



Partnership for Maternal and Neonatal Health Plus (PMNH+)

Marakwet East and West, Kenya
Child Survival and Health Grants Program
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FIRST ANNUAL REPORT
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Submitted by:
HealthRight International

Authors:
Jennifer Snell, HQ Technical Backstop
K'Ouma Thomas Matete, Project Director
Vandana Tripathi, Principal Investigator

Table of Contents:

- 1. Introduction, Key Progress and Main Accomplishments**
 - General Management
 - Table 1: Summary of Major Project Accomplishments
- 2. Discussion of Implementation Activities and Results**
 - IR1: Improved quality, availability and acceptability of MNC services at the facility level
 - Table 2: Availability of EmOC Signal Functions in PMNH+ Facilities at Baseline
 - IR2: Expanded access to and utilization of MNC services at the community and household level
 - IR3: Increased adoption of healthy behaviors, including appropriate care seeking
 - IR4: Improved evidence, policy and enabling environment for MNH
 - Lessons Learned
 - Stakeholder Engagement
 - Table 3: In-Country Key Partnerships and Meetings
 - Collaboration with USAID Kenya
 - BCC Strategy
- 3. OR Annual Progress Report**
 - Table 4: MNC Services Package for CHWs
 - Table 5: OR Study Progress and Achievements in Y1
 - Research Products
 - Problems/Challenges
 - Changes made to the original OR plans
 - Major OR Plans for Y2
- 4. Annexes:**
 - a. Annex 1: Updated Work Plan**
 - b. Annex 2: Updated Performance Monitoring Indicator Table**
 - c. Annex 3: Program Data Form**
 - d. Annex 4: OR Learning Brief**
 - e. Annex 5: Baseline KPC Survey Report**

1. Introduction, Key Progress and Main Accomplishments

General Management:

The project's first year of implementation from October 2012 – September 2013 was crucial for recruitment, relationship building, coordination, finalization of the project work plan, design of the Operations Research (OR), and establishing monitoring and evaluation (ME) systems. As a result of these activities, the PMNH+ project was successfully launched and established in the Marakwet East and West.

As part of start up, the HealthRight team succeeded in recruiting PMNH+ team members including the Kenya Project Director, Operations Research Manager, two community coordinators, two clinical mentors and the ME Officer. In addition, the team developed and submitted the PMNH+ Strategic Work Plan (SW) and OR Protocol which was approved by USAID on March 25, 2013. The OR Protocol was submitted for in-country ethical review in May and, after some minor revisions to the data collection tools, was approved by the Ethical Review Board of Kenyatta National Hospital on August 5th.

Table 1: Summary of Major Project Accomplishments

IR 1: Improved quality, availability and acceptability of MNC services at the facility level.			
Inputs	Activities	Outputs	Outcomes
Transport for supervision Project and District staff Financial support	<ul style="list-style-type: none"> • TRAINING: health information systems • Support the DHMT to visit and supervise all 9 facilities each quarter • Provide medical supplies and equipment • Develop new facility-level data collection tools such as a Quality of Care (QoC) observation checklist and FGD guide for facility staff • Collect and review monthly health facility data • Collect project data according to ME schedule (including client satisfaction surveys, supervisory checklists results, Quality of Care Indicators) • Conduct baseline health facility assessments 	<ul style="list-style-type: none"> • 21 Clinical staffs and 2 District Health Records officers trained in data collection and use • Facilitative supervision visits conducted last quarter at all 9 target facilities in coordination with DHMT; 37 facilities visited in all • List of priority donated medical supplies and equipment compiled and prepared for shipment • Monthly collection of facility MNC data • New facility-level data collection tools approved by IRB • Baseline Health Facility assessments conducted 	N/A
IR 2: Expanded access to and utilization of MNC services at the community and household level			
Inputs	Activities	Outputs	Outcomes
Financial support M&E tools Project and District staff	<ul style="list-style-type: none"> • Collect PMNH+ specific data according to the ME plan • Develop new community-level data collection tools including CHW post training assessments, CHW and CHEW FGD guides, and CHW supervisory checklists • Support DHMT partners to conduct MNC outreach clinics • Conduct a baseline assessment 	<ul style="list-style-type: none"> • QA MNC checklist drafted for use by CHEWs during regular supervision • 20 MNC outreach clinic conducted monthly (sites selected) 	N/A
IR 3: Increased adoption of healthy behaviors, including appropriate care seeking			
Inputs	Activities	Outputs	Outcomes
Training funding (Trainer fees,	<ul style="list-style-type: none"> • Selection of 20 CHW units – 10 intervention and 10 non-intervention 	<ul style="list-style-type: none"> • 18 MNC facilitators trained from Sobon Support Group on Education 	N/A

materials, venue, transport) Training curricula M&E tools Project and District staff Sub-grant funding for CBO partners	<ul style="list-style-type: none"> • TRAINING: Provide MNC Facilitator Training to Sobon Support Group (in partnership with PSI) • Provided training on financial management to Sobon Support Group • Provide sub-grant to Sobon Support Group to implement social behavior change activities • Develop M&E tools to assess social behavior changes • Collect project data according to the ME plan • Conduct baseline assessment at community level 	<p>Through Listening technique and MNC Social behavior change communication.</p> <ul style="list-style-type: none"> • Monthly monitoring of sub-grant activities • Baseline KPC survey conducted 	
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IR 4: Improved evidence, policy and enabling environment for MNH

Inputs	Activities	Outputs	Outcomes
Funding Project and district staff National policy guidance Technical Advisory Group (TAG)	<ul style="list-style-type: none"> • Stakeholder and TAG engagement and coordination meetings (county and national), including to design intervention package • Development and ethical review of operations research (OR) protocol 	<ul style="list-style-type: none"> • Quarterly PMNH+ stakeholders' meetings held in Marakwet (first one held) • Biannual meetings with national MOH partners and TAG (first one held) 	N/A

* See complete list of coordination meetings below in Table 3.

2. Discussion of Implementation Activities and Results

IR 1: Improved quality, availability and acceptability of MNC services at the facility level.

Toward the achievement of this first objective, PMNH+ staff worked with the local DHMTs to select 9 target facilities – 8 health centers and one district hospital – to establish as models for MNC. After this selection, the first health facility assessments were conducted in all sites to measure availability, quality and acceptability of MNC services at baseline. The availability of MNC was measured using the seven and nine signal functions for BEmOC in the health centers and CEmOC in the district hospital respectively. Currently, availability of many basic EmOC services is quite low in the two districts and there aren't any facilities offering comprehensive EmOC. (See Table 2 below for the full results.)

Table 2: Availability of EmOC Signal Functions in PMNH+ Facilities at Baseline

Facility	Signal Functions								
	Parenteral Oxytocin	Parenteral Antibiotic	Anticonvulsants	Manual Removal of placental	Manua removal of retained products	Assisted vaginal delivery	Neonatal Resuscitation	Blood transfusion	CSection
Chebiemit District Hospital (CEmOC)	X	X	X	X					
Cheptongei HC	X	X						N/A	N/A
Kamogo HC	X	X	X	X				N/A	N/A
Chemworor HC	X	X					X	N/A	N/A

Kapcherop HC	X		X	X	X			N/A	N/A
Kaptalamwa HC	X	X	X					N/A	N/A
Kaparon HC	X	X	X					N/A	N/A
Kapyego HC		X	X					N/A	N/A
Chebororwa HC	X	X	X					N/A	N/A

In addition, an observation checklist for evaluating the quality of labor, delivery and immediate postnatal care (PNC) was adapted from the MCHIP QoC Labor and Delivery Observation Checklist tool.¹ Adaptation prioritized the six interventions that were prioritized in a recent review of MNC functions² that indicate QoC: monitoring of labor using partograph, infection prevention measures, active management of the third stage of labor (AMTSL), newborn thermal protection, immediate and exclusive breastfeeding, and newborn infection prevention (e.g., cord care). This QoC data will be collected starting in the next quarter, prior to the clinical trainings; these data will be an important part of the OR study.

In February 2012, the PMNH+ project supported the DHMTs from both districts to conduct facilitative supervision. The exercise lasted 2 weeks and a total of 37 facilities were visited, including all 9 of the PMNH+ targeted facilities.

HealthRight collaborated with Project C.U.R.E in Y1 to conduct an assessment to identify the priority medical supplies and equipment which are needed for the delivery of MNC services in the targeted facilities. As a result of the assessment, a list of items for donation to the districts was compiled and provided by Project C.U.R.E. to the PMNH+ team for discussion with the DHMTs. The list was finalized in August 2013. The donated items will arrive in Kenya during the first quarter of Y2 and will be distributed to the needy health facilities.

In July and August, the PMNH+ ME Officer conducted training on the collection and use of HMIS data with health information officers in all of the targeted health facilities. The training benefits the PMNH+ and the districts by improving the quality of data reported by the facilities in both districts while also encouraging health officers and the DHMTs to respond to utilization and disease trends in each facility. In total, 21 HIS officers and 2 district HIS officers were trained.

IR2: Expanded access to and utilization of MNC services at the community and household level

Toward the achievement of this second objective, the PMNH+ staff has focused efforts in Y1 on the baseline KPC survey and the development of data collection tools. See the baseline KPC report in Annex 5. In addition, the team has collaborated with the DHMTs to identify the community units where CHWs will be identified, trained and supported beginning in Y2 Q1.

The CHW role has been recently revised in Kenya and therefore, none of the existing units in Marakwet East or West have received the updated training. Also, because these revisions are recent, the curriculum currently being used in Kenya does not include all topic areas in MNC. Therefore, in Y1, the PMNH+ PD

¹ Maternal and Child Health Integrate Program. Maternal and Newborn Quality of Care Survey L&D Observation Checklist. Accessible at: http://www.mchip.net/sites/default/files/mchipfiles/QoC%20LD%20Observation_0.pdf

² Gabrysch S, Civitelli G, Edmond KM, Mathai M, Ali M, Bhutta ZA, Campbell OM. New signal functions to measure the ability of health facilities to provide routine and emergency newborn care. PLoS Med. 2012;9(11):e1001340. doi: 10.1371/journal.pmed.1001340. Epub 2012 Nov 13. PubMed PMID: 23152724; PubMed Central PMCID: PMC3496666.

has compiled CHW training curricula to ensure that the training for intervention and comparison CHWs include all appropriate skills for the services that they are to provide. In addition, the team developed a post-training assessment tool and adapted the CHW supervisory checklist used to monitor the quality of CHW delivered services.

Finally, 20 clinical outreach sites, where MNC services will be offered monthly were selected. Clinical outreaches will start in Y2 Q1.

IR3: Increased adoption of healthy behaviors, including appropriate care seeking

In the first year, the PMNH+ worked with the project's community partner, the Sobon Support Group, to build their capacity to lead social behavior change activities. In July 2013, 20 Sobon Group members participated in MNC Facilitator Training. As facilitators, these community partners will provide training to other community groups and organizations. Also in the first year, HealthRight provided Sobon with a sub-grant in August for the completion of their Y1 work plan. (See Sobon's BCC strategy on page 8 below.)

In addition, HealthRight staff has worked with Sobon to provide refresher training in financial management in order to assist them in the completion of quarterly financial reports to the project. They have also introduced Sobon to the tool for measuring the capacity of partner community organizations, the Organizational Capacity and Viability Assessment tool (OCVAT). Sobon will be mentored to use this tool to measure change in capacity among community partners over the life of the PMNH+ project.

Also in Y1, HealthRight organized training for the project CHEWs on the new CHW curriculum and key MNC messages. In total 14 CHEWs were trained and will be responsible for facilitating the training of the 20 units of CHWs.

IR4: Improved evidence, policy and enabling environment for MNH

In the first year, the project staff established key relationships with national stakeholders (see Table 3 below) which will prove very useful for the improvement of the policy and enabling environment for maternal and neonatal health in Kenya. Through these relationships, the project and the OR will potentially influence policies regarding the delivery of community health services, development of a national strategy for respectful maternal care, and quality of care in rural health facilities.

Lessons Learned

- Value of the Technical Advisory Group (TAG): As planned, the inaugural meeting of the TAG for the PMNH+ OR was convened at the end of Y1. The TAG includes stakeholders from the National and District-level MOH, World Vision, Concern Worldwide, AMPATH and HealthRight International. In the first meeting, the OR Manager provided an overview of the KPC preliminary results, the HQ Technical Backstop offered an overview of HealthRight in Kenya and the OR Protocol and the PMNH+ PD presented a brief of the PMNH+ project. The initial meeting highlighted the importance of reviewing OR progress in order to remain relevant in the context of Kenya's rapidly evolving community health policies. Meeting participants identified several ways in which the PMNH+ could ensure the sustainability of CHWs. For instance, there is a need for clear job descriptions for intervention and comparison CHWs that itemizes their different services. Also, community units can be encouraged to form CBOs and apply for income generating funds. Both ideas will be followed up with project staff. Finally, Concern Worldwide and World Vision both shared information about their ongoing OR in Kenya. Their involvement in the TAG will ensure that the PMNH+ learns from their OR results.

- Importance of strong community partnerships – Sobon CBO received technical support and mentorship from HealthRight program and operations staffs. This led to the strengthening of the organizational capacity of the CBO. One of the effects of this is the increased interest in the activities of Sobon by community members, local leaders, health facility staffs and even the County director for Health. This has enhanced participation and support from the local community and County government.

Stakeholder Engagement

Project staff organized a series of coordination meetings to establish local, county and national buy-in for the PMNH+ project. Table 4 below itemizes all coordination meetings held in the first year. There is interest in the PMNH+ OR at the national level because of the fluctuating roles of the CHWs in Kenya and the interest in using CHWs to compensate for low staffing levels.

Table 3: In-Country Key Partnerships and Meetings:

Partner/Organization	Date (s)	Representatives	Results/Notes
National Agencies			
MOH – Department of Community Health Services	Dec. 6, 2012 Jan. 17, 2013	- Dr. Mwitari, MOH Director of Department of Community Health Services (DCHS) - Carol Sang, Program Officer MOH - DCHS - Sostena Romano, HealthRight Executive Director - K'Ouma Thomas, PMNH+ PD	Presentation of the PMNH+ project and OR Suggested individuals for the OR Technical Advisory Group; Suggested partnership with the Micronutrient Initiative; Suggested involvement in 3 TWGs
MOH - Division of Child Health	Jan. 17, 2013	- Josepheller Magoi and Allan Andolo - Program Officers (Newborn Care) - Silas Chebon and Abraham Rono, PMNH+ Clinical Mentors - Charles Mwai, PMNH+ ORM	Presentation of the PMNH+ project and OR Recommendations for the CHW MNC services package Shared the CHW MNC Package materials
MOH - Division of Reproductive Health (DRH)	Dec. 6, 2012 Jan. 16, 2013	- Dr. Isaac Bashir, Director DRH - Ann Gituto, Program Officer, DRH - Sostena Romano, HealthRight ED - Silas Chebon, PMNH+ Clinical Mentor - Charles Mwai, PMNH+ ORM	Presentation of the PMNH+ project and OR Recommendations for the CHW MNC services package
MOH – Division of Nutrition	Jan. 17, 2013	- Terry Wefwafwa, Head - Gladys Mugambi, Deputy Head - Silas Chebon and Abraham Rono, PMNH+ Clinical Mentors - Charles Mwai, PMNH+ ORM	Presentation of the PMNH+ project and OR Recommendations for the CHW MNC services package
National Coordinating Bodies			
HENNET	June 12, 2013, July 5, 2013 Aug. 13, 2013	Dr. K'Ouma Thomas, PMNH+ Project Director (PD)	Health System strengthening funding platform Kenya Health Policy forum Advocacy and policy training
eHealth Technical Working Group (TWG)	July 4, 2013	Dr. K'Ouma Thomas, PMNH+ PD	Member of eHealth TWG on Operations research.
Research TWG	Oct. 23, 2013	Anthony Kamau, PMNH+ ORM	
Community Health TWG	Feb. 21, 2013	Dr. K'Ouma Thomas, PMNH+ PD	Presentation on OR on task shifting, feedback from national TWG.
International Organizations/Initiatives			
World Vision	Nov. 29, 2012	Sostena Romano, PMNH+ PD Abraham Rono, PMNH+ CM	Introduction of HealthRight PMNH+ and World Vision Starting Strong

Medic Mobile	Dec. 5, 2012 June 5- 7, 2013	Maeghan Orton, Regional Director Enock Musyoka, Kenya Director Sostena Romano, HealthRight ED Dr. K'Ouma Thomas, PMNH+ PD Silas Chebon, PMNH+ CM	Introduction of HealthRight Kenya projects Field visit to Medic Mobile implementation site
Population Council, National Nursing Association of Kenya (NNAK).	March. 21, 2013	- Charity Ndwiga, Pop. Council - Lucia Buyanza - Dr. K'Ouma Thomas, PMNH+ PD - Charles Mwai, OR Manager	Partnership in the delivery of Respectful Maternal Care (RMC) Training and establishment of RMC policies slated for Y2
AMPATH Plus	Feb. 28, 2013	- Prof. Kimaiyo, Clinical Director - Prof. Mamlin, Director AMPATH - Dr. Daina Menya, AMPATH CHS - Dr. Julia Songok, AMPATH - Dr. K'Ouma Thomas, PMNH+ PD - Charles Mwai, OR Manager - Silas Chebon, CM - Abraham Rono, CM	Discussions on activities, collaboration and partnership in Elgeyo Marakwet County Contractual agreement to serve as Co-PI on the OR project Involvement in the TAG
USAID Mission	Dec. 6, 2012 Feb. 14, 2013 June 18, 2013	- Sheila Macharia, Sr. Health Mgr, USAID Kenya - Emily Iruguthu, Program Officer, USAID Kenya - Sostena Romano, HealthRight ED - Dr. K'Ouma Thomas, PMNH+ PD	Presentation of PMNH+, Discussion of potential collaborations Project progress update;
Community Level Stakeholders			
MOH – District Health Management Team Marakwet East and West	Dec. 4, 2012	- DHMT members - Sostena Romano, HealthRight Executive Director - Silas Chebon, PMNH+ CM - Abraham Rono, PMNH+ CM	Project deliverables presented Task shifting initiative discussed MOU drafted and reviewed
Local Stakeholders' Mtg	Jan. 2013	- Silas Chebon, PMNH+ CM - Abraham Rono, PMNH+ CM - 45 local administration and other stakeholders	Introduction of the PMNH+ project and OR objectives
Sobon Support Group	Dec. 2012 Aug. 1, 2013	- David Kiptoo, Director Sobon - Stella Lodan, Sobon - Benjamin Kimosop, Sobon - David Musungu, Sobon - Sostena Romano, HealthRight ED - Leah Kimetto, HealthRight Finance and Admin Sr. Mgr	MOU signed Review of Financial Management systems Overview of PMNH+ sub-grant and Y1 work plan Introduction of the OCVAT tools
District Commissioners – Marakwet East and West	Feb. 2013	- Silas Chebon, PMNH+ CM - Abraham Rono, PMNH+ CM	

Because of the project's efforts to establish productive relationships, the Elgeyo-Marakwet County Administration has asked HealthRight to participate at the national level County Accountability Framework meeting in October as a key partner. HealthRight has also been invited by Dr. Mwitari at the Department of Community Health Services to participate in the National Research Technical Advisory Group. HENNET has also invited HealthRight for a consensus building Workshop on the National Health Sector Strategic and Investment Plan from 30th October – 1st November. PMNH+ management participated in the development of the county-wide health strategic plan which will ensure that HealthRight's project activities are included in the county's work plan for the next three years.

The first Technical Advisory Group meeting for the OR was held in Nairobi at the Concern Worldwide meeting room on September 13, 2013. The TAG included representatives from the Department of Community Health Services, the Division of RH, AMPATH, World Vision, the DMOH Marakwet East, and Concern Worldwide.

Collaboration with USAID Kenya Mission

HealthRight has been coordinating PMNH+ implementation closely with the USAID Mission. Several coordination meetings, one with the ED and one with the Project Director, have been held to discuss the project as well as the national implications of the OR. In addition, the USAID Mission has been working with the team in preparation for the delivery of the Project C.U.R.E. medical donation. The Kenyan Government has recently established a levy of 1.5% on all items arriving into the country. USAID is working to secure a waiver from the government for the donation of medical supplies. Finally, HealthRight has submitted quarterly PMNH+ narrative and financial reports to the Mission for the past year as a means of keeping them abreast of project challenges and successes.

BCC Strategy

The primary PMNH+ partner responsible for BCC is the local CBO Sobon Support Group which received a sub-grant for their first year in August 2013. Sobon's proposal identified the following target groups: pregnant women, lactating mothers, women of reproductive age, men and TBAs. In their proposal, Sobon outlined the following two objectives:

- to improve community involvement and support for implementation of the PMNH+.
- to increase the adoption of healthy behaviors including appropriate care seeking through behavior change and health promotion activities.

In their first year, Sobon will identify and strengthen four other local CBOs for involvement in the project. In addition, they intend to lead community dialogues with their targeted groups to promote family planning, ANC attendance, birth planning and facility deliveries. Following the PMNH+ baseline survey, Sobon will identify targets for their key indicators.

