Salvation Army/Zambia (TSA), Salvation Army World Service Organization (SAWSO), and TSA Chikankata Health Services Chikankata Child Survival Project (CCSP), 2005-2010

FINAL EVALUATION REPORT

THE SALVATION ARMY WORLD SERVICE OFFICE

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<th>Description</th>
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<tbody>
<tr>
<td>AED</td>
<td>Academy for Educational Development</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>AMSTL</td>
<td>Active Management of the Third Stage of Labor</td>
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<tr>
<td>ANC</td>
<td>Antenatal Care</td>
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<tr>
<td>ART</td>
<td>Anti-Retroviral Therapy</td>
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<tr>
<td>BCG</td>
<td>Bacillus Calmette-Guerin (vaccine)</td>
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<tr>
<td>CH&amp;D</td>
<td>Community Health and Development (of Chikankata Health Services)</td>
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<td>CHAZ</td>
<td>Churches Health Association of Zambia</td>
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<td>CHS</td>
<td>Chikankata Health Services</td>
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<tr>
<td>CHW</td>
<td>Community Health Worker</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence interval</td>
</tr>
<tr>
<td>CORE</td>
<td>Child Survival and Collaborations Resources (Group)</td>
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<tr>
<td>CPT</td>
<td>Care and Prevention Team</td>
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<tr>
<td>CSHGP</td>
<td>Child Survival and Health Grants Program</td>
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<td>CCSP</td>
<td>Child Survival Project</td>
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<tr>
<td>DHMT</td>
<td>District Health Management Team</td>
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<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
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<tr>
<td>DIP</td>
<td>Detailed Implementation Plan</td>
</tr>
<tr>
<td>DPT</td>
<td>Diphtheria, Pertussis, and Tetanus (vaccine)</td>
</tr>
<tr>
<td>GM/P</td>
<td>Growth Monitoring/Promotion</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immuno-deficiency Virus</td>
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<tr>
<td>IMCI</td>
<td>Integrated Management of Childhood Illness</td>
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<tr>
<td>IPT</td>
<td>Intermittent Preventive Treatment</td>
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<tr>
<td>IR</td>
<td>Intermediate Results</td>
</tr>
<tr>
<td>ITN</td>
<td>Insecticide-Treated Net</td>
</tr>
<tr>
<td>LQAS</td>
<td>Lot Quality Assurance Sampling</td>
</tr>
<tr>
<td>KPC</td>
<td>Knowledge, Practices &amp; Coverage (Survey)</td>
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<tr>
<td>MNH</td>
<td>Maternal and Neonatal Health Project (JHPIEGO)</td>
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<tr>
<td>MOH</td>
<td>Ministry of Health</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>NHC</td>
<td>Neighborhood Health Committees</td>
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<td>NMCP</td>
<td>National Malaria Control Program</td>
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<tr>
<td>OVC</td>
<td>Orphans and Vulnerable Children</td>
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<tr>
<td>PAC</td>
<td>Post-Abortion Care</td>
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<tr>
<td>PD</td>
<td>Positive deviance</td>
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<tr>
<td>PDI</td>
<td>Positive Deviance Inquiry</td>
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<tr>
<td>PLA</td>
<td>Participatory Learning and Action</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<td>-----------</td>
<td>-----------------------------------------------------</td>
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<tr>
<td>PMTCT</td>
<td>Prevention of Mother-to-Child Transmission</td>
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<td>PVO</td>
<td>Private Voluntary Organization</td>
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<tr>
<td>Rapid CATCH</td>
<td>Core Assessment Tool on Child Health</td>
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<tr>
<td>RHC</td>
<td>Rural Health Center</td>
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<tr>
<td>SAWSO</td>
<td>The Salvation Army World Service Office</td>
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<tr>
<td>SO</td>
<td>Strategic Objective</td>
</tr>
<tr>
<td>TSA</td>
<td>The Salvation Army</td>
</tr>
<tr>
<td>TTBA</td>
<td>Trained Traditional Birth Attendants</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
</tr>
<tr>
<td>WRA</td>
<td>White Ribbon Alliance for Safe Motherhood</td>
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</tbody>
</table>
Acknowledgements

The Final Evaluation Team expresses its deep gratitude and appreciation to all the project staff members, the Care Group Volunteers, Beneficiary Mothers and community members, and the Ministry of Health staff who responded to our questions, offered their views and opinions, and provided help. Dr. Henry Perry, as Evaluation Team Leader and author of this report, is grateful to all of the help provided by the other members of the Final Evaluation Team in collecting and compiling the information for this report and in discussing the findings and their implications.

Anna Summer, Health Technical Advisor, was a pleasure to work with. Mr. Phisher Simutwe, who provided increasingly strong leadership for the field team and who directed the field activities for the evaluation, has been an inspiration to all of us who have had the privilege of working with him. The excellent Detailed Implementation Plan written by Claire Boswell served as an excellent resource for many parts of this report, especially in the section describing the project area. Claire Boswell also provided valuable input into the final drafts of this report.

Finally, a special word of appreciation is in order for the Salvation Army/Zambia, which has been working in Chikankata for more than six decades to respond to the enormous educational and health needs of the people of the project area.
Executive Summary

Project Description, Goals and Objectives

The Chikankata Child Survival Project (CSSP) is SAWSO’s first experience with child survival programming in Zambia, linking community-based programming for child survival with a longstanding operation (since 1946) of the Salvation Army/Zambia (known as TSA, or The Salvation Army) Health Services in Chikankata (hereafter referred to as Chikankata Health Services, or CHS). CHS has been operating on a long-term basis a 200-bed hospital, formal training programs for nurses and laboratory technicians, and community-based programs for maternal and child health and HIV/AIDS. Also located in the same compound are schools for grades 1-12. The project operated in two Ministry of Health districts (Mazabuka and Siavonga) with a combined population of 124,613 people, including 53,521 direct beneficiaries (22,119 under-5 children and 28,474 women 15-49 years of age). Mazabuka and Siavonga Districts are rural areas, characterized by inadequate infrastructure and extreme poverty, with significantly high levels of maternal and child mortality. 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 Care Group methodology uses a paid Facilitator living in the area to teach a group of 10-15 Care Group Volunteers (CGVs) every two weeks a new health message which they then distribute to 10-15 Beneficiary Mothers who are neighbors. The CGVs are selected by communities in such a way that all households in the village with beneficiaries are included in the program. The health education messages focused on malaria, nutrition, maternal and newborn health, and immunizations.

The project had the following overarching goal: to reduce maternal and under-five mortality through innovative community-based behavior change strategies and improved health services. Specific objectives were as follows:

Result 1: Improved malaria prevention and treatment practices (40% of project effort)
Result 2: Increased immunization coverage in children (10% of project effort)
Result 3: Improved nutritional status of children and pregnant women (30% of project effort)
Result 4: Improved maternal and newborn care practices (20% of project effort)

Key Findings/Results

In spite of major challenges in project management (mostly due to turnover of HQ Technical Support Staff and project management staff in Chikankata), the project managed to achieve a strong field presence and achieve notable progress according to the direct observations of those who participated in interviews with the evaluation team – Beneficiary Mothers, CGVs, community leaders, and MOH staff. The field interviews revealed a strong appreciation for the empowering nature of the Care Group approach and an intense enthusiasm for continuing the
community-based activities following the formal termination of USAID funding. The project
communities had had previous experience with NGO projects that provided handouts of various
types. The focus of this project on education and empowerment of women and communities
provided a new experience that created increasing enthusiasm and commitment at the community
level – both because community residents began to see the project’s impact (in terms of better
nourished children and fewer maternal and child deaths) and because they began to take
ownership of the project and its achievements.

The increase in coverage of key child survival indicators was notable. Fifteen of 21
indicators showed improvements of at least 10 percentage points or more, although only seven of
21 end-of-project (EOP) goals were actually achieved. The most notable findings were for two
high-impact indicators. There was an increase in the prevalence of exclusive breastfeeding
among children 0-5m of age, from 43.8% at baseline to 85.1% at endline, and the usage of
insecticide-treated bed nets (ITNs) increased from 21.8% to 56.2%. There was also a notable
increase in care seeking from an appropriate source for children 0-23m with a febrile episode,
from 22.5% to 45.8%, and in the percentage of mothers who reported taking at least 90 days of
iron/folate supplements during their most recent pregnancy, from 24.5% to 57.2%.

Using the current version of the Lives Saved Tool (LiST) calculator (estimating the
number of lives saved indirectly based on changes in population coverage of proven child
survival interventions), the project saved an estimated 1,097 lives of children less than five years
of age at a cost per life saved of $1,391, a cost per DALY averted of $46, and an annual cost per
beneficiary (women of reproductive age and children) of $7.92.

**Main Conclusions and Recommendations**

Given the lack of previous experience of the Chikankata Health Services with child
survival programming and the turnover of HQ Technical Backstops and project managers on the
ground in Chikankata, the achievement of the field team are quite impressive. A solid foundation
has been established to build upon, and communities are now fully engaged in the process. The
potential for continuing these community-based activities with a lower degree of paid
supervisory support and integrating other community-based interventions in maternal and child
health, family planning, HIV/AIDS, and tuberculosis is very strong. Given the growing
appreciation for community-based programming for maternal and child health (including family
planning) and for the prevention and control of HIV/AIDS, tuberculosis, and malaria, CHS
should make a commitment to keep this work going, keep the current field staff from dissipating,
seek funds to merge current community-based child survival programming with on-going
HIV/AIDS activities in the communities, and seek additional funding for on-going program
strengthening, expansion, and initiation of training programs to strengthen community-based
programming more broadly in Zambia.
Overview of the Project

Project Goals and Objectives
The project had the following overarching goal: to reduce maternal and under-five mortality through innovative community-based behavior change strategies and improved health services. Specific objectives were as follow:

Result 1: Improved malaria prevention and treatment practices (40% of project effort)
IR 1.1: Increased insecticide-treated net use among pregnant women and children under five
IR 1.2: Increased appropriate care-seeking for danger signs
IR 1.3: Continued high coverage of intermittent preventive treatment in pregnant women

Result 2: Increased immunization coverage in children (10% of project effort)

Result 3: Improved nutritional status of children and pregnant women (30% of project effort)
IR 3.1: Improved child feeding practices
IR 3.2: a) Improved detection of malnutrition b) Improved community treatment of malnutrition
IR 3.3: Increased exclusive breastfeeding up to six months of age
IR 3.4: Increased coverage of micronutrient supplementation (Vitamin A and iron/folic acid)

Result 4: Improved maternal and newborn care practices (20% of project effort)
IR 4.1: Increased deliveries by trained providers, improved birth preparedness, and improved home practices related to pregnancy and birth
IR 4.2: Improved quality of maternal and newborn care in health facilities
IR 4.3: Increased coverage of postpartum care

Project Location
The project is located in the country of Zambia, which is one of the least developed countries in the world, ranking 164th out of 177 countries on the Human Development Index. Of the country’s 12.3 million inhabitants, 64% live in less than $1.25 per day. The national level of education is quite low. According to the 2007 Demographic and Health Survey (DHS), only 12% of females age 6 and older had completed primary school and only 3% had completed secondary school. Traditional beliefs, especially those related to witchcraft and illness, are still common and quite strong. Traditional healers are abundant.

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2 Ibid.
3 Central Statistical Office (CSO) MoHM, Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. Zambia Demographic and Health Survey 2007. Calverton, Maryland, USA: CSO and
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. Figures 1 and 2 provide a detailed map of the project area.
According to official Ministry of Health data (from 2000) and the Chikankata Health Management Information System, the total population of the project area was estimated in 2005 to be 124,613. There are 298 villages in the project area, and these are organized into 57 communities with each under the traditional leadership of a senior headman.

Most households in the CCSP area survive on subsistence farming (maize, millet, groundnuts). A few have cash crops, such as maize, cotton, and sunflowers or work on commercial farms. The baseline Knowledge, Practices, and Coverage (KPC) survey found that only about 20% of mothers work outside the home earning money. Those mothers that do work outside of the home primarily work in agriculture or as shopkeepers/vendors. The 2001-2002 droughts and an outbreak of hoof and mouth disease among the cattle have made the economic situation critical for many people. According to an analysis of the government in 2000, almost half (48%) of the Southern Province is chronically food insecure. Men control most resources and are the primary decision-makers in the household and community. This control affects food purchases, health expenditures, and care-seeking practices.
Over 95% of the people of the Siavonga and Mazabuka Districts are Tonga. One-quarter (23.9%) of adult women have had no formal education at all, and fewer than half have completed primary school. This lack of access to formal education for women negatively impacts maternal and child health, as women lack confidence to navigate the formal health system and take a proactive role in partnering with health workers. Cultural practices of the Tonga that increase HIV transmission and diminish women’s status include polygamy (30% of women in the province live in polygamous unions) and wife inheritance. *Lobola*, the bride price signifying the husband’s ownership of the wife, not only diminishes women’s status but also encourages promiscuity if young men cannot afford the offered price. Another cultural practice affecting health is the *kusonda*, or consultation with a traditional healer, to determine the cause of a loved one’s illness or death. Also, people often blame pregnancy complications or difficult labor on unfaithfulness during marriage (either by the husband or wife). Many of the signs of severe malaria (convulsions) are believed to be caused by witchcraft and are treated by traditional healers. These beliefs can mean fewer people seek appropriate care or take appropriate action for illness.

The Southern Province, where the project is located, includes Zambia’s second-largest city, Livingstone (although the city itself is not in the project area). The Province has an under-five mortality rate of 103 deaths per 1,000 live births, and this relatively low rate undoubtedly reflects the lower mortality rates in the city of Livingstone. For rural Zambia nationally, the under-5 mortality rate is 139, and for those with no education or primary education only, the under-5 mortality rate is 144-146, so the project area most likely has an under-5 mortality rate in this range.

**Health Conditions in Zambia and in the Project Area**

Zambia has one of the lowest life expectancies in the world, estimated by UNDP to be only 44.5 years. Of course, the high prevalence of HIV/AIDS is one of the important reasons for this low life expectancy. The 2007 DHS estimated the national HIV prevalence to be 16.1% among women 15-49 years of age. According to the most recent estimates from the 2010 Countdown Report, the national under-5 mortality rate is 148 per 1,000 live births, down only marginally from 1990, when it was 172. (However, according to the most recent national Demographic and Health Survey, the under-5 mortality rate is 119.) As shown in Figure 3, malaria is the leading single cause of death, followed closely by diarrhea, pneumonia and

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4 Ibid.
HIV/AIDS. As a group, neonatal conditions account for 26% of under-5 deaths. The estimated maternal mortality ratio nationally is 591 maternal deaths per 1,000 live births.8

Data from the Mazabuka and Siavonga MOH show that malaria is the primary cause for under-five consultations at all levels of the health system: 30% for the out-patient department of the hospital, 46% for Rural Health Centers (RHCs), and 22% for Community Health Workers (CHWs). It is also the leading cause of under-five admissions for Chikankata Hospital (53%). In Siavonga, MOH data estimate that each child has nearly two malaria episodes per year. Malaria is endemic and peaks during the rainy season (November to April). Mazabuka district data indicate that 12% of children under-5 are malnourished, but in Siavonga rates of malnutrition are twice that: 25% of children are malnourished.

The Southern Province has an HIV prevalence rate of 14.5% among women and men 15-49 years of age.9 CHS estimates that 12,000 orphans live in its catchment area, which is only one portion of the project area. The total fertility rate in the Southern Province is 6.7 and in rural Zambia it is 7.5.10

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8 Ibid.
9 Ibid.
10 Ibid.
Health Services in the Project Area

Facility-based health services in the CCSP area include 15 Rural Health Centers (RHCs), three Hospital-Affiliated Health Centers (similar to RHCs, but located at hospitals), and three hospitals. None of these facilities are fully staffed because of difficulties in recruiting staff, and local CHWs man some of the more peripheral facilities. Three organizations manage these facilities: The Salvation Army (TSA), which runs Chikankata Health Services and oversees five RHCs; the Ministry of Health, which runs Siavonga District Hospital and 10 RHCs; and the Zambian Catholic Diocese of Monze, which runs the Mtendere Mission Hospital. CHS serves the part of Mazabuka district included in the CCSP area (59,000) as well as approximately 12,000 people in Siavonga. The Siavonga District Hospital serves about 36,000 people, but it lacks sufficient equipment and supplies. Mtendere, in Siavonga, is a well-equipped 145-bed hospital. It has a catchment area of 18,000 (although it also serves many outside its catchment area). Most services at the hospitals and RHCs are free, including all services for under-5s and pregnant women. In reality, most of the population lives three hours or more from the nearest health facility, and some live five hours away.

The health staffing situation in the CCSP area is critical. Standard staffing for an RHC includes a clinical officer, an environmental health technician, a nurse, and a midwife. However, none of the 15 centers in the project area are fully staffed. Lack of adequate housing and poor transport make it difficult to attract staff to rural areas. In fact, five of the nine health facilities in the Siavonga District do not have any staff and limited services are provided there by CHWs.

CHS provides clinical care, outreach, and training. Clinical care involves antenatal care (ANC); postnatal care; under-five services (immunization, growth monitoring, education); family planning; youth-friendly services (reproductive health services, counseling); outpatient screening, treatment, and admission; anti-retroviral therapy (ART); voluntary counseling and testing (VCT); prevention of mother-to-child transmission (PMTCT); tuberculosis treatment; laboratory services; pharmacy; and surgery. Outreach services include mobile clinics (offering antenatal/postnatal care, under-5 services, family planning and basic curative care); a school health program (education, immunization, screening, water and sanitation, and anti-AIDS clubs which include drama groups); and home-based care. For training, CHS offers a nurse-midwifery school, AIDS management training, and community volunteer training.

For community-based services, 62 Community Health Workers (CHWs) are recognized by the MOH to provide health education, treat malaria and eye infections, refer cases to health facilities, provide oral rehydration solution, recognize and refer pneumonia cases, and perform basic first aid. They have a small kit with medicines for the above conditions (including Coartem for malaria), and they treat patients in a small unofficial health post. They spend most of their time out in the communities, however.

