

THE BUSIA CHILD SURVIVAL PROJECT
Samia and Butula Districts, Kenya

AMREF Kenya in Partnership with
The Samia and Butula District Health Management Teams

FOURTH ANNUAL REPORT

Submitted on:

November 6, 2009

Submitted to:

U.S. Agency for International Development
Bureau for Global Health
Office of Health, Infectious Disease, and Nutrition
Child Survival and Health Grants Program
Washington, DC

Cooperative Agreement Number GHS-A-00-05-00009-00

Project Start Date: October 1, 2005
Project End Date: September 30, 2010

AUTHORS, REVIEWERS, CONTRIBUTORS, AND EDITORS

David Wamalwa (Project Manager- BCSP)

Gilbert Wangalwa (M & E Officer- BCSP)

George Oele (Training Officer- BCSP)

Bibianne Situma (Administrative Assistant- BCSP)

Dr. Festus Ilako (Head of Programs/Deputy Country Director- AMREF in Kenya)

Peter Ofware (Programme Manager; Child and Reproductive Health - AMREF in Kenya)

Cudjoe Bennett (Technical Advisor- AMREF in USA)

Bill Yaggy (Director of Institutional Giving- AMREF in USA)

TABLE OF CONTENTS

A. MAIN ACCOMPLISHMENTS1

B. ACTIVITY STATUS.....2

C. FACTORS IMPEDING PROGRESS7

D. TECHNICAL ASSISTANCE.....8

E. SUBSTANTIAL CHANGES.....8

F. PROGRESS MADE TOWARDS SUSTAINABILITY8

G. SPECIFIC INFORMATION.....8

H. CHALLENGES TO THE MANAGEMENT SYSTEM.....8

J. LOCAL PARTNER ORGANIZATIONS COLLABORATIONS AND CAPACITY BUILDING9

K. MISSION COLLABORATION9

Annex I: M&E TABLE10

Annex II: TIMELINE OF ACTIVITIES FOR COMING YEAR (FY 5).....12

Annex III: INTERIM RESULTS FOR THE CBMNC OR13

LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AMREF	African Medical and Research Foundation
APHIA II	AIDS, Population and Health Integrated Assistance
BCC	Behaviour Change and Communication
BCSP	Busia Child Survival Project
CBMNC	Community Based Maternal and Newborn Care
CHC	Community Health Committee
CHEW	Community Health Extension Worker
CHMIS	Community Health Management Information System
CHW	Community Health Worker
CU	Community Unit
CU5	Children Under 5 Years
C-to-C	Child to Child
C-to-P	Child to Parent
DHMT	District Health Management Team
EMNC	Essential Maternal and Newborn Care
ESRC	Ethics and Scientific Review Committee
HIV	Human Immunodeficiency Virus
ITN	Insecticide Treated Nets
KPC	Knowledge Practice and Coverage
LLINs	Long Lasting Insecticidal Nets
LQAS	Lot Quality Assurance Sampling
MNC	Maternal and Newborn Care
MOE	Ministry of Education
MOH	Ministry of Health
MOPHS	Ministry of Public Health and Sanitation
MTE	Midterm Evaluation
OR	Operations Research
PMTCT	Prevention of Mother to Child Transmission
QI	Quality Improvement
TAG	Technical Advisory Group
TOT	Trainer of Trainer
USAID	United States Agency for International Development
WRA	Women of Reproductive Age

BACKGROUND

The Busia Child Survival Project (BCSP) covers Samia and Butula districts in Western Province of Kenya (formerly Busia District before it was subdivided into four districts: Butula, Samia, Bunyala, and Busia districts). The 2009 projected population for Samia and Butula Districts is 227,000. Most of the people earn a living through small-scale agriculture, business, and fishing. Approximately 152,000 people live in absolute poverty (<1US\$ per day). Poor health status due to malaria, HIV/AIDS, and maternal and childhood illness are the main contributing factors to the high poverty level in the districts. Poverty, gender inequality, and cultural factors prevent women from adopting health practices that are essential for their survival and that of their children.

The BCSP is a five-year project, launched in October 2005 and expected to end in September 2010. The project beneficiaries include 50,000 women of reproductive age (WRA) and 32,000 children under-five (CU5) in Samia and Butula districts. The project integrates maternal and newborn care (MNC) at 40% level of effort (LOE), malaria prevention and treatment at 40% LOE, and prevention of mother-to-child transmission (PMTCT) of HIV at 20% LOE. The project is implemented by the African Medical and Research Foundation (AMREF) and the Samia and Butula District Health Management Teams (DHMT), the local department of the Kenyan Ministry of Public Health and Sanitation (MOPHS).