Also in August 2013, members of the CBO received Facilitator Training on MNC topics. As part of the training, the PMNH+ team introduced a tool adapted from the Malaria Consortium for leading community dialogues on MNC topics to generate an effective SBC strategy. As trained facilitators, the Sobon group members will use this tool as they lead the community dialogues and when they train the other four CBOs.

Specific Information from Strategic Work Plan

Some revisions to the Performance Monitoring Plan were suggested during the SW review process. These changes are reflected in the revised PMP found in Annex 2.

3. OR Annual Progress Report

The most important activity undertaken in this first year to enable the design of the OR protocol was achievement of consensus among national MOH representatives on the package of MNC services that CHWs will be allowed to provide in the intervention and non-intervention sites. This was challenging because of the dynamic state of national CHW policies and the corresponding training curricula. In addition, departments within the MOH have conflicting opinions about the role that CHWs should be allowed to play in their communities. Among the contentious items are community-based family planning distribution and HIV testing and counseling. Therefore, PMNH+ management convened multiple national level meetings to

discuss the community-based MNC package and gain approval to move forward. The agreed upon package of CB-MNC services for intervention and non-intervention CHWs is as follows:

Table 4: MNC Services Package for CHWs

Comparison Areas	Intervention Areas (Task Sharing)
<p>Community</p> <ul style="list-style-type: none"> - Maternal/newborn/child registration - Focused ANC - Counseling on HIV/AIDS, nutrition, birth planning, LLITN use, ANC, maternal/infant/child danger signs, sanitation, and immunization - Infant weighing - Family planning distribution (including injectables) - Diarrhea treatment/zinc provision - Antibiotics for pneumonia - Referral for malaria RDT - Referral to health facilities for additional care <p>Facility NONE</p>	<p>Community</p> <p>All comparison area services PLUS</p> <ul style="list-style-type: none"> - Postnatal care visits - Essential newborn care and identification/management of low-birth weight infants, cord-cleaning with chlorhexidine, neonatal sepsis diagnosis and referral - HIV counseling and testing <p>Facility</p> <ul style="list-style-type: none"> - ANC/PNC counseling on topics including maternal/newborn danger signs, exclusive breastfeeding, nutrition, and KMC - Birth plan counseling and development - Family planning counseling and distribution - HIV/AIDS counseling and HIV testing - Case management for HIV-positive mothers and newborns

In tandem with the development of the CHW service package, the PMNH+ Principal Investigator and PMNH+ staff developed the OR protocol. This protocol was developed following a series of engagement meetings with national MOH representatives, DHMT members, and other stakeholders in Kenya. Additionally, the PMNH+ Project Director, Dr. K'Ouma Thomas Matete and the PMNH+ Principal Investigator, Vandana Tripathi, participated in the MCHIP-organized Operations Research Workshop in Ghana in March 2013.

In line with USAID and other feedback, the first draft of the OR protocol was and a final version submitted by the OR Manager to the Ethical Review Board (ERB) at Kenyatta National Hospital for approval on May 30, 2013. Following minor revisions requested by the ERB, the OR protocol was formally approved on August 5, 2013. The following tools were developed or adapted to guide OR data collection:

- Baseline KPC survey drawn from select MNC, Malaria, CCM, HIV and IYCF indicators
- Focus Group Discussion (FGD) guides for CHWs/CHCs
- FGD guides for health facility management committees (HFMC)
- FGD guides for facility staff
- FGD guides for women of children under 5 years
- Health facility QoC checklist
- MNC client satisfaction survey
- CHW post-training assessment
- CHW supervisory checklist
- Participant information and consent forms
- Health facility supportive supervision checklists

In addition, the complete M&E matrix was developed for the PMNH+ project during the first year. The matrix is a working document that collects and compiles routine monitoring data crucial to the project and the OR including CHW post-training assessments, facility service utilization through the HMIS, coverage with essential MNC services at community level, quality of care indicators at the facility and community level, and CHW activity data. The ME Matrix is complemented by data collected at baseline, midterm and

final such as the CHW-AIM matrix to assess functionality of each CHW unit, health facility assessments to determine availability of MNC services, FGDs with key stakeholders, and household KPC surveys to evaluate coverage of MNC services. Progress is also summarized against HealthRight's OR log frame in Table 5; activities are linked to the relevant OR sub-IR (noted in the first column of Table 5).

Table 5: OR Study Progress and Achievements in Y1

	OR Study Key Activities/Tasks	Important Findings, Data and/or Discussion of Progress	Use and/or dissemination of Results to Stakeholders
Increased capacity of staff and partners to implement OR	Stakeholder and TAG engagement and coordination meetings (county and national), including to design intervention package	Meetings were held during and after the OR protocol design with: USAID Mission; DCHS and DRH; Divisions including Nutrition and Child and Adolescent Health; and the MOPHS Director. OR study overview was presented at DCHS OR technical working group meeting (Feb 13) and at a meeting chaired by Marakwet District Medical Officer of Health (DMOH) and attended by full DHMT and >40 representatives from health facilities in Marakwet (Jan 2013). Feedback from these meetings has provided guiding information regarding the priorities, concerns, and interests of relevant policymakers and the finalization of the OR intervention package (services provided by CHWs). The first project TAG was held in Sept. 2013 and resulted in numerous helpful comments to guide PMNH+ OR implementation.	The TAG minutes have been shared with all participants and PMNH+ Co-PIs
	Development and revision of operations research (OR) protocol	Guided by feedback from the meetings described above, the PI and PMNH+ team members developed the OR protocol, which was finalized after feedback from USAID and peers at the OR workshop held in Accra (March 2013). A key part of the protocol was the development of the KPC tool to collect baseline household data and additional tools to collect data on health service QoC, including client satisfaction.	N/A
	Ethical review and approval of OR protocol	The OR protocol was submitted to the Kenyatta National Hospital Ethical Review Board (May 2013) and approved after minor revision (Aug. 13)	The approved ORP will be shared with all TAG members, national MOH stakeholders and DHMTs in Y2Q1.
Increased MNC evidence and knowledge at local, national, and global levels	Collection of baseline household data for OR study	Baseline household data was gathered from 20 CUs (Aug. 13) through KPC surveys.	A KPC report has been prepared and key findings presented to local stakeholders (e.g, the DHMT)

Research Products

To date, the products produced by the PMNH+ OR include the OR Protocol, all developed or adapted data collection tools and the baseline KPC survey report (see Annex 5).

Problems/Challenges

- Decentralization and MOH staff turnover: Kenya is establishing county health management teams (CHMT) which will replace the previous provincial administrations. Going forward, health funding will be decentralized and controlled by the CHMTs. As this roll out happens, staff from the provincial and district health teams have been shuffled to fulfill the new county teams. This has generated significant turnover within the partner DHMTs in Marakwet East and West and has required a second and third round of

collaborative meetings to renegotiate the PMNH+ terms of reference including the responsibilities of all partners. The MOUs which were agreed upon in Y1 of the project need to be renegotiated and signed. This has caused delays in implementation toward the end of Y1.

- Assignment of Communities to Partners: Several difficulties have arisen in the allocation of Marakwet community units (CUs) to the PMNH+ project and the World Vision Starting Strong project, both of which are being implemented in Marakwet over the next three years. Among the 20 CUs designated for the PMNH+ project, 16 of them were also assigned by the DHMT to World Vision. The PMNH+ team has been working with the new DHMT members to correct these discrepancies, most of which have been resolved. Two PMNH+ CUs remain in contention because World Vision has already collected baseline data and provided training to CHWs in these communities. It is possible that HealthRight will need to select two additional CUs as OR sites, to avoid overlap with World Vision. It is possible that HealthRight will also need to collect additional baseline KPC household surveys in these CUs.

- ORM turn over: The OR Manager initially hired for the PMNH+ was replaced during the first year. The turnover occurred after the IRB submission but prior to approval and therefore, did not negatively impact progress on the OR.

- MOH Policy/Curriculum Updates: In the time between proposal and funding of the PMNH+, the policy regarding the role of CHWs has changed dramatically. This fact made identification of the “package of expanded MNC services” for the intervention CHWs challenging part of first year (see progress update above), and resulted in a reduction of the difference between the intervention and comparison area service packages from what was planned at the proposal stage – national policy now allows CHWs across the country to perform additional services at the household level. In addition, the evolving role led to a significantly revised training curriculum and data collection tools for new CHWs. Because of this, CHWs trained by HealthRight in previous projects need to be re-trained in order to follow MOH policy. Due to these updates, PMNH+ staff has been working with DHMTs to stretch the existing CHW training budget to provide the required training to all 20 units. While these challenges were anticipated at the time of OR protocol development, addressing them has been a significant part of the work of Y1. Finally, the MOH has adopted a new integrated clinical skills building training for health workers which encompasses the topics of FANC+ and EmONC, which had been included as separate trainings in the strategic work plan. The resulting 5-day training will replace the two proposed trainings and will result in some savings in the PMNH+ training budget which can be used to cover additional CHW training costs described above.

Changes Made to Original OR Plans

Since the OR protocol was approved by USAID and the KNH ERC, HealthRight has opted to include a national level Co-Principal Investigator. Dr. Daina Menya from AMPATH will be working with the OR to ensure that the study remains relevant to national policy and, as a member of the National Coordinating Committee for NGOs, will be a vital asset in the dissemination of the OR products and results. Also, if two new communities are designated as OR sites (see Problems/Challenges above), this will be filed as an amendment to the OR protocol to the KNH ERB and USAID will also be informed.

Major OR Plans for Y2

In Y2, HealthRight will organize all of the clinical trainings for health facility staff and the training of the intervention and comparison CHWs. The PMNH+ team will also train all stakeholders in the collection of the necessary OR data. The team will continue the process of working in each of the intervention facilities to introduce CHWs into the delivery of MNC services. In each facility, the CHW role will be carefully defined according to the needs of the clinical team. Finally, the PMNH+ team is working with the CHEWs to develop CHW job descriptions and to introduce a supervisory checklist to monitor CHW QoC.

4. Annexes

Annex 2: Updated Performance Monitoring Indicator Table

Revisions to the PMI Table are shaded in gray.

Strategic Objective: Improved MNH outcomes through increased coverage with essential MNC interventions in the North Rift Valley, Kenya							
No.	Program Element	Indicator	Metric	Type	Data source	Frequency	Notes
SO1	Reduction in maternal and perinatal death	% of pregnant women that deliver with a skilled provider	Num: # of pregnant women surveyed by the project who deliver with a skilled provider Den: total # of pregnant women surveyed by the project	Impact	KPC	Baseline, midterm and final	Project Director; KPC Consultant
SO2	Reduction in newborn mortality	% of infants 0-5 months are exclusively breastfed	Num: # of infants 0-5 months identified by the program that are exclusively breastfed Den: # of infants 0 – 5 months identified by the program	Impact	KPC	Baseline, midterm and final	Project Director; KPC Consultant
IR1: Improved quality, availability, and acceptability of maternal and neonatal care services at the facility level							
No	Program Element	Indicator	Metric	Type	Data source	Frequency	Notes
1a	Availability of BEmONC services	% of target facilities able to offer all 7 signal functions of BEmONC services at time of assessment	Num:# of target facilities in which all 7 signal functions of BEmONC are available at time of assessment Den: Total number of target facilities	Outcome	Health Facility Assessment	Baseline and final	Health facility assessment team ; signal functions as defined by UNICEF 2011
1b	Availability of CEmONC services	% of target facilities able to offer all 9 signal functions of CEmONC services at time of assessment	Num:# of target facilities in which all 9 signal functions of CEmONC are available at time of assessment Den: Total number of target facilities	Outcome	Health Facility Assessment	Baseline and final	Health facility assessment team signal functions as defined by UNICEF 2011
1c	Clinical Staff Capacity	% of trained participants that demonstrate competency in new skills when observed during post-training supervision	Num: # of trained participants that demonstrate competency in new skills when observed during post-training supervision (as measured by a passing score on the checklist) Den: Total of trained participants observed during post-training supervision	Outcome	Post-training supervisory checklist	Twice after each mentoring visit from Clinical Mentors	Post-Training evaluator;

1d	Quality of ANC Services	% of providers observed during ANC visits who evaluate clients for pregnancy-related risk factors.	Num: # of providers observed evaluating ANC clients during DHMT supervision for pregnancy-related risk factors. Den: total number of providers observed offering ANC services during DHMT supervision	Outcome	DHMT supervisory checklist from previous Kenya Services Provision Assessment Survey	Quarterly	DHMT and health facility assessment team
1e	Quality of Labor and Delivery Services	% of women in labor who were monitored using a partograph during DHMT observation	Num: # of women in labor during DHMT observation that were monitored by a partograph Den: Total women in labor during DHMT observation	Outcome	DHMT supervisory checklist from previous Kenya Services Provision Assessment Survey	Quarterly	DHMT and health facility assessment team
1f	Quality of Services during Third Stage of Labor(Active Management of the third stage of labor (AMTSL))	% of providers who correctly administer AMTSL to women in third stage and post-delivery	Num: # provider who administered an injection of uterotonic drug AND Performed controlled cord traction AND Provided uterine massage to women in third stage labor and delivery during DHMT observation Den: Total number of providers observed offering services in third stage of labor	Outcome	DHMT supervisory checklists from previous Kenya Services Provision Assessment Survey, and Post training checklist	Quarterly	DHMT and health facility assessment team
1g	Quality of Immediate Post Partum Care services	Percentage of newborns placed on the mother's bare chest after delivery	Num: Number of newborns placed on the mother's bare chest after delivery Den: Total number last live births in the 2 years prior to the survey born outside a facility	Outcome	DHMT supervisory checklist from previous Kenya Services Provision Assessment Survey	Quarterly	DHMT and health facility assessment team
1h	Essential Drug Supply Management	% of target facilities that experienced a stock out of an essential MNC drug this quarter	Num: # of target facilities that experienced a stock out of an essential MNC drug this quarter Den: total number of target facilities	Outcome	DHMT supervisory checklist	Quarterly	Clinical Mentors
1i	Facilitative supervision	% of targeted health facilities that received quarterly supervision	Num: # of targeted health facilities that received quarterly supervision	Outcome	Facilitative supervision reports	Quarterly	DHMT

			Den: total number of target facilities				
1j	CHW Activity in intervention facilities – at facility (vs. in community)	# of pregnant women and mothers of newborns receiving MNC services from a CHW at an intervention site at the facility level	Sum of all pregnant women and mothers of newborns receiving MNC services from a CHW in each intervention site at facility	Output	CHW reports	Monthly	Clinical Mentor
1k	Timely HMIS reporting	% of target health facilities submitting their monthly HMIS reports to the district on time	Num: # of target facilities submitting their HMIS reports to the district on time Den: total # of target facilities	Outcome	DHRIO reports and health facility data registers	Monthly	Clinical Mentor Timely – defined as date due (15 th of each month)
1l	DHMT Coordination	% of DHMT monthly coordination meetings held	Num: # of DHMT monthly coordination meetings held Den: Total # of DHMT monthly coordination meetings expected	Outcome	Clinical Mentor reports	Monthly	Clinical Mentor
1m	Patient Satisfaction with care	% of patients that were satisfied or very satisfied with the health facility services	Num: # of patients that report being satisfied or very satisfied with health facility services Den: total number of patients surveyed	Outcome	Client exit survey	Quarterly	ME Officer
1n	Timely to Care	Average amount of time that patients report waiting for MNC services at facilities	Num: Total number of minutes that patients report waiting for MNC services Den: # of patients surveyed	Outcome	Client exit survey	Quarterly	ME Officer
1o	Health infrastructure and equipment	% of target facilities lacking essential infrastructure or equipment for the provision of MNC services	Num: # of target facilities lacking essential infrastructure or equipment for the provision of MNC services Den: total # of target facilities	Outcome	Health Facility Assessments	Baseline and final	Health facility assessment team
1p	Respectful Care	TBD – see sample of indicators in Annex 10C.					
IR2: Expanded access to and utilization of MNC services at the community and household level							
No	Indicator	Definition	Metric	Type	Data source	Frequency	Notes
2a	CHW Activity at Household Level in All Sites	Number of pregnant women and mothers of newborns visited by CHWs this month	Count of pregnant women and mothers of newborns visited by CHWs this month	Output	CHW data reports	Monthly	Community coordinator
2b	Access to ANC	% of pregnant women visited	Num: # of pregnant women visited by	Outcome	KPC survey	Baseline,	Community

	Services at the household level	by a CHW twice before delivery	intervention CHWs twice before delivery Den: Number of pregnant women living in project sites			midterm and final	coordinator
2c	Access to Postpartum Care for mothers	Percentage of women who received postnatal care within two days ³ of birth	Num: Number of women who received postnatal care within two days of the last live birth (regardless of place of delivery) Den: Total number of women ages 15-49 with a live births in the 2 years prior to the survey	Outcome	KPC survey	Baseline, midterm and final	Community Coordinator
2d	Access to MNC Information	% of pregnant women living in intervention sites that received MNC information from a CHW (Kangaroo Mother Care, exclusive breastfeeding birth planning, family planning, HIV, danger signs etc.)	Num: Number of pregnant women living in intervention sites that received MNC information from a CHW Den: Total number of pregnant women living in intervention sites	Outcome	CHW report	Monthly	Community Coordinator
2e	Quality of CB-HIS	% of CHWs in intervention sites submitting monthly MNC data that is timely and accurate	Num: # of CHWs in intervention sites submitting monthly MNC data that is timely and accurate Den: Total # of CHWs in intervention sites	Outcome	CHW reports; CHEW reports	Monthly	Community Coordinator
2f	Alleviation of health worker shortage	% of intervention health facilities reporting improvements in patient flow and work load due to the task-shifting of MNC services to CHWs	Num: # of health facilities reporting improvements in patient flow and work load due to the task-shifting of MNC services to CHWs Den: Total # of intervention health facilities	Outcome	Facility staff FGDs	Baseline and final	Clinical Mentor
2g	Postnatal Care for Newborn	Percentage of newborns who received postnatal care within two days of birth	Num: Number of newborns who received postnatal care within two days of birth (regardless of place of delivery)	Outcome	KPC Survey	Baseline, midterm and final	Community Coordinator

³ Postnatal care 0-71 hours or 0-2 days after birth

			Den: Total number last live births in the 2 years prior to the KPC survey				
2h	Access to treatment for sick mothers at the household level	% of sick mothers in intervention sites that received treatment or referral from the CHW	Num: # of sick mothers in intervention sites that received treatment or referral from the CHW Den: total # of sick mothers in intervention sites	Outcome	CHW report	Monthly	Community Coordinator
2i	Quality of MNC at Household level	% of Intervention CHWs observed that delivered all MNC services appropriately	Num: # of intervention CHWs observed that delivered all MNC services appropriately Den: total # of intervention CHWs observed	Outcome	CHEW supervision report	Quarterly	Community Coordinator
2j	Referral Tracking	% of referrals from CHWs that arrive at the health facility	Num: # of referrals from CHWs arriving at the target facilities Den: Total number of referrals made by CHWs	Outcome	CHEW report	Quarterly	Clinical Mentor
2k	Outreach Clinic Activity	Number of outreach clinics organized and patients served	Count of the number of outreach clinics organized and patients served	Output	Clinical Mentor reports	Monthly	Clinical Mentor
2l	Community satisfaction with care	% of households that were satisfied or very satisfied with services provided by the CHW	Num: # of households that were satisfied or very satisfied with services provided by the CHW Den: total number of households served by CHWs	Outcome	Household satisfaction surveys	Quarterly	ME Officer
2m	CHW Capacity to Provide MNC Services at the Household Level	% of CHWs that have the skills set to provide MNC services at the household level	Num: # of CHWs that have the skill set to provide MNC care at the household level as measured by CHW-AIM matrix Den: Total # of CHWs	Outcome	CHW-AIM matrix	Baseline and final	Community Coordinator; Skill set as defined by scope of work/training
2n	Timeliness of CB-HIS reporting	% of CHWs submitting their monthly data to the CHEW on time	Num: # of CHWs who submitted their monthly data to the CHEW on time Den: Total number of CHWs	Outcome	CB-HIS report	Monthly	Community Coordinator
2o	Completeness of CB-HIS reporting	% of Intervention CHWs whose monthly report contains all required data	Num: # of intervention CHWs whose monthly report contains all required data	Outcome	CB-HIS report	Monthly	Community Coordinator

			Den: Total number of intervention CHWs				
IR3: Increased adoption of healthy MNH behaviors, including appropriate care seeking							
No	Indicator	Definition	Metric	Type	Data source	Frequency	Notes
3a	CHW training	# of CHWs that participate in the training on the national curriculum	Count of all CHWs that participate in the NCS orientation training	Output	Training reports	Upon completion of training	Community Coordinator
3b	Capacity of community partners	Increased capacity among CBO members on 8 key organizational functions	Average of self ratings (on a scale of 0-4) from organizational members on each of 8 organizational functions in the OCVAT tool	Outcome	Organization capacity and viability assessment tool (OCVAT)	Baseline and final	Community coordinators
3c	CHW Activity	# of household visits conducted	Sum of the number households visited by all CHWs	Output	CHW data reports	Monthly	Community Coordinator
3d	CHW Activity	# of referrals made to a health facility	Sum of the number of referrals made by CHWs	Output	CHW data reports	Monthly	Community Coordinator
3e	CHW Monitoring	% of CHW that received at least one monitoring visit by their CHEW	Num: # of CHWs that received at least one monitoring visit by their CHEW Den: Total # of CHWs	Output	CHEW monitoring reports	Annual	Community Coordinator
3f	Capacity of Community Units	% of community units that are functional or partially functional according to the CHW-AIM tool	Num: # of Community Units that are functional or partially functional according to the CHW-AIM tool Den: total number of community units	Outcome	CHW-AIM	Midterm and final	Community Coordinator and Evaluator
3g	Timeliness of CB-HIS reporting	% of Intervention CHWs submitting their monthly data to the CHEW on time	Num: # of intervention CHWs who submitted their monthly data to the CHEW on time Den: Total number of intervention CHWs	Outcome	CB-HIS report	Monthly	Community Coordinator
3h	Completeness of CB-HIS reporting	% of CHWs whose monthly report contains all required data	Num: # of CHWs whose monthly report contains all required data Den: Total number of CHWs	Outcome	CB-HIS report	Monthly	Community Coordinator