Communities respect CHWs and use their services, but remuneration is still low for most. They are authorized to charge a small percentage of sales of commodities (such as bed nets and certain drugs). The actual number of CHWs in the project area – 1 CHW per 1,351 people – is well below the national standard of one CHW per 500 people. Furthermore, these are
concentrated in the Mazabuka district nearer the Chikankata Hospital with fewer in the Siavonga Health District. There is poor integration of the CHWs with the health facilities to which they are supposedly attached.

About 76 trained Traditional Birth Attendants (TTBAs) provide antenatal and postnatal care, attend deliveries, give health education, provide family planning counseling and services (pills and condoms), and encourage women to receive antenatal care and to deliver at a health facility. As with CHWs, turnover is low and community respect is high, but payment is rare, and the number of TTBAs in the project area is much lower in the Siavonga area of the project than in the Mazabuka area.

Community Health Workers have since the early 1980s been a part of the national strategy for primary health care. They are trained to treat basic illnesses and to provide health education and other preventive activities in their communities. CHWs are volunteers and do not receive payment from the government, but they are authorized to keep a small percentage of sales of commodities (such as ITNs and certain drugs). Many communities pay their CHWs with in-kind contributions and some are employed on commercial farms. Supervision of CHWs is generally the responsibility of the front line health workers, although logistical challenges make such supervision difficult. CHWs report to and receive their drug/supply kits from health centers, ideally on a monthly basis. Most supervision takes place during these visits, rather than in the community setting. NGOs providing rural health services work alongside the government to support training and supervision of CHWs.

Lack of transportation, distance, and poverty make it difficult for many people to access health facilities. A 1998 maternal mortality study carried out by UNFPA found that in 74% of maternal death cases someone had tried to transfer the mother to a health facility. However, the mother died because the facility was too far way, transportation was not available, or the patient or spouse refused. During focus group discussions held at the outset of the project, people cited cost of treatment, preference for traditional healers and self-treatment (either with herbs or chloroquine), lack of transport, poor quality of treatment at health facilities, and the long distance to health facilities as the main reasons they do not seek medical help for malaria. Approximately 25% of people in the CHS catchment area (and 40-50% of those in the Siavonga portion of the project area) live more than five kilometers from a health facility.

The project area population is generally homogenous, but communities that are located far from health facilities and/or connected by poor or nonexistent roads receive fewer services from the formal health system than those that live closer. Orphans and Vulnerable Children (OVCs) and people living with HIV are also especially vulnerable.

In addition to TSA’s health programming in the Chikankata catchment area, CHS has a UNICEF-funded OVC support program; a USAID-funded HIV/AIDS program for prevention, OVC support, and home-based care; and a European Union HIV/AIDS program including community capacity building, prevention of HIV/AIDS, home-based care, and microfinance. The hospital has recently begun a PMTCT program with USAID funding through the Catholic
Medical Mission Board and an ART clinic with funding from the AIDS Healthcare Foundation, the Center for Infectious Disease Research in Zambia, and the government.

There are several other NGOs programs in the project area. Plan International works in four communities (having 8,700 people) and provides support in water (well construction) and sanitation, health education, school construction, microfinance, reforestation. CHS and Plan coordinate activities to support volunteers and maximize efforts and resources, e.g., combined volunteer trainings to avoid duplication and schedule conflicts. Other NGOs working in Mazabuka meet quarterly with the District Health Management Team (DHMT) to plan, coordinate activities, and share results. Harvest Help is a small local NGO doing agriculture, health, civic management, education, and HIV work in 13 communities along Lake Kariba. It supports 26 CHWs and TTBAs and provides outreach services (through a clinical officer and two nurses) in these low accessibility areas.

Programs at the national level which are operating in the project area include the National Malaria Control Program and Church Health Association of Zambia (CHAZ) program for distribution of clean birth kits and ITNs. The USAID mission partners with Society for Family Health for social marketing of various products, including ITNs and Clorin (which is the brand-name for chlorine drops to add to drinking water); JSI/DELIVER; the Health Communication Partnership; and the Health Services and Systems Project.

**Project Population**
The project estimates a total population of the project area to be 124,613 with 50,593 beneficiaries (Table 1).

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Population estimates based on data available at the time of writing of the Detailed Implementation Plan (2005)</th>
</tr>
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<tbody>
<tr>
<td>Total population</td>
<td>124,613</td>
</tr>
<tr>
<td>Estimated number of women of reproductive age (WRA)</td>
<td>28,474</td>
</tr>
<tr>
<td>Number of children &lt;5 years of age (U5C)</td>
<td>22,119</td>
</tr>
<tr>
<td>Total number of beneficiaries (U5C + WRA)</td>
<td>50,593</td>
</tr>
</tbody>
</table>

**Technical Interventions and Cross-cutting Strategies**
Table 2 lists the eight interventions areas along with the corresponding level of effort (LOE) and end-of-project (EOP) objectives for each. Almost all of the project interventions involved community-based health promotion and health education, including encouragement of mothers to utilize existing services available at health facilities and outreach sites.
<table>
<thead>
<tr>
<th>Intervention</th>
<th>LOE</th>
<th>End-of-Project Objectives</th>
</tr>
</thead>
</table>
| **Malaria**       | 40% | **IR 1.1** Increased ITN use among pregnant women and children under five  
|                   |     | • Increase from 21.8% to 60% the proportion of children 0-59 months who sleep under ITNs every night  
|                   |     | • Increase from 20% to 60% the proportion of pregnant women who sleep under ITNs every night  
|                   |     | • Increase from 52.1% to 75% the proportion of nets that are re-treated at least once a year  
| **IR 1.2**        |     | Increased appropriate care-seeking for danger signs  
|                   |     | • Increase from 10.5% to 80% 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  
| **IR 1.3**        |     | Continued high coverage of IPT in pregnant women  
|                   |     | • Maintain above 70% the proportion of pregnant women who receive IPT during pregnancy  
| **Immunizations** | 10% | **IR 2.1** Increased immunization coverage among children  
|                   |     | • Increase from 35.2% to 70% the proportion of children 12-23 months who are fully vaccinated by the first birthday  
|                   |     | • Increase from 54.6% to 80% the proportion of children 12-23 months who have received a measles vaccine  
| **Nutrition**     | 30% | **IR 3.1** Improved child feeding practices  
|                   |     | • Increase from 27.2% to 50% the proportion of children who eat foods rich in Vitamin A, protein, and iron everyday  
|                   |     | • Increase from 21.1% to 50% the proportion of children 12-59 months who eat semi-solid food at least four times each day  
|                   |     | • Increase from 3% to 30% the proportion of children 0-23 months who receive increased fluids and continued feeding during illness  
| **IR 3.2**        |     | (a) Improved detection of malnutrition, and (b) Improved community treatment of malnutrition  
|                   |     | • Increase from 69.4% to 90% the proportion of children 0-59 months who are weighed at least bimonthly  
|                   |     | • 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  
|                   |     | • Increase from 87.4% to 95% the proportion of children 0-59 months who have an appropriate weight for their age (above -2 standard deviations)  
| **IR 3.3**        |     | Increased exclusive breastfeeding up to six months of age  
|                   |     | • Increase from 43.8% to 70% the proportion of children 0-6 months who are exclusively breastfed  
| **IR 3.4**        |     | Increased coverage of micronutrient supplementation (Vitamin A and iron/folic acid)  
|                   |     | • Increase from 37.3% to 75% the proportion of children 6-59 months who receive semi-annual doses of Vitamin A  
|                   |     | • Increase from 24.5% to 50% the proportion of pregnant women who take iron/folic acid supplements  
<p>| <strong>Maternal and</strong>  | 20% | <strong>neonatal health</strong>                                                                                                                                                                                                      |
|                   |     | <strong>IR</strong>                                                                                                                                                                                                                   |</p>
<table>
<thead>
<tr>
<th>Intervention</th>
<th>LOE</th>
<th>End-of-Project Objectives</th>
</tr>
</thead>
</table>
| IR 4.1       |     | Increased deliveries by trained providers, improved birth preparedness, and improved home practices related to pregnancy and birth  
• Increase proportion of births attended by a health professional or TTBA from 51.4% to 70%  
• Increase from 55.8% to 70% the proportion of home births that use a clean birth kit  
• Increase from 0% to 90% the proportion of communities that have established emergency funds and transport  
• Increase to 70% the proportion of obstetric/neonatal emergencies that are referred in a timely and appropriate manner  
• Increase to 70% the proportion of newborns who are placed with the mother at birth  
• Increase from 43.8% to 75% the proportion of newborns who are immediately breastfed |
| IR 4.2       |     | Improved quality of maternal and newborn care in health facilities  
• Increase to 90% the proportion of health facilities that have at least one professional who competently performs infection prevention and active management of third stage of labor actions  
• Increase to 95% the proportion of maternal and newborn emergencies at RHCs that are referred according to protocol |
| IR 4.3       |     | Increased coverage of postpartum care  
• Increase from 18.7% to 50% the proportion of mothers who have a postpartum check-up by a health professional/TTBA  
• Increase from 6.3% to 50% the proportion of mothers who receive a postpartum dose of Vitamin A during the first two months after delivery |

The project devoted the first year to malaria activities only and then in the second year expanded its work to nutrition and immunizations. In the third year of project activities, the maternal and newborn care interventions were introduced. In years four and five of the project, all of the educational modules received by the Care Group Volunteers were repeated. The interventions were delivered mostly through the Care Group strategy, described further below in the next section.

The Positive Deviance (PD) Hearth Model (referred to hereafter as PD Hearth) was used to rehabilitate malnourished children.\(^{11}\) A one-week training was provided to 41 participants on this (including representatives of the MOH, NGOs and well as project staff) by an external expert on this (Donna Sillan, MPH) in 2007.\(^{12}\) PD Hearth had the two-fold purpose of changing a mother’s behavior and rehabilitating her child. The PD Hearth approach involves mothers, families, and neighborhoods in rehabilitating their own malnourished children by using local food and local know-how. The first goal of this approach is to convince mothers that the symptoms their children display are actually related to a lack of proper nutrition and not to

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\(^{11}\) The Hearth model involves calling together groups of mothers of malnourished children and helping them to learn what locally foods are nutritious (from “positive deviant” mothers in the community who have well-nourished children) and then spend two weeks in daily educational sessions in which mothers bring these foods and prepare them as a group for their children. For further information, see [http://coregroup.org/component/content/article/84](http://coregroup.org/component/content/article/84) (accessed 2 August 2010).

spiritual influences, as was traditionally believed to be the case. The second goal of this approach is to not only rehabilitate the participating children but also reduce the prevalence of childhood malnutrition in the community and to energize the mothers and community to take broader, sustained action against malnutrition and poor health. The PD Hearth intervention takes place once growth monitoring (carried out by health center staff) has identified moderately or severely malnourished children. Mothers of these malnourished children were invited to participate in the two-week-long PD Hearth Program. Facilitators and Care Group volunteers had been previously trained in PD Hearth protocols developed by the project. The positive deviance inquiry (PDI) involves a set of exercises to help local mothers discover the practices of mothers of positive deviants (children in the villages who are well-nourished). These include not only nutritional practices but also child care practices. As part of this inquiry, mothers of malnourished children worked with the staff to prepare recipes of nutritious locally available foods. Then, the mothers would come each day with these foods and prepare these recipes. Included in the protocol were weighing the child at the beginning and the end of the cycle, de-worming, administration of vitamin A, and promotion of handwashing and appropriate breastfeeding.

The mother brings her child six days per week for two weeks to a daily session of practice and supervision in the village. Mothers are expected to bring food and/or other materials to these group sessions. Children were weighed at the beginning and at the end of the two-week-long PD Hearth session. If they showed an improvement in nutritional status (moving from severe to moderate malnutrition or from moderate to mild malnutrition, or gained at least 400 grams, or showed continued weight gain) then they graduated from the program. Otherwise, they repeated the cycle again.

The major cross-cutting strategy was the Care Group methodology, as described further in the next section.

The second major cross-cutting strategy was improved strengthening services at the health care facilities in the project area. This consisted of quality of care assessments, training, and logistical support. A facility quality of care assessment was carried out in 2006 (see Appendix 18). Only one-half to two-thirds of the facilities met minimal standards for staffing, infrastructure, and drugs/supplies (only 28% of the health facilities had ITNs on the day of the assessment, for instance), and one-quarter to three-quarters met minimal standards for processes (health information system, training, supervision, and quality assurance). Quality of services was very poor, particularly for treatment of suspected cases of malaria: very few children received Coartem, which is the MOH policy.

The project provided considerable training to MOH staff working at health facilities in the project area, particularly in malaria, immunization, nutrition, maternal and newborn care, counseling skills, and quality assurance. In 2009, the project provided a one-week course on emergency obstetrics and newborn care followed by 12 days of practical training for 18 facility-based staff in the project area. The project also provided refresher training to the CHWs and facilitated training for an additional 50 CHWs who were trained by MOH district trainers. In

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addition to providing health center staff with the same training that it gave the Supervisors and Facilitators on the health messages for the Care Groups, the project also provided the health center staff with training on immunizations. The project also provided some of the health centers that had no transport capabilities with logistical support for immunization outreach sessions. This usually involved a Supervisor taking an MOH vaccinator on his motorbike to an outreach session.

A third cross-cutting strategy was the provision of training to CHWs and TTBAs. The project provided refresher training to the CHWs and the TTBAs in the project area on malaria, nutrition, immunizations, and safe motherhood/neonatal care.

Project Design

The overall project strategy was to reach every woman of reproductive age and mothers of children 0-59 months of age with targeted educational messages that will lead to health-promoting behaviors and to improved care-seeking behavior. These behaviors would then lead to measurable improvements in the coverage of key child survival indicators and to reductions in maternal and under-5 mortality.

Care Group Strategy

The Care Group model as implemented by the project is shown in Figure 3. The Care Group approach was originally developed 15 years ago in Mozambique by Dr. Pieter Ernst, working with World Relief in Gaza Province. The Care Group structure in the project area made it possible to carry out the following activities:

- Select Care Group Volunteers, each trained to communicate educational messages to 10-15 other women and mothers in their immediate neighborhood;
- Organize these Care Group Volunteers (called Care Givers) into Care Groups with 10-15 members each to receive training and supervision from Facilitators;
- Teach paid Facilitators to train and supervise Care Group Volunteers to become behavior change agents;
- Employ a team of Supervisors to train, manage, and supervise Facilitators and to problem solve within the project area;
- Establish regular communication links among Care Group Volunteers, community leaders, staff at health facilities, MOH directors and staff, and the Project Management Team;

The Facilitator met every two weeks with each Care Group. Each Facilitator had 7-8 Care Groups under his/her responsibility. The project utilized five Supervisors, 21 Facilitators, and approximately 1,700 Care Group Volunteers (in 158 Care Groups) for a population of 124,613 people (Figure 4). The Facilitators were all long-time residents of the villages where they worked and lived in the area where they worked.
Each Supervisor supervised four Facilitators (except for one who supervised five). The Supervisors in turn were supervised by a Project Supervisor. The project also had various other staff based at the Chikankata project (Health Education Coordinator, Adult Services Coordinator, and the Monitoring and Evaluation Coordinator). The project had access to one or more vehicles when needed (that are part of the CHS fleet). Each of the five Supervisors had a motorbike, and each of the Facilitators had a bicycle provided by the project.
Figure 4. The Care Group Model Utilized in the Project
The Care Group methodology is gaining increasing interest, and its effectiveness in reducing under-five mortality in other settings has been reported elsewhere.14

At the outset, the project leadership recruited five Supervisors from the area who the assisted with recruitment of 21 Facilitators from the area. They then began to work with local community leaders and the formal Neighborhood Health Committees (NHCs) and Care and Prevention Teams (CPTs) in each community to identify Care Group Volunteers and to map the communities (Figure 5).

The 21 Facilitators were also trained to serve as interviewers for the baseline KPC survey. Then, with the help of local community leaders, the Facilitators conducted a census of all women of reproductive age and mothers of children aged 0-59m and registered them. Then, these women, in collaboration with the Facilitators and community leaders, selected Care Group Volunteers.

Then, the Supervisors and Facilitators met together to learn four training modules, one for each of the project’s technical interventions. The Supervisors and Facilitators met together for a week or so to learn the material for each module. It took about 30 months to complete the entire educational cycle.


Every two weeks, each Care Group met with its Facilitator for two hours. (Occasionally, the meetings lasted three hours). Care Group Volunteers usually had to walk no more than 30 minutes to attend a Care Group meeting. At that time, the message learned during the previous two weeks was reviewed. Then, they learned a new health message.

Then, over the next two weeks, the Care Group Volunteers then met with the 10-15 Beneficiary Mothers for which they were responsible. During home visits, the Care Group Volunteer used a training booklet with pictures describing the message being given. She visited all the Beneficiary Mothers in their homes, but they occasionally met as a group as well.

**Principal Messages Employed**

The health education messages focused on malaria (transmission, importance of ITNs and IPTp, signs and symptoms of malaria in children, and the importance of early care seeking from a trained provider); nutrition (including exclusive breastfeeding for the first six months of life, continued breastfeeding with appropriate complementary feeding for children 6-23 months of age, and rehabilitation of malnourished children with local foods); promotion of maternal and newborn health (importance of ANC and early access to ANC, danger signs of pregnancy, clean delivery with birth kits for home deliveries, promotion of facility births, immediate breastfeeding and placement of the newborn with the mother, exclusive breastfeeding and postpartum care), and immunization promotion (why immunizations are important, the immunization schedule, and side effects of immunizations). These are all contained in the educational materials used by the Care Group Volunteers in their visits with the Beneficiary Mothers (Figure 6).

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15 An example of this is shown in Annex 14. A complete copy of these educational modules (in Portuguese) is available from Food for the Hungry.
Partnerships

The project worked in partnership with the MOH, particularly at the district level with the District Health Management Teams (DHMTs) and with the health center staffs. District-level MOH staff were fully informed about the project’s goals, objectives, and operational strategies. The project met quarterly with each DHMT and provided an update on project activities. The project promoted the utilization of MOH services at Expanded Program on Immunization (EPI) outreach sites and at the health centers.