The project is aligned with the fourth and fifth Millennium Development Goals, which seek to reduce child mortality, and improve maternal health, respectively. The project aims to reduce child and maternal morbidity and mortality in the two districts by supporting and establishing health structures that can sustain the gains made beyond the project's duration.

In order to achieve its goal, the project uses five interdependent strategic approaches:

- (i) Capacity strengthening of the DHMTs, health facility staff, and community health workers (CHWs) to increase the scope of their skills and knowledge in delivering health services, and to improve access to these services;
- (ii) Quality improvement (QI) to improve quality of care/services at health facilities and in the community and, thus, increase demand for target services; and
- (iii) Behavior change communication (BCC) at the household and community level to address cultural and societal barriers to disease prevention.
- (iv) Health Systems Research to test innovations and models.
- (v) Community partnering to narrow the gap between levels 1 (community), 2 (dispensary) and 3 (health centre) of service delivery.

A. MAIN ACCOMPLISHMENTS

This report covers the period between October 2008 and September 2009. The main activities accomplished, as per the five aforementioned strategies during the period include: training of community health workers (CHWs) on specific interventions; tracking of pregnant women and newborns by CHWs; assessment of ITN ownership and utilization; Mid-Term Evaluation and related activities; post-intervention observations of the Community-Based Maternal and Newborn Care Operations Research; dissemination of integrated messages through school health clubs and 5x5x5; procurement and distribution of CHW motivational materials; procurement and distribution of ITNs; facilitative supervision; formation and training of community health committees (CHC); formation of mother-to-mother clubs; and collection and use CHMIS data.

There was marked improvement in most of the outcome indicators in the fourth year of implementation as compared to the baseline values. The Knowledge, Practice and Coverage (KPC) survey using the Lot Quality Assurance Sampling (LQAS) conducted in June 2009 revealed that deliveries in health facility increased to 38% from 20% at baseline. Management of fever among children under five improved significantly from 7% at baseline to 30% in the fourth year. The household ITN ownership increased to 92% against the target of 90% and the ITN utilization among pregnant women and children under five years moved to 89.8% and 91.3% against the targets of 80% for both of them. There was considerable improvement in utilization of PMTCT services (counseling and testing) from 53% at baseline to 87% in the fourth year (See M&E table in Annex I for more details).

B. ACTIVITY STATUS

I) CAPACITY BUILDING

Training on malaria prevention: In November 2008, 65 CHWs were trained on malaria prevention and control and identification of general danger signs. The CHWs used the acquired knowledge and skills to build the capacity of school health club members in malaria prevention and control.

Training on Community based maternal and newborn care (CBMNC): The project held two sessions of CHWs training on Community-Based Maternal and Newborn Care (CBMNC) facilitated by Community Health Extension Workers (CHEWs). In the first session of training, 486 CHWs that were not trained in the preceding year were trained on part I of Community-Based Maternal and Newborn Care (care during pregnancy). In the second session, 850 CHWs were trained on part II of CBMNC (care at birth and post delivery). On completion of this seven day training course the CHWs identify and track pregnant women and newborns to provide health education on essential maternal and newborn care, screen for danger signs, and refer when necessary.

Orientation of DHMT and CHEWS on supervision of the community strategy: Twenty two (22) DHMT members and 14 CHEWS were oriented for one day on supervision of the community strategy. The orientation covered a review of the DHMTs' and CHEWS' supervision tools and the supervision process.

II) QUALITY IMPROVEMENT

Facilitative Supervision: All 16 health facilities were regularly supervised on a quarterly basis by the respective DHMTs. The project continued to provide the logistical support and lunches to the two DHMTs during the supervision visits.

III) BEHAVIOUR CHANGE COMMUNICATION

Dissemination of integrated messages: Thirty one (31) CHW leaders in lots 3, 4, and 7 disseminated 6 health messages to household members through household visitations. The three lot areas were targeted due to their poor performance, which was below expectation of some indicators during the mid-term evaluation.

Motivational materials for CHWs: The project procured 1,200 AMREF branded t-shirts and 1,000 badges. Apart from being motivational materials, they were also used to disseminate

malaria, maternal and newborn, and HIV and AIDS messages. The messages were inscribed on the t-shirts. The t-shirts were distributed to CHWs, CHEWs and project staff.

ITN procurement and distribution: the project procured 3,500 ITNs and distributed to pregnant women and children under five years through mobile clinics conducted jointly with CHEWs. The distribution targeted lot areas in which ITN coverage was low during mid-term evaluation. A total of 1,200 ITNs were distributed during the year.

