrhoea, cd, skin disease, parasites, hygiene, malaria	MDH eliminated the position of Community Health Promoter; provided training so they could be absorbed as nurses into health post staff. MDH staff are participating in training sessions After formal nurse training CARE sponsored weekly symposia for continuing education
Infrastructure and	Transportation for	Transportation for supervision	CARE supplied essential medications and equipment to

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	PROPOSED	ACTUAL	COMMENTS
Strategies -Capacity building of counterparts	Train MDH personnel, especially MDH health Promoters, in supervision Health committee and emergency evacuation plan in each of 80 villages Extension proposal mentions management training for MDH personnel	<p>“In order this provision” carried out at 5 health posts 12/99 with MDH staff. Joint supervision of CHWs by MDH and Care staff began 1/00, though it continued from only 4 health facilities</p> <p>Joint MDH/CARE supervision of 16 health facilities through Essential Medication program Weekly MDH/CARE Meetings Health committees formed in each camp, though emergency plans not formally elaborated Management training for MDH staff not performed</p>	<p>MDH lost many provincial level staff after conflict. Many are new</p> <p>Relaga outbreak required emergency distribution of Vitamin B capsules and education</p> <p>Emergency evacuation plans not elaborated in camps due to ease of access to MSF/B hospital and other health facilities</p> <p>Time constraints made it impossible to organize and execute proposed management training for MDH personnel (extension proposal).</p>

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	PROPOSED	ACTUAL	COMMENTS
Behavior change caretakers	1 CHW per 75 families (1 male and 1 female per village) "Focus groups will address message development"	<ul style="list-style-type: none"> - There are 1 CHW per 83 families, male or female, literate, ideally >= 1 visit per week per family, - There are volunteer groups from Kuito first 2 years later, groups of CHWs formed in all 9 camps, - Educational talks by CSTEAM and CHWs - All children and WRA registered by CHWs - TBAs performing prenatal visits, postpartum visits and many more deliveries - Counseling during consults at health facilities observed during supervision by CARE's Essential Medication program 	<p>Focus groups or other formal qualitative research were not performed before designing messages.</p> <p>Home visits by CHWs are stopped for case-finding and referral. They are not structured systematically to transmit messages.</p> <p>CHWs, TBAs, health promoters do not have audio-visual and other support materials for IEC.</p> <p>Technical assistance for IEC recommended at night is not obtained by project.</p> <p>TBAs are performing prenatal and postpartum visits and are verifying proper use of drugs in a clinic. A growing percentage of deliveries are being performed by TBAs.</p> <p>CHWs fill out health education forms with the help of health committees which measure attendance and coverage.</p>

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	PROPOSED	ACTUAL	COMMENTS
Monitoring	<p>Supervision checklists, service statistics, prenatal care, deliveries, complications, severe malaria, diarrheal disease</p>	<p>-baseline KPC completed in original rural villages</p> <p>-mini-KPC applied to random cluster samples of mothers every 3 months</p> <p>-Registration and monthly tracking of CS indicators for children <5 and WRAs through CHW HS forms</p> <p>-Supervision checklists in use for health committees, CHWs and TBAs applied quarterly</p> <p>-TBA delivery forms filed quarterly</p> <p>-Health post service statistics</p> <p>-Monthly health post supervision visits (essential medications program) using MOH checklists</p> <p>-Health education forms for CHWs (total people reached) and CS team</p> <p>-Special cluster sample surveys performed early 2002 to assess TBAs and HIV/AIDS</p>	<p>-KPC completed in populations somewhat different from actual intervention population</p> <p>-Use of service statistics for monitoring is difficult or impossible due to unknown and rapidly shifting denominators</p> <p>-CHW registration and tracking system (in use) is probably the best means of monitoring</p> <p>-TBA forms very simple but working</p> <p>-Supervision checklists of committees, CHWs, and TBAs limited on measuring knowledge</p> <p>-Regular medication (chloroquine) stock outs continue to hamper usefulness of service statistics for monitoring</p> <p>-medication stock information therefore not very useful for monitoring</p> <p>-Mini-KPCs regularly tabulated since mid-term overview problems with monitoring of changing population</p> <p>-Health education forms (number of people reached by topic) are being filled out by health committees</p> <p>-ADPs were not prepared so annual targets were not fixed though given ever-changing nature of the situation these would have had little meaning anyway</p> <p>-MOH checklists for health facilities adapted by local MOH and CARE, very complete</p> <p>-Little use of hospital facility statistics due partly to incompatible indicators and poor coordination between</p>