3i	Rapid CATCH Indicators ⁴ (for the purpose of conserving space, these required indicators have been compiled in this table. The definitions and metrics for each indicator can be found at the citation)						
IR4: Improved evidence, policy and enabling environment for maternal and newborn health							
No	Indicator	Definition	Metric	Type	Data source	Frequency	Notes
4a	Stakeholder meetings – Marakwet/TAG	Quarterly PMNH+ stakeholders meetings held in Marakwet and biannual meetings of the OR study TAG	<p>Yes: Stakeholder meetings held each quarter; TAG meetings held twice a year</p> <p>Partial: 2-3 stakeholder meetings held per year; 1 TAG meeting held per year</p> <p>No: Less than 2 stakeholders meetings held in one year; no TAG meeting held in one year</p>	Output	Meeting minutes/Program records	Annual	
4b	Stakeholder meetings – National	PMNH+/OR study updates presented at national forums (e.g., HENNET, KeNAAM and Safe Motherhood TWG)	<p>Yes: At least one national-level presentation per project year</p> <p>No: No presentation in a project year</p>	Output	Meeting minutes/Program records	Annual	
4c	OR training	Facility and partner staff trained in data collection, management, and reporting, including confidentiality and consent procedures and basic descriptive analysis	<p>Yes: All individuals contributing data to the OR study trained and meeting post-training competency standards;</p> <p>Partial: The majority of expected individuals (>50%) trained and meeting competency standards</p> <p>No: <50% of expected individuals trained and meeting competency standards</p>	Output	Training materials, training participation records, pre/post-tests	Once/Year 1	
4d	Ongoing OR data collection	Data captured from intended stakeholders and routine data sources	<p>Yes: Individuals contributing quarterly data to OR study conducting all expected data collection/aggregation activities and submitting to OR Manager</p> <p>No: <50% of expected quarterly data collected/aggregated and submitted</p>	Output	OR study database/data collection spreadsheet	Quarterly starting Year `1	

⁴ Maternal and Child Health Integrated Program, Rapid CATCH Indicator List 2008. Accessible at: http://www.mchipngo.net/controllers/link.cfc?method=tools_kpc

			to OR Manager				
4e	Process evaluation	Data analyzed to determine level of intervention implementation (e.g., fidelity, dose, reach, coverage) and document feasibility/acceptability of intervention	<p>Yes: Process evaluation conducted in accordance with OR study protocol, incorporating data from the majority of the intended qualitative and quantitative approaches;</p> <p>Partial: Process evaluation completed in accordance with OR stud protocol, but with gaps in saturation of/utilization of planned qualitative and quantitative data sources</p> <p>No: Process evaluation incomplete or missing important domains of expected data.</p>	Output	Process evaluation documents (e.g., completed data collection tools, databases, analysis output, completed MTE and FTE reports to USAID) and study team interviews	Twice/Year 2 & Year 4/mid-term & endline	
4f	Outcome evaluation	Data analyzed to determine intervention effects on outcomes of interest (e.g., effects on service availability, access, quality, acceptability; on service utilization and MNC knowledge/attitudes; and MNC intervention coverage and MNH outcomes)	<p>Yes: Outcome evaluation completed, including high quality assessment of changes in most intended outcome indicators;</p> <p>Partial: Outcome evaluation completed, with gaps in assessment of changes in some intended outcome indicators;</p> <p>No: Outcome evaluation not enabling g assessment of changes in most outcome indicators of interest (e.g., due to data incompleteness/quality, poor analysis, other factors)</p>	Output	Outcome evaluation documents (e.g., completed data collection tools, databases, analysis output, completed MTE and FE reports to USAID) and study team interviews	Once/Year 4/endline	
4g	Dissemination of OR findings – Kenyan stakeholders	Presentation of OR findings to local and national stakeholders in accordance with study protocol	<p>Yes: Presentation of OR findings at the four intended levels described in the OR protocol (DHMTs, MOPHS, USAID, NGO/professional networks in Kenya)</p> <p>No: At least one intended level not reached with direct presentation of study findings</p>	Output	Presentation materials, meeting minutes, program records, study team interviews	Once/Year 4/Endline	

4h	Dissemination of OR findings – Global information sharing	Presentation of OR findings through international forums in accordance with study protocol	<p>Yes: Submission of OR findings to at least one global conference/meeting and submission of at least one manuscript to a peer-reviewed journal</p> <p>No: Failure to submit OR study findings to at least one global forum/journal</p>	Output	Conference submission/presentation materials, manuscript draft, journal submission confirmation	Once/Year 4/Endline*	
4i	Partner research capacity	Staff, DHMT members, and Sobon support group partners expressing greater confidence in OR skills and interest to undertake future research	<p>Yes: Majority of interviewed staff and partners expressing increased confidence in ability to conduct OR and interest in undertaking future research initiatives</p> <p>No: Less than half of interviewed staff and partners expressed increased OR capacity/interest</p>	Outcome	Interviews with study team staff and partners	Once/Year 4/Endline	
4j	Policy-relevant MNC service delivery knowledge	DHMT and MOPHS partners expressing utility of OR study findings in relation to policy objectives (e.g., outlined in NCS, NHSSP, NRHS, iCCM guidelines, and NHRHSP)	<p>Yes: Interviewed DHMT and MOPHS partners expressing relevance and utility of OR study findings in relationship to data/evidence/knowledge needs to fulfill objectives in the pertinent national frameworks and policies</p> <p>No: Interviewed DHMT and MOPHS members not finding OR study findings to be relevant/useful in the policy context</p>	Outcome	Interviews	Once/Year 4/Endline	
4k	Task sharing evidence	High quality evidence regarding task sharing produced and disseminated based on OR study findings	<p>Yes: Composite indicator comprised of yes responses to indicators 4f-4i and agreement of TAG/USAID on research quality</p> <p>No: Failure to achieve aforementioned output indicators and/or receive positive assessment of research quality by TAG/USAID</p>	Outcome	See data sources for indicators 4f-4i, Stakeholder interviews	Once/Year 4/Endline	
4l	Use of OR evidence	Use of task sharing evidence by district, provincial, and/or	Yes: Documentation of at least one formal change in district/provincial	Impact	Stakeholder interviews,	Once/Year 4/Endline*	

		national partners	AOPs, national-level guidelines, and/or GoK/donor funding for task sharing interventions to reflect findings of OR study No: No changes at local or national level reflecting OR study findings.		policy/content analysis		
4m	Policy improvement/enabling environment	Increased commitment to evidence-based MNC policies at the local and/or national level	Yes: Composite indicator comprised of yes responses to 4k and 4m and positive responses from DHMT/MOPHS stakeholders regarding likelihood of evidence-based changes to policies and program frameworks/guidelines No: Failure to achieve aforementioned outcome/impact indicators and/or receive positive responses from policy stakeholders	Impact	See data sources for indicators 4k and 4m, Stakeholder interviews	Once/Year 4/Endline*	
4n	Policy improvement/enabling environment	Increased commitment to evidence-based MNC policies at the local and/or national level	Yes: Composite indicator comprised of yes responses to 4k and 4m and positive responses from DHMT/MOPHS stakeholders regarding likelihood of evidence-based changes to policies and program frameworks/guidelines No: Failure to achieve aforementioned outcome/impact indicators and/or receive positive responses from policy stakeholders	Impact	See data sources for indicators 4k and 4m, Stakeholder interviews	Once/Year 4/Endline*	

Annex 3: Program Data Form



Evaluating the effectiveness of a task sharing initiative using CHWs to deliver MNC services at household and facility level at improving maternal and neonatal health in Kenya

This project was funded by the U.S. Agency for International Development through the Child Survival and Health Grants Program
October 2013

Background:

Kenya faces limited population coverage with effective maternal and neonatal care (MNC) interventions, particularly in rural areas. This is implicated in stagnant progress towards achievement of Millennium Development Goals 4 & 5 to reduce maternal and child mortality. The problem of limited coverage is linked to inadequate health system capacity, including staffing. Task sharing, particularly with community health workers (CHWs), has been proposed as one solution to this challenge. Task sharing has been documented in some settings to achieve positive results in expanding health service availability and utilization. However, many questions remain about how to deliver MNC services through CHWs at scale, including their ability to maintain service quality.

HealthRight is partnering with the District Health Management Teams (DHMT) in Marakwet East and West in Kenya to implement and evaluate a task sharing initiative using CHWs at the household and facility level to deliver a package of MNC services. The primary research question answered through this operations research study is whether CHWs engaged in task sharing are able to maintain adequate quality of services. The study will also evaluate the effects of CHW task sharing on service provision levels, the quality of services delivered by formal providers, and population outcomes related to maternal and neonatal health.

Intervention Design and Implementation:

The Partnership for Maternal and Neonatal Health Plus (PMNH+) project will implement the study among 1,000 community health workers (500 intervention and 500 comparison) working in 20 communities with linkages to eight rural health centers. The project will train all CHWs on a basic package of services as outlined by the Kenyan National Community Health Strategy. Intervention area CHWs will receive additional training and support to offer a package of expanded MNC services during household visits. A subset of the intervention area CHWs will also be supported to assist in the provision of MNC services at the four intervention health centers.

In both arms, the PMNH+ project will be strengthening health centers, training MNC providers, supporting CHWs, and working with community-based organizations (CBOs) to mobilize community members to seek MNC services and adopt health-promoting behaviors and practices

Outcomes of interest include the quality of CHW-delivered services, availability and utilization of MNC services, and population coverage with essential MNC interventions.

Kenya CHWs work in the community – *Dianna Kane*

Key Findings:

Through a baseline KPC survey, the project found that in the project communities:

- 24% of pregnant women receive 4+ ANC visits
- 57% of mothers deliver in a health facility
- 38% of infants are exclusively breastfed
- 35% of mothers of children 0 – 23 months are using a modern method of family planning

The study will also conduct process evaluation to document how the intervention was implemented, identify mechanisms associated with observed changes in health services, and describe contextual factors that may have affected implementation of CHW task sharing. Both quantitative and qualitative approaches will be used.

The package of services provided by intervention and comparison CHWs is as follows:

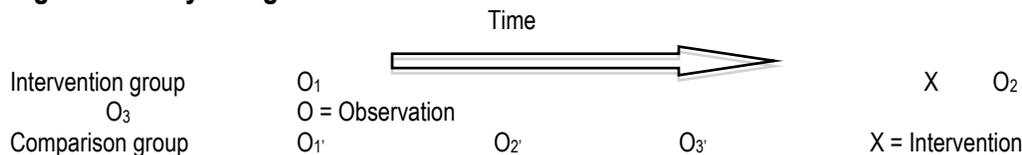
<p>Community</p> <ul style="list-style-type: none"> - Maternal/newborn/child registration - Focused ANC - Counseling on HIV/AIDS, nutrition, birth planning, LLITN use, ANC, maternal/infant/child danger signs, sanitation, and immunization - Infant weighing - Family planning distribution (including injectables) - Diarrhea treatment/zinc provision - Antibiotics for pneumonia - Referral for malaria RDT - Referral to health facilities for additional care <p>Facility NONE</p>	<p>Community</p> <p>All comparison area services PLUS</p> <ul style="list-style-type: none"> - Postnatal care visits - Essential newborn care and identification/management of low-birth weight infants, cord-cleaning with chlorhexidine, neonatal sepsis diagnosis and referral - HIV counseling and testing <p>Facility</p> <ul style="list-style-type: none"> - ANC/PNC counseling on topics including maternal/newborn danger signs, exclusive breastfeeding, nutrition, and KMC - Birth plan counseling and development - Family planning counseling and distribution - HIV/AIDS counseling and HIV testing - Case management for HIV-positive mothers and newborns
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The study population is residents of two districts of the County, Marakwet East and Marakwet West. Marakwet has a population of nearly 192,000 people, including an estimated 46,154 women of reproductive age and 30,795 children under five.

Methodology:

This evaluative research study will use a quasi-experimental design (**Figure 1**) conducting a two-group pre-post comparison with non-randomized controls, including observation at mid-term. This design will enable comparison over time (e.g., change between O₃ and O₁ in the experimental group) as well as a difference-in-differences analysis (i.e., comparing the level of change between O₃ and O₁ in the experimental group vs. the comparison group), strengthening resulting inferences.

Figure 1: Study Design



The PMNH+ project context will enable the collection of a large number of monitoring and evaluation indicators. However, priority indicators have been identified to answer the research questions targeted by this OR study. These summative/outcome indicators are aligned to each research question. For instance, the quality of CHW-delivered services will be measured using skills assessments, supervisory checklists, client surveys, CHW records and health facility data. Utilization of MNC services will be documented through health facility data and CHW reports. Finally, a baseline, midterm and final household KPC survey will document coverage of MNC.

The study will also apply a case study approach, combining qualitative and quantitative data, to understand the feasibility and processes of task shifting to CHWs. The study aims to document program

activities and contextual factors to help determine implementation fidelity as well as population exposure and reach. The resulting case study will describe important program attributes including CHW selection, training and supervision; supplies, materials, and equipment; services provided; and community involvement. This case study will also include a compendium of tools (e.g., curricula, job aids, service records, and referral tools) designed or adapted for the task sharing intervention.

Findings:

Baseline MNC data (coverage of services, knowledge and practices) was collected using a household KPC survey in August 2013. The survey used 30-cluster sampling from the 20 communities and 498 surveys were collected in all. Key findings include:

Indicator	Baseline Value
% of mothers with children aged 0-23 months who had ≥ 4 ANC visits	24%
% of mothers with children aged 0-23 months receiving PNC in 2 days of birth	53%
% of mothers with children age 0-23 months who delivered at a health facility	57%
% of infants ages 0-5 months who are exclusively breastfed	38%
% of households of children age 0-23 months that own at least one ITN	73%
% of mothers of children age 0-23 months using a modern contraceptive method	35%
% of newborns placed on the mother's bare chest after delivery	59%
% of newborns with nothing (harmful) applied to cord	47%
% of mothers of children age 0-23 months who received two or more visits from a CHW at home during their last pregnancy	6.2%

Conclusions and Lessons Learned:

An important lesson learned through this first phase of the project is the importance and challenge of ensuring that operations research remains relevant in a context of evolving policy. In the time between proposal and funding of the PMNH+, policy regarding the role of CHWs has changed dramatically in Kenya. This made selection of the package of expanded MNC services for intervention CHWs more complex and resulted in a reduction of the difference between the intervention and comparison area service packages from what was initially envisioned – national policy now allows CHWs to perform additional services at the household level. In addition, the evolving role of CHWs led to a significantly revised training curriculum and the need for new data collection tools. Throughout the initial study phase, it has been important to closely engage policymakers to ensure that this operations research continues to address local needs and remains able to generate useful evidence for future programming and policy development.

Recommendations and Use of Findings:

The baseline KPC data will be shared with PMNH+ staff, the CHWs, partner CBOs, and local and national stakeholders. These data will be used to establish priority MNC messages and services for the next three years of PMNH+ implementation.

For more information about the PMNH+ project, visit www.HealthRight.org

Annex 5: Baseline KPC Report

HEALTHRIGHT INTERNATIONAL

KNOWLEDGE, PRACTICES AND COVERAGE (KPC) SURVEY REPORT

FOR PMNH+ IN MARAKWET EAST AND WEST DISTRICTS, KENYA

Anthony N. Kamau

10/22/2013

Table of Contents

Baseline indicators for PMNH+:	34
1.0 INTRODUCTION	35
2.0 MATERNAL AND NEWBORNE CARE	38
3.0 LABOUR AND DELIVERY	45
4.0 POST NATAL CARE	49
5.0 BREASTFEEDING INFANT AND YOUNG CHILD FEEDING	53
6.0 CHILD HEALTH	55
7.0 MALARIA - TREATMENT OF FEVER OF CHILD	56
8.0 CONTROL OF DIARRHEA	59
9.0 ARI/PNEUMONIA	61
10.0 FAMILY PLANNING/HEALTHY TIMING AND SPACING OF PREGNANCIES	62
11.0 HIV/AIDS KNOWLEDGE ATTITUDES AND BELIEFS	66
12.0 HEALTH CONTACTS AND SOURCES OF HEALTH INFORMATION	67

Baseline KPC indicators for PMNH+:

- Percentage of mothers of children 0-23 months who knew at least two danger signs during pregnancy = 46.6%
- Percentage of mothers with children aged 0-23 months who had ≥ 4 antenatal visits when pregnant with their youngest child = 23.9%
- Percentage of mothers with children aged 0-23 months who received postnatal care within 2 days of birth = 53.2%
- Proportion of children born in the last 24 months who were put to breast within one hour of birth = 88.4%
- Percentage of mothers of children age 0-23 months who know that a woman should wait 24 months after the live birth of her child before trying to get pregnant again = 49.0%
- Percentage of mothers of children age 0-23 months who know at least two risks of having a birth to pregnancy interval of less than 24 months – *Not clear*
- Percentage of mothers of children age 0-23 months who are using a modern contraceptive method (breakdown by type) – Female sterilization=0.6%, Male sterilization = 0.2, Foam/jelly=1.0%, Pills=5.6%, IUD=0.6%, Injectables=24.9%, Implants=1.2%, Condoms=7.4%, Female condom=0.4%
- Percentage of mothers of children age 0-23 months who know that HIV can be transmitted from an HIV-positive mother to her unborn child during:
 - Mixed feeding=10.4%
 - delivery= 66.3%
 - through breastfeeding=55.8%
- Percentage mothers of children age 0-23 months who know that there are special medications that can be given to a pregnant woman infected with HIV to reduce the risk of mother-to child transmission = 11.4%
- Percentage of mothers of children age 0-23 months who had four or more antenatal visits with a skilled provider and were adequately counseled when they were pregnant with the youngest child= 18.5%
- Percentage of mothers of children age 0-23 months who received two or more visits from a Community Health Worker at home when they were pregnant with the youngest child=6.2%
- Percentage of mothers of children 0-23 months who were
 - counseled about HIV during the pregnancy= 88.9%
 - accepted an offer of testing, and = 83.1%
 - received their test results when they were pregnant with their youngest child=79.7%
- Percentage of mothers with children age 0-23 months who received at least 2 tetanus toxoid vaccinations before the birth of their youngest child =38.0%
- Percentage of mothers of children age 0-23 months who took iron tablets before the birth of their youngest child=46.5%
- Percent of children age 0-23 months whose births were attended by a trained provider=61.4%
- Percentage of women of children age 0-23 months who used a clean delivery kit during the birth of their youngest child=70.5%
- Percent of mothers of children age 0-23 months who received AMTSL after the birth of her youngest child=60.6%
- Percentage of live births delivered by caesarian section=6.4%
- Percentage of newborns protected against tetanus=85.7%
- Percentage of newborns who received postnatal care within two days of birth=44.2%
- Percent of infants ages 0-5 months who are exclusively breastfed=37.8.4%
- Percentage of live births with a reported birth weight=88.3%
- Percentage of newborns placed on the mother's bare chest after delivery=58.8%

- Percentage of newborns with nothing (harmful) applied to cord=47.2%
- Percentage of newborns that received postnatal care within 2 days and at least 2 signal functions were done=64.2%
- Percent of households of children age 0-59 months that own at least one ITN=72.8%
- Percentage of persons who slept under an ITN the previous night=54.2%
- Percentage of mothers of children age 0-23 months who reported they slept under an ITN all of the time or most of the time during their most recent pregnancy=24.5%
- Percentage of mothers of children age 0-59 months who know at least two signs of childhood illness that require immediately seeking assessment and treatment by a provider outside the home=53.3%
- Percentage of children age 0-23 months with a fever in the last two weeks for whom advice or treatment was sought from an appropriate provider=89.0%
- Percentage of children age 0-59 months with a fever during the last two weeks who had a finger or heel stick=24.7%
- Percentage receiving an ACT (or other appropriate treatment for malaria) among children age 0-23 months with fever in the last two weeks=28.0%
- Percentage of mothers of children age 0-23 months who state there is a community health worker (CHW) in her community=32.0%
- Percentage of mothers with children age 0-23 months who received a home visit from their CHW in the last 3 months=30.5%

FINDINGS

1.0 INTRODUCTION

The baseline survey was undertaken in the two districts of Marakwet East and West, Marakwet County. Table 1 shows the Community Units (CU's) which were also designated as clusters during the baseline survey. There are 10 Community Units in each of the districts totaling to 20 Community Units in both districts. In each of the 2 district's 5 Community Units are designated as control units while the other 5 are designated as intervention units.

