Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP)

Busia and Samia Districts, Kenya

October 2005 – September 2010

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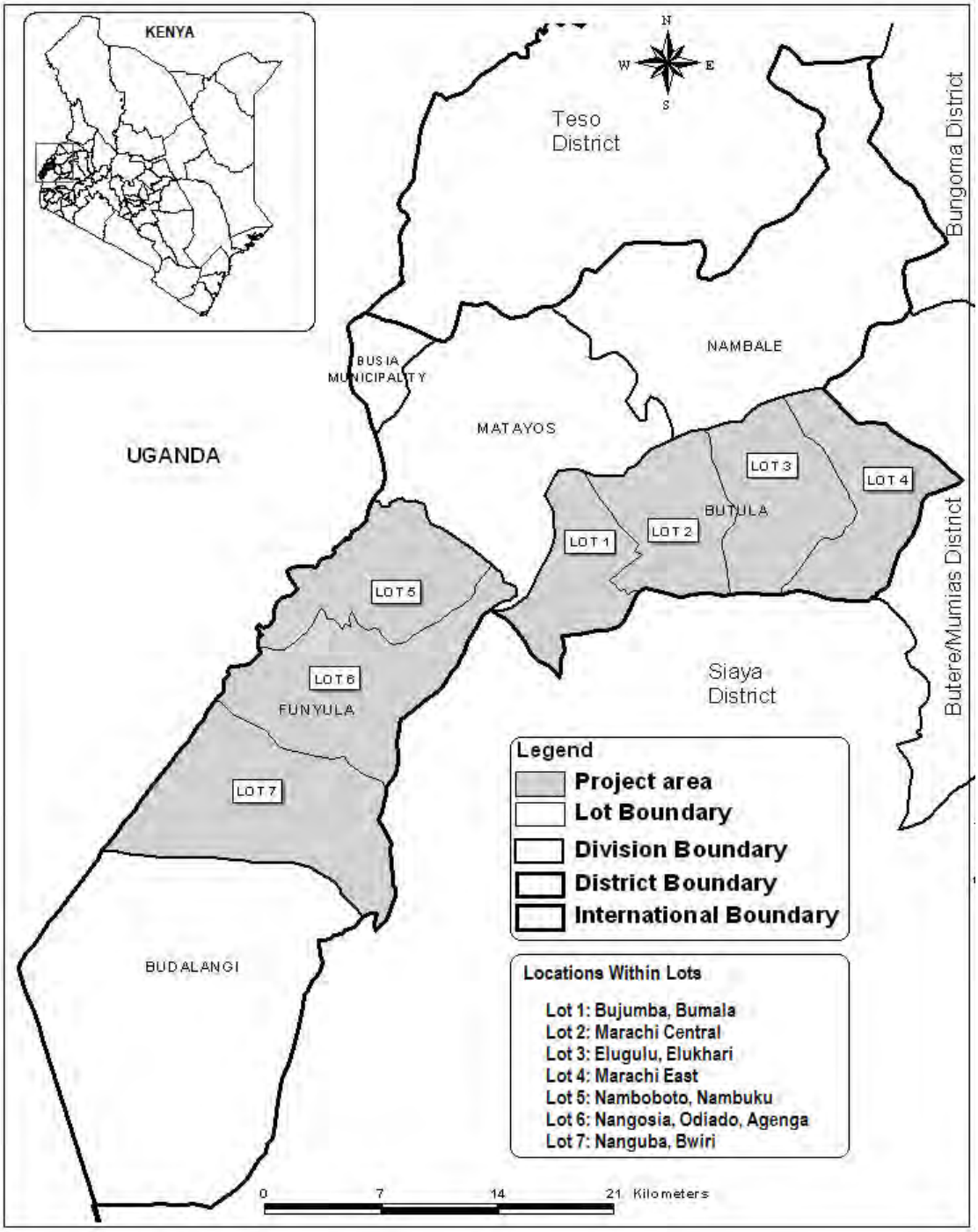
A ACRONYM LIST

AIDS	Acquired Immune Deficiency Syndrome
AMPATH	Academic Model for the Prevention and Treatment of HIV
AMREF	African Medical and Research Foundation
ANC	Antenatal Care
ART	Anti Retroviral Treatment
ARV	Anti Retroviral Drugs
BCC	Behavior Change and Communication
BCSP	Busia Child Survival Project
CBHMIS	Community Based Health Management Information System
CHEW	Community Health Extension Worker
CHW	Community Health Workers
C-IMCI	Community Integrated Management of Childhood Illnesses
COE	Centre of Excellence
CORP	Community Own Resource Person
CS	Child Survival
DHMT	District Health Management Team
DIP	Detailed Implementation Plan
EmOC	Emergency Obstetric care
EOC	Essential Obstetric Care
FANC	Focused Antenatal Care
GLUK	Great Lakes University of Kenya
HIV	Human Immune Deficiency Virus
IPT	Intermittent Preventive Treatment
IMCI	Integrated Management of Childhood Illnesses
KCO	Kenya Country Office
KPC	Knowledge, Practice, and Coverage
LLIN	Long Lasting Insecticidal Net
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MAMAN	Minimum Activities for Mothers and Newborns
MNC	Maternal Newborn Care
MOH	Ministry of Health
MTE	Mid-Term Evaluation
NGO	Non Governmental Organizations
PMTCT	Prevention of Mother to Child Transmission
PVO	Private Voluntary Organization
STI	Sexually Transmitted Infections
TBA	Traditional Birth Attendant
TOT	Training of Trainers
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing

Figure 1 - Map of Busia and Samia Districts



B EXECUTIVE SUMMARY

Starting in September 2005, the African Medical and Research Foundation (AMREF) initiated the Busia Child Survival Project (BCSP) with a five-year Child Survival and Health Grant from the United States Agency for International Development/Office of Health, Infectious Disease and Nutrition/Child Survival and Health Grants Program (USAID/HIDN/CSHGP). The total Project budget is US$2,139,302 of which $1,305,302 is from the USAID/CSHGP Grant, and $834,000 is from AMREF.

The BCSP efforts are solidly in line with Kenya's Ministry of Health (MOH) strategy for the delivery of community-based health services within the Second National Health Sector Plan (2005-2010). The BCSP also reinforces the Kenya Essential Package for Health. This approach is being implemented in an effort to reverse the downward trends in the health status of Kenyans as observed within the context of the implementation of the First Strategic Plan (1999-2004). The BCSP site could serve as a "Learning Centre" for an eventual scaling up of this Plan.

Of particular note, this report addresses an unusual Child Survival Project (CSP) Mid-Term Evaluation (MTE) situation because:

(i) the MTE had to be postponed for five months because of post-election violence in the area;
(ii) a new District was created in the area as a result of an election promise;
(iii) the AMREF BCSP and USA teams incurred major staffing changes; and
(iv) Kenya has recently experienced a marked increase in energy and food costs.

These factors could not be overlooked in the evaluation process, but were instead factored into the reported results in addition to the technical aspects of the BCSP implementation. Nonetheless, the Project's overall progress is good and most of the targets are likely to be met or even surpassed by the end of the Project in September 2010.

The Mid-Term Evaluation used a mixed methods approach. Quantitative data was gathered on the knowledge, practice and coverage of selected maternal and child health, malaria, and HIV/AIDS interventions. The capacity of health facilities and staff to deliver services was also captured quantitatively. This information was supplemented by focus group discussions and key informant interviews with stakeholders to gain a deeper understanding of the Project's achievements.

The goal of the Project is to create a sustained reduction in child and maternal mortality in the coverage area. Initially, the Project area covered two divisions within Busia district, namely Busia and Funyula. However, in fulfillment of an election promise made in early 2008, Funyula Division has become its own district, known as Samia District.

The Project's major accomplishment to date has been capacity building at both the community and health facility levels. Through its efforts, both the Busia District Health Management Team (DHMT) and the Samia DHMT have been trained in health services management. Comparatively, health workers within the Project site have been trained in the following areas:

Focused Antenatal Care (FANC), Emergency Obstetric Care (EmOC), Prevention of Mother-to-Child Transmission (PMTCT), maternal and newborn care (MNC), and the Integrated Management of Childhood Illnesses (IMCI). At the community level, the Project has trained a total of 910 community health workers (CHWs) in primary health care concepts using a community-based strategy. Among these CHWs, 314 have been trained in MNC and 763 were trained to use the Community Based Health Information System (C-BHMIS).

From its inception, the Project has formed partnerships and worked closely with relevant stakeholders, including the MOH, AMPATH, World Vision, MSF Spain and the Great Lakes University of Kisumu (GLUK). In addition, the Project has delivered much needed equipment and supplies to health facilities in the Project area and made necessary renovations to enable them to provide quality maternal and child health services. Behavior Change and Communication (BCC) efforts have been carried out at the community level. Given the proper guidance, community members can play a key role in providing necessary governance and leadership. The next step of governance and leadership at the community level will be the challenge facing the collaborative partners for the remainder of the Project.

Strategic Recommendations for the BCSP and DHMTs

- Complete all phases of training for CHWs on Community Based Maternal and Newborn Care (CBMNC) and Community Integrated Management of Childhood Illnesses (C-IMCI).
- Engage CHWs in household visitation, and data collection and utilization.
- Strengthen the use of C-BHMIS as a tool for data feedback to the communities.
- Revisit Intermittent Preventive Training (IPT) training of all staff so that patients may have a better understanding of the purpose of anti-malarial medication; strengthen IPT delivery in collaboration with APHIA II in health facilities.
- Initiate regular patient exit interviews for improved quality of health service delivery.
- Involve additional partners who are carrying out related program activities in the districts in order to further strengthen Community Strategy and sustainability of activities.
- Engage the private corporate sector, especially to support CHWs with "branded" bicycles.
- Reestablish monthly meetings between AMREF BCSP, MOH, and CHWs.
- Re-orient other stakeholders in the community on the Community Strategy.
- The Samia DHMT should conduct a mapping of all potential stakeholders
- Involve communities in decision-making through the development of community units (CUs) as the organizational linkage between the health facilities and the community.

Strategic Recommendation for AMREF–KCO

- Reassure DHMTs, Project partners in the field, and communities of AMREF's commitment at the highest executive level to BCSP efforts until the end of the Project.

Summary of Impact Model Elements for BCSP

Inputs	Activities	Outputs	Outcome	Goal
LLIN/ITN supplies	Distribute targeted subsidized ITNs/LLINs	12,000 LLIN distributed to pregnant women and children under 5	Increased proportion of pregnant women sleeping under LLIN/ITN from 77% to 80% Increased proportion of CU5 sleeping under LLIN/ITN from 87% to 80% Increased proportion of women who attend antenatal clinic at least four times from 50% to 60% Increased proportion of women who attend postnatal clinic at least once from 27% to 40% Increased proportion of women who delivered under supervision of a skilled health professional from 31% to 40% Increased proportion of women who deliver at a health facility from 30% to 35% Increased proportion of pregnant women receiving two doses of IPT from 26% to 60% Increased proportion of pregnant women receiving IPT from 26% to 60% Increased access to HIV counseling and testing among pregnant women	Sustained reduction in child and maternal mortality
Supervise school health clubs Integrate BCC messages developed Develop IEC and Health Learning Materials (HLM)	CHWs and Pupils disseminate messages to household members	50,000 WRA reached with BCC messages		
Consultative meeting with social corporate department of private organization	Implement communication of health messages via radio	At least one radio station airing BCC messages		
Procure branded T-shirts, bags, and badges	Distribute branded materials to CHWs	910 CHWs provided with motivational materials (T-shirts, badges, and bags)		
Training (training materials, facilitation and venues) Procure commodities (HIV/AIDS testing kits) and equipment	Train CHWs in PHASE II: Community Maternal and Newborn Care (CBMN)	596 remaining CHWs trained in PHASE II		
	Train CHWs in PHASE III: C-IMCI	910 CHWs trained in C-IMCI		
	Refresher training of Health workers in PMTCT	23 health workers re-trained on PMTCT		
	Refresher training of health workers in Essential Obstetric Care (EOC) training	16 health workers re-trained on EOC		

Inputs	Activities	Outputs	Outcome	Goal
	Refresher training of health workers on Focused Antenatal Care (FANC)	16 health workers re-trained on FANC	at ANC from 83% to 90%. Increased exclusive breastfeeding for mothers of children 0-5 months from 22% t0 40%	
Cross-cutting Develop tools; train data collectors/analysts/supervisors; software	Monitoring, evaluation and supervision	16 supervisory visits made in each of the 16 health facilities Each of the 910 CHWs collecting data for CHMIS Final Evaluation Conducted		

C ASSESSMENT OF RESULTS AND IMPACT OF THE PROJECT

1 Results: Technical Approach

a) Brief Overview

In September 2005, the African Medical and Research Foundation (AMREF) initiated the Busia Child Survival Project (BCSP) with a five-year Child Survival and Health Grant from the United States Agency for International Development/Office of Health, Infectious Disease and Nutrition/Child Survival and Health Grants Program (USAID/HIDN/CSHGP). The total Project budget is US$2,139,302 of which $1,305,302 is from the USAID/CSHGP Grant and $834,000[1] is from AMREF.

The Project is located in Busia and Samia Districts, Western Kenya. Almost 70% of the population of 452,468 lives in absolute poverty (on an income of less than US$1 per day). Before being split into two districts, the larger Busia District was among the poorest of Kenya's 71 districts, having ranked 67th in incidence of poverty, with only four districts facing greater economic hardship (*Central Bureau of Statistics, 2005*). The Project targets two divisions: Butula in Busia District and Funyula in the newly designated Samia District. The two targeted divisions have a combined estimated 2006 population of 215,384. Infant mortality in the districts is estimated to be 80/1,000 live births and under five mortality is approximately 144/1,000 (*KDHS, 2003*). Both of these vital statistics are above the national averages of 77/1000 and 115/1,000, respectively (*KDHS, 2003*). The maternal mortality ratio is an estimated 680/100,000 live births, 64% higher than the national average of 414/100,000 (*KDHS, 2003*). The Project beneficiaries include 49,858 women of reproductive age (WRA) and 31,664 children under five (CU5) in Samia and Busia, respectively.

The original goal of the Project was to achieve a sustained reduction in child and maternal mortality in Funyula and Butula Divisions, Busia District. Essentially this has not changed, even though a second district, Samia, has been established in what was formerly Funyula Division in the original Busia District. The Busia Child Survival Project (BCSP) focuses on the following interventions at the level of effort (LOE) indicated: maternal and newborn care (40%), malaria control (40%), and HIV/AIDS (20%). These causes of maternal and under five mortality are interrelated and converge in the arena of focused antenatal care (FANC). These vital statistics are the leading causes of newborn, child, and maternal morbidity and mortality in the two districts. Prior to the BCSP, these causes had not been adequately addressed by any pre-existing health programme.

In order to achieve its goal, the Project uses three mutually-reinforcing strategic approaches:

(i) Capacity strengthening of the District Health Management Teams (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;

[1] $437,000 was originally budgeted for this Project. An additional $397,000 was committed through AMREF USA and Netherlands.

(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 levels to address cultural and societal barriers to disease prevention.

In **Year 1,** the Project initiated multiple key activities that successfully launched an active series of training, planning steps, and advocacy activities, including the inaugural Technical Advisory Group (TAG) meeting. In addition, the Project area was divided into seven lots, also known as Supervision Areas. This was initially done in order to facilitate lot quality assurance sampling (LQAS) surveys. Dividing the area into lots proved to be a very helpful partitioning of the coverage area for future training, supervision, and logistic operations for the remainder of the Project. It provided continuity at all levels for staffing which contributed greatly toward building teamwork.

In **Year 2**, the main activities accomplished included: training of facility-based staff and community health workers (CHWs), including curriculum adaptation, facilitative supervision, establishing Centres of Excellence (COEs) and Partnership Defined Quality (PDQ) implementation (as part of QI). The Project trained CHWs and health facility workers on communication for behavior change using a cascade approach, distributed Long Lasting Insecticidal Nets (LLINs), developed a Community Health Management Information System (C-HMIS) prototype, and conducted various research studies and assessments.

Despite major interruptions due to preparations for the 2007 presidential election and the subsequent post-election violence that took place within the Project area in **Year 3**, the Project continued all of the year 2 activities in addition to developing a newborn care training curriculum and C-BHMIS training manual, developing and testing the accreditation criteria tools for the COEs. Additionally, the Project was able to create community support groups and procure and distribute motivational materials for CHWs. A complete review of year 3 activities is included in Annex 8.2.

b) Summary M&E Table

Objective	Indicator By Technical Intervention	Baseline Value	Midterm Target	Midterm Actual	EOP Target	Explanation or Reference
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%	46%	50.38%	50%	Surpassed
	% of mothers of infants 0-5 months who attend postnatal care within two days of delivery	23%	27%	27.40%	40%	Achieved
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%	37%	30.83%	40%	More work needed at community level to promote skilled deliveries
3. Increased proportion of women who deliver at a health facility	% of mothers of children 0-23 months who deliver at health facility	20%	31%	30.08%	35%	More work needed at community level to promote skilled deliveries
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%	51%	15.8%	62%	Need to work with health workers communication of IPT
	% of children 0-23 months taken to HF or Community Health Worker within 24 hours after onset of fever	7%	46%	35%	60%	Though not at midterm target, achieved statistically significant increase
6. Increased proportion of WRA and CU5 who sleep under insecticide-treated nets	% of households with at least one ITN	77%	87%	91.7%	90%	Surpassed
	% of mothers of children 0-23 months who slept under ITNs the previous night	65%	76%	76.7%	80%	Achieved
	% of children 0-23 months who slept under ITNs the previous night	70%	80%	87.2%	80%	Surpassed

Objective	Indicator By Technical Intervention	Baseline Value	Midterm Target	Midterm Actual	EOP Target	Explanation or Reference
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%		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%	50%	26.32%	60%	Need to work with health workers communication of IPT
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%	50%	36.84%	59%	Refer to KPC Midterm Report
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%	66%	83.46%	70%	Surpassed
	% of mothers of children 0-23 months who know that risk of MTCT can be reduced by ART	33%	46%	33.84%	50%	Refer to KPC Midterm Report
	% of mothers of children 0-23 months who know their HIV status	41%	55%	72.9%	60%	Surpassed
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%		22%	40%	

c) Work Plan Activity Status Table

Project Objective	Key Activities	Status of Activities	Comments	Interventions that activity contributes to			
				MNC	Malaria	PMTCT	Sustainability[2]
Technical Objectives 1. Increased proportion of pregnant women who attend antenatal clinic at least four times during pregnancy and postnatal clinic at least once. 2. Increased proportion of women attended by a skilled health professional during delivery. 3. Increased proportion of women who deliver at a health facility 4. Improved quality of and access to basic EmOC at health facilities.	Procure commodities (i.e. LLINS, test kits) and EmOC equipment	– 3,500 LLINs procured – HIV and antenatal profile test-kits ordered – EmOC equipment procured	Ongoing/On-schedule	X	X	X	
	Training needs assessment (TNA)	– TNA done in FY2 adequate	Ongoing/On-schedule	X	X	X	
	Review curricula and prepare training materials	– 4 curricula reviewed (FANC, EOC, M & E, CHW Manual) – Key sessions revised	Completed	X	X	X	
	Conduct joint capacity assessment & capacity building action planning for DHMT & AMREF	– Capacity building action plan developed and implementation initiated	Ongoing	X	X	X	X
	Implement Operations Research	– 2 OR protocols developed – 1 OR implemented – Research agenda updated	Ongoing/On-schedule	X	X	X	
	Distribute subsidized LLINs	– 3,290 LLINs distributed pregnant women and CU5 in hard-to-reach areas	Ongoing/On-schedule		X		
	Renovate and equip four COE	– 4 COEs renovated and equipped	Completed	X			
	Roll-out community strategy in 360 villages	– CHW component rolled- out – Other components to be rolled-out in FY3	On going/behind schedule –	X	X	X	X
	M&E/HIS Training for health facility staff including CHEWs and DHMT (two sessions at 5 days each for a total of 34 people)	– 22 persons trained (2 DHMT staff, 7 CHEWs, 13 HF staff)	On going/Behind-schedule: actual costs exceeded budget and therefore we could not train the planned 34 staff	X	X	X	X
	PDQ sessions implemented by CHEWs, CHWs, HF staff, and health facility committees	- Completed Steps 1-3: planning, building support, and exploring quality	On going/behind schedule; process will be completed in year 3	X	X	X	X

[2] Although sustainability is not outlined as an intervention in the DIP, we have included it in this table so that we can highlight activities that are contributing to it

Project Objective	Key Activities	Status of Activities	Comments	Interventions that activity contributes to			
				MNC	Malaria	PMTCT	Sustainability[2]
5. Improved knowledge and practice of malaria prevention and treatment at household and community level. 6. Increased proportion of pregnant women and CU5 who sleep under insecticide-treated nets 7. Improved case management of malaria among CU5 at health facilities. 8. Increased proportion of pregnant women who receive at least two doses of SP for Intermittent Preventive Therapy (IPT). 9. Increased access to HIV counseling and testing among pregnant women at ANC. 10. Increased knowledge of PMTCT and ART	Quality of Care Workshop (one session of 2 days for 22 DHMT/HF staff) (content will follow-on to PDQ sessions)	Not done	– Will be conducted after PDQ process for optimal effect – Kenya does not have a quality of care curriculum (or customer care) …AMREF plans to develop one in consultation with MoH and stakeholders	X	X	X	
	Advocacy to influence practice and policy within AMREF and at district, province and national forums	Accomplished through various fora in which AMREF is a member; key issues addressed: – Community newborn care – TBAs: need for research on potential roles – Vacuum extraction: need for skills development at peripheral health facilities Need for customer care curriculum for use in health care settings	Ongoing	X	X	X	
	Review and develop/adapt BCC materials	Malaria and MNC messages and IEC materials reviewed, designed	Ongoing/on schedule	X	X	X	
	Orientation of CHEWs, CHWs on the C-to-C, Child-to-Parent, Parent to Parent, & 5x5x5, Positive Deviance Approaches	– 7 CHEWs oriented on C-to-C, C-to-P communication, and 5*5*5 – 48 school clubs oriented on C-to-C and C-to-P, and participated in slogan competition – BCC assessment conducted, and generated key recommendations for improving BCC strategy – 228 CHWs oriented on 5*5*5 and implemented in 2 lots on a pilot basis	– Parent to parent approach (positive deviance) will be done in year 3- mapping results will be used to identify positive – Initial orientations done on a pilot basis; 5*5*5 guidelines have been updated and will be used to further orient 40 CHW -TOTs in FY 3; the CHW-TOTs will then cascade train all the other CHW	X	X	X	
	Explore the use of local radio stations to broadcast health messages	2 Priority radio stations identified	Completed	X	X	X	

Project Objective	Key Activities	Status of Activities	Comments	Interventions that activity contributes to			
				MNC	Malaria	PMTCT	Sustainability[2]
among women of reproductive age 11. Increased number of HIV+ pregnant women and newborns who receive PMTCT 12. Improved feeding practices among caretakers of infants 0-5 months of age. <u>Sustainability Objectives</u> 13. Improved capacity of DHMT staff to monitor and evaluate health programs 14. Improved facilitative supervision system 15. Improve financial management practices that lead to accurate financial planning 16. Strengthen	Implement communication of health messages via radio	Radio survey data collection delayed	– Behind Schedule; Radio stations will be contacted in FY 3, in the context of a well defined media advocacy plan – Radio communication delayed because we do not consider it as high impact	X	X	X	
	Revise existing supervision guides to checklist	Supervision checklist developed	Completed	X	X	X	X
	Follow-up Training on facilitative supervision (HF, LS – one session of 2 days for 24 people)	40 health staff oriented	Completed	X	X	X	X
	Further explore gaps and opportunities within the existing community health information system	Information needs and gaps analysis done	Completed	X	X	X	X
	Develop/adopt community health information system	C-HMIS model developed	Completed	X	X	X	X
	Training of CHWs in C-HMIS by CHEWs during 2 day until all 810 have been trained, and roll out Community health information system data collection	Not done	To be trained in FY 3; delayed because of need to harmonize with the rest of the CHW trainings	X	X	X	X
	TOT in anti- malarial treatment (two sessions of 2 days each for 7 CHEWs and 13 PHT)	Not Done	Kenya's policy on community malaria case management is in transition and it is advisable to wait for clarity		X		
	Focused ANC training (DHMT, HF, LS & CS Project staff – 2 sessions of 5 days each for a total of 35 people)	16 health staff trained	Behind schedule: funds available in budget not enough to train 35 people.	X	X	X	
	PMTCT Training (AMREF, HF – two session of 10 days each for a total of 31 people)	23 health staff trained	Behind schedule: funds available in budget not enough to train 31 people.			X	

Project Objective	Key Activities	Status of Activities	Comments	Interventions that activity contributes to			
				MNC	Malaria	PMTCT	Sustainability[2]
management systems and practices of the Project	Train 40 CHWs in supporting PMTCT (2 sessions of 3 days each for 20 CHWs); Cascade training of CHWs on supporting PMTCT	Not done	Will be done I n Qrt 1, year 3 as Phase II; this is because AMREF decided to first train CHWs on Phase 1, described in the text			X	
17. Increased use of empirical evidence to make program decisions	Work with Kenya Pediatric Association (KPA) and CSHGP to design minimum activities for mothers and newborns (MAMAN); Implement MAMAN	– OR protocol developed – Developed research partnership agreement with KPA – MAMAN being implemented in the context of FANC, EOC, PMTCT, and CHW based processes	– Agreement undergoing review – MAMAN implementation Ongoing/ but behind schedule	X			
18. Improve networking and external relations	Essential Obstetric Care (DHMT, HF, LS, AMREF & domiciliary midwives – two sessions of 5days each for 38 people)	– 16 health staff trained – 13 community midwives identified	Behind schedule: funds available in budget not enough to train 31 people.	X			
19. Improved capacity of community to plan for and improve their health status	Training of CHWs in EOC (120 CHWs will be trained during 2 sessions of 2 days each)	Not done	Will be done I n Qrt 1, year 3 as Phase II	X			
20. Improved linkage between communities and health facilities	Cross-visits between health facilities	Not done	Centres of excellence not yet accredited; will be done in FY 3	X	X	X	
	Training of 250 shopkeepers (during 2 sessions of 1 day each, the Retail Drug Vendors will be trained) in Malaria prevention, home treatment & appropriate drug use; Provide refresher to shopkeepers	Not done	Kenya's policy on community malaria case management is in transition and we prefer to wait		X		
	IMCI Training of Trainers (DHMT, HF – one 5-day session for 10 people); IMCI Case Management Training (HF – 2 sessions with 10 people each for 14 days for a total of 20 people); IMCI Follow-up training (DHMT, HF – one session of 2 days for 10 people);	Not done	To be done in Qrt 1, FY 3		X		

Project Objective	Key Activities	Status of Activities	Comments	Interventions that activity contributes to			
				MNC	Malaria	PMTCT	Sustainability[2]
	Training of 40 CHWs in malaria prevention, home treatment, appropriate drug use and ITN treatment and re-treatment (20 CHWs will be trained in 2 sessions of 2 days each)	Not done	To be done Qrt 2, FY 3 as Phase 3, and as part of C-IMCI		X		
	CIMCI Training of Trainers on dialogue approach (one session of 5 days for 13 people); CIMCI Follow-up training on dialogue approach (one 1-day session for 13 people); CIMCI Training on dialogue approach for 240 CHWs (2 day sessions will be held for 20 CHWs simultaneously by each CHEW in each of 7 lots)	Not done	To be done Qrt 2, FY 3 as Phase 3, and as part of C-IMCI	X	X	X	
	Hold annual Project review with partners	Completed	_	X	X	X	
	KPC surveys (LQAS), health facility assessment & Qualitative Research	Completed		X	X	X	
	Project Implementation Team (PIT) meetings	4 PIT meetings held	_	X	X	X	
	Technical Advisory Group (TAG) meetings	3 TAG meeting held	_	X	X	X	
	Facilitative supervisory visits	DHMT started visiting facilities in the Project area to conduct supervision with revised tool	Ongoing	X	X	X	X
	Monitoring and evaluation	BCC assessment, post-training assessments conducted, health facility data, community data	Ongoing	X	X	X	
	AMREF regularly update DDC	Project staff attended 2 DDC meetings	_	X	X	X	
	Documentation and dissemination of lessons learned and better practices	Research in progress to generate lessons	Ongoing	X	X	X	

d) Results of Technical Approaches by Intervention

Maternal and Newborn Care (MNC)

Objectives:

1.1 Increased proportion of pregnant women who attend antenatal clinic at least four times during pregnancy and postnatal clinic at least once.
1.2 Increased proportion of women attended by a skilled health professional during delivery.
1.3 Increased proportion of complicated deliveries referred to and managed at health facilities.
1.4 Improved quality of Emergency Obstetric Care (EmOC) at health facilities.