Collaboration with USAID and Its Mission in Mozambique

The project maintained frequent contact by phone and email with USAID staff in Lusaka. Ashley Gelman of the USAID Child Survival and Health Grants Program Office in Washington, DC, visited the project with local USAID mission officials in April. Nazo Kureshy, Director of the USAID Child Survival and Health Grants Program was scheduled to come on that same trip but was unable to travel because of flight cancelations across caused by a volcano eruption in Iceland. In addition, one of the USAID Zambia mission staff officers (Dr. Mack) visited the project site twice. Dr. Jim Ricca, of the USAID-supported Child Survival Technical Support Project with ORC/Macro in Washington, DC, visited the project to carry out a baseline health facilities assessment.

Data Quality: Strengths and Limitations

The project staff members collected their own household survey data and this was analyzed by Claire Boswell. Household interviews were conducted by Facilitators and Supervisors under close supervision by the HQ backstop. Questionnaires were translated from English to the local language (Tonga) and interviews were carried out in Tonga.

By the end of the project, the Facilitators had had extensive experience in carrying out and recording the results of household interviews. The project learned to provide good training for the Facilitators and to give clear instructions before going to the field to collect information.

There could possibly be several biases entering the findings. One is that the data collectors themselves (the Facilitators) might have been biased by obtaining and recording answers that were more favorable for the project that might have actually been the case. The second bias is that respondents may have been biased by providing responses that they thought the interviewer (or the project) wanted to hear. (This bias could have also been operating to some degree in the focus group discussions.) But the question must also be asked – if an independent interviewer unassociated with the project arrived to conduct the same interview, would that person obtain information of better quality than that which the Facilitators obtained? Without knowledge of the local language and some kind of trusted connection with the communities, it is hard to envision that outside independent interviewers could have obtained better data. In addition, many of the questions are such that it is hard for either the interviewer or the respondent to know the desired or preferred response is.
It should also be pointed out that except for the mini-KPCs carried out in 2007, 2008, and 2009, Facilitators were always assigned to areas not in their normal supervisory jurisdiction for household interviews. This certainly helped to reduce any potential for bias.

**Project Results**

**Progress toward Quantitatively Defined Objectives**

Overall, the progress in achievement of quantitatively defined end-of-project targets was considerably less than had been hoped for. However, the timing of the endline survey relative to the baseline survey likely affected the results negatively, as we shall see. The impact of timing is evidenced in the sharp rise in coverage during mini-KPCs (conducted at the same time of year as the baseline) with a subsequent slight drop at endline.

As shown in Table 3, only seven of 21 end-of-project (EOP) targets were achieved, and among these seven, only four of the seven changes from baseline were favorable and statistically significant. Overall, only six of the 21 indicators demonstrated a change that was statistically significant and favorable. One indicator (vitamin A coverage) showed a statistically significant worsening (from 37% at baseline to 10% at endline). However, the reason for this was beyond the project’s control and will be discussed below. Fifteen of the 21 indicators showed an absolute increase of more than 10 percentage points.
Table 3. Results from Final KPC Survey – July 2010
Chikankata Child Survival Project

Result 1: Improved malaria prevention and treatment

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Baseline January 2006</th>
<th>Mini-KPC 2007</th>
<th>Final July 2010</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean 95% C.I.</td>
<td>Mean 95% C.I.</td>
<td>Mean 95% C.I.</td>
<td></td>
</tr>
<tr>
<td><strong>IR 1.1 Increased insecticide-treated bed net use for pregnant women and children under five</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of children 0-23 months who slept under an ITN the night before</td>
<td>21.8 15.7-27.9</td>
<td>66.2</td>
<td>111/190</td>
<td>56.2* 47.4-64.5</td>
</tr>
<tr>
<td><strong>IR 1.2 Increased appropriate care-seeking for danger signs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of children 0-23 months who were treated with an effective anti-malarial drug within 24 hours after the fever began</td>
<td>10.5 4.0-16.9</td>
<td>25.0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>% of children 0-23 months who sought care from an appropriate source within 24 hours after the fever began</td>
<td>22.5 14.8-30.2</td>
<td>N/A</td>
<td>56/116</td>
<td>45.8* 34.9-57.2</td>
</tr>
<tr>
<td>% of children with cough and fast/difficult breathing in the last two weeks who were taken to a health facility or received antibiotics from a trained CHW</td>
<td>81.3 73.4-89.1</td>
<td>N/A</td>
<td>95/107</td>
<td>89.4 80.9-95.5</td>
</tr>
<tr>
<td><strong>IR 1.3 Increased coverage of intermittent preventive malaria treatment in pregnant women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of mothers of children 0-23 months who received IPT for malaria during their last pregnancy (confirmed by maternal health card)</td>
<td>83.8 78.9-88.9</td>
<td>94.9</td>
<td>167/190</td>
<td>87.7 81.2-92.7</td>
</tr>
</tbody>
</table>

16 Data was collected in five supervision areas using LQAS. All means are weighted by population of supervision areas.
*Change from baseline is statistically significant.
### Result 2: Increased immunization coverage in children

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Baseline January 2006</th>
<th>Mini-KPC Feb 2008</th>
<th>Final July 2010</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of children 12-23 months who are fully vaccinated by the first birthday (BCG, DPT3, OPV3, and measles)</td>
<td>Mean 35.2 25.8-44.7</td>
<td>55.5 53/95</td>
<td>54.6 42.0-66.3 70%</td>
<td></td>
</tr>
<tr>
<td>% of children 12-23 months who have received a measles vaccine</td>
<td>Mean 54.6 44.6-64.5</td>
<td>75.6 70/95</td>
<td>73.7 62.2-83.9 80%</td>
<td></td>
</tr>
</tbody>
</table>

### Result 3: Improved nutritional status of children and pregnant women

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Baseline January 2006</th>
<th>Mini-KPC Feb 2008</th>
<th>Final July 2010</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IR 3.1 Improved child feeding practices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% 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</td>
<td>Mean 27.2 19.7-34.6</td>
<td>25.0 52/139</td>
<td>40.4 30.7-50.5 50%</td>
<td></td>
</tr>
<tr>
<td>% of children 12-23 months who ate semi-solid food at least four times in the past 24 hours</td>
<td>Mean 21.1 13.4-28.8</td>
<td>36.7 30/90</td>
<td>32.2 21.6-44.9 50%</td>
<td></td>
</tr>
<tr>
<td>% of sick children 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks</td>
<td>Mean 3.0 0.0-5.9  N/A 16/149</td>
<td>10.5 5.2-17.4 30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IR 3.2 a) Improved detection of malnutrition, b) Improved treatment of malnutrition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of children 0-23 months who were weighed at least once in the past two months</td>
<td>Mean 69.4 62.8-76.1</td>
<td>69.4 136/187</td>
<td>73.8 65.7-81.0 90%</td>
<td></td>
</tr>
<tr>
<td>% of children 0-23 months who are above -2 standard deviations for weight for age</td>
<td>Mean 87.4 82.3-92.5</td>
<td>88.9 148/183</td>
<td>80.9 74.4-86.3 95%</td>
<td></td>
</tr>
<tr>
<td><strong>IR 3.3: Increased exclusive breastfeeding up to six months of age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of infants 0-5 months who received nothing except breast milk in the past 24 hours</td>
<td>Mean 43.8 34.4-53.3</td>
<td>67.9 85/100 85.1*</td>
<td>74.5-92.2 70%</td>
<td></td>
</tr>
<tr>
<td><strong>IR 3.4: Increased coverage of micronutrient supplementation (Vitamin A and iron/folic acid)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of children 12-23 months who have received a dose of vitamin A in the past six months</td>
<td>Mean 37.3 27.6-47.0</td>
<td>50.2 11/95</td>
<td>9.7* 4.1-19.5 75%</td>
<td></td>
</tr>
<tr>
<td>% of mothers of children 0-23 months who report taking at least 90 days of iron/folic acid supplements during her last pregnancy</td>
<td>Mean 24.5 18.0-30.9</td>
<td>66.3 109/187</td>
<td>57.2* 48.5-65.6 50%</td>
<td></td>
</tr>
</tbody>
</table>
## Result 4: Improved maternal and newborn care practices

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Baseline January 2006</th>
<th>Mini-KPC Feb 2009</th>
<th>Final July 2010</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of mothers of children 0-23 months whose last birth was attended by a health professional</td>
<td>44.2</td>
<td>37.0-51.4</td>
<td>48.4</td>
<td>100/190</td>
</tr>
<tr>
<td>% of mothers of children 0-23 months who did not give birth in a health facility whose birth was attended by a TTBA</td>
<td>13.4</td>
<td>7.0-19.7</td>
<td>43.0</td>
<td>21/91</td>
</tr>
<tr>
<td>% of home deliveries in which a clean birth kit was used</td>
<td>55.8</td>
<td>46.8-64.8</td>
<td>75.6</td>
<td>64/91</td>
</tr>
<tr>
<td>% of mothers of children 0-23 months whose child was placed immediately with her after birth</td>
<td>15.3</td>
<td>9.9-20.7</td>
<td>57.3</td>
<td>117/189</td>
</tr>
<tr>
<td>% of children 0-23 months who were breastfed within one hour of birth</td>
<td>43.8</td>
<td>36.4-51.2</td>
<td>41.3</td>
<td>139/185</td>
</tr>
<tr>
<td>IR 4.2 Improved quality of maternal and newborn care services in health facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IR 4.3 Increased coverage of postpartum care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of mothers of children 0-23 months who had at least one postpartum check-up after the birth of her last child (by a health professional or TTBA)</td>
<td>18.7</td>
<td>12.9-24.5</td>
<td>64.0</td>
<td>110/190</td>
</tr>
<tr>
<td>% of mothers of children 0-23 months who received a postpartum dose of Vitamin A during the first two months after delivery (card confirmed)</td>
<td>6.3</td>
<td>2.6-10.0</td>
<td>22.1</td>
<td>52/190</td>
</tr>
</tbody>
</table>
Malaria Prevention and Treatment (40% Effort)

The percentage of children 0-23m who slept under an ITN the night prior to being interviewed increased from 21.8% at baseline to 56.2% at endline. This was a statistically significant increase that fell just short of the EOP target of 60% (Figure 7). However, the endline survey was carried out in July, at a time of low malaria incidence for the Mazabuka portion of the project area, while the baseline and mid-term surveys were carried out at a time of peak malaria incidence (January and February, respectively). Thus, if the endline survey had been carried out in January or February, we would have likely seen a higher usage of ITNs. The percentage of children with fever whose parents sought care for them from an appropriate source within 24h showed a healthy and statistically significant increase of 23.3 percentage points. No EOP target was established for this indicator.

Malaria Findings

The percentage of mothers of children 0-23m of age who had received intermittent preventive therapy for malaria during their previous pregnancy (IPTₚ) remained high and surpassed the goal, which was to keep it above 70%. The baseline, mid-term and endline values were 83.9%, 94.9% and 87.7%, respectively. Overall, the data indicate that ITN use increased 2.6 times over baseline, appropriate care seeking for children with symptoms of pneumonia doubled, and IPTₚ remained at a high level.

Nutrition Improvement (30% Effort)

There was modest improvement in child feeding practices, but none of the indicators for this showed statistically significant improvement and none reached the EOP target (Table 3). The frequency of weighing (which is performed at the health facility) does not appear to have changed. The percentage of children who were not malnourished actually declined from 87.4%
to 80.9%. (That is to say, the percentage of malnourished children increased from 12.6% to 19.1%.) The timing of the surveys could explain some of this difference, however. When the baseline and mid-term surveys were carried out (in January and February, respectively), food was relatively plentiful in the poorer and more food-insecure area of Siavonga, and, according to the field staff, rates of childhood malnutrition are generally lower than in July, which is Siavonga’s hungry season with higher rates of malnutrition. (Hungry season is opposite in Mazabuka, which generally has lower rates of food insecurity than Siavonga).

The coverage of high-dose vitamin A declined substantially, from 37% at baseline to 9.7% at endline (p<.05). This decline is explained by the fact that the MOH distributes vitamin A during Child Health Weeks which are held every 6 months, normally in December and June. Unfortunately, there was more than a 6-month delay for the most recent Child Health Day. It was supposed to have been held in June, but in fact had not been held by the time of the endline KPC survey in July, and the previous Child Health Day had been in December, so not surprisingly very few mothers reported that their child had received vitamin A in the previous 6 months.

The two highlights of the nutrition findings concern exclusive breastfeeding and consumption of micronutrients during pregnancy (Figure 8). The prevalence of exclusive breastfeeding doubled, from 43.9% at baseline to 85.1% at endline (p<.05), exceeding the EOP goal of 70%. In addition, the percentage of mothers who reported taking at least 90 days of iron/folic acid supplementation during their most recent pregnancy doubled from 24.5% to 57.2% (p<.05), exceeding the EOP target of 50%.
**Improved Maternal and Newborn Care Practices (20% Effort)**

Six of the seven indicators for maternal and newborn care showed increases of at least 10 percentage points, four of the seven showed statistically significant increases, and the EOP target was achieved for four of the seven. Three indicators of safe delivery – attendance at birth by a health professional, home delivery by a trained traditional birth attendant, and use of a clean birth kit for home delivery – all showed healthy increases (Table 3 and Figures 9 and 10).

The project established two indicators for immediate neonatal care: placing the child with the mother immediately after birth and initiation of breastfeeding within one hour after birth. In both cases, there was a statistically significant improvement in the coverage of these two indicators (Table 3 and Figures 10 and 11). The former quadrupled in coverage (15.3% to 62.7% and exceeded the EOP target of 60%) and the latter increased by over half (from 43.8% to 71.6%) and just missed achieving the EOP target of 75%.

Finally, there was a marked improvement in the coverage of the two indicators related to post-partum care: percentage of mothers with a post-partum checkup and percentage of mothers who received vitamin A during the post-partum period. In both cases, there was at least a three-fold increase in coverage, both statistically significant. The former surpassed the EOP target (Table 3 and Figure 11).

![Maternal and Newborn Care Findings](image.png)

*Figure 9.*
Maternal and Newborn Care Findings (cont.)

Figure 10.

Maternal and Newborn Care Findings (cont.)

Figure 11.
**Increased Immunization Coverage (10% Effort)**

The project included two indicators of progress on this aspect of the project: childhood immunization coverage and childhood measles immunization coverage. In both cases, there were notable increases of about 20 percentage points in coverage, but in neither case was the difference statistically significant nor did the project achieve its EOP target for that indicator (Table 3 and Figure 12). Although it was not a project indicator, maternal tetanus toxoid (TT) immunization coverage was measured as one of the Rapid CATCH indicators (discussed further below), and this demonstrated a statistically significant doubling of coverage from 19.2% to 38.3%. While the project focused on increasing community demand and participation and on training MOH staff, the sad fact is that because of the lack of any staff whatsoever at a number of government health centers, vaccination was only carried out once a month at these facilities. So demand creation can only go so far when there is such limited capacity to respond to that demand.

![Immunization Findings](image)

**Figure 12.**

**Progress in Quantitatively Defined Indicators That Were Not Project Objectives**

Table 4 presents the findings for progress in RapidCATCH (Core Assessment Tool on Child Health) indicators, that were not project objectives but which the Child Survival and Health Grants Programs requires measurement for reporting to the US Congress. Two of these demonstrated statistically significant improvements: maternal TT immunization coverage (increasing from 19.2% to 38.3%) and percentage of mothers who know two danger signs (74.9% to 87.5%). The other indicators were essentially unchanged (birth spacing, handwashing, and appropriate feeding of infants 6-9m) except for knowledge about risk reduction of HIV infection, which increased by 8 percentage points.
Table 4. Rapid CATCH Indicators

<table>
<thead>
<tr>
<th>Rapid Catch Indicators</th>
<th>Baseline January 2006</th>
<th>Final July 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>95% C.I.</td>
</tr>
<tr>
<td>% of children 0-23 months who were born at least 24 months after the previous surviving child</td>
<td>79.3</td>
<td>68.2-90.5</td>
</tr>
<tr>
<td>% of mothers with children 0-23 months who received at least two tetanus toxoid injections before the birth of their child</td>
<td>19.2</td>
<td>13.5-24.9</td>
</tr>
<tr>
<td>% of mothers with children 0-23 months who cite at least two known ways of reducing the risk of HIV infection</td>
<td>62.9</td>
<td>55.8-70.0</td>
</tr>
<tr>
<td>% of mothers with children 0-23 months who report that they wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated</td>
<td>10.9</td>
<td>6.5-15.4</td>
</tr>
<tr>
<td>% of mothers of children 0-23 months who know at least two signs of childhood illness that indicate the need for treatment</td>
<td>74.9</td>
<td>68.9-80.8</td>
</tr>
<tr>
<td>% of children 6-9 months who received breast milk and complementary foods during the last 24 hours</td>
<td>95.1</td>
<td>90.9-99.3</td>
</tr>
</tbody>
</table>

Qualitative Evidence of Progress in Achievement of Project Objectives

The Final Evaluation Team, working with the field staff, carried out approximately 30 different focus group discussions (FGDs), described in greater detail in Annexes 11-13. FGDs were carried out with Beneficiary Mothers, Care Group Volunteers, and community leaders. The communities to be visited were chosen more or less randomly in consultation with the evaluation team leader. In addition, we interviewed approximately five MOH personnel at three health centers. We did not interview either of the MOH District Directors for the two districts where the project is working. A summary follows for the themes that emerged from these FGDs and interviews.

The findings from these interviews were extremely positive. There were three overarching themes that emerged from these. First, there were many comments made that the number of maternal and child deaths had declined. Secondly, Care Group Volunteers, Beneficiary Mothers, and community leaders made many comments indicating that they had become empowered in various ways as a result of the project. Thirdly, respondents expressed in various ways that there was a gradual recognition of the power and the sustainability of the Care Group approach. We will review each of these themes below.

