



THIRD ANNUAL/MIDTERM EVALUATION REPORT

The Salvation Army/Zambia Chikankata Child Survival Project

THE SALVATION ARMY WORLD SERVICE OFFICE

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B. Acronyms

CCSP	Chikankata Child Survival Project
CDK	Clean delivery Kit
CHW	Community Health Worker
CHS	Chikankata Health Services
CPT	Care and Prevention Teams
DHMT	District Health Management Team
DIP	Detailed Implementation Plan
GMP	Growth Monitoring and Promotion
Hib	Haemophilus Influenza Type b (vaccine)
ITN	Insecticide Treated Net
IMCI	Integrated Management of Childhood Illness
KPC	Knowledge Practice and Coverage
MOH	Ministry of Health
MTE	Mid Term Evaluation
M&E	Monitoring and Evaluation
NHC	Neighborhood Health Committee
PD	Positive Deviance
RAPIDS	Reaching Affected People with Integrated Development and Support
RDT	Rapid Diagnostic Test
RHC	Rural Health Center
SAWSO	Salvation Army World Service Office
TTBA	Trained Traditional Birth Attendants
USAID	United States Agency for International Development
ZIMMAPS	Zambia Integrated Management of Malaria and Pneumonia Study

C. Executive Summary

The Chikankata Child Survival Project (CCSP) is implemented jointly by The Salvation Army (TSA) World Service Office (SAWSO) and TSA Chikankata Health Services (CHS). It is a five-year project that aims to reduce maternal and under-five child mortality in the Mazabuka and Siavonga Districts of Zambia's Southern Province. Mazabuka and Siavonga Districts are rural areas, characterized by inadequate infrastructure and extreme poverty, with significantly high levels of maternal and child mortality. The goal of the project is to reduce maternal and under-five mortality among 53,521 direct beneficiaries (6,319 under 12 months; 20,861 children 12-59 months; and 26,341 women of reproductive age). The project was launched on October 1, 2005, and will end on September 30, 2010.

CCSP collaborates with the Zambian Ministry of Health (MOH) by serving all rural health centers and health posts within the Mazabuka and Siavonga Districts and coordinates its work with the maternal and child health advocates at the national level.

The project has four intervention areas: 1) malaria prevention and treatment, 2) immunization coverage for children, 3) childhood and pregnant women's nutrition, and 4) maternal and newborn health.

The main accomplishments of the project are as follows.

- 85% of mothers interviewed in the Mid Term Evaluation (MTE) identified fever as a sign of malaria and 91% of these women stated that they would seek care for an episode of child fever that same day. This is a substantial increase from the baseline, where 11% stated they would seek care within 24 hours.
- 86% of mothers of children under five years reported that their children slept under an ITN. This is an increase from 22% at the baseline.
- 90% of the mother of children under five reported that they had their child's growth monitoring card on hand, and over 80% of the cards were up to date in recording immunizations, growth monitoring attendance and weight measurement.
- 98% of the pregnant women had their antenatal cards in their possession and 100% of them had at least one prenatal visit recorded on the card.
- 58% of homebirths in the month of May were done by Trained Traditional Birth Attendants (TTBA). This is an increase from 13% at the baseline.
- 81% of pregnant women ate iron-rich food the day before the evaluation.
- All of the 28 CPTs that were interviewed were active in problem-solving.
- The CCSP team used data from the field reports to review and make monthly plans.

Comment [a1]: Would this be more categorized as 'methodology' than 'accomplishments'?

Overall the project made good progress in each of its intervention areas. At the MTE, it surpassed the end of project (EOP) targets for the proportion of children 0-23 months who sleep under an ITN and pregnant women who sleep under an ITN, the proportion of children 12-23 months who are fully vaccinated, and the percent of mothers of children 0-23 whose birth was attended by trained personnel and who had at least one post-partum check-up. In each of these indicators the MTE percentages have increased significantly and in some cases even doubled.

Following is a summary of the main constraints, problems, and areas that need further attention.

- The distribution of long-lasting ITNs is insufficient in the project area, and record keeping of coverage is mostly non-existent at the Rural Health Centers RHCs.
- The availability of Clean Delivery Kits (CDK) is insufficient. Only 35% of the pregnant women had a Clean Delivery Kit (CDK) at home. Price was a factor in limiting access to CDKs.

- 31% of the TTBAAs did not know the sequence of postnatal checkups for mothers and newborns. All TTBAAs should know the sequence by the end of the project.
- Only 44% of the Care Group Volunteers stated that they visited all of their households in the month of July. The foundation of the Care Group model is that each household is visited once a month, thus it is crucial that this percentage be increased substantially.
- The evaluation team found that there was almost no relationship between the Care Groups and the CPTs. An organizational relationship is essential for the sustainability of the Care Groups.

Main Conclusions

- CCSP is on track in implementing the interventions in the DIP.
- CCSP should be commended for contributing to an increase in childhood immunization coverage from 33% to 84%.
- The Care Group Volunteers, TTBAAs and the CPT/NHCs are effectively mobilizing the community for immunizations, growth monitoring and ITN distribution.
- CCSP made good progress in educating women about the benefits of immunizations, the use of ITNs, consumption of iron-rich foods for pregnant women and the importance of delivering babies with trained personnel.
- CCSP is a well-managed project that has a good system for data management and is using data for planning.

Key Recommendations

- CCSP managers, the DHMT and the USAID/Zambia Mission should collaborate to identify the bottlenecks in the distribution of long-lasting ITNs.
- CHWs at each RHC should set a goal of 90% of underweight children recuperating a normal weight by one month's time.
- CCSP staff should investigate the barriers to the availability of CDKs for pregnant women.
- CCSP staff should conduct a doer, non-doer assessment of the reasons why some women still chose to deliver without trained assistance.
- TTBAAs should be trained as soon as possible after the MTE on postnatal care. After the MTE, the TTBAAs should be trained on post natal care. They should all include support of postnatal care as part of their responsibilities as TTBAAs.
- The Field Facilitators should work with their Care Groups to set goals for membership, attendance and home visitation, and then facilitate a process where the groups make their own plans for meeting the goals. For sustainability It is critical that the members take ownership of their group.
- CCSP staff should be involved in building linkages between CPTs and the Care Groups in their area. Each of these entities should get to the point where they are mutually supportive, independent of CCSP staff. This is critical for sustainability.

Comment [a2]: Of the 25 recommendations in the MTE, why are these considered 'key'?

D. Assessment of Results and Impact of the Project

1. Results: Technical Approach

The Chikankata Child Survival Project (CCSP) is implemented jointly by The Salvation Army (TSA) World Service Office (SAWSO) and TSA Chikankata Health Services (CHS). It is a five-year project that aims to reduce maternal and under-five child mortality in the Mazabuka and Siavonga Districts of Zambia's Southern Province. Mazabuka and Siavonga Districts are rural areas, characterized by inadequate infrastructure and extreme poverty, with unacceptably high levels of maternal and child mortality. The goal of the project is to reduce maternal and under-five mortality among 53,521 direct beneficiaries (6,319 under 12 months; 20,861 children 12-59 months; and 26,341 women of reproductive age). The project was launched on October 1, 2005, and will end on September 30, 2010.

CCSP has four intervention areas: malaria (40%), immunization (10%), for children and pregnant women nutrition (30%), and maternal and newborn care (20%).

CCSP collaborates with the Zambian Ministry of Health (MOH) by serving all rural health centers and health posts within the Mazabuka and Siavonga Districts and coordinates its work with the maternal and child health advocates at the national level.

The overall strategy is based on the Care Group Model. In this model every household with women of reproductive age is cared for and visited every month by community health volunteers, called Care Group Volunteers. Each Care Group Volunteer is assigned ten households within walking distance. The Care Group Volunteers are organized into care groups of ten members. The Care Groups meet twice a month for training, reporting, and discussion of their home visits. The Care Groups are trained and supervised by Field Facilitators, who visit each group twice a month. Each Field Facilitator should have eight to twelve care groups under their supervision. The Field Facilitators in turn are supervised by Field Supervisors. Each Supervisor works with four or five Field Facilitators.

Comment [a3]: Could we insert an organogram here of the Care Group Model?

Table 1: Summary M&E table

Objectives	Indicators	Baseline	Midterm Estimate		EOP Target	Explanation
			Care Group Data-June	MTE Estimate		
Increase to 60% the proportion of children 0-59 months who sleep under ITNs every night	% of children 0-23 months who slept under an ITN the night before	21.8%	86%	86%	60%	Surpassed Target
Increase to 60% the proportion of pregnant women who sleep under ITNs every night	% of pregnant women who slept under an ITN the night before	Not established	81%	84%	60%	Surpassed Target
Increase to 70% the proportion of children 12-23 months who are fully vaccinated by the first birthday	% of children 12-23 months who are fully vaccinated by the first birthday (BCG, DPT3, OPV3, and measles)	32.5%	84%	NA	70%	Surpassed Target
Increase to 50% the proportion of children 12-59 months who eat semi-solid food at least four times each day	% of children 12-23 months who ate semi-solid food at least four times in the past 24 hours	21.1%	NA	58%	50%	Food security is a problem

Increase to 90% the proportion of children 0-59 months who are weighed at least bimonthly	% of children 0-23 months who were weighed at least once in the past two months	69.4%	89%	NA	90%	Care Group Volunteers mobilize mothers
Increase the proportion of births attended by a skilled provider to 55%	% of mothers of children 0-23 months whose last birth was attended by a health professional	44.2%	43%	NA	55%	Challenge is many villages are far away from RHC
Increase the proportion of home births attended by a TTBA to 30%	% of mothers of children 0-23 months who did not give birth in a health facility whose birth was attended by a TTBA	13.4%	58%	NA	30%	Surpassed Target
Increase to 70% the proportion of home births that use a clean birth kit	% of home deliveries in which a clean birth kit was used	55.8%	47%	NA	70%	Misconception on availability and price
Increase to 50% the proportion of mothers who receive a postpartum check-up by a health professional or TTBA	% of mothers of children 0-23 months who had at least one postpartum check-up after the birth of her last child	18.7%	79%	NA	50%	Surpassed Target

Comment [a4]: The monthly tracking Care Group Data says 27 %???

Comment [a5]: The June Care Group Data said 22%???

Table 2: DIP work plan status of key activities

Objectives/Key Activities	Objectives Met	Activity Status
Malaria control		
Set-up systems at community level for ITN distribution	Partially: high level of acceptance by mothers and pregnant women	Barrier is that the district/regional ITN distribution system is not working
Train Care Group Volunteers in health communication messages regarding ITN use	Completed	Staff will conduct a refresher training, and include pictorial communication materials
Train and involve CPTs in distributing ITNs	Completed	Readily became involved
Immunization		
Qualitative research on immunization	Completed	MTE found that barriers have been reduced
Coordinate activity plans with rural health centers to support outreach services	Completed	Immunization coverage has surpassed EOP target
Nutrition		
Train Care Group Volunteers in health communication messages	In progress	MTE found that mothers understood the value of frequent feeding of children under five
Coordinate with rural health centers to conduct monthly growth monitoring	In progress	Need better tracking and follow up of underweight infants
Assist RHC and DHMT in improving their reporting systems regarding medicines and supplies	Training completed	Food supplements are not consistently available at the RHC and drug supply is inconsistent.
Health communication for pregnant women on iron rich foods	In progress	MTE found that women knew food sources that are rich in iron. Communication materials need to focus more on vegetables since fish and meat are too expensive and rarely consumed.
Maternal and Newborn Care		
Train Care Group Volunteers in health communication messages	Completed	Care Group Volunteers need to be trained
Train new TTBAAs and refresher training for TTBAAs.	Completed	Need to strengthen training and follow up systems for postnatal care
Train new CHWs and refresher training for existing CHWs.	Completed	Need to strengthen training and follow up systems for postnatal care
Coordinate with DHMT to ensure an adequate supply of clean delivery kits (CDK).	In progress	Insufficient supply especially at the MTE

Following is the progress report by intervention area.

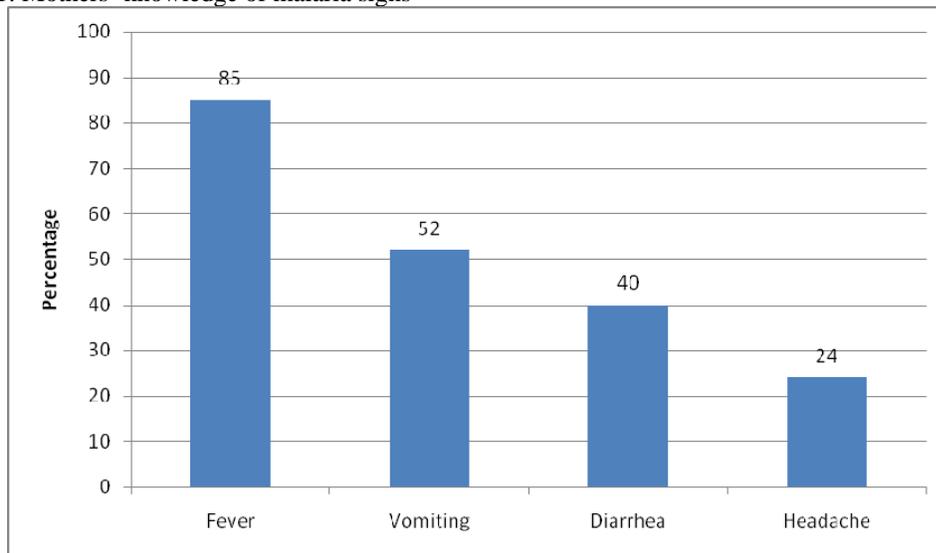
Malaria (40% of effort)

The DIP focuses on increased insecticide-treated net use among pregnant women and children under five, increased appropriate care-seeking by mothers after recognition of danger signs, and continued high coverage of intermittent preventive treatment in pregnant women. The strategy was to train Care Group Volunteers and TTBA's to communicate with mothers and pregnant women about ITN use, and coordinate with the CPTs in organizing distribution of ITNs. Additionally the project staff members were to assist the RHCs and the DHMT in documenting the need and record keeping system for tracking distribution.