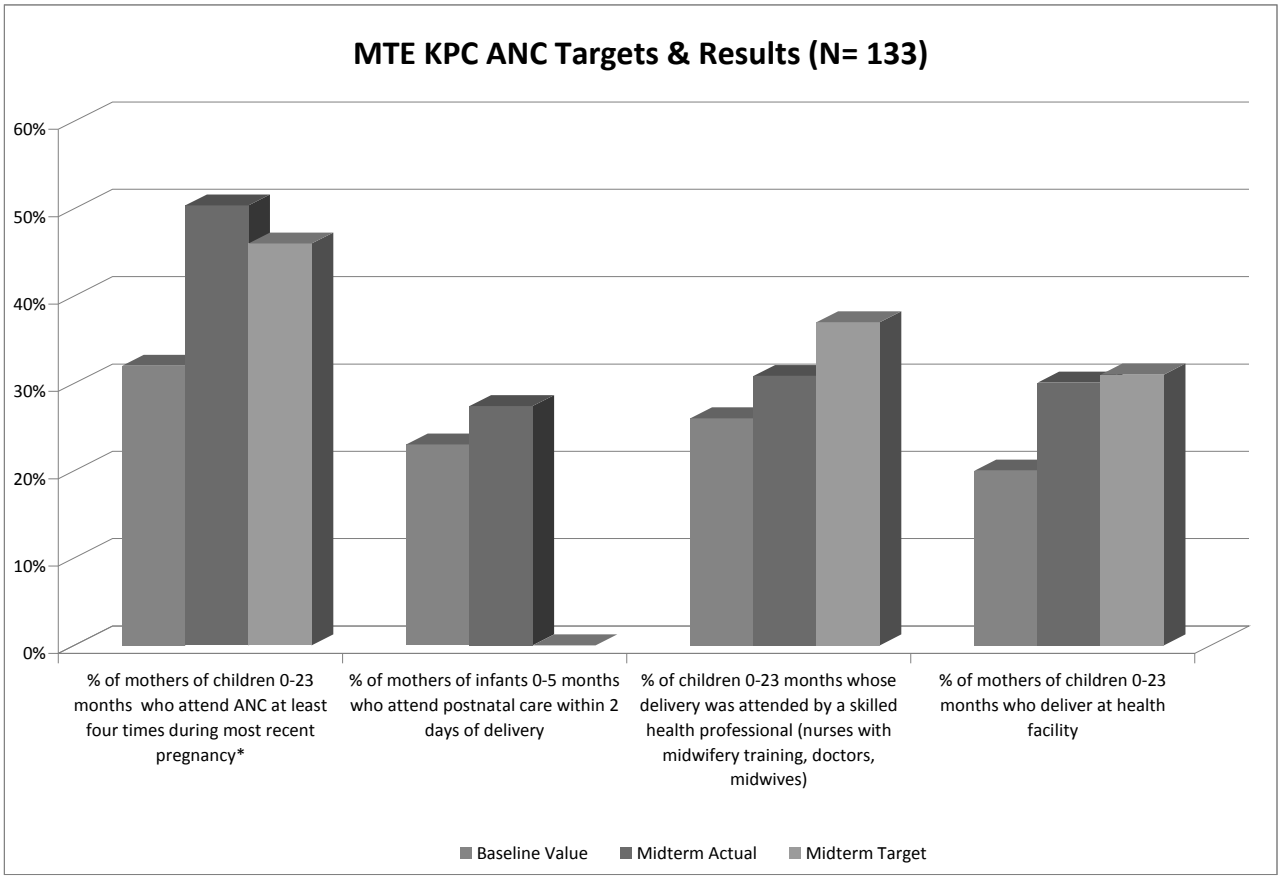
Key Activities:

- Renovate and equip COEs.
- Conduct FANC training for MNC partners.
- Work with Kenya Pediatric Association (KPA) and CSHGP to design and implement minimum activities for mothers and newborns (MAMAN).
- Conduct Essential Obstetric Care (EOC) training for MNC partners.
- Conduct comprehensive IMCI training, including case management and follow-up training.
- Conduct C-IMCI training.

Results:

Based on results of the KPC survey, progress on MNC activities are generally good. As seen below (figure 2) indicators for four of the Project objectives are above baseline levels. Complete results can be found in Annex 4.

Figure 2 - BCSP ANC Results at Midterm



*Statistically significant

Nearly half of all mothers (46%) reporting on the KPC survey had a maternal health card, and a similar proportion (48%) had the card but was not available. Only 6% of mothers reported that they had never had a card. 86% of mothers said they had received at least one dose of tetanus toxoid during their most recent pregnancy and 52% said they had received two or more doses during their most recent pregnancy. 68% of health facility-based deliveries were done at MOH facilities, while the remaining 32% were done at mission-supported or other facilities. About one third (32%) of the deliveries were attended by a trained health professional (i.e., a doctor, nurse, midwife or community midwife). 32% of mothers of infants under six months of age reported having had their health checked by a trained health professional after the delivery. 27% reported that the post-natal check was done within two days of the delivery. A similar proportion of mothers said their child's health was checked as well.

Malaria

Objectives:

2.1 Improved knowledge and practice of malaria prevention and treatment at household and community levels.

2.2 Increased proportion of pregnant women and CU5 who sleep under insecticide-treated bed nets.
2.3 Improved case management of severe malaria among CU5 at health facilities.
2.4 Increased percentage of pregnant women who receive Intermittent Preventive Therapy (IPT).

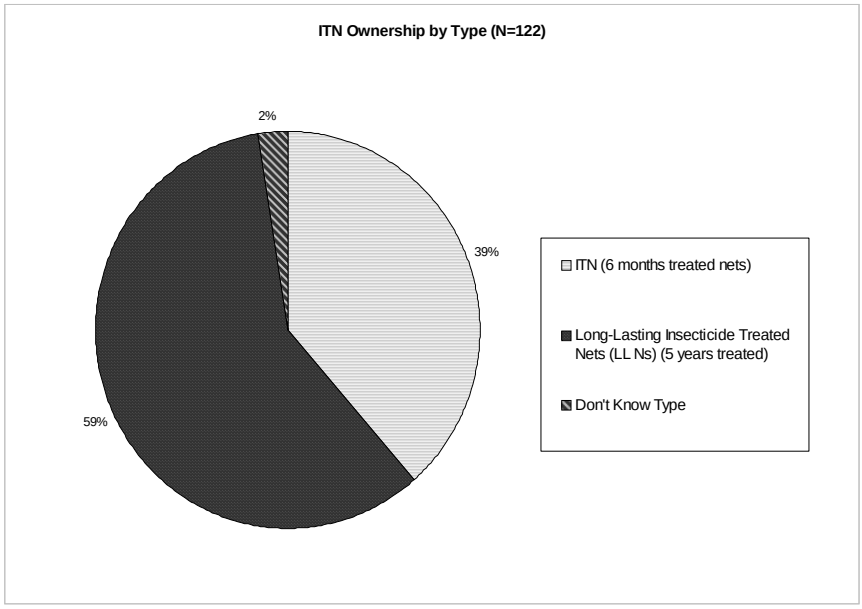
Key Activities:

- Procure LLINS.
- Distribute subsidized LLINs.
- Conduct training of trainers (TOT) on anti- malarial treatment for CS partners.
- Conduct comprehensive IMCI training, including case management and follow-up training.
- Conduct C-IMCI training.

Results:

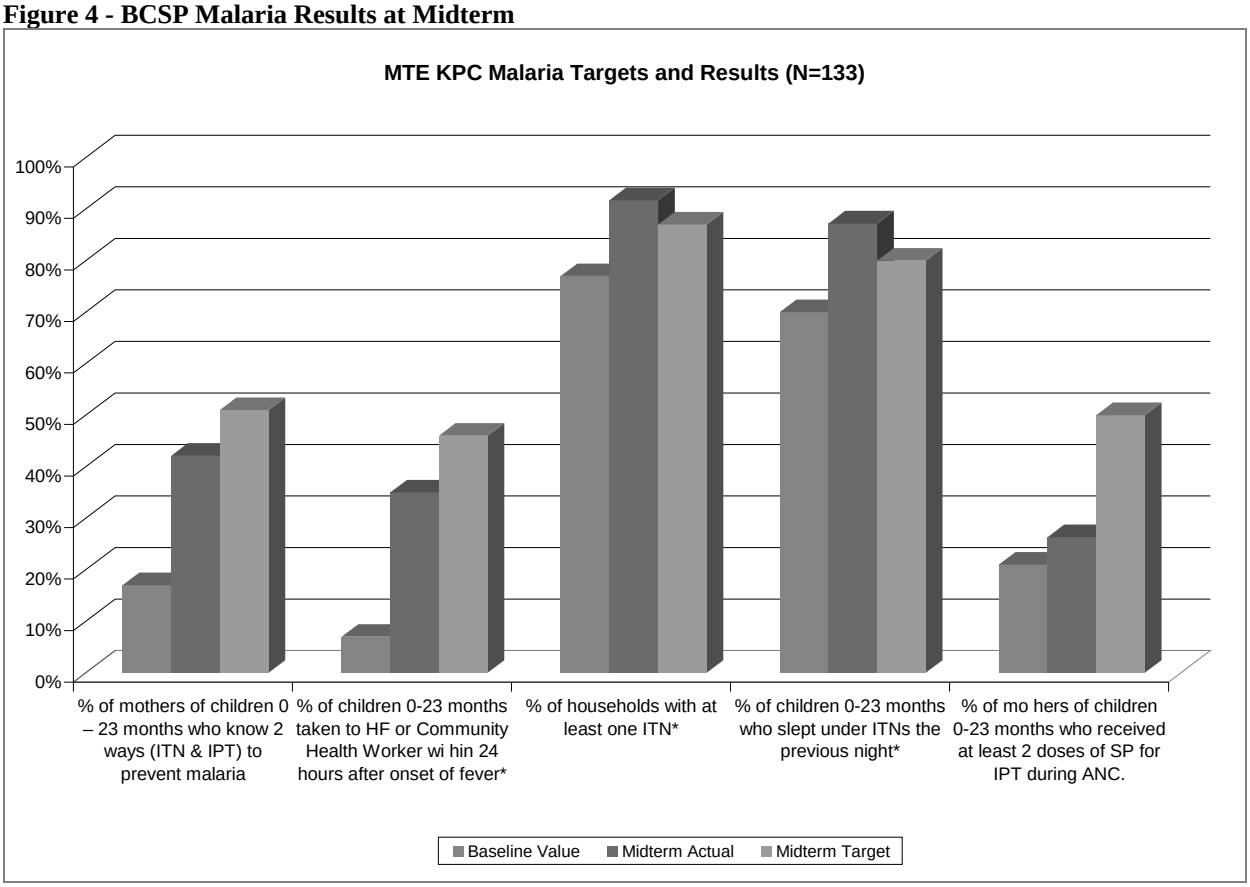
Awareness of the importance of bed nets is especially high with 95% of mothers responding positively. Figure 3 shows ITN ownership by type of net in the Project area based on the results of the KPC survey.

Figure 3 - BCSP ITN Ownership at Midterm



Among the respondents who own ITNs, 40% reported having retreated their ITNs within the previous six months. 86% of mothers recognized fever as a danger sign for their child. However, only 12% of children who had been sick with fever in the past two weeks were given increased fluids or the same amount. 81% of mothers reported that their youngest child had had a fever or presumed malaria within the previous two weeks. Only 22% sought care at a health facility within 24 hours. Figure 4 below illustrates overall progress made toward Project objectives in malaria care and prevention.

Figure 4 - BCSP Malaria Results at Midterm



*Statistically significant

HIV/AIDS

Objectives:

3.1 Increased knowledge and understanding of PMTCT and ART among women of reproductive age (15-49 years).
3.2 Increased access to HIV counseling and testing among pregnant women at antenatal clinics.
3.3 Increased number of HIV+ pregnant women and newborns who receive PMTCT and HIV/AIDS care and treatment.
3.4 Improved feeding practices among caretakers of infants 0-5 months of age.

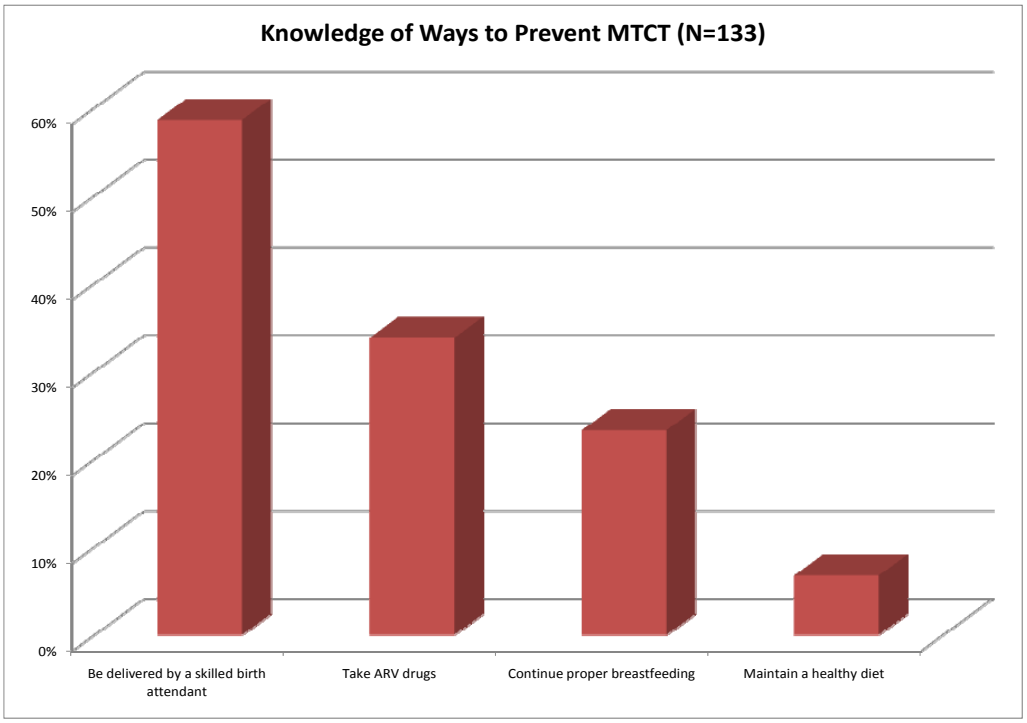
Key Activities:

- Procure test kits.
- Renovate and equip four COEs.
- Conduct PMTCT training.
- Train CHWs using cascade approach in supporting PMTCT.

Results:

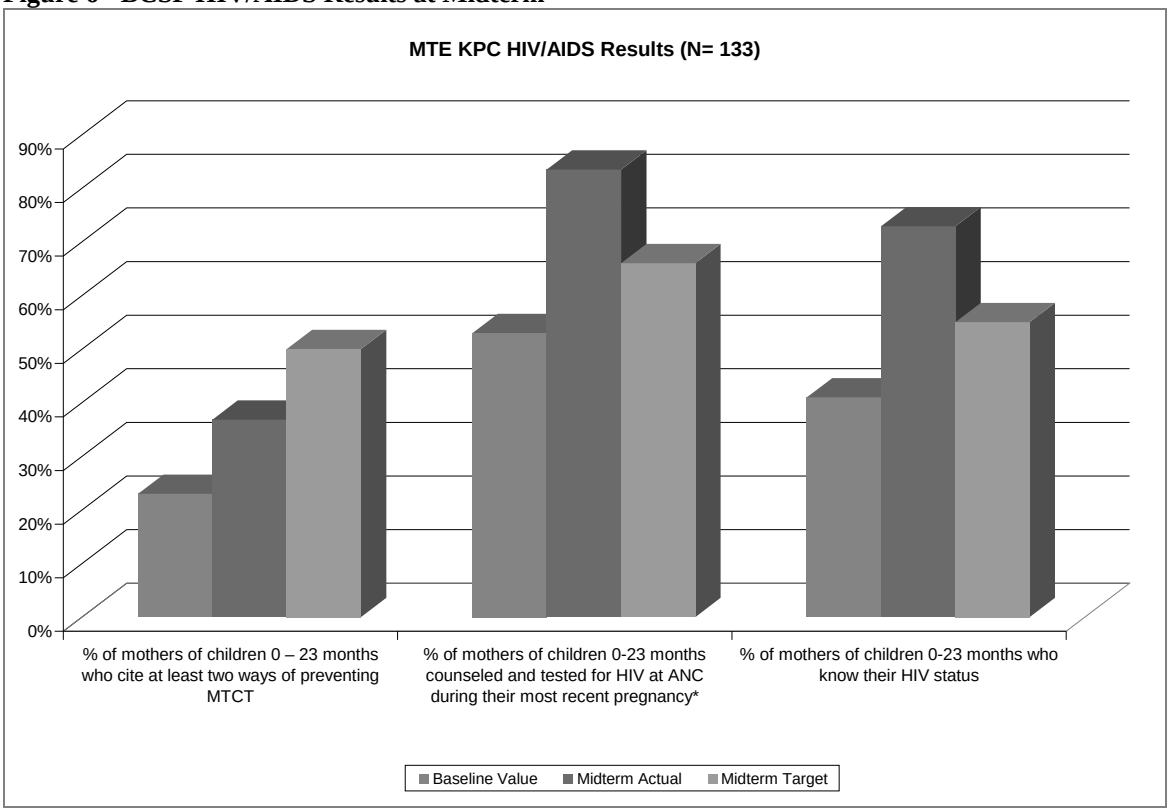
Awareness of HIV/AIDS is high across the Project area, with 99% of mothers responding to the KPC survey saying they had heard of AIDS. 89% said that it could be transferred during delivery and 90% said that it could be transferred through breastfeeding. Awareness of the risk of transfer during pregnancy was lower among respondents, with about half of mothers (53%) identifying this risk. 80% of mothers knew at least one way to prevent the transmission of HIV to their child. 34% of the mothers knew that the risk of MTCT can be reduced by ART. The proportions of the mothers who cited the various methods of preventing MTCT are outlined in figure 5 below.

Figure 5 - Community Knowledge of PMTCT at Midterm



More than three quarters (86%) of mothers responding to the survey said that they had been offered an HIV test as part of their most recent ANC visit. Similarly, 83.5% of mothers were tested, and 73% of these mothers were informed of the results of their test. Progress made toward achieving the Project's HIV/AIDS indicators is demonstrated in figure 6 below.

Figure 6 - BCSP HIV/AIDS Results at Midterm



***Statistically significant**

2 Results: Cross-Cutting Approaches

a) Community Mobilization

The Project has effectively used community structures in order to reach targeted beneficiaries. The Project mobilizes community members through local provincial administrators, community health workers (CHWs), community health extension workers (CHEWs), and health workers at the facility levels. Different communication channels have been utilized in order to facilitate the community mobilization process. These communication channels include child-to-child, child-to-parent, mother-to-mother, and 5*5*5 (neighbor-to-neighbor or parent-to-parent) approaches, as well as micro teachings, mobile clinics, positive deviance, male involvement, and household visitations.

Through these community mobilization mechanisms, the Project has been able to achieve its key knowledge indicators, successfully reach community members with health messages, and call them into action within a very short period of time. The channels also play complementary roles in helping the community members to remember and implement the best health practices, as envisioned in the detailed implementation plan (DIP).

Other Projects have shown that there is no added benefit to employing more than one communication channel simultaneously within the same lot without proper evaluation tools. The

BCSP has found that it is more practical to utilize more than one channel of communication when they are being used in different lots. This process enables the BCSP to better understand community communication channels.

The mobilization processes have increased the demand for Project activities. For example, more schools have asked to be included on the school health approach, which facilitates the child-to-child and child-to-parent communication channels. The use of mother-to-mother communication to increase exclusive breastfeeding coupled with the inclusion of males has made the Project visible in the communities. The increase in demand for community mobilization efforts was measured during the behavior change and communication (BCC) assessment undertaken in May 2008. Findings were corroborated by the actual number of men and schools willing to participate in Project activities.

Figure 7 - Behavior Change Communication Officer conducting community mobilization activity in Bumala B

b) Communication for Behavior Change

The Project's communication for behavior change is guided by the BEHAVE Framework developed during the initial stages of the Project. The framework was developed based on barrier analysis findings. Different communication strategies and activities were identified for use among specific audiences, both primary and secondary. The framework led to the development of the BCC M&E framework that helps to monitor progress.

Fifty schools have formed health clubs composed of 64 members per club. Project staff, together with the CHEWs and CHWs, orient club members on various health issues based on Project objectives. The club members are then called upon to relay the messages to other school pupils in informal settings in the school compound. Thereafter, all the pupils disseminate the messages to their parents/guardians when they are at home. The parents/guardians are also asked to disseminate the same messages to other members of the community.

CHWs carry out household visitations where they give health education to household members and disseminate five key health messages to the key household members who are requested to pass the same messages to at least five neighbors and request them to do the same; hence, this is called the 5*5*5/neighbor-to-neighbor approach.

Figure 8 - Community members gathering for a health talk

The Project also lists all pregnant women in the Project area. The women are classified into ANC "doers" and "non-doers" (i.e., those who attend ANC and those who do not). The doers are given health talks by the CHEWs and CHW leaders. The talks covers topics such as the benefit of attending ANC at least four times, the need to deliver in a health facility, having individual birth plans, the importance of exclusive breastfeeding, nutrition, and many other topics that pertain to maternal and child health. The doers are then teamed up with the non-doers. The former are expected to mentor the latter and help the non-doers to adopt the best maternal and newborn health practices.

The Project has plans to start giving health talks during church/mosque services and at other faith based organizations (FBOs).

All the above mentioned communication approaches have been successfully implemented in the Project area and are being assessed on a quarterly basis. They are expected to be sustainable once the Project ends mainly because they are community based. For example, all CHWs know all of the communication channels to be used. The findings from this evaluation suggest that the various communication channels are being used as there has been an increase in reporting of exclusive breastfeeding.

c) Capacity Building Approach

Through the Project, the DHMT in Busia has been trained in facilitative supervision, while health workers in health facilities within the Project sites have been trained in various areas such as Focused Antenatal Care (FANC), EmOC, PMTCT, MNC and IMCI.

At the community level, the Project has trained a total of 910 CHWs in primary health care (PHC) concepts and the Project's community strategy. The community strategy is in accordance with the MOH's policy, and as such, will enable service delivery at the community level. To date 314 CHWs have been trained in MNC and 763 CHWs have been trained in C-BHMIS. The

Project has also delivered equipment and supplies to health facilities in the Project area and renovated some facilities to enable them to provide quality maternal and child health services. All of these efforts have resulted in an increase in health facility-based deliveries and increased uptake of PMTCT services.