Comments Made about Fewer Child and Maternal Deaths

The Final Evaluation Team was surprised by the number of times participants in FGDs mentioned that the number of child and maternal deaths had declined. To back up these claims, respondents cited a number of different reasons for why they thought this was the case. First of all, there were many comments made indicating that the number of childhood deaths from malaria had declined. Reasons for this mentioned by focus group participants included greater
use of ITNs, improved recognition of signs and symptoms of childhood malaria, earlier care seeking at health centers, and in some communities, drainage of standing water.

Many comments were made by focus groups participants indicating that they thought that children were better nourished than they had been previously. Reasons given for this included immediate breastfeeding after birth, exclusive breastfeeding during the first 6 months of life, better knowledge of and use of locally available nutritious foods, frequent feeding of children (4-5 times per day) for infants after reaching 6 months of age, rehabilitation of children using the Hearth program, and increased utilization of growth monitoring at health centers. Respondents indicated that mothers were better able to recognize danger signs in sick children and were more willing to seek early care at health centers. Finally, comments were made that improved childhood immunization coverage had led to decreased childhood mortality.

Reasons cited in the FGDs for why there were fewer maternal deaths included greater utilization of antenatal care (ANC) services and obtaining them earlier in pregnancy, greater awareness of pregnancy-related danger signs and increased care seeking from health centers when danger signs are present, more births occurring in health facilities, and more mothers receiving post-partum care. Comments were made indicating more mothers are using ITNs and are obtaining intermittent treatment of malaria during pregnancy. Finally, focus group participants mentioned that there are now more women aware of, interested in, and using family planning.

Comments Made about Empowerment of Women and Communities

The Final Evaluation Team heard many comments to the effect that the teaching provided by the Facilitators had led to empowerment of the Care Group Volunteers and that the teaching of the Beneficiary Mothers by the Care Group Volunteers had produced empowerment of the Beneficiary Mothers and increased teamwork in the communities. There was an increased sense of caring for one another and awareness of the needs of the mothers in the communities. Finally, there was a strong sense expressed in many different ways of ownership of project activities, that there was a desire to see community activities continue after the project’s external financial support ended, and that the Care Group Volunteers and Beneficiary Mothers had the capacity to continue project activities, as well.

Comments Made about the Power and Sustainability of the Care Group Approach

The Final Evaluation Team was surprised by the number of comments made in FGDs indicating their strong appreciation for the Care Group approach. Commonly, focus group participants stated that they were initially disappointed that the project did not have any “handouts” to provide them, since so many other projects in the communities had functioned in this way. However, this initial disappointment did not deter their participation, and gradually they begin to see that the project was improving the health of mothers and children and at the same time improving the capacity of communities to improve their health in the long-term. Thus, an awareness of the power and the sustainability of the Care Group approach gradually become
apparent, leading to a remarkable degree of enthusiasm for the project and its approach at the time of the final evaluation.

Other Findings from Focus Group Discussions

Interviews with MOH staff indicated that they appreciated the value of the project’s Care Group approach and that the project had been able to develop good working relationships with the MOH. A number of the Care Group Volunteers mentioned that they would have appreciated a little more in the way of incentives and expressions of appreciation. The project provided them with a skirt one year and a T-shirt the following year throughout the project. While they realized that they could not expect much, small items such as soap would have been greatly appreciated. For instance, several Care Group Volunteers mentioned that they felt badly about visiting other home without having bathed and washed their clothes since they did not have any soap, but if the project had provided this for them, they would have been very happy. Finally, in different ways, various respondents mentioned that a stronger involvement of men in project activities would have been helpful. (The project field team did make an attempt to do this, but this did not take place until the final year of the project.)

Evidence Related to Lives Saved and Cost Effectiveness

Here we present the evidence related to indirect estimates of declines in under-5 mortality and number of lives save as a result of changes in coverage of key child survival indicators.

Using the LiST Tool, which produces an indirect estimate based on changes in coverage of key child survival interventions, the project saved a total of 1,097 lives of children 0-59 months of age as a result of an estimated 11.5% mortality decline (Table 5). Details about the LiST tool and how these estimates were obtained are contained in Appendix 14.

<table>
<thead>
<tr>
<th>Number of beneficiaries</th>
<th>Estimated number of lives saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,593 (28,474 WRA and 22,119 children &lt;5y)</td>
<td>1,097</td>
</tr>
</tbody>
</table>

Table 5. Estimates of Lives Saved Using the LiST Tool

<table>
<thead>
<tr>
<th>Estimated number of lives saved</th>
<th>Project costs (USAID only)</th>
<th>Cost per life saved</th>
<th>Cost per DALY averted*</th>
<th>Total cost per beneficiary per year (USAID and PVO match)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,064</td>
<td>$1.48</td>
<td>$1,391</td>
<td>$46</td>
<td>$7.92</td>
</tr>
</tbody>
</table>

Cost-Effectiveness

With these mortality estimates in hand, we can now estimate various indicators of cost-effectiveness (Table 6). The cost per life saved is $1,391, the cost per DALY averted is $46, and the annual cost per beneficiary is $7.92. Further details about these calculations are contained in Appendix 14.

Table 6. Corrected Estimates of Cost-Effectiveness of Project Using the LiST Tool*
These mortality impact estimates are reinforced by the evidence of marked increases in coverage of several key interventions that are known to reduce under-5 mortality, most notably ITN use and the practice of exclusive breastfeeding for infants during their first 6 months of life. The repeated comments from participants in the FGDs that the number of children dying has declined markedly since the project began its activities also reinforce these conclusions. In summary, even though the project faced many challenges in its implementation and the achievement of many of the EOP targets was not met, the project nevertheless made major progress in important key areas, leading to estimates of cost-effectiveness that are quite favorable to many other USAID-supported child survival projects.

**Discussion of Results**

**Contribution toward Objectives**

The project made important progress in reaching its objectives, although this progress was not as great as had been hoped for at the outset. The progress in increasing the coverage of key indicators was solid and modest, but the FGDs suggested a stronger contribution toward the objectives than did the quantitative measurement of key indicators. The changes in practices related to malaria prevention and treatment and in exclusive breastfeeding were quite impressive and are likely to continue far beyond the end of the project since they concern behavior change and there is wide recognition, based on our findings from the FGDs, that people are aware that these changes are leading to fewer deaths from malaria and from malnutrition. The improvements in usage of ITNs might have been even more impressive if the endline survey had been conducted during January or February, when the baseline and mid-term surveys were conducted when malaria is much more common. Similarly, there would likely have been no increased in rates of childhood malnutrition if the endline survey had been conducted during the same season as the baseline survey, when the prevalence of malnutrition is apparently less.

**How Were These Results Achieved?**

Many elements were essential for the achievement of the above results. Among them, the most important were the Care Group model, the quality of the field team, and the engagement of communities and women as partners.

*The Care Group Model*<sup>17</sup>

Because of the demonstrated success of the Care Group Model in previous child survival projects, the approach has spread to many other settings around the world (Table 7). Evidence

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for its effectiveness in reducing under-5 mortality has been reported in a peer-reviewed journal and highlighted in the 2008 UNICEF State of the World’s Children report. The achievements of the current project once again demonstrate the robustness and resilience of the Care Group model in a wide variety of different contexts. The growing number of organizations using the Care Group model in an increasing number of countries is a testimony to the effectiveness of the approach.

Table 7. Diffusion of the Care Group Model to Other Organizations and Countries

<table>
<thead>
<tr>
<th>Organizations that Have Implemented the Care Group Model</th>
<th>Countries Where the Care Group Approach Has Been Implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africare</td>
<td>Bolivia, Haiti, Rwanda</td>
</tr>
<tr>
<td>American Red Cross</td>
<td>Burundi, Indonesia, Uganda</td>
</tr>
<tr>
<td>Catholic Relief Services</td>
<td>Cambodia, Kenya, Zambia</td>
</tr>
<tr>
<td>Concern Worldwide</td>
<td>Democratic Republic of Congo, Liberia</td>
</tr>
<tr>
<td>Curamericas Global</td>
<td>Ethiopia, Malawi</td>
</tr>
<tr>
<td>Food for the Hungry</td>
<td>Guatemala, Mozambique</td>
</tr>
</tbody>
</table>

The Care Group model is effective because it is a simple and straightforward way of engaging local people in their health problems, relying on peer-to-peer education among women, ensuring that every household is engaged, and empowering women and community leaders to improve their health in such an effective way that the improvements are apparent to everyone.

The Quality of the Field Staff

In spite of turnover in HQ technical advisors and long gaps without strong local project leaderships and management, it became readily apparent that the field team of 21 Facilitators and five Supervisors was quite strong, deeply engaged in and committed to the project’s work, and effective. Within this group, one person emerged as a very strong and effective leader: Phisher Simutwe (see Figure 13). As his talents gradually came to be recognized, he was promoted to Supervisor and then to project M&E coordinator. When the project experienced periods without an official Project Manager, he became the de facto project manager. He performed so well in this role that when subsequent managers were appointed, they only needed to serve 50% of their time on the project.

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Mr. Simutwe had grown up in a village near Chikankata and attended Salvation Army schools on the Chikankata compound. Previously, he had held various jobs but with the salary he received as a Facilitator he began to take distance learning courses from the Open University of Zambia in development. His natural ability became apparent to all, and his knowledge and leadership skills began to grow during the life of the project. His leadership and the cohesion of the field team have been important elements in the achievement of the project.

Engagement of Communities and Women as Partners

The enthusiasm of local women and community leaders for the project and its work was palpable in our field visits during the final evaluation. Everyone seemed to recognize that the purpose of this project, unlike the others they had been exposed to, was not give them handouts but to empower them to improve their own health with resources readily available to them – knowledge and skills provided by the project initially but then passed from mother to mother, locally nutritious foods, and the existing MOH facility-based health services. (This theme is explored more fully in the discussion of the qualitative findings and in Annex 13.)

The project promoted the engagement of community leadership groups in project activities. These included Care and Prevention Teams (CPTs) and Neighborhood Health Committees (NHCs). NHCs were introduced by the MOH several decades ago to provide democratically-elected leadership at the community level to promote health. CPTs were established by the Chikankata Health Services (CHS) in the late 1980s when it began its Home-Based Care Programs (for persons with HIV/AIDS). The CPTs had a broader community involvement than the NHCs, including CHWs, TTBAs, Home-Based Care Volunteers, and community representatives.

The project carried out a baseline assessment of these groups at the outset of the project (in 2007) and a final assessment at the end of the project in 2010.\textsuperscript{20,21} These assessments used a methodology developed for the Concern Worldwide Child Survival Project in Bangladesh. There were 31 CPTs and 12 NHCs that participated in the final assessment. Each group was interviewed using a standard protocol. The assessment concluded that at the end of the project all but two of the groups were functioning in at least a satisfactory manner and 40% were performing well (scoring in the “good” category). Overall, there was strong progress in the functioning of these community leadership groups during the course of the project even though none scored in the “very good” category at the end of the project.

Existing Facility-based Health Services

The progress made in improving malaria prevention and treatment, immunization coverage, and provision of antenatal care and facility-based births would not have been possible if there had not been services available for the project to refer patients to. Many of these services

\textsuperscript{20} Chikankata Child Survival Project. 2007. \textit{Neighborhood Health Committees (NHCs)/Care and Prevention Teams (CPTs)}.
\textsuperscript{21} Chikankata Child Survival Project. 2010. \textit{Capacity Assessment Report for Community Groups: Neighborhood Health Committees (NHCs)/Care and Prevention Teams (CPTs)}.
are provided by the MOH, of course, but the Chikankata Health Program provided many of them as did the Mtendere Mission Hospital and its health centers, run by the Catholic Diocese of Monze.

Quality of the Positive Deviance Hearth Model

In early 2010, Mr. John Mumba carried out an assessment of the PD Hearth intervention. He interviewed 20 Facilitators and 100 Care Group Volunteers. Unfortunately, he found that the protocols were not carefully followed (and the staff did not have a laminated hard copy of these), and he reported that in no cases had a positive deviance inquiry (PDI) been carried out. (However, Donna Sillan, a PD Hearth Consultant, came out to the project in Year 2 and carried out a PDI.) Each Facilitator had established five PD-Hearth sites, and there was a lot of enthusiasm for this approach among the Care Group Volunteers and community members, including the men. The assessment found that often the mothers had no food to bring to the PD Hearth sessions. He also noted that the Care Group Volunteers were somewhat discouraged because they had not received any incentives for more than two years.

Other Contributing Elements

Other elements also made important contributions to the project’s achievements, but space limitations prevent a full discussion of them. Among these is the overall framework for the project established by the USAID Child Survival and Health Grants Program.

The Influence of the Local Context on Outcomes

What features of the environment contributed to or inhibited progress made by the project? In one sense, the firmly entrenched traditional beliefs regarding causes and treatments of life-threatening conditions – together with high levels of illiteracy – made it more difficult to promote health behaviors and practices. On the other hand, the people in the project area seem to be ready to accept the possibility that their long-held traditional beliefs are no longer appropriate for the world in which they now find themselves.

The dispersion of the population and the lack of transportation is a particular challenge, both for the project staff and for the people themselves. Obtaining transport to convey seriously ill patient to health facilities was a major challenge. Fortunately, the project was able to provide motorbikes for its Supervisors and bicycles for its Facilitators.

Given the national high prevalence of HIV infection in adults aged 15-49 years of age (16%), it is fortunate that the project was able to engage the Care Groups at least to a limited extent in addressing the problems of HIV/AIDS, mostly through promotion of voluntary counseling and testing (VCT) for pregnant women and their partners at the time of ANC at health centers. Continuing the project with a linkage of the now-existing Care Groups with the considerable amount of community-based HIV/AIDS programming in the villages, together with

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expansion into community-based detection and treatment of tuberculosis, would be a logical next step if funding were available.

**Role of Key Partners**

The Chikankata Hospital and the MOH were key project partners. Other collaborators included the Churches Health Association of Zambia, the Zambia National Malaria Control Program, the Mtendere Catholic Mission Hospital, Plan Zambia, and Harvest Help.

The Salvation Army/Zambia has been working in the country (and the colony before independence) since 1924, and the Chikankata Health Services (CHS) have been in operation since 1945. As such, CHS has been working hand-in-hand with the MOH for more than six decades and has well-established, trusting relationships with the communities in the project area.23 The CHS grassroots presence at the village level provided the foundation for the project to work towards better use of, demand for, and community ownership of health care services, consistent with Zambia’s decentralization policies. CHS also has extensive HIV/AIDS programming in the area. One of these is the treatment of 3,800 AIDS patients with anti-retroviral medication. It has another program for orphans and vulnerable children (OVCs), and one is a home-based care program. The child survival project provided an opportunity for CHS to further strengthen these activities into maternal and child health activities and strengthen an integrated approach to services.

The MOH has established a good program of health care services at its Health Centers in the project area. Having said that, it is nonetheless unfortunate that the MOH could not be a more active participant in project activities. MOH staff members were rarely available to participate in project activities (or they expected a per diem fee that the project did not have the funds to pay). Furthermore, a high turnover of MOH staff in all districts made it difficult to build personal relationships. Having said that, it must be noted that the Child Health Days which are carried out twice annually have been a strong benefit for children by massive de-worming, vitamin A distribution, immunizations, and promotion of exclusive breastfeeding and other healthy nutritional practices.

There were other NGOs working in the project area: Plan Zambia (in Mazabuka District), Total Control of the Epidemic (TEC), and RAPIDS (a new HIV project that works with adolescents in the Siavonga District to promote early voluntary counseling and testing, formation of community committees to oversee the care of OVCs, and addressing human rights issues related to HIV). None of these were key project partners, however. Plan Zambia worked with the project to distribute ITNs and implement the PD Hearth Program.

**Overall Design Factors that Influenced Results**

The project had a solid design and perhaps one might say that without such a solid design, the results might not have been as positive as they were. The turnover of HQ technical

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23 One of the Facilitators reported during the Final Evaluation that “When we tell local people we are from Chikankata Hospital, they say, ‘You are welcome!’”
support staff together with the turnover of project leadership in Chikankata could well have been fatal to most projects, but in this case the strong project design together with a strong field implementation team (and leadership that emerged from within the implementation team) led to a project that was reasonably successful.

Implication of Findings

Progress toward Sustained Outcomes

What is the potential for the achievements of the project to continue now that the project has ended and funding has stopped? The new knowledge acquired by local people in the project area and their changed attitudes will persist for at least some time into the future. One of the strengths of projects using the Care Group model is that a previous assessment in Mozambique, as we mentioned earlier, demonstrated that the Care Group members continue their work in visiting households and supporting mothers for at least four years after the formal project ended.

In this project area, the Care Group project has created new community norms, particularly malaria prevention and treatment, nutrition, maternal and neonatal health, and utilization of immunization services. The community members who spoke about this issue in our focus group discussions at the time of the Final Evaluation indicated that they felt there would be some continuation of Care Group activities once the project ends.

Contribution to Replication or Scale Up

This project appears to have kept a rather low profile in terms of connections in higher levels of the MOH. However, at USAID there appears to be a strong interest in learning from this project for a broader scaling up activity of community health programs in Zambia that USAID will be supporting in the near future. Our final debriefing at USAID in Lusaka with Dr. Randy Kolstad and Dr. William Kanweka on September 9 provided the Evaluation Team with the opportunity to discuss how Care Groups might be incorporated on a larger scale in Zambia.

Attention to Equity

The very fact that the Care Group model ensures that every household in the project population is reached with basic education ensures that at least some degree of equity is achieved, even if it is not optimal. Of course, the full meaning of equity involves giving more attention and resources to those in greatest need, not simply ensuring equal attention and resources for everyone. Growth monitoring makes it possible to provide special attention to malnourished children and another way of addressing equity issues. Thus, using the Hearth Model to rehabilitate malnourished children is one of the important mechanisms of the project for achieving equity since it involves a special program of nutrition education and support for mothers and caretakers of malnourished children.
Role of Community Health Workers

The Facilitators are community-level paid workers whose role was to teach health messages to the Care Group Volunteers in Care Groups and support them in their work at the household level. If, by the term “worker,” we mean paid health personnel, then Facilitators are Community Health Workers who were essential to the project’s success. And, of course, the Care Group Volunteers, who worked 4-5 hours a week or so and who received no remuneration, were also essential to the project’s success. The project worked hard to support the existing CHWs who were present before the project began, and it trained an addition 50 of these. Finally, the project also worked to provide continuing education and support for the trained traditional birth attendants in the area as well. Without Community Health Workers, the project could not have achieved what it did.