An important point of reference for assessing the malaria intervention was the min-KPC conducted by the project in February 2007. Data from that study showed that 66% of children 0-23 months slept under an ITN; 81% of the ITNs had been retreated; and 94% of mothers stated that they received malaria prophylaxis during their pregnancy. All of these percentages already surpassed the EOP goals for these indicators.

The evaluation team interviewed 108 mothers of children under five, 62 pregnant women, 26 TTBA's, 20 CHWs, 80 Care Group Volunteers, and 10 RHCs regarding malaria control. Mothers were asked about signs of an ill child that required care-seeking behavior. In particular, they were asked to state the signs of malaria. Chart 1 presents their responses.

Chart 1: Mothers' knowledge of malaria signs



The fact that 85% identified fever as a sign is significant because in the baseline KPC the percentage was less than 30%. It is a good indicator that the Care Group Volunteers and CHWs are communicating effectively with the mothers. CHWs were trained in counseling skills and this finding indicates that they

have been able to apply these skills. It will be important to continue teaching mothers so that they understand the full range of signs.

Mothers were asked about care-seeking behavior when a child has a fever. Table 3 has their responses.

Table 3: Mothers' care-seeking behavior with episodes of child fever

Time period	Percent Response
Immediately/ this day	91
After one day	7
After two days	2

Ninety one percent (91%) said they would seek care the same day. This is another very positive finding, especially in relation to the baseline which was 11% for care-seeking within 24 hours. Even though the survey populations differ, the MTE findings indicate the importance of mothers understanding of immediate care. This finding is

supported by data from the Care Group volunteer reports that identified only three deaths due to malaria in May and June.

Data from the June 2008 Care Group report showed that 86% of children under five slept under an ITN and the May report showed a similarly high percentage. At the mid-term the project has already surpassed the EOP target of 60%. Additionally, it is a substantial increase from the baseline of 22%. This is an indicator of the effectiveness of both the Care Group Volunteers and CHWs in communicating the value of ITNs and the effect of the CHWs' training in counseling skills.

Retreatment is an intervention that will need continued monitoring. Because of the distribution of long-lasting ITNs, USAID has approved the elimination of this variable as a measurable indicator. Although the MOH will offer free retreatment twice a year until 2010, there is the likelihood that mothers will be uncertain about which ITNs need retreatment. It will be important that the Care Group Volunteers, CHWs and the HFs communicate clearly about whose bed nets need to be retreated.

The evaluation team asked pregnant women if they had slept under an ITN the previous night, and about retreatment of their nets.

Table 4: ITN use among pregnant women

Variable	Percent Response
Households with an ITN	72
Households with ITN 6 months or more	84
Retreatment of ITNs 6 months old or more	44
Households with a long-lasting ITN	6

The findings in Table 4 indicate a relatively high level of usage, but retreatment is a problem. The MOH has adopted a policy of only distributing long-lasting ITNs, and is only offering retreatment until 2010. As evidenced in the table above, long-lasting nets have not reached some areas, thus

retreatment is an intervention that needs to continue.

The evaluation team inquired into the supply of ITNs in the RHCs and district hospitals. All ten of the RHCs visited by the evaluation team stated that they had received long-lasting ITNs, but only three stated that they had enough to meet the demand. In a follow-up question the interviewer asked to see the records of ITN coverage in their catchment area. Only one RHC had any records whatsoever, and these

records indicated that 29% of the households in that catchment area did not yet have ITNs. These findings show that there is both a problem in distribution of ITNs and records of coverage.

The evaluation team interviewed the Resident Advisor of the President's Malaria Initiative who stated that the supply of long-lasting ITNs in Zambia was plentiful. He was concerned about the distribution problem in the CCSP catchment area. As a result of the interview it was decided that the CCSP managers should work with the RHC to update RHC records, obtain an accurate figure of the need, and share the findings with the Resident Advisor. He and the USAID mission's Senior Health Advisor would work with CCSP to address the distribution bottlenecks.

Summary of Findings and Recommendations on Malaria Control

- 85% of mothers of children under five stated that fever was a sign of malaria. This is a substantial increase from the baseline which was less than 30%
- 91% of mothers stated that they would seek care for an episode of childhood malaria within the same day. This is an increase from 11% at the baseline.
- 86% of children under five slept under an ITN as of the June 2008 Care Group report. It represents an increase of 64 percentage points from the baseline and at the midterm the project has already surpassed the EOP target of 60%.
- 72% of pregnant women stated that they slept under an ITN on the previous night.
- The availability of long-lasting ITNs is insufficient, and record keeping of coverage is mostly non-existent at the RHCs.

Recommendation: The project team should conduct refresher training with the Care Group Volunteers to help mothers understand IMCI danger signs, including those of malaria, and reinforce the importance of ITNs. The staff should make pictorial health communication materials to communicate these messages since the literacy rate is low.

Recommendation: The project team should work with the RHC to create a record keeping system of the household coverage of ITNs. Upon obtaining documentation of the need, the project managers should share the findings with the DHMT and the USAID mission. They should collaborate with both entities in solving the distribution problems.

For Children and Pregnant Women Nutrition (30% of effort)

In the DIP the nutrition interventions for this project were to improve child feeding practices, improve detection of malnutrition, improve community treatment of malnutrition, increase exclusive breastfeeding (EBF) up to six months of age and increase coverage of micronutrient supplementation (Vitamin A, iron and folic acid). The strategy was to train the Care Group volunteers to communicate the nutrition messages to mothers during their monthly home visits; train TTBA's to communicate to pregnant women about the value of micronutrients; and to support the monthly growth monitoring sessions in the community. Additionally in the second year the project was to begin the implementation of pilot sites for the PD Hearth Program, which trains mothers how to use locally available foods for feeding malnourished children.

The MTE team interviewed mothers, pregnant women, CHWs, and Care Group Volunteers in order to assess progress in these interventions. One of the problems at the beginning of the project was the lack of growth monitoring cards. During MTE interviews, each mother of children under five was first asked permission to see the growth monitoring card of their child. The finding was that 90% of the mothers had their card on hand. In actuality, the percentage was probably higher because some mothers

in urban areas were interviewed away from their homes and these mothers stated that the card was at home. In one RHC catchment area, mothers did not have their cards because the CHW kept them. This was not the policy of the MOH or CCSP, and the project team should follow up with the CHW to let the mothers have possession of the cards.

Upon review of the growth monitoring cards the interviewers reviewed the documentation on the cards. The following table presents the results

Table 5: Documentation on the growth monitoring cards

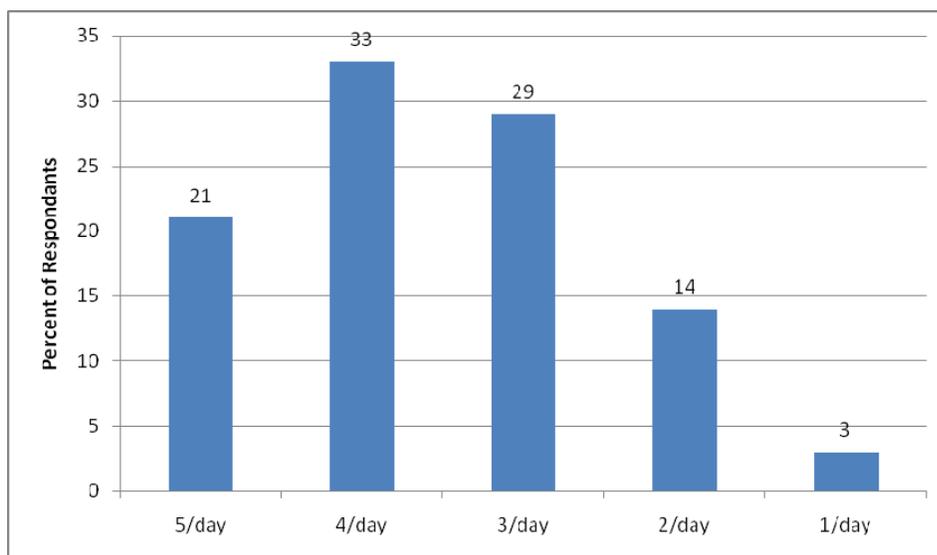
Variable	Percent Completion
Immunizations up to date	88%
Weight measurement recorded	81%
Growth Monitoring attendance recorded	81%

Data collected indicate that growth monitoring cards are being used appropriately. Mothers understood the importance of keeping records up to date. Another significant finding was that, despite high levels of illiteracy, mothers could point to the area where immunizations were

recorded and they knew the significance of a child’s weight recorded below the underweight line on the graph.

Another area that was investigated was feeding practices. The evaluation team asked mothers about the frequency of feeding their children under five and barriers to frequent feeding.

Chart 2: Frequency of feeding children under five.



The recommended frequency is four times or more, and over half of the mothers did so. When combining the first three columns in Chart 2 83% of mothers fed their children three or more times on the previous day. These data show that the project is making good progress communicating to mothers the importance of frequent feeding.

The agricultural season at the time of the MTE was soon after harvest time, so the lack of food should not have been acute. In the interviews mothers were asked for the reasons why some households fed their children less than four times a day. The findings are listed in the following table.

Table 6: Reasons mothers gave for feeding children less than four times a day

Reason	Percent of Respondents
Lack of food	38%
Loss of appetite	20%
Ignorance	15%

The most frequently mentioned reason was a lack of food, followed by loss of appetite. During the data analysis, the evaluation team expressed concern for the 17% of mothers who fed their children two times or less, in light of the fact that it was after the harvest. While for some people the lack of food may be a factor, the Field Facilitators and Field Supervisors stated that in some cases it was a matter of mothers not having a full appreciation of available foods. Thus, the team recommended that the cooking demonstration technique used in the PD Hearth Program be implemented for all women. The response of the mothers in the Hearth pilot sites to the cooking demonstrations was so positive the team felt that all mothers could benefit. Certainly live demonstrations are a more effective technique than verbal explanations to show mothers the importance of utilizing the available foods. It is a labor intensive intervention however. An alternative that the CCSP team should consider is training the Care Group Volunteers the positive outcome that developed out of the Hearth Program. ,

It will be important that the project team not lose site of the focus of Hearth on malnourished children. In Annex 3.f, Information Management, there is a recommendation that CCSP establish a goal of 90% of underweight children regaining normal weight after one month. The Hearth program will need to be carefully implemented in order to serve these children and reach this goal.

In regards to the original plan for Hearth, CCSP implemented this program for malnourished children in the pilot sites. Attendance of the target population has been nearly 100%. The feedback from the mothers was very positive. They thoroughly enjoyed the experience of preparing food together; it was a social and learning experience. Full implementation of Hearth is on schedule to be done in the third year of the grant and should be fully implemented in the villages that have greater than 30% malnutrition.

Monthly growth monitoring is the strategy for identifying and monitoring underweight children. These sessions are conducted by the CHWs with logistical support from the Field Facilitators. As shown in Table 5 above, 81% of the mothers interviewed by the MTE team had evidence of attending the monitoring sessions on their growth monitoring cards. As a method of comparison the MTE team asked the CHWs about their participation in growth monitoring. Each CHW has a schedule of growth monitoring sessions that they should implement each month. Twenty six CHWs were asked to share their records for the growth monitoring sessions that they implemented for May, June and July. The purpose was to see if they implemented all their scheduled growth monitoring sessions. Table 7 presents the results.

Table 7: Percent of CHW who conducted scheduled growth monitoring sessions in the last 3 months

Month	Percent of CHW Attendance
May	90%
June	100%
July	95%

The percentage of completion is high, but it should be 100%. Lack of transportation should not be a factor because the Field Supervisors will transport the CHWs who need assistance. Additionally these three months are during the dry season, so rain was not an impediment.

A follow up task of the interviewers was to ask to see the CHWs records of underweight children. Only 60% of them had up to date records. Those who did have records did not have a way to track children who had been underweight for two or more consecutive months.