Formation of mother-to-mother clubs: a total of 4 mother to mother clubs were formed and continued to have their regular monthly meetings to receive health education, share experiences and support one another in developing individual birth plans and encouragement to adopt essential maternal and newborn practices.

IV) HEALTH SYSTEMS RESEARCH AND ASSESSMENTS

Health Systems Research

The project staff developed an operations research protocol titled, “Effectiveness and Cost Summary of the Ministry of Public Health and Sanitation’s Strategy for Community-Based Maternal and Newborn Health Service Delivery in Busia and Samia Districts, Kenya.” The research attempts to demonstrate that increased **awareness of essential maternal and newborn care (EMNC) practices** among pregnant women and mothers/caretakers of children of less than 23 months based on the MAMAN package and MoPHS community strategy approach results in increased **adoption of EMNC practices** among the same target group. It is expected that increased adoption of practices will eventually lead to **reduced deaths** among children less than 28 days old. The protocol was approved by the AMREF Ethics and Scientific Review Committee (ESRC). It is designed as a time series study with observations staggered in 7-month intervals. It uses the project’s CHW supervision checklist to collect data on the awareness of EMNC practices among pregnant women and the Knowledge, Practice and Coverage (KPC) survey using Lot Quality Assurance Sampling (LQAS) to collect data on EMNC practices among mothers of children less than 24 months. A pre-intervention KPC survey and CHW observations that captured baseline population level data was conducted in October 2008 and in April 2009; the first post-intervention observation study was conducted in June 2009, and the subsequent observations and surveys are planned for December 2009 and July 2010. The interim findings of the study are shown in annex III.

Evaluations and Assessments

Mid-term evaluation: The project conducted its midterm evaluation during the month of October 2008 and had an action-planning meeting with partners and stakeholders in November 2008. The final MTE report was submitted to USAID December 2008 (refer to Busia Child Survival Project Midterm Evaluation Report 2008 for further reading on findings and recommendations).

ITN Ownership and utilization survey: pupils in 50 schools from the project area participated in a survey to determine household ownership and utilization of ITNs in the project area.

Assessment of school health clubs: The 50 (24 in Butula and 26 in Samia) school health clubs formed and supported by AMREF were assessed to establish if they are correctly implementing planned activities. The activities for which they were assessed included: procedures for forming the clubs and recruiting members and patrons; conducting regular meetings to discuss health

related issues and develop action plans; developing or adopting health messages and communicating the messages to fellow pupils and parents; identifying space for a resource centre and equipping it; receiving supportive supervision from Ministry of Education officials, CHEWs and CHWs. Other activities include environmental sanitation, health education to pupils and community. The approaches applied in conducting the assessment included administering a structured questionnaire to the patron(s) through face-to-face interviews, observation, and record review. The findings revealed that:

- i. All of the formed school health clubs are active, though not all of them are conducting the full range of activities intended for a school health club.
- ii. Most of the school health clubs were formed through the efforts of the BCSP, with 25.5% of the clubs being formed in 2007 and 2008 compared to only 2.0% that were formed in 2002 and 2003 before the project.
- iii. All the schools have adhered to the criteria of gender equality among club members, though representation across classes is not distributed equally.
- iv. A majority (86.3%) of the clubs reported that they meet weekly to discuss health issues. However, only a quarter of them kept the minutes of the proceedings.
- v. All the clubs have continuously been disseminating health messages to fellow pupils and parents.
- vi. Only 17.6% of schools were found to have established resource centers which were inadequately equipped with relevant IEC materials.
- vii. Most of the school health clubs were operating without action plans as only a quarter of the schools had the plans.
- viii. All of the relevant authorities (MoE officials, CHEWs and CHWs) make regular supervision to the schools to supervise the activities of the school health clubs. The survey revealed that 60.8% of the schools had been visited by the MoE officials, 92.2% by the MoPHS officials, and 78.4% by a CHW in the month preceding the survey.

The project staff held a meeting with MoE and MoPHS officials and agreed on the way forward to improve on the activities that were not performing well.

Health facility quality assessment: The project conducted health facility quality assessment to assess the performance of health workers in providing maternal and newborn care. Various methods—including observation, record review, exit interviews, and client satisfaction surveys – were used. The findings are shown in table 1 below.