TABLE 1: EAST MARAKWET COMMUNITY UNITS

NAME OF CLUSTER	FREQUENCY	PERCENT
ENDO	25	5.0
KABEN	26	5.2
KOIBIRIR	33	6.6
EMBOLOT	23	4.6
EMBOBUT	25	5.0
CHEMWOTO	23	4.6
CHEKITU	24	4.8
KABYEGO	20	4.0
KARARIA	22	4.4
KAPTICH	23	4.6
TOTAL	244	48.8

TABLE 2: WEST MARAKWET COMMUNITY UNITS

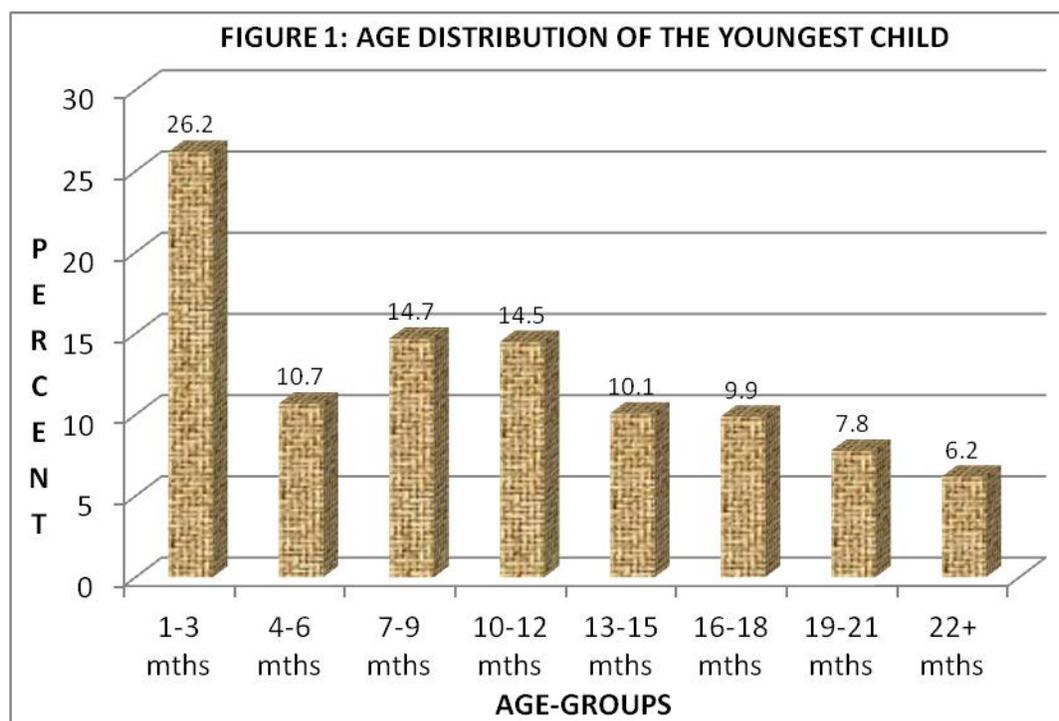
NAME OF CLUSTER	FREQUENCY	PERCENT
LELAN	14	2.8
KAKUCHUR	24	4.8
KAPCHEROP	37	7.4
SENGWER	28	5.6

TENDEN	24	5.8
KAMANIN	28	5.6
B. KONDABILET	29	5.8
CHEPTONGEI	23	4.6
YEMIT	24	4.8
CHEBIEMIT	23	4.6
TOTAL	254	51.8
TOTAL FOR BOTH DISTRICTS	498	100.0

NB: The CU's colored in Orange are intervention sites

Slightly more than half 260 (52.3%) of the children were boys. The age distribution was positively skewed towards the relatively younger ones i.e. there were more children less than one year than those who were older than one year in the sample. Figure 1 depicts this age distribution. There were 291 children born next to the youngest children.

- youngest child - 1 month
- Oldest child - 23 months
- Mean age - 9.9 months
- Standard deviation -6.7 months



As can be seen from Figure 1, over a quarter 130 (26.2%) of the sampled children were between 1-3 months and two-thirds 328 (66.1%) were below one year of age.

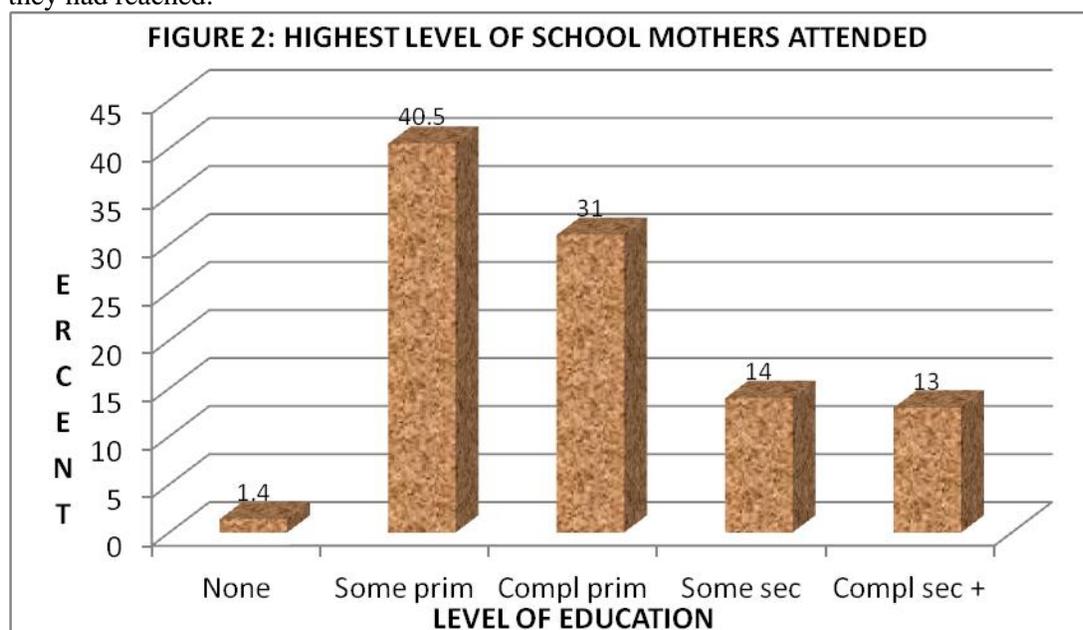
Two-thirds 332 (67.2%) of the respondents reported that they engage in some form of work to earn some money. The various kinds of work they engage in are shown in Table 3. The top three kinds of work the mothers were engaged in were crop farming which was practiced by more than half 255 (53.6%), selling vegetables and fruits practiced by close a fifth 84 (17.6%) and tending animals practiced by a tenth 50 (10.5%) of the mothers.

TABLE 3: KINDS OF WORK THAT MOTHERS ENGAGE IN TO EARN MONEY

KIND OF WORK	FREQUENCY	PERCENT
FARMING	255	53.6

SELLING VEGETABLES/FRUITS	84	17.6
TENDING ANIMALS	50	10.5
OTHER KINDS OF WORK	23	4.8
DAY LABORER	21	4.4
SHOPKEEPER/STREET VENDOR	20	4.2
SERVANT/HOUSEHOLD WORKER	16	3.4
SELLING PREPARED FOODS	7	1.5
TOTAL	476	100.0

It is quite evident from Table 3 that farming related activities accounted for more than four-fifths 389 (81.7%) for all the kinds of works the mothers engaged in. The survey established that majority 475 (95.6%) of the mothers had ever attended some level of school. Figure 2 shows the highest levels that they had reached.



At the time of the survey, the average number of people living in the households was 6 persons with a standard deviation of 2 persons. On average 2 rooms were usually used for sleeping in all the households with a standard deviation of 1 room.

A half of the households 241(48.4%) used grass/thatch while four out of every ten 211 (42.2%) used iron sheets for their roofs. The remainder 40 (8.0%) used metal sheets. The main material 400 (80.5%) used for the walls was mud, while some used stone/cement blocks 39 (7.8%) and 32 (6.4%) used cement/mud. The others used other materials 28 (5.2%) such as burnt bricks. Mud/sand 414 (83.3%) was the main material used for the floor while the rest used cement 83 (16.7%). Table 4 shows the households which indicated they owned certain types of property.

TABEL 4: TYPES OF PROPERTY OWNED BY HOUSEHOLDS

HOUSEHOLD PROPERTY	FREQUENCY	PERCENT	MEAN
MOBILE PHONES	388	79.5	2
LAND	372	76.2	2.6 ACRES
RADIO	342	70.1	1
POULTRY	331	67.8	7
CATTLE	299	61.3	3
GOATS/SHEEP	262	53.7	7
PLOUGHS	125	25.6	3

MOTORCYCLES	46	9.4	1
TELEVISION SETS	43	8.8	1
BICYCLES	28	5.7	1
OTHER PROPERTY	14	2.9	3
CAR	10	2.0	0.3
FRIDGE	6	1.2	0.3
VIDEO	5	1.0	1

It is quite evident from Table 5 that seven out of every ten 350 (70.3%) of the households obtain their water from rivers/streams. One out of every ten 56 (11.2%) had piped water into their dwellings while a similar proportion got their water from open wells 44(8.8%).

TABLE 5: MAIN SOURCE OF DRINKING WATER FOR DURING DRY SEASON

SOURCE OF DRINKING WATER	FREQUENCY	PERCENT
RIVER/STREAM	350	70.3
PIPED INTO DWELLING	56	11.2
OPEN WELL	44	8.8
PUBLIC TAP	32	6.4
COVERED WELL	5	1.0
RAIN WATER	5	1.0
DAM/POND	3	0.6
BOREHOLE	3	0.6
TOTAL	498	100.0

There were other sources but the amount of water that they provided was relatively small.

The type of toilet facility household members usually use is the traditional pit latrine 411 (82.7%) while a tenth 53 (10.7%) do not have any type of toilet the rest 33 (6.6%) have the Ventilated Pit (VIP) latrine. Nurses/midwives 413 (82.9%) were the main sources of health services/information on ante-natal care at the time of the survey.

2.0 MATERNAL AND NEWBORNE CARE

The survey sought to establish where the antenatal health services or information was received and over a half 281 (56.4%) reported that they received those services at a health centre.

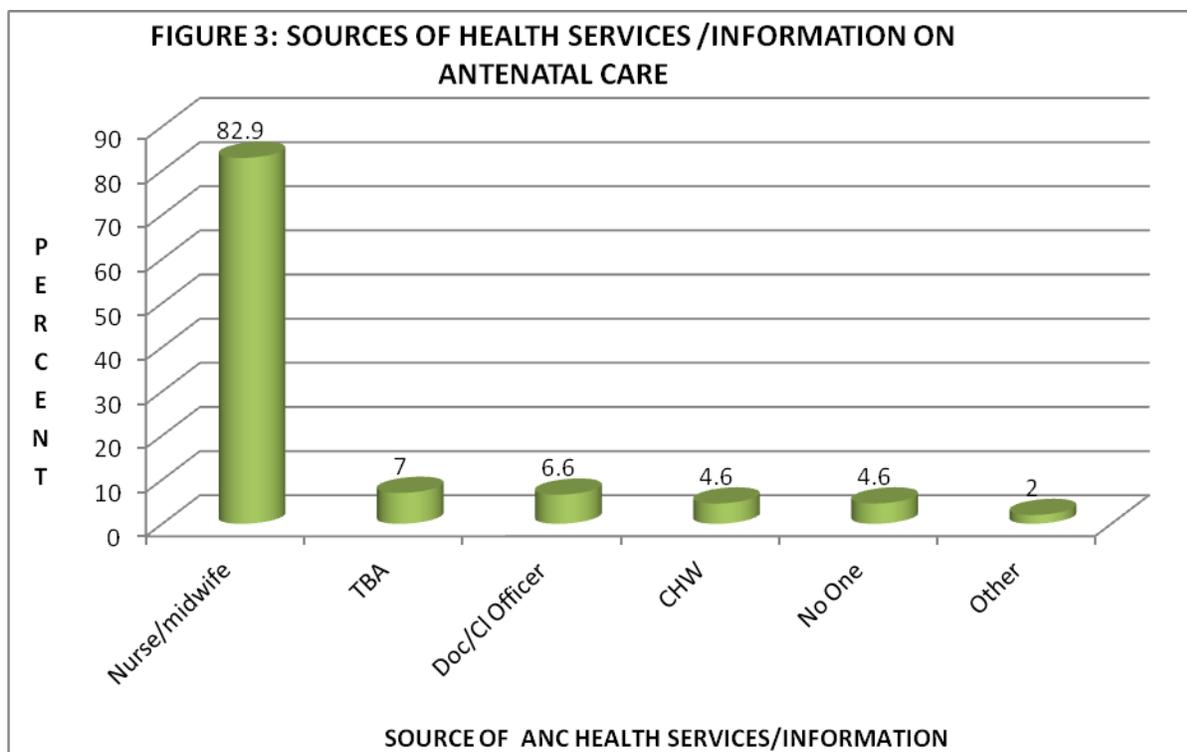
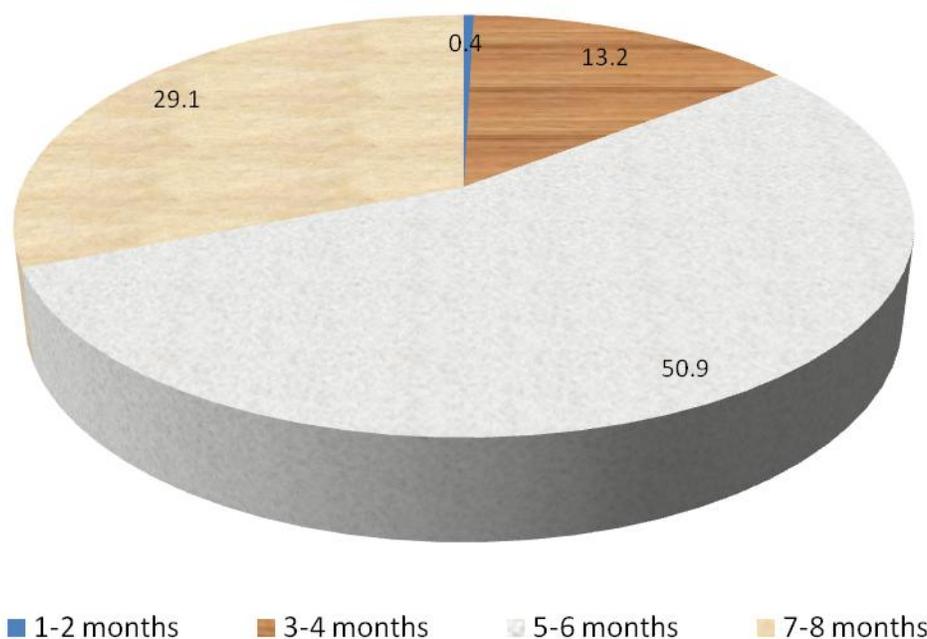


TABLE 6: PLACE WHERE MOTHERS RECEIVED ANTE-NATAL HEALTH SERVICES AND/OR INFORMATION

PLACE	FREQUENCY	PERCENT
HEALTH CENTRE	281	56.4
DISPENSARY	101	20.3
PRIVATE HOSPITAL	49	9.8
PUBLIC HOSPITAL	29	5.8
MIDWIFE/TBA HOME	14	2.8
MOTHER'S HOME	12	2.4
OTHER PRIVATE HEALTH INSTITUTION	3	0.6
OTHER PUBLIC HOSPITAL	1	0.2
PRIVATE CLINIC	1	0.2

The place that followed in respect to where this information was received was the dispensary 101(20.3%). Table 6 shows the various places where they received the antenatal health services and/or information. Figure 4 shows the distribution of months when they first received antenatal care during their last pregnancy.

FIGURE 4: MONTHS WHEN MOTHERS FIRST RECEIVED ANTENATAL CARE

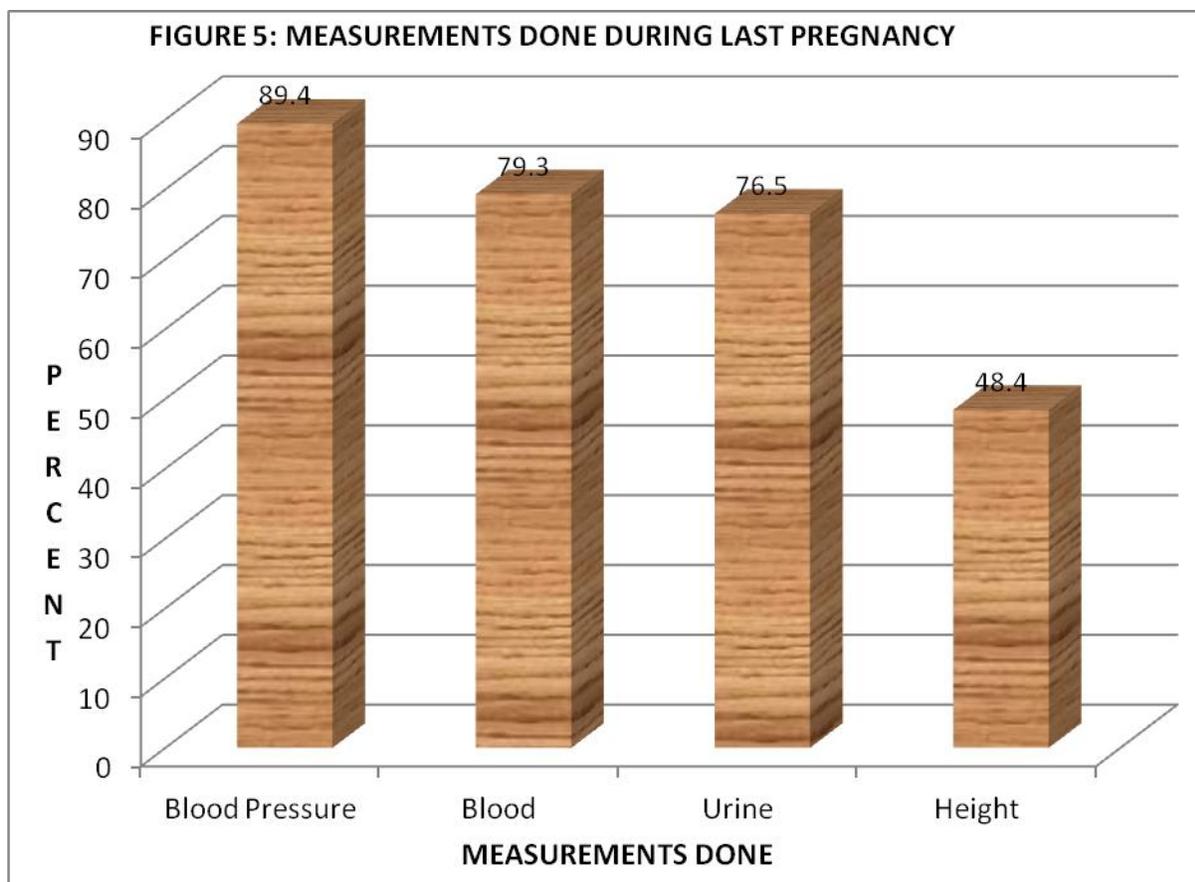


The average months when mothers first received antenatal care was 5.9 months with a standard deviation of 1.3 months. The average number of times that they received antenatal care was 2.9 times with a standard deviation of 1.1 times.

TABLE 7: NUMBER OF TIMES MOTHERS VISITED ANTENATAL CLINIC DURING THEIR LAST PREGNANCY

NUMBER OF TIMES	FREQUENCY	PERCENT
1	42	9.2
2	101	22.0
3	206	44.9
4	83	18.1
5	9	1.9
6	14	3.0
7	4	0.9
TOTAL	459	100.0

Only a quarter 109 (23.9%) of mothers received at least four times antenatal care during their previous pregnancy. Table 7 shows the number of times that they received antenatal care during their last pregnancy. The following measurements shown in Figure 5 were undertaken at least once during their last pregnancy.



It is evident that nine out of every ten 445 (89.4%) of the mothers had their blood pressure measured while four-fifths 395 (79.3%) had their blood tested. Slightly over quarter 400 (76.5%) also reported that their urine was tested and a half 241 (48.4%) had their heights taken during their last pregnancy. Only a tenth 44 (9.7%) of the mothers reported that they were visited by a Community Health Worker during their last pregnancy.

TABLE 8: VISITS BY COMMUNITY HEALTH WORKERS TO PREGNANT MOTHERS DURING THEIR LAST PREGNANCY

NUMBER OF TIMES	FREQUENCY	PERCENT
ONE	16	23.9
TWO	17	25.4
THREE	14	20.9
DON'T KNOW	20	29.9
TOTAL	67	100.0

They were visited for different times ranging between one to three times as shown in Table 8. Slightly more than a third of the mothers 177 (35.5%) reported that nobody told them anything about the signs of pregnancy complications. However a half 259 (52.0%) reported that they received information from nurses/midwives.