The MTE team recommended that the Field Facilitators assist the CHWs with having up to date records and emphasize to the CHWs the importance of consistently conducting these sessions every month. As part of the record keeping system there should be a way to track underweight children over consecutive months. Furthermore, the team recommends that the CHWs at each RHC set a goal of 90% of underweight children recuperating a normal weight by one month's time.

The above goal provides an opportunity for CCSP staff to assess the CHWs' counseling skills. During the MTE staff members commented that they have not recently used check lists to assess the quality of the CHWs' counseling. The project should use this opportunity to assess their skills and conduct continuing education as needed.

Summary of Findings and Recommendations

- 90% of the mothers had their child's growth monitoring card on hand, and over 80% of the cards were up to date in recording immunizations, growth monitoring attendance and weight measurement. 54% of the mothers stated that they fed their child four or more times in the previous day. 83% of the mother fed their child at least three or more times in the previous day. It is a positive sign children are eating on a regular basis, given the overall level of poverty and the relatively low quality of agricultural production.
- The PD Hearth program is being implemented on schedule. Attendance of the target population has been nearly 100%, and the food preparation activities were very well received.

Recommendation: The CCSP team may want to consider implementing cooking demonstrations using locally available foods in villages where food is scarce. In other communities the team should train the Care Group Volunteers in messages that were developed in the Hearth program. In villages where the CCSP team seems it is important to conduct cooking demonstrations, they should train selected Care Group Volunteers in how to conduct the demonstrations.

Recommendation: Field Facilitators should assist the CHWs to organize their record keeping so that growth monitoring data are up to date. Furthermore, they should establish a way to monitor underweight children over consecutive months. Each CHW and RCH should have a goal of 90% of underweight children recuperating a normal weight by one month's time.

Maternal and Newborn Care (20% of effort)

The plan in the DIP was to increase deliveries by trained providers, improve birth preparedness, and improve home practices related to pregnancy and birth; improve quality of maternal and newborn care in health facilities; and increase coverage of postpartum care. One strategy was to train traditional birth

attendants (TTBA) and CHWs and assist them in establishing referral and monitoring systems. The Care Group Volunteers were trained in promoting prenatal care and in surveillance of pregnant women in their catchment areas. Additionally CCSP was to collaborate with the DHMT in monitoring child and maternal deaths and implementing initiatives to reduce the causes of these deaths. Finally a referral system was to have been established for transporting complicated deliveries to the referral hospitals.

The evaluation team interviewed pregnant women, TTBA, Care Group Volunteers, and CHWs in order to assess progress in this intervention. They also inspected referral records at the RHCs.

There was a substantial lack of antenatal care (ANC) cards in the beginning of the project. Additionally pregnant women did not have the habit of having the cards in their possession. The evaluation team interviewed 62 pregnant women from 48 villages, asking women for permission to see their ANC cards. Ninety eight percent (98%) of them had the cards in their possession. One hundred percent (100%) of them had at least one prenatal visit recorded on their card. The interviewer then identified those who were in their second or third trimester and check to see if the women had received the recommended dosages of medicines, vitamins and vaccines. Fifty eight of the 62 pregnant women were in this category.

Table 8: Percent of pregnant women with recommended medicines, vitamins and vaccinations

Interventions	Percent Documented
Iron tablets	77%
Fansidar	68%
Folic acid	68%
Tetanus toxoid vacc.	58%
De-worming medicine	50%
Completed dosages	19%

The data in Table 8 on left indicate that progress is being made in that iron tablets, fansidar and folic acid were each distributed to two-thirds or more of the women. The distribution was not consistent, however. Only 19% of the cards showed that the card owner received dosages of all the interventions. According to the DHMT team there should not be a lack of any of these provisions.

The evaluation team assessed the quality of the recording keeping at the RHC and found that there were problems in both distribution of supplies to the center and in the record keeping system that documented what services were delivered. Only one out of 10 centers had an adequate record system. Distribution of supplies to the RHC was erratic. Every month there would be multiple items that were not shipped to the centers. Given the conditions in the two health districts there are bound to be difficulties. Nevertheless, the evaluation team recommended that CCSP assist the RHCs to strengthen their record keeping system and train CHWs in record keeping skills. With accurate and up to date data, they will be able to engage more effectively the DHMT in solving distribution problems.

Pregnant women should have clean delivery kits (CDK) at home. The evaluation team found that 35% of them stated that they had one. As a follow up question, the interviewer asked those who had a kit, how much they paid for it. The price should be K3,000 or less. Half of them paid more than K3,000, with the highest cost being K10,000. This finding confirms anecdotal evidence from the Field Facilitators that some women are being over-charged for the kits.

TTBAs were asked about the availability of CDK. When asked if the pregnant women under their care had these kits, only 23% said yes. This finding supports the women’s statements about the lack of CDKs.

The lack of CDKs was affected by two factors. One was the distribution problems in the health districts that affected delivery of all supplies. The other problem was a manipulation of the pricing of the CDKs. The distribution problems have been discussed earlier in this report. Regarding pricing of the CDKs, the evaluation team had three recommendations. First, train TTBA's and Care Group Volunteers in communicating about the function and price of CDKs. Both the TTBA's and the Care Group Volunteers have a good track record of monitoring pregnancies, so they are key communication channels. Second, work with the CHWs at the RHCs in communicating messages about the price of CDKs. This can be done through posters, and discussing with pregnant women who come for ANC's visit the function and price of CDKs. Third CCSP should report this problem to the DHMT and engage them in ensuring that prices are not manipulated, and in increasing the supply. This is a critical issue for women's safety.

Another component in ANC is the support that pregnant women received in the community. When asked if they knew of a TTBA who could assist them, 82% stated that a TTBA was available. Additionally 58% stated that a Care Giver had visited them in July. , when asked if a Care Giver had ever visited them, 82% stated that one had done so. The findings from the MTE indicated that progress was being made in the support from TTBA's and Care Group Volunteers.

In order to gain another perspective on ANC, TTBA's were asked about the place where deliveries took place in the month of July. The 26 TTBA's who were interviewed stated that 73 women delivered in the month of July. As to the location, 84% were done at home and 16% at the RHC or hospital. The MOH policy is that deliveries should occur at a health care facility. This policy will not become a reality in these two districts in the immediate future. The communities are spread out over a wide area, making it to far to walk. The distance also adds to the stress in arranging for food and personal care at the facility. Another factor is that they are not comfortable in the facility; home is much more comfortable and culturally appropriate.

The evaluation team inquired into the issue of whether mothers are being assisted by trained personnel. The next graph has the findings.

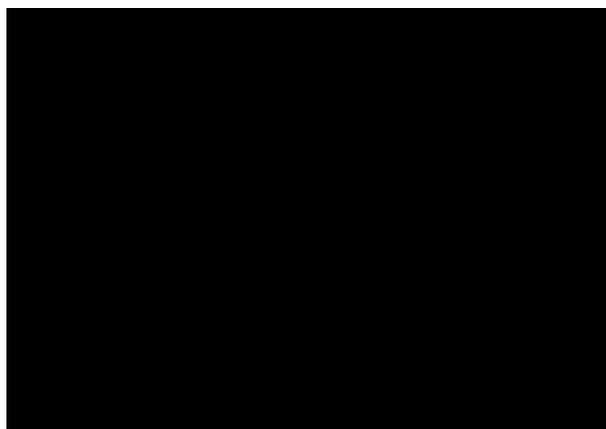


Chart 3: Assistance during deliveries
The fact that 68% of deliveries were done by trained personnel is a good indication of the progress that is being made. On the other hand the 32% who delivered at home without a TTBA indicates that work still needs to be done on communicating to mothers the importance of being assisted by a trained person. The project staff should conduct a doer, non-doer assessment of the reasons why some women still choose to deliver without trained assistance. The findings should then be used to create a strategy that communicates the importance of having trained assistants.

In regards to postnatal care the evaluation interviewers asked the TTBA's to state the sequence for postnatal checkups. The recommendation is that mother and newborn receive a checkup at six hours, six days and six weeks.

Table 9: TTBA's knowledge of sequence of postnatal checkups

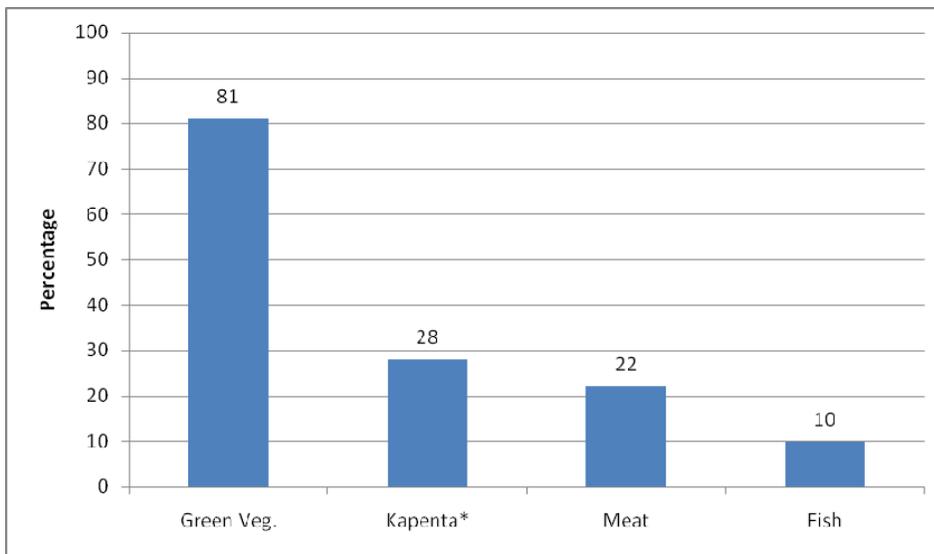
Level of Knowledge	Percent of Respondents
Knew all three intervals	65%
Knew two of three	4%
Did not know any of the three	31%

The finding that generated concern was that 31% of the TTBA's did not know any of the intervals for postnatal checkups. TTBA's are a critical resource for communicating with and encouraging mothers and newborn examinations. One of the first things that CCSP should do following the MTE is train the TTBA's in postnatal care.

Additionally, Care Group Volunteers should also know the sequence of postnatal care and participate in the follow up of mothers with newborns. Care Group Volunteers should be asked to make it a priority to visit mothers with newborns and encourage them to go for postnatal care.

The evaluation team inquired of pregnant women's practices and knowledge related to their pregnancy. In reference to nutrition practices, the women were asked if they had eaten iron-rich foods in the previous day. Nearly all, 97%, stated that they had done so. They were also asked the kind of food they had eaten. The following chart presents the findings. Some of the women identified more than one food.

Chart 4: Percent of Pregnant women who ate an iron-rich food in the previous day



*Kapenta is a sardine-like fish from Karibu Lake

It is a positive sign that nearly all of the pregnant women knew of the importance of iron-rich foods and that 81% ate a green leafy vegetable on the previous day. In regards to the percent that ate meat or fish, the CCSP team stated that these foods are too expensive for most of the population, so it is not realistic to expect that these percentages will increase. A relevant recommendation in the section on Communication for Behavior Change that is that the Care Group Volunteers have communication tools that are based on pictures. Given that the most readily available iron-rich foods are green leafy vegetables, the educational materials should have pictures of *all* the vegetables that are available in the region.

One issue that needs to be clarified in regards to nutrition is the misunderstanding that nshima is an iron-rich food. When asked to identify iron-rich foods, 60% of the pregnant women included nshima as an iron-rich food they consumed on the previous day. Nshima is made with sorghum or maize, which is not rich in iron. This misunderstanding should be addressed in the educational materials that picture iron-rich vegetables.

The evaluation team investigated pregnant women’s knowledge of the danger signs that can arise during pregnancy. Their responses are recorded in the following table.

Table 10: Pregnant women’s knowledge of the dangers signs that can arise during pregnancy

Sign	Percent Response
Bleeding	65%
Swollen feet	45%
Convulsions	23%
Malpresentation	12%

The sign that was most frequently mentioned was bleeding. More than 65% however, should know this sign. Additionally, only 47% of them identified more than one sign. The project staff should do refresher training on the danger signs with the TTBA’s and Care Group Volunteers, and they should have pictorially based educational materials showing the signs.

Summary of findings and recommendations

- Nearly all (98%) of the pregnant women had possession of their ANC cards.
- 100% of the women had at least one ANC visit recorded on their cards. This is a significant indicator that prenatal care is now being done. While not all services are being implemented, the foundational step of seeking care is occurring.
- 82% of pregnant women stated that a TTBA was available to help them. Additionally 82% stated that they had been visited at least once by a Care Group Volunteer. These findings indicate that pregnant women have support in the community.
- 31% of the TTBA’s did not know the sequence of postnatal checkups for mothers and newborns.
- Nearly all of the pregnant women stated that they knew what iron-rich foods were. Additionally 81% stated that they had eaten a green leafy vegetable on the previous day. CCSP has made important progress in nutrition education.
- 84% of deliveries in July were done at home. Even though the MOH recommendation is that deliveries be done at a health care facility, it is much easier for women in this area to do so at home.

Recommendation: A much higher percentage of pregnant women should have CDKs at an affordable price. CCSP staff should train TTBA’s and Care Group Volunteers in the function and price of CDKs and how to communicate this to the pregnant women. Additionally the staff should work with the CHWs to create messages and communication tools on these topics.