Contribution to Global Learning

There are a number of interesting and important lessons here for global learning. Of course, this is yet another example of the increasing number of organizations implementing the Care Group model in new settings. The approach is effective in the Zambia setting, and there is strong local enthusiasm for Care Groups in large part because of the local ownership that the approach builds along with the empowerment of women and community leaders.

The importance of strong and consistent technical support from afar in the form of a HQ Backstop and the importance of strong implementation team leadership on the ground are obvious to all of us. The challenges that SAWSO and the Salvation Army/Zambia faced with turnover of HQ support staff in the US and with lack of strong project leadership in the field (as a result of turnover of this leadership and periods of absent leadership) contributed to the less-than-hoped for improvements in coverage of key child survival interventions. On the other hand, the “vacuum” of local project leadership created the opportunity for strong leadership to emerge from within the implementation team that otherwise might not have.

Conclusions and Recommendations

This project has provided Chikankata Health Services (CHS) with an excellent opportunity to build capacity in community-based child survival and maternal health programming. A strong base of operations is now in place in terms of a field implementation team and in terms of good working relationships/partnerships with the MOH at the district level and with other organizations in the project area involved in maternal and child health. Even though the project’s achievements in terms of progress in expanding coverage were less than hoped for, strong and solid progress was made in improving key indicators. Furthermore, strong enthusiasm for the project among the partners, within the communities, and among the Care Group Volunteers and Beneficiary Mothers were achieved, and this can serve as a strong foundation for future programming and expansion. The field implementation team is now seasoned and enthusiastic, so hopefully they can continue to make use of these skills moving forward.
CHS now as an excellent opportunity to further integrate more closely its community-based maternal and child health services with its community-based HIV/AIDS programs. Now that funding for the child survival project is coming to a close, we hope that the more generously funded HIV/AIDS programs will be able to absorb some of the CCSP activities.
ANNEXES
Annex 1. Results Highlights

<table>
<thead>
<tr>
<th>Edwin Hamilenga, Community Health Worker</th>
<th>Phisher Simutwe, <em>De Facto</em> Child Survival Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edwin Hamilenga is a Facilitator for the project who has been a Community Health Worker (CHW) for the past 25 years in his local community, Nadzwe. He was a locomotive operator until 1987 when he was 30 years old. His community chose him then to be a CHW as part of a national program that the government of Zambia was implementing at that time, and he trained at the Chikankata Hospital for one year. During the first six months he trained at Chikankata five days a week, and the second six months he was supervised by the Chikankata Hospital staff.</td>
<td>Phisher Simutwe joined the project as a Facilitator as well. However, those who worked with him soon noted his strong leadership skills and his remarkable intelligence. He was promoted to the position of Supervisor. Then, as the project needed stronger leadership at the implementation level, Phisher became Monitoring and Evaluation Coordinator. Then, as he continued to show a remarkable grasp of the technical issues as well as the operational issues involved in moving the project forward, and as others naturally looked to him for leadership, Mr. Simutwe became the <em>de facto</em> project manager during the final two years of the project.</td>
</tr>
</tbody>
</table>

These two men represent the remarkable potential in the project area for strengthening the human resources necessary for improving the health of mothers and children. The both exhibit remarkable commitment to their people and capacity to learn to benefit their people. The project has provided both with a remarkable set of new skills and knowledge for community-based approaches to improve the health of mothers and children that will stay with them for years to come. This is capacity building at its finest.
Annex 2. Changes to the Project since Completion of the DIP

The only changes to the implementation following the approval of the DIP were some minor changes regarding the ITN strategy. Re-treatment efforts were dropped because of the MOH’s distribution of long-lasting ITNs. In addition, the planned revolving funds for purchasing ITNs were not started because the government policy changed, leading to the provision of free ITNs in rural areas.
Annex 3. Program Goals, Objectives and Indicators

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

Objectives

Result 1: Improved malaria prevention and treatment practices (40% of project effort)
IR 1.1: Increased insecticide-treated net use among pregnant women and children under five
IR 1.2: Increased appropriate care-seeking for danger signs
IR 1.3: Continued high coverage of intermittent preventive treatment in pregnant women

Result 2: Increased immunization coverage in children (10% of project effort)

Result 3: Increased nutritional status of children and pregnant women (30% of project effort)
IR 3.1: Improved child feeding practices
IR 3.2: a) Improved detection of malnutrition b) Improved community treatment of malnutrition
IR 3.3: Increased exclusive breastfeeding up to six months of age
IR 3.4: Increased coverage of micronutrient supplementation (Vitamin A and iron/folic acid)

Result 4: Improved maternal and newborn care practices (20% of project effort)
IR 4.1: Increased deliveries by trained providers, improved birth preparedness, and improved home practices related to pregnancy and birth
IR 4.2: Improved quality of maternal and newborn care in health facilities
IR 4.3: Increased coverage of postpartum care

Indicators
Result 1: Improved malaria prevention and treatment

<table>
<thead>
<tr>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR 1.1 Increased insecticide-treated bed net use for pregnant women and children under five</td>
</tr>
<tr>
<td>% of children 0-23 months who slept under an ITN the night before</td>
</tr>
<tr>
<td>IR 1.2 Increased appropriate care-seeking for danger signs</td>
</tr>
<tr>
<td>% 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</td>
</tr>
<tr>
<td>IR 1.3 Increased coverage of intermittent preventive malaria treatment in pregnant women</td>
</tr>
<tr>
<td>% of mothers of children 0-23 months who received IPT for malaria during their last pregnancy (confirmed by maternal health card)</td>
</tr>
</tbody>
</table>

Result 2: Increased immunization coverage in children
Result 3: Improved nutritional status of children and pregnant women

### Indicators

**IR 3.1 Improved child feeding practices**
- % 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
- % of children 12-23 months who ate semi-solid food at least four times in the past 24 hours
- % of sick children 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks

**IR 3.2 a) Improved detection of malnutrition, b) Improved treatment of malnutrition**
- % of children 0-23 months who were weighed at least once in the past two months
- % of children 0-23 months who are above -2 standard deviations for weight for age

**IR 3.3: Increased exclusive breastfeeding up to six months of age**
- % of infants 0-5 months who received nothing except breast milk in the past 24 hours

**IR 3.4: Increased coverage of micronutrient supplementation (Vitamin A and iron/folic acid)**
- % of children 12-23 months who have received a dose of vitamin A in the past six months
- % of mothers of children 0-23 months who report taking at least 90 days of iron/folic acid supplements during her last pregnancy

### Result 4: Improved maternal and newborn care practices

**Indicators**

**IR 4.1 Increased deliveries by trained providers, improved birth preparedness, and improved home practices related to pregnancy and birth**
- % of mothers of children 0-23 months whose last birth was attended by a health professional
- % of mothers of children 0-23 months who did not give birth in a health facility whose birth was attended by a TTBA
- % of home deliveries in which a clean birth kit was used
- % of mothers of children 0-23 months whose child was placed immediately with her after birth
- % of children 0-23 months who were breastfed within one hour of birth

**IR 4.2 Improved quality of maternal and newborn care services in health facilities**

**IR 4.3 Increased coverage of postpartum care**
- % of mothers of children 0-23 months who had at least one postpartum check-up after the birth of her last child (by a health professional or TTBA)
- % of mothers of children 0-23 months who received a postpartum dose of Vitamin A during the first two months after delivery (card confirmed)
Annex 4. List of Publications and Presentations Related to the Project

None
Annex 5. Project Management Evaluation

The following report represents in part a self-assessment by the project implementation team based on a discussion held by Anna Summer, Headquarters Backstop, with the project implementation team. Part of the information was obtained from the project leadership and management staff.

Planning

No comments pro or con were made about this. The collaboration with the MOH was important for project functioning.

Supervision of Project Staff

There were frequent (and often unscheduled) visits from the Supervisors out the communities where the Facilitators were working with the Care Groups. This was very helpful.

Human Resources and Staff Management

The instability of project leadership and project management was the project’s greatest weakness. Among other things, it led to inconsistencies in management and lack of follow-up in certain areas. For instance, there was a lack of technical support in following up the PD-Hearth activities.

There were officially two Technical Backstops during the life of the project. However, during the final two years of the project the official Technical Backstop worked very part-time with the able assistance of full-time associate who was not officially the Technical Backstop.

The Chikankata-based project leadership team underwent marked turnover during the life of the project. There were four project managers, and at the end of the project the Monitoring and Evaluation Coordinator had become the de facto project manager because of his outstanding leadership. Because of his solid performance, the two Project Managers appointed in the latter half of the project only needed to devote 50% of their time to the project.

The DIP called for a Health Education Coordinator and an Adult Service Coordinator. The person originally hired to be Health Education Coordinator left in the second year and a strategic decision was made not to fill this position since the training activity had been well-developed and was underway. The Adult Services Coordinator position was never filled – partly because of difficulties identifying the best strategy for working with men (which took until the final year of the project to resolve) and because of difficulties in recruiting a qualified candidate.

Among the original 21 Facilitators, only three left. And, among the original five Field Supervisors, all were still working with the project at the time it ended.

The delegation to the Facilitators to develop their own action plans was seen as a very positive step, giving them ownership and responsibility for the activities in their catchment areas. The project staff members were most grateful for the salaries they received, which made it possible for them to build homes, pay school fees, and engage in distance learning activities. The Facilitators had no other job opportunities outside of the
work with the project, so this income was deeply appreciated. The project field staff appreciated the opportunities they had to learn new information about health and to learn how to work with other organizations and with community networks. They said they had been exposed to trainers and consultants with a lot of knowledge and experience, and this was very helpful for them. The provision of certificates to the Facilitators after the completion of each training module was greatly appreciated by them. The field staff had the opportunity to visit new places in the project area they had never been to before. As part of their employment benefits, they received free medical care at the Chikankata Hospital (and their families received care at half the normal fee), and the staff greatly appreciated this. They felt that their experience with the project would put them in a good position for employment in future projects.

Financial Management

After the project was funded, it was discovered that the salary scales in the original proposal were higher than for other employees in the Chikankata Health Service, so they all had to be scaled back, leading to some budgetary savings. In addition, the SAWSO office in Arlington, VA, cut back on travel for the HQ Technical Backstop, producing other savings. Because of this and the presence of unfilled managerial positions, the project had unspent funds at the time of the final evaluation and was requesting USAID for a no-cost extension.

Logistics

The provision of motorcycles and bicycles for the Supervisors and Facilitators, respectively, were essential for project function. The Facilitators needed more assistance with repairs for their bicycles than the project provided them (such as providing them with spare parts when they needed them rather than requiring them to purchase them with their own money), and they would have liked very much to have been able to participate in the selection of the type of bicycle they used (in order to select one best suited for their own terrain). Other important logistical support which was very much appreciated by the project implementation team was the cooking supplies provided for the PD-Hearth sessions. The project purchase of ITNs during the first year was critical since the health facilities were poorly supplied with them at that time. (This later improved and it was no longer necessary for the project to continue to provide ITNs.)

Information Management

No comments pro or con were made about this.

Technical and Administrative Support

The project should have had a Field Office in Siavonga. The Field Office in Chikankata was too far from Siavonga, and this made it difficult to maintain close contact with the activities in Siavonga District.

The provision of training materials in the local language (Tonga) for use with the Care Groups and for the Care Group Volunteers to use was essential. The Supervisors and Facilitators received excellent training, and the annual refresher training provided to CHWs and TTBAs was quite important. The training for TBA's and CHWs was quite
good, as was the training in emergency obstetrics and neonatal care and the training for PMTCT provided by MOH staff.

Other Issues Identified by the Team

Care Groups

The Care Group model was important for the success that the project achieved. The fact that the Care Group Volunteers worked with their neighbors facilitated the work as well.

Engagement with the Community

The engagement of the Care and Prevention Teams and the Neighborhood Health Committees helped to facilitate project activities, as did the many linkages with the rural health centers (RHCs). The RHC staff members were included in all the trainings, they were briefed quarterly on project activities, they participated with project staff members in meetings with the communities, and the project promoted RHC utilization in its day-to-day work in the communities. This led to a strong and effective partnership between the RHCs and the project.

During the last year of the project, a pilot activity was initiated in five communities to provide pre-arranged transport for patients with emergencies, with priority given to pregnant women. Donkeys were provided to the communities, and the community provided a cart. The process is managed by the local communities, and offspring of the donkeys are provided to other communities. The enthusiasm of the communities for this was growing rapidly even though there was skepticism at first about its value. Some of the project staff felt this activity should have been initiated earlier.

Another activity which started during the last year was the establishment of Men’s Fellowship Groups. This had been planned to begin during the first year of project activities, but there was initial resistance to the idea. However, during the last year the project selected influential members of major leading churches and brought them together for a training of trainers course and then they returned back to their communities to provide health education for men in the community. This was implemented only in the Mazabuka District. The project staff felt that this activity could have helped the project a lot if it had been implemented earlier.

Motivation of Care Group Volunteers and Mothers

The Care Group Volunteers could have used more incentives beyond the very few that they received (a shirt or a skirt once a year – and even this was delayed at times). If they had had access to income-generating activities (e.g., goat keeping, poultry production, savings groups), this would have been greatly motivating to them, as would have been certificates after the completion of training in the various modules. If the mothers of malnourished children participating in the PD-Hearth Program had received a certificate at the completion of the program, there would have been stronger motivation to complete the entire program.
## Annex 6. Workplan Table


<table>
<thead>
<tr>
<th>Activities</th>
<th>Personnel</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
<th>Year Four</th>
<th>Year Five</th>
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<tbody>
<tr>
<td></td>
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<td><strong>General Management</strong></td>
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<td>Hire Staff</td>
<td>SAWSO, CH&amp;D Manager, CHS Manager Admin.</td>
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<tr>
<td>DIP Preparation and Workshop</td>
<td>Project Supervisor, SAWSO</td>
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<tr>
<td>Community Orientation</td>
<td>Supervisors, Facilitators</td>
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<tr>
<td>Train staff and partners in the Care Group Methodology</td>
<td>Project Supervisor, HEC</td>
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<tr>
<td>Recruiting/selection of Care Group volunteers</td>
<td>Supervisors, Facilitators</td>
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<tr>
<td>Refresher training for existing CHWs and TTBAs, initial training for new ones</td>
<td>CH&amp;D Manager</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Establish village-based men’s groups</td>
<td>Adult Services Coordinator</td>
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<tr>
<td>Facilitators meet with Care Groups bi-weekly</td>
<td>Facilitators</td>
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<td></td>
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<tr>
<td>Supervision of Facilitators</td>
<td>Supervisors</td>
<td>X X X X X X X X X X X X X X X X X X X X X X X X X X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Support monthly NHC meetings, provide refresher training</td>
<td>Supervisors, Facilitators, Project Supervisor</td>
<td>X X X X X X X X X X X X X X X X X X</td>
<td></td>
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<tr>
<td>Participate in quarterly DHMT meetings</td>
<td>CH&amp;D Manager</td>
<td>X X X X X X X X X X X X X X X X X X X X X X X X X X</td>
<td></td>
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<tr>
<td>Support monthly CPT meetings</td>
<td>Facilitators, Supervisors</td>
<td>X X X X X X X X X X X X X X X X X X</td>
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<tr>
<td>Task Force Meeting</td>
<td>All</td>
<td>X X X X X X X X X X X X X X X X X X</td>
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<tr>
<td>Give Annual Volunteer Incentives</td>
<td>Facilitators</td>
<td>X X X X X X X X X X X X X X X X X X</td>
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</tr>
<tr>
<td><strong>Monitoring and Evaluation</strong></td>
<td>SAWSO, M&amp;E Coordinator</td>
<td>X</td>
<td></td>
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</tr>
</tbody>
</table>

*note: Activities marked with an asterisk (*) are considered key tasks.*

<table>
<thead>
<tr>
<th>Activities</th>
<th>Personnel</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
<th>Year Four</th>
<th>Year Five</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Census and Community Mapping</td>
<td>CH&amp;D Manager, Supervisors, Facilitators</td>
<td>X X</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>KPC Survey/Anthropometric Survey</td>
<td>SAWSO, CSP Team</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Qualitative Research</td>
<td>SAWSO, CSP Team</td>
<td>X X X X</td>
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<td></td>
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</tr>
<tr>
<td>Health Facility Assessment</td>
<td>CSTS+, CSP Team, DHMT, other partners</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Org Capacity Assessment and capacity development plan– CHS</td>
<td>Consultant, SAWSO, CHS</td>
<td>X</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Capacity Assessments and capacity development plans – CPTs/NHCs</td>
<td>Consultant, SAWSO, CPTs, NHCs</td>
<td>X X X X</td>
<td></td>
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<tr>
<td>Develop monitoring forms for Care Groups</td>
<td>M&amp;E Coordinator, Project Supervisor</td>
<td>X X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Modify existing health facility data forms to incorporate essential project data</td>
<td>M&amp;E Coordinator with DHMTs</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Compile and analyze Care Group and Hearth data</td>
<td>Facilitators, Supervisors</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
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</tr>
<tr>
<td>Mini-KPC surveys</td>
<td>Supervisors, Facilitators</td>
<td>X X X X</td>
<td>X X X X</td>
<td>X X X X</td>
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<td>Mid-term Evaluation</td>
<td>Consultant, CSP Team</td>
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<td>Final Evaluation</td>
<td>Consultant, CSP Team</td>
<td></td>
<td>X</td>
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</tbody>
</table>

**Result 1: Improved malaria prevention and treatment**

IR 1.1 Increased insecticide-treated bed net use for pregnant women and children under five