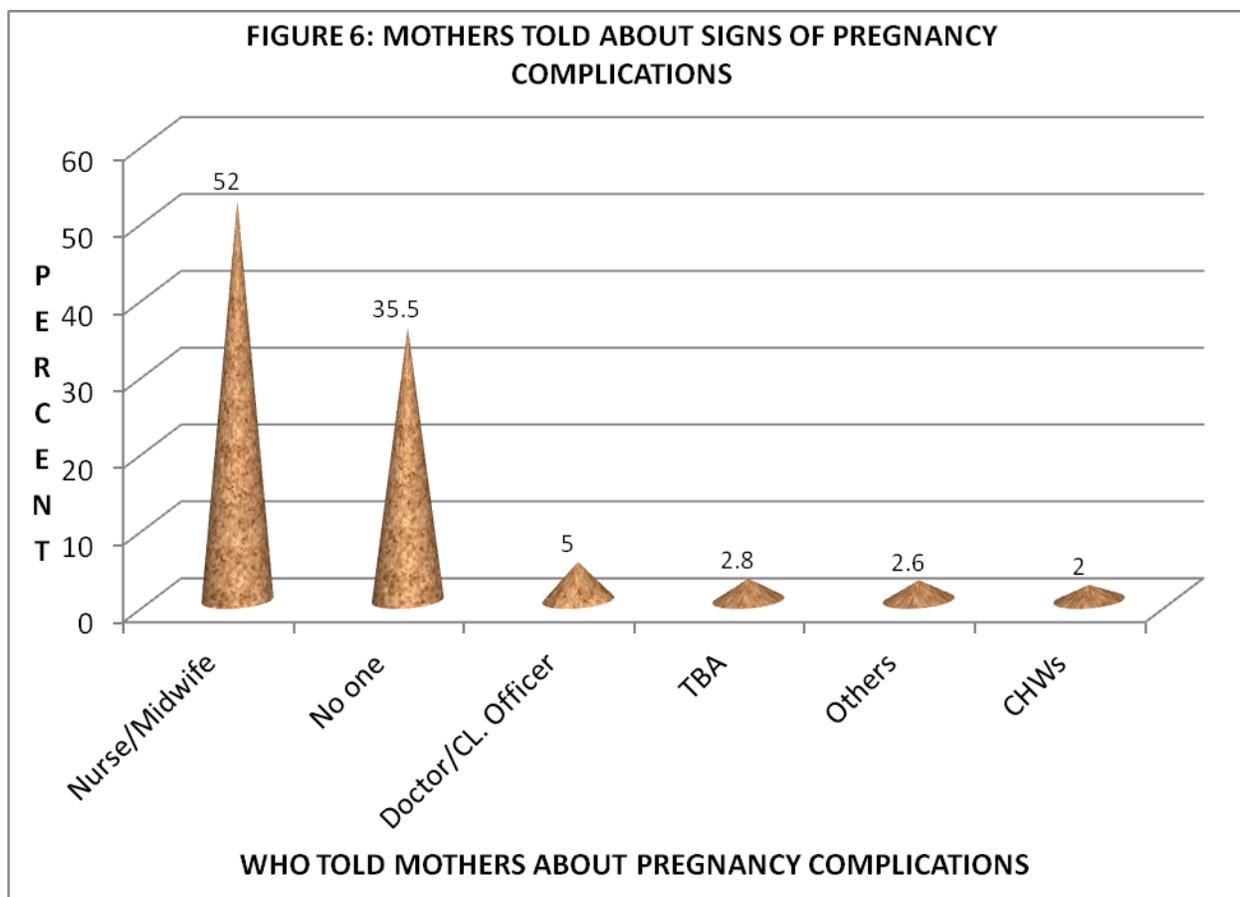


Figure 6 shows the various sources for such useful information to the pregnant mothers. Nurses/midwives contributed over half 255 (51.2%) of the information concerning where mothers could go if they had any pregnancy related complications.

TABLE 9: SOURCES OF INFORMATION CONCERNING WHERE MOTHERS WOULD GO WHEN FACED WITH PREGNANCY RELATED COMPLICATIONS

SOURCE OF INFORMATION	FREQUENCY	PERCENT
NURSE/MIDWIFE	255	51.2
DOCTOR/CLINICAL OFFICER	36	7.2
NO ONE	30	6.0
TBA	10	2.0
CHW	9	1.8
OTHER	2	0.4

Over ten percent 30 (6.0%) reported that no one informed them where they would go in the event encountering pregnancy complications. Other sources of information are shown in Table 9.

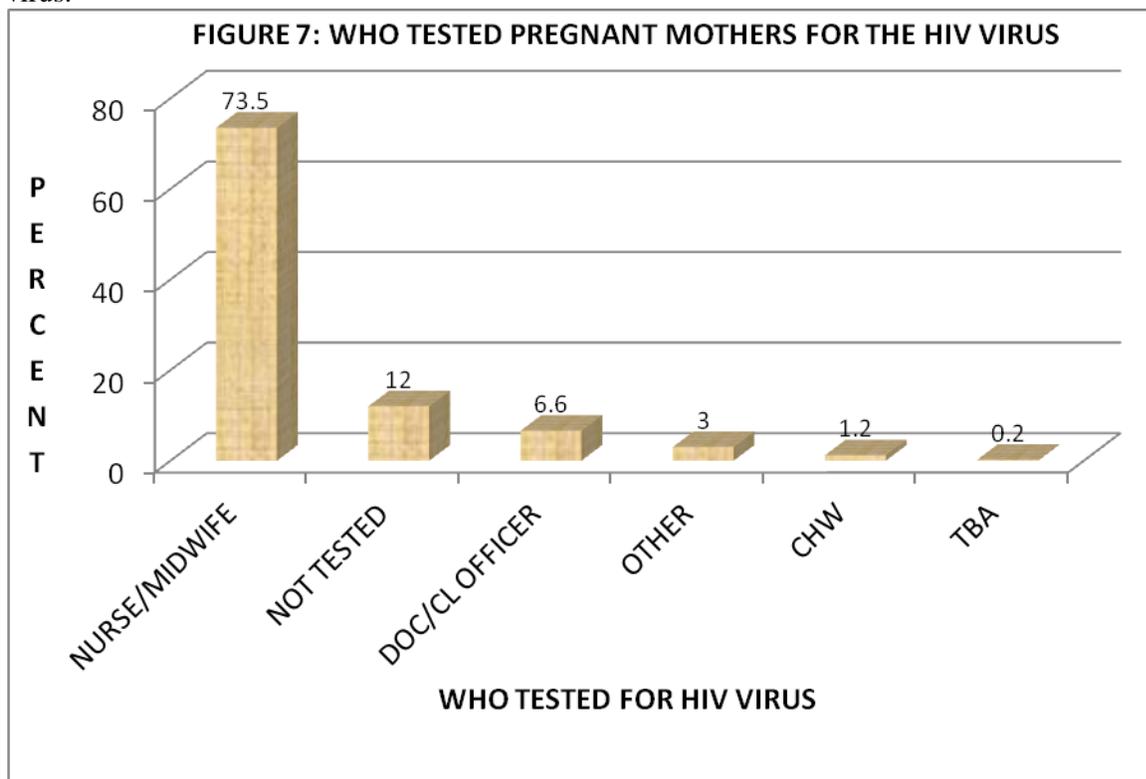
Over three quarters of the mothers 379 (76.1%) reported that they were informed by nurses/midwives about testing of the HIV virus while over ten percent 71 (14.3%) were not informed by anybody about it during their last pregnancy.

TABLE 10: SOURCES OF INFORMATION FOR MOTHERS ON TESTING FOR HIV THE VIRUS

SOURCE OF INFORMATION	FREQUENCY	PERCENT
NURSE/MIDWIFE	379	76.1
NO ONE	71	14.3
DOCTOR/CLINICAL OFFICER	31	6.2

CHW	18	3.6
TBA	9	1.8
OTHER	6	1.2

Almost three quarters 366 (73.5%) reported that they were tested for the HIV virus while slightly over ten percent 60 (12.0%) were not tested for the virus. Figure 7 shows those who tested the mothers for the virus.



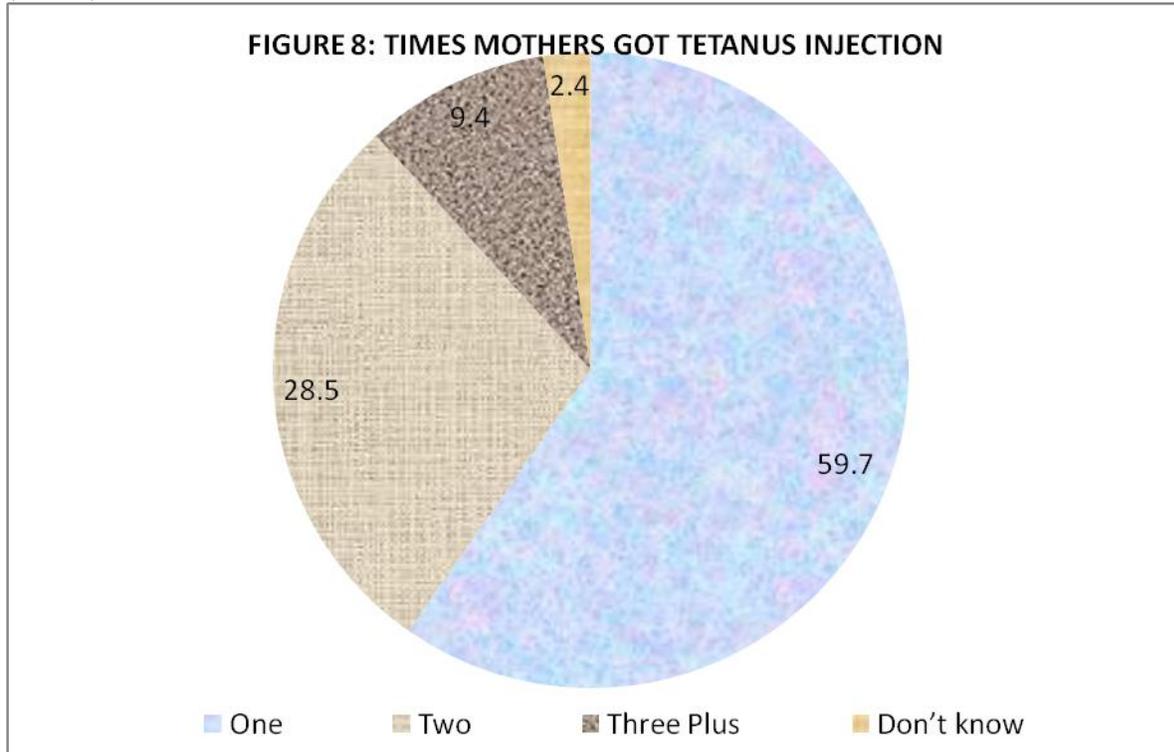
Nine out of ten 397 (93.9%) of the mothers who reported that they were tested for the HIV virus also reported that they were given the test results.

According to the mothers severe problems which should necessitate mothers to immediately taken to a health facility during pregnancy are shown in Table 11.

TABLE 11: SEVERE PROBLEMS WHICH SHOULD NECESSITATE MOTHERS TO IMMEDIATELY BE TAKEN TO A HEALTH FACILITY DURING PREGNANCY

SEVERE PROBLEM	FREQUENCY	PERCENT
VAGINAL BLEEDING	252	50.6
SEVERE ABDOMINAL PAIN	241	48.4
FEVER	196	39.4
BABY STOPS MOVING	154	30.9
HEADACHE/BLURRED VISION	92	18.5
FAST/DIFFICULT BREATHING	78	15.7
OTHERS	52	10.4
CONVULSIONS	45	9.0
FOUL SMELLING DISCHARGE	28	5.6
LEAKING BROWNISH/GREENISH FLUID		

The top three severe problems according to the mothers which would necessitate visiting a health facility immediately were vaginal bleeding 252 (50.6%), severe abdominal pain 241 (48.4%) and fever 196 (39.4%).



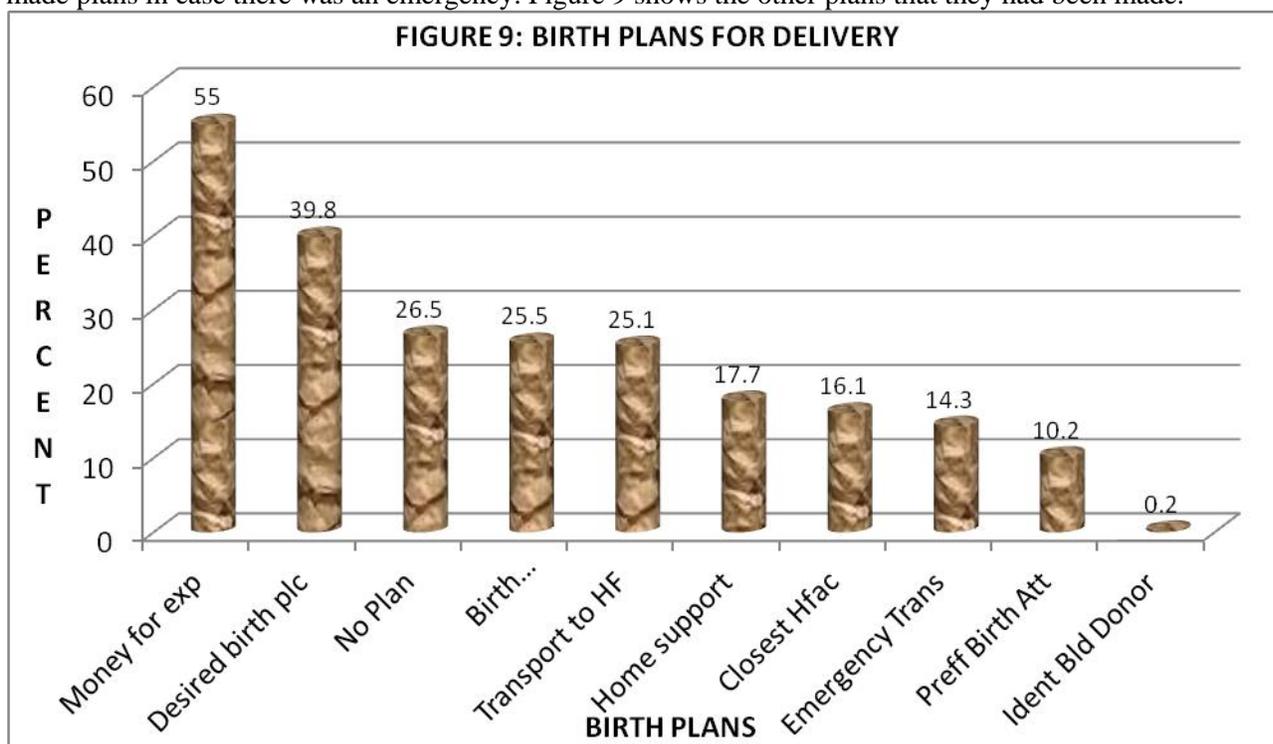
Over four-fifths 419 (85.7%) of the mothers reported that they received tetanus injection during their last pregnancy. Six out of every ten 253 (59.7%) reported that they got it once while more than a quarter 121 (28.5%) received it twice. Figure 8 shows the number of times that mothers received the injection. Close to six out of every ten 282 (58.5%) reported that they had received tetanus injection prior to the previous pregnancy. A half 140 (46.4%) of those who said so reported that they got it once while a similar proportion 143 (47.3%) reported having received it between two and more than three times. Close to a half 223 (46.5%) of the mothers reported that they used iron tablets/syrup during their last pregnancy. The mean number of days that mothers took iron tablets/syrup was 13.2 days with a standard deviation of 28.5 days. The frequency distribution for the number of days that they took the iron tablets/syrup is shown in Table 12.

TABLE 12: DISTRIBUTION FOR THE NUMBER OF DAYS MOTHERS CONSUMED IRON TABLETS/SYRUP DURING THEIR PREVIOUS PREGNANCY

NUMBER OF DAYS	FREQUENCY	PERCENT
1-4	61	30.4
5-8	75	37.4
9-12	10	5.0
13-16	28	14.4
17+ DAYS	26	13.0
TOTAL	200	100.0

About two-thirds 136 (67.8%) of the mothers who took the iron tablets/syrup did so between 1-8 days. Mothers were asked if they had any birth plans during their last pregnancy. Over half 274 (55.0%) of the mothers who had made birth plans had set aside some money for expenses while four out of every ten 198 (39.8%) had secured the desired place of birth. However it is interesting to note that slightly over a quarter 132 (26.5%) had not made any birth plans while a quarter 127 (25.5%) and a similar proportion

125 (25.1%) had made transport arrangements for the delivery. Slightly over ten percent 71 (14.3%) had made plans in case there was an emergency. Figure 9 shows the other plans that they had been made.



Home support while mother was away 88 (17.7%) and delivering in the closest health facility 80 (16.1%) included plans which mothers had made. Only a third of the mothers 164 (33.8%) reported that they slept under a mosquito net all the time during their last pregnancy. Four out of every ten 202(41.6%) did not own a mosquito net considering the danger that malaria poses to pregnant mothers and their unborn babies.

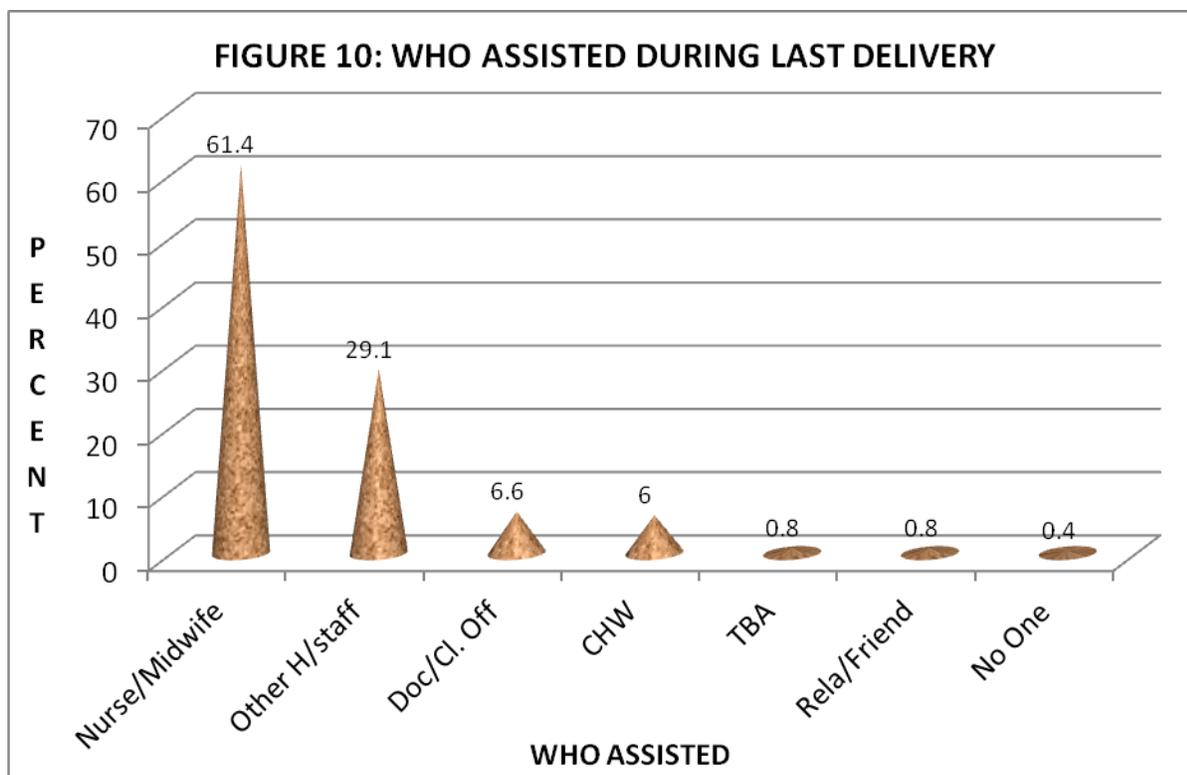
3.0 LABOUR AND DELIVERY

Five out every ten 277 (56.9%) of the mothers reported that they delivered in a health facility during their last pregnancy. Asked why they delivered in the place of their choice they gave safety during previous delivery 171 (34.3%) the highest consideration followed more than a quarter 132 (26.5%) who gave distance the second consideration. Table 13 shows the other considerations.

TABLE 13: CHOICES OF DELIVERY DURING LAST DELIVERY

WHY THEY CHOSE TO DELIVER THERE	FREQUENCY	PERCENT
PREVIOUS DELIVERY SAFE	171	34.3
DISTANCE	132	26.5
DISSATISFACTION WITH QUALITY OF CARE	96	19.3
OTHER CONSIDERATIONS	57	11.4
COST	49	9.8

Contrary to expectation cost 49 (9.8%) was not a relatively serious consideration when deciding where to deliver. Six out of every ten 339 (60.6%) of the mothers were assisted by a skilled birth attendant during their last delivery. Table 14 shows the various persons who assisted them during the last delivery.