The Project has trained CHWs, CHEWs, and health workers on communication strategies to ensure sustainability once the Project ends. Communication guidelines with consideration for sustainability have been developed. Support clubs will be encouraged to keep meeting in the absence of AMREF facilitation.

(i) Local Partner Organizations

Strengthening Partnerships

From its inception, the Project has formed partnerships and worked closely with relevant stakeholders, including the MOH, AMPATH, World Vision, MSF Spain and the Great Lakes University of Kisumu (GLUK). The Project is also a member of the Child Survival Private Voluntary Organizations (PVOs). A PVO is an organization comprised of other NGOs working in child survival, whose members come together annually to share knowledge and experiences. Other PVO members include Plan International and Doctors of the World.

Figure 9 - Busia youths enjoying a health promotion theatre group performance

The BCSP has a Project Implementation Team (PIT) comprised of the MOH, AMPATH, MSF Spain, AMREF, and two community representatives. The PIT meets on a quarterly basis to review the Project's progress and provide directions on Project implementation. In the remaining Project period, the BCSP will strive to continue strengthening its current partnerships, while fostering new partnerships with organizations such as APHIA II and some corporate organizations.

Quality Assurance

The Project strives to provide quality maternal and child health services. To achieve this, the Project uses government-approved protocols, guidelines and curricula. These resources are primarily used for conducting trainings and/or providing other services such as malaria treatment, IMCI, and PMTCT. Where no government protocols exist, the Project works closely with the DHMTs to develop tools and train staff on their use. Tools that have been developed by the Project include the facilitative supervision tools, tools for assessing the COEs, and monitoring and evaluation tools for CHWs.

Health Systems Research

To document best practices and lessons learned, the Project has undertaken a number of Operations Research studies, which include:

- ***Community-Based Maternal and Newborn Care (MAMAN):*** This study aims at documenting the impact of CHWs in improving Maternal and Newborn Care Services.
- ***Community Emergency Transportation System (CETs):*** To establish the most viable community transport that mothers can safely use to access basic maternal health services. This study is being undertaken by a Community Health Masters Student at GLUK. Data has already been collected and analysis is in progress.
- ***A study to establish factors contributing to motivation and retention of CHWs:*** Has been carried out by a Masters Student of GLUK. The first draft of the report is ready and currently being reviewed by the supervisors.
- ***A study to establish the quality of PMTCT services:*** Is being undertaken by a PhD student from Karolinska Institute, Sweden. Data collection has been completed and is being analyzed.
- ***The Project is also undertaking a Partnership Defined Quality (PDQ) Operations Research Study:*** To assess and document if health facilities that engage the communities (beneficiaries) in planning and decision making in health services could lead to provision of quality health services by those health facilities.

(ii) Training

Trainings for DHMT, CHWs, CHEWs, and health facilities staff have been provided using approved government policies and guidelines and relevant DIP objectives. The purpose of the partnerships with the DHMT and other stakeholders is to provide the resources that would enhance the skills and knowledge at the management, service delivery and consumer levels. To date, BCSP training has resulted in successful completion of the following training modules:

- *TOF Training* for 7 lot supervisors and 4 AMREF staff members to improve skills at the supervisory level.
- *PMTCT Training* for 22 health facility staff to cover provision of PMTCT services of all Project health facilities.
- *Focused ANC Training* for 16 health workers.
- *TOT on MNC Training* for 14 CHEWs and 6 DHMTs to strengthen supervision and implementation of phase 1 CHWs and trainings and practice.
- *CBHMIS Training* for 400 CHWs to improve level 1 data collection skills.
- *Phase 1 CBMNC Training* for 314 CHWs.
- *IMCI Case Management Training* for 24 health facility staff to improve service delivery.
- *IMCI Follow-up Training* for 10 health facility staff to improve on case management skills.
- *Phase 1 EOC Training* for 15 participants.

Additionally, the following activities have been planned for year 4 of the BCS Project.

- *Phase 1 C-IMCI TOT* for 15 participants.
- *Phase 2 C-IMCI TOT* for 15 participants.
- *Phase 2 EOC Training* for 15 participants.
- *TOT in Anti-malarial Treatment* for 20 participants.

Throughout the life of the Project, there has been increased ownership and use of LLINs and ITNs, increased hospital deliveries, and increased uptake of PMTCT and ARV services. This serves as evidence of the trainings' effect on improving health workers' skills in service delivery and improved health-seeking behavior in the beneficiary population.

d) Health Systems Strengthening

To strengthen the health systems of the Busia and Samia districts, the Project has supported two DHMTs to plan, manage, coordinate and own processes relating to quality improvement, performance of health workers, financing mechanisms, resource allocation, HMIS, management, and coordination.

Quality Improvement

As part of the Project's quality improvement (QI) approach, AMREF BCSP provides support to DHMTs to improve facilitative supervision at health facilities. Together, the two partners have revised the facilitative supervision materials and have developed a checklist that is focused on performance improvement. The DHMTs adopted the supervision checklist and trained all health facility staff working in the two districts on its use. The tools have been applied since September 2007 with minimum involvement by AMREF BCSP. The BCSP and the two DHMTs conduct regular supervisory visits to the health facilities in Busia and Samia on Wednesdays and Mondays, respectively. Additionally, the DHMTs meet routinely to discuss the findings of their supervisory visits. AMREF, together with the DHMTs, is developing a facilitative supervision system for application by CHEWs, CHW Team Leaders, and other community structures to extend the supervision to the Community Health Workers.

Figure 10 - Young recipients of LLINs

In year two of the Project, AMREF and the Busia DHMT identified four COEs for Maternal and Newborn Care (MNC) – one hospital, two health centres, and one dispensary. These COEs provide quality antenatal, delivery, post-partum, and emergency obstetric care. They also serve as demonstration sites to help build the capacity of staff in other health facilities. To transform these facilities into COEs, the Project, in consultation with the Busia DHMT, health facility workers, and the health facility management committees, has renovated the COEs, procured EmOC equipment, and trained staff. An accreditation criteria tool has been developed jointly with the Busia DHMT for application in the COEs.

Apart from the specific trainings done to improve performance of health workers in delivering maternal and child health services, the Project has conducted intervention-specific follow-up assessments to measure progress and identify gaps. The following progress has been revealed by the specific follow-up assessments of all health facilities:

Figure 11 - CHW with her BCSP provided bicycle visiting working in her community

FANC: The 16 health workers trained on FANC have continuously provided on-the-job-training to their staff. The proportion of mothers receiving sulfadoxine-pyrimethamine (SP) for IPT through Direct Observation Treatment (DOT) had increased to 80% from 30%. The BCSP has been able to gain this information by conducting record reviews with the DHMTs. Additionally, all mothers who attend ANC were counseled on individual birth plan (IBP) and danger signs during their first visit. It was revealed that the health workers trained in FANC exercised good interpersonal communication with their clients. Most facilities had SP drugs, safe water, and clean cups for DOT. Job aids for health promotion were strategically placed throughout the facilities. Measures to prevent infections were implemented by using well-labeled buckets for disposal of bio-hazardous material. Record-keeping was thorough enough to allow for easy review and analysis of outputs, for example, the number of mothers who received SP through DOTs.

EOC: All of the 16 targeted health facilities have at least one health worker trained on EOC. Nearly 80% of the facilities have put all the infection prevention measures in place. Running water, soap, and buckets are readily available for decontamination of equipment and facilities. Emergency trays are in place and are equipped with all the necessary obstetric care instruments. Resuscitation trays for babies are in place though they are not always completely stocked with the necessary equipment. The health workers are confident in the application of manual vacuum aspiration (MVA). The partographs, delivery and family planning registers are thoroughly filled out and appropriately used to facilitate safe delivery. Facilities that do not provide EOC services must refer their clients to a higher level facility.

PMTCT: HIV counseling is offered to all clients attending ANC. Results of the KPC survey show that 83% of mothers with children less than 24 months had been counseled and tested for HIV during ANC attendance. Prior to receiving PMTCT training, staff were unable to conduct HIV counseling and testing. As a result, patients were referred to either labs or VCT centres, which inadvertently expose patients to stigmatization. However, staff are currently appropriately trained to provide this service. Health facility staff also engage CHWs to assist with patient

follow-up at the community level. The current system has led to an improvement of privacy and confidentiality practices.

Partnership Defined Quality (PDQ): AMREF and the DHMTs have implemented PDQ in an effort to improve care, particularly client-provider interaction, at 13 health facilities. The PDQ process has been accepted by the community and health facilities because of rigorous support-building activities and recognition that poor quality of health services is a major impediment to service utilization. The PDQ process has helped communities and health workers to define and explore ways to improve "quality" based on their own understanding of the concept.

Monitoring and Evaluation: The Project has supported the DHMTs to institute results-based management. The DHMTs and partners were trained in conducting evaluations and assessments and using the results to make management decisions. This was done at baseline through capacity building exercises in Knowledge Practice and Coverage (KPC), Health Facility Assessment (HFA), and Safe Motherhood Needs Assessment (SMNA). These skills have been put into practice to facilitate subsequent evaluations.

The Project is continuing with the capacity building of CHWs and is planning to form community governance structures (Community Health Clubs) to plan, implement, monitor, mobilize resources, and supervise activities of the CHWs.

The Project has drafted a phase-out strategy that will be implemented in the 3rd quarter of the fourth year. The plan has clearly outlined transitional processes to be put in place by the Project to the respective partners and stakeholders.

e) Policy and Advocacy

The Project is actively involved in advocating for the adoption and implementation of the community strategy (level 1) as envisioned in the National Health Sector Strategic Plan II 2006. This is being done through child survival private voluntary organization (PVO) forums and the Ministry of Health through the District Health Management Teams (DHMTs). AMREF in Kenya also takes a major role in advocating for best health practices by health workers through forums like Kenya NGO Alliance Against Malaria (KeNAAM) and Health NGOs Network (HENNET).

As a result of the positive experiences with the use of CHWs, the Project is advocating scaling up the Essential Package for Health that is recommended in the MOH Level I Service Delivery Strategy.

AMREF in Kenya has a long standing, excellent relationship with the Ministry of Health and participates in various forums aimed at addressing policies related to maternal and newborn health. AMREF participates in malaria, reproductive health, and HIV/AIDS technical working groups. The Project also works closely with the Provincial and District Health Management Teams.

The Project, through the minimum activities for maternal and newborn care (MAMAN), advocates for health workers to recognize that there are essential activities that greatly improve maternal and newborn health. This has also helped to reinforce the community-based maternal and newborn care (CBMNC) package.

Figure 12 - Mother and child entering health facility for services

Based on the findings from its baseline, annual, and mid-term evaluations the project is advocating for the most effective maternal and child health practices at the ministerial level. These findings also help in asking the MOH to refocus on low performing health indicators.

The Project is helping to create an enabling policy environment by offering trainings to the health facility workers and community health workers. This will go a long way in helping the MOH to achieve its Level 1 health objectives.

f) Contribution to Scale/Scaling Up

The Project has reached the beneficiaries through mobilization and sensitization by the provincial administration, opinion leaders, health facility committees, support groups, community health workers and the DHMTs. The beneficiaries have also been reached through capacity building by trainings. The Project is partnering with mission-funded programs like APHIA II Western in order to address and reach beneficiaries. The Project is currently undertaking health systems research in collaboration with GLUK in order to improve on the health outcomes of the beneficiaries and the community at large. The study findings on the community emergency transport system and ways in which to retain the community health workers will be used for advocacy with the Ministry of Health to influence policy. The Project has planned to contact private sector organizations through their corporate social responsibility departments to advocate for support of a number of Project elements to impact on the best health practices outcomes.

g) Equity

The Project is being implemented in an area where male dominance is highly regarded. In this society, male partners traditionally make the final household decisions, including those related to health-seeking behaviour. Males are also traditionally responsible for income generation and resource allocation. The Project has established gender-focused discussion support groups in which men and women are brought together in neutral forums to discuss health matters as it

pertains to mothers and newborns. This is aimed at helping both males and females to achieve a better understanding of the need for gender equality in health.

h) Sustainability Strategy

The Project is using the Child Survival Sustainability Assessment (CSSA) Framework, as outlined in the BCSP Second Annual Report, as a tool for sustainability planning. The Project expects that Community Health Workers will empower communities to take charge of their own health beyond the life of the BCSP.

Provision of quality health services is also expected to continue because the Project has empowered CHWs and CHEWs with knowledge and skills in key health areas, particularly those related to MNC, malaria, and HIV/AIDS. The Project will engage the corporate sector to provide funding for certain components of the Project after the Project ends. The Project has built the capacity of the DHMTs and institutionalized the key health practices so that they can support the CHWs after the end of the Project. Through the PDQ approach, the Project has brought the community members together with the health workers to define and operationalize the meaning of quality service. This open dialogue will ensure that the community members continue to demand quality service and take ownership of their own health.

D MISSION COLLABORATION

In a meeting with Dr. Sheila Macharia, USAID Local Mission Health Officer, on November 18, 2008, she reconfirmed her interest in support of this Project within the context of the USAID Kenya pursuit of Millennium Development Goals. She confirmed her commitment to biannual meetings with other Child Survival partners currently implementing Projects in Kenya.

Furthermore, she expressed keen interest in aligning other USAID supported Projects such as APHIA-II's activities in the same region as the BCSP program. She introduced Dr. Maurice Maina, who is responsible for APHIA-II's activities in the Western Province, who will follow-up with the AMREF Kenya Country Office (KCO) for a meeting in the near future to follow-up on this suggestion.

Finally, Dr. Macharia assured that she will be in close communication with Dr. Festus Ilako,

BCSP operates within the Strategic Objective 615-003 of the USAID/Kenya Strategic Plan FY 2006-2011; i.e., ***reduced transmission and impact of HIV/AIDS and Improved reproductive, maternal and child health.*** BCSP is specifically contributing to the Mission's Intermediate Results focusing on sustained reduction in child and maternal morbidity and mortality rates.
The Mission's Intermediate Results are:

- Increased use of proven and effective interventions to prevent HIV transmission
- Treat those infected, and provide care and support to those affected by HIV/AIDS, and
- Increased customer use of family planning, reproductive health and child health services

E CONTEXTUAL FACTORS THAT HAVE INFLUENCED PROGRESS TO DATE

There was significant political aggression in Busia district from December 29th, 2007 to January 3rd, 2008. Houses were burnt, the nearby border with Uganda was closed, roads were barricaded, and businesses were looted. Also, community members were targeted, harassed, and had their houses broken into and looted. The situation was intense in Busia town, Nambale, Bumala, Funyula, and Sio-port. Transportation and communication were disrupted in the area.

After about three months, the situation normalized and businesses resumed operations across the district. Most essential commodities are now available in shops, but fuel is not available in all petrol stations in the district, which has resulted in exorbitantly high transportation costs and few public vehicles in operation.

The effects of the post-election violence stalled the year 3 activities for the BCSP. Many of the trainings, supervisory visits, and aspects of the research studies were interrupted for up to five months in 2008.

In-keeping with an election promise, the Government of Kenya created a new district out of what was formerly a Division within Busia District. The creation of a new district required the creation of a new DHMT with new staff who had to be trained in not only their roles to support MoH facilities, but also in BCSP technical interventions. The creation of a new district also meant that some staff members from Busia District were shifted to fill roles in the new district.

The Project also experienced high staff turnover in Busia and the USA. Two of the four key technical staff members based in Busia who were a part of the Project at the start-up phase are no longer there. There has been a new Project Manager, a new Training Officer, and four Technical Advisors based in the US.

F CONCLUSIONS AND RECOMMENDATIONS

The BCSP, despite its traumatic interruptions and staff changes, continues to represent a solid example of effective community-based healthcare delivery and behavior change communication, particularly in the area of MNC. With the attention to following recommendations and continued commitment on the part of AMREF KCO, the Project can move towards sustainability due to the fact that there is obvious "ownership" of its key activities at the community level. The recommendations are as follows:

1 For the BCSP and DHMTs

- Complete all phases for CHWs' trainings on CBMNC curriculum and engage them in household visitations, data collection and utilization; also include C-IMCI training as planned for Phase III
- Strengthen use of CBHMIS as a tool for use by CHWs for data feedback to the communities

- Revisit IPT (FANC) trainings of all staff so that patients may have a better understanding of the purpose of anti-malarial medication ; strengthen IPT delivery in collaboration with APHIA II in health facilities
- Initiate regular patient exit interviews for improved quality of health service delivery in the Project area
- Involve communities in decision-making through the development of community units (CUs) as the organizational linkage between the health facilities and the community
- Involve additional organizational partners who are carrying out relevant program activities in the districts, especially APHIA II activities in order to further strengthen the Community Strategy and sustainability of activities
- Engage the private corporate sector, especially to support CHWs with "branded" bicycles
- Reestablish monthly meetings between AMREF BCSP, MOH and CHWs
- Re-orient community stakeholders on the Community Strategy
- Samia DHMT should conduct a mapping exercise of all potential stakeholders
- Implement the Community Strategy through establishing "fully functional" CUs and train CHC members to facilitate implementation of Project activities at the community level
- Include indicators capturing CHW activities in the current and future reports
- Establish regular stakeholders meetings to avoid duplication of services, improve synergy, and share experiences

2 Provincial and Regional MOH considerations

- In support of taking the Kenyan Essential Package for Health to the Community, the BCSP offers an excellent prototype for implementation of Level I services to communities. The current Project area can become the designated Learning Centre to be used for demonstration and adult education, training for scaling up the community-based implementation, supervision, M&E, and operational research activities. Already, the BCSP has taken root at the DHMT and community levels effectively. This opportunity deserves serious consideration at the highest levels in the MOH.

3 Health Research Operations

- Disseminate and utilize results of the Operations Research studies
- Re-design the MAMAN protocol to be in line with the MOH community strategy
- Conduct half-yearly exit interviews in health facilities on patient perception of services offered
- Develop concept papers for fundraising with other potential partners in order to access additional funds
- Scale up PDQ process and institutionalize it for future application
- Develop and consolidate the Health Information System for data collection, storage and dissemination, particularly at the community level. This system should include the provision of data collection tools

4 Resource Mobilization

- Conduct a Shared Vision and Stakeholders' meeting with other ongoing Project activities (particularly APHIA-II supported ones) in the two BCSP Districts to avoid duplication and explore where activities can be coordinated
- Explore possibilities of involving private sector corporate organizations to contribute to the highly visible community-based work undertaken by the Project
- Acquire funds and explore programmatic synergy to empower CHWs involvement in Inter-Governmental Agencies

G ACTION PLAN

The following Action Plan responds to the evaluator's recommendations, recommendations that emerged from the stakeholder meeting, and discussion within the BCSP.

Busia Child Survival Project
Action Plan 2009 to EOP

Thematic Area	Recommendation	Activity	Person Responsible	Time
Capacity Building	Complete trainings of all the phases for CHWs on CBMNC curriculum and engage them in household visitation, data collection and utilization	1. Train 580 CHWs on CBMNC, specifically: Focused Ante Natal Care, malaria during pregnancy, care during pregnancy, and delivery and post delivery care. 2. Create 50 Community Health Clubs (CHCs) to support CHW resource mobilization, decision making for organization of community health day. 3. Hold 3 day training for CHCs on roles and responsibilities of CHC, and elements of Primary Health Care. 4. Finalize MAMAN guidelines to be in line with MOH community strategy. 5. Design data collection tools in accordance with MAMAN guidelines. 6. Collect and analyze MNC data.	Training Officer	Dec 2008 - July 2010
	Strengthen BCC	1. Review communication channels. Specifically mother-to-mother and 5x5x5 to extract lessons learned for improvement and scale up in districts. 2. Enhance mobilization by meeting with community based organizations, youth groups, and school clubs monthly to develop key health promotion messages. These meeting will also allow for sharing of experiences, and organizing for participation in National Community Health Day.	Behaviour Change & Communication Officer	Dec 2008 – July 2010

Thematic Area	Recommendation	Activity	Person Responsible	Time
		3. Hold workshop to develop health messages. 4. Share health messages with other organizations by participating in organized health promotion conferences/meetings.		
	Strengthen CBHMIS as a tool for use by CHWs for data feedback to the communities	1. Review the existing M&E data collection tools and incorporate the new MNC, HIV/AIDS and malaria indicators. 2. Hold monthly meetings with CHWs to identify gaps, share experience in community based service delivery, and explore service delivery challenges.	Monitoring & Evaluation Officer	Dec 2008 – Feb 2009
	Initiate C-IMCI	1. Align C-IMCI curriculum to be in line with MOH. 2. Conduct ToT for 22 CHEWs. 3. 22 CHEWs train 910 CHWs. 4. Facilitative supervision of 910 CHWs monthly. 5. Facilitative supervision of DHMT quarterly.	Training Officer and Behaviour Change & Communication Officer	June 2009 Continuous
	Train domiciliary midwives to support skilled deliveries at community level	1. Coordinate with the MOH to identify and train 19 domiciliary midwives in safe delivery & post partum care over 5 days.	Training Officer	March 2009
	Revisit IPT (FANC) training of staff so that patients may have a better understanding of anti-malarial medication	1. Conduct training needs assessment (FANC, ANC, and malaria in pregnancy) and train staff members not previously trained. 2. Conduct refresher training for health facility staff members who were previously trained as part of EmOC training. Special attention will be paid to health worker communication and recording of information skills.	Training Officer	Jan 2009
	Improve IMCI by initiating quality of care assessments, i.e. using Standards Based Management and	1. Conduct facilitative supervision to ensure that the IMCI checklists are implemented. 2. Identify and train 24 previously untrained health workers on IMCI.	Training Officer	Nov 2008 – July 2009 May 2009

Thematic Area	Recommendation	Activity	Person Responsible	Time
	Recognition (SBM – R) approach and increasing training coverage			
	Initiate regular patient exit interviews for improved quality of health service delivery in the Project area	1. Review rapid exit interview tools. 2. Support DHMT to conduct half yearly exit interviews.	Monitoring & Evaluation Officer	June & Dec 2009/2010
Community Partnering	Involve additional organizational partners who are carrying out relevant program activities in the districts, especially APHIA II activities in order to further strengthen the Community Strategy and sustainability of activities	1. Organize CHWs to participate in Community Open Health Days 2. Coordinate HIV/AIDS and other community based activities with APHIA II and AMPATH. 3. Coordinate BCSP youth group and APHIA II magnet theater activities. 4. Hold monthly meetings with MOH and CHWs 5. Reorient provincial administration and community based organizations (CBOs) on the community strategy. 6. Identify and collaborate with CBOs working with Maanisha Project in order to disseminate key MCH information. 7. Hold Project Implementation Team (PIT) meetings with focus on reducing duplication, sharing experiences, and improving synergy. 8. Re-examine exit strategy with partners. Focusing on activities viability and sustainability end of Project.	Behaviour Change & Communication Officer, Training Officer and Project Manager	Quarterly Jan 2009 Quarterly June 2009
	Samia DHMT should conduct a mapping exercise of all potential stakeholders	1. Facilitate activity with DHMT.	Project Manager	Jan 2009
	Engage the private corporate sector,	1. Discuss with Mumias Sugar Co., SafariCom and Zain on partnership plans specifically regarding providing supplies	Communications & Fund Raising	Jan 2009

Thematic Area	Recommendation	Activity	Person Responsible	Time
	especially to support CHWs	and equipment for CHWs, HWs & facilities.	Managers (KCO) and Behaviour Change & Communication Officer	
Health Research System	Disseminate and utilize results of the Operations Research studies	1. Review OR findings. 2. Plan and hold dissemination sessions at various levels with stakeholders. 3. Publish in peer review journals. 4. Share MTE findings with policy makers. 5. Use findings to advocate for policy.	Project Manager and Technical Advisor	As soon as each of the Project studies are completed
	Develop concept papers for fundraising	1. Identify new health issues in the BCSP. 2. Develop concept papers. 3. Identify potential donors to fund. 4. Develop proposals.	Project staff/DHMTs	Feb 2009
	Scale up PDQ activities	1. Continue and finalize the PDQ processes.	Monitoring & Evaluation Officer	Jan 2009

Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 1

Busia and Samia Districts, Kenya

October 2005 – September 2010

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Annex 1 RESULTS HIGHLIGHT

AMREF and the DHMTs are implementing four innovative ideas and one promising practice for closing the gap between communities and the formal health sector. The ***community strategy*** is a creative and potential solution adapted by AMREF and the DHMT staff from the MOH Community Strategy and the care group concept. The ***Community-based Health Management Information System (CBHMIS)*** supports and depends upon the success of the community strategy. This strategy fills a local gap for quality data and information if its processes are found valuable and are sustained by the community and district. ***Partnership Defined Quality (PDQ)*** is being applied and tested for the first time in the Kenyan context. This methodology has been applied by Save the Children in at least nine other countries. ***Reaching hard to reach populations with LLINS*** is AMREF's and the DHMTs' response to ITN coverage inequalities in Busia and Samia. ***Formalizing PVO collaboration*** is a promising practice in which USAID-funded PVOs in the Western Region of Kenya are creating opportunities for synergy.

a) Community Strategy

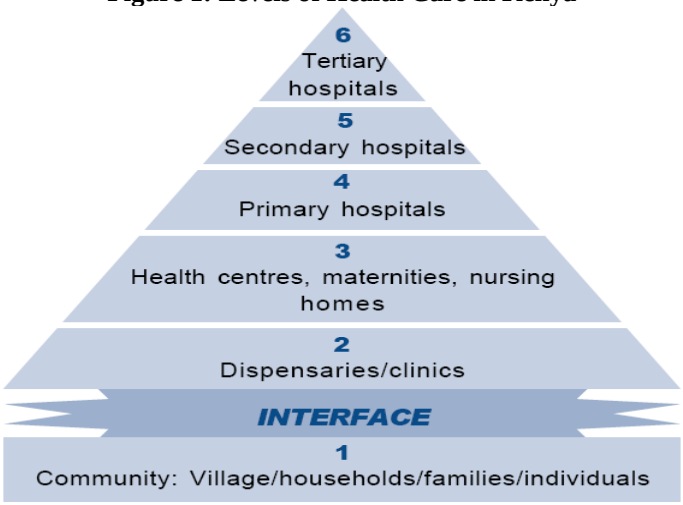
Introduction

In line with the current National Health Sector Strategic Plan (NHSSP) 2005-2010, health care stakeholders in Kenya have developed a *community strategy* for making the health system more effective and accessible to people. In this strategy, the health system focuses on people and their needs, rather than simply focusing on diseases. Similarly, AMREF, in its new strategic plan (2007–2017), has committed to focusing on creating a broad-based culture of health promotion, prevention, and care in Africa. By working with poor and marginalized communities AMREF will bring them into an integral and vibrant relationship with their health system, and enable them to achieve their full health potential as is their right. At the same time, AMREF will orient its capacity building efforts toward helping to make health systems more responsive to communities.