IR 1.2 Increased appropriate care-seeking for malaria danger signs

IR 1.3 Continued high coverage of intermittent preventive malaria treatment in pregnant women

<table>
<thead>
<tr>
<th>Procure ITNs, train and set up ITN revolving funds in health facilities and CPTs</th>
<th>Project Supervisor, CHAZ</th>
<th>X X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop behavior change strategy for</td>
<td>Project Supervisor, HEC</td>
<td>X</td>
</tr>
<tr>
<td>Activities</td>
<td>Personnel</td>
<td>Year One</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>malaria</td>
<td></td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Develop curriculum for staff and Care Groups</td>
<td>HEC, Project Supervisor</td>
<td></td>
</tr>
<tr>
<td>Train staff</td>
<td>HEC</td>
<td>X</td>
</tr>
<tr>
<td>Train health workers in malaria messages and malaria in pregnancy</td>
<td>Project Supervisor, CH&amp;D Manager</td>
<td>X</td>
</tr>
<tr>
<td>Develop/procure education materials for Care Group volunteers</td>
<td>HEC</td>
<td>X</td>
</tr>
<tr>
<td>Train Care Groups</td>
<td>Facilitators</td>
<td>X</td>
</tr>
<tr>
<td>Train men’s groups</td>
<td>Adult Services Coordinator</td>
<td>X</td>
</tr>
<tr>
<td>Develop malaria dramas through school-based groups</td>
<td>HEC, CHAZ</td>
<td>X</td>
</tr>
<tr>
<td>Support re-treatment activities at health facilities and communities</td>
<td>Supervisors, Facilitators</td>
<td>X</td>
</tr>
<tr>
<td>Mini-KPC Survey for Malaria Indicators</td>
<td>Project Supervisor, M&amp;E Coordinator</td>
<td>X</td>
</tr>
<tr>
<td><strong>Result 2: Increased immunization coverage in children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualitative Research, assessment of immunization services</td>
<td>Project Supervisor with DHMTs</td>
<td>X</td>
</tr>
<tr>
<td>Coordinate activity plans with RHCs to support outreach activities</td>
<td>Supervisors and Facilitators</td>
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<tr>
<td>Develop/procure materials for health workers/health facilities</td>
<td>Project Supervisor, HEC</td>
<td>X</td>
</tr>
<tr>
<td>Train health workers</td>
<td>HEC, CH&amp;D Manager</td>
<td>X</td>
</tr>
<tr>
<td>Train staff</td>
<td>HEC</td>
<td>X</td>
</tr>
<tr>
<td>Train Care Group Volunteers</td>
<td>Supervisors and Facilitators</td>
<td>X</td>
</tr>
<tr>
<td>Train CPTs and NHCs</td>
<td>Supervisors and Facilitators</td>
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</table>

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<table>
<thead>
<tr>
<th>Activities</th>
<th>Personnel</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
<th>Year Four</th>
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<tr>
<td></td>
<td>Facilitators</td>
<td></td>
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<tr>
<td>Train men’s groups</td>
<td>Adult Services Coordinator</td>
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</tr>
<tr>
<td>Mini-KPC for Immunization Indicators (jointly with Nutrition Indicators)</td>
<td>Project Supervisor, M&amp;E Coordinator</td>
<td>X</td>
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</tbody>
</table>

**Result 3: Improved nutritional status of children and pregnant women**

IR 3.1 Improved child feeding practices
IR 3.2 a) Improved detection of malnutrition, b) Improved treatment of malnutrition
IR 3.3: Increased exclusive breastfeeding up to six months of age
IR 3.4: Increased coverage of micronutrient supplementation (Vitamin A and iron/folic acid)

<table>
<thead>
<tr>
<th>Identify distant communities for CHW-led GMP; help CHWs set up monthly sessions</th>
<th>Supervisors, Facilitators</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop curriculum for staff and Care Groups</td>
<td>HEC</td>
<td>X</td>
</tr>
<tr>
<td>Train staff</td>
<td>HEC</td>
<td></td>
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<tr>
<td>Train health workers</td>
<td>CH&amp;D Manager, Project Supervisor</td>
<td>X</td>
</tr>
<tr>
<td>Train Care Groups</td>
<td>Facilitators</td>
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</tr>
<tr>
<td>Train men’s groups</td>
<td>Adult Services Coordinator</td>
<td>X</td>
</tr>
<tr>
<td>Conduct PD inquiry; develop Hearth sessions</td>
<td>Project Supervisor with CSP team</td>
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<tr>
<td>Conduct Hearth cycles</td>
<td>Facilitators, Supervisors, Care Groups</td>
<td>X X X</td>
</tr>
</tbody>
</table>

**Result 4: Improved maternal and newborn care practices**

IR 4.1 Increased deliveries by trained providers, improved birth preparedness, and improved home practices related to pregnancy and birth

<table>
<thead>
<tr>
<th>Activities</th>
<th>Personnel</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>1</th>
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<th>3</th>
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<tbody>
<tr>
<td>IR 4.2 Improved quality of maternal and newborn care services in health facilities</td>
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<td>IR 4.3 Increased coverage of postpartum care</td>
<td></td>
<td>X</td>
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<td>IR 3.4 Increased coverage of modern contraceptive methods</td>
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<tr>
<td>Develop curriculum for staff and Care Groups</td>
<td>HEC</td>
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<tr>
<td>Health worker training</td>
<td>Consultant</td>
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<tr>
<td>Train staff</td>
<td>HEC</td>
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<tr>
<td>Train Care Groups</td>
<td>Facilitators</td>
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<td>X</td>
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<tr>
<td>Train men’s groups</td>
<td>Adult Services</td>
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<tr>
<td></td>
<td>Coordinator</td>
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<tr>
<td>Establish clean birth kit revolving funds</td>
<td>Project Supervisor, CHAZ</td>
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<td>X</td>
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<tr>
<td>Review and revise referral protocols if necessary</td>
<td>Project Supervisor, CH&amp;D Manager with DHMTs</td>
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<td>X</td>
</tr>
<tr>
<td>Work with CPTs/establish emergency funds and transport</td>
<td>Supervisors, Facilitators</td>
<td></td>
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</tbody>
</table>
Annex 7. Rapid CATCH Table

<table>
<thead>
<tr>
<th>Rapid CATCH Indicators</th>
<th>BL Value</th>
<th>MT Value</th>
<th>Final Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Percentage of children age 0-&lt;24m who were underweight (-2SD from the median weight-for-age, according to the 1978 WHO/NCHS reference population)</td>
<td>12.6</td>
<td>11.1</td>
<td>19.1</td>
</tr>
<tr>
<td>2 Percentage of children age 0-&lt;24m who were born at least 24 months after the previous surviving child</td>
<td>79.3</td>
<td></td>
<td>76.8</td>
</tr>
<tr>
<td>3 Percentage of children age 0-&lt;24m whose births were attended by skilled health personnel (Doctor or nurse)</td>
<td>44.2</td>
<td>48.4</td>
<td>51.5</td>
</tr>
<tr>
<td>4 Percentage of mothers with children 0-&lt;24m who reported receiving at least two tetanus toxoid injections before the birth of their youngest child</td>
<td>19.2</td>
<td></td>
<td>38.3*</td>
</tr>
<tr>
<td>5 Percentage of children 0-&lt;6m who were exclusively breastfed during the past 24 hours, based on dietary recall</td>
<td>43.8</td>
<td>67.9</td>
<td>85.1*</td>
</tr>
<tr>
<td>6 Percentage of children 6-&lt;10m who received breast milk and complementary foods during the last 24 hours, based on dietary recall</td>
<td>95.1</td>
<td></td>
<td>94.9</td>
</tr>
<tr>
<td>7 Percentage of children age 12-&lt;24m who are fully vaccinated before the first birthday</td>
<td>35.2</td>
<td>55.5</td>
<td>54.6</td>
</tr>
<tr>
<td>8 Percentage of caretakers with children age 12-&lt;24m who recalled that their child received a measles vaccine(^{24})</td>
<td>54.6</td>
<td>75.6</td>
<td>73.7</td>
</tr>
<tr>
<td>9 Percentage of children 0-&lt;24m who slept under an ITN the previous night</td>
<td>21.8</td>
<td>66.2</td>
<td>56.2*</td>
</tr>
<tr>
<td>10 Percentage of caretakers with children 0-&lt;24m who cited at least two known ways of reducing the risk of HIV infection</td>
<td>62.9</td>
<td></td>
<td>70.9</td>
</tr>
<tr>
<td>11 Percentage of caregivers of children 0-&lt;24m who report washing their hands with soap/ash at the four critical times</td>
<td>10.9</td>
<td></td>
<td>12.6</td>
</tr>
<tr>
<td>12 Percentage of caretakers with children 0-&lt;24m who know at least two childhood illness danger signs for seeking care immediately</td>
<td>74.9</td>
<td></td>
<td>87.5*</td>
</tr>
<tr>
<td>13 Percentage of children 0-&lt;24m who were offered increased fluids and continued or increased feeding during illness</td>
<td>3.0</td>
<td></td>
<td>10.5</td>
</tr>
</tbody>
</table>

\(^*\) Denotes statistical significant \((p<0.05)\)

\(^{24}\) The survey measured card-documented measles vaccination, not maternal recall.
Annex 8. Final KPC Report

Please find attached
## Annex 9: CHW Training Matrix

<table>
<thead>
<tr>
<th>Project Area</th>
<th>Type of CHW</th>
<th>Official government CHW or Grantee developed cadre</th>
<th>Paid or Volunteer</th>
<th>Number Trained over life of project</th>
<th>Focus of Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mazabuka and Siavonga Districts</td>
<td>Field Facilitator</td>
<td>Grantee-developed cadre</td>
<td>Paid</td>
<td>21</td>
<td>Monitoring and Evaluation (KPC/LQAS, Qualitative Research, HFA) Care Group Methodology Adult Education Malaria (mode of transmission, epidemiology, prevention measures, prophylaxis during pregnancy, and signs and symptoms and management of malaria) Immunization (introduction to immunization; target diseases and case definitions; vaccines and their administration; vaccine potency; open vial policy; outreach strategies; strengthening routine immunization services; cold chain management; communication skills; community outreach; monitoring and evaluation of immunization services; and measles control) Nutrition (breast feeding; complementary feeding; GMP; micronutrient deficiencies; and general malnutrition) Positive Deviance/Hearth Maternal and Newborn Care (birth planning; clean delivery; danger signs in pregnancy; HIV in pregnancy; malaria in pregnancy; nutrition and exercise in pregnancy; labor; danger signs in childbirth; breastfeeding; newborn care; danger signs postpartum; caring for mother after delivery; family planning)</td>
</tr>
<tr>
<td>Mazabuka and Siavonga Districts</td>
<td>Field Supervisor</td>
<td>Grantee-developed cadre</td>
<td>Paid</td>
<td>5</td>
<td>Monitoring and Evaluation (KPC/LQAS, Qualitative Research, HFA) Care Group Methodology Adult Education</td>
</tr>
<tr>
<td>Districts</td>
<td>Role</td>
<td>Employer</td>
<td>Volunteer ID</td>
<td></td>
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</tr>
<tr>
<td>Mazabuka and Siavonga Districts</td>
<td>Community Health Worker</td>
<td>Government</td>
<td>117</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Volunteer</td>
<td></td>
<td></td>
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<tr>
<td>Community Health (roles of CHWs/neighborhood health committees/care and prevention teams; community empowerment; community counseling; key family practices; malaria and pneumonia case management; nutrition; GMP; immunization; safe motherhood; diarrhea management and control; and CHW kit instructions)</td>
<td></td>
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<tr>
<td>Mazabuka and Siavonga Districts</td>
<td>Traditional Birth Attendant</td>
<td>Government</td>
<td>114</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Volunteer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal and Newborn Care (roles and responsibilities of TTBAs; antenatal and postpartum care; nutrition during pregnancy; malaria in pregnancy; anemia in pregnancy; birth planning; management of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Mazabuka and Siavonga Districts | Care Group Volunteer | Grantee-developed cadre Volunteer | 1960 | **Malaria** (mode of transmission, epidemiology, prevention measures, prophylaxis during pregnancy, and signs and symptoms and management of malaria)  
**Immunization** (introduction to immunization; target diseases and case definitions; vaccines and their administration; vaccine potency; open vial policy; outreach strategies; strengthening routine immunization services; cold chain management; communication skills; community outreach; monitoring and evaluation of immunization services; and measles control)  
**Nutrition** (breast feeding; complementary feeding; GMP; micronutrient deficiencies; and general malnutrition)  
**Maternal and Newborn Care** (birth planning; clean delivery; danger signs in pregnancy; HIV in pregnancy; malaria in pregnancy; nutrition and exercise in pregnancy; labor; danger signs in childbirth; breastfeeding; newborn care; danger signs postpartum; caring for mother after delivery; family planning) |
Annex 9. Evaluation Team Members and Their Titles

The Evaluation Team consisted of the following persons:

Henry Perry, MD, PhD, MPH, Johns Hopkins University, Evaluation Team Leader, Baltimore, MD, USA
Anna Summer, MPH, Salvation Army World Service Office, Headquarters Backstop, Arlington, VA, USA
Ellias Hamatanga, Project Manager
Phisher Simutwe, Director of Monitoring and Evaluation and Associate Project Manager
Agness Ngandu, Administration Assistant

Supervisors
Telford Hangoma
Rannoh Kalinda
Billy Mwiinga
Majory Nanele
Mailon Dumbula

Facilitators
Obvious Ngandu
Moonga Miyoba
Milton Simuule
Lime Kabunda
Mulonga Handabile
Edwin Chisenga
Petronellah Mabeta
Chimuka Hantumba
Honiger Cheelo
Paul Mainza
Phillis Mapani
Wisdom Hakubija
Clive Hajuma
Gloria Sitwala
Hebert Chipuka
Belwick Cheelo
Sarah Chigoma
Caphus Mangilzai
Dyson Tembo
Frackson Hajaya

Driver
Stainley Namashoba
Annex 10. Evaluation Assessment Methodology and Activities

The Final Evaluation took place from August 30 – September 9, 2010. A household knowledge, practice and coverage (KPC) survey had been carried out in July 2010 by the project staff. The data were entered into EPI INFO by the senior project staff members and analyzed by Claire Boswell.

The Evaluation Team worked together to review the KPC findings. The Evaluation Team designed a set of questions for focus group discussions (FGDs) with community members and project staff members and for interviews with key individuals at the MOH. Communities selected for FGDs were selected at random, but with some consideration given to access to the communities.

Once all of this information had been gathered together and reviewed, the Evaluation Team discussed the findings and their implications.

The KPC report is shown separately in Annex 9. Annex 11 lists the questions for the FGDs and the findings from the individual FGDs.

The schedule of evaluation activities was as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
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</thead>
<tbody>
<tr>
<td>July</td>
<td>Household interviews for KPC survey</td>
</tr>
<tr>
<td>28 August</td>
<td>Departure of Henry Perry and Anna Summer from the US</td>
</tr>
<tr>
<td>29 August</td>
<td>Arrival of Henry Perry and Anna Summer in Lusaka, Zambia</td>
</tr>
<tr>
<td>30 August</td>
<td>Travel to Chikankata and meet with Project Staff to plan field activities</td>
</tr>
<tr>
<td>31 August-4 September</td>
<td>Interviews in project area</td>
</tr>
<tr>
<td>6-8 September</td>
<td>Meeting with project staff to discuss findings of KPC survey and focus group</td>
</tr>
<tr>
<td>8 September</td>
<td>Presentation of evaluation findings to Chikankata Health Service staff</td>
</tr>
<tr>
<td>9 September</td>
<td>Travel to Lusaka, meet with USAID mission staff, and presentation of evaluation findings to Salvation Army/Zambia and others, departure of Anna Summer to US</td>
</tr>
<tr>
<td>10 September</td>
<td>Visit to Jhpiego office, Lusaka, departure of Henry Perry to US</td>
</tr>
<tr>
<td>11 September</td>
<td>Arrival of Henry Perry in US</td>
</tr>
<tr>
<td>12 September – 24 November</td>
<td>Completion of Final Evaluation report</td>
</tr>
</tbody>
</table>
Attendees at the Dissemination Seminar at the Chikankata Health Services on September 8 included the Director, various administrative staff, and several of the staff in nursing and community health programs.

Attendees at the Dissemination Seminar at a Salvation Army/Zambia national office included the Country Director, program staff, and representatives from the Chikankata Health Service. Michelle Wallon, Program Officer at Jhpiego, attended as well.
Annex 11. Questions Asked during Field Visits

Mothers
1. What did the child survival project do in your village?
2. Did the Care Group volunteer visit you? How did you meet with her? Was it regular?
3. What did you expect from the project? Did the project meet your expectations?
4. What benefits have you seen in your village as a result of the project?
5. Are there areas where the project could have done better? What improvements would you suggest?
6. Have you seen any improvements in your child’s health? If so, what were they? Do you feel that this project has had an effect on reducing the number of child deaths in the village?
7. What have you learned from the project?
8. What project activities do you think you will be able to continue? Will your Care Group Volunteer continue to visit you?

Care Group Volunteers
1. What challenges did you encounter in performing your work? What could you do to overcome these challenges?
2. Did you feel supported by your Facilitator and the project leadership? In what ways did your Facilitator enable you to perform your responsibilities? How well did the project prepare you to do your work?
3. What did you expect from the project? Did the project meet your expectations?
4. What benefits have you seen in your village as a result of the project?
5. Are there areas where the project could have done better? What improvements would you suggest?
6. What changes have you seen in your village as a result of the project? Have you seen any improvements in the health of the children in your village? If so, what were they? Do you feel that this project has had an effect on reducing the number of child deaths in the village?
7. What have you learned from the project?
8. What project activities do you think you will be able to continue? Will you continue to visit the women you have been helping since the project began?
Facilitator
1. What health change have you seen in your village as a result of the project?
2. How well did the project prepare you to do your work?
3. Did you feel supported in your role as a Facilitator? By whom and in what ways?
4. How many times a month did your Supervisor meet with you? In what ways did your supervisor enable you to do your job? Do you think you would have been able to do this without a supervisor? Can you do it in the future without a supervisor?
5. What are the main challenges that you encountered in performing your work?
6. Were there any health messages that were more difficult to understand? Were there any messages that were more difficult to teach? What are they and why?
7. Which health behaviors were more difficult for mothers to accept and adopt? Why?
8. What were the most frustrating parts of your job? Why? What were the most rewarding parts of your job? Why?