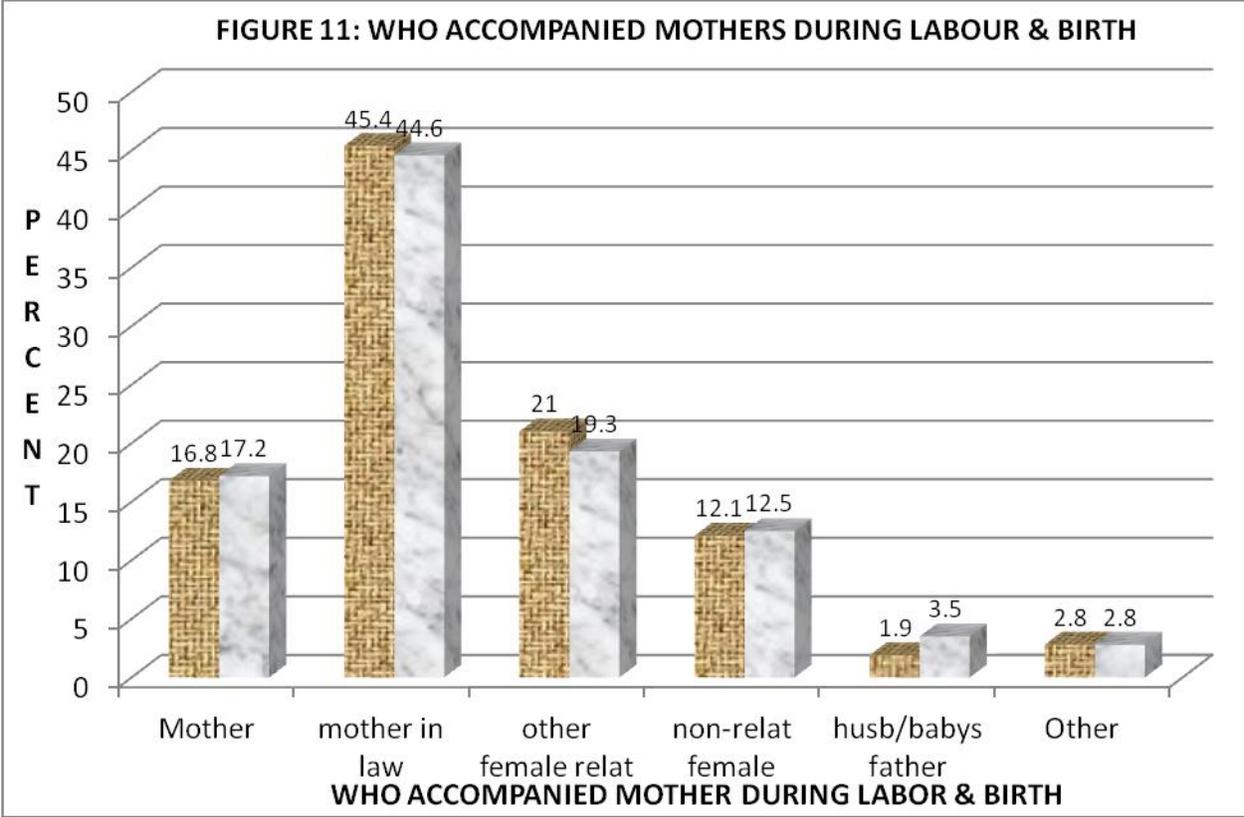
Slightly over a third 171 (34.3%) of the births conducted at home used a delivery kit or a new blade to cut the cord. Mothers reported that several instruments were used to cut the cord for births that were conducted at home. Table 14 shows the various instruments that were used:-

TABLE 14: INSTRUMENTS USED TO CUT THE CORD FOR HOME BIRTHS

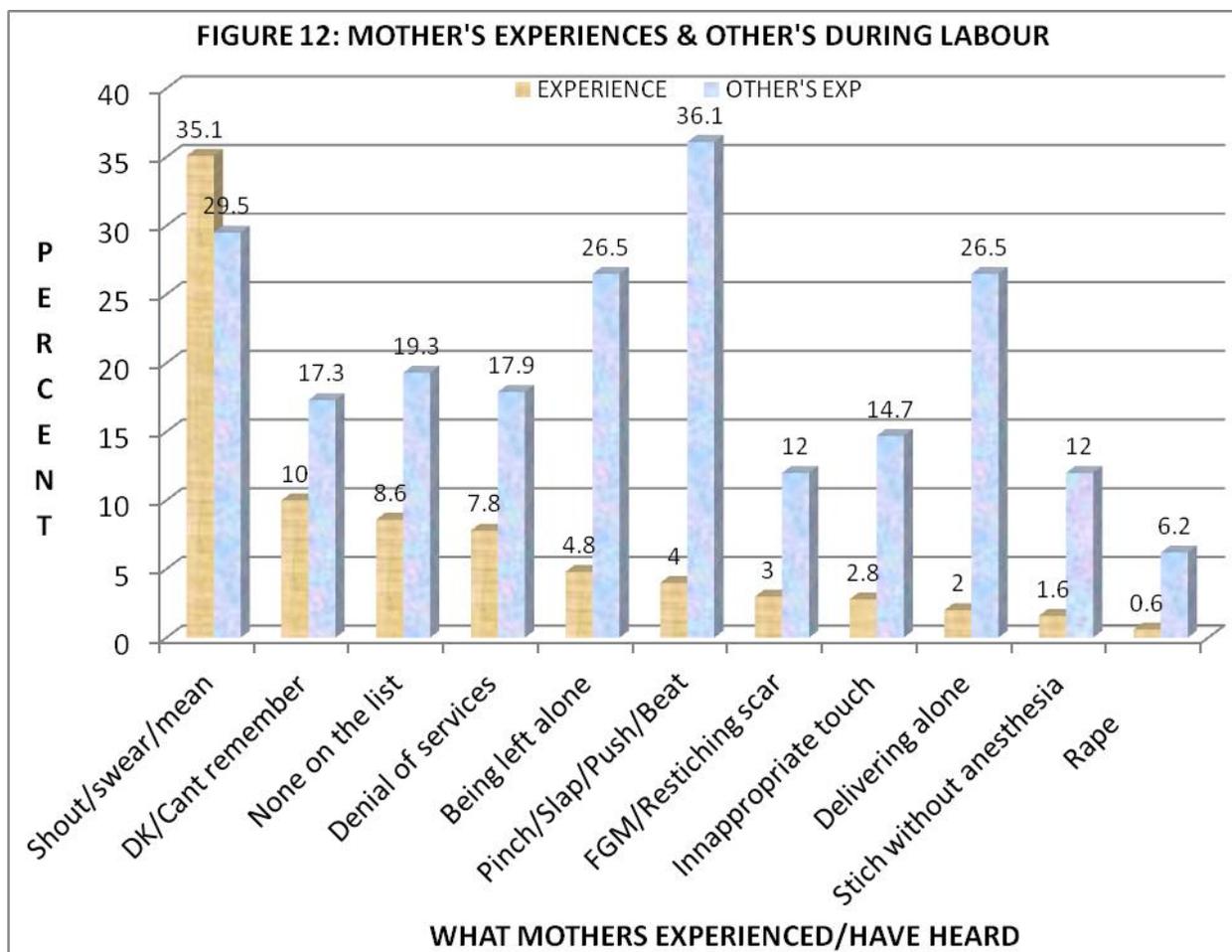
INSTRUMENT THAT WAS USED	FREQUENCY	PERCENT
BLADE FROM DELIVERY BAG/NEW BLADE	148	59.2
BLADE USED FOR OTHER PURPOSES	55	22.0
SCISSOR	23	9.2
OTHER	16	6.4
DON'T KNOW/CANT REMEMBER	8	3.2
TOTAL	250	100.0

As can be seen from Table 14, only six out of every ten 148(59.2%) for those who delivered at home used a blade from a delivery kit/new blade during their last delivery. Of the instruments used to cut the cord for home deliveries only a half 157 (48.0%) reported that the instrument was boiled. Two-thirds 240 (66.5%) of the mothers reported that something was placed on the umbilical cord either before or after it was cut. Close to a half 101 (47.2%) of the mothers reported that antiseptic was used while four out every ten 94 (43.9%) reported that other things were placed on the umbilical cord. Other items placed on the umbilical cord included some type of oil 17 (7.9%) and ash 2 (0.9%).

Over nine out of every ten 454 (93.6%) reported that they had normal deliveries while the rest underwent caesarian sections during their last delivery. In six out of every ten 275 (60.0%) the birth attendant assisted the placenta to come out. A similar proportion 289 (60.6%) reported that massage was done after the placenta was delivered. In only four out of every ten 197 (41.0%) was an injection given in an effort to prevent too much bleeding. Most mothers 395 (83.3%) had a support person during labour. Figure 11 shows the various persons who were with the mothers during labour and birth in their last pregnancy.



The husband/baby's father scores relatively low 8 (1.9%) compared with mothers in law 192 (45.4%) other female relatives 89 (21.0%) and the biological mothers 71 (16.8%) of the mothers of children 0-23 months as persons who accompanied the mothers during labour. More than four-fifths 417 (84.8%) of the mothers reported that they were accompanied by someone when giving birth. There is a favorable comparison between accompaniment during labour and birth. The husbands/baby's fathers appear to be much more concerned during the child's birth than during labour. Mothers were asked to state what they experienced during labour. Further they were asked to state whether they have heard their experiences happening to other women. Figure 12 shows their experiences.



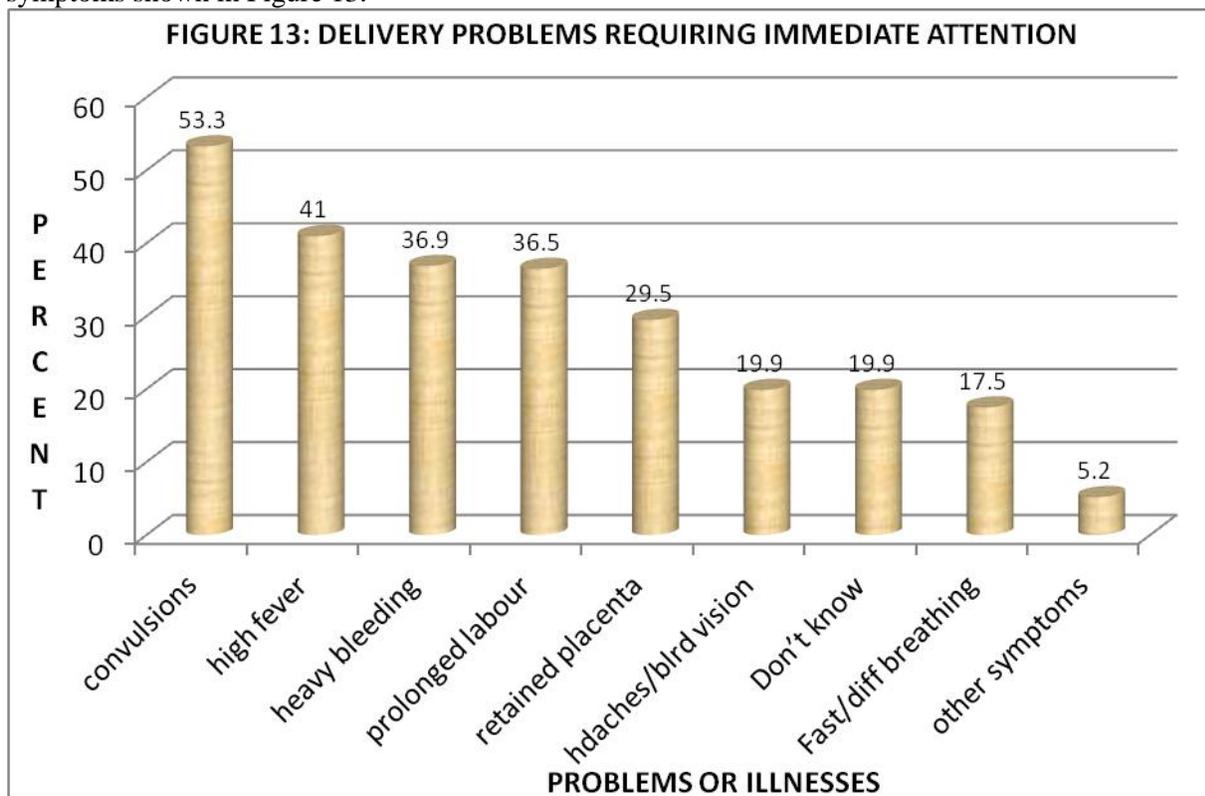
The experiences of other mothers in almost all the cases was, higher than the actual mother's experiences. This may not be higher in the real sense but might be as a result of the spread of even a few cases being blown out of proportion or exaggerations. The same case/cases could be widely spread and/or exaggerated. However, it is evident that shouting/swearing/saying mean things to the mothers is a common phenomena exercised by those entrusted to provide care to mothers during labour. Mothers were asked to state if they were satisfied with the services they received during labour and delivery during their last delivery. Close to four out of every ten 158 (36.4%) reported they were very satisfied with the services while a half reported they were satisfied 220 (50.7%). Table 15 shows the mother's responses.

TABLE 15: SATISFACTION DURING LABOUR AND DELIVERY

LEVEL OF SATISFACTION	FREQUENCY	PERCENT
VERY SATISFIED	158	36.4
SOMEWHAT SATISFIED	22	5.1
SATISFIED	220	50.7
SOMEWHAT DISSATISFIED	15	3.5
VERY DISSATISFIED	6	1.4
DON'T KNOW/DON'T REMEMBER	11	2.5
NO	2	0.5
TOTAL	434	100

Close to a tenth 34 (7.9%) reported that they were not satisfied with the services.

The survey sought to establish mothers' knowledge on severe problems or illnesses while having contractions or delivering a baby which would necessitate immediate medical attention. They reported the symptoms shown in Figure 13.



As can be seen from Figure 13 mothers considered convulsions (53.3%), high fever (41.0%), heavy-bleeding (36.9%) and the other problems all the way to fast/difficult breathing, in that order according to what they perceive to severe problems.

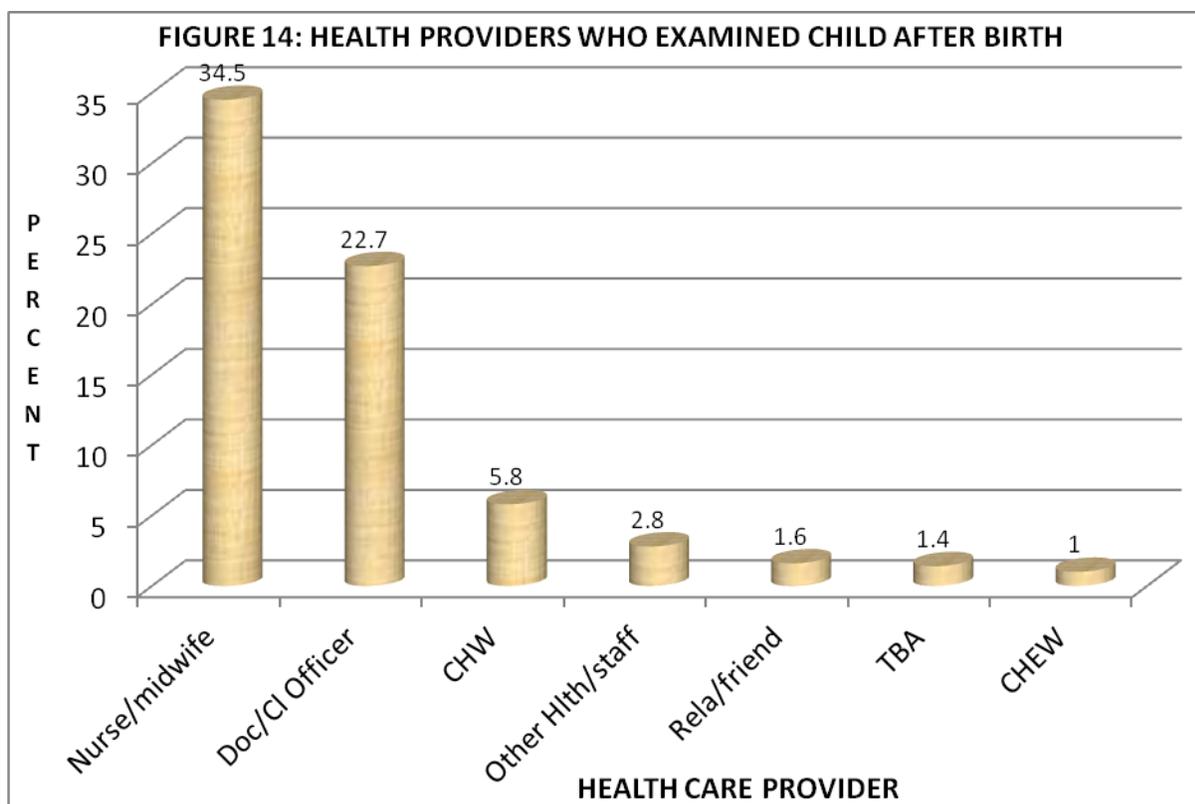
4.0 POST NATAL CARE

Mothers reported that over two-thirds 273 (71.5%) of the children were checked by a health care provider after birth. It took varying periods of time before the children were checked ranging between 1 hour to 6 weeks. Table 16 shows the time period it took to get the children checked.

TABLE 16: TIME IT TOOK TO GET CHILDREN CHECKED AFTER BIRTH

TIME IT TOOK FOR CHILD TO GET CHECKED	FREQUENCY	PERCENT
LESS THAN 12 HOURS	178	65.2
12 – 24 HOURS	42	15.4
3 – 7 DAYS	10	3.7
OVER 7 DAYS	43	15.7
TOTAL	273	100

As can be seen from the table, close to two-thirds 178 (65.2%) of the children were examined in less than 12 hours after birth. It can also be observed that well over ten percent 43 (15.7%) were examined after 7 days since birth. The survey further sought to establish the health care workers who checked the child health after birth. Figure 14 shows the various health care workers who did so.



Mothers were asked if anyone examined and/or counsel them during two days after birth. Their responses are shown in Table 17.

TABLE 17: EXAMINATIONS AND/OR COUNSELING FOR CHILD WITHIN TWO DAYS AFTER BIRTH

ACTION TAKEN	FREQUENCY	PERCENT
BABY'S CORD WAS EXAMINED	332	66.7
MOTHER COUNSELED ON AND OBSERVED WHILE BREASTFEEDING	255	51.2
BABY WEIGHED	227	45.6
MOTHER COUNSELED ON DANGER SIGNS FOR NEWBORNS	214	43.0
BABY'S TEMPERATURE ASSESSED	208	41.8

As shown in Table 17, two-thirds 332 (66.7%) of the mothers reported that their baby's cord was examined two days after birth. A half 255 (51.2%) of the mothers also reported that they were counseled and observed while breastfeeding including the weighing of the baby, counseling on danger signs for newborns as well as temperature assessment undertaken during the first two days after birth.

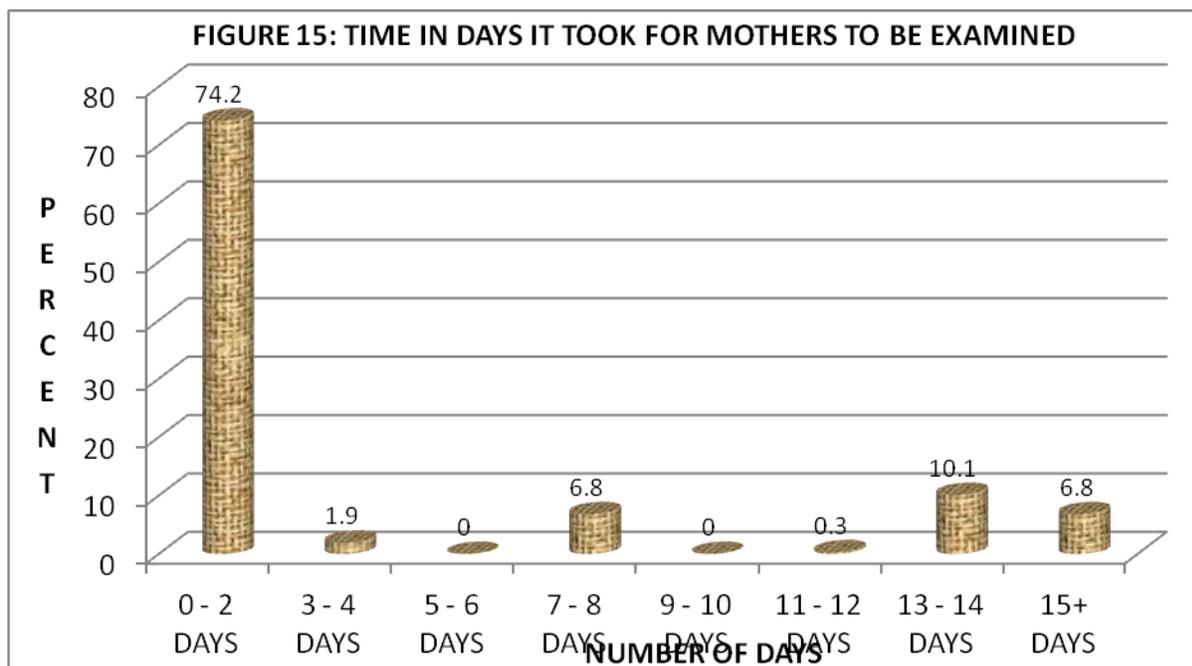
Table 18 shows the various health care providers who checked on the mothers' health after the delivery of their last baby.