Table 1: Findings of the Health facility Quality Assessment

Indicator on Quality of Care	Findings	
	2009 (4 th year) HFA Findings	2007 HFA Findings
% of pregnant women attending ANC who have been advised by a health worker during ANC visit on birth planning and preparedness ¹	41.7%	56%
% of pregnant women attending ANC who have been informed by a	72.9%	20.9%

¹ numerator-number of interviewed pregnant mothers attending ANC who were advised by the health worker during ANC clinics on (i) the importance of having someone at the birth, preferably a skilled birth attendant (SBA), (ii) Clean delivery practices, (iii) having savings and a transportation plan for when/if complication should arise (iii) danger signs for mother and/or newborn and knowledge of appropriate referral facility

Indicator on Quality of Care	Findings	
	2009 (4 th year) HFA Findings	2007 HFA Findings
health worker on their expected day of delivery		
% of pregnant women attending ANC who have been informed by a health worker on the number of ANC visits they are supposed to make	27.1%	16.4%
% of health facilities with presence of enough (can last till the next order is delivered) of each of the 6 listed item ²	42.9%	50%
% of clients in labor who receive a correctly interpreted partograph with a correct curve	49%	0%
% of mothers who were administered with oxytocin within one minute of birth	98%	100%
% of deliveries in which controlled cord contractions were performed	97.8%	86.7%
% of deliveries where uterine massages were done after the delivery of the placenta	74.4%	86.7%
% of mothers attending 1 st postnatal clinic with knowledge on cord care	38.2%	42.9%
% of mothers attending postnatal clinic alerted by health worker on the signs of an infected umbilical cord	26.5%	12.7%
% of mothers attending postnatal clinic who breast fed their neonates within 1 hr of birth	67.6%	35.7%
% of mothers with an elevated temperature (>38°C) during labor who are given antibiotics	80%	-
% of health facilities adhering to the universal standard precautions for infection prevention	57.1%	41.7%
% of health facilities with standard guidelines (procedure manuals) on clean deliveries	28.6%	6.9%
% of ANC and PNC clients who agree that they were treated in a very friendly and courteous manner	93.8%	95.1%
% of ANC and PNC clients who agree that they were accurate directions when referred for other services	92.6%	86.9%
% of ANC and PNC clients who agree that they were kept waiting for too long before seeing a health worker	40.7%	42.2%
% of ANC and PNC clients who agree that the information they have given will not be shared by anybody else other than the health worker	75.3%	84.0%

V) COMMUNITY PARTNERING

Formation and training of community health committees (CHC): the project formed 50 CHCs (22 in Butula and 28 in Samia) in line with MoPHS Community Strategy³ and as part of AMREF's commitment to the ministry in establishing the community units in the two districts.

² All deliveries conducted in health facilities should be conducted with adherence to "clean practices," which include: clean delivery surface (plastic sheeting); clean hands of the birth attendant/family member (clean water and soap); clean perineum; do not insert anything that is not clean into the vagina (e.g., oil, hands); clean instrument to cut the cord (e.g. new blade, boiled scissors); clamping/tying of the umbilical cord with clean string; clean cloth to dry and wrap the baby.

³ This approach aims at establishing level 1 care units (Community Units) to serve a local population of 5,000 people and instituting a cadre of well trained CHWs. Each CHW provides level 1 services to 20 households. For every 25 CHWs there is one CHEW providing supervision and technical support. Community Health Committees (CHCs) support the recruitment and management of CHWs and CHEWs

All the CHCs were trained on primary health care, community strategy and roles and responsibilities.

Community Health Management and Information System (CHMIS): The project adopted the Ministry of Public Health and Sanitation CHMIS tools that included the service delivery log, household register, CHEW data summary form, and the chalk boards. The project has used the household register, CHEW data summary form, and the chalk boards to collect, summarize, and display data at the community level. The 850 CHWs, 14 CHEWs, and 50 CHCs were re-oriented on the tools for one day. The CHWs use the household register to collect data on a bi-annual basis. Upon collecting the data, they submit to the CHEW to summarize the data on the CHEW data summary form. The CHC members post the data on the chalk board and use the displayed data to make critical health decisions through and action planning. During community dialogue days they share the data with community members.