Supervisors
1. What is the most important health change you have seen in your area as a result of the project?
2. How well did the project prepare you to do your work? Did you feel supported in your role? By whom and in what ways? What do you wish you had been taught that you were not taught?
3. How many times a month did you meet with the project management? In what ways did the project enable you to do your job? Do you think you would have been able to do this with supervision? Can you do it in the future without supervision?
4. What challenges did you encounter in performing your work?
5. Which of your current activities as a Supervisor do you think you would want to or be able to continue in the future?

Village Leaders (including NHC and CPT members)
1. What has been your involvement with the project? Were you involved with the Neighborhood Health Committees (NHCs)/Care and Prevention Teams (CPTs)?
2. What have been the project’s successes and challenges? How might the challenges have been overcome?
3. How helpful were the Care Group volunteers?
4. How can the project continue after the funding ends?
5. Did the Care Groups provide any health information to the community leaders? If so, was it useful? How have you used this information to make changes in your community? Can you give any examples?
6. What is your desire for the health of this village in the future? How do you think the village can achieve this?
7. How has your life or your thinking changed because of this project?
8. What were the most frustrating parts of your job? Why? What were the most rewarding parts of your job? Why?
MOH

1. Please tell me what you know about the Salvation Army Child Survival Project. Do you know about the Care Groups that were set up in the communities near your health facility? How were they set up? Who attends them? Who goes to the Care Group to train people? What is the purpose of Care Groups?

2. How has the project helped you in the MOH to reach your own goals and objectives? What were the challenges that you encountered in working with the project?

3. What was the project trying to achieve? Do you believe that the project has met this goal?

4. What aspects of the project do you and others in the MOH value the most?

5. Have you seen any changes in attitudes or behaviors in the community that you think are attributable to the project?

6. Has the project provided the MOH with any information that has been helpful to you in your programs? If so, how?

7. Do you think that the Care Group work should be continued? If so, how might the MOH take over the Care Group work? What would the MOH need to do in order to accomplish this?
Annex 12. List of Persons Interviewed and Field Activities Observed

On Tuesday 31 August and Wednesday, the project Final Evaluation Team traveled to villages within 1-2 hours of Chikankata in the Mazabuka District. Then, on Thursday and Friday 2-3 September, the Team traveled to Siavonga District, 3-4 hours away. As shown in Table 12.1, the Final Evaluation Team visited five health centers where it interviewed health center staff members individually. The Team also visited nine villages, where Beneficiary Mothers, Care Group Volunteers, and Village Leaders were interviewed in small groups. While in a village, the Evaluation Team usually split into two or three parts, with two to three members of the Team participating in the interviews (so that a staff member speaking the local language could be translated into English). Interviews with the Care Group Volunteers, and Beneficiary Mothers were carried out separately, usually with about 8-12 persons in attendance. The number of community leaders participating was usually less, around three to five persons. Altogether, 27 focus group discussions were held, and five health center staff members were interviewed. Annex 21 contains photos taken during this field trip.

Table 12.1 Community Members, Project Volunteers and Staff, and MOH Officials Interviewed

<table>
<thead>
<tr>
<th>Date</th>
<th>District</th>
<th>Village</th>
<th>Beneficiary Mothers</th>
<th>Care Group Volunteers</th>
<th>Village Leaders</th>
<th>Health Center Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, 31 August</td>
<td>Mazabuka</td>
<td>Nameembo</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td></td>
<td></td>
<td>Health Center</td>
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<tr>
<td>Wednesday, 1 September</td>
<td>Mazabuka</td>
<td>Nadeswe Health Center</td>
<td>✓</td>
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<td>✓</td>
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<td>Habeenzu</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td></td>
<td></td>
<td>Choonya</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td></td>
<td></td>
<td>Chiskwo</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Thursday, 2 September</td>
<td>Siavonga</td>
<td>Mtendere Health Center (Chirundu town)</td>
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<td>✓</td>
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<td>Gabon</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chippepo Health Centre</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zimare</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Friday, 3 September</td>
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<td>Simamba</td>
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<td>Total number of focus group discussions conducted</td>
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*These were individual interviews
Annex 13. Summary of Focus Group Discussions in the Project Site

Comments Made by Respondents during Focus Group Discussions

Mothers

1. What did the child survival project do in your village?
   - Food preparation for under-fives; nutrition and a balanced diet
   - Hygiene messages
   - Promoted immunizations
   - Promoted ITNs
   - Promoted MNC such as ANC and post-natal checks
   - Promoted breastfeeding

2. Did the Care Group volunteer visit you? How did you meet with her? Was it regular?
   - Twice a week
   - Twice a month
   - Five times a month
   - Three times a month
   - Mothers and CGVs met together
   - CGV came to individual homes

3. What did you expect from the project?
   - To give free food supplements
   - To learn how to keep the house clean
   - To learn about EPI
   - To get ITNs
   - To learn about malaria
   - To learn how to care for sick children
   - To build a health post
   - To drill a well
   - To build toilets
   Did the project meet your expectations?
   - Yes. Project taught how to keep children healthy

4. What benefits have you seen in your village as a result of the project?
   - Increased knowledge
   - Increased weight of children
   - More ITN use
   - More early treatment of malaria
   - More going for ANC
   - More deliveries in the health center
   - Knowledge on how to feed and cook for malnourished children
   - More attending under-five clinics
   - More doing PMTCT
   - Knowledge on HIV prevention
5. Are there areas where the project could have done better? What improvements would you suggest?
   - There was insufficient food for Hearth
   - Wanted food supplements
   - There were insufficient ITNs
   - Expected drugs from CGVs
   - Wanted houses sprayed for mosquitoes
   - Wanted income-generating projects in order to build a clinic

6. Have you seen any improvements in your child’s health? If so, what were they? Do you feel that this project has had an effect on reducing the number of child deaths in the village?
   - More children are taken to GMP and have increased weights
   - More mothers are seeking care for their children
   - Child mortality has decreased
   - Malaria incidence has decreased
   - Children are eating more nutritious foods
   - Disease incidence has decreased from vaccines
   - Maternal mortality has decreased

7. What have you learned from the project?
   - Food preparation from local, available foods
   - Malaria prevention with ITNs
   - Care-seeking for malaria
   - Family planning
   - GMP
   - Understanding the importance of vaccines
   - General hygiene
   - ORS
   - When to attend ANC
   - Expectant mothers should prepare for emergencies with money, a birth plan and a CDK
   - The causes of malaria
   - To attend Child Health Week
   - The importance of exclusive breastfeeding
   - The importance of immediate breastfeeding
   - Feeding schedule for children older than six months
   - PMTCT

8. What project activities do you think you will be able to continue? Will your Care Group Volunteer continue to visit you?
   - PMTCT
   - Cooking nutritious foods
   - Attending under five clinics
   - Attending ANC
• Care Givers will continue to visit
• Family Planning
• Immunizations
• Using ITNs

**Care Group Volunteers**

1. What challenges did you encounter in performing your work?
   • Getting mothers to come together
   • Distance between households and lack of transport
   • Lack of ITNs
   • Mothers low attendance at Hearth sessions
   • CGV’s time constraints with other work
   • Refusal of mothers to participate
   • Mothers not home
   • Mothers wouldn’t contribute food to Hearth
   • CGV’s not paid
   • Mothers wouldn’t come to under-five clinics
   • Mothers used ITN’s as curtains
   • Long CGV sessions without food
   • Spouses disapprove of their work
   • Superstition by mothers as to why CGVs visited them
   • Mothers expected supplements
   • There were no challenges
   • Mothers doubted CGVs qualifications
   • No place for meeting during the rainy season
   • CGV’s felt uncomfortable visiting houses without clean clothes
   • Community laughed at them for working for no pay

2. What could you do to overcome these challenges?
   • Just continued on with household visits
   • Mother wanted to see dramas so they’d come
   • Community leaders encouraged mothers
   • Mothers saw Hearth children improve and were more interested to participate themselves
   • CGVs would go to mothers individually instead of meeting them in groups
   • CGVs took advantage of time at under-five clinics to talk with mothers
   • Reported noncompliant mothers to facilitators
   • CGV would contribute food
   • Fee for health card for mothers who delivered at home
   • CGV regularly reminded mothers of under-five clinic dates
   • Kept repeating proper ITN use until they used it properly
   • Found ways to support themselves through small jobs in order to keep working as a CGV
   • Earned trust of mothers by doing things for them
• Personally check whether ITNs were in houses
• Nurses told mothers to listen to CGVs
• Mothers eventually saw that the CGVs were helping and stopped laughing at them

3. Did you feel supported by your Facilitator and the project leadership? In what ways did your Facilitator enable you to perform your responsibilities? How well did the project prepare you to do your work?
• Frequent meetings
• Facilitators came far for meetings
• Facilitators helped solve problems
• Facilitators were encouraging
• Helped with GMP and under-five clinics
• Gave ITN’s
• Imparted knowledge
• Gave materials
• Gave supplies for Hearth
• Gave T-shirts and chetenges (skirts)
• Provided technical support
• Carried out refresher trainings
• Taught how to prepare food

4. What did you expect from the project?
• Food supplements
• Bicycles
• More knowledge than what we got
• Certificates
• Wanted to keep cooking supplies
• Money
• Umbrella
• Rain coats
• Health knowledge
• Workshops
• Income-generating activities
• Foot at meetings
• Mothers would be easy to find in households

5. Did the project meet your expectations?
• Happy with the project
• Learned to talk and teach in crowds (which wasn’t expected)
• Feel important (which wasn’t expected)
• Husbands supportive (which wasn’t expected)
• Gave knowledge (as expected)
• Mothers and children are not dying
• Decreases in malaria
• Given technical support (as expected)
• Mothers were busier than we thought
6. What benefits have you seen in your village as a result of the project?
   - Rehabilitated children using local foods
   - Increased frequency of feeding
   - More ITN use
   - Few deaths of mothers and children
   - More mothers deliver in facilities
   - People happy with messages
   - Decreased malaria incidence
   - Decreased use of traditional medicines
   - Hygiene practices improved
   - IPT increased
   - Villages teach other villages health messages
   - More attending under-five clinics/vaccines
   - More going to ANC
   - Increased FP use
   - Decreased maternal deaths
   - Increased care seeking for children under five with danger signs
   - Increased care seeking for maternal care
   - Increased knowledge on postnatal care
   - Fewer abortions from malaria
   - Decreased neonatal deaths
   - Decreased malnourishment

7. Are there areas where the project could have done better? What improvements would you suggest?
   - Bicycles
   - Food supplements
   - Men’s fellowship groups need improving
   - Build a small health post
   - Train more TTBA/CHWs
   - Workshops for CGVs
   - More books/materials
   - Gum boots/rain coats
   - More ITNs
   - Gifts for Hearth graduates
   - Paying CGVs somehow
   - Income-generating activities
   - Include HIV intervention area
   - Promote growing of more nutritious foods at households
8. What changes have you seen in your village as a result of the project? Have you seen any improvements in the health of the children in your village? If so, what were they? Do you feel that this project has had an effect on reducing the number of child deaths in the village?

- Better nourished children
- Decreased malaria incidence
- Increased GMP
- Increased ITN use
- Increased FP
- More mothers go to under-five clinics
- Increased use of CDKs
- More mothers to ANC
- More immediate care seeking
- Decreased child mortality
- Changes from traditional medicine to modern medicine
- Increased knowledge on health
- Increased vaccinations
- Increased knowledge on food preparation
- Decreased maternal deaths
- Women to postpartum care

9. What have you learned from the project?

- Local available food preparation
- Children should go to the hospital when sick
- Signs and symptoms of malaria
- Husbands are happy with cleaner homes
- How to teach through role play
- Knowledge on intervention areas
- Importance of ITNs
- Importance of protecting pregnant mothers
- Hygiene
- Immunizations
- Understanding when a child's weight is healthy
- Frequency of child feeding
- ANC schedule
- Danger signs for sick children
- Family planning
- Importance of care group model on imparting knowledge
- Men should be involved with PMTCT and VCT

10. What project activities do you think you will be able to continue? Will you continue to visit the women you have been helping since the project began?

- Cooking and nutrition education
- Home visits
- Delivering health messages

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• Taking care of malnourished children
• Knowledge
• Under-five clinics
• Sleeping under ITNs
• Vaccines
• GMP
• ANC
• Deliveries at hospital
• Looking for danger signs
• All activities except reporting

Facilitators
1. What health change have you seen in your village as a result of the project?
   • Increased care seeking at the health facility for ANC, sick children, IPT, deliveries, vaccines
   • Knowledge changes: danger signs, nutrition, sings of malnutrition, vaccinations, IPT, FP, exclusive breastfeeding, how to use ITNs, to go to under-five clinics
   • Fewer seek care from witch doctors
   • Improved feeding practices
   • More seek GMP
   • Decreased malnutrition
   • Improved relationship with CHWs
   • Decreased malaria incidence
   • Mothers complete malaria treatment course
   • Increased understanding of importance of FP, exclusive and immediate breastfeeding, ITNs, post-natal care
   • Increased use of CDK’s
   • Decreased maternal mortality
   • Decreased neonatal mortality
   • Enhanced collaboration of community organizations in community
2. How well did the project prepare you to do your work?
   • Provided bicycles for facilitators
   • Provided supplies for Hearth sessions
   • Provided office supplies/books/teaching materials in Tonga
   • Gave workshops to instill knowledge on intervention areas
   • Gave vehicle transport when available
   • Built linkages with facilitators and other community groups
   • Supervisors visited facilitators for technical support
3. Did you feel supported in your role as a Facilitator? By whom and in what ways?
   • Supported by community leaders who mobilized community
   • Supervisors helped facilitators with problems with care groups and helped them facilitate meetings
   • Supervisors helped facilitate cooking demonstrations

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• Supported through monthly meetings with MOH, supervisors, facilitators, and CSP staff
• Free treatment given to facilitators and families at Chikankata hospital
• MOH trainings strengthened linkages between facilitators and health facilities
• Supported financially with salaries
• Given T-shirts and other incentives
• Supervisors helped with transport for facilitators
• Supervisors updated them on project activities
• Facilitators were given bicycles
• Facilitators were given teaching materials
• Facilitators were given knowledge on all intervention areas
• Project gave facilitators orientation on how to work with the community and organizations within the community

4. How many times a month did your Supervisor meet with you?
   • Frequency between one and five times a months, but mostly between three and four times a month

In what ways did your supervisor enable you to do your job?
   • Collected reports
   • Provided technical assistance
   • Provided transport to far-reaching care groups
   • Arranged exchange visits
   • Established work plans and followed them
   • Allowed facilitator to do his/her job but only provided support
   • Coordinated meetings with NHC/CPTs and CGVs
   • Helped solve problems with communities and CGVs

Do you think you would have been able to do this without a supervisor?
   • No- We would have no one to consult without them. We’d need transport and materials.
   • Yes- We are used to working independently.

Can you do it in the future without a supervisor?
   • No- We need them for advise, consultation, and to arrange meetings with community leaders
   • Yes- We have been gaining so much experience and knowledge, we can do it on our own.

5. What are the main challenges that you encountered in performing your work?
   • Long distances and difficult, hilly terrain. Had to climb on foot to reach households.
   • Rainy season more difficult to move about.
   • Low attendance by community people at meetings.
   • Low educational levels in community.
   • CGVs want payment/incentives/workshops
   • Mothers couldn’t contribute food to Hearth so low Hearth attendance.
   • Poor attendance at CGV meetings due to lack of incentives
• About 30% of CGVs not very active.
• No TBAs in some areas.
• Inadequate and inconsistent supply of ITNs at MOH
• Lack of trained personnel at clinics
• Women’s low compliance to giving birth at health facility

6. Were there any health messages that were more difficult to understand?
   • All were easy to understand
   • Different categories of food difficult to teach

Were there any messages that were more difficult to teach? What are they and why?
   • All were easy to teach
   • Cause of malaria difficult to teach due to traditional beliefs about transmission

7. Which health behaviors were more difficult for mothers to accept and adopt? Why?
   • The PD Hearth program
   • People feel suffocated in ITN
   • People want to have as many children as they can due to cultural norms. Low FP.

8. What were the most frustrating parts of your job? Why?
   • CGVs could not understand what facilitators were teaching
   • CGVs wanting incentives
   • Poor CG meeting attendance
   • Lack of food for Hearth sessions
   • Relocation so families during rainy season
   • Lack of adequate notice to facilitators for meetings or for needed information
   • Long distances by bicycle
   • Bicycle maintenance issues

What were the most rewarding parts of your job? Why?
   • Learned much about the interventions
   • Earned money to support our families
   • Had fun working together
   • Earned people’s respect - communities, health center staff
   • Knowledge sustainable in our communities
   • Get to visit new places, see how other people live
   • Watching health improvements
   • Earned certificates
   • Learned conflict resolution
   • Community members’ interaction with each other has been improved

Supervisors
1. What is the most important health change you have seen in your area as a result of the project?
   • Malaria - Before we started this project people would think things like eating premature cane or if a bird comes to the top of your house or when you eat yesterday’s leftover or witchcraft and you’ll automatically get malaria. Now people have truly seen you can only get malaria from the bite from a mosquito.
• Malnutrition- We used to be very dependent on the government for supplements like mealie meal and cooking oil. Now they see they can feed themselves with what they have in their own communities. We also overcame stigma that was associated with taking children to Hearth sessions; they didn’t want to admit their children was malnourished. The mentality has changed. There’s no need to depend on the government.
• Maternal/newborn care- The number of women taking iron tablets has increased meaning they are going earlier for antenatal care. Increasingly more mothers are going to health centers for delivery because they have a better understanding of the possible complications. They can identify danger signs.
• Care-seeking- Before people used to wait two or three days before seeking care for their sick children. They used to use herbal remedies instead.
• Immunizations- More women are taking children to under-five to get immunized.