TABLE 18: HEALTH CARE PROVIDERS WHO CHECKED ON THE MOTHER'S HEALTH AFTER THEIR LAST DELIVERY

HEALTH CARE PROVIDERS	FREQUENCY	PERCENT
NURSE/MIDWIFE	265	53.2
NO ONE	116	23.3
TBA	49	9.8
DOCTOR/CLINICAL OFFICER	30	6.0

OTHER HEALTH CARE PROVIDER	29	5.8
CHW	9	1.8

Close to a quarter 116 (23.3%) of the mothers did not have their health checked by any health care provider after their last delivery while more than half 265 (53.2%) reported that they were checked by a nurse/midwife. Further the survey sought to establish the length of time it took to the mothers to get examined. Figure 15 shows the time it took to get examined after birth.



Close to three quarters 368 (73.9%) of the mothers were examined after delivery ranging between 1 day to 8 weeks after delivery. Of those who were examined three quarters 273 (74.2%). The survey went further to establish where the checking by the health care providers was done. Table 19 shows the places where the checking was done.

TABLE 19: PLACE WHERE MOTHERS FIRST CHECK WAS DONE

PLACE	FREQUENCY	PERCENT
PUBLIC HEALTH CENTRE	177	35.5
PUBLIC DISPENSARY	55	11.0
AT HOME	54	10.8
PUBLIC HOSPITAL	47	9.4
PRIVATE SECTOR HOSPITAL	34	6.8
MIDWIFE/TBAS HOME	8	1.6
AT PRIVATE CLINIC	5	1.0
AT OTHER HOME	3	0.6
OTHER PLACES, OUTREACH,	5	1.0

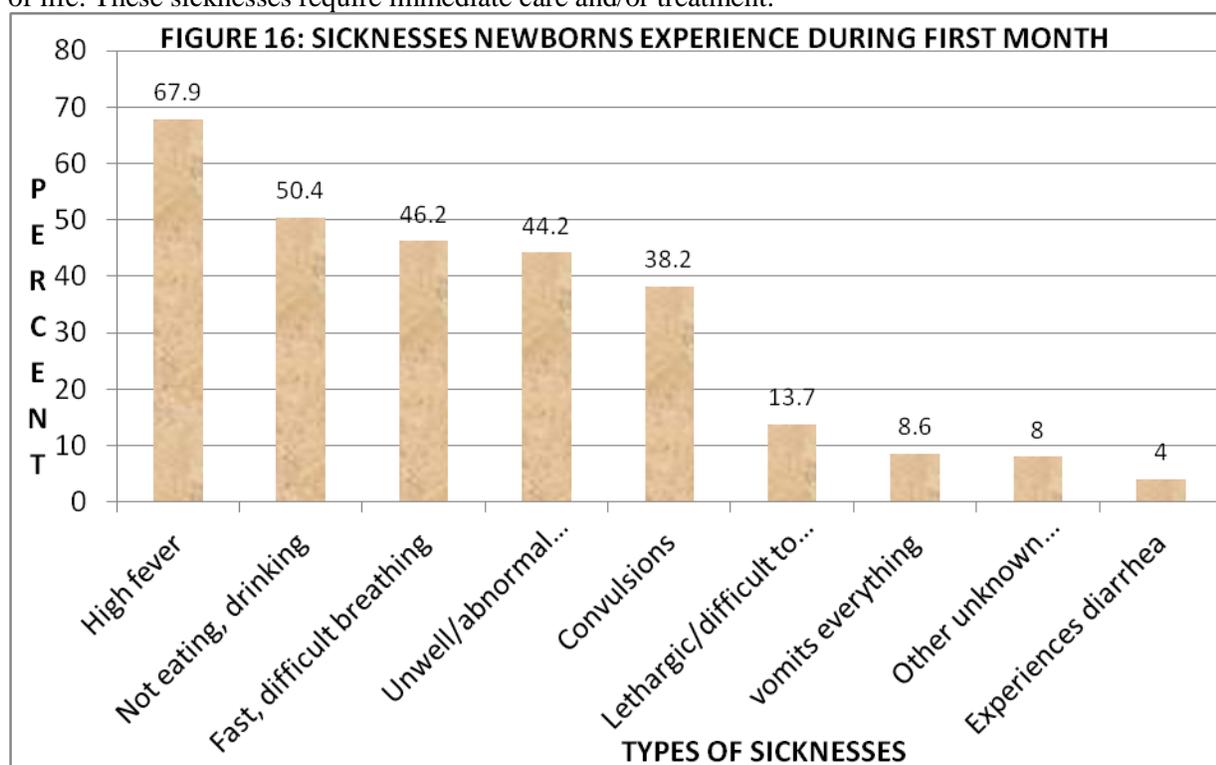
As can be seen from Table 19, the public health centre was the most popular place for the mother's first health check after delivery 177 (35.5%) followed by the public dispensary 55 (11.0%) while a close proportion 54 (10.8%) were checked at their homes.

Mothers were asked to state severe illnesses after delivery which should be taken immediately to a health facility. Table 20 shows those problems.

TABLE 20: SEVERE PROBLEMS AFTER DELIVERY WHICH REQUIRING IMMEDIATE VISIT TO A HEALTH FACILITY

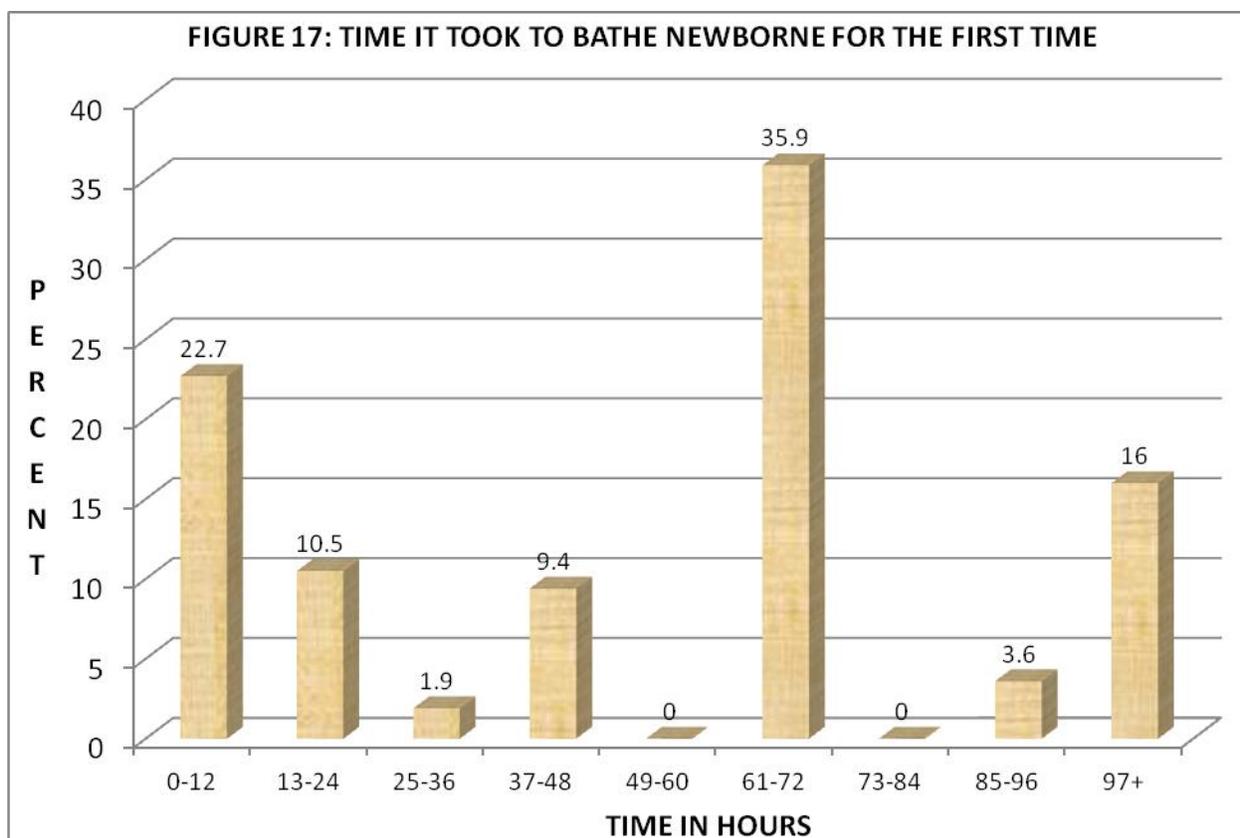
SEVERE ILLNESS	FREQUENCY	PERCENT
SEVERE ABDOMINAL PAIN	268	53.8
EXCESSIVE BLEEDING	266	53.4
HIGH FEVER	210	42.2
HEAD ACHE/BLURRED VISION	80	16.1
FAST DIFFICULT BREATHING	79	15.9
OTHER PROBLEMS	74	14.9
CONVULSIONS/LOSS OF CONSCIOUSNESS	57	11.4
PAIN IN THE CALF	37	7.4
FOUL SMELLING DISCHARGE	30	6.0
VERBALIZATION/BEHAVIOUR	13	2.6

According to the mothers the three main severe illnesses after delivery requiring immediate visit to a health facility were severe abdominal pain 268 (53.8%), excessive bleeding 266 (53.4%) and high fever 210 (42.2%). Figure 16 shows the various sicknesses that newborns suffer from during their first month of life. These sicknesses require immediate care and/or treatment.



Two-thirds 337 (67.9%) of the mothers reported high fever while a half 251 (50.4%) reported not eating, drinking/breastfeeding while close to a half reported fast or difficult breathing 230 (46.2%) as the signs of illness that would indicate that the child needs treatment.

Four-fifths 391 (80.1%) of the newborns were dried (wiped) after delivery. The time it took to dry (wipe) them varied between 1 hour to 536 hours. The average period in hours was 72.69 it



Took was 72.69 hours which translates to 3 days with a standard deviation of 83.3 hours which translates to 3.5 days and a median of 72.0 hours or exactly 3 days. It is not known why it took so long, 536 hours which translates to 22.3 days to wipe some of the newborns.

5.0 BREASTFEEDING INFANT AND YOUNG CHILD FEEDING

Almost all the mothers 473 (97.7%) reported that they breastfed their children after birth. The length of time it took to breastfeed the newborns for the, first time varied between one hour to 168 hours which translates to 7days. Table 21 shows the distribution of the number of hours it took the mothers to put their newborns to the breast for the first time.

TABLE 21: TIME IN HOURS IT TOOK MOTHERS TO PUT NEWBORNES TO THE BREAST FOR THE FIRST TIME

NUMBER OF HOURS	FREQUENCY	PERCENT
0-1	387	81.8
2-3	14	2.9
4-5	5	1.1
6+	67	14.2
TOTAL	473	100.0

As can be seen from Table 21, slightly over four-fifths 387 (81.8%) of the mothers reported that they breastfed their newborns within the first hour after birth. It can be noted that over ten percent 67 (14.2%)

of the newborns were delayed for more than 6 hours before being to the breast. Table 22 shows selected liquids and foods that the newborns were fed one day prior to the survey during day or night.

TABLE 22: SELECTED LIQUIDS OR FOODS THE NEWBORNS WERE FED WITH ONE DAY PRIOR TO THE SURVEY

TYPE OF LIQUIDS OR FOODS	FREQUENCY	PERCENT
BREASTMILK	456	91.6
PLAIN WATER	310	62.2
OTHER FOODS E.G. PORRIDGE/GRUEL	239	48.0
FORTIFIED INFANT FORMULA	97	19.5
COMMERCIAL INFANT FORMULA	31	6.2

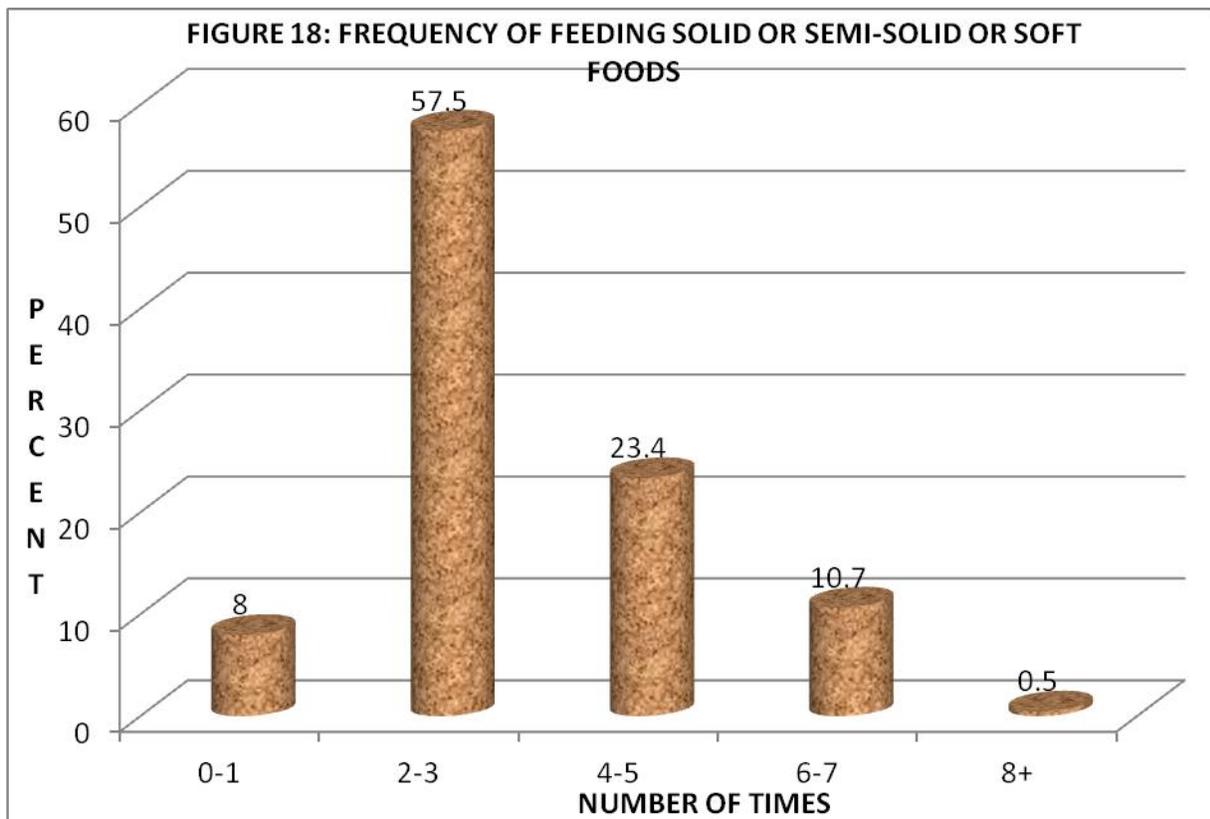
It is quite evident that breast-milk was the most popular 456 (91.6%) food or drink given to the newborns one prior to the survey. Plain water was second with six out of every ten 310 (62.2%) reporting that they gave plain water with a half 239 (48.0%) reporting they gave other foods such as porridge/gruel. Other foods given to the children one day prior to the survey are shown in Table 23.

TABLE 23: OTHER FOODS GIVEN TO THE CHILDREN ONE DAY PRIOR TO THE SURVEY

TYPE OF FOOD	FREQUENCY	PERCENT
TINNED, POWDERED OR FRESH ANIMAL MILK	372	74.7
UGALI, BREAD, SPAGHETI, OTHER FOODS FROM GRAINS	274	55.0
TEA OR COFFEE	219	44.0
OTHER LIQUIDS	139	27.9
SUKUMA WIKI OR OTHER DARK GREEN LEAFY VEGETABLES	113	22.7
POTATOES, YAMS, MANIOC, CASSAVA OR OTHER ROOT FOODS	95	19.1
EGGS	87	17.5
SOLID OR SEMI-SOLID FOODS	80	16.1
OTHER FRUITS OR VEGETABLES	77	15.5
BEANS, PEAS, LENTILS OR NUTS	50	10.0
PUMPKIN, CARROTS, SQUASH, SWEET POTATOES, THAT ARE YELLOW OR ORANGE	48	9.6
RIPE MANGOES OR PAPAYAS	45	9.0
OTHER MEATS E.G. BEEF, PORK, LAMB, GOAT, CHICKEN OR DUCK	35	7.0
OIL, FATS, BUTTER OR OTHER SIMILAR FOODS	33	6.6
FRESH OR FRIED FISH OR SHELLFISH	28	5.6
LIVER, KIDNEY, HEART OR OTHER ORGAN MEATS	28	5.6
CHOCOLATES, SWEETS, CANDLES, PASTRIES, COOKIES	27	5.4
CHEESE YORGURT OR OTHER MILK PRODUCTS	25	5.0
PALM OIL, PALM NUT PULP SAUCE	13	2.6
CRUBS, SNAILS, INSECTS, OTHER SMALL PROTEIN FOODS	2	0.4

There is consistency between Table 22 and Table 23 in terms breast-milk and animal milk being the most popular liquid or food provided to the children. As can be seen from Table 23 three quarters 372 (74.7%) of the mothers reported that they gave tinned, powdered or fresh animal milk while over a half 274 (55.0%) gave ugali, bread, rice, spaghetti and other foods from grains. Tea or coffee was the third grouping of liquid or food provided to the children with a proportion of over four out of every ten 219 (44.0%). As to whether these foods were of a balanced nutritional value is a different matter.

At the time of the survey close to nine out of every ten 420 (85.7%) of the mothers reported that they were still breastfeeding their children. Mothers were requested to state the number of times they gave solid or semi-solid or other soft foods other than liquids one day prior to the survey. Figure 18 shows the distribution of the frequencies that these foods were given.



6.0 CHILD HEALTH

Almost nine out of every ten 320 (85.8%) of the mothers reported that their children received vitamin 'A' within the last 6 months. A similar proportion 350 (91.9%) of the mothers reported that their children had received DPT (PENTA) vaccinations at the time of the survey.

The distribution of the number of times children were given the PENTA vaccination is shown in Table 24. The average number of times that children got PENTA was 3 times.

TABLE 24: DISTRIBUTION OF THE NUMBER OF TIMES CHILDREN RECEIVED PENTA VACCINATION

NUMBER OF TIMES	FREQUENCY	PERCENT
ONE	11	3.6
TWO	36	11.7
THREE	203	65.9
FOUR	17	5.5
FIVE AND MORE	41	13.3
TOTAL	308	100.0

Two-thirds 238 (67.8%) of the children received the Measles vaccination. About three quarters 282 (73.6) of the mothers said they had the child health booklet where vaccinations and vitamin 'A' are recorded. A reasonable proportion of the mothers 209 (74.4%) reported that their children had received vaccinations which had not been recorded on the immunization card at the time of the survey.

7.0 MALARIA - TREATMENT OF FEVER OF CHILD

Close to four out of every ten 182 (38.4%) of the mothers reported that their children had suffered from fever during the last two weeks prior to the survey. Majority of the mothers 164 (90.1%) sought advice or treatment while their children were ill with fever. The survey further sought to establish the health seeking behavior of the mothers while their children were struck with fever. Table 25 shows the various places where mothers sought advice and/or treatment.

TABLE 25: WHERE FIRST ADVICE AND/OR TREATMENT WAS SOUGHT

PLACE WHERE ADVICE TREATMENT WAS SOUGHT	FREQUENCY	PERCENT
GOVERNMENT DISPENSARY	77	44.5
GOVERNMENT HEALTH CENTRE	71	41.0
GOVERNMENT HOSPITAL	10	5.8
PRIVATE HOSPITAL/CLINIC	7	4.0
PHARMACY	5	2.9
CHW	1	0.6
SHOP	2	1.2
TOTAL	173	100.0

It is quite clear that government health facilities were the most popular with nine out of every ten 158 (91.3%) of the mothers reporting that they visited those facilities. Distribution of the facilities could also be a factor. Figure 19 shows the number of days that the mothers stayed before they sought advice/treatment after the onset of fever.

FIGURE 19: DAYS WHEN ADVICE/TREATMENT WAS SOUGHT AFTER ONSET OF FEVER



Three quarters 58 (34.5%) of the mothers visited health facilities the same day while a half 87 (51.8%) sought advice/treatment the one day after the onset of fever and slightly over a tenth 23 (13.7%) went after two or more days. Only a quarter 45 (23.7%) of the mothers reported that their children’s blood was taken from their fingers or heels for testing. The survey further sought to establish the proportion of children who took drugs during the time of the fever. Nine out of every ten 169 (92.9%) reported that their children were given drugs during the time they had fever.

A majority 138 (83.1%) of the mothers reported that they got the drugs from hospital/health facility workers while some bought over the counter from pharmacies 9 (5.4 %) and about a tenth 16 (9.0%) got from other undisclosed sources. Only a small proportion of the mothers 5 (7.8%) reported that they were visited by a Community Health Worker during the time that their children were sick with fever. Most of the visits by CHW’s to the mother’s homes after provision of treatment were done during the next day (13.9%) and the rest 2 (5.6%) were visited 2 days later. The Anti-Malarials that the children were given are shown in Table 26.