Project Objectives/ Results	Related Key Activities	Status of Activities (Completed, On Target, Not Yet on Target)
Maternal and Newborn Care		
To increase the proportion of women attending antenatal clinic at least four times during pregnancy and post-natal clinic at least once To increase the proportion of women attended by skilled health professional during delivery To improve quality of and access to basic emergency obstetric and newborn (EmONC) care at health facilities	Train 910 CHWs on Community based Maternal and Newborn Care	A total of 850 CHWs were trained due to drop out of some CHWs. The training had to be delayed by 6 months due to delay in curriculum development
Malaria		
To increase the proportion of pregnant women and children under five years who sleep under insecticide treated nets. To increase the proportion of pregnant women who receive at least two doses of sulfadoxine pyrimethamine to prevent malaria. To improve the management of malaria among children under five years at health facilities	Distribution of ITN to pregnant women and CU5 Train 50 CHWS on malaria prevention	The project has been able to reach 1,200 pregnant women and CU5 with ITNs in hard to reach areas Completed on target
PMTCT		
To increase access to HIV counseling and testing among pregnant women at antenatal clinics To increase number of pregnant women and newborns who receive PMTCT services To improve feeding practices for infants 0-5 months of age		
Cross-cutting Activities		
Establish a functional CHMIS	Completed on target and the CHWs are continuously collecting and using CHMIS data for decision making	
Dissemination of health messages using BCC	Child to parent, household visitation and 5x5x5 approaches have been used to pass messages to the	

approaches	community
Procure and distribute t-shirts and badges to CHWs	Each of the 850 CHW has been issued with a t-shirt and a badge
Form 50 community health committees and train them on community strategy	Each sub-location (administrative unit) in the project area has a CHC as stipulated by MOPHS
Conduct facilitative supervision for the 16 health facilities	The quarterly supervisions for the targeted health facilities were on schedule
Formation of mother-to-mother clubs	The project was able to form and support 4 M2M clubs

C.FACTORS IMPEDING PROGRESS

Unlike the previous year, when post-election violence posed a great challenge to the project, this year the project experienced the following challenges:

Dependence on partners to facilitate processes: The development of the community-based maternal and newborn curriculum has taken a long time to finalize as the technical working group comprising AMREF, WHO, UNICEF, and the Ministry of Public Health and Sanitation have to identify a time agreeable to all the partners.

Splitting the Ministry of Health (MOH): Dividing the MOH into two (the Ministry of Medical Services and the Ministry of Public Health and Sanitation) has affected delivery of some services and supervision, as some functions are not placed distinctly in one particular ministry, thus creating conflict.

Performance on some indicators, such as the performance of mothers of children 0-23 months who attend ANC at least four times during most recent pregnancy has been affected due to the splitting of the MOH. In one supervision area, some of the health facilities have been experiencing human resource and management challenges. In one particular health facility (Burinda dispensary – Ministry of Public Health and Sanitation), there was only one nurse qualified to perform ANC services, who passed away last year. This meant that women seeking ANC services had to go to another, further away, health facility (Khunyangu hospital – Ministry of Medical Services), which was already understaffed. The Government is unable to transfer staff into the Burinda dispensary, as the hospital falls under the responsibility of Ministry of Medical Services. This has been detrimental to women seeking ANC services within the supervision area.

Creating new districts: The newly created districts are not adequately funded and staffed to support the DHMTs to carry out their functions of planning, coordination, and support supervision. The newly formed DHMTs rely on the parent DHMT for financial, technical, and logistical support. The project incurs extra costs in working with more than one DHMT.

Competing tasks by the DHMT members: The DHMT members and CHEWs were pre-occupied with activities of other partners throughout the year, especially APHIA II western. The introduction of the community strategy by MoPHS demands that all projects work within the framework of the community strategy.

D. TECHNICAL ASSISTANCE

Community based maternal and newborn care OR study: The project recruited a consultant to provide technical assistance for statistical analysis to be conducted for the study.

Documentation of the BCC approaches: the BCC processes of message dissemination and positive deviance, child-to-parent, 5x5x5, and mother-to-mother communication channels were effective in influencing behaviors at household level, as revealed by the mid term evaluation results. The project intends to seek technical support to document the best practices of BCC and the resulting effect. The documentation will be part of generating knowledge products that will be used for advocacy and application.

E. SUBSTANTIAL CHANGES

An activity that was in the DIP that we were not able to implement is C-IMCI. The budget allocated for the C-IMCI was inadequate, and due to the high rate of inflation, which led to high training costs, we were not able to train the CHWs on C-IMCI. We did, however, discuss this with the APHIA II program, and they have taken on board the C-IMCI activity.