2. How well did the project prepare you to do your work? Did you feel supported in your role? By whom and in what ways?

• The management helped us with transport by vehicle and giving us motorbikes and money for fuel.
• They provided materials for teaching the communities.
• The M&E coordinator would come and support us in the meetings.
• They communicated clearly with us about upcoming activities.
• When someone was sick, someone from the office (usually the M&E coordinator) would fill in for that person
• The M&E coordinator supported us the most. We couldn’t do it without him.
• The high turnover of the management was very disturbing. Even when they were in management, they were not doing their job. They needed to get updated on the project and wouldn’t know anything about the project. Before they learned anything about the project, they would leave again. All the support came from the M&E coordinator. The first manager focused on only managing, because that was his only job, but he left. The rest had other jobs and commitments and were not there to support us. Phisher was essentially running the project. He would come all the way to Siavonga to supervise us. He had too many things to do, however. We pity him. He was doing M&E, supervision, and management all at the same time.

What do you wish you had been taught that you were not taught?
• Adult education and counseling methods
• HIV/AIDS intervention area- specifically with PMTCT as a component of the MNC curriculum
• Proper communication skills starting from the top management all the way to the CGVs. Negotiation skills and cultural sensitivity in the communities.
• Learning how to properly organize and prepare people for upcoming activities and clearly communicate. Establishing systems.
3. How many times a month did you meet with the project management?
   • Every Friday (for Mazabuka supervisors). The manager wouldn’t always meet with us, but the M&E Coordinator would.
   • Two to three times a month (for Siavonga supervisors). The M&E Coordinator would come to us.

In what ways did the project enable you to do your job?
   • Office supplies, stationary for reports
   • Fuel
   • Repairs for the motorcycles
   • Technical support
   • Collaboration at the District Health Office
   • Assistance with transport with the vehicle when needed

Do you think you would have been able to do this with supervision? Can you do it in the future without supervision?
   • No- Without his technical support we could not have managed. Working alone without anyone being visited would be difficult because we would want to be able to consult them for assistance. We need collaboration and support.
   • Yes- We could have managed the interventions because we understand the content.

4. What challenges did you encounter in performing your work?
   • Long distances
   • Traveling in rainy season
   • People would be in the field working from October to June making collecting reports difficult
   • Having to walk in mountainous terrain
   • Dealing with CGVs wanting more incentives
   • Partners like CPTs/NHCs wanted incentives too since they worked with us
   • Lack of consistent management
   • There was a lack of support for the Siavonga zones. Needed a management position based there.

5. Which of your current activities as a Supervisor do you think you would want to or be able to continue in the future?
   • Maternal/newborn care should be continued and we should include PMTCT
   • Nutrition activities should continue because it’s the most difficult to teach
   • “There is no way we can run away from the Care Group model. It’s wonderful. It has made us great. And there is sustainability in it.”
   • Hospitals are asking CCSP to follow up on malnourished children in the wards when they are discharged. The facilitators will communicate with the care giver and that care giver will watch this child. This should continue.
   • We’d like to keep following up with the volunteers once in a while.
   • Checking in on under-five clinics.
Village Leaders (including NHC and CPT members)

1. What has been your involvement with the project? Were you involved with the Neighborhood Health Committees (NHCs)/Care and Prevention Teams (CPTs)?
   - Helped with TCE
   - Helped with GMP
   - Checked on ITNs
   - Taught about HIV and encouraged VCT
   - Encouraged mothers to go to under-five clinics
   - Not very involved; don’t know much about CSP
   - Mobilizing women to go to Hearth
   - Wife is CGV and bought food for Hearth
   - Transport for pregnant mothers
   - Accompany CGVs on HH visits
   - Member of CPT
   - Use CGVs to call people together for village meetings
   - Promote health messages themselves
   - Call CGVs together to make plans during outbreaks
   - Help with Hearth sessions
   - Do sketches together
   - Encourage mothers to go to post-natal checks
   - Encourage mothers to go to sleep under ITNs
   - Meet with CGVs
   - Give CGVs transport
   - Encourage community to contribute maize to Hearth
   - Encourage CGVs to follow-up on sick children

2. What have been the project’s successes?
   - Decreased malaria
   - Increased ITN use
   - Effective nutrition interventions
   - No cholera
   - More latrines
   - Learned PMTCT
   - Increased men’s involvement
   - Realization we don’t need money to feed children
   - Increased VCT
   - Increased number of facility deliveries
   - Increased care-seeking
   - Better hygiene
   - Increased attendance at under-five clinics
   - CGV’s worked without pay
   - Regular CGV visits
   - TTBA trainings
Challenges?
- Transport to the hospital
- Insufficient food for Hearth
- Low meeting attendance
- NHC/CPTs not given incentives
- CGV’s not paid
- Too few CGV’s
- Long distances for CGV’s to travel
- Too few ITNs
- Needed income-generating activities

3. How helpful were the Care Group volunteers?
- System worked well
- Village learned
- Diseases decreased
- Decreased malnutrition
- CGV helped with weighing children and getting to under-five clinics
- CGVs accompanied sick children to clinic
- ITN distribution
- Decreased malaria incidence
- Increased breastfeeding
- Frequent feeding/complementary feeding
- Village is cleaner
- Increased immunizations
- Hearth sessions
- Hygiene improved
- Encouraged male involvement
- Taught signs and symptoms of malaria

4. How can the project continue after the funding ends?
- Start income-generating projects
- Can continue improved nutrition practices
- Can continue sleep under ITNs
- CGV’s to continue visiting households
- CPT to encourage activities and support CGVs
- Since CGVs are volunteers they’ll continue
- Headmen chose CGVs, see the importance and will continue to support them
- Can continue to take them to under-five clinics
- Can continue to encourage men’s involvement
5. Did the Care Groups provide any health information to the community leaders? If so, was it useful? How have you used this information to make changes in your community? Can you give any examples?
   - Monthly meetings with CGVs and CPTs
   - CGVs reported to CPTs every two weeks to discuss problems and find solutions
   - Used information to conduct meetings with other community leaders to make plans for building latrines and rubbish pits
   - CGVs brought reports we took to RHCs
   - CGV’s gave information to headmen who then collected food for Hearth
   - CGV’s taught community leaders health messages
   - CGV’s would report sick children
   - CGVs would report noncompliant mothers to NHCs; NHC would go to a household and encourage mothers
   - We would all meet together for dramas and health education

6. What is your desire for the health of this village in the future? How do you think the village can achieve this?
   - Better water and wells
   - Clean environment
   - More health posts
   - Nursery schools
   - Income-generating activities
   - Certificates for PD Hearth and CGVs
   - CGVs to continue to visit and to help them
   - Healthier mothers and children
   - CHW in community
   - Decreased under-five mortality
   - Increased knowledge
   - A bright future, to work together
   - Encourage men and women to work together
   - Pit latrines
   - More HIV messages
   - Drainage of standing water to reduce malaria
   - More participation in community meetings
   - Community maize contributions to help others
   - Community to support CGVs
   - More time with CCSP!

MOH
1. Please tell me what you know about the Salvation Army Child Survival Project.
   - Carry out Hearth program which is better than giving supplements
   - Do malaria interventions such as ITNs
   - Participate in MOH meetings
   - Train TTBAs, CHWs and MOH staff (EMONC, AMSTL, FANC)
• Their goal is healthy mothers and babies
• They increase access to care
• Improve hygiene
• Do IEC trainings
• Encourage mothers to go to under-five clinics
• Bring mothers to GMP
• Work with TTBAs, CHWs, and CPTs
• Do community-based programs to empower them

Do you know about the Care Groups that were set up in the communities near your health facility? How were they set up? Who attends them? Who goes to the Care Group to train people? What is the purpose of Care Groups?
• Empower households regarding health
• They meet frequently
• Weigh and assist children
• Train communities
• Report to facilitators who share reports with the RHC
• Use locally available resources
• Share lessons learned with the community

2. How has the project helped you in the MOH to reach your own goals and objectives?
• Brought children to under-five clinics
• Gave refresher trainings
• Provided transport
• Helped with GMP
• Did nutritional rehabilitation/cooking demonstrations
• Diagnosis and treatment of malaria with CHWs
• Trained mothers on the importance of immunizations
• Worked with us during outreach activities
• CG strategy reached every household
• Empowers community
• Sustainable since CGs will last beyond life of the project
• Help with IEC and mobile clinics
• Train CHWs and TTBAs
• Teach communities proper use of ITNs
• Provided EMONC trainings
• Involved MOH in meetings
• Trained mothers to come to ANC and deliver in a health facility

What were the challenges that you encountered in working with the project?
• Food insufficient for cooking demonstrations

3. What was the project trying to achieve?
• Goal- to improve health of the community.
• Goal- to reduce maternal/child deaths.
• Don’t know CSP’s goals.
Do you believe that the project has met this goal?
  • Yes, goal achieved; no maternal deaths now.
  • Yes, taught MOH new things.
  • Yes, came together to solve problems in the community.
  • No, goal not yet achieved; slow progress but at least fewer malaria cases.

4. What aspects of the project do you and others in the MOH value the most?
  • Knowledge CGVs give community
  • Weighing of malnourished children
  • Positive reception of CGVs in the community
  • TTBA/CHW trainings
  • Hearth sessions
  • People in community in place and ready to spread knowledge

5. Have you seen any changes in attitudes or behaviors in the community that you think are attributable to the project?
  • More mothers bring children to under-five clinics
  • Chikankata trainings for MOH staff
  • Increased frequency of feeding of children
  • Increased immunization coverage
  • Transport of MOH staff
  • More people seek care/ decreased negative perception of mothers toward MOH
  • Increased knowledge
  • More attending GMP
  • More safe deliveries
  • More use of local available foods for a balanced diet
  • More mothers attending ANC
  • More overall excitement in communities about health messages

6. Has the project provided the MOH with any information that has been helpful to you in your programs? If so, how?
  • MOH staff learned from the health messages personally
  • CSP did not provide information
  • Gave MOH personnel trainings
  • Gave verbal reports on project activities
  • Facilitator gave data on ITNs in communities to RHC
  • Provided materials
  • Will follow up on health and vital statistics in communities per MOH personnel requests
  • Information from Care Groups will be taken to the DHO

7. Do you think that the Care Group work should be continued? If so, how might the MOH take over the Care Group work? What would the MOH need to do in order to accomplish this?
  • CGVs can work with other projects in the area
  • MOH primary care could help
  • Corridors of Hope, Society of Family Health and other NGO’s could absorb them
• DHO could decide how to integrate them
• MOH could find a small amount of money to support care groups with incentives
• CHW’s can continue to work in collaboration with CGVs
• RHC receives some money from DHO which could be used to support CGVs

Here we present the evidence regarding the project’s impact on under-5 mortality using the indirect method recently developed called the Lives Saved Tool (LiST tool), which uses the known efficacy of specific interventions and measures a presumed impact based on changes in population coverage, baseline under-5 mortality rate, and population. This software is available at http://www.jhsph.edu/dept/ih/IIP/list/index.html. It takes estimates of the mortality impact of specific interventions and links this data to changes in coverage of these interventions, baseline mortality rates, and populations served by a program to estimate the number of lives saved.

The LiST Tool estimates that the under-5 mortality rate in the project area has declined by 11.5% between 2006 and 2010, leading to the averseion of 1,097 deaths among children aged less than 5 years of age (Table 14.1). This is an uncorrected estimate since it does not account for the change that would have occurred in the absence of the project.

### Table 14.1. Uncorrected Estimates of Lives Saved using the LiST Tool in the Project Area (portions of Mazabuka and Siavonga Districts)

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<th>Number of beneficiaries</th>
<th>Estimated number of lives saved</th>
<th>Estimated percentage reduction in under-5 mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,593 (28,474 WRA and 22,119 children &lt;5y)</td>
<td>1,097</td>
<td>11.5% (148 to 131)</td>
</tr>
</tbody>
</table>

In order to estimate the number of child deaths averted that can be attributable to project activities, it is also necessary to estimate the number of child deaths averted by the ongoing improvement in child mortality in the project area that would have occurred in the absence of the project. According to the Countdown 2010 data, we estimate that the decline in the U5MR in Zambia has been 0.8% per year. According to the calculations shown in Table 14.2, we estimate that 33 deaths of under-5 children had been averted in the project area that were not due to the project activities and that would have occurred in the absence of the project.

### Table 14.2. Estimate of Number of Under-5 Deaths Averted as a Result of Ongoing Secular Changes in the Project Areas if the Project Had Not Been in Operation

<table>
<thead>
<tr>
<th>Year</th>
<th>U5MR</th>
<th>5,919 births per year (based on a crude birth rate of 47.5 per 1,000 population according to the 2007 DHS)</th>
<th>Number of deaths “averted” by secular trend compared to baseline year (2005)</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>148.0</td>
<td>876</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>146.8</td>
<td>869</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2007</td>
<td>145.7</td>
<td>862</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>2008</td>
<td>144.6</td>
<td>856</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>2009</td>
<td>143.5</td>
<td>849</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>2010</td>
<td>142.4</td>
<td>843</td>
<td>6</td>
<td>33</td>
</tr>
</tbody>
</table>
With all of this information now in hand, we can estimate the number of lives saved of children 0-59m of age that can be attributable to the project (Table 14.3). The findings from this analysis indicate that 1,064 lives saved (or 97% of the total estimate) can be attributed to the project.

**Table 14.3. Corrected Estimates of Lives Saved using the LiST Tool Project Area (in Portions of Mazabuka and Siavonga Districts)**

<table>
<thead>
<tr>
<th>Number of beneficiaries</th>
<th>Estimated number of lives saved using LiST Tool (uncorrected)</th>
<th>Estimated number of lives saved as a result of secular trends independent of the project</th>
<th>Estimated number of lives saved that are attributable to project activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,593 (28,474 WRA and 22,119 children &lt;5y)</td>
<td>1,097</td>
<td>33</td>
<td>1,064</td>
</tr>
</tbody>
</table>

**Estimates of Cost-Effectiveness**
Using the LiST Tool and subtracting out the presumed secular trend, we can estimate the cost per life saved and the cost per DALY saved, as shown in Table 14.10. These calculations are all rather straightforward except for the estimate of DALYS averted for each life of a child under-5 whose death has been averted. Others\(^{25}\) have estimated that 30 DALYS are gained for each death of an under-5 child averted, and we are following that approach here. At a cost of $1,391 per life saved and $46 per DALY averted, the Care Group intervention implemented by the project is highly cost-effective.

---

<table>
<thead>
<tr>
<th>Number of beneficiaries</th>
<th>Estimated number of lives saved using LiST Tool (uncorrected)</th>
<th>Estimated number of lives saved as a result of secular trends independent of the project</th>
<th>Estimated number of lives saved that are attributable to project activities</th>
<th>Project costs (USAID only)</th>
<th>Cost per life saved</th>
<th>Cost per DALY averted*</th>
<th>Total cost per beneficiary per year (USAID and match)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,593 (28,474 WRA and 22,119 children &lt;5y)</td>
<td>1,097</td>
<td>33</td>
<td>1,064</td>
<td>$1.48 million</td>
<td>$1,391</td>
<td>$46.37</td>
<td>$7.92 (match = $0.53 million)</td>
</tr>
</tbody>
</table>

We assume that 1 death averted in a child 0-59m of age is equivalent to 30.0 DALYs averted.
Annex 15. Sample of a Training Aid Used by Care Group Volunteers

Covers of the Four Teaching Modules for Care Groups
One of the Pages of the Safe Motherhood and Neonatal Care Manual

The project sponsored a number of operations research activities, including a baseline health facilities assessment (conducted by Dr. Jim Ricca), a study of the role of TTBA (conducted by Emory MPH student Elizabeth Corey), a study of ITN usage (conducted by Emory MPH student Kate Shearer), community health worker program assessment (conducted by Stephanie Dubose, Emory MPH student), baseline and endline assessments of the Neighborhood Health Committees and Care and Prevention Teams (conducted by Thebisa Chaava, consultant), and a follow-up assessment of the quality of the PD-Hearth activities (conducted by Mr. John Mumba, consultant and former project staff member).

The health facilities assessment and the baseline NHC/CPT reports have been previously submitted to USAID and are not included here. The others are attached here.

Please find attached
Annex 17. Project Data Form

Please find attached
Annex 18. Grantee Plans to Address Final Evaluation Findings

SAWSO and TSA/Zambia are extremely pleased with the success of the Care Group Model in the CCSP and plan to ensure its continuation and replicate it wherever possible. From the outset of the project, the design attempted to link Care Groups to existing Care and Prevention Teams (also called Neighborhood Health Committees in Siavonga) both for improved coordination of community-level activities and for sustainability. Most Care Groups are now effectively part of their community CPTs and can continue to function with community support. Additionally, in the Chikankata catchment area (Mazabuka), the Community Health and Development department of Chikankata Health Services will be able to support Care Groups as part of their support and training for CPTs and other volunteer cadres (such as CHWs and TTBAs).

SAWSO will incorporate Care Groups into other projects in the same area – such as the PEPFAR-funded OVC program STEPS. STEPS is using a behavior change model that will incorporate existing community groups to address HIV-related concerns. Care Groups will be a perfect method for effecting behavior change in HIV programming, as well. SAWSO will attempt to use the model not only in health programming, but also in other technical areas, such as anti-human trafficking.
Annex 19. Photographs Taken During the Evaluation
Mothers and Children
Care Group Volunteers and Beneficiary Mothers
THE SALVATION ARMY
CHIKANKATA HEALTH SERVICES
CHILD SURVIVAL PROJECT

Result: 1: Improved malaria prevention and treatment
Result: 2: Improved nutritional status of children and pregnant women
Result: 3: Improved maternal and newborn care practices
Chikankata Health Services
Village Life
Facility-Based Health Services
Activities of the Final Evaluation Team