Recommendation: CCSP managers should discuss the lack of CDKs with the DHMT and engage them in solving the pricing problem.

Recommendation: CCSP staff should conduct refresher training for Care Group Volunteers on ANC. They should be encouraged to visit pregnant women once a month during pregnancy, and discuss the danger signs in pregnancy, and they should know the schedule for postnatal checkups.

Recommendation: TTBAAs should be trained as soon as possible after the MTE on postnatal care. They should all include support of postnatal care as part of their responsibilities as TTBAAs.

Recommendation: Care Group Volunteers should have nutrition education booklets that show pictures of all the green leafy vegetables that are available in the region.

Recommendation: TTBAAs and Care Group Volunteers should have refresher training on the dangers signs that can arise during pregnancy and have picture-based educational materials on these signs.

Recommendation: CCSP staff should conduct a doer/non-doer study of the reasons why some women deliver at home with a TTBA and others chose not to do so. These findings should be used to create a strategy for increasing trained assistance.

Child Immunizations (10%)

The plan in the DIP was for the CCSP to assist in maintaining the cold chain; support the CHWs in conducting immunizations during growth monitoring sessions; and train Care Group Volunteers in organizing mothers to attend growth monitoring sessions and follow up with mothers who fall behind in vaccinating their children.

Childhood vaccination is an intervention where there has been a substantial increase from the baseline. At the baseline only 35% of children were fully vaccinated by 12 months of age. Since then the project has experienced a sharp increase in the childhood immunization rate.

At the end of year two, the project conducted a mini-KPC to assess progress in immunizations. The finding from that assessment showed that the children that were fully immunized increased to 56%. By June 2008, the data from the Care Group report indicated that 84% of children 12-23 months were fully vaccinated. The M&E data come from the care group monthly tracking forms. Over 4,000 children in the 12-23 month age group are being reported by the Care Group Volunteers. Thus, while the immunization data do not cover 100% of the population, the denominator is larger enough to give a reasonable estimate of the status of immunizations. This result is a substantial accomplishment for CCSP.

A critical factor was the work of the Care Group Volunteers. They mobilized the community to attend growth monitoring sessions and they followed up with mothers who fall behind in their children's vaccination schedule. The relatively low amount of effort in this intervention (10%) has yielded a very high return, largely due to the Care Group Volunteers along with the training and supervision by the Field Facilitators.

Another critical factor is the project's collaboration with the TSA Chikankata hospital in immunization coverage. The hospital sends out monthly medical caravans in the Mazabuka District. Project staff members inform communities about the caravan schedule and work with the Care Group Volunteers to mobilize mothers to bring their children for scheduled vaccinations. The hospital administrator stated that attendance at the caravans has more than doubled because of this collaboration.

2. Results: Family Planning

This project does not have a family planning intervention.

3. Results: TB

This project does not have a TB intervention.

4. Results: Cross-cutting approaches

a. Community Mobilization

The foundation for community mobilization in the DIP was implementation of the Care Group model. Another strategy was implementation of the Community Counseling model for engaging community leaders in planning and implementing community improvement projects.

In the Care Group model, ten to fifteen health volunteers form a group. The group meets twice a month for training, reporting to the Field Facilitators and discussions about problems and successes. Each volunteer has ten households of mothers of children under five, or pregnant women, that they visit at least once a month. In order to cover the entire target population this project has over 2,000 Care Group volunteers.

The evaluation team interviewed 80 Care Group Volunteers from 63 villages.. The interviewers began by asking the Care Group Volunteers about their level of participation. Following are the key findings.

Table 11: Care Giver participation in the month of July, 2008

Activity	Percent of Care Group Volunteers
Met with their Field Facilitator	86%
Attended at least one Care Group meeting	71%
Participated in growth monitoring	69%
Met with the CHW	58%
Visited all their households at least once	44%

Attendance at Care Group meetings and participation in growth monitoring was at a level that is typical at the mid-term. As stated earlier, this is a labor-intensive model as it requires a number of volunteers to cover the target population. It usually takes two years or more to organize, train, and support them to the point where they are able to function largely on their own initiative. The project staff however, should have a goal that all Care Groups function at a high level. They will need to continue putting a high priority on training, supervision and encouragement of the Care Groups so that they function as intended.

The finding that requires special attention is that only 44% of the Care Group Volunteers visited all their households in July. Visiting each mother/pregnant woman monthly is the basis for the behavior change strategy, thus it is essential that the project staff monitor the monthly home visitation rate. Specific recommendations are made for a Care Group surveillance system later in this report, in the section on information management. It is important to emphasize in this section of the report that the Field

Facilitators should monitor the home visitation rate. In situations where Care Group Volunteers are having difficulty, the Facilitators should engage the whole group in a problem-solving exercise to identify barriers and propose solutions. It is important that a great part of the encouragement and support for home visitation come from the group of peers rather than project staff. It will be important for their sustainability that the Care Groups acquire this skill.

In all of the aspects of the Care Group model that need improvement the Field Facilitators should assist the groups to take responsibility for making their group function as intended. They need to have ownership of their group for the Care Groups to be sustainable. The Field Facilitators should help the groups set goals for members, attendance and home visitation and then monitor their progress. When barriers arise to meeting their goals the group members should use problem-solving skills to make improvements.

In the Care Group model the Field Facilitators are the ones who train and supervise the Care Groups. Each Facilitator should be responsible for 10 to 15 groups, so that they can visit each one twice a month. In fact some of the facilitators have over 20 groups. The project is constrained however, by a tight budget and is not able to employ more facilitators. (Refer to the section on Financial Management later in this report for an analysis of the financial constraints.) One alternative is to identify Care Group Volunteers who have leadership skills and train them to supervise a small number of Care Groups. They could be paid a stipend for part time work. This would cost much less than hiring full time facilitators yet reduce the supervision load of the facilitators. These Care Group Volunteers could be considered advanced Care Group Volunteers.

Another part of the Care Group model is the participation of community leaders in the selection the Care Group Volunteers and in monitoring their work. In the CCSP project Community Prevention Teams (CPT) and Neighborhood Health Committees (NHC) were formed in each community to spearhead community development projects. The CPT/NHCs were formed with the leadership and full participation of the village headmen. They were trained in the community counseling method of planning and problem solving.

The evaluation team found that there was almost no relationship between the Care Groups and the CPTs. Care Group Volunteers rarely attended the monthly CPT meetings and the CPTs did not know what the Care Group Volunteers were doing. The CCSP staff should make it a priority to build linkages between these two entities. CPTs should explicitly invite the leaders of each Care Group to report at their monthly meetings. In turn, the CPTs should participate in problem-solving meetings at the Care Group meetings. Each of these entities should get to the point where they are mutually supportive and independent of CCSP staff.

In regards to the overall functioning of the CPT/NHCs, the evaluation team interviewed CPT/NHCs from 28 communities. The interviewers asked questions about the functioning of their groups and their success in solving local problems. The findings regarding group participation follow.

Table 12: Leader participation on the CPT/NHC

Activity	Finding
Number of times that the CPT met in the last three months	Avg. of 4.25 times over 3 months time
Member attendance at monthly meetings	Avg. of 10 members at each meeting
Identified community problems and worked on solutions	100% of the CPT/NHCs

The above findings indicated that the CPTs were active and functioning as intended. The expectation is that they meet at least once a month, and these CPTs met on average more than that. Membership should be between ten and fifteen, and there was an average attendance of ten at each meeting. Most importantly, all of the CPTs were active in problem solving. The most frequently identified problems that the addressed were:

- Lack of water
- Diarrhea
- Lack of pit latrines
- Lack of transportation
- Food security

The problems that were most easily solved were diarrhea and pit latrines. Less than a third reported making progress on water, transportation and food security. This is understandable because these problems require outside assistance. Therefore, CCSP staff should assist the CPTs more directly in making linkages with agencies that specialize in water development and food security. One concrete kind of assistance can be in creating a form where the CPTs can document the demographics of their community and cite statistics that document their needs. For example, they could cite the percent of the population that live beyond a certain distance from a borehole. Having this kind of documentation will greatly enhance their ability to attract the attention of agencies that provide development assistance.

Another concrete area in which the CPTs can assist is record keeping for ITN distribution. Their knowledge of the community can facilitate the identification of households with and without ITNs. The Field Facilitators should involve the CPTs when they work with the CHWs to document ITN distribution. The CPTs will have a vested interest in ensuring that their communities are covered.

Another community mobilization strategy was the development of men’s groups. The project included men as a priority target group and established 20 pilot men’s groups in the Mazabuka catchment area. In their groups they learn about child survival issues relating to malaria, immunization, and nutrition. The men’s groups the men’s groups participated in disseminating health messages to other men within and outside the church. They were instrumental in distributing ITNs in their areas.

The evaluation team interviewed four men’s groups. Two of the four groups met in the month of July. On average 15 men attended the most recent group meeting. When asked what health messages had

been discussed during their last three meetings they stated, immunizations, nutrition in children and pregnant women and use of ITNs for malaria control. They were also asked to assess the messages that were of most help to people. Their responses include the following:

- 100% stated immunizations
- 50% stated ITNs for malaria control
- 25% stated nutrition

In a follow-up question, the men were asked the effect that the men's group had in the community. All of them stated that men are now getting more involved in children's health than in the past. They have come to realize that the whole community should be involved, not just the women.

One of the aspects of mobilizing men is the involvement of men from different churches. As per the DIP, the pilot only includes men's fellowship groups from The Salvation Army churches; however, the strategy will be expanded to other community-based men's groups.

Summary of findings and recommendations

- Care Groups were functioning at a level that is typical for the mid-term, except in the task of monthly home visits.
- Less than half of the Care Group Volunteers visited all their households in July.
- Some of the Field Facilitators supervise more than the expected number of Care Groups (15). The implication is that not all groups receive sufficient supervision.
- There was almost no connection between the Care Groups and the CPTs. The CPTs participated in selecting the group members, but have not had much involvement since then.
- CPTs were functioning well: they were meeting monthly, had the expected attendance at the meetings, and most importantly all were engaged in problem-solving.
- Men's groups had good attendance and were involved in the project's interventions. These groups are able to mobilize men's involvement in health care. Participation however, is limited to The Salvation Army members.

Recommendations: the Field Facilitators should work with their Care Groups to set goals for membership, attendance and home visitation, and then facilitate a process where the groups make their own plans for meeting the goals. It is critical for sustainability that the members take ownership of their group.

Recommendation: All Care Groups should be supervised twice a month. Given the budget constraints, one alternative is to identify Care Group Volunteers who have leadership skills and train them to supervise a small number of Care Groups. They should receive a fair stipend for their part time work.

Recommendation: CCSP staff should be involved in building linkages between CPTs and the Care Groups in their area. The CCSP staff should make it a priority to build linkages between these two entities. CPTs should explicitly invite the leaders of each Care Group to report at their monthly meetings. In turn the CPTs should participate in problem-solving meetings at the Care Group meetings. Each of these entities should get to the point where they are mutually supportive, independent of CCSP staff.

Recommendation: CCSP staff should involve the CPTs along with the CHWs in documenting the distribution of ITNs.

Recommendation: CCSP staff should assist CPTs in making linkages with development agencies that can help them with specific problems.

Recommendation: CCSP staff should continue to expand men's groups to new villages. The staff should involve the men in the groups in brainstorming ideas on how to expand participation of men from groups other than The Salvation Army.

b. Communication for Behavior Change

In the DIP the primary communication channels for household level behavior change were Care Groups and men's groups. CCSP staff members were to work with communities to develop appropriate picture-based materials to assist volunteers in their behavior change efforts. For health workers, primary communication channels were to be refresher trainings, reminder materials for health facilities, and supervisory visits by district MOH staff.

The function of the Care Groups in communication for behavior was addressed earlier in this report. Additionally, in the section that discussed progress by intervention area, recommendations were made about improving the quality of the picture-based materials. Each message should be expressed in picture form, with images that predominate on the page.

An additional communication channel would be to make posters with pictures and place these in the RHCs. They can add color to what are often bare walls and can be used as teaching tools at the center.

Another way that the pictures can be used is to print them in the form of small posters that can be given to the Care Group Volunteers to be displayed in their homes. People value this kind of decoration, and thus can be used as incentives. For example, they can be handed out for years of service as a Care Group Volunteer.

A key communication method that this project used was to put each of the messages to song. Care Group Volunteers are taught the songs as part of their training and are sung at almost every training session. The songs are used during home visits and community events. Singing is an integral part of the culture and consequently is a most appropriate method for behavior change communication.

c. Capacity Building Approach

i. Local Partner Organizations

A local partner that has been strengthened is the DHMT. The CCSP Project Manager and M&E Manager met with the DHMT quarterly to share data and give them input from the field on issues, concerns, and successes. The CCSP leaders have helped the DHMT to strengthen its use of data to make decisions and to use a structured planning process in addressing gaps that have been pointed out by the data. Progress is slow, but over time, some of the tools and planning methods have been used.