F. PROGRESS MADE TOWARDS SUSTAINABILITY

In the 4th year, the project strengthened the community health structures that are aimed at sustaining the project activities when AMREF exits. This is in line with the Kenya MOPHS Community Strategy. These structures include the formation of 50 community units (CUs) and training of Community Health Committees to be in-charge of the units. The health committees are forming a link between the CHWs and the formal health facilities. The project also trained the CHWs on MNC and oriented them on the use of the MOPHS HIS tools, which they are using to collect community health service statistics. The CHWs and CHCs have also been empowered to analyze the data and use it in educating the community members during the community dialogue meetings that are organized by the CHCs. The project has also given emphasis to the active involvement of the MOPHS personnel, namely, the CHEWs and the DHMTs to prepare them to take over the management of the project activities when AMREF exits in October 2010. The APHIA II program that is supported by USAID and implemented in the BCSP project sites is likely to move into the phase III in October 2010. So AMREF is closely collaborating with the APHIA II to ensure that the MNC, malaria and HIV/AIDS activities that we are not able to carry out are undertaken by the APHIA II program. APHIA II together with the MOPHS are being prepared to take over and support the community health structures that the BCSP has put in place to sustain the project interventions.

G. SPECIFIC INFORMATION

Does not apply.

H. CHALLENGES TO THE MANAGEMENT SYSTEM

Generally, the project did not face any major challenges in the 4th year. The project staff received a lot of support from the AMREF Senior Management Team, especially from the Country Director, the Deputy Country Director, the Child and Reproductive Health Program Manager, and the Finance Manager, as well as the Technical Advisor based in the AMREF US office.

The only slight challenge that the project faced was the exit of the BCC Officer from the project, but AMREF moved fast and replaced him with an equally qualified and experienced officer.

J. LOCAL PARTNER ORGANIZATIONS COLLABORATIONS AND CAPACITY BUILDING

In the 4th year, the project established a strong working collaboration with the APHIA II program in Western province, and some of the activities such as setting up ORT centers in health facilities to enhance management of diarrhea, training of CHWs on C-IMCI that the BCSP was not able to carry out are being undertaken by the APHIA II program.

K. MISSION COLLABORATION

The project worked very closely with the USAID Mission in Kenya. The project hosted the Child Survival stakeholders meeting that was organized and chaired by the Kenya USAID Mission. The project staff also attended a PVO meeting and presented a paper on “Quality of Maternal and Newborn Care: The case of Busia Child Survival Project” (copy of the power point presentation is hereby attached). The USAID Mission also visited the project twice in the 4th year, and through the visits, the Mission officials gave a lot of technical support to the project team.

ANNEX I: M&E TABLE

The data shown below shows the indicators on adoption of EMNC practices immediately after CHW training.

Objective	Indicator By Technical Intervention	Baseline Value	June 09 Actual	EOP Target
1. Increased proportion of women who attend antenatal clinic at least four times and postnatal clinic at least once	% of mothers of children 0-23 months who attend ANC at least four times during most recent pregnancy	32%	40.16%	50%
	% of mothers of infants 0-5 months who attend postnatal care within two days of delivery	23%	39.36%	40%
2. Increased proportion of women who delivered under supervision of a skilled health professional	% of children 0-23 months whose delivery was attended by a skilled health professional (nurses with midwifery training, doctors, midwives)	26%	38.58%	40%
3. Increased proportion of women who deliver at a health facility	% of mothers of children 0-23 months who deliver at health facility	20%	37.80%	35%
5. Improved knowledge and practice of malaria prevention and treatment at household and community level	% of mothers of children 0 – 23 months who know 2 ways (ITN & IPT) to prevent malaria	17%	-	62%
	% of children 0-23 months taken to HF or Community Health Worker within 24 hours after onset of fever	7%	30.36%	60%
6. Increased proportion of WRA and CU5 who sleep under insecticide-treated nets	% of households with at least one ITN	77%	92.90%	90%
	% of mothers of children 0-23 months who slept under ITNs the previous night	65%	89.80%	80%
	% of children 0-23 months who slept under ITNs the previous night	70%	91.30%	80%
7. Improved case management of malaria/fever among CU5 at health facilities	% of HF staff who assess, classify and treat malaria/fever according to MoH protocols	0%	-	40%
8. Increased proportion of pregnant women receiving IPT	% of mothers of children 0-23 months who received at least 2 doses of SP for IPT during ANC.	21%	29.13%	60%
9. Increased knowledge and understanding of PMTCT and ART among women of reproductive age (15-49 years)	% of mothers of children 0 – 23 months who cite at least two ways of preventing MTCT	23%	-	59%
10. Increased access to HIV counseling and testing among pregnant women at ANC.	% of mothers of children 0-23 months counseled and tested for HIV at ANC during their most recent pregnancy	53%	87.40%	70%
	% of mothers of children 0-23 months who know that risk of MTCT can be reduced by ART	33%	-	50%
	% of mothers of children 0-23 months	41%	85.00%	60%

