



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

Busia and Samia Districts, Kenya

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Cudjoe Bennett, Technical Advisor/Writer
African Medical and Research Foundation
4 West 43rd Street
New York, NY 10036
Tel: 212-768-2440
Fax: 212-768-4230
Email: Bennett@amrefusa.org

David Wamalwa, BCSP Manager
African Medical and Research Foundation
Busia District, Kenya
Tel: +254-55-22-188
Email: david_wamalwa@yahoo.com

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**REPORT ON THE MID-TERM KNOWLEDGE, PRACTICES AND
COVERAGE SURVEY**

November 2008

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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 km². 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 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 20/133); 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.

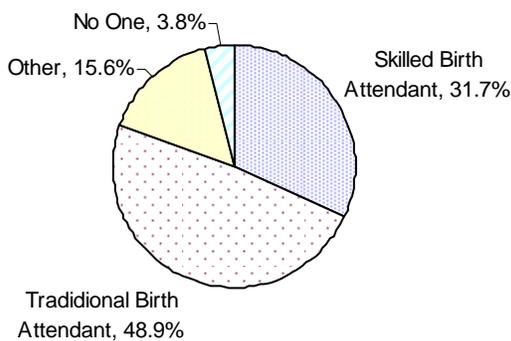
Eighty-six percent (114/133) of mothers said they had received at least one dose of tetanus toxoid during their most recent pregnancy and 52% (69/133) said they had received two or more doses.

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 42/133) 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 signs

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 or 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 kiliniki 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
	Proportion estimate	95% CI	Proportion estimate	95% CI	
Maternal and Newborn Care Indicators					
% 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					
% 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 midwives 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%