In line with the NHSSP II and AMREF's strategy, programs within AMREF are re-aligning to focus on the needs of people using six life-cycle cohorts: pregnancy and newborn, early childhood, late childhood, youth and adolescents, adulthood and elderly. Each of these cohorts has special health needs. This cohort approach, called the Kenya Essential Package for Health (KEPH), aims to improve continuity of health care by emphasizing that the various phases of a person's life are connected.

In Kenya, health care for each of the six cohorts is provided at six different levels (see figure 1). The community is the first level of care and the level at which CHWs work. Other health service providers such as traditional healers, traditional birth attendants (TBAs), and even shopkeepers who sell medicines also belong to this level. Moreover, the household is typically the first point of care, as the immediate family provides initial care for their sick relatives. In this regard, the community represents an integral part of the health care system.

Figure 1: Levels of Health Care in Kenya



The Problem

In figure 1, the "interface" refers to the linkage between the community and the rest of the health system to ensure that individual and community health needs are adequately met. Unfortunately, in Kenya, this is usually not the case, especially among poor or remote communities such as in Busia and Samia. A "gap" therefore exists between the community and the rest of the health system and manifests in infrequent, irrelevant, and inadequate response to community health needs.

The Project's Input

AMREF and the DHMTs have completed the following processes toward bridging the gap between communities and the formal health system:

Adapted MOH strategy to link the communities and the rest of the health system so that it now includes strong capacity building elements such as leadership strengthening, technical capacity strengthening, facilitative supervision, and interactive (i.e., peer-based) BCC processes. So far, AMREF and the DHMTs have done the following toward implementing the MOH strategy:

- developed materials for training CHWs,
- trained 16 facility-based staff, 14 CHEWs, and 680 CHWs on various thematic areas,
- trained all 16 health facility in-charges in the project area on facilitative supervision, and
- worked with 48 school health clubs and more than 200 CHWs to implement behaviour change interventions in schools and in households.

Identified capacity needs within the district health system comprised of: CHW teams, TBAs, CHCs, health facility management committees, chiefs and assistant chiefs, community midwives, primary schools, CHEWs, HF staff, and DHMT members.

Implemented the PDQ methodology to directly involve communities and health service providers in improving quality of health services. [S*ee part (b) of this section, PDQ*]

Developed a C-HMIS, which will foster a culture of data-based planning in communities and at health facilities. [*See part (c) of this section, C-HMIS*]

The Magnitude of the Intervention
Direct beneficiaries of this CSHGP initiative constitute 37.8% of the district population, and include 31,664 children 0-59 months and 49,858 women of reproductive age.

Additionally, the project is strengthening the leadership and technical capacity of 910 CHWs, 100 CHCs, 60 chiefs and assistant chiefs, and several community midwives. At the formal health system level, the project is strengthening the technical and leadership capacity of 14 CHEWs, about 50 HF staff, DHMT staff, and 16 HF management committees.

b) Partnership Defined Quality (PDQ)

Introduction
PDQ is a five-step methodology for improving the quality of health services developed by Save the Children. The five steps are: 1- *Planning and Design*; 2 - *Building Support*; 3 - *Exploring Quality*; 4 - *Bridging the Gap*; and 5 - *Working in Partnership*. The PDQ methodology equitably unites community members (users and non-users of health programs or services) with providers to define quality, identify and prioritize problems, and create solutions that strengthen the quality, access and use of services.

The Problem
The project is using PDQ to address the problem of poor quality and low utilization of MNC services at the health facilities identified during the baseline assessment. By using the PDQ model, we hope to improve quality of care provided by health workers in the project area, including the technical and human elements of care. The end result will be the creation of demand for MNC services provided at the health facilities.

The Project's Input
AMREF and the DHMTs have done the following:

- developed an operations research (OR) protocol to test the effectiveness of PDQ,
- conducted the pre-intervention observation,
- contextualized the Save the Children PDQ manual to the local setting,
- implemented the first three steps of PDQ, ensuring involvement of communities and especially women in all the steps.

The Magnitude of the Intervention
Thirteen health facilities in the project area serving the above beneficiaries are undertaking the PDQ process.

Results

The Project undertook pre-intervention observations, as part of the OR, to assess quality of care being given in the health facilities before introducing PDQ. Key quality gaps identified during the pre-intervention observation are highlighted below:

- Less than a quarter (23%) of women attending ANC has an individual birth preparedness plan in place, largely because they are not provided with necessary information on IBP.

- Only about a quarter (27%) of women in labor at health facilities receive a correctly interpreted partograph with a correct curve.

- None of the mothers attending post-natal clinic had knowledge on cord care, and only slightly more than a third (36%) breast fed their newborn babies within one hour of birth.

- About half of clients felt that the HF staff did not take keen interest in what the client was saying, and less than a quarter (22%) felt that the staff examined them properly.

- Very few (3%) clients reported that the health worker gave them a chance to choose the date of the next visit

The post-intervention observation study will be conducted at least three months after targeted health facilities have undertaken the PDQ process, and the findings compared with those from the pre-intervention observation. Subsequently, the project can conclude whether PDQ approach is an effective model for improving quality and utilization of MNC services.

c) Community Health Information System (C-HMIS)

Introduction

The district health management and information system (DHMIS) collects data on inpatient morbidity and mortality, outpatient morbidity, nutrition, immunization (and vitamin A supplementation), ANC, STIs, PMTCT and HIV/AIDS (VCT, DTC, TB and HBC). Notably, most data on births and maternal and neonatal mortality at the community level is not captured by the DHMIS, largely because most deliveries, and consequently, most maternal and neonatal deaths occur outside health facilities. Developing a comprehensive DHMIS is essential to the DHMT's, CHEWs, HF staff, CHW, and CHC's ability to make decisions based on solid information.

The Problem

Currently, the DHMIS does not collect adequate community data for use by communities and health facilities. Even when community data are collected, they are not integrated

into the health facility data. Moreover, community data is hardly ever used to make key health planning decision

The Project's Input

AMREF and the DHMTs recognize that the DHMIS has weaknesses. To respond to the weaknesses, AMREF and the DHMTs have developed a C-HMIS model that intends to provide quality community health data, integrate community health data collected by CHWs and local administrators into the existing DHMIS, and strengthen the decision-making process at the community level by providing the data needed by each decision-maker. In designing this model, the project undertook the following steps:

Stakeholders' involvement: in October 2006, AMREF, DHMTs, and other district health stakeholders (30 participants) held a C-HMIS stakeholders' consultative meeting. During the meeting, AMREF and the Busia DHMT created awareness and garnered support from government departments and other health stakeholders. In December 2006, CHEWs held orientation meetings with 95 community representatives on C-HMIS. During the meetings, CHEWs created awareness and garnered support from the community leaders for the C-HMIS.

Information needs assessment and gap analysis: Between March and May 2007, project staff conducted the C-HMIS information needs and gap analysis that included the following tasks:

- formation of facilitation technical team,
- development of tools,
- data collection using focus group discussions and key informant interviews,
- content analysis.

Model design: In June 2007, AMREF and the Busia DHMT conducted a two-day C-HMIS information needs and gap analysis dissemination and model design workshop with 27 representatives from the community, health facilities, GLUK, DHMT, AMREF, and Plan International. During the workshop, a draft C-HMIS model was designed. In July 2007, the model was improved by incorporating comments from reviewers, and 11 villages identified for piloting the model. The findings of the gap analysis and desk study informed the design of the model.

The Magnitude of the Intervention

The household contact persons, CHWs, CHC, CHEWs, chiefs and assistant chiefs, PVOs, HF staff, HF management committees, and DHMT who are the users of the information generated by the C-HMIS will benefit through enhanced decision-making.

d) Reaching Hard to Reach Populations with LLINs through Mobile Outreach Services

The Problem

Poor access to insecticide treated mosquito nets and under-utilization contributes to high malaria mortality and morbidity in Busia and Samia. Malaria is the leading cause of death among children under age 5 in these districts and significantly contributes to maternal morbidity and mortality. During the baseline assessment, AMREF found that although most (93%) of the mothers know that ITNs are a method of preventing malaria, net ownership is higher than net utilization. 77% of households had at least one ITN, but only 65% of the mothers of children 0-23 months and 70% of the children 0-23 months reported having slept under the net the previous night. AMREF and the DHMTs are committed to helping increase net coverage to at least 80% in recognition that when insecticide treated nets are used by 80 percent or more of a village, it creates a barrier that kills or drives off mosquitoes, protecting everyone in the area, including those without nets.

The baseline assessment revealed that long distances between households, as well as poverty are key barriers to net ownership. These barriers are disproportionately distributed in the project area, since net ownership is lower in some areas than others. Out of the seven project management units, two units were found to have net coverage well below expectation. To address these gaps, AMREF and the DHMTs developed a strategy in which LLINS are distributed free of charge during mobile clinics. The objectives of applying this net distribution approach are to: (1) increase access to LLIN/ITN in the intervention area and (2) increase the proportion of pregnant women and CU5 in hard to reach areas that sleep under insecticide treated nets.

The Project's Input

Involvement of formal health system stakeholders: AMREF worked with the Busia and Samia DHMTs to develop the net distribution strategy. Project staff and CHEWs mapped mobile clinics and collected the following information during mapping: name of facility, schedule of mobile clinics in year 2007, names of villages targeted by each planned mobile clinic, approximate distance from targeted cluster of villages to nearest health facility, organization supporting the mobile clinic, and approximated population that the mobile clinic reaches.

Community involvement: during the project's baseline assessment, a DHMT member cited "passive community participation" as a barrier to health service delivery in the district, and gave the example of situations where health staff conducted mobile clinics but mothers fail to utilize the services. In order to address this problem, HF staff work with assistant chiefs, CHEWs, and CHWs in the targeted villages to mobilize the community, especially pregnant women and CU5, to utilize mobile outreach services.

Targeting: AMREF and the DHMTs practice targeting in two ways during net distribution:

- *Hard-to-reach populations:* in order to achieve the objective of reaching underserved populations, net distribution is conducted in mobile clinics serving rural populations in areas that are underperforming as per the annual LQAS and mobile clinics serving other hard to reach populations (those that live more than 5 kilometers from the nearest facility). These populations are not likely to benefit optimally from the existing facility-based net distribution processes managed by Population Services International (PSI) and the MOH.

- *Vulnerable population*: nets are being marketed to pregnant women and CU5.

Supervision: AMREF oriented CHEWs on the mobile clinic net distribution strategy. The CHEWs provide facilitative supervision by accompanying health staff who manage monthly mobile outreach clinics during initial sessions to ensure smooth roll-out of net distribution and proper record-keeping.

Monitoring:

(i) ***Net register:*** each participating health facility maintains a mobile clinic net register in which the following data is entered for each net recipient: name of recipient, age of recipient, name of head of household, residence (sub-location and village), and date of issue.

(ii) ***Stamping:*** health workers give nets upon production of an ANC card or child welfare connect (CWC) card, which is stamped to ensure that the same person does not receive a net more than once.

The Magnitude of the Intervention

Direct beneficiaries of this CSHGP initiative constitute 37.8% of the districts' population, and include 31,664 children 0-59 months and 49,858 women of reproductive age.

Results

The project has distributed 3,290 LLINs in the project area using the mobile clinic distribution strategy. This has contributed to the following results: percentage of households with at least one net rose from 77% to 86%; percentage of children 0-23 months who slept under an insecticide-treated net the previous night rose from 70% to 80%, and access to nets among hard- to-reach populations improved.

e) Formalized PVO Collaboration

In Kenya, Child Survival (CS) PVOs share responsibility for coordinating, facilitating and hosting forums through which innovations and promising practices are shared and information, materials and tools are exchanged.

The Problem

In Western Kenya, there are currently two major USAID-funded initiatives, namely, the BCSP and APHIA II Western. Although the two initiatives are addressing related

problems (HIV/AIDS, Maternal and Child Health), efforts of each have not been well-coordinated in order to promote synergy and non-duplication.

Project's Input

The CSHGP grantees in Kenya held the third annual C*hild Survival and Partners Meeting*, from September 12 to 14, 2007. The forum, hosted by AMREF, brought child survival partners together to share field experiences and receive technical updates. The theme of this year's forum was "***partnerships and effective models for child health***", specifically referring to partnerships between child survival projects and the APHIA II Programme.

Results

Twenty eight people participated from the following categories of organizations: MOH, Western Kenya's CSHGP PVO grantees (PLAN International, Catholic Relief Services, Doctors of the World, and AMREF) four APHIA II programme staff located in provinces with CS projects (APHIA II Western, APHIA II Eastern, APHIA II Nyanza, and APHIA II Coast), and local partners (MSF-Spain, AMPATH). During the meeting, BCSP staff and APHIA II Western Programme staff developed a joint plan on the way forward for collaboration

Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 3

Busia and Samia Districts, Kenya

October 2005 – September 2010

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Annex 3 Full M&E Table

M&E Table

Objective/ Result	Indicators (by technical intervention or cross-cutting)	Source/ Measurement Method	Frequency	Baseline Value	EOP Target
Increased proportion of women who attend antenatal clinic at least 4 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[1]	Mother's card Baseline KPC 2000+, MTE (RAPID CATCH) final KPC 2000+ LQAS	BI-annually, SOP , Midterm EOP Yearly	32%	50%[3]
	% of mothers of infants 0-5 months who attend postnatal care within two days of delivery	Postnatal clinic records, Baseline KPC 2000+, MTE (RAPID CATCH) final KPC survey, LQAS	BI-annually, SOP, Midterm EOP, Yearly	23%	40%[3]
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)	Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ Survey LQAS	SOP, Midterm, EOP, Yearly	26%	40%[3]
Increased proportion of women who deliver at a health facility	% of mothers of children 0-23 months who deliver at health facility	Maternity register, Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ surveys LQAS	BI-annually, SOP, Midterm EOP Yearly	20%	35%[3]
Increased quality of and access to basic Emergency Obstetric Care at health facilities	No. of health facilities providing basic EmOC (administer antibiotic, oxytocic drugs, anticonvulsants, performs manual removal of placenta, performs assisted vaginal delivery, performs manual vacuum aspiration)	SMNA	SOP & EOP	0	6
Improved knowledge and practice of malaria prevention and treatment at	% of mothers of children 0 – 23 months who know 2 ways (ITN & IPT) to prevent malaria.	Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ Survey LQAS	SOP, Midterm, EOP, Yearly	17%	62%

Objective/ Result	Indicators (by technical intervention or cross-cutting)	Source/ Measurement Method	Frequency	Baseline Value	EOP Target
household and community level	% of children 0-23 months taken to HF or Community Health Worker within 24 hours after onset of fever	IHFA; Health facility records; Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ surveys; LQAS	SOP & EOP BI-annually, SOP, Midterm EOP Yearly	7%	60%
	% of shopkeepers correctly dispensing anti-malarial drugs according to MOH protocol	Shopkeepers Survey Shopkeeper records	SOP & EOP BI annually	15%	80%
Increased proportion of women and children under five who sleep under insecticide-treated nets	% of households with at least one ITN	Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ surveys; LQAS	SOP, Midterm EOP yearly,	77%	90%[3]
	% of mothers of children 0-23 months who slept under ITNs the previous night	Baseline KPC 2000+ MTE (RAPID CATCH), final KPC 2000+ surveys; LQAS	SOP Midterm EOP yearly,	65%	80%[3]
	% of children 0-23 months who slept under ITNs the previous night	Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ surveys; LQAS	SOP, Midterm EOP yearly,	70%	80%[3]
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	IHFA	SOP & EOP	0%	40%
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.	Antenatal clinic records Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ surveys LQAS	BI-annually, SOP, Midterm EOP Yearly	21%	60%
Increased knowledge and understanding of PMTCT and ART among women of	% of mothers of children 0 – 23 months who cite at least two ways of preventing MTCT	Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ Survey LQAS	SOP, Midterm, EOP, Yearly	23%	59%

Objective/ Result	Indicators (by technical intervention or cross-cutting)	Source/ Measurement Method	Frequency	Baseline Value	EOP Target
reproductive age (15-49 years)	% of mothers of children 0-23 months who know that risk of MTCT can be reduced by ART	Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ surveys LQAS	SOP, Midterm EOP Yearly	33%	50%[3]
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	ANC records Baseline KPC 2000+, MTE (RAPID CATCH), final KPC 2000+ surveys LQAS	BI-annually, SOP, Midterm EOP Yearly	53%	70%
	% of mothers of children 0-23 months who know their HIV status	Baseline KPC 2000+, MTE (RAPID CATCH), Final KPC 2000+ surveys LQAS	SOP, Midterm EOP Yearly	41%	60%[3]
Increased # of HIV+ women and newborns who receive PMTCT	# of HIV+ mothers who received ART for PMTCT within the previous 12 months.	SMNA Antenatal records Health facility records Pharmacy register	SOP & EOP Twice yearly annually Twice yearly	273	1011
	# of newborns who received ART for PMTCT within the previous 12 months.	SMNA Antenatal records Health facility records Pharmacy register	SOP & EOP Twice yearly annually, Twice yearly	288	1011
	# of trained facility based health workers providing PMTCT services	SMNA	SOP & EOP	17	41
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	Baseline KPC 2000+ MTE (RAPID CATCH) final KPC 2000+ surveys LQAS	SOP Midterm EOP Yearly	11%	40%
Sustainability Indicators					
Dimension I: Health status and health services	No. of DHMT staff with adequate knowledge and skills in M & E	DHMT Assessment	SOP, Midterm and EOP	TBD[2]	
	% of facilities visited (using facilitative supervision checklists) at least 4 times a year	Facilitative Supervision reports	Annually	0	80%

Objective/ Result	Indicators (by technical intervention or cross-cutting)	Source/ Measurement Method	Frequency	Baseline Value	EOP Target
Dimension II: organizational capacity and viability[4]	% of active VHCs (to develop checklist to unpack active)	CORPS assessments	SOP, Midterm, EOP	0	80%
	% of VHCs submitting data on monthly basis	Facility records	Annually	0	80%
Dimension III: Community competence and capacity					

[1] While the baseline data was not collected regarding how many of these visits were during appropriate intervals in the pregnancy, DIP workshop discussants identified the need to improve upon this indicator by adding "and at appropriate intervals according to MOH protocol". Therefore, the project will attempt to measure both this original CATCH indicator and the improved indicator by using the exit interviews during the Safe Motherhood Needs Assessment. During these interviews, the project will collect the information provided on the mothers'' cards regarding what period of their pregnancy they attended ANC.

[2] Because these are revised indicators data, will be collected prior to the final DIP submission.

[3] The project used the KPC guidelines to determine the original targets. However, we realize that using LQAS we will not be able to measure increments of less than 10% (the difference would not be statistically significant). Therefore EOP targets less than 15 percentage points above the baseline were increased to 15 points above baseline.

Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 4

Busia and Samia Districts, Kenya

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Annex 4 Midterm KPC Report

REPORT ON THE MID-TERM KNOWELDGE, PRACTICES AND COVERAGE SURVEY

November 2008

ACKNOWLEDGMENTS

The KPC Survey was carried out by AMREF Kenya in collaboration with DHMTs Busia and Samia. We earnestly thank all who contributed (sometimes through a lot of sacrifice such as working late) to the successful completion of the survey.

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AMREF	African Medical and Research Foundation
ANC	Antenatal Care
ART	Anti Retroviral Therapy
AQ	Amodiaquine
BASICS	Basic Support for Institutionalizing Child Survival
BACT	Baseline Assessment Core Team
BCC	Behavior Change Communication
BCSP	Busia Child Survival Project
CATCH	Core Assessment Tool for Child Health
CBS	Central Bureau of Statistics
CSTS+	Child Survival Technical Support Plus
DHMT	District Health Management Team
DHRIO	District Health Records and International Officer
DMOH	District Medical Officer of Health
DIP	Detailed Implementation Plan
EmOC	Essential Obstetric Care
EOC	Essential Obstetric Care
EPI	Expanded Programme on Immunization
FANC	Focused Antenatal Care
HIV	Human Immune Deficiency Virus
IHFA	Integrated Health Facility Assessment
IMCI	Integrated Management of Child Illnesses
IPT	Intermittent Preventive Treatment
ITN	Insecticide Treated Nets
KPC	Knowledge, Practice and Coverage
LLIN	Long Lasting Insecticidal Nets
LQAS	Lot Quality Assurance Sampling
MoH	Ministry of Health
MSF	Medecins Sans Frontieres (Spain)
MTCT	Mother to Child Transmission
NGO	Non Governmental Organization
PMTCT	Prevention of Mother to Child Transmission
PPC	Post Partum Care
RH	Reproductive Health
SMNA	Safe Motherhood Needs Assessment
SP	Sulfadoxine-Pyrimethamine
STD	Sexually Transmitted Disease
TBA	Traditional Birth Attendants
USAID	United States Agency for International Development
WHO	World Health Organization
WRA	Women of Reproductive Age

1 EXECUTIVE SUMMARY

Introduction: The KPC mid-term survey was conducted in Butula and Funyula divisions of Busia and Samia district respectively in Western Kenya. Funyula and Butula divisions form the catchment area for the 5-year (October 2005 to September 2010) USAID funded Busia Child Survival Project. The project is aligned with Millennium Development Goals (MDGs) 4 and 5. It targets approximately 38,000 infants and children 0-59 months (CU5) and 42,000 women of reproductive age (WRA). Under five and infant mortality rates in Busia district are 111/1000 and 75/1000 respectively, while the maternal mortality ratio is 680/100,000 live births. The project intends to sustainably lower child and maternal mortality by focusing on maternal and newborn care, malaria control, and HIV/AIDS. Project objectives under *Maternal and Newborn Care* are: increased proportion of pregnant women who attend antenatal clinic at least four times during pregnancy and postnatal clinic at least once within two days of delivery; increased proportion of women attended by a skilled health professional during delivery; increased proportion of complicated deliveries managed at health facilities; and improved quality of Emergency Obstetric Care (EmOC) at health facilities. Project objectives under *Malaria* are: improved knowledge and practice of malaria prevention and treatment at household and community level; increased proportion of pregnant women and CU5 who sleep under insecticide-treated nets; improved case management of fever and presumed malaria among CU5 at health facilities; and increased percentage of pregnant women who receive Intermittent Preventive Therapy (IPT). Project objectives under *HIV/AIDS* are: increased knowledge and understanding of PMTCT and ART among women of reproductive age (15-49 years); increased access to HIV counseling and testing among pregnant women at ANC; increased number of HIV+ pregnant women and newborns who receive PMTCT and HIV/AIDS care and treatment; improved feeding practices among caretakers of infants 0-5 months of age.

Objectives: The objectives of the KPC survey were: to establish mid-term information on critical child health indicators in Butula and Funyula divisions; to obtain information on caretaker knowledge and practices with regard to maternal and newborn care, child immunization, malaria prevention, home management of the sick child, HIV/AIDS, water and sanitation and; health message dissemination.

Methods: The KPC questionnaire was adapted from the KPC baseline survey questionnaires. The survey targeted mothers with children 0 – 23 months. A sampling frame was developed based on 7 project supervision areas, and list of villages and households maintained by the Ministry of Planning from the 1999 population census. Supervisors and interviewers were re-oriented on LQAS methodology. This methodology was used to identify 19 interview locations in each lot (supervision area), select first households, and select respondents within households. Parallel-sampling was used to ensure adequate sub-sample sizes. An overall sample size of 133 was achieved for all project indicators. Elaborate quality control procedures were applied during data collection and entry. Data was analyzed after completion of data entry and cleaning.

Results: Key findings from this survey are:

Maternal and Newborn Care: a half (50%) of mothers attend ANC at least 4 times in line with focused antenatal care approach, and just about a quarter (27%) utilize post-natal care within 2

days in line with targeted post partum care approach; similarly, only about a third (31%) of the mothers are delivered by skilled health professionals in line with the current safe motherhood policy, and the same proportion (30%) deliver in a health facility. Further, about half (52%) of the mothers received at least 2 tetanus toxoid injections before the birth of their youngest child.

Malaria: Although most (94%) of the mothers know that ITNs are a method of preventing malaria, only 16% know at least 2 ways of malaria prevention; that is ITN and IPT. Notably, a third (35%) of children are referred to a health facility within 24 hours after onset of fever. Almost all households (92%) have at least one insecticide treated net, and 77% of the mothers and 87% of the children reported having utilized the net the previous night. Regarding prevention of malaria during pregnancy, only about a quarter (26%) of the mothers receives at least 2 doses of SP. Further, (89%) of mothers know at least 2 signs of childhood illness that indicate the need for treatment. However, 11% of the children who had been sick in the previous 2 weeks received the same or more fluids and continued feeding during the illness in line with the IMCI approach.