Objective	Indicator By Technical Intervention	Baseline Value	June 09 Actual	EOP Target
	who know their HIV status			
12. Improved feeding practices among caretakers of children 0-5 months	% of children age 0-5 months who were exclusively breastfed during the last 24 hours	11%	26.36	40%

ANNEX II: TIMELINE OF ACTIVITIES FOR COMING YEAR (FY 5)

Activities for 5 th year	Qtr 1			Qtr 2			Qtr 3			Qtr 4		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Medical supply-HIV test kits				X								
Incentives to CHWs	X											
Consultancies (MNC OR)	X								X			
LQAS Surveys (OR/KPC)			X							X		
End of Project Evaluation										X		
Maternal & Newborn care training				X			X			X		
BCC campaigns	X		X	X	X	X	X	X	X			
Community HIS Data Collection	X			X			X			X		
HF's Staff & HC meetings	X			X			X			X		
DHMT Meetings (PIT Meetings)	X			X			X			X		
Interagency/CS consortium meetings	-			-			-			X		
Annual Programme Review Meetings	-						X					X
Continuous Monitoring & Evaluation	X			X			X			X		
Facilitative supervision	X			X			X			X		X
5X5X5 orientation(CHWs)	X			X			X			X		X
Develop 5X5X5 & M2M training manuals for DHMTs					X							
5X5X5 and M2M training for DHMTs and Lot supervisors						X						
Develop C-to-C & C-to-P training manuals for DHMTs/MOE							X					
Conduct C-to-C and C-to-P workshops for DHMTs/CHEWs and MOE personnel								X				
Phase out workshops for DHMTs									X			

ANNEX III: INTERIM RESULTS FOR THE CBMNC OR

The Busia Child Survival Project is currently undertaking an operations research entitled, “Effectiveness and Cost Summary of the Ministry of Public Health and Sanitation’s Strategy for Community-Based Maternal and Newborn Health Service Delivery in Busia and Samia Districts, Kenya.” The study attempts to demonstrate that increased *awareness of essential maternal and newborn care (EMNC) practices* among pregnant women and mothers/caretakers of children of less than 23 months based on the MAMAN package and MoPHS community strategy approach results in increased *adoption of EMNC practices* among the same target group. It is expected that increased adoption of practices will eventually lead to *reduced deaths* among children less than 28 days old. The protocol was approved by the AMREF Ethics and Scientific Review Committee (ESRC). It is designed as a time series study with observations staggered in 7-month intervals. It uses the project’s CHW supervision checklist to collect data on the awareness of EMNC practices among pregnant women and the Knowledge, Practice and Coverage (KPC) survey using Lot Quality Assurance Sampling (LQAS) to collect data on EMNC practices among mothers of children less than 24 months. A pre-intervention KPC survey and CHW observations that captured baseline population level data was conducted in October 2008 and in April 2009; the first post-intervention observation study was conducted in June 2009, and the subsequent observations and surveys are planned for December 2009 and July 2010. The interim findings of the study are shown in annex III.

While data collected from mothers of children less than 23 months have not been analyzed, the table below shows data from the CHW supervision visits to pregnant women prior to them being trained on CBMNC.

Table 2: Indicators on Pregnant Women’s knowledge of Essential Maternal and Newborn Practices

Indicators on awareness of EMNC practices	pre-intervention observation June 09
Percentage of pregnant women visited by a community health worker during regular household visit	86%
Percentage of pregnant women having knowledge of all 7 components of birth planning and preparedness ⁴	2%
Percentage of pregnant women having knowledge of the correct number of doses of TT ⁵	39%

⁴ Seven Elements of IBP: pregnant woman (i) knows when the baby is due; (ii) identified a birth attendant; (iii) presence of clean delivery supplies; (iv) savings and transportation plan; (v) knowledge of maternal /newborn danger signs; (vi) identified a health facility for delivery/ complications; (vii) identified a birth partner/companion for the birth.

⁵ During the first pregnancy, a woman should receive 2 doses of TT if she has not been immunized previously; note that in measuring this indicator, number of ANC visits and parity matters because the first dose is given during the first visit in the first pregnancy, and the second dose during the second visit in the first pregnancy. During each of the subsequent pregnancies, 1 dose of TT is administered up to the 4th pregnancy.