One of the barriers that was found in the MTE was poor record keeping systems. This affects the DHMT because they do not receive accurate information. Recommendations for resolving the problems have been made earlier in this report in the sections on the malaria and nutrition interventions.

Because CCSP uses the Care Group Model for organizing health volunteers, the project has over 2,000 volunteers. The project staff members have done a good job in training all these volunteers in the four interventions on schedule. The volunteers are supervised by the FFs by accompanying them on home

visits and by noting where there are performance gaps in the volunteers' monthly reports. The section earlier in this report on the Care Group model has a report on the status of the Care Group Model including recommendations for improving their performance.

An assessment of TTBA performance and recommendations are contained in the section of the report on the maternal and newborn care intervention.

Community Health Workers (CHW) are the frontline health workers in this project. The CHWs staff the RHCs and some of them receive a stipend from the MOH. During the MTE the team interviewed 20 CHWs. All of them identified malaria and nutrition as CCSP interventions; all but one identified immunization; and all but three identified maternal and newborn care. When asked about their relationship with CCSP staff, 90% said that it was very good, and the other 10% said that it was good. This is evidence that the CHWs understand the child survival project and have a good working relationship with the staff.

In reference to their performance, the MTE team inquired into their work with ITN distribution and in conducting growth monitoring sessions. Seventy percent (70%) of CHWs stated that they had participated in ITN distribution in this year. Those who did not distribute ITNs said that it was because of a lack of ITNs. (The issue of the lack of ITNs was discussed earlier in this report in the section that reported on the malaria prevention intervention.)

The MTE team asked permission to see the CHWs records on growth monitoring sessions over the previous three months.

Table :13 Percent of CHWs who conducted all scheduled growth monitoring sessions in the last three months

Month	Percent of CHWs
May 2008	90%
June 2008	100%
July 2008	95%

Table 13 shows that nearly all the CHWs completed their assigned tasks. The barriers that were identified were distance, being called away for other duties and personal illness. Overall, this represents a good level of performance in circumstances where they receive little support except from CCSP staff.

The MTE team also checked the CHWs record keeping system. Their patient registries were neat and properly recorded in all but one case. Beyond the registries, they had difficulties in keeping records. Sixty percent (60%) had records of underweight children but it was not always clear how long a particular child had been underweight. Records on ITN distribution were even less complete. In the report on the malaria and nutrition interventions earlier in this report are recommendations for improving the record keeping.

ii. Training

Training for the community-level partners in this project has been done through a combination of short seminars and training in the field. The one exception was the Care Group Volunteers who were all trained in their communities during Care Group meetings. All of the groups that were to be trained in the DIP did receive the projected training. The training programs were a balance of content and practice. The participants were very appreciative of the training because they had so few opportunities

for professional development. Given the scarcity of paper, CCSP kept printed materials to the basics and used a lot demonstration and practice techniques to train the participants. The section of the report on Communication for Behavior Change, discussed above, contains recommendations for improving training and communication materials.

CHWs were given training in community counseling in addition to training in the intervention areas. While it is not possible to directly attribute mothers' and pregnant women's change in behavior to the CHWs counseling skills; CHWs have contributed to mothers' and pregnant women's health behaviors. In the area of immunization, mothers were resistant at the beginning of the project because of fears that vaccinations would make their child sick. The evaluation pursued this issue in their interviews with mothers. They were asked to state the advantages of vaccinations. Nearly all mothers (91%) stated that vaccinations protected children from disease. In a follow-up question, the mothers were asked what should be done with a sore that resulted from the BCG vaccination. Eighty two percent (82%) correctly said that nothing should be done. Two respondents said that the sore should be squeezed and four said that hot nshima should be applied to the sore. Since the CHWs were the ones who primarily communicated with mothers about vaccinations, these data indicate that they have been successful changing the negative attitudes and fears associated with vaccines.

The sections of the report on malaria, nutrition, and maternal and newborn care contain an analysis of the training needs for TTBA, Care Group Volunteers, and CHWs, along with recommendations.

d. Health Systems Strengthening

CCSP strengthened health facilities by conducting a Health Facilities Assessment (HFA). The HFA was conducted in 2006 with technical support from SAWSO, MEASURE Evaluation, and Child Survival Technical Support (CSTS+) Project. The purpose was to conduct a rapid assessment of quality and access for primary health care services in the project area. The findings of the study were shared with all the stakeholders in the Chikankata catchment area. One of the results of the study was to implement refresher training for the CHWs and TTBA's in region.

CCSP conducted a study to identify barriers to immunization services. Some of the key findings were that the cold chain was not always maintained and that vaccinations were being withheld if not enough children were present to use up of the whole lot of vaccines. The staff worked with the DHMT to address these barriers, and, as evidenced in the section on immunizations earlier in this report, childhood immunization coverage is up to 84%.

e. Policy and Advocacy

CCSP is part of the Zambia Integrated Management of Malaria and Pneumonia Study (ZINMAPS). This randomized controlled study led by Boston University in partnership with CHS, and MOH Zambia seeks to demonstrate the effectiveness and feasibility of community-based management of pneumonia and malaria in the Chikankata catchment area. Boston University changed the study protocol since the beginning, by adding rapid diagnostic tests (RPDs) to differentiate between fever due to malaria and fever due to other causes, especially pneumonia. The study is assessing the CHW's capacity to provide early and appropriate treatment to children under-five in areas with poor access to facility-based health. This research has the potential to change the MOH policy on pneumonia and malaria interventions that are done on the community-level.

Another advocacy initiative that arose from the MTE is CCSP's collaboration with the USAID mission to identify barriers to ITN distribution. CCSP managers will provide data on ITN distribution to the Resident Advisory of the U.S. President's Malaria Initiative. Together they will develop a strategy for identifying the distribution bottlenecks and constructively overcoming these barriers. (Refer to the analysis of the malaria prevention intervention earlier in this report.)

f. Contribution to Scale/Scaling Up

CCSP is the first child survival project to use the Care Group model in Zambia for reaching the target population. It serves as a pilot for other organizations in Zambia that would want to implement this model. Care Groups, developed by World Relief Mozambique, are groups of volunteer mothers who meet together for training and then spend time with the ten families closest to them to encourage adoption of key behaviors. Care Group mothers act as early adopters of new health behaviors and model these to their neighbors. The fundamental concept is that every mother with children under five or who is pregnant is visited once a month. It is a labor-intensive model because of the large number of volunteers who have to be trained and supervised. The benefit is the intensive peer-to-peer interaction regarding behavior change. It relies on personal interaction to nurture behavior change rather than printed health education and communication tools. It is very appropriate for the culture and the socioeconomic conditions of this project. Paper is expensive and scarce so it cannot be widely used for health communications. The literacy rate is low so printed text would not be very useful anyway. Also the local culture is highly relationship-oriented so that the one-on-one interaction among peers is a very appropriate method for communicating behavior change.

The evaluation team has additional analysis and recommendations regarding Care Groups in the sections on community mobilization and information management.

Another potential for scale-up is CCSP's use of the Positive Deviance/Hearth model for rehabilitation of malnourished children¹ at the household and village levels. In this model women and their malnourished children meet to cook together using locally available foods. They share ideas on foods that they cook and learn about ways to restore their children to normal weight. CCSP staff implemented this program in a few pilot communities. As stated earlier in the report, mothers' responses to the shared experience has been positive and they use the same method for teaching the general population about childhood nutrition.

g. Equity

CCSP serves in one of the poorest regions of Zambia. Data on the project's measurable indicators show that the health status of people in this marginalized part of Zambia has improved. Pregnant women are now receiving prenatal care from trained birth attendants; children are immunized and vulnerable households are receiving ITNs.

The large network of women who have leadership in the community as Care Group Volunteers has contributed to the improving the status of women. Over 2,000 women have been trained and are active in their community. They have an organizational structure, the Care Groups, which they manage on their own. CCSP staff members are working to build a system of accountability between the Care Groups and the community leaders in the CPTs and the NHCs. Over time, the Care Group leaders will become members of the CPTs and be respected for having an important role in the development of the community.

h. Sustainability

The key components of the sustainability plan are the Care Groups, the CPT/NHC, and men's groups. The plan in the DIP was that the Care Groups would be self-sustaining with the support of the CPTs and the men's groups. The CPT's were to be trained in the community counseling method, thus giving them the skills to mobilize the community and organizationally support the Care Groups. Following is a summary of the findings and recommendations for each of these groups.

Care Groups and CPTs: Summary of findings and recommendations

- Care Groups are functioning at a level that is typical for the mid-term, except in the task of monthly home visits. Less than half of the Care Group Volunteers visited all their households in July.
- There is almost no connection between the Care Groups and community leaders, in particular the CPTs. The CPTs participated in selecting the group members, but have not had much involvement since then.
- CPTs were functioning well: they were meeting monthly, had the expected attendance at the meetings, and, most importantly, all were engaged in problem solving.

Recommendations: The Field Facilitators should work with their Care Groups to set goals for membership, attendance and home visitation and facilitate a process where the groups make their own plans to meet the goals. It is critical for sustainability that the members take ownership of their groups.

Recommendation: All CCSP staff should be involved in building linkages between CPTs and the Care Groups in their area. The CCSP staff should make it a priority to build linkages between these two entities. CPTs should explicitly invite the leaders of each Care Group to report at their monthly meetings. In turn, the CPTs should participate in problem-solving meetings at the Care Group meetings. Each of these entities should get to the point where they are mutually supportive, independent of CCSP staff.

Recommendation: CCSP staff should assist CPTs in making linkages with development agencies that can help them with specific problems.

Recommendation: Care Group Volunteers' monthly visits to their households needs to be monitored and improved. An analysis of this problem and recommendations for improvement are included in Section 2.7.c later in this report. For the care group model to be effective, it must be implemented in its entirety, the foundation of which is that every household with children under five pregnant women is visited once a month.

E. Changes in Grantee Organization Capacity

This section does not apply to SAWSO and TSA Zambia Chikankata Health Services.

F. Mission Collaboration

The CCSP Manager participated in the quarterly meetings of the USAID Population, Health, and Nutrition Office. The Mission's Senior Maternal and Child Health Advisor were involved in the launch and distribution of ITNs in the community, development of the CPT/NHC capacity assessment tool, and PD Hearth training. The Mission has since linked the project to other institutions that are implementing the Hearth program in other parts of the country.

CCSP contributed to the USAID Mission's overall health objectives such as improved immunization coverage in children; improved nutritional status of children and pregnant women; improved child feeding practices; improved detection of malnutrition; improved treatment of malnutrition; increased exclusive breastfeeding up to six months; and increased coverage of micronutrient supplements.

G. Contextual Factors that Have Influenced Progress to Date

One contextual factor that has influenced progress is the unpredictable rainy season. The past season had more rain than usual, thus limiting personnel's access to many communities. While the Field Supervisors have cross-country motorcycles, there are still times when the roads are not passable. The Field Staff have bicycles and are even more affected by the heavy rains. Many crops have been lost because the fields are too wet resulting in food security problems. (The food security issues have been discussed in the section that discusses the nutrition intervention earlier in this report.)

H. Conclusions and Recommendations

These are the main conclusions of the MTE:

- CCSP is on track in implementing the interventions in the DIP.
- CCSP should be commended for contributing to an increase in childhood immunization coverage from 22% to 84%.
- The Care Group Volunteers, TTBA's and the CPT/NHCs are doing a good job in mobilizing the community for immunizations, growth monitoring and ITN distribution.
- CCSP made good progress in educating women about the benefits of immunizations, the use of ITNs, consumption of iron-rich foods for pregnant women and the importance of delivering babies with trained personnel.
- CCSP is a well-managed project that has a good system for data management and is using this data for planning.

To see a complete listing of recommendations, refer to Annex 1.

I. Action Plan

Time Line of Activities After the Mid-Term Evaluation (Year 4)															
Activity	Personnel	S	O	N	D	J	F	M	A	M	J	J	A	S	O
Malaria Activities (Recs 1-3)															
Work with the DHMTs and RHC Staff to improve record keeping system of ITN coverage	Project Supervisor and M&E Coordinator		X	X	X										
Refresher training for Care Groups on malaria signs and symptoms and reinforcing the importance of using ITNs	Facilitators and Supervisors	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Procure IEC Materials with magnified pictures in all 4 interventions	Project Supervisor and Administrative Assistant			X											
CCSP to collaborate with DHMTs and other stakeholders (USAID and PMI) to identify ITN distribution problems and set goals to rectify them	CH&D Manager and Project Supervisor		X	X											
Nutrition Activities (Recs 4-5)															
Procure IEC Materials with magnified pictures in all 4 interventions	Project Supervisor and Administrative Assistant			X											
Train Care Groups in messages developed in the Hearth program	Facilitators and Supervisors														
Develop checklists for CHW growth promotion counseling (jointly with CHWs and RHC staff) and implement during GMP sessions ¹	Project Supervisor														

¹ The project will use the following document to develop and use checklists: Supervision and Support of High-Quality Group-Based Nonformal Education Services: The Use of Observation Checklists. Prepared for the Food and Nutrition Technical Assistance Project by Freedom from Hunger.