HIV/AIDS: Almost two-fifth (36%) of the mothers cited at least 2 ways of preventing MTCT, and nearly half (46%) know that the risk of MTCT can be reduced by use of ARV drugs. Almost all (83%) of the mothers are counseled and tested for HIV at ANC, and three – quarters (73%) know their HIV status. Further, 33% of mothers know at least 2 ways of reducing the risk of HIV infection.

2 BACKGROUND

A. Project Location and Background of the Area

Location, administrative divisions, area and population

Busia and Samia are two of the eight districts in the Western Province of Kenya. They border Uganda to the West and cover an area of 1261 km^2. The population of Busia and Samia is estimated at 415,000. The districts have five administrative divisions: Busia Township, Nambale, Funyula, Matayos and Butula. Funyula and Butula divisions form the project catchment area, with a population of 202,348 (CBS, 2005). The two divisions together contain 13 locations, 49 sub- locations and 312 villages. Butula and Funyula divisions occupy an area of 245.2 and 281.2 Sq Km respectively (Ministry of Finance and Planning, 2002).

Other key information

Crude birth rate for Busia district is 42/1000, while crude death rate is 23/1000. The population is growing at 2.89% per annum. Life expectancy for females is 52.7 years, and for males 52.8 years. Under five and infant mortality rates are 111/ 1000 and 75/ 1000 respectively (Ministry of Finance and Planning, 2002). The maternal mortality ratio is 680/100,000 live births, 64% higher than the national average of 414/100,000.

B. Characteristics of the Target Beneficiary Population

The direct beneficiaries of the project include approximately 38,000 infants and children 0-59 months (CU5) and 42,000 women of reproductive age (WRA). Luhya comprises the main ethnic group in the project catchment area, with some Luo.

C. Social, Economic and Health Conditions within the Project Area

Literacy

The literacy level for the district by sex is 76% for males and 55.3% for females. The primary school enrolment rates are 92% for boys and 91% for girls respectively. Drop out rates are 10% for boys and 12% for girls (Ministry of Finance and Planning, 2002).

Economic conditions

Busia is the 67th poorest of Kenya's 71 districts (original district before the subdivision in 2007). Sixty six percent of the population earns less than US $1 per day (compared to 56% nationally). On average, households earn Ksh 5,149 per month. Only 13.5% of those aged 15- 64 are in wage employment (Ministry of Finance and Planning, 2002).

The main causes of poverty include: lack of markets for farm produce (mainly sugar cane) and fish, and poor communication and transport infrastructure. Busia and Samia have only one major road, a section of the Trans-African Highway connecting Mombasa and Lagos. This road is a factor in HIV transmission because of the long-haul truckers and the commercial sex workers they patronize. Poor health is itself a major contributing factor to poverty in the district. High rates of malaria, TB, HIV/AIDS and childhood illnesses cause people to lose many workdays, and the cost of treatment has a significant impact on already meager family incomes.

Causes of under- five and Maternal Mortality

The main causes of mortality in Busia district hospital are malaria (29%), HIV/AIDS (14%), anemia (14%), Diarrhoeal illness/dehydration (10%), and pneumonia (7%) (Busia District Health Report, 2004). Notably, the adult HIV prevalence rate among pregnant women is about 20%, one of the highest in the country. Neonatal mortality accounts for 40% – 50% of all infant mortality in the district. Some of the factors that contribute to poor maternal and child health outcomes in the district include: poverty; poor access to healthcare services; cultural beliefs and practices; and inadequate Emergency Obstetric Care services (EmOC).

Health Care Delivery in the area

There are 22 health facilities in the project catchment area that are either private, mission or GOK facilities. In Butula, there is 1 sub district hospital (Khunyangu) and 3 health centres, 3 private clinics, and 4 dispensaries. In Funyula, there is 1 mission hospital (Nangina), with 1 Health centre, 3 private clinics and 6 dispensaries. Average distance to the nearest health facility is 4km (Ministry of Finance and Planning, 2002) and the doctor – patient ratio is 1:41,200.

D. National Standards/Policies Regarding Maternal and Child Health

Maternal and childcare services are delivered in line with Ministry of Health standards and policies. Key existing national standards are: FP (Family Planning); FANC (Focused Antenatal Care) and Malaria in Pregnancy; PMTCT (Prevention of Mother to Child Transmission of HIV); EOC (essential obstetric care); targeted post-partum care; IMCI (Integrated Management of Child hood Illnesses); and EPI (Expanded Programme on Immunization); Newborn care.

E. Overview of the Project: Partners, goals, objectives, and strategies

The primary implementing partners for this project are AMREF Kenya and Busia District Health Management Team (DHMT).

History of AMREF in Kenya

AMREF's vision is better health for Africa. Founded in 1957, it is now Africa's largest health development NGO. AMREF comprises a headquarters in Nairobi, Kenya; country program offices in Kenya, Ethiopia, Uganda, Tanzania, and South Africa; additional program sites in Southern Sudan and Somalia; and 12 national offices in Western Europe, the United States, and Canada.

AMREF has more than 40 years' experience in community-based health care, and currently implements more than 100 projects in seven countries in sub-Saharan Africa. The cross-cutting themes in all these projects are: capacity strengthening, community partnering and health system research.

AMREF has experience in planning and implementation of child survival programs. Between 1987 and 1995, AMREF, in partnership with the Nairobi City Council, successfully implemented a USAID-funded child survival program in the slums of Nairobi. Between 1992 and 1999, AMREF in collaboration with MoH Uganda successfully implemented a child survival program in Luweero and Nakasongola Districts, Uganda.

Busia and Samia DHMTs

Originally the project worked under one DHMT before the larger Busia district was split into three districts (Budalangi, Samia and Busia) in late 2007. The project is currently working with the two DHMTs of Busia and Samia districts. The two DHMTs plan, implement and monitor the delivery of healthcare in their respective districts, and directly oversees management of most of the health facilities in Butula and Funyula divisions. The DHMTs are therefore strategically positioned to influence the health of women and children in the project area. The teams were selected as the partners to maximize the gains made by the project, and importantly, to ensure sustainability. To achieve these, the project has strengthened DHMT's management, supervision, and M&E skills, enabling them to better fulfill their responsibilities and to make better use of outside assistance.

Project Goal, Objectives and Strategies

The project is destined to run for five years (October 2005 to September 2010) and it just completed its third year in October 2008. It focuses on addressing Millennium Development Goals (MDGs) 4 and 5 of reducing child mortality and improving maternal health respectively. Through evidence-based approaches, the project strives to significantly lower child and maternal mortality by 2010, thus setting the stage for the achievement of the MDG targets of 2015.

The project goal is a sustained reduction in child and maternal mortality in the two divisions. The project has a focus on maternal and newborn care, malaria control, and HIV/AIDS, at 40%, 40%, and 20% levels of effort respectively.

The project applies 3 strategic approaches towards the achievement of these goals: (i) Capacity Building (ii) Quality Assurance and (iii) Behaviour Change and Communication.

F. Objectives of the KPC Survey

KPC survey main objectives were as follows:

- Assess progress towards achievement of project objectives (9) or Mid term targets
- To obtain information on caretaker knowledge and practices with regard to maternal and newborn care, child immunization, malaria prevention, home management of the sick child, HIV/AIDS, and water and sanitation.
- To build the capacity of field supervisors and interviewers to collect KPC data using LQAS (Lot Quality Assurance Sampling) and interpret the findings

3 METHODS

A. Questionnaire Development

KPC 2000+

The project adopted the KPC questionnaires used during the baseline survey; they were reviewed to include more questions on BCC message dissemination and assimilation to and by mothers of children 0-23 months respectively. Questions on the anthropometric measures were excluded from the baseline questionnaire. Because of parallel sampling between the categories of mothers of children 0-23 months, mothers of children 0-5 months and children in whom fever/malaria manifested in the past 2 weeks, three sets of questionnaires namely; tool A, tool B and tool C were developed to be administered to each of the three categories. Tool A included 54 questions and was used on the initial qualifying respondent in each selected village. Questionnaire B had questions from Questionnaire A on respondent background information, breastfeeding, and postpartum care. It was only to be used with a mother of an infant under six months of age if the initial qualifying respondent's child selected was between the ages of 6 and 23 months. Questionnaire C had questions from Questionnaire A on respondent background information and integrated management of childhood illnesses. It was only to be used on mothers of children 0-23 months if the initial qualifying respondent's child in the selected village had not experienced fever or malaria in the past 2 weeks preceding the interview.

The Rapid CATCH questions were used as the foundation of the KPC questionnaire. Questions from KPC 2000+ modules, from the Child Survival Technical Support Plus (CSTS+) Unit at MACRO were included to suit the specific project objectives and indicators: Respondent Background Information (Survey questions 1-7); Maternal Newborn Care (Survey questions 8-21); Breastfeeding and Nutrition (Survey questions 22-24); Immunization (Survey questions 25-27); Malaria (Survey questions 28-30); Integrated Management of Childhood Illness (IMCI) (Survey questions 31-36); HIV/AIDS (Survey questions 37-43); Water and Sanitation (Survey questions 44-48); Health Contacts and Sources of Information (Survey questions 49-54).

B. KPC Indicators

The objectives and indicators for the project measured in this KPC survey are outlined below (Table 1.3.1).

Table 1.3.1: Objectives and indicators

Objectives	Indicator	Definition of Indicator
Intervention 1: Maternal and Newborn Care		
1.1 Increased proportion of women who attend antenatal clinic at least 4 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	Mothers who mentioned attending ANC at least 4 times for Question # 9 and Question # 11(Tool A)/Total mothers answering # 9 and # 11.

Objectives	Indicator	Definition of Indicator
	% of mothers of infants 0-5 months who attend postnatal care within two days of delivery	Mothers who responded to 1 or 2 for question #19 tool A and Question # 10 tool B/Total mothers answering # 19 too A and # 10 tool B
1.2 Increased proportion of women who delivered under supervision of a skilled health professional	% of children 0-23 months whose delivery was attended by skilled health professional (nurses with midwifery training, doctors, midwives)	Mothers who responded to 1, 2 or 3 for question # 17 tool A/Total mothers answering # 17 tool A
1.3 Increased proportion of women who deliver at a health facility	% of mothers of children 0-23 months who deliver at health facility	Mothers who responded to 3,4,5,6,7,8 or 9 for question # 16 tool A/Total mothers answering # 16 tool A
Intervention 2: Malaria		
2.1 Improved knowledge and practice of malaria prevention and treatment at household and community level	% of mothers of children 0-23 months who know at least 2 ways to prevent malaria	Mothers who know at least two (2) correct responses (Correct = I, 2 or 3) for Question #28/Total mothers answering #28.
	% of children 0-23 months referred to HF within 24 hours after onset of fever	Mothers who mentioned 1 (same day) to Question # 34 tool A and had mentioned 3 (seen by a worker at health facility to question # 33 plus those who mentioned 1 (same day) to Question # 10 tool C and had mentioned 3 (seen by a worker at health facility to question # 9 tool C/Total mothers answering 6 (fever) or 7 (malaria) to Question #32 tool A and Question # 8 tool C
2.2 Increased proportion of women and children under five who sleep under insecticide-treated nets	% of households with at least one ITN	Mothers who responded to 1 for Question # 29 (i) in tool A/Total mothers answering # 29 (i)
	% of mothers of children 0-23 months who slept under ITNs the previous night	Mothers who responded to 2 for Question # 30 in tool A/Total mothers answering # 29 (i) in tool A
	% of children 0-23 months who slept under ITNs the previous night	Mothers who responded to 1 for Question # 30 in tool A/Total mothers answering # 29 (i) (interviewed) in tool A

Objectives	Indicator	Definition of Indicator
2.4 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.	Mothers who mentioned receiving at least 2 doses of SP for # 15 (ii) tool A/Total mothers answering # 14 (interviewed) in tool A.
Intervention 3: HIV/AIDS		
3.1 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	Mothers who mentioned at least 2 of 1,3,4 and 6 for question # 39 tool A/Total mothers answering # 39 tool A
	% of mothers of children 0-23 months who know that risk of MTCT can be reduced by ART	Mothers who mentioned 1 (take antiretroviral drugs –ARV) for question # 39 tool A/Total mothers answering # 39 tool A
3.2 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	Mothers who responded to 1 for Question # 42 in tool A/Total mothers interviewed using tool A
	% of mothers of children 0-23 months who know their HIV status	Mothers who responded to 1 for Question # 43 in tool A/Total mothers interviewed using tool A
3.4 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	Mothers of children 0-5 months who do not state responses B, C, D or E and state response A for question #24 tool A and Question # 15 tool B/Total mothers answering # 24 tool A and # 15 tool B

C. Sampling Design

Target population and choice of sampling method

The survey targeted mothers of children 0 – 23 months. The LQAS (Lot Quality Assurance Sampling) methodology used during the baseline was similarly used during the midterm evaluation for ease of comparison of the study results.

Sampling frame

The detailed sampling frame organized by division, location, sub-location and village was prepared from the list of households maintained by the Ministry of Planning and based on the 1999 population census. The list contains the villages with the respective numbers of households in the project area. The distribution of villages and number of households in the project area is shown below (Table 1.3.2).

Table 1.3.2: Number of villages and households

	Supervision Area	Number of Villages	Number of households
1	Supervision Area 1:Bujumba/Bumala	44	5,466
2	Supervision Area 2: Marachi Central	47	5,347
3	Supervision Area 3: Elugulu/Elukhari	45	5,534
4	Supervision Area 4: Marachi East	50	5,266
5	Supervision Area 5: Namboboto/Nambuku	55	4,498
6	Supervision Area 6: Nangosia/Odiado/Agenga	62	5,929
7	Supervision Area 7: Nanguba/Bwiri	57	5,198

Identifying interview locations

The locations of interviews (villages) in each lot were selected based on the relative sizes (i.e. number of households in each village as per the 1999 census) of the villages. The sampling interval for each lot was determined by dividing the cumulative household population for the lot with 19. The location of the first interview in the lot was determined using a random number.

Selecting households and respondents

Survey supervisors were trained on how to select first households in a selected village. In each selected village, the supervisor sat with the village elder and after agreeing with him regarding the boundaries of the village, compiled a list of all the households in that village. From this list, a household was randomly selected. The interviewer went to this house to determine if there was a respondent eligible for the study if present, administered Questionnaire A. If there was not, then the interviewer proceeded to the next closest household whose front door faces the one she/he had just left and repeated this process until she/he would get an eligible respondent.

Use of parallel sampling technique

If the respondent's youngest child was under six months of age and had been sick with a fever within the preceding two weeks, then the interviewer had completed his/her work in that village and could proceed to the next selected village. If the child had not been sick or was not 0-5 months of age, the technique of parallel sampling was used to ensure enough children aged 0-5 months and children with fever/malaria in the preceding 2 weeks were enrolled. In order to achieve this, the interviewer would proceed to the next nearest household until an eligible interviewee could be found for tool B or tool C). In cases where the initial respondent's child was not 0-5 months and had not experienced fever or malaria in the preceding 2 weeks, then the interviewer had to keep moving to the next nearest household until both tools B and C were separately completed. A total of 191 KPC questionnaires were administered, of which 133 were Questionnaire A, 42 were Questionnaire B, and 16 were Questionnaire C.

Sample size

A sample size of 19 per lot per indicator was used. With a sample size of 19 per lot (and therefore 133 for the project area), it was possible to calculate coverage in the project area with a

precision of 10% at 95% confidence level. The project monitoring and evaluation officer determined the estimates of the confidence limits for the survey results manually.

The technique of parallel sampling was used to ensure a denominator of 19 was achieved for all project indicators.

D. KPC TRAINING

KPC training curriculum

The materials used to train the supervisors and enumerators included: KPC 2000+ - Field Guide; and KPC training Module 2 (Training Supervisors and Interviewers).

Selection and orientation of Supervisors and interviewers

Selection of supervisors was based on experience acquired either during the baseline, Rapid Catch indicators, MAMAN or second annual LQAS surveys. The supervisors and interviewers were re-oriented on the questionnaires and survey methodology for 1 day and facilitated by M&E officer and the District Health Records and Information Officer (DHRIO) who was also a Baseline Assessment Core Team (BACT) member during the baseline.

E. LOGISTICAL PREPARATIONS

Scheduling, Supplies, printing, and copying

Stationery for the entire mid-term assessment process were estimated and procured in September and the printing and photocopying of tools was done at the child survival project office.

Transportation Plan

Vehicles used were project vehicles (2) and hired taxis (5). A total of 7 vehicles were used. Each team (supervisor and 2 interviewers) had a vehicle.

During the re-orientation, each of the survey teams prepared a survey itinerary indicating to which villages they planned to go on each day. The itineraries were prepared such that after finishing the interview in one village, the team proceeded to the next nearest selected village. The itineraries were revised every evening during the debriefing sessions with the supervisors.

F. DATA COLLECTION AND QUALITY CONTROL PROCEDURES

Duration of survey/interview and challenges

Data collection took 5 days, from 7th October to 11th October 2008. On average, tool A took half an hour to complete, while tools B and C took much less time. A number of challenges were encountered during the KPC survey. These included cases where villages identified during the 1999 census were missing, and others had been split into two. In several situations, village elders wanted to dictate who to interview.

Quality control procedures in the field

Every supervisor observed at least one interview per interviewer each day and completed the KPC Quality Control Checklist and gave feedback to the interviewer immediately after the

interview. The supervisor also checked each completed questionnaire for errors in the field and followed up with the interviewer for correction of any identified errors.

Quality Control during Data Entry

Data was entered by one data entry clerk who had been recruited based on his previous experience with project KPC surveys using SPSS for data entry and analysis. He also underwent the supervisors/interviewers training to familiarize with the tools and the entire survey process.

The M&E officer supervised data entry. He ensured that the data entry clerk had minimum distraction during the data entry period and the working environment was conducive for his work. He was consulted for errors encountered in the process of data entry and acted as a link between the field personnel and data entry clerks. He ensured that feedback was given to the field personnel (during evening debriefing sessions) whenever errors were identified during data entry.

Quality of the data entry process was monitored by randomly checking a sample of entered records to ensure that the data was entered accurately. Double entry was used to ensure correct entry of data. Frequencies of all the fields were run to look for outliers (results that are very high or very low or unexpected that might indicate a possible error) and also to ensure that the correct denominators for all indicators were captured. He ensured that the data entry clerk adhered to data back-up protocols.

The analysis program was tested using the questionnaires completed on the first day. This was to check if the validation rules and the CHK programs were properly working and the questions in the questionnaire were consistent with the designed questionnaire structure.

Data was exported to SPSS version 16 for Windows from Epi-info for cleaning and analysis. Data was cleaned by running frequencies to identify any inconsistencies and missing entries. Records that had incorrect entries were confirmed from the relevant questionnaire and corrections made to reflect questionnaire entries. Questionnaires that had no responses checked (entered) were taken back to the supervisors for completion. Data cleaning also involved running frequencies to establish if the denominator for each question was attained. If not attained related questions were sorted and their entries compared to identify the inconsistency. Visual scanning of all records in the database was done to identify errors. The common problems encountered during data cleaning included missing values, incorrect denominators for respective fields and incorrect entries.

Data Analysis

Data was analyzed after completion of data entry and cleaning. Based on each indicator definition (the specific questions in the tools representing various fields), frequency and cross tabulations were run to get both the numerator and denominator values of each indicators. The results were the displayed in a tabular format to compare with the baseline, 2nd annual LQAS results and midterm targets.

Dissemination

The KPC results were represented to the stakeholders on the 13th November at the Imperial Hotel Kisumu. The stakeholders were represented by Ministry of Health officials at National, provincial and district levels; Project Implementation team members (DHMT Busia and Samia, MSF Spain and AMPATH), Child Survival PVOs (APHIA II Western and Doctors of the World), AMREF Kenya Country Office and Project staff . The presentation was done with use of PowerPoint.

4 RESULTS

A. Indicators

Project Indicators

A denominator of 133 for each project indicator (except "*% of children age 0-5 months who were exclusively breastfed during the last 24 hours*") was achieved (Table 1.4.1).

Table 1.4.1: Coverage levels and corresponding confidence intervals for project indicators

Maternal and Newborn Care Indicators	Numerator	Denominator	Proportion estimate	95% CI
% of mothers of children 0-23 months who attend ANC at least four times during most recent pregnancy	67	133	50.38%	42.38% - 58.39% (±8%)
% of mothers of infants 0-5 months who attend postnatal care within two days of delivery	31	113	27.4%	19.4% - 35.4% (±8%)
% of children 0-23 months whose delivery was attended by a skilled health professional (nurses with midwifery training, doctors, midwives)	41	133	30.83%	22.83% - 38.83% (±8%)
% of mothers of children 0-23 months who deliver at health facility	40	133	30.08%	22.08% - 38.08% (±8%)
Malaria	Numerator	Denominator	Proportion estimate	95% CI
% of mothers of children 0 – 23 months who know 2 ways (ITN & IPT) to prevent malaria	21	133	15.8%	9.8% - 21.8% (±6%)
% of children 0-23 months taken to HF or Community Health Worker within 24 hours after onset of fever	46	133	34.6%	26.6% - 42.6 (±8%)
% of households with at least one ITN	122	133	91.7%	86.7% - 96.7% (±5%)
% of mothers of children 0-23 months who slept under ITNs the previous night	102	133	76.7%	69.7% - 83.7% (±7%)
% of children 0-23 months who slept under ITNs the previous night	116	133	87.2%	81.2% - 93.2% (±6%)

% of mothers of children 0-23 months who received at least 2 doses of SP for IPT during ANC.	35	133	26.32%	19.32% - 33.32 (±7%)
HIV/AIDS	Numerator	Denominator	Proportion estimate	95% CI
% of mothers of children 0 – 23 months who cite at least two ways of preventing MTCT	49	133	36.84%	28.84% - 44.84% (±8%)
% of mothers of children 0-23 months who know that risk of MTCT can be reduced by ART	45	133	33.84%	25.84% - 41.84% (±8%)
% of mothers of children 0-23 months counseled and tested for HIV at ANC during their most recent pregnancy	111	133	83.46%	77.46% - 89.46%) (±6%)
% of mothers of children 0-23 months who know their HIV status	97	133	72.9%	64.9% - 80.9% (±8%)
% of children age 0-5 months who were exclusively breastfed during the last 24 hours	29	113	22.0%	15.0% - 29.0% (±7%)

Catch Indicators

Catch indicators that were not project indicators are included in table 1.4.2 below.

Table 1.4.2: Coverage levels and corresponding confidence intervals for CATCH indicators that were not project indicators

Other Rapid CATCH Indicator Table	Numerator	Denominator	Proportion
Sentinel Measure of Child Health and Well-being			
Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for age, according to the WHO/NCHS reference population)	-	-	-
Prevention of Illness/Death			
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	-	-	-
Percentage of mothers with children age 0-23 months who received at least 2 tetanus toxoid injections before the birth of their youngest child	69	133	51.9%
Percentage of mothers with children age 0-23 months cite at least 2 known ways of reducing the risk of HIV infection	93	133	69.9%
Percentage of mothers with children age 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	10	133	7.5%
Management/Treatment of Illness			
Percentage of mothers of children age 0-23 months who know at least 2 signs of childhood illness that indicate the need for treatment	118	133	88.7%
Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks	13	133	9.8%

G. Social and Demographic Characteristics

Age and sex distribution of children

The distribution of the children by sex revealed that 55% (73/133) of the children were female and 45% (60/133) were male. The information collected during the survey pertained to the youngest child under the age of two years (Table 1.4.3).

Table 1.4.3: Age distribution of respondents (Tool A)

Age of the Youngest Child (Months)	Frequency (N=133)	Percent
0 – 5	72	54.1
6 - 11	31	23.3
12 – 23	30	22.6

Respondent characteristics

The mean age of the mothers interviewed (Tool A) was 25 years and 2 months. 84% (117/133) of mothers reported having attended school at some point. Of these, a majority had only attended primary school (72% or 97/133) and only a few had reached secondary school (15% or 20/13); none had gone on to higher education. A clear majority of respondents were of the Luhya Tribe (97% or 129/133) and the others were of the Luo and Teso Tribe (3% or 4/133).

Table 1.4.4: Mothers' School attendance

Level of schooling reached	Frequency	Percent
Never attended School	16	12.0
Reached Primary level	97	72.9
Reached Secondary level	20	15.0
Total	133	100.0

The proportion of women who have no outside work (63%) is greater than those who work outside the home to earn money (37%). Almost a quarter (22%) of the mothers are in agriculture, 37% rear livestock, 37% are servants/household workers and the rest are either selling handicrafts, food vendors, tailors or salaried workers. Most mothers (88% or 117/133) are married, 11% or 14/133 are single and 1.6% or 2/133 are either separated or widowed. For those who have spouses 86% said their husbands work while the rest their husbands do not work

C. Child spacing

Mothers reported having an average of 1.82 children under the age of five. Sixty four percent (97/133) of the mothers reported having two or more children under the age of five. The distribution of the number of children per mother is as indicated in table 1.4.5 below.

Table 1.4.5: Distribution of Children Under 5 Yrs per mother

Number of Children	**Frequency**	**Percent**
One Child	48	36.1
Two Children	63	47.4
Three Children	20	15.0
Four Children	2	1.5
Total	133	100.0

Antenatal care

Half of mothers (46% or 61/133) had a maternal health card, and among a similar proportion (48%), had the card but was not available. Only 6% (8/133) indicated that they never had a card. 22% (30/133) had made at least four ANC visits during their most recent pregnancy. An additional 37 mothers who did not have cards reported from memory having attended four or more ANC sessions, bringing the total by card and memory to 50% (67/133). By card and memory, 92% (123/133) had made at least one ANC visit.