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	PROPOSED	ACTUAL	COMMENTS
Sustainability	Behavior change is paramount. CHWs are volunteers and will continue working. Supervision of CHWs by Promoters. Community emergency planning	<p>-CHWs and health committees are volunteers. These and TBAs were provided with basic items (boots, raincoats, buckets, etc.) - sustainable?</p> <p>-TBAs are performing an increasing percentage of deliveries. Fee-for-service system not altered</p> <p>-Health facility nurses supervise some CHWs with CARE staff (4 health posts only).</p> <p>-DPS will coordinate with DMs staff who will assume responsibility for CHW and TBA supervision</p>	<p>-Successful referral of complicated deliveries and seriously ill women and children will depend on maintenance of hospital services currently provided by MSF/Bafler emergency.</p> <p>-Bé province has begun receiving essential medications through national MD program</p> <p>-Health committees will have to be established and emergency evacuation planning will have to be done in each community once families return to their original villages. Who will be responsible?</p> <p>-After return to villages, distance to health facilities will increase. Will access and utilization continue as in the camps?</p> <p>-CARECS team plans to coordinate with DPS to facilitate transfer of supervisory responsibility of CHWs and TBAs from CARE to respective DMs as IDRs return to villages.</p>

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	PROPOSED	ACTUAL	COMMENTS
Sharing best practices	No specific plan stated in proposal.	<ul style="list-style-type: none"> - CHWs work with HH activities (radio project, Africare) - MDH staff are participating in supervision with health lists especially with respect to health facilities - MDH staff participate in all training activities - Informal collaboration between agencies - Sharing of information from DSHS 	<p>There are few local organizations (CVA is operating in health post) working in health in the intervention areas</p> <p>- Periodic CS meetings between CRS, CCF, Africare, and Care occurred during the first half of the project, but fell off later. Planned site visit for interchange between CS staff from CRS and CARE (see next item evaluation) did not occur.</p> <p>- CS team has plans to seek feedback of project results to local authorities, NGOs, and communities during final months of implementation</p>

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	PROPOSED	ACTUAL	COMMENTS
Strategies with other programs and activities	Not specified in proposal.	<ul style="list-style-type: none"> -Feeding centers (Africare, MSF/Religum, Green Wildlife, CARE); -MSF/BH hospital; -CARE essential drug program; -CARE HIV project; -CARE agriculture project improves food security -Oxfam & JIRC water/sanitation projects -Africare CS project (immunization and Vitamin A) -Demining (CARE/CAMRI project) clears up prewar areas for settlement; guarantees access -Polio eradication project -Ghas (see text) 	<ul style="list-style-type: none"> -CHWs help with HH activities carried out by Africare and the polio eradication project as well as MCH -CARE also provides transportation, mobilization and logistics for immunization campaigns -CARE HIV project was responsible for training provincial and municipal personnel in management. CSUN able to take advantage of HIV infrastructure rehabilitation due to change of geographic location of project. The (working) HS was the result of HIV project. Essential equipment is being provided by CARE's essential medication project. -Oxfam and JIRC installation of wells, protected water sources and latrines facilitates diarrhea prevention

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SUMMARY OF INTERVENTIONS, KEY INDICATORS, AND OTHER RELEVANCE OF IMPACT

Objective and/or indicator, target if available	Early data	Late data	Comments
Safe Motherhood Estimated IOE: 65% Project indicators in proposal			
-80% of women in villages where CARE works will report breast-feeding their last born baby within the first hour of delivery	Baseline survey 11/98: 62% CHW registration 01/00: 98% Missurvey 6/00: 79%	Final survey: 77% CHW registration 02/02: 97% Missurvey 12/01: 87%	
-60% of pregnant women in project villages will take iron and folic acid according to MCH protocol following their initiation of prenatal care	Baseline survey 11/98: 12% had a prenatal care card for last pregnancy (18% said they had lost the card) 50% of those with a card said they had taken iron during last pregnancy Doseage of iron not asked CHW registrations 01/00: 70% of pregnant women	Final survey: 60% report having gone for prenatal care during last pregnancy (75% of those with child <2y) 21% had a prenatal care card for last pregnancy (32% said they had lost the card) 70% of those with a card said they had taken iron during last pregnancy (83% of those with child <2y) 70% of those could state that they received a card took 30 pills CHW registrations 01/02:	Stock outs of iron for prenatal care were reported by a in health posts at final evaluation