Field Facilitators meet with their CHWs and RHC staff to develop goals for recuperating underweight children	Facilitators and Supervisors															
Maternal and Newborn Care Activities (Recs 6-12)																
Refresher training for TTBA's on birth planning; danger signs during pregnancy, labor, and the postnatal period; on provision of postnatal care; and on the importance, utilization and price of CDKs	Project Supervisor	X	X													
Refresher training for Care Groups on -ANC (including CDK promotion and birth planning) -Danger signs in pregnancy -Postnatal check-up schedule -Care for postnatal women	Facilitators and Supervisors	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Conduct Doer or Non-Doer survey on key factors for using TTBA for a home birth	Project Supervisor and M&E Coordinator			X												
Procure IEC Materials with magnified pictures in all 4 interventions	Project Supervisor and Administrative Assistant			X												
Train health workers in emergency obstetric care and ANC	Consultant		X	X												
Review and revise referral protocols jointly with RHC and DHMT staff	Project Supervisor															
Work with field facilitators and CPTs/NHCs to establish emergency funds and transport for obstetric and neonatal emergencies	Project Supervisor															

Community Mobilization (Recs 13-18)																
Training of Super Care Group Leaders in Facilitation skills (To be Identified)	CCSP Manager and M&E Coord.	X	X	X												
Improve linkages of Care Groups, facilitators and supervisors with CPTs/NHCs by facilitating discussions amongst themselves and with development agencies specific to problem areas	CCSP M&E Coord. And Supervisors	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Facilitators work with CGs to set goals for membership attendance and home visitation then CGs make plans to reach their goals	Supervisors and Field Facilitators	X	X	X	X											
Identify existing men's groups in other community-based organizations and churches and train leaders for these groups	Adult Services Coordinator			X	X											
Monitoring and Evaluation (Recs 19-23)																
Orientation of CCSP on new U-5 Cards and training of CCSP staff on data management-using data for action	CCSP Manager		X	X	X											
Help TTBA's and CHWs to improve record keeping of GMP data and Maternal and Newborn Care statistics	Project Supervisor and M&E Coord.	X	X													
Help CPT/NHCs improve scheduling of meetings and using data for action	CCSP Supervisors and M&E Coord.		X	X	X	X										
Develop project-wide indicator graphs and zonal graphs for illustrating progress over time	M&E Coordinator															
Disseminating of Mid-Term Evaluation findings/ PD results to stakeholders	CH&D Manager, Project Supervisor and M&E Coordinator		X													

J. Annexes

1. List of Recommendations

Comment [a6]: Waiting on Irene and Phisher

Key Recommendations

1. CCSP managers, the DHMT and the USAID/Zambia Mission should collaborate to identify the bottlenecks in the distribution of long-lasting ITNs.
2. CHWs at each RHC should set a goal of 90% of underweight children recuperating a normal weight by one month's time.
3. CCSP staff should investigate the barriers to the availability of CDKs for pregnant women.
4. CCSP staff should conduct a doer, non-doer assessment of the reasons why some women still chose deliver without trained assistance.
5. TTBAAs should be trained as soon as possible after the MTE on postnatal care. They should all include support of postnatal care as part of their responsibilities as TTBAAs.
6. The Field Facilitators should work with their Care Groups to set goals for membership, attendance and home visitation, and then facilitate a process where the groups make their own plans for meeting the goals. It is critical for sustainability that the members take ownership of their group.
7. CCSP staff should be involved in building linkages between CPTs and the Care Groups in their area. Each of these entities should get to the point where they are mutually supportive, independent of CCSP staff. This is critical for sustainability.

Malaria Recommendations

8. The project team should conduct refresher training with the Care Givers to help mothers understand the full range of malaria signs, and reinforce the important ITNs. The staff should make pictorial health communication materials to communicate these messages since the literacy rate is low.
9. The project team should work with the RHC to create a record keeping system of the household coverage of ITNs. Upon obtaining documentation of the need, the project managers should share the findings with the DHMT and the USAID mission. They should collaborate with both entities in solving the distribution problems.

Child and Pregnant Woman Nutrition

10. The CCSP team may want to consider implementing cooking demonstrations using locally available foods in villages where food is scarce. In other communities it should train the Care Givers in messages that were developed in the Hearth program. In villages where the CCSP team deems it important to conduct cooking demonstration, they should train selected Care Givers in how to conduct the demonstrations.

11. Field Facilitators should assist the CHWs to organize their record keeping so that growth monitoring data are up to date. Furthermore they should establish a way to monitor underweight children over consecutive months. Each CHW and RCH should have a goal of 90% of underweight children recuperating a normal weight by one month's time.

Maternal and Newborn Care

12. A much higher percentage of pregnant women should have CDKs, at an affordable price. CCSP staff should train TTBA's and Care Givers in the function of, and price of, CDKs and how to communicate this to pregnant women. Additionally the staff should work with the CHWs to create messages and communication tools on these topics.
13. CCSP staff should conduct refresher training for Care Givers on ANC. They should be encouraged to visit pregnant women once a month during pregnancy, they should know the danger signs in pregnancy, and they should know the schedule for postnatal checkups.
14. Care Givers should have nutrition education booklets that show pictures of all the green leafy vegetables that are available in the region.
15. TTBA's and Care Givers should have refresher training on the danger signs of pregnancy and have picture-based educational materials on these signs.
16. CCSP staff should conduct a doer-non-doer study of the reasons why some women deliver at home with a TTBA and others chose not to do so. These findings should be used to create a strategy for communicating the importance of having trained assistance.

Community Mobilization

17. All Care Groups should be supervised twice a month. Given the budget constraints, one alternative is to identify Care Givers who have leadership skills and train them to supervise a small number of Care Groups. They should receive a fair stipend for their part time work.
18. CCSP staff should assist CPTs in making linkages with development agencies that can help them with specific problems.
19. CCSP staff should continue to expand men's groups to new villages. The staff should involve the men in the groups in brainstorming ideas on how to expand participation of men from groups other than The Salvation Army.

Care Groups and CPT's Recommendations

20. An area that needs to be monitored and improved is the Care Givers visiting their households once a month. An analysis of this problem and recommendations for improvement are included in Section 2.7.c later in this report. For the care group model to be effective it must be implemented in its entirety, the foundation of which is that every household with children U5 and pregnant women is visited once a month.

Project Monitoring and Evaluation Recommendations

21. The CCSP managers should collaborate with the DHMTs to set goals for ITN distribution in areas that are still lacking, and then use graphs to track the progress in meeting the

goals. Having the visual reminder of a graph could be an incentive for following through with their plans.

22. The HIS manager should produce graphs that track the progress of each intervention over a 12 month period of time. Tracking the long term trends will enable the project team to identify strengths and monitor interventions that are not progressing, or that show regular fluctuations.
23. These graphs should be shared with the DHMT and used to set goals for regional development. In particular they should be used to document the population areas that do not have sufficient ITNs. As discussed earlier, there is a lack of ITNs. The data from the M&E system should be used by CCSP and the DHMT to advocate for ITN distribution from central stores.
24. The HIS manager should produce indicator tracking graphs by zones and place them in the RHCs. As demonstrated in chart 5 above, graphs should have a goal line to indicate what the team should strive for. The Field Facilitators should use them to help the CHWs and care groups identify areas that need strengthening, and to celebrate successes.
25. Data are collected every month from the care groups. The Field Facilitators make the rounds to each of their care groups and record the data on the Care Group Monthly Tracking form. The Field Facilitators consolidate the data from their care groups on to a form and turn it into their supervisor. The Field Supervisors in turn complete a consolidated report for their zone. From this report the M&E manager generates a monthly report for the whole project. The monthly reports are broken down by each of the following areas: ITN usage, immunization coverage, child deaths, deaths of women of reproductive age, prenatal care coverage, recorded births, growth monitoring coverage and postnatal care.
26. The system is labor intensive because of the amount of data that are collected, but it is being implemented on a regular basis. One area where data are often missing is growth monitoring coverage, but given the limited literacy skills of the Care Givers, this is understandable.
27. The M&E manager produces monthly reports on ITN usage, immunization coverage, child deaths, deaths of women of reproductive age, prenatal care coverage, recorded births, growth monitoring coverage and postnatal care. These reports are used by the team when making their monthly work plans.
28. An area that should be included is a system for monitoring the status of the care groups. For the care group model to be effective it must be implemented in its entirety, the foundation of which is that every household is visited once a month. At this time there is no way to document if this is being done.

29. The following table lists the variables that should be monitored.

Table 14: System for monitoring implementation of the care group model

Variable	Person Who Documents
Number of care group members for each care group.	Care group secretary
Attendance at each care group meeting	Care group secretary
Number of households visited in the last two weeks by each care group member	Care group secretary
Number care groups supervised by each Field Facilitators	Field Facilitator
Number of times each care group was supervised the Field Facilitators	Field Facilitator
Monthly report on the percent of care group attendance	Supervisors and HIS manager
Monthly report on the percent of households that were visited at least once in the current month	Supervisors and HIS manager

2. Results Highlight

Pilot of PD Hearth in CCSP

As mentioned previously, the Positive Deviance Hearth program seeks to quickly rehabilitate malnourished children, enable families to sustain their rehabilitation, and prevent further malnutrition among all children in the community. It begins by finding the “Positive Deviants” or PD’s in certain communities and identifying specific behaviors that enable these PD children to stay well nourished. A Hearth Session includes a gathering of mothers of malnourished children to prepare a high-calorie meal and feeding this food to their children over the course of eleven days. In the CCSP context, specific PD foods include vegetables, corn, nuts, eggs, porridge, beans and eggs. PD behaviors such as breastfeeding, introduction of solid food and liquid to a child at six months of age, washing hands before food preparations, and frequency of feeding were identified. Positive caring practices involve the caregiver being with the baby most the day, good personal hygiene, the availability of soap and clean plates and utensils, among others.

The CCSP Hearth program is on schedule and will eventually be fully implemented in the villages that have greater than 30% malnutrition. To date, through 46 Hearth Sessions, 494 children ages 6 to 59 months have participated. The children were weighed initially and then again after eleven days. Of the 494 children, 94.0% completed the Hearth session, doing both initial and final weight measurements. Six percent (6.0%) of those that completed the session remained static and 7.5% decreased in weight. However, the vast majority, 86.5%, of the participating children increased in weight throughout the course of eleven days. Out of the children who completed the Hearth session, 74.0% gained 200 grams or more, with 58.8% gaining at least 400 grams (see Annex Table 1). This is on track with the goal mentioned in the

DIP, “At least 80% of children who complete Hearth achieve and sustain adequate (200 grams) or catch-up (400 grams) growth per month after hearth sessions.”

Annex Table 1. Results to date of PD Hearth in CCSP.

Children who completed hearth	94.0%
Children whose weight decreased	7.5%
Children whose weight stayed static	6.0%
Children whose weight increased	86.5%
Children who gained at least 200 grams	74.0%
Children who gained at least 400 grams	58.8%

3. Publications and/or Presentations

CCSP conducted a Health Facilities Assessment and the findings of the study were shared in a presentation to all the stakeholders in the Chikankata catchment area. The HFA was conducted in 2006. Its purpose was to carry out a rapid assessment of quality and access for primary health care services in the project area. One of the results of the study was to implement refresher training for the CHWs and TTBA's in region.

4. Project Management Evaluation

a. Planning

Planning is done by the CCSP staff on Fridays and at the end of the month. On Fridays the Field Facilitators review their week in comparison to their work plan and plan for the coming week. For example, if a training or growth monitoring session was missed because of heavy rains they would need to incorporate this gap into their plans for the rest of the month. Similarly, the Field Supervisors and Managers do the same in their weekly planning. At the end of the month, the staff members meet to turn in their reports, review the work plan for the past month and make their plans for the coming month.

This has been a workable plan for the CCSP team. The staff spend long days in the field because of the long distances and the large number of Care Groups and communities. They need the weekly planning time to keep track of all the training and supervision of all the Care Group Volunteers, TTBA's and CHWs.

The lead evaluator reviewed the project's documentation of work plans, monthly reviews and forward planning. CCSP team is to be commended for actually using data from the field reports to review and make monthly plans. This is not often the case for other child survival projects at the mid-term.

The DHMT meets quarterly with the CCSP in accordance with the DIP. The intension was for the project managers to share data for the M&E system, identify relevant barriers and make plans for the coming quarter. The CCSP staff have met faithfully with the DHMT, but expressed frustration in that the DHMT had difficulty in following through. One technique that the CCSP managers should try is to use the M&E data to set goals and then use graphs to track the progress in meeting the goals.

Recommendation: The CCSP managers should collaborate with the DHMT's to set goals for ITN distribution in areas that are still lacking, and then use graphs to track the progress in

meeting the goals. Having the visual reminder of a graph could be an incentive for following through with their plans.

b. Supervision of Project Staff

CCSP has a well functioning staff supervision system. Five Field Supervisors supervise the Field Facilitators. Each supervisor works with four or five Field Facilitators. Supervisors supervise each facilitator once a week. They have checklists to review the facilitators' work. When gaps in services and problem arise supervisors do on-the-job training. Additionally they will do home visit together in order to monitor progress in behavior change. When Care Group Volunteers are trained in a new intervention the supervisors will work alongside the facilitators to help them improve their training skills.