Indicators on awareness of EMNC practices	pre-intervention observation June 09
Percentage of pregnant women and mothers/caretakers with knowledge on cord care ⁶	0.8%
Percentage of pregnant women and mothers/caretakers with knowledge on how to keep neonate warm ⁷	0.0%
Percentage of pregnant women and mothers/caretakers with knowledge on the right period to initiate breastfeeding	48%
Percentage of pregnant women and mothers/caretakers with high ⁸ knowledge of danger signs during pregnancy and postnatal period	0.0%

Source: survey of a sample of 355 pregnant women in Samia and Butula districts by AMREF-BCSP

There are a few interesting results of the initial assessment of CHWs when visiting with pregnant women before they were trained on CBMNC. Firstly, we learned that CHWs do not visit all of the pregnant women within their catchment area. This suggests that that some mothers are not able to gain access to information on essential maternal and newborn practices at the community level. A pregnant woman's exposure to essential maternal and newborn care information must come from visits she makes to the health facility and/or from informal sources. Unfortunately, due to challenges of staffing at health facilities, health workers often do not have enough time to speak with women who come for ANC about EMNC.

There is still some reluctance among women to seek services from CHWs. The CHW's attitude, a lack of trust of them, and cultural barriers are some of the reasons cited by pregnant women who fail to seek CHWs services. We have learned anecdotally that the attitude of pregnant women is still negative towards CHWs as a result of the most recent CHW election outcomes, which did not favor their candidate. Anecdotal evidence has also shown that some mothers feel the CHWs are not adequately qualified to attend to them because of cultural barriers within the community.

Knowledge of all the seven components of birth planning and preparedness is very low among pregnant women despite having been visited by CHWs. This could be attributed to a recall problem at time of soliciting responses from the women. It is also possible that the CHWs don't effectively communicate the required information to pregnant women. Though knowledge of all the seven components is very low (2%, n = 355), almost all (88.4%, n = 317) of the pregnant women know one to three components of the individual birth plan.

⁶ All mothers delivering in health facilities should be counseled during the post natal period on how the umbilical cord stump should be kept clean and dry, till it shrivels and, within a few weeks, eventually falls off

⁷ Drying the baby immediately after delivery; do not wait till the placenta is delivered, Wrapping the baby with clean dry cloth, Keep baby close to mother; skin-to skin contact or kangaroo mother care, Postpone bathing for first 24 hrs, Keep baby wrapped with head covered.

⁸ Knows 10-14 danger signs in pregnancy and 7-9 danger signs in labour/delivery

Knowledge on cord care and keeping the newborn warm is still very low because most pregnant women are not advised by CHWs on proper cord and thermal care practices. Only 140 out of 355 (39.7%) CHWs advised pregnant women on cord care. Similarly, only 47% of pregnant women mentioned the proper method of keeping the umbilical cord stump clean. It is possible that the women who do know the proper method of keeping the umbilical cord clean have learned from visits to the health facility, or from an informal channel. We have learned that mothers are therefore using less than optimal cord care methods; for example, applying baby powder, herbs, dust, spirit, oil, and ash, and not keeping the baby warm. This increases the risks of the newborn dying from infections and hypothermia.

The low knowledge among pregnant women on most EMNC key practices is not unexpected, as the CHWs had just finished their training on community-based maternal and newborn care at the time of collecting this data. The data above suggest that though many pregnant women had been visited by CHWs, they had not been given specific education on the essential maternal and newborn care practices. It is important to note the CHWs were previously making household visits but their role was limited to referring pregnant women, as they had not received any training to enable them to screen for danger signs, and discuss and help in preparation for individual birth plan.

Knowledge among pregnant women varied within lot areas depending on the commitment, time and support extended by the Community Health Extension Workers (CHEWs). For example, lot 2 performed comparatively well at this data collection period, while lots 6 and 7 performed poorly. The supervisor for lot 6 is a facility in-charge nurse, which limits his time to provide supervision to the CHWs. The supervisor for lot 7 was promoted to the District Public Health Officer, and therefore his new responsibilities limit his ability to adequately supervise the CHWs. The Ministry of Health's Community Strategy requires that CHEWs supervise CHWs. CHEWs can be either Public Health Technicians or nurses attached to a health facility. The Public Health Technician's primary role is to provide extension services in the community, for example in restaurants, markets, and bus terminals. The nurses primarily provide services in the health facility, and due to staff shortages are often constrained for time, overworked, and thus bound to the facility. Anecdotal evidence has shown that many health facility nurses cannot be as active in the community as the strategy suggests they be. As a result of this dynamic, Public Health Technicians seem to be more likely to be more active in the community, and more able to engage with CHWs on a regular basis.

Throughout the course of this study, and as a result of training over 900 CHWs in Community Based Maternal and Newborn Care, we expect to see increased knowledge and adoption of practices by pregnant women and mothers of children less than 23 months in the subsequent data collection points.