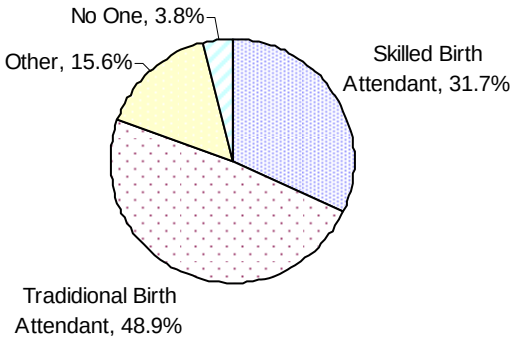
Eighty-six percent (114/133) of mothers said they had received at least one dose of tetanus toxoid during their most recent pregnancy and 52% (69/133) said they had received two or more doses.

Delivery care

Majority of mothers delivered outside a health facility (70% or 93/133), with most of the deliveries (62% or 82/133) occurring at home. About two-thirds of health facility-based deliveries were done at MoH facilities (68% or 27/40) and the remainder were done at mission or other facilities.

Almost half (49% or 65/133) of the deliveries were attended by traditional birth attendants (TBA) (Figure 1.4.1). About a third (32% or 42133) of deliveries were attended by a trained health professional (doctor, nurse, midwife or community midwife).

Figure 1.4.1: Proportions of respondents attended by various attendants during delivery



Postpartum Care

One-third of the mothers (32%, or 37/114) of infants under six months of age reported having had their health checked by a trained health professional (doctor, nurse/midwife, community midwife) after the delivery. Twenty seven percent (31/114) reported that the post-natal check was done within two days of the delivery. A similar proportion of the mothers said their child's health was checked as well.

E. Breastfeeding and Nutrition, and Anthropometry

Breastfeeding and Nutrition

Nearly all of the mothers of infants under six months (96% or 112/114) reported having breastfed at some time. Twenty five percent (29/114) initiated breastfeeding within the first hour after delivery, and only 22% (25/114) exclusively breastfed their infants under six months of age.

F. Childhood Immunizations

Seventy percent of mothers (93/133) had an immunization card for their youngest child.

G. Malaria

Prevention

Forty two percent (56/133) of mothers knew two or more ways to prevent malaria. Awareness of the importance of bed nets is especially high with 95% (126/133) of mothers responding positively. Ninety one percent (126/133) of households have at least one bed net. Fifty-nine percent (72/133) of mothers report they have at least one long lasting insecticide treated net (LLIN, which lasts up to five years without requiring retreatment) and 39% (47/133) have at least one insecticide-treated bed net (ITN, which requires retreatment every six months.) Forty percent (19/47) of the ITNs were reported to have been retreated within the previous six months. About three-quarters of mothers (77% or 102/133) and (87% or 116/133) of children slept under an ITN or LLIN the previous night.

H. Integrated Management of Childhood Illness

Home-Based Care of the Sick Child

Twelve percent of the children (18/133-derived from tool A and C) who had been sick in the past two weeks were given increased fluids or the same amount. Only 11% were given the same or more amount of solids and 89% were actually given less solids.

Knowledge of danger sings

While the percentage of caregivers who knew two or more danger signs associated with childhood illness and the need for treatment was relatively high at 89% (118/133), awareness of some key danger signs, particularly those most closely associated with acute respiratory illnesses (ARI), was low, as noted in the table 1.4.6 below:

Table 1.4.6: Proportions of mothers who knew danger signs associated with childhood illness

Knowledge of Danger Signs Signaling the Need for Treatment	**Frequency (N=133)**	**Percent**
High Fever	114	86%
Looks Unwell or Not Playing Normally	75	56%
Not Eating or Drinking	69	52%
Vomits Everything	58	44%
Diarrhoea	39	29%
Fast or Difficult Breathing	26	20%
Convulsions	4	3%
Do Not Know		

Care Seeking for the Sick Child

Eighty-one percent (108/133) of mothers reported that their youngest child had had a fever or presumed malaria within the previous two weeks. Only 22% (29/123) sought care at a health facility within 24 hours.

I. HIV/AIDS

Awareness of HIV/AIDS is high across the project area, with 99% (131/133) of mothers saying they had heard of AIDS; 89% (118/133) saying that it could be transferred during the delivery; and 90% (120/133) saying that it could be transferred through breastfeeding. Awareness of the risk of transfer during pregnancy was slightly lower, with about half of mothers (53% or 71/133) recognizing this risk.

Eighty percent (106/133) of mothers knew at least one way to prevent the transfer of HIV to their child, and about one-third (33% or 44/133) were able to list at least two ways to prevent MTCT. Thirty-four percent of the mothers (45/133) knew that the risk of MTCT can be reduced by ART. The proportions of the mothers who cited the various methods of preventing MTCT are outlined in table 1.4.7 below.

Table 1.4.7: Proportions of mothers who mentioned the various methods of preventing MTCT

Knowledge of Ways to Prevent MTCT	Frequency	Percent
Be delivered by a skilled birth attendant.	78	58.6%
Take ARV drugs.	45	33.8%
Continue proper breastfeeding.	31	23.3%
Maintain a healthy diet.	9	6.8%

More than three quarters (86% or 115/133) of the mothers said they had been offered a HIV test as part of their most recent ANC. Similar number of mothers (83.5% or 111/133) was tested. Seventy-three percent (97/133) were informed of the results of the test.

J. Water and Sanitation

A majority (98/133 or 74%) of the mothers said they should wash their hands after defecation (Table 1.4.8). However, only 10 of the 133 mothers surveyed knew all four of the times when they should wash their hands.

Table 1.4.8: Proportion of mothers who cited various activities that should prompt hand washing

Knowledge of Hand Washing	Frequency (N = 133)	Percent
After defecation	98	74%
Before food preparation	59	44%
Before feeding children	58	44%
After attending to a child who has defecated	49	37%

Eighty-eight percent (117/133) of mothers reported having access to a toilet, which was confirmed by sight. Nearly three-fourths (70% or 94/133) of mothers reported having access to a protected water source in the project area. Fifty-six percent (74/133) of mothers said they treat

their water to make it safe to drink and 73% (55/133) noted at least one correct method for water purification.

K. Health Contacts and Sources of Information

Mothers reported having come into contact with the following types of health workers during the preceding month (Table 1.4.9):

Table 1.4.9: Frequency of contact with health workers in the preceding month

Frequency of Contact with Health Workers	Frequently (4+ Times)	Sometimes (1-3 Times)	Never
Nurse/Midwife	2	37	51
TBA	10	17	63
Doctor	1	19	70
Drug Vendor	2	15	73
Community Health Worker	4	29	57
Health Educator	0	12	78
Traditional Healer	0	7	83
Growth Monitoring Person	2	11	77

Mothers reported getting general information or advice on health or nutrition from the following sources (Table 1.4.10):

Table 1.4.10: Sources of health information

Health Information Sources	Frequency (N = 133)	Percent
Nurse/Midwife	41	31%
Community Health Worker	37	29%
Health Educator	29	22%
Friend/neighbor	14	11%
TBA	12	9%
Mother/Mother-in-law	8	6%
Husband/Partner	6	5%
Health Facility Staff	5	4%
Church	5	4%
Elder	5	4%
Drug Vendor	2	2%
Traditional Healer	1	1%
Others	6	5%
No one	20	15%

Mothers reported receiving general health information or advice on health or nutrition from the following sources (Table 1.4.11):

Slightly more than half (55%) of the mothers have received health messages in the previous two years. for those who received health messages, 80% received messages on sleeping under a mosquito net to prevent malaria, and half received messages about pregnant women and children under fives to sleep under mosquito nets; children to be taken to health facility immediately whenever they develop fever and; to attend ANC clinic o be able to know HIV status.

Out of the 38 CHWs who passed messages, 30 (79%) were identified as working for AMREF, the rest were; Amkeni (1), Catholic Church (3), Health facility (3), MSF (1) and Red Cross (1).

Table 1.4.11: Number of Mothers who received Messages

	Frequency (N=74)	**Percent**
Ni jukumu la madaktari kuwahudumia wananchi	13	18%
Kinga jamii yako kutokana na malaria kwa kulala ndani ya neti iliyotiwa dawa.	59	80%
Utumizi wa neti iliyotiwa dawa ni salama kwa wamama waja wazito na watoto wachanga	31	52%
Mpeleke mtoto kwenye kituo cha afya anapoonyesha dalili za Malaria mara moja	35	47%
Hakikisha ya kwamba umempeleka mke wako kwenye kilinki ya waja wazito	15	20%
Kwa uzazi bora na kuza mtoto mwenye afya bora jifungulie kwenye kituo cha afya.	28	38%
Kwa afya bora mnyonyeshe mtoto kwa miezi tano bila kumpa vinywaji au chakula chochote!	28	38%
Je, u mja mzito? ....kwa afya bora tembelea kiliniki ya wamama waja wazito angalau mara nne kabla ya kujifungua!	33	25%
Umejifungua? Tembelea kiliniki ya wamama kabla ya siku mbili kwa afya bora!	20	27%
Je, U mja mzito? ..Tembelea kiliniki upate kujuwa hali yako kutokana na virusi vya Ukimwi	34	46%

Table 1.4.12: Sources of the messages received

Messages	**Frequency (N=74)**	**Percent**
Radio	46	62%
Newspaper	4	6%
Television	4	6%
Health Educator	18	25%
Community Health worker	38	52%
School pupil	6	8%
Teachers	3	4%

Health workers	21	29%
Neighbor	13	18%
Friend	15	21%
Church	3	4%

L. Performance at Midterm

Table 1.4.13: Significance Tests

Indicator	Baseline		Midterm		Is the change from Baseline to Midterm statistically significant
Maternal and Newborn Care Indicators	Proportion estimate	95% CI	Proportion estimate	95% CI	
% of mothers of children 0-23 months who attend ANC at least four times during most recent pregnancy	32%	24% - 40% (± 8%)	50%	42% - 58% (±8%)	Yes
% of mothers of infants 0-5 months who attend postnatal care within two days of delivery	23%	16% - 30% (± 7%)	27%	19% - 35% (±8%)	No
% of children 0-23 months whose delivery was attended by a skilled health professional (nurses with midwifery training, doctors, midwives)	26%	19% - 33% (± 7%)	31%	22% - 38% (±8%)	No
% of mothers of children 0-23 months who deliver at health facility	20%	13% - 27% (± 7%)	30%	22% - 38% (±8%)	No
Malaria	Proportion estimate	95% CI	Proportion estimate	95% CI	Is the change from Baseline to Midterm statistically significant
% of mothers of children 0 – 23 months who know 2 ways (ITN & IPT) to prevent malaria	17%	9% - 25% (± 7%)	15%	9.8% - 21.8% (±6%)	No
% of children 0-23 months taken to HF or Community Health Worker within 24 hours after onset of fever	7%	3% - 11% (± 4%)	34%	26.6% - 42.6 (±8%)	Yes
% of households with at least one ITN	77%	70% - 84% (± 7%)	92%	87% - 97% (±5%)	Yes
% of mothers of children 0-23 months who slept under ITNs the previous night	65%	57% - 73% (± 8%)	77%	70% - 84% (±7%)	No
% of children 0-23 months who slept under ITNs the previous night	70%	62% - 78% (± 8%)	87%	81% - 93% (±6%)	Yes

% of mothers of children 0-23 months who received at least 2 doses of SP for IPT during ANC.	21%	14% - 28% (±7%)	26%	19% - 33% (±7%)	No
HIV/AIDS	Proportion estimate	95% CI	Proportion estimate	95% CI	Is the change from Baseline to Midterm statistically significant
% of mothers of children 0 – 23 months who cite at least two ways of preventing MTCT	23%	16% -30% (± 7%)	37%	29% - 45% (±8%)	No
% of mothers of children 0-23 months who know that risk of MTCT can be reduced by ART	33%	25% - 41% (±8%)	34%	26% - 42% (±8%)	No
% of mothers of children 0-23 months counseled and tested for HIV at ANC during their most recent pregnancy	53%	45% - 61% (± 8%)	83%	77% - 89%) (±6%)	Yes
% of mothers of children 0-23 months who know their HIV status	41%	32% - 49% (± 8%)	723%	65% - 81% (±8%)	Yes
% of children age 0-5 months who were exclusively breastfed during the last 24 hours	11%	6% - 16% (± 5%)	22.0%	15% - 29% (±7%)	No

5 DISCUSSION

A. Maternal Newborn Care

Antenatal care

The four ANC attendances increased among mothers of children 0 - 23 months from 32% at baseline to 50% at midterm. The change in the ANC attendance in the project area is statistically significant and meets the national ANC coverage of 52% (KDHS, 2003) though still falls below the national target of 80%. The midterm achievement surpassed the midterm target of 46% and end of project target of 50%. This calls for revision of the end of project target to 60%. The achievements are attributed to: 1) improved quality of care and services during ANC visits. The project trained 16 health workers in year two on Focused Antenatal Care (FANC). The FANC training curriculum was reviewed to incorporate interpersonal communication as the qualitative study done during the baseline attributed the low ANC attendance to poor provider-client relationship. Apart from the training the DHMT has regularly conducted facilitative supervision- each health facility is visited at least once in every quarter using the newly developed facilitative supervision checklist developed by the BCSP staff, DHMT Busia and PHMT western; 2) Improved client-provider relationship using Partnership Defined Quality (PDQ). The communities and health facility staff in the 16 health facilities in the project area have formed quality improvement teams to identify quality gaps, develop action plans and monitor implementation of quality improvement measures; 3) the community health workers have been trained on primary health care and community strategy, community based maternal and newborn care and community based health management and information system. The trainings have empowered them to collect essential maternal and newborn data from the community and target households with women at risk (pregnant) and children under 5 for health education and referring them to health facility; 4) the project has reached more than half of mothers with integrated messages using designed communication approaches (child-to-child, child-to-parent, household visitations, 5x5x5). The mother-to-mother clubs have helped mentor non-doers who have adopted the desired health behaviour of attending ANC.

Delivery Care

The delivery by skilled birth attendant (31%) and at health facility (30%) is still low as compared to the national average of 44% and 40% respectively (KDHS 2003). The change in the delivery by skilled birth attendant and delivery in health facility from the baseline values of 26% and 20% respectively are not statistically significant and more so still below the midterm target of 37% and 31% respectively. Despite the efforts put in place to improve deliveries in health facility and by skilled birth professionals i.e. trainings in essential obstetric care, and renovation and supply of EOC equipment in the four Centres of Excellence, the project needs to do more at the community level to reverse the roles of the TBAs in relation to conducting deliveries and make use of the community midwifes instead. Transport remains a critical barrier to health facility delivery as revealed by the qualitative findings at baseline. The project has to implement the

operation research findings of the community emergency transport system study conducted in the third year to address the issue of transport.

Postpartum Care

The change in postpartum care within 2 days after delivery from 23% at baseline to 27% at midterm is not statistically significant. The midterm achievement is below the planned target of 33%. The project is optimistic of improving the trend upon completion of CBMNC training of CHWs and formation of community health units

B. Malaria

Availability of ITNs

Availability of ITNs in households is quite high (92%) in the project area, well beyond the national target of 60% (National Malaria Strategy: 2001-2010). The 15% increase from the baseline value of 77% is statistically significant and is attributed to LLIN and ITN distribution through mobile clinics to underperforming lots identified during the second annual LQAS. The project has so far received 7500 LLINs and ITNs with treatment kits and so far distributed 4700 to pregnant women and children under five. More women are also accessing the LLINs by attending ANC clinic (at least one ANC visit is now at 92%). A part from the Ministry of Health other partners like PSI, MSF, ICS and IPA are also involved in LLIN/ITN distribution in the project area.

Utilization of ITNs

The project has surpassed the national target of the National Malaria Strategy 2001 – 2010 to have 60% of all babies sleeping under nets by 2010. The project coverage (87%) of under 5s sleeping under LLIN/ITN is statistically significant and well above the end of year target of 80%. This calls for revision of the end of year target to 95%. Despite increased utilization of the LLINs/ITNs there is high morbidity as a result of malaria as 80% of mothers mentioned that their youngest child had had fever or presumed malaria in the previous two weeks. This also concurs with the findings of the integrated health facility assessment (BCSP October, 2008) which shows that out of the children assessed in the health facilities in the project area, 72% of the cases are classified as malaria.

Intermittent preventive treatment of malaria

The increase in receiving two doses of IPT among pregnant women by 5% from the baseline figure of 21% is not statistically significant and is only halfway reaching the midterm target of 50%. The knowledge of IPT as a malaria prevention method in pregnancy by mothers is also still very low at 16%. It is suspected that the health workers don't inform the mothers what SP is intended to achieve whenever it is given during ANC attendance or it is not given altogether. It is

expected that with increased ANC attendance, knowledge on and receiving two doses of IPT should be reflective.

Integrated Management of Childhood Illness

There was a great leap in the proportion of children who sought health facility care within 24 hours when fever manifested. Though still below the midterm target of 46% the change from 7% at baseline to 34% at midterm was statistically significant.

None of health facility staffs sampled for the integrated health facility assessment was able to assess, classify and treat (i.e. practice all the 3 as a package) a child with fever correctly according to IMCI protocols. IMCI has been observed to be ineffective considering the cost of training and the time the health worker takes with the client if he/she has to do all the assessments correctly, bearing in mind the long queues of fatigued clients waiting to be seen by the same health worker (staffing is a major problem in the project area-most dispensaries have one to two nurses)

C. HIV/AIDS

Awareness about PMTCT

Knowledge on at least two ways of HIV transmission from mother to baby increased though insignificantly. The 33% achievement at midterm is still below the midterm target of 50. It is expected that with increased ANC attendance and dissemination of BCC messages, the knowledge level should be high. The project should undertake a rapid study to understand the reasons for knowledge gaps before continuing with the relevant activities. It will help it redesign its approaches.

Utilization of PMTCT services

KDHS (2003) findings indicate that 73% of the ANC mothers were tested for HIV. The national target is 90% (ibid). At 83%, the coverage for this intervention in the project area is therefore above the national coverage and the midterm target of 66%. The change is statistically significant and calls for revision at end of project target of 70% to 90%. The PMTCT training of health workers, improved privacy and confidentiality of clients' information, reduced stigma and evidence of improved health outcomes of AIDS patients has motivated more mothers to be tested

Feeding practices for children under 6 months

The increased coverage to (22%) of exclusive breastfeeding in the project area is above the national coverage of 13% (KDHS, 2003). The increase is not statistically significant and falls below the midterm target of 34%. The few active mother-to-mother clubs have encouraged

mothers to adopt this desired behavior. The project will strengthen the existing clubs and form more in the Lot areas that under performed with this indicator.

KPC Results (Baseline, Year 2 and Midterm)

Objective/Result	Indicators (by technical or cross-cutting intervention)	Baseline Value	Year 2 Target[1]	Year 2 Actual	MIDTERM Target	MIDTERM 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%	37%	41%	46%	50.38%	50%
	% of mothers of infants 0-5 months who attend postnatal care within two days of delivery	23%	27%	Not assessed[2]	33%	27.40%	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%	30%	25%	37%	30.83%	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%	24%	20%	31%	30.08%	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%	28%	Not assessed	51%	15.80%	62%
	% of children 0-23 months taken to HF or Community Health Worker within 24 hours after onset of fever	7%	20%	33%	46%	34.60%	60%
6. Increased proportion of WRA and CU5 who sleep under insecticide-treated nets	% of households with at least one ITN	77%	80%	86%	87%	91.70%	90%
	% of mothers of children 0-23 months who slept under ITNs the previous night	65%	69%	68%	76.3	76.70%	80%
	% of children 0-23 months who slept under ITNs the previous night	70%	73%	80%	78%	87.20%	80%

Objective/Result	Indicators (by technical or cross-cutting intervention)	Baseline Value	Year 2 Target[1]	Year 2 Actual	MIDTERM Target	MIDTERM Actual	EOP Target
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%	31%	29%	50%	26.32%	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%	32%	23%	50%	33.10%	59%
	% of mothers of children 0-23 months who know that risk of MTCT can be reduced by ART	33%	37%	32%	46%	32.30%	50%
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%	57%	71%	66%	83.46%	70%
	% of mothers of children 0-23 months who know their HIV status	41%	46%	60%	55%	72.90%	60%
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%	18%	Not assessed	34%	21.90%	40%

Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 5

Busia and Samia Districts, Kenya

October 2005 – September 2010

USAID/HIDN/CSHGP
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Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 6

Busia and Samia Districts, Kenya

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Annex 6 Evaluation Assessment Methodology

Qualitative Data Collection

Step One: organize evaluation team and support staff into a Working group

- Members of the evaluation team gathered for a two-day orientation and planning session focused on teambuilding, deliberation of methods and strategies consistent with the objectives of the evaluation.

Step Two: team members reviewed the USAID MTE guidelines in order to understand the critical foci of the MTE exercise.

- Considering the unusual circumstances that led to the postponement of this evaluation, they developed additional questions to serve the purpose of the comprehensive exercise.

Step Three: finalize sample of data collection sites in interviews

- All members agreed with the selection of communities and representatives of beneficiary and project partner groups to be interviewed; time available and cost considerations were factored into these decisions.

Step Four: identify data collection sources and techniques to be used

- team members concurred that techniques would include: document reviews, key individual interviews, focus group interviews, and facility observations
- prior to the arrival of the Team leader, the M&E officer had conducted a repeat HFA Assessment as well as a repeat KPC study using LQAS sampling

Step Five: develop data collection instruments

- interview guidelines were developed after the team had received instruction in techniques for focus group and key individual interview procedures
- where necessary, the instruments were translated into Kwi-Swahili; the majority of the instruments could be used in English
- the outcome of this activity was the generation of interview guidelines appropriate to the activities of the project and addressing the respective stakeholder\beneficiary groups appropriately
- the guides also served as "note taking instruments" in order to assist the process of communication between team members and the documentation of the findings gathered at the respective sessions

Using a generic questionnaire design, and taking the target audience' perspective into consideration, the following topic areas were addressed in each of the questionnaires.

Topic areas include:

- *Appropriateness* relative to the health needs
- *Drivers and challenges*: motivations, vision and impact of post-election violence
- *Current support:* mechanisms currently in place and outstanding needs
- *Effectiveness* of training and current program strategies
- *Achievements* under CSP programming to date
- *Sustainability*-organizational, financial, institutional
- *Recommendations* for improvement

Step Six: finalize list of data collection sites and individuals to be interviewed

- Teams were formed with respective assignments to visit health facilities, community groups, key project staff and partners, and appropriate beneficiary groups involved in the project. Key target audiences were identified for both focus group and individual interviews. They included: Busia and Samia DHMTs, Clinic and dispensary health workers and in- charges, CHWs and CHEWs, mothers and fathers, Community-opinion leaders, Students and their school patrons, and finally, AMREF CO Field and headquarters staff .

Step Seven: logistical arrangements for transportation for interviews completed and organized.

- Teams were organized and sent out to the respective target audiences to undertake their assigned interviews; in most cases, except for the AMREF Busia and Kenya CO staff interviews, a note taker was assigned to each team and data collected was cross checked with that obtained by the interviewer.

Step Eight: conduct interviews and observations

- over a period of five working days, qualitative data collection was carried out

Step Nine: analyze information collected

Following the Evaluation Terms of Reference, these Key questions for consideration included:

- What aspects of the project are going well?
- What are the areas where the project is running into difficulty?
- Are there particular aspects of the project which should change? the

The qualitative data collection teams using guidelines and manuals, undertook qualitative data analysis obtained from each target audience organizing the results under the following headings:

- **EFFORT**-answers the question, "What was done?-the tangible deliverables to date
- **EFFECT**-answers the question, "What happened"?-the immediate observable changes as a result of project activities
- **RESULTS**-answers the question, "What changed?"-longer-term, sustainable changes
- **RECOMMENDATIONS**-for improvements and next steps

These major headings proved to be compatible with the topic areas outlined in Step Five.

Step Ten: summarize fieldwork findings

- the Busia BCSP team together reviewed both qualitative and quantitative data collected, highlighting issues to be considered by the Stakeholders coming to Kisumu the next day; in addition, this provided practice of PowerPoint as a communication tool
- the findings were shared with members of the Evaluation Team, DHMTs and other stakeholders at a Stakeholders Meeting held on November 13, 2008 in Kisumu. The findings prompted many suggestions and recommendations from the entire audience in attendance which then contributed to the items for consideration in the final Plan of Action.

Step Eleven: develop an Action Plan based on evaluation findings

- the Action Plan responding to recommendations made for project future activities was developed by members of the project team

Step Twelve: write the evaluation report

- The Team Leader took responsibility to craft a draft report based on input from the Evaluation Team, in addition to his own assessment on aspects of program management and implementation. On November 24, 2008, this report was circulated among the AMREF Busia BCSP team, the AMREF Kenya CO for completion of items still missing. Finally, the report was forwarded to AMREF USAID headquarters for finalization and submission to USAID, Washington.

Quantitative Data Collection

Quantitative data was collected and assessed using the Knowledge, Practice and Coverage (KPC) and the Integrated Heath Facility Assessment (IHFA) surveys. The methodology for the KPC survey is as follows:

The KPC questionnaire was adapted from the KPC baseline survey questionnaires. The survey targeted mothers with children 0 – 23 months. A sampling frame was developed based on 7 project supervision areas, and list of villages and households maintained by

the Ministry of Planning from the 1999 population census. Supervisors and interviewers were re-oriented on LQAS methodology. This methodology was used to identify 19 interview locations in each lot (supervision area), select first households, and select respondents within households. Parallel-sampling was used to ensure adequate sub-sample sizes. An overall sample size of 133 was achieved for all project indicators. Elaborate quality control procedures were applied during data collection and entry. Data was analyzed after completion of data entry and cleaning.