The Field Supervisors are supervised by the Project Manager and the M&E Manager. The managers review the work plans for each supervisor's area and assist them in identifying problems and issues that need to be addressed. The managers have a regular schedule of going to the field with the Field Supervisors.

At the time of the MTE, the Project Manager was new. It was very apparent, however, that the M&E Manager knew the communities very well. He was able to lead the process of planning the schedule and logistics for data collection in the field. He had an excellent understanding of the whole of the project and the location of the communities. He knew where each Field Facilitator worked and identified locations that needed to be visited in order to collect the data that were needed for the evaluation.

c. Human Resources Management

All of the positions in the DIP are filled, except for the Health Education Coordinator. The person who filled this position left to take another job. As discussed in the sections on Communication for Behavior Change and on Training, these areas are functioning reasonably well. The staff members are well trained and are competent trainers. The lead evaluator did not see a need for this position to be filled. Instead the funds should be used to conduct the extra trainings that are recommended in this report. The project's staff members are competent to organize and lead the additional trainings.

The first project manager left the project for a position in another country. CCSP had difficulty in finding a replacement with the required competencies, and who was willing to live in this rural area. A month before the MTE the position was filled. It was apparent during the MTE that the new Project Manager has leadership skills and knows the child survival interventions.

d. Financial Management

SAWSO transmits the funds for the project to the Chikankata Hospital, where the hospital administrator serves as the financial manager for CCSP. The day-to-day financial management of the project functions well. The challenge is that the project's original budget was made in 2004 and is the budget that was used for this grant. The reason for this is that SAWSO submitted a child survival proposal for Chikankata in 2004, but the project was not funded until October 2005. Consequently there has been a struggle to cover the cost of salaries, supplies and fuel. Thus far the project has been able to meet its obligations but it will be a constant challenge to the

end. This is another reason why the position of Health Education Coordinator should not be filled since it is not needed.

e. Logistics

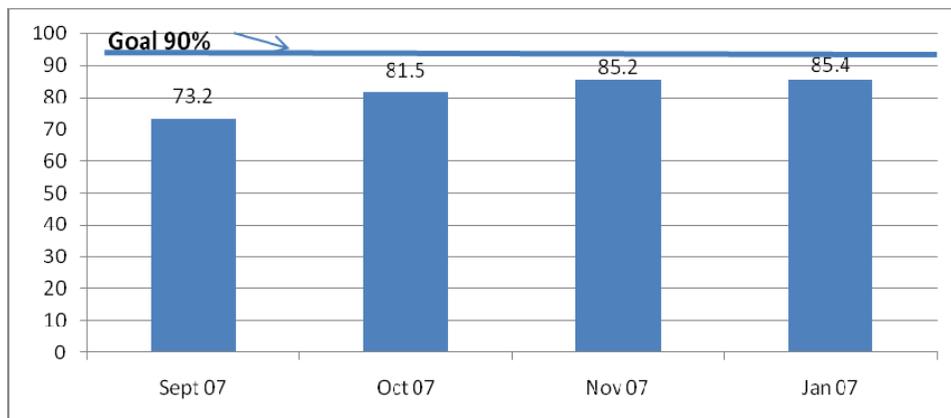
Despite the budget challenges the project has purchased the supplies and equipment that were needed. The motorcycles purchased for the Field Supervisors have been critical for them to be able to supervise each Field Facilitator once a week. An unanticipated purchase was bicycles for the Field Facilitators. Other areas of the budget had to be reduced, but it was essential that the facilitators have the bicycles. Distances between villages are too great for them to reach them on foot. It has been a worthwhile investment.

f. Information Management

The M&E system collects data from the Care Group Volunteers on use of ITNs, immunization status, growth monitoring, maternal and newborn care, and maternal and infant deaths. The secretary of the care group fills out a monthly reports form, often with the help of the facilitator, which is consolidated by zone and for the project as a whole. The project team uses this information to monitor progress in implementing interventions. The project managers and Field Supervisors use the reports in making their monthly work plans. The project is to be commended in this regard because in the experience of this evaluator it is unusual for project managers to use their M&E data for monthly planning.

One area where the information management system should be improved is to use graphs to track progress on a monthly basis, over a twelve month period. For example, when the project has data on the percent of UNDER FIVES who sleep under an ITN in any given month it does not track the progress over time. In this case the percent of UNDER FIVES who did so increased from 61.8% in September 2007 to 83.4% in January 2008. Having a graph that shows the monthly change gives a picture of progress in this intervention. Such a chart should be shared with the DHMT, and should be broken down by zone and placed in every RHC. Additionally the charts should have a percentage of accomplishment goal on the chart so that the whole community can visually monitor its progress. The chart below is an example using immunization coverage data from the M&E system.

Chart 5: Example of chart for track progress on the project’s indicators: project immunization rates September 2007 – January 2008.



Recommendation: The HIS manager should produce graphs that track the progress of each intervention over a 12 month period of time. Tracking the long term trends will enable the project team to identify strengths and monitor interventions that are not progressing, or that show regular fluctuations.

Recommendation: These graphs should be shared with the DHMT and used to set goals for regional development. In particular they should be used to document the population areas that do not have sufficient ITNs. As discussed earlier, there is a lack of ITNs. The data from the M&E system should be used by CCSP and the DHMT to advocate for ITN distribution from central stores.

Recommendation: The HIS manager should produce indicator tracking graphs by zones and place them in the RHCs. As demonstrated in chart 5 above, graphs should have a goal line to indicate what the team should strive for. The Field Facilitators should use them to help the CHWs and care groups identify areas that need strengthening, and to celebrate successes.

Data are collected every month from the care groups. The Field Facilitators make the rounds to each of their care groups and record the data on the Care Group Monthly Tracking form. The Field Facilitators consolidate the data from their care groups on to a form and turn it into their supervisor. The Field Supervisors in turn complete a consolidated report for their zone. From this report the M&E manager generates a monthly report for the whole project. The monthly reports are broken down by each of the following areas: ITN usage, immunization coverage, child deaths, deaths of women of reproductive age, prenatal care coverage, recorded births, growth monitoring coverage and postnatal care.

The system is labor intensive because of the amount of data that are collected, but it is being implemented on a regular basis. One area where data are often missing is growth monitoring coverage, but given the limited literacy skills of the Care Group Volunteers, this is understandable.

One way to reduce the record keeping burden on the Care Groups is to collect data quarterly basis. The Care Groups should continue the monthly recording in their registries, but completing the report for the Field Facilitators could be done quarterly. An added advantage is that the Field Facilitators would have time in the non-reporting months to check the accuracy of the Care Groups registries and make corrections before the end of the quarter.

Recommendation: CCSP managers should consider collecting data from the Care Groups on a quarterly basis, rather than monthly. In the intervening months the Field Facilitators should review the Care Groups' registries to help them with accuracy of their records.

The M&E manager produces monthly reports on ITN usage, immunization coverage, child deaths, deaths of women of reproductive age, prenatal care coverage, recorded births, growth monitoring coverage and postnatal care. These reports are used by the team when making their monthly work plans.

An area that should be included is a system for monitoring the status of the care groups. For the care group model to be effective it must be implemented in its entirety, the foundation of which is that every household is visited once a month. At this time there is no way to document if this is being done.

Recommendation: The following table lists the variables that should be monitored.

Table 14: System for monitoring implementation of the care group model

Variable	Person Who Documents
1. Number of care group members for each care group.	Care group secretary
2. Attendance at each care group meeting	Care group secretary
3. Number of households visited in the last two weeks by each care group member	Care group secretary
4. Number of care groups supervised by each Field Facilitator	Field Facilitator
5. Number of times each care group was supervised by the Field Facilitators	Field Facilitator
6. Monthly report on the percent of care group attendance	Supervisors and HIS manager
7. Monthly report on the percent of households that were visited at least once in the current month	Supervisors and HIS manager

Findings from the MTE indicated that the MOH system for tracking distribution of ITNs and drug supplies for the RHC periodically breaks down. One of the main reasons is the lack of paper. The CCSP staff provided paper and technical support, but there still were gaps in its data management system. At this point the DHMT team relies on CCSP for data.

As discussed earlier, the project staff makes good use of data in their monthly planning. Implementing the recommendation above, for using graphs at the RHCs will enable the team to use data with the CHWs, TTBAAs, and Care Group Volunteers.

g. Technical and Administrative Support

CCSP made good use of technical support. Outside resource people were contracted to train staff in the PD Hearth program, to conduct the Health Facilities Assessment, and to guide the ZINMAPS research project. SAWSO technical support staff guided the project in conducting the immunization and malaria mini-KPCs. They have also worked intensively with the project managers to manage the project’s budget limitations.

h. Management Lessons Learned

The CCSP staff members have learned some important management lessons. Following is a list of the key lessons learned.

- A management task in which the project excelled was in using data from the M&E system for planning. The M&E Manager organized the relevant reports for each organizational level (Field Facilitators, Supervisors, and Managers) at every monthly planning meeting. He also made sure that each level had a printed copy of their work plan and that they submitted to him their revised plans.

- Field Supervisors and Field Facilitators trained the CHWs in how to organize the patient flow in the RHC and how keep their patient registries up to date. This has contributed to improved CHW performance.
- Field Supervisors learned how to use check lists in supervising the Field Facilitators. It helped them make their supervisory trips much more productive.

i. Other Issues

No other issues were identified by the MTE team.

5. Full Monitoring and Evaluation Table

Dimension 1: Primary Health (Population Health Status and Health Services Quality)

Result 1: Improved malaria prevention and treatment

Objectives	Indicators	Measurement	Frequency	Baseline Value	EOP Target
IR 1.1 Increased insecticide-treated bednet use for pregnant women and children under five					
Increase to 60% the proportion of children 0-59 months who sleep under ITNs every night	% of children 0-23 months who slept under an ITN the night before	KPC Care Group reports	Baseline, Annually	21.8	60%
Increase to 60% the proportion of pregnant women who sleep under ITNs every night	% of pregnant women who slept under an ITN the night before	Care Group reports	Annually	Not established	60%
Increase to 75% the proportion of nets that are re-treated at least once a year	% of mothers of children 0-23 who report that their ITN was re-treated in the past year	KPC Care Group reports	Baseline, Annually	52.1	75%
IR 1.2 Increased appropriate care-seeking for danger signs					
Increase to 65% the proportion of children under five with fever (suspected malaria) who receive treatment with SP or Coartem within 24 hours at an appropriate health facility or by a trained CHW	% of children 0-23 months with a febrile episode that ended during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began	KPC Care Group reports	Baseline, Annually	10.5	65%
IR 1.3 Continued high coverage of intermittent preventive malaria treatment in pregnant women					
Maintain at least 70% the proportion of pregnant women who receive IPT during pregnancy	% of mothers of children 0-23 months who received IPT for malaria during their last pregnancy	KPC Care Group reports	Baseline, Annually	83.8	Maintain above 70%

Result 2: Increased immunization coverage in children

Objectives	Indicators	Measurement	Frequency	Baseline Value	EOP Target
Increase to 70% the proportion of children 12-23 months who are fully vaccinated by the first birthday	% of children 12-23 months who are fully vaccinated by the first birthday (BCG, DPT3, OPV3, and measles)	KPC Care Group reports	Baseline, Annually	35.2	70%
Increase to 80% the proportion of children who have received a measles vaccine	% of children 12-23 months who have received a measles vaccine	KPC Care Group reports	Baseline, Annually	54.6	80%

Result 3: Improved nutritional status of children and pregnant women

Objectives	Indicators	Measurement	Frequency	Baseline Value	EOP Target
IR 3.1 Improved child feeding practices					
Increase to 50% the proportion of children who eat foods rich in Vitamin A, protein, and iron everyday	% of children 6-23 months who ate a Vitamin A-rich food, a high protein food, and an iron-rich food in the last 24 hours	KPC	Baseline, After implementation of intervention and second cycle	27.2	50%
Increase to 50% the proportion of children 12-59	% of children 12-23 months who ate semi-solid	KPC	Baseline, After implementation	21.1	50%

months who eat semi-solid food at least four times each day ²	food at least four times in the past 24 hours		of intervention and second cycle		
IR 3.2 a) Improved detection of malnutrition, b) Improved treatment of malnutrition					
Increase to 90% the proportion of children 0-59 months who are weighed at least bimonthly	% of children 0-23 months who were weighed at least once in the past two months	KPC Care Group reports	Baseline, Annually	69.4	90%
At least 80% of children who complete Hearth achieve and sustain adequate (200 grams) or catch-up (400 grams) growth per month after the Hearth session	% of children who completed Hearth that achieved and sustained adequate (200 grams) or catch-up (400 grams) growth for at least two months after Hearth	Hearth records	After Hearth cycles (twice)	0	80%
	% of children completing Hearth maintain weight-for-age above -2 standard deviations at six months and one year after Hearth	Hearth records	After Hearth cycles (twice)	0	80%
Increase to 95% the proportion of children 0-59 months who have an appropriate weight for their age	% of children 0-23 months are above -2 standard deviations for weight for age	KPC Care Group reports	Baseline, before Year 2 in hungry season, Annually	87.4	95%
IR 3.3: Increased exclusive breastfeeding up to six months of age					
Increase to 70% the proportion of children 0-5 months who are exclusively breastfed	% of infants 0-5 months who received nothing except breastmilk in the past 24 hours	KPC Care Group reports	Baseline, Annually	43.8	70%
IR 3.4: Increased coverage of micronutrient supplementation (Vitamin A and iron/folic acid)					
Increase to 75% the proportion of children 6-59 months who receive semi-annual doses of Vitamin A	% of children 12-23 months who have received a dose of Vitamin A in the past six months	KPC Care Group reports	Baseline, Annually	37.3	75%
Increase to 50% the proportion of pregnant women who take iron/folic acid supplements ³	% of mothers of children 0-23 months who report taking at least 90 days of iron/ folic acid supplements during her last pregnancy	KPC Care Group reports	Baseline, Annually	24.5	50%