The methodology for the IHFA assessment is seen below:

The IHFA team reviewed and adopted the BASICS tools used during the baseline. The tools included: (i) Observation checklist-Sick Child (ii) Exit interview (iii) Validation checklist (iv) Health worker interview; and (v) equipment and supplies checklist. Data were collected from half of the health facilities in the project area. In each health facility, one health worker was observed managing at least ten sick children, and the health worker later interviewed. Data was analyzed using frequencies in SPSS.

Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 7

Busia and Samia Districts, Kenya

October 2005 – September 2010

USAID/HIDN/CSHGP
Cooperative Agreement Number:
GHS-A-00-05-00009-00

Date of Submission: December 2008

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Annex 7 List of Persons Interviewed and Contacted

Focus Group Discussion with DHMT Busia 28/10/08
Moderator Larry Note taker Caleb

1. Dr. Silas Ayunga – DMOH
2. Mr. Ambrose Fwamba – DPHO
3. Mrs. Alice Selete - DDPHN
4. Mr. Absalom Ingab CO
5. Mr. James Kuya – DHRIO

Focus Group Discussion with DHMT Samia 28/10/08
Moderator Larry Note taker Caleb

1. Dr. Namdala – DMOH
2. Mr. Reuben Sirigwa
3. Mr. Emanuel Luvai
4. Mrs. Judith – DPO
5. Mrs. Anjeline Wataka

Focus Group Discussion with Health Workers Khunyangu Sub District Hospital 28/10/08
Moderator Cudjoe Note taker Mr. Kuya
No Names

1. Caroline Soi
2. Judith Shisoka
3. Tito T. Kwena
4. Melab L Luyeku

Focus Group Discussion with Health Workers Nangina Dispensary 28/10/08
Moderator Colins Note taker Everlyne
No Names

Key Informant Interview with TEACHERS 28/10/08 Esibina Primary School
Moderator Collins Note taker Gladys

1. Irene Nabwire
2. Velma Lucy
3. Hedggy Barasa
4. Sylvester Oketch
5. Kevin Oduori
6. Oliver Ojiambo
7. Victorine Wamalwa
8. Susan Acheny
9. Nelly Auma
10. Ibrahim Alubale
11. Erick Ogutu
12. Nalistor Aluvale

Key Informant Interview with Fathers – Bumala B 30/10/08
Moderator Gladys Note taker Luvai

1. Shadrack WAsike
2. Bonface Khayiro
3. Michael
4. Ronald Ochunga
5. Bruno
6. Julius Odunga
7. Chrispinus Ochieng
8. Mathew Peter

Key Informant Interview with CHEWS Burinda 28/10/08
Moderator Reuben Note taker Luvai

1. Penina Khayumbi
2. Maurice Makokha
3. Peter Kulecho
4. John Mwenge
5. Job Ambale
6. Patrick Watako
7. Rabecca Matalanga
8. Japheth Ambani

Focus Group Discussion with CHWs Nangina Dispensary 30/10/08
Moderator – Mr Fwamba Note taker Caleb

1. Kisiya were
2. Benard Juma
3. Peter Ondieki
4. Conrald Mukang
5. Calvin Moring
6. Maurice Okuki
7. Oduor Miccha
8. Ekesa Gipha
9. Christine otieno
10. Luscy Nakhoyi
11. Regina Okubi
12. Milka Okumu
13. Wilkista Achieng

Focus Group Discussion with Mothers
Moderator Reuben Sirigwa Note taker – James Kuya
Bujwang Primary SchooL 31/10/08

1. Jescah Makokha
2. Everlyne Awino
3. Lilian Bahati
4. Rosemary Achieng
5. Eurnice Apondi

6. Emmaculate Nangira
7. Carolyne Adikinyi
8. Rhoda Fred
9. Janet Atieno
10. Maximilla Nafula
11. Susan Carolyne
12. Mary Nyongesa

Focus Group Discussion with Pupils
Moderator Mr. Fwamba Note taker Gilbert
Buloma Primary School 28/10/08

1. Nicholas Ojiambo
2. Gladys Adhiambo
3. Emmanuel Ojuang
4. Kennedy Barasa
5. Jeremia Ouri
6. Steven Odhiambo
7. Methudus Onyango
8. Maurine Apondi
9. Milka Juma
10. Jecinter Maina
11. Linda Faith
12. Susan Anyango

Focus Group Discussion with Opinion Leaders
Moderator Mr. Fwamba Note taker Caleb
31ST OCT 2008 at SIKARI DO'S OFFICE

1. Mr. Wasike Gabriel
2. Mr. Patrick Sitandi
3. Mrs Jane Ochieng
4. Mrs. Ann O Wanga
5. Mrs. Isabela Okwero
6. Mrs. Mildred Akoth
7. Mrs. Jenifer Awino
8. Mr. Msundi Vincent

Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 8.1

Busia and Samia Districts, Kenya

October 2005 – September 2010

USAID/HIDN/CSHGP
Cooperative Agreement Number:
GHS-A-00-05-00009-00

Date of Submission: December 2008

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Table of Contents

Annex 8.1 Special Reports - Integrated Health Facility Assessment Report

MID-TERM EVALUATION
INTEGRATED HEALTH FACILITY ASSESSMENT REPORT
November 2008

1 EXECUTIVE SUMMARY

Introduction: Malaria is the leading cause of mortality amongst children under 5 in BCSP's catchment area. Prevention of the disease using ITNs/LLINS and effective case management in the community and at health facilities are the approaches that this project has and will continue to pursue. Kenya's MOH has adapted IMCI as the approach for management of children with malaria. The approach is founded on three components: (i) Improving case management skills of health care staff; (ii) Improving the overall health system; and (iii) Improving family and community health care practices. BCSP used BASICS IHFA tools (adopted during the baseline) to assess the capacity of health facilities with regard to the first and second components of IMCI. The specific objectives of the IHFA were to: (i) describe current health worker practices with regard to assessment, classification, and treatment of children with diarrhea, fever, and malaria, and acute lower respiratory tract infections at outpatient clinics; (ii) describe adequacy of health workers' communication to caretakers about home treatment for sick children; (iii) describe ability of care takers to provide home treatment for their sick children; (iv) describe the quality of supervision of health workers; and (v) identify barriers to appropriate case management practices.

Methods: The IHFA team reviewed and adopted the BASICS tools used during the baseline. The tools included: (i) Observation checklist-Sick Child (ii) Exit interview (iii) Validation checklist (iv) Health worker interview; and (v) equipment and supplies checklist. Data was collected from half of the health facilities in the project area. In each health facility, one health worker was observed managing at least ten sick children, and the health worker later interviewed. Data was analyzed using frequencies in SPSS.

Findings: *Assessment, classification, and treatment of sick children:* 17% of the children were assessed correctly for all the symptoms in line with the IMCI protocol. Only 5% of children had all 6 fever assessment tasks completed. Of the 59 children classified as having malaria, only 28 (47%) were correctly treated with anti-malarial tablets/syrup and paracetamol. Only two (25%) of the health workers assessed and classified the sick children correct but none of the children received correct treatment, implying no health worker assessed, classified and treated sick children as per the IMCI protocol.

Interpersonal communication for oral medication: Most caretakers received explanations from health workers on how to administer medications, but little of the other information was given. Only 30% of the health workers mentioned to the caretaker at least 3 signs that should prompt them to bring the child back to the health facility.

Facility support and challenges: about three quarters of the staff with child case management responsibilities are nurses. Most dispensaries lack adequate seating space for clients and half of the dispensaries and one hospital lack ORT corners. Half of the facilities have portable water and IEC materials though not in local languages. Only 2 facilities have megaphones for social mobilization. Most equipment including child weighing scales, bag and mask for resuscitation, suction machines, refrigerator and cup and spoons are available in most facilities. Most facilities had most of the drugs needed for IMCI. Key recording tools lack, including child health and maternal health cards. On average, 19 children are seen in each facility each day. The commonest cause of delay in delivery of supplies is rupture of stock at the central stores. Almost all (8 out of nine) of health workers get visited by a supervisor at least 4 times a year, and feedback is the norm. Two thirds of the health workers had received child health related training in the year prior to the survey. Staff and supplies shortage are currently the most critical barrier to effective service provision.

2 INTRODUCTION

Background

Malaria is the leading cause of morbidity and mortality amongst CU5 in Kenya. The disease has heavy negative impact, especially in malaria endemic and epidemic prone zones of the country. In the project area for BCSP, malaria is endemic, and is the leading cause of death among children. Prevention of the disease using ITNs and effective case management in the community and at health facilities are effective approaches that this project has applied. Kenya's MOH has adapted IMCI as the approach for management of sick children (including those with fever/presumed malaria) aged two weeks to five years in health facilities. Although the MOH has supported implementation of the strategy for about a decade, challenges especially shortage of health staff and high cost of training a critical mass of health workers remain as some of the key impediments.

The IMCI approach is founded on three components: (i) *Improving case management skills of the health care staff:* this calls for training of health workers using IMCI guidelines adapted to local settings, and conducting follow up after training to reinforce skills learned and train health care providers in problem solving in the community; (ii) *Improving the overall health system:* this calls for development of interventions to improve the availability of drugs and supplies, strengthen the service quality and organization at health facilities, reinforce referral services, and ensure equity of access to health care; and (iii) *Improving family and community health care practices:* this calls for development of interventions to strengthen community participation, promote appropriate family response to childhood illness, promote child nutrition, and create safe environments for children.

This assessment focused on the first and second components of IMCI. We set out to assess the capacity of the health facilities in the project area to provide quality medical care for the sick child.

Objectives of the Integrated Health Facility Assessment

The objective of the IHFA was to provide BCSP with mid-term information on quality of care for the sick child. Specifically, the IHFA set out to:

- Describe current health worker practices with regard to assessment, classification, and treatment of children with diarrhea, fever, and malaria, and acute lower respiratory tract infections at outpatient clinics
- Describe adequacy of health workers' communication to caretakers about home treatment for sick children
- Describe how well caretakers are able to provide home treatment for their sick children
- Describe the quality of training and supervision of health workers
- Identify principal barriers to case management practices, including level of gaps in equipment, supplies, and record keeping in health facilities

3 METHODOLOGY

The IHFA was based on a package of 5 structured survey forms: (i) Observation checklist-sick child; (ii) Exit Interview; (iii) Health worker interview; (iv) Validation checklist; and (v) Equipment and supplies checklist. The tools used were the same ones used during the baseline IHFA.

A. Sampling design

The sixteen health facilities in the project area the project identified and supports provided the sample frame. Stratified sampling was used to randomly sample health facilities for the assessment. The health facilities in the project area were stratified into hospitals (2), health centres (4), and dispensaries (10). Half of health facilities (Table 1.3.1) in each stratum were randomly selected.

Table 1.3.1: Health facilities selected for IHFA

ID	Facility	Type
1.	Nambuku Dispensary	Dispensary
2.	Nangina Dispensary	Dispensary
3.	Buduta Dispensary	Dispensary
4.	Bujumba Dispensary	Dispensary
5.	Burinda Dispensary	Dispensary
6.	Bumutiru Dispensary	Dispensary
7.	Sio Port Health Centre	Health Centre
8.	Bumala 'B' Health Centre	Health Centre

9.	Khunyangu sub-district hospital	Hospital

The sample size for the observation checklist was set at one health worker to be observed managing a minimum of ten children in each selected health facility. The health worker was then observed managing additional children with fever/malaria to ensure that at least 10 of the children had fever/malaria. For example, if the health worker was observed managing 10 sick children in facility X, and the observer realized that only 5 of them had fever or malaria, the health worker was observed managing 5 more children with fever or malaria. Because the child for whom an observation checklist was completed was the same for whom an exit interview was administered to the care taker, and a validation checklist later applied, the sample size for exit interview and validations was the same as that of the observations. In each selected health facility, one equipment and supplies checklist was completed.

B. Recruitment and Training of Team Leaders and Data Collectors

Four surveyors and two team leaders were selected from MOH Busia and Samia. Those who were selected had previously been trained as IMCI facilitators, and were familiar with the IMCI follow-up tool used in Kenya. The group was divided into two teams, each having 2 surveyors and 1 team leader.

The surveyors and team leaders participated in a 1 day re-orientation workshop. Objectives for the workshop were: to review the survey forms used during the baseline to reflect current IMCI approach in Kenya; to plan and carry out all survey tasks; to identify solutions to potential problems in conducting the survey; and to reach agreement and consistency with other surveyors (inter- surveyor reliability) in following survey procedures and completing the survey forms.

C. Data Collection

Each team visited one health facility per day over a period of five days. Health facility staff were not informed in advance about the intended survey. Every evening, the teams held a debriefing meeting.

Arrival at Health Facility

Survey teams arrived at the health facilities before the morning consultation session began. The team leader introduced the survey team to the health worker in charge and explained the purpose of the visit, clarifying that the health workers were not expected to change their routine practice. The following tasks were completed in preparation for the clinic session:

1. ***Identification of the health worker who was scheduled to see sick children on the day of the visit.*** If more than one health worker was responsible for seeing sick children on that day, the health worker who conducts sick child clinics most often was selected. Observations of only one health worker were conducted at each facility.

2. ***Selection of a suitable place where caretakers were to be interviewed after the sick child consultation.*** Two chairs were required. This interview was conducted away from other caretakers so that they could not hear questions or responses in advance.
3. ***Selection of a suitable place where children could be examined by the exit examiner (Validator).*** Two chairs, a table, and an appropriate selection of drugs were set up.
4. ***Decision on which health worker was to assist the surveyor in assessing the equipment, materials, and supplies of the clinic and when this was to be done.*** Most sections of the facility equipment and supplies checklist were completed by the team leader with the assistance of the other surveyors and health facility in charge after enough sick children have been enrolled.

Selection of Children

All sick children above 2 months and under 5 years of age presenting to the health facility for the initial visit of current illness during the day of the surveyor team's visit to a health facility were included in the sample. Sick children who were making a follow-up visit were excluded.

In each facility, a minimum of ten children were observed, and over sampling done as previously described in the sub-section on sampling design. To be able to recall the number of children with fever or malaria seen (and therefore determine how many children with fever/malaria to over sample), the observer maintained a tally sheet tracking the number of children with fever or malaria observed.

Completion of Survey Questionnaires

Roles of team members: Each member of the survey team consistently administered the same tool at each health facility to improve the reliability of the results. In each team, the person designated as the team leader conducted the observation of the health worker, interviewed the health worker at the end of the consultation session, and later worked with other team members and facility in charge to complete the equipment and supplies checklist. The second team member conducted exit interviews with caretakers of sick children, and the third member completed the validation checklist.

General instructions to be adhered to: The following are some of the issues considered during administration of the questionnaire: follow specific instructions for each tool; write legibly; make sure that check marks do not overlap more than one answer; follow the instructions given for each question; if the caretaker or health worker gives a response other than those suggested, check the space "*other*" and write in the response that is given; adhere to skip rules; courtesy- be polite and respectful to health staff and clients, thank respondents for their cooperation, and answer any questions that they may have.

Check and Review of Questionnaires: Surveyors checked and completed each questionnaire after it had been administered. This was particularly important after each observation and exit interview. Immediate review of questionnaires allowed surveyors to ask questions from the health worker or caretaker in order to complete skipped or missed questions. In addition to the self-reviews of each questionnaire, team leaders reviewed questionnaires for completeness at the end of the clinic session.

Feedback to Facility Staff

Surveyors gave immediate feedback to health workers on the day of the survey visit. Feedback focused on improving the quality of case-management practices. During feedback, positive findings were emphasized. Survey teams provided feedback in the following areas: strengths and problems in case management; quality of home-care advice and communication between health workers and caretakers; gaps in knowledge identified in the health worker interview; inappropriate use of medications; problems in record keeping; ways to improve clinic organization; and major barriers to effective practice

Management of Completed Tools

Completed survey tools were returned to AMREF field office in Busia for error checking (completeness and consistency) and data entry each day. Coding of tools was conducted by the project monitoring and evaluation officer in collaboration with data entry clerk.

4 FINDINGS

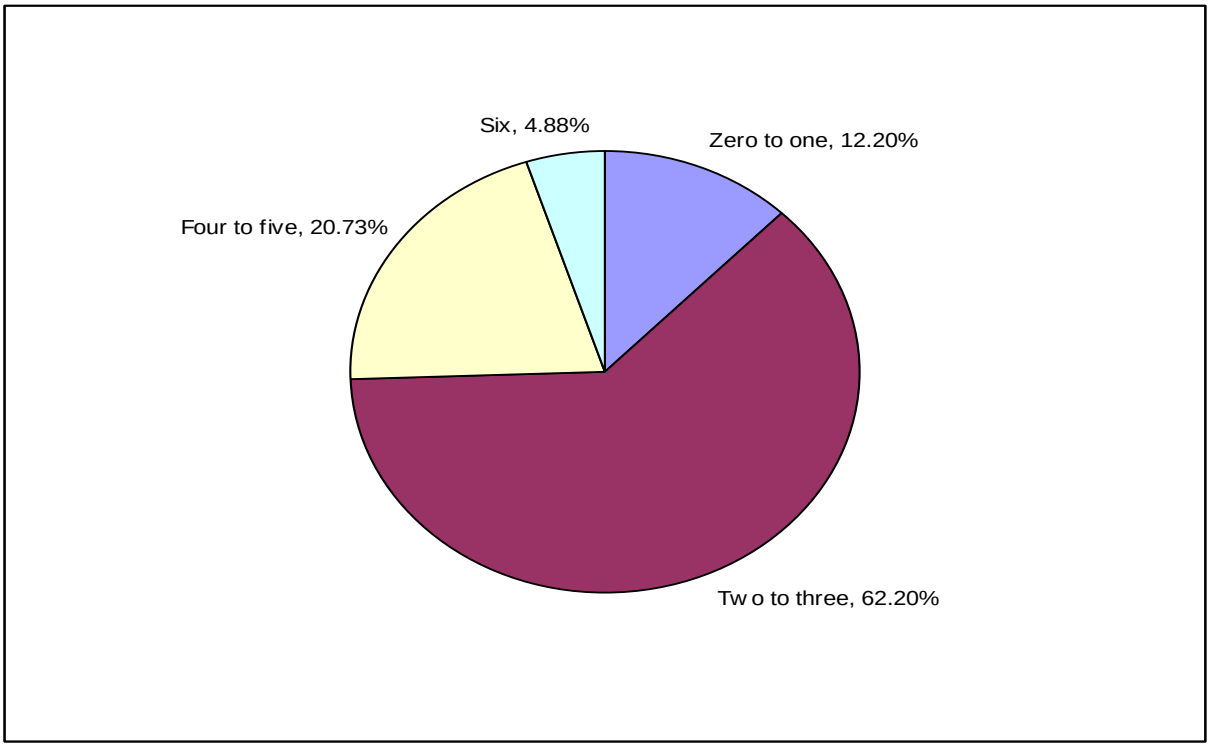
A. Assessment of Sick Children

Assessment for danger Signs: only a fifth (17% or 14/82) of the children were examined for danger signs. The health workers did not inquire or examine for danger signs from care takers of sick children for the remaining (83% or 68 children).

Health workers inquired/examined for inability to drink or breastfeed among 23%, vomiting everything among 22%, history of convulsions among 24%, lethargy or unconsciousness among 27%, and whether convulsing during the consultation among 5%.

Assessment for fever: Ninety percent of children had their temperature checked, either by touch or with a thermometer. Health workers are expected to perform 6 fever assessment tasks for children in outpatient clinics. Only 5% of children had all fever assessment tasks completed (Figure 1.4.1). Among three quarters of the children (76%), health workers inquired for presence of fever, but only 1% of caretakers asked if the child had measles in the previous 3 months; only 15% of the sick children were examined for stiff neck; and 22% were examined for generalized rash.

Figure 1.4.1: Proportions of sick children among whom various numbers of fever assessment tasks were completed



Assessment for cough and difficult in breathing: the average number of cough assessment tasks completed for the sick children observed was 2 (total cough assessment tasks=6), with about a third (28%) having none or only one assessment (table 1.4.2). None of the children had the six cough assessment tasks completed as per the IMCI protocol. The health workers did inquire for cough or difficult breathing in almost all the children (93%),; asked for how long the cough had existed (70%); raised the cloth 40%; counted breaths per minute (16%); looked for chest withdrawing (16%) and looked and listened for stridor or wheezing (78%).

Table 1.4.2: Cough assessment tasks completed

Number of Cough Assessment tasks completed	Frequency	Percent
0	11	13.4
1	12	14.6
2	29	35.4
3	19	23.2
4	4	4.9
5	7	8.5
Total	82	100.0

Assessment for Diarrhoea: Only 4% of children had all diarrhoea assessment tasks completed (total diarrhoea assessments=7), with almost half (44%) having no assessment (table 1.4.3). the average diarrhea assessment tasks completed was one. Health workers

inquired for diarrhoea in slightly more than half (55%) of the children; inquired for how long (27%); inquired for presence of blood in stool among 20% of children; and only 2% were offered fluids to determine thirst; were looked for sunken eyes (11%); skin on abdomen pinched (7%).

Table 1.4.3: Diarrhoea assessment tasks completed

Number of diarrhoea assessment tasks completed	Frequency	Percent
0	36	43.9
1	17	20.7
2	11	13.4
3	8	9.8
4	6	7.3
5	1	1.2
6	3	3.7
Total	82	100.0

Assessment for Ear Problems: Health workers hardly ever asked for or examined for ear problems. The only inquiry done for ear problems was asking about ear problems, of which only a quarter (24%) of the children were assessed.

Assessment for Malnutrition and Anemia: Nutritional status was correctly assessed in only 11% of children. Health workers looked for wasting among about a fifth (11%) of the children, and only a third (30%) of children were checked for palmar pallor and only 10% were checked for edema of both feet. The weight was compared with the road to health chart among 29% of the children.

Immunization and Screening: Health workers asked for the immunization card among 73% of children in outpatient clinics.

Summary on assessment: only 17% of the children had all the main symptoms assessed that is: asked for cough or difficult breathing; diarrhea; presence of fever and; ear problems.

Only 4 (5%) children from two health facilities; a dispensary (3) and a health centre (1) were assessed correctly for fever (the six fever assessment tasks were completed) in line with the IMCI protocol. Only two (25%) of the health workers assessed any sick child correctly, and those workers did so in only four of the 19 cases they saw (21%).

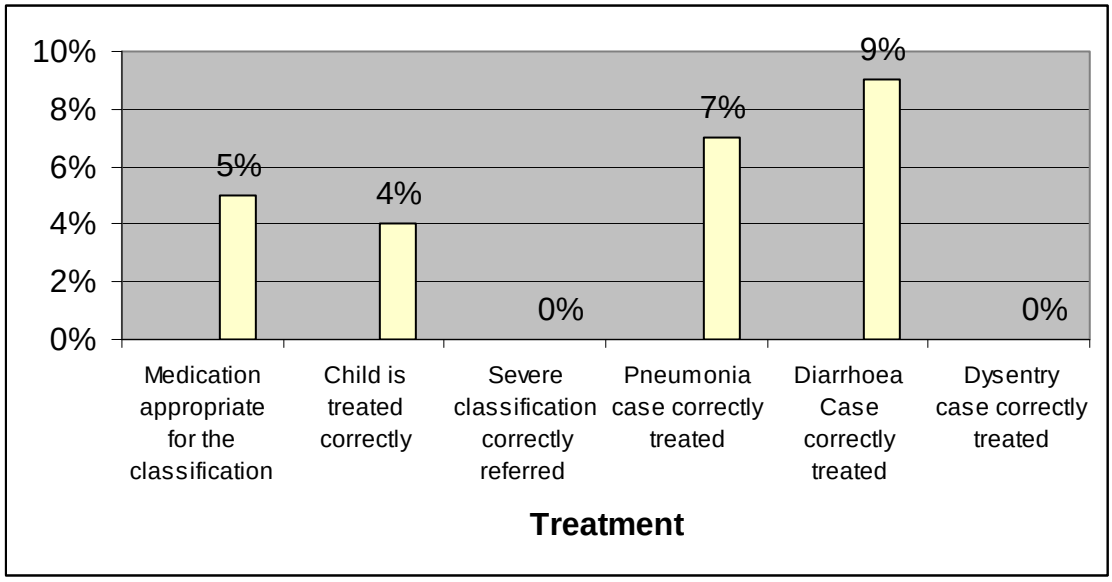
B. Classification of Sick Children

Only 21% percent of children were correctly classified (health worker classification agrees with validator), and only 1.3% (or 1/14) children who were severely ill were correctly classified.

C. Treatment of Sick Children

Medication given by health workers is appropriate for the classification in only 5% of the children and only 4% of the children being treated correctly (i.e. treatment appropriate for the condition as determined by the validator) (Figure 1.4.4)

Figure 1.4.4: Proportions of children who received appropriate/correct treatment



Of the 59 children classified as having malaria, only 28 (47%) were correctly treated with anti-malarial tablets/syrup and paracetamol.

D. Assessment, Classification and treatment of Sick Children

Out of the four sick children who were correctly assessed for fever (the six fever assessment tasks completed), only two of them had correct classification for malaria (the health workers classification agrees with validator) though none of them was correctly treated (anti-malarial tablets/syrup and paracetamol treatment), this implies that no health worker correctly assessed, classified and treated malaria as per the IMCI protocol.