Result 4: Improved maternal and newborn care practices

Objectives	Indicators	Measurement	Frequency	Baseline Value	EOP Target
IR 4.1 Increased deliveries by trained providers, improved birth preparedness, and improved home practices related to pregnancy and birth					

² The project has selected to measure food frequency rather than the standard KPC indicator for complementary foods because the latter indicator is already high, and knowledge of feeding practices in the area suggest that infrequency of meals is causing more malnutrition than late introduction of semisolid foods

³ Because the data reflect problems with compliance rather than access, the project has chosen the DHS indicator of actual consumption of supplements rather than the KPC indicator of receiving supplements

Increase the proportion of births attended by a skilled provider to 55%	% of mothers of children 0-23 months whose last birth was attended by a health professional	KPC Care Group reports	Baseline, Annually after Year Three	44 2	55%
Increase the proportion of home births attended by a TTBA to 30%	% of mothers of children 0-23 months who did not give birth in a health facility whose birth was attended by a TTBA	KPC Care Group reports	Baseline, Annually after Year Three	13 4	30%
Increase to 70% the proportion of home births that use a clean birth kit	% of home deliveries in which a clean birth kit was used	KPC, Care Group reports	Baseline, Annually after Year Three	55 8	70%
Increase to 90% the proportion of communities that have established emergency funds and transport	% of communities who have documented emergency funds and transport plans	CPT records	Annually after Year Three	Not established, assumed to be 0%	90%
Increase to 70% the proportion of obstetric and neonatal emergencies that are referred in a timely and appropriate manner (baseline to be determined)	% of obstetric and neonatal emergencies in the last year who are referred to a health facility that follow the established plan from recognition of danger sign to arrival at facility	Care Group reports and TTBA reports	Annually after Year Three	Not yet established	70%
Increase to 70% the proportion of newborns who are placed with the mother at birth	% of mothers of children 0-23 months whose child was placed immediately with her after birth	KPC Care Group reports	Baseline, Annually after Year Three	15 3	60%
Increase to 75% the proportion of newborns who are immediately breastfed	% of children 0-23 months who were breastfed within one hour of birth	KPC Care Group reports	Baseline, Annually after Year Three	43 8	75%
IR 4.2 Improved quality of maternal and newborn care services in health facilities					
Increase to 90% the proportion of health facilities that have at least one professional who competently performs infection prevention and AMTSL actions (baseline assumed to be zero)	% of health facilities what have at least one professional who scores 80% or higher on infection prevention and AMTSL	Performance Assessments from training	Annually after Year Three	Not yet established	90%
Increase to 95% the proportion of maternal and newborn emergencies at rural health centers that are referred according to protocol (baseline to be determined)	% of maternal and newborn emergencies at rural health centers in the last year that follow referral protocol	RHC reports	Annually after Year Three	Not yet established	95%
IR 4.3 Increased coverage of postpartum care					
Increase to 50% the proportion of mothers who receive a postpartum check-up by a health professional or TTBA	% of mothers of children 0-23 months who had at least one postpartum check-up after the birth of her last child	KPC Care Group reports	Baseline, Annually after Year Three	18 7	50%
Increase to 50% the proportion of mothers who receive a postpartum dose of	% of mothers of children 0-23 months who received a postpartum dose of Vitamin	KPC Care Group reports	Baseline, Annually after Year	6 3	50%

Vitamin A during the first two months after delivery	A during the first two months after delivery (card confirmed)		Three		
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6. Rapid CATCH table NA

7. Midterm KPC Report (if conducting)

CCSP did not conduct a midterm KPC, but it has implemented a mini-KPC each year of the grant. These studies were incorporated into this report.

8. Evaluation Team Members and their Titles

S/N	NAME		
1	Richard Crespo	Lead Evaluator / Consultant	
2	Ms. Anna Summer	SAWSO Technical Advisor	
3	Mr. Edward Milambo	Manager Administration	Siavonga DHMT
4	Ms. Maureen Sendoi	Maternal Child Health (MCH)	Mazabuka DHMT
5	Ms. Irene Basila Muzyamba	C. C. S. P. Manager	Chikankata H. S.
6	Mr. Phisher Simutwe	C. C. S. P. M & E Coordinator	Chikankata H. S.
7	Ms. Agness Ng'andu	C. C. S. P. Assistant Administrator	Chikankata H. S.
8	Mr. Telford Hangoma	C. C. S. P. Field Supervisor	Zone 2
9	Mr. Ranoh Kalinda	C. C. S. P. Field Supervisor	Zone 3
10	Mr. Billy Mwiinga	C. C. S. P. Field Supervisor	Zone 1
11	Mr. Mailon Dumbula	C. C. S. P. Field Supervisor	Zone 4
12	Ms. Majory Nanzele	C. C. S. P. Field Supervisor	Zone 5
13	Mrs. Sara Chigoma	C. C. S. P. Field Facilitator	Zone 4
14	Mr. Herbet Chipuka	C. C. S. P. Field Facilitator	Zone 5
15	Mr. Spike Mweene	C. C. S. P. Field Facilitator	Zone 1
16	Mr. Obvious Ng'andu	C. C. S. P. Field Facilitator	Zone 3
17	Mr. Mulonga Handabile	C. C. S. P. Field Facilitator	Zone 1
18	Mr. Milton Simuule	C. C. S. P. Field Facilitator	Zone 3
19	Mr. Frackson Hajaya	C. C. S. P. Field Facilitator	Zone 4
20	Mr. Wisdom Hakubija	C. C. S. P. Field Facilitator	Zone 2
21	Mr. Honiger Cheelo	C. C. S. P. Field Facilitator	Zone 2
22	Major Peter Kayungwa	Mens Group	Ngangula Corp.

9. Evaluation Assessment Methodology

The lead evaluator used a participatory evaluation methodology. The Project Manager, M&E Manager, all five Field Supervisors and 15 Field Facilitators were involved, along with a TSA pastor and representative from each DHMT. The lead evaluator led the team through a process of deciding what to evaluate and guided the team in creating the evaluation instruments during an initial workshop. In the community the team used a variety of participatory techniques to engage the community in a full discussion of the strengths and weaknesses of the project.

The selection of the communities for the field interviews was done through a process of random selection in each of the five project zones. Staff members were organized into two teams, and team members were assigned to go to areas where they did not work.

The lead evaluator then taught the CCSP team how to make data recording tables, enter data, and analyze data. The whole team participated in analyzing the findings, in making recommendations, and in making an action plan.

10. List of persons interviewed and contacted

- The evaluation team interviewed 108 mothers of children UNDER FIVE, 62 pregnant women, 26 TTBAAs, 20 CHWs, 80 Care Group Volunteers, 28 CPTs and 10 RHCs. These groups were from 68 villages.
- The Resident Advisory, U.S. President's Malaria Initiative.
- Project Manager and the M&E Manager
- Five Supervisors
- 15 Field Facilitators

11. Special reports: There are no special reports for CCSP at this time.

12. CHGSP MTE Data Form

**Child Survival and Health Grants Program Project Summary
Salvation Army World Service Office
(Zambia)**

General Project Information:

Cooperative Agreement Number: **GHS-A-00-05-00033**
Project Grant Cycle: **21**
Project Dates: **(9/30/2005 – 9/30/2010)**
Project Type: **Standard**

SAWS O Headquarters Technical Backstop: **Claire Boswell**
Field Program Manager: **Irene Muzyamba**
Midterm Evaluator:
Final Evaluator:
USAID Mission Contact: **Randy Kolstad**

Field Program Manager Information:

Name: **Irene Muzyamba**

Alternate Field Contact:

Name: Richard Bradbury
Address: P Bag S1
Mazabuka
Phone: 260 222060
E-mail: rhbradbury@yahoo.com

Funding Information:

USAID Funding: (US \$) \$1,476,719

PVO match: (US \$) 527,354

Project Information:

Description:

Program Goal: To reduce maternal and under-five mortality through innovative community-based behavior change strategies and improved health services.

Interventions:

- Malaria
- Immunizations
- Nutrition
- Maternal and Newborn Care

Strategies:

- 1) The Care Group model
- 2) Positive Deviance/ Hearth model
- 3) Care and Prevention Teams
- 4) Men's Groups

Location:

The project area includes two districts in Zambia's Southern Province, about 130 miles southwest of Lusaka. The area is rural with few roads, limited transportation, and almost no infrastructure. The CCSP area includes all of Siavonga District and the part of Mazabuka District that falls within Chikankata Health Services catchment area.

PROJECT PARTNERS	PARTNER TYPE	SUBGRANT AMOUNT
Ministry of Health – Mazabuka District	Collaborating Partner	
Ministry of Health – Siavonga District	Collaborating Partner	
Harvest Help Zambia	Collaborating Partner	
Mtendere Mission Hospital	Collaborating Partner	
Churches Health Association of Zambia	Collaborating Partner	
Plan Zambia	Collaborating Partner	
The Salvation Army Chikankata Health Services	Collaborating Partner	

General Strategies Planned:

Strengthen Decentralized Health System

M&E Assessment Strategies:

- KPC Survey
- Health Facility Assessment
- Organizational Capacity Assessment with Local Partners
- Participatory Learning in Action
- Lot Quality Assurance Sampling
- Community-based Monitoring Techniques
- Participatory Evaluation Techniques (for mid-term or final evaluation)

Behavior Change & Communication (BCC) Strategies:

Interpersonal Communication
Peer Communication

Groups targeted for Capacity Building:

PVO	Non-Govt Partners	Other Private Sector	Govt	Community
Field Office HQ Cs Project Team	Local NGO	(None Selected)	Health Facility Staff	Health CBOs CHWs

Interventions/Program Components:

Immunizations (10 %)

(CHW Training)

(HF Training)

- Classic 6 Vaccines
- Vitamin A
- Mobilization

Nutrition (30 %)

(CHW Training) (HF Training)

-ENA

-Hearth

-Growth Monitoring

(HF Training)

Malaria (40 %)

(CHW Training) (HF Training)

-Antenatal Prevention Treatment

-ITN (Bednets)

-Care Seeking, Recog., Compliance

-IPT

-ACT

Maternal & Newborn Care (20 %)

(CHW Training) (HF Training)

- Emerg. Obstet. Care
- Recog. of Danger signs
- Newborn Care
- Post partum Care
- Integr. with Iron & Folate
- Normal Delivery Care
- Birth Plans
- Control of post-partum bleeding
- PMTCT of HIV
- Emergency Transport

Infants < 12 months:	4,620
Children 12-23 months:	4,353
Children 0-23 months:	8,973
Children 24-59 months:	13,146
Children 0-59 months	22,119
Women 15-49 years:	28,474
Population of Target Area:	124,613

Rapid Catch Indicators:

Indicator	Numerator	Denominator	Percentage	Confidence Interval
Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)	23	178	12.9%	4.9
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	55	67	82.1%	9.2

Indicator	Numerator	Denominator	Percentage	Confidence Interval
Percentage of children age 0-23 months whose births were attended by skilled health personnel	77	185	41.6%	7.1
Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of their youngest child	36	185	19.5%	5.7
Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours	43	92	46.7%	10.2
Percentage of infants age 6-9 months receiving breastmilk and complementary foods	90	95	94.7%	4.5
Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	30	92	32.6%	9.6
Percentage of children age 12-23 months who received a measles vaccine	47	92	51.1%	10.2
Percentage of children age 0-23 months who slept under an insecticide-treated bednet the previous night (in malaria-risk areas only)	34	174	19.5%	5.9
Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment	134	186	72.0%	6.5

Indicator	Numerator	Denominator	Percentage	Confidence Interval
Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks	4	140	2.9%	2.8
Percentage of mothers of children age 0-23 months who wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated	16	185	8.6%	4.0

Comments for Rapid Catch Indicators

Since the project used LQAS to gather the data, the actual percentages should be weighted according to the population of each supervision area. Although the areas are relatively similar in population size, the estimates reported in the KPC Baseline Survey Report differ slightly from those automatically calculated by this form. The TT indicator was based on card confirmation, not self-reporting.