E. Interpersonal Communication for Oral Medication

Most (93%) caretakers of children received explanations from health workers on how to administer medications. However, performance in other communication tasks was poor (Table 1.4.5)

Table 1.4.5: Proportions of caretakers of sick children who received various communications from health workers

Communication task	Proportion of caretakers
The health worker explained how to administer medications/ORS	98%
The health worker demonstrated how to administer medication/ORS	24%

The health worker allowed the caregiver to practice doing the task	18%
The health worker asked open-ended questions to verify the comprehension	18%
The health worker explained when to return for follow-up	67%
The health worker explained the need to give the more fluids at home	37%
The health worker explained the need to continue feeding or breast-feeding	42%
The health worker told the caretaker to bring the child back immediately if the develop any of the following: not able to drink or drinking poorly; not able to breastfeed /eat; when the child becomes more sick; develops fast or difficult in breathing; develops blood in the stool; develops repeated vomiting.	70%

Almost a third (30%) of the health workers mentioned to the caretaker at least 3 signs that should prompt them to bring the child back to the health facility. Additionally, only 38% of caretakers received advice on nutrition.

E. Facility Supports and Challenges

Staffing: Each of the MOH and Mission Health facilities in the project area has on average 5 health workers with child case management responsibilities. Majority (77%) of staff with child case management responsibilities are nurses and the rest are clinical officers.

General facility support: Most dispensaries did not have adequate seating space for clients. Almost all IEC materials displayed in the health facilities were written in languages other than the local language. The ORT corners were in half of the dispensaries, all of the health centres and the only hospital had none. Slightly more than half of the facilities (56%) have onsite portable water. The two main sources of drinking water are boreholes and rain water which account to 33% each, tap water and well account for 22% and 11% respectively.

Table 1.4.6: Availability of space and worker accommodation

Availability of……	**Number of facilities**	**Percent**
Availability of adequate seating for patients on a busy day	3	33%
Availability of covered waiting area	9	100%
Availability of functional toilet or latrine	9	100%
Availability of a functional waste disposal area/incinerator	8	90%
Display of health information posters	9	100%
Total	9	100%

Equipment: All the facilities had functional child weighing scales, only one facility did not have an ambu bag and mask for resuscitation. One facility did not have functional suction machines. Even when suction machines were available and in working order, they were sometimes not used- in this survey, 7 health facilities had suction machines in working order, but it is only in 3 that the equipment was in use. Equipment for ear

examination (otoscope/torch) lacked in most dispensaries and health centres, 33% of the facilities had the equipment. Basic equipment needed for IMCI such as cup and spoon also lacked in a third of health centres and dispensaries. Only 2 out of the 9 health facilities surveyed had megaphones for social mobilization. All the 9 facilities surveyed, had were vaccine refrigerators in working order, temperature monitoring was effectively carried out using temperature charts, and icepacks for transportation of vaccines were available.

Drugs: few of the surveyed facilities did not have most of the drugs and vaccines needed for IMCI.

Record keeping: About half (45%) of the health facilities have a shortage of child health and maternal health cards. The essential monthly reporting forms lacked in the surveyed hospital, were available in both the health centre and only available in half of the dispensaries. The patient and the under five registers are kept in all the health facilities. the patient registers are up-to-date in all the health facilities while the under five registers are not up-to-date for the hospital and one of the dispensaries.

Patient attendance: Close to 5200 children under 5 years were managed in the surveyed health facilities during the month prior to the survey. This translates to 19 children in each facility every day.

Causes of delay in delivery of supplies: The commonest cause of delay in delivery of supplies to health facilities is the rupture of stock at central stores (cited by three out of nine health workers).

Supervision: Eight out of nine health workers interviewed indicated they have a regular supervisor and they have a schedule for supervisory visits. All the nine health workers had at least four visits from an external supervisor in the year prior to the survey. More than half (56%) of the health workers reported having received feedback from supervisors most of the time, either in the form of written reports (38%) or oral reports (50%).

Challenges encountered at work: Seven out of nine health workers cited staff shortage as a barrier to effective service provision, and six cited shortage of supplies. Inadequate transport, poor communication and poor working environment were cited by two health workers each, while lack of time and supervision were cited by one health worker each.

Child health Trainings received: Six out of nine health workers had received at least one child health related training in the year prior to the survey.

Knowledge on vaccination and vitamin A: All the nine health workers knew the correct EPI vaccination schedule for children and that vitamin A is administered to children once every six months. However, only six out of nine health workers knew that all women of reproductive age are eligible for tetanus toxoid injection (unless they have completed the course).

Knowledge on signs for referral: Seven out of nine health workers knew at least 3 signs that would prompt them to refer a child to the next level of health care.

F. Caretakers' knowledge on Care of the Sick Child

Less than half (38%) of caretakers whose children were prescribed medications did not know how to administer those medicine correctly by the time they were exiting from the health facility. Additionally, 41% of caretakers did not know at least 2 aspects of home care for the sick child. Aspects of home care include: continue feeding or breastfeeding baby; give same quantity/ more fluids to the child; complete the course of medications; bring the child back to health facility if he/she does not get better. Regarding the last aspect, 33% of caretakers knew at least two signs that should prompt then to return the child to health facility immediately.

5 CONCLUSION

The IMCI case management among health workers in the project area did not change significantly at baseline (0%) and midterm (0%). None of the cases seen by health worker were correctly assessed, classified and treated as per the IMCI protocol. The project trained 24 and 8 health workers as IMCI providers and facilitators respectively in 2007 and conducted IMCI follow-up training and follow-up, the project facilitated printing of IMCI protocols for all the 16 health facilities. There are plans to conduct quarterly IMCI supervision. Despite all the efforts malaria case management among children of 2 months and 5 years has not improved.

Complying with malaria case management using the IMCI protocol is difficult due to staff shortage, irregular supply of drugs and other relevant supplies. The project needs to shift strategy and concentrating on implementing the C-IMCI to realize significant changes in management of malaria.

Report on the Midterm Evaluation of the Busia Child Survival Project (BCSP): Annex 8.2

Busia and Samia Districts, Kenya

October 2005 – September 2010

USAID/HIDN/CSHGP
Cooperative Agreement Number:
GHS-A-00-05-00009-00

Date of Submission: December 2008

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AMREF	African Medical & Research Foundation
APHIA II	AIDS, Population and Health Integrated Assistance
BCC	Behaviour Change Communication
BCSP	Busia Child Survival Project
CHEW	Community Health Extension Worker
CHMIS	Community Health Management Information System
CHW	Community Health Worker
CIMCI	Community Integrated Management of Childhood Illnesses
COE	Centre of Excellence
C-to-C	Child to Child
C-to-P	Child to Parent
DHMT	District Health Management Team
EOC	Essential Obstetric Care
FANC	Focused Antenatal Care
GLUK	Great Lakes University of Kisumu
HIV	Human Immunodeficiency Virus
IMCI	Integrated Management of Childhood Illnesses
LLIN	Long Lasting Insecticidal Nets
LQAS	Lot Quality Assurance Sampling
MNC	Maternal and Newborn Care
MOH	Ministry of Health
OR	Operations Research
PDQ	Partnership Defined Quality
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

ANNEX 8.2 SPECIAL REPORT ON YEAR 3 ACTIVITIES

Special Year Three Report

A. MAIN ACCOMPLISHMENTS

BACKGROUND

The Busia Child Survival Project (BCSP) is located in Busia District in Western Province of Kenya. Busia District has an estimated population of 450,000. Most of the people live on small-scale agriculture, business, and fishing. Approximately 300,000 people live in absolute poverty (<1US$ per day). Poor health status due to malaria, HIV/AIDS, maternal and childhood illness are the main contributing factors to the high poverty level in the district. 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 on October 2005 and expected to end in September 2010. The project beneficiaries include 49,858 women of reproductive age (WRA) and 31,664 children under-five (CU5) in Funyula and Butula Divisions of the district. The project integrates maternal and newborn care (MNC), malaria prevention and treatment, and prevention of mother-to-child transmission (PMTCT) of HIV. The project is implemented by the African Medical and Research Foundation (AMREF) and Busia District Health Management Team (DHMT), the local department of the Kenyan Ministry of Health (MOH).

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

In order to achieve its goal, the project uses three mutually-reinforcing strategic approaches:

(i) Capacity strengthening of the DHMT, 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.

MAIN ACCOMPLISHMENTS

This report covers the period between October 2007 and September 2008. The main activities accomplished, as per the three aforementioned approaches, during the period include: training of facility based staff and community health workers (CHWs), including development of the newborn care training curriculum and CHMIS training manual; facilitative supervision, development and testing the accreditation criteria tools for the centres of excellence (COE), and partnership defined quality (PDQ) implementation (as part of QI); communication for behaviour change using a cascade approach and procurement and distribution of long lasting insecticidal nets (LLINs); formation of support groups; procurement and distribution of motivational materials for CHWs; and designed and conducted operational research studies.

(I) CAPACITY BUILDING

Training of Facility Based Staff

IMCI training and follow-up: the IMCI training was conducted from 3rd to 14th December 2007. During the training 24 health workers were trained on IMCI case management. Prior to the training 8 facility based health workers were trained for five days as IMCI facilitators; which included orientation on the new changes for IMCI training materials. Three months later in March, the facilitators were involved in an IMCI follow-up training and made a follow-up of the 24 health workers to asses their skills in IMCI case management. The Follow-up did not take place within the required 6 weeks from the time of training due to the post-election violence.

Trainings of Community Health Workers

PHASE I: Primary Health Care and Community Strategy training: Cascade training of CHWs in PHASE I was finalized in the first quarter of the year and a total of 772 CHWs were trained in primary health care and community strategy. After the training a one day review meeting with CHEWs was held on 8th November 2008 to share experiences and key lessons learned during PHASE I training. On 13th November 2007 the CHEWs and the project staff oriented 5 chiefs, 36 assistant chiefs and 1 divisional officer on the implementation of the community strategy, and their roles.

Leadership training: Orientation of 54 and 47 CHW leaders on leadership in Funyula and Butula divisions respectively was separately done for two days during the month of November.

Community Maternal and Newborn care training curriculum: AMREF Busia Child survival project partially supported (transport, participation, and facilitation) the Maternal and Newborn care TWG workshop in Lukenya and Machakos during the finalization of the training curriculum, the facilitators guide and the CHW training manual; this was jointly done with Ministry of Health (Division of Adolescent and Child Health), UNICEF and WHO. The training curriculum and materials were thereafter released for technical review by key stakeholders and hence adopted by the MOH for piloting by BCSP and Doctors of the World (DOW).

PHASE II: Community maternal and Newborn Care Training: the PHASE II training was at two levels: Training of CHEWs as TOTs and training of CHWs. A facilitator from the Division of Adolescent and Child Health and the Provincial Clinical Officer trained 28 CHEWs for 3 days as CBMNC TOTs. Based on their respective work plans developed during the TOT training, the CHEWs trained 314 CHWs from Lots 3, 4 and 7 on CBMNC.

(II) QUALITY IMPROVEMENT

Facilitative Supervision

The quarterly facilitative supervisions for the 8 health facilities in Butula division were regularly observed by the Busia DHMT. No facilitative supervision was carried out in the 8 health facilities in Funyula division during the year as the Samia DHMT had just been newly constituted and had not received annual financial allocation from the MOH headquarters to necessitate them make quarterly supervisions.

Centres of Excellence

Accreditation Criteria: The BCSP staff, the DHMTs Samia and Busia held two successive meetings to develop accreditation criteria for the Centres of Excellence (COE). The tool was then pre-tested in Matayos health centre in Matoyos division Busia district by DHMT members from Samia and Busia districts, a feedback session was held to incorporate field observations

Renovation works: The Clerks of Works and the quantity surveyor from AMREF KCO assessed renovations at the 4 health Centres of Excellence and made recommendation on the completion of the remaining renovation works.

Partnership-Defined Quality

PDQ sessions were conducted in Butula Health Clinic, Namboboto Health centre and Rumbiye Dispensary; Butula mission health centre conducted a preparation for bridging the gap workshop and a two day workshop for bridging the gap with participation of 23 people from community and health Facility; Namboboto Dispensary conducted a two day session with 12 participants in attendance representing community and health facility workers; Rumbiye - Conducted exploring the gap session with community members.

The BCCO and the PDQ facilitators and note takers conducted a PDQ review meeting and established that the 17 health facilities were at different stages of PDQ implementation with most of them being at level three (bridging the gap).

As a result of financial deficit for PDQ implementation, BCSP staff and Busia DHMT decided to complete PDQ implementation in the four PDQ Operation Research experimental sites: Bumala B health centre, Bumutiru dispensary, Buduta dispensary and Busembe dispensary. Bumala B health centre completed all the five stages of PDQ implementation and has a Quality Improvement Team (QIT) in place which identifies and prioritizes quality gaps/problems, identifies the causes and solutions to the quality gaps/problems, develops action plans and monitors implementation of the action plans.

(III) BEHAVIOUR CHANGE COMMUNICATION

Motivational materials for CHWs: the project procured 1000 branded T-Shirts, bags and badges for CHWs with MNC, malaria and HIV messages

The project procured and distributed 70 bicycles to the CHW leaders

Positive Deviants: The project designed the positive deviance (PD) training manual and submitted for peer review.

Communication channels: The BCCO and the CHEWs oriented 110 CHW leaders and TOTs for two days on various communication channels i.e. the positive deviance, 5*5*5, child-to-child, child-to-parent and parent-to-parent)

A one day PD review meeting with CHW leaders and TOT was held to review the PD implementation.

Mother-to-mother clubs: the project initiated on pilot basis mother- to - mother clubs (1 group being piloted in Butula division). Based on lessons learned from the pilot, the project formed 32 mother-to-mother clubs whereby each club comprising of 16 ANC doers (Attended ANC at least 4 times) recruited 16 non-doers. The clubs meet monthly under the supervision of the CHEWs and the BCC officer

Project slogan competition: Finalized preparation of prizes for schools that won the 'project slogan competition'. The respective prizes were bought awaiting a special day/ceremony to present to the wining schools.

Support of field days: The project supported Malezi Bora week through cash donation of ksh 30,600 to the DHMT Busia district

Message dissemination: The second set of integrated messages (MNC, Malaria and HIV) were disseminated using the 5*5*5 method through 89 teachers in the project area

(IV) DISTRIBUTION OF SUBSIDIZED LONG-LASTING INSECTICIDAL NETS

The project received 4000 LLINs and Retreatment kits from PSI and through mobile clinics; it distributed 2700 LLINs to pregnant women and children under 5 yeas. The distribution targeted lot areas with less ITN coverage as revealed by annual LQAS survey conducted at the end of year two. The two targeted lot areas were lot area 2, 3 and 5

(V) COMMUNITY HEALTH MANAGEMENT INFORMATION SYSTEM

The project M&E officer in conjunction with the two District Health Records and Information Officers (DHRIO) from Busia and Samia districts developed CHMIS trainers manual for training Community Health Workers.

The CHMIS training of CHEWs and in-charges from 16 health facilities in the project area was conducted for three days (5th June 08 – 7th June 08) and a total of 25 participants were trained as TOTs of CHMIS. The training was facilitated by the two District Medical Records and Information Officers and the BCSP M& E officer

The project completed the training of CHWs in CHMIS during the month and a total of 763 CHWs were trained in CHMIS during the two days training facilitated by CHEWs. The CHWs collect and analyze data from households on quarterly basis using the village registers

(VI) HEALTH SYSTEMS RESEARCH AND ASSESSMENTS

Health Systems Research

Two Operation Research studies were carried out jointly with Great Lakes University of Kisumu (GLUK) students namely: 1) 'Community Based Emergency Transportation Referral Methods for Expectant Mothers with Complications'- By Dominic Mogere; and 2) "factors determining motivation and retention of CHWs" by Collins Owek

Assessments

Essential Obstetric Care follow-up: AMREF and DHMT developed a monitoring tool and engaged 2 EOC facilitators from Busia district hospital to conduct EOC follow-up using the tool to assess 13 health workers in appropriate use of knowledge and skills acquired during the EOC training. The findings revealed that most health facilities do not provide the health workers with the necessary medical supplies and equipment to enable them effectively provide *emergency obstetric care*. The EOC quality gaps identified included: shortage and incompleteness of emergency and resuscitating trays, incorrect filling of partographs, lack of postpartum register and incomplete or poorly filled delivery register and non adherence to infection prevention guidelines

(VII) Partnerships

The project held a partnership exploration meeting with APHIA II Western as agreed during the CS grantees and partners meeting

Memorandum of Understanding between AMREF and the Great Lakes University of Kisumu (GLUK) was signed by the two parties. The purpose of the MOU is t*o collaborate on development, testing, and dissemination of innovative and effective models of community health development through action research, in Western Kenya*.

B. CHALLENGES AND CONSTRAINTS

Factors that have challenged or impeded project progress over the past year are described below along with the project's responses.

Post election insecurity: as a consequence of the post-election violence, most staff could not travel to Busia and the project area could not be accessed as a result of barricaded roads. As a consequence, BCSP did not implement activities planned for January to April 2008. The effects of the post-election violence included scarcity of fuel and increased fuel prices. ***(Read appendix II: Report on Security Situation during and after post election violence)***

Coordination of activities with two DHMTs: The sub-division of the district resulted to Funyula division to be an independent district namely Samia. This had two fold effects; firstly, the project had to work with a new DHMT with which there was no contractual agreement and was unfamiliar with the project design and operations. It had to be oriented on the project processes a new. It also operated without any finances and therefore most of its functions could not take off during the year. Secondly, the project always holds two parallel meetings (planning and review, Project Implementation Committee) with each of the DHMTs or ensures adequate representation from each of the DHMT in all of its activities; this has financial and time implications on the project.

Outside sourcing: the remaining renovation works in the COE have not been completed yet. The private contractor has not honored the contractual agreement to complete the works.

Competing tasks by the DHMT members: The DHMT members were preoccupied with the Annual Operation Plan 4 and had little time to schedule for review and planning meeting with the BCSP during the second and third quarters of the year

Inadequate funding for implementation of PHASE II: The project could not complete training all the 910 CHWs on Community Based Maternal and Newborn Care due to under-funding of the activity. This is due to the new curriculum developed by AMREF in collaboration with MOH, WHO and UNICEF; the curriculum takes seven days with one month practical as opposed to the original plan of 3 days. The project has so far trained 314 CHWs in the first three days and has to train them on the remaining 4 days

Appendix I: TIMELINE OF ACTIVITIES FOR COMING YEAR (FY 4)

Activity	TIMELINE- OCTOBER 2008 – SEPTEMPER 2009												Budget in US$			Action
	Q1			Q2			Q3			Q4			USAID	NED	TOTAL	
	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	June 09	July 09	Aug 09	Sep 09				
BCC																
Procure commodities (HIV/AIDS testing kits…) and equipment													5400		5400	PM
Procure and distribute targeted subsidized ITNs/LLINs													10,000		10,000	BCCO
BCC CAMPAIGNS -Child-to-child activities in schools; monitor activities with teachers & students -Conduct/participate in/support health days (child health days, malaria field days, Africa Malaria day, Day of the African Child, World AIDS day)													4481		4481	BCCO
													1500		1500	BCCO
Implement communication of health messages via radio													599		599	BCCO
CORPs to implement 5X5X5 approach in phases on key household behaviors														1364	1364	BCCO
IEC and HLM production														4320	4320	BCCO
Incentives for CORPs													2160	7200	9360	BCCO
CAPACITY BUILDING																
PHASE II Training of CHEWs, CHW TOTs, CHWs and TBAs in Community Maternal and Newborn Care														10000	10000	TO
PHASE III Training of CHEWs, CHW TOTs, CHWs and TBAs in C-IMCI -C-IMCI TOTs													2400		8775	TO

Activity	TIMELINE- OCTOBER 2008 – SEPTEMPER 2009												Budget in US$			Action
	Q1			Q2			Q3			Q4			USAID	NED	TOTAL	
	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	June 09	July 09	Aug 09	Sep 09				
-C-IMCI follow-up													300			
-rational drug use													6075			
PMTCT training for Health workers													2368	2477	4845	
EOC training -domiciliary midwives -filling the gaps health workers														3846 6118	9964	
FANC training of health workers														5059	5059	
Project staff retreat														1449	1449	
QUALITY ASSURANCE																
Facilitative supervisory visits														3366	3366	TO
Annual HF quality assessment													1600		1600	
OPERATIONS RESEARCH																
Implement Operations Research -MAMAN														12597	12597	PM/MEO
MONITORING AND EVALUATION																
CHMIS -registers													4967		6000	
-PDQ													5033			
HIS data collection													8515	10824	19339	
Monitoring and evaluation														4390	4390	MEO

Activity	TIMELINE- OCTOBER 2008 – SEPTEMPER 2009												Budget in US$			Action
	Q1			Q2			Q3			Q4						
	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	June 09	July 09	Aug 09	Sep 09	USAID	NED	TOTAL	
Midterm evaluation													10000			MEO
DIP refinement based on MTE													1920			PM
Prepare annual progress reports													-			PM
Hold annual project review with partners													1920			PM
Submit Annual Reports to CSHGP													-			PM
KPC surveys (LQAS), health facility assessment & Qualitative Research													2000	2603	4603	MEO
Project Implementation Committee (PIC) meetings													1280		1280	PM
Technical Advisory Group (TAG) meetings													400	3200	3600	PM
Total budget US$																

Child Survival and Health Grants Program Project Summary

Dec-17-2008

AMREF
(Kenya)

General Project Information:

Cooperative Agreement Number: **GHS-A-00-05-00009**
Project Grant Cycle: **21**
Project Dates: **(9/30/2005 - 9/30/2010)**
Project Type: **Standard**

AMREF Headquarters Technical Backstop: **Cudjoe Bennett**
Field Program Manager: **David Wamalwa**
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Funding Information:

USAID Funding:(US $): $1,305,312 **PVO match:(US $)** $834,000

Project Information:

Description:

Program Goal:
A sustained reduction in child and maternal mortality in Funyula division of Samia District and Butula division of Busia District, Kenya.

Interventions:

-Maternal and Newborn Care
-Malaria Control
-HIV/AIDS

Strategies:

(i) Building capacity of the DHMTs, health facility and community level health workers aimed at improving access to quality health services;

(ii) Quality assurance approaches to improve quality of care at health facilities through Partnership Defined Quality (PDQ) and facilitative supervision; by altering TBA roles in the communities and strengthening partnerships between CORPs and health facility workers; and via procurement of essential supplies; and

(iii) Behaviour change and communication strategies at the household and community level directly addressing cultural and societal barriers to disease prevention.

Location:

Butula division of Busia District and Funyula Divisions of Samia District in the Western Province of Kenya

Project Partners	Partner Type	Subgrant Amount
Busia District Health Management Team	Collaborating Partner	
Samia District Health Management Team	Collaborating Partner	
PSI	Collaborating Partner	
MSF-Spain	Collaborating Partner	
AMPATH	Subgrantee	

General Strategies Planned:

Microenterprise
Social Marketing
Private Sector Involvement
Advocacy on Health Policy
Strengthen Decentralized Health System
Information System Technologies

M&E Assessment Strategies:

KPC Survey
Health Facility Assessment
Organizational Capacity Assessment with Local Partners
Organizational Capacity Assessment for your own PVO
Participatory Rapid Appraisal
Lot Quality Assurance Sampling
Community-based Monitoring Techniques
Participatory Evaluation Techniques (for mid-term or final evaluation)

Behavior Change & Communication (BCC) Strategies:

Social Marketing
Mass Media
Interpersonal Communication
Peer Communication
Support Groups

Groups targeted for Capacity Building:

PVO	Non-Govt Partners	Other Private Sector	Govt	Community
US HQ (CS unit) Field Office HQ CS Project Team	(None Selected)	Pharmacists Traditional Healers	Dist. Health System Health Facility Staff	Health CBOs CHWs

Interventions/Program Components:

(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)

Malaria (40 %)

(IMCI Integration)
(CHW Training)
(HF Training)
- Training in Malaria CM
- Adequate Supply of Malarial Drug
- Access to providers and drugs
- Antenatal Prevention Treatment
- ITN (Bednets)
- Care Seeking, Recog , Compliance
- IPT
- Community Treatment of Malaria

Maternal & Newborn Care (40 %)

(IMCI Integration)
(CHW Training)
(HF Training)
- Emerg Obstet Care
- Neonatal Tetanus
- Recog of Danger signs
- Newborn Care
- Post partum Care
- Integr with Iron & Folate
- Normal Delivery Care
- Birth Plans
- STI Treat with Antenat Visit
- PMTCT of HIV
- Emergency Transport

(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)

HIV/AIDS (20 %)

(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)
(IMCI Integration)
(CHW Training)
(HF Training)

Target Beneficiaries:

Infants < 12 months:	**8,987**
Children 12-23 months:	**6,191**
Children 0-23 months:	**15,178**
Children 24-59 months:	**31,664**
Children 0-59 Months	**46,842**
Women 15-49 years:	**49,858**
Population of Target Area:	**202,348**

Rapid Catch Indicators:

	Numerator	Denominator	Percentage	Confidence Interval
Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 0-23 months whose births were attended by skilled health personnel	**0**	**0**	**0.0%**	**0.0**
Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of their youngest child	**69**	**133**	**51.9%**	**8.5**
Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours	**29**	**113**	**25.7%**	**8.1**
Percentage of infants age 6-9 months receiving breastmilk and complementary foods	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 12-23 months who received a measles vaccine	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 0-23 months who slept under an insecticide-treated bednet the previous night (in malaria-risk areas only)	**116**	**133**	**87.2%**	**5.7**
Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment	**118**	**133**	**88.7%**	**5.4**
Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks	**13**	**133**	**9.8%**	**5.0**
Percentage of mothers of children age 0-23 months who cite at least two known ways of reducing the risk of HIV infection	**93**	**133**	**69.9%**	**7.8**

Percentage of mothers of children age 0-23 months who wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated	**0**	**0**	**0.0%**	**0.0**

Comments for Rapid Catch Indicators