TABLE 26: ANTI-MALARIALS AND ANTI-PYRETICS PRESCRIBED TO CHILDREN WHEN THEY HAD FEVER

ANTI-MALARIALS	FREQUENCY , n= 182	PERCENT
FANSIDAR	15	8.2
ACT (COARTEM)	13	7.1

AMODIAQUIN	11	6.0
QUININE	9	4.9
ANTI-PYRETICS		
PARACETAMOL	112	61.5
OTHER DRUGS	44	24.2
ASPRINE	31	17.0

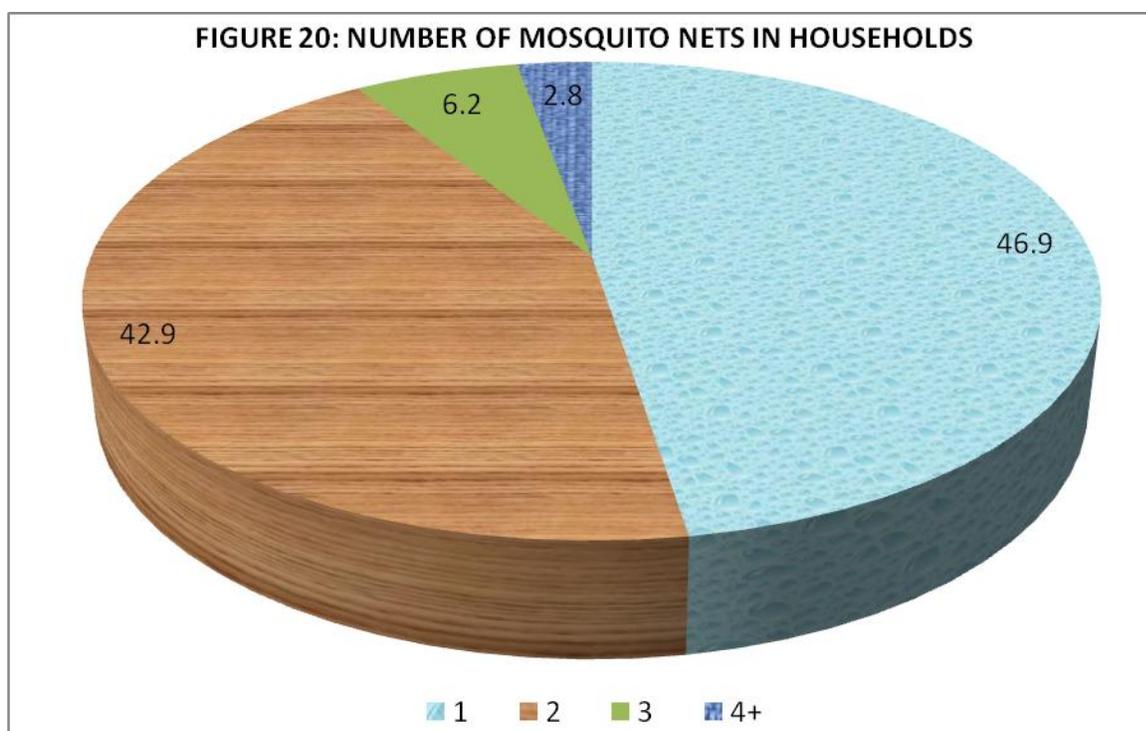
SP/Fansidar 15 (8.2 %) was the most popular closely by ACT (Coartem) 13 (7.1 %). Of the anti-pyretics, Paracetamol was the most widely used 112 (61.5%) and Asprine 31 (17.0%).

TABLE 27: TIME-LAPSE AFTER FEVER AND WHEN CHILDREN BEGAN TAKING DRUGS

TIME LAPSE	FREQUENCY	PERCENT
SAME DAY	109	62.3
NEXT DAY	42	24.0
TWO DAYS AFTER	14	8.0
FOUR OR MORE DAYS	1	0.6
DON'T KNOW	9	5.1
TOTAL	175	100.0

The time lapse after the onset of fever that the children began taking the drugs is shown in Table 27. Six out of every ten 109 (62.3%) of the children began taking the drugs on the same day they were prescribed while a quarter 42 (24.0%) began taking them the next day after prescription.

Almost three quarters 356 (72.8%) of the households reported that they had a mosquito net could be used at the time of the survey. Close to a half reported they had one mosquito nets 167 (46.9%) while slightly four out of every ten 153 (42.9%) had two mosquito nets each. Figure 20 shows the distribution of the number of mosquito nets that households reported they owned.



The survey established that despite many households owning mosquito nets only six out of every ten 207 (58.2%) reported that someone within those households slept under a net the night before the survey. Household members who slept under a net the night preceding the survey are shown in Table 28.

TABLE 28: HOUSEHOLD MEMBERS WHO SLEPT UNDER A NET THE NIGHT PRECEDING THE SURVEY

HOUSEHOLD MEMBER	FREQUENCY	PERCENT
YOUNGEST CHILD (0-23 MONTHS)	136	63.8
EVERYONE	64	30.1
OTHER	13	6.1
TOTAL	213	100.0

Six out of every ten 136 (63.8%) of the households with mosquito nets reported that the youngest child i.e. those aged 0-23 months slept under a mosquito net the night preceding the survey while in three out of every ten 64 (30.1%) everyone was reported in those households slept under a mosquito net.

8.0 CONTROL OF DIARRHEA

Only a fifth 101 (21.7%) of the mothers stated that their children had suffered from diarrhea two weeks preceding the survey. Table 29 shows the substances and/or drugs that were given to children to treat diarrhea.

TABLE 29: SUBSTANCES AND/OR DRUGS THAT WERE GIVEN TO CHILDREN WHEN THEY SUFFERED FROM DIARRHEA

SUBSTANCE/DRUG GIVEN	FREQUENCY n = 101	PERCENT
FLUID FROM ORS PACKET	77	76.2

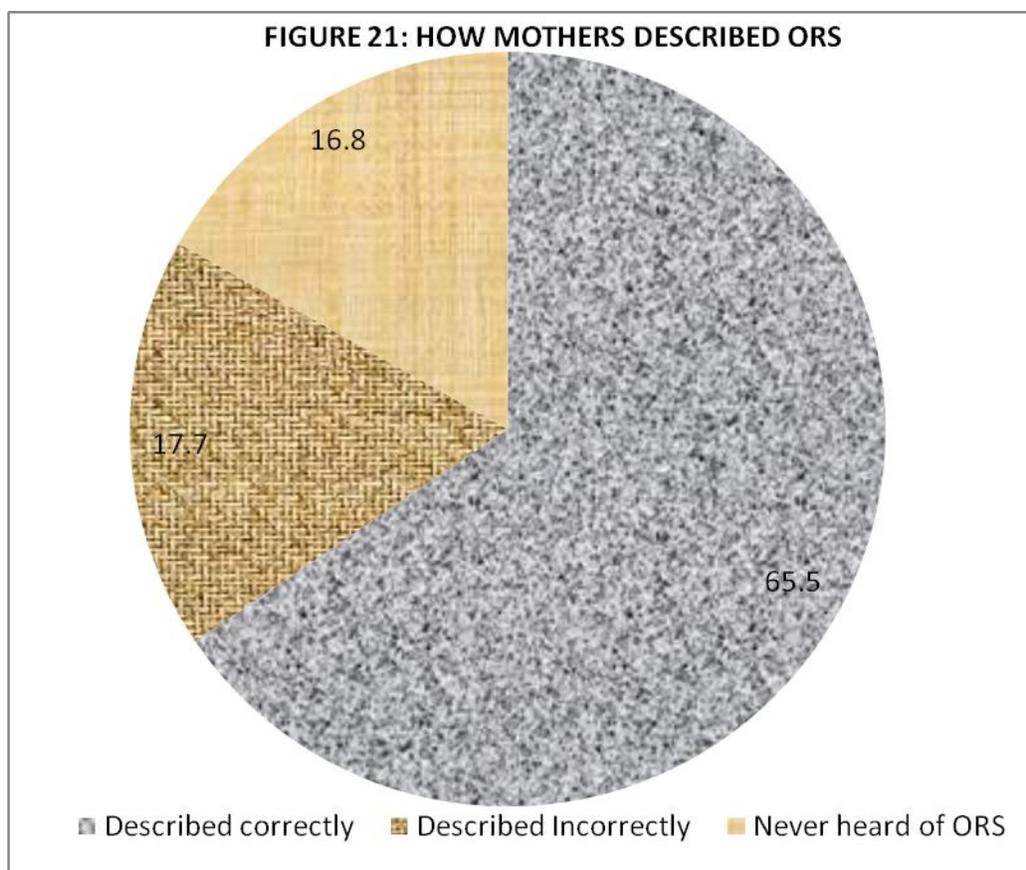
PILL OR SYRUP, ZINC	18	17.6
NOTHING	15	14.9
OTHERS	12	11.9
HOME MADE FLUIDS	8	7.9
HOME REMEDIES/HERBAL MEDICINES	7	6.9
INJECTION	6	5.9
PILL OR SYRUP, NOT ZINC	1	0.9

Table 29 ORS 77 (76.2 %) was the most utilized substance in an attempt to treat diarrhea while pill or syrup zinc 18 (3.6%) was also widely given. A considerable proportion of the mothers did not give anything 15 (3.0%). For those who were provided with drugs the hospital/facility health worker 66 (79.5%) was the most popular provider. The CHW was second 4 (4.8%) while some obtained the drugs from pharmacies 3 (3.6%) and the rest obtained from a variety of sources. For those who suffered diarrhea 5 (15.2%) of the mothers reported they were visited by CHWs. Two of the mothers 2 (40.0%) reported they were visited on the next day after treatment while the rest were visited 2 days later. Table 30 shows the persons who were present when the child took the first dose of medicine against diarrhea.

TABLE 30: PERSONS WHO WERE PRESENT WHEN THE CHILD TOOK THE FIRST DOSE OF MEDICINE AGAINST DIARRHEA

PERSON WHO WAS PRESENT	FREQUENCY n= 83	PERCENT
MOTHER/CARETAKER	52	62.7
HEALTH WORKER	28	33.7
NONE	19	22.9
OTHER PERSONS	8	9.6
CHW	2	2.4

As can be seen from Table 30, the mother/caretaker 52 (62.7%) were the most popular persons who were present when the children took their first dose of medicines to treat diarrhea. However in a third 28 (33.7) of the cases a health worker was present. Figure 21 shows how mothers described Oral Rehydration Salts (ORS).



Close to two-thirds 319 (65.5%) described ORS correctly while close to a fifth 86 (17.7%) described it incorrectly while a similar proportion 82 (16.8%) reported they had never heard of ORS.

9.0 ARI/PNEUMONIA

Slightly over a quarter 133 (27.7%) of the mothers reported their children had suffered a cough that comes from the chest during the last two weeks preceding the survey. Of those who had suffered illness with cough three quarters 102 (76.7%) were reported to have had trouble breathing or breathing faster than usual. Four-fifths 109 (81.9%) of those children who had suffered from a cough in the last two weeks reported they sought advice or treatment for the cough/fast breathing. Table 31 shows the persons who were the first to provide advice or treatment when children suffered from cough or fast breathing. Health care providers such as the nurse 73.3% (88) and the doctor 17 (14.2%) came in very handy when mothers needed advice and/or treatment when children suffered cough or their breathing was faster than normal.

TABLE 31: PERSONS WHO FIRST PROVIDED ADVICE/TREATMENT WHEN CHILDREN SUFFERED FROM COUGH OR FAST BREATHING

PERSON WHO FIRST PROVIDED ADVICE/TREATMENT	FREQUENCY	PERCENT
NURSE	88	73.3
DOCTOR	17	14.2
CHW	6	5.0
OTHERS	9	7.4
TOTAL	120	100.0

Community Health Workers 6 (5.0%) also provided the much needed advice when mothers needed it when children were coughing.

10.0 FAMILY PLANNING/HEALTHY TIMING AND SPACING OF PREGNANCIES

Mothers were asked what they considered the ideal time to wait between the birth a child and the time they needed to become pregnant again. Some gave the period varying between, one month to nine months while other gave the period in years varying between, one year to twelve years. Table 32 shows those periods.

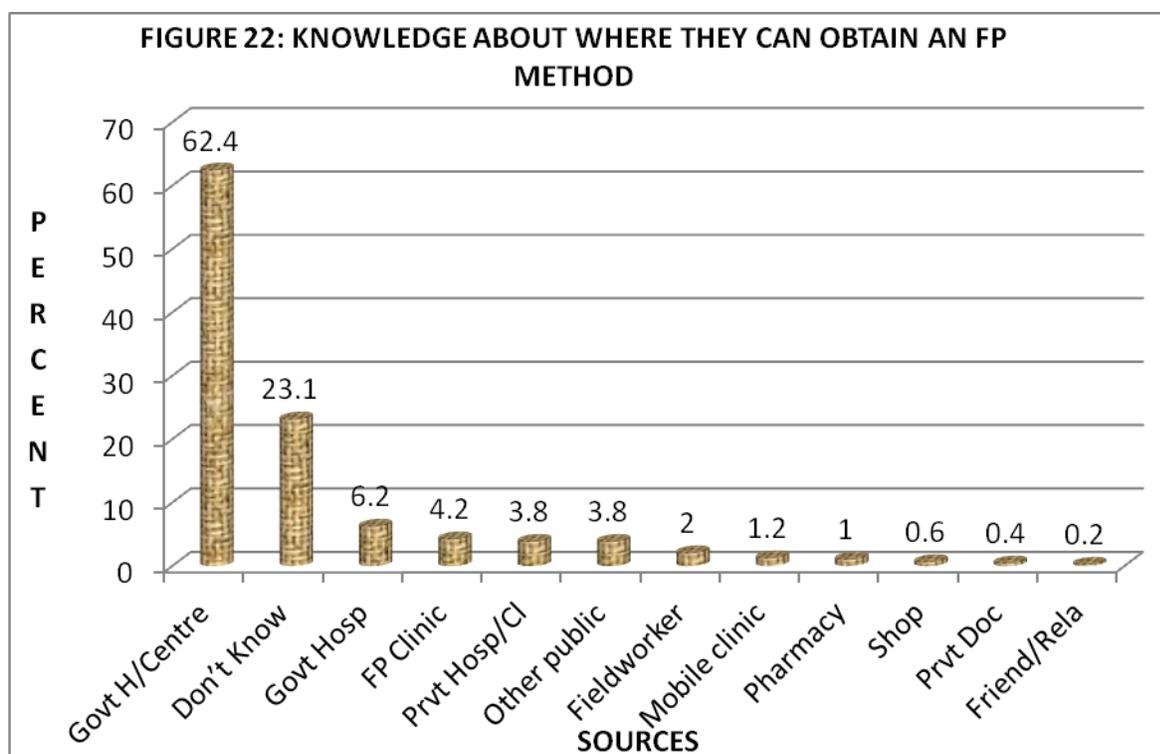
TABLE 32: IDEAL PERIODS OF TIME WHEN A MOTHER SHOULD WAIT BETWEEN ONE BIRTH TO ANOTHER

INTERVAL	MONTHS	PERCENT	YEARS	PERCENT
1-2	12	24	137	52.7
3-4	6	12	68	26.2
5-6	27	54	47	18.1
7+	5	10	8	3.0
TOTAL	50	100.0	260	100.0

For those who responded in either months or years more reported the ideal time to be in years 260 (83.9%) while those in months were 50 (16.1%). The average number of months was 4.6 months with a standard deviation of 1.8 months while the corresponding average in years was 3 years and a standard deviation of 1.8 years. One mother said immediately after birth while close to ten percent 36 (7.2%) said other times and three out of every ten 146 (29.3%) said there was no ideal time or did not know.

The nurse/midwife 234 (47.9%) was the most popular health care provider who spoke to mothers concerning family planning or contraception in the last twelve months. A large proportion 222 (45.5%) did not have any anybody or did not remember if anybody did so while the doctor also played a role 26 (5.3%). Community Health Workers/Community Health Extension Workers (CHEWs) played the least role 6 (1.2%) during the same period.

Mothers were asked to say if they knew where they would obtain a method of family planning. Figure 22 shows the various sources. Government health facilities were the main sources with six out of ten 311 (62.4%) reporting it as their source.



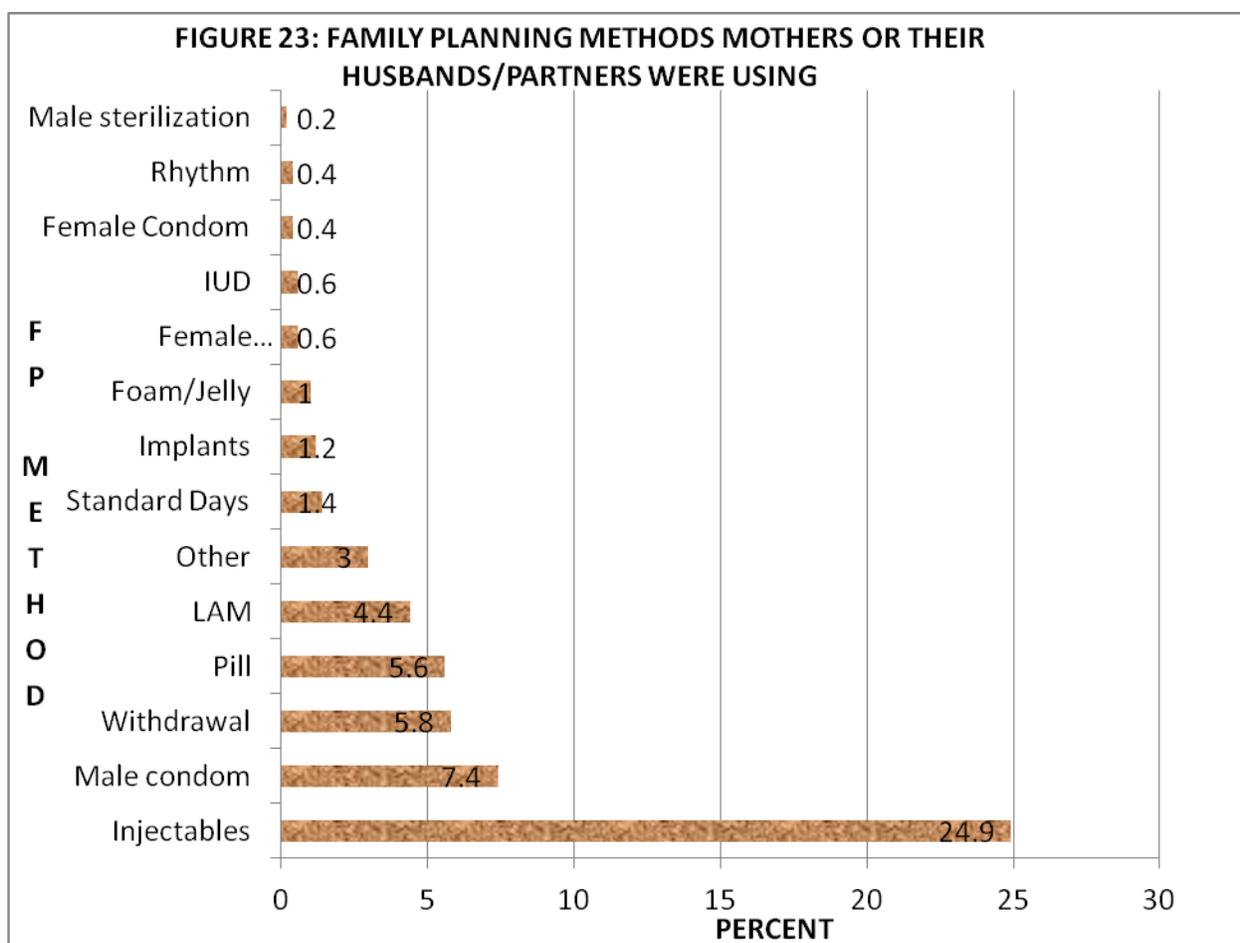
Almost a quarter 115 (23.1%) said they did not know where they would obtain a family planning method. Slightly over six out of every ten 252 (63.0%) reported they would obtain a family planning method within a radius of 5 kilometers while three out of every ten 123 (30.8%) said they would obtain the same beyond 5 kilometers radius. The rest did not know the distance. Further the survey sought to establish the distance they would obtain the family planning methods in terms of time. Table 33 shows the various periods within which they reported they would obtain them.

TABLE 33: TIME IT TAKES TO OBTAIN FAMILY PLANNING METHODS

PERIOD	FREQUENCY	PERCENT
LESS THAN 1 HOUR	182	44.5
1-2 HOURS	130	31.8
2-4 HOURS	72	17.6
MORE THAN 4 HOURS	25	6.1
TOTAL	409	100.0

More than four out of every ten 182 (44.5%) said they would obtain family planning methods in less than one hour. Three quarters 312 (76.3%) said they would obtain the methods in under two hours while nine out of every ten 384 (93.9%) said they would obtain them in under four hours. For the rest access to family methods can be considered a problem.

Three quarters 362 (75.4%) of the mothers reported they were in marital unions at the time of the survey while close to a fifth 80 (16.7%) reported they were living with a man and the rest were single. A tenth 54 (11.0%) reported to be pregnant at the time of the survey. Over a third 172 (36.0%) said they were doing something or using a family planning method to delay or avoid getting pregnant. Those using a modern method are 34.5% since male condoms can be used together with other methods. The methods they were using are shown in Figure 23.



A quarter 124 (24.9%) of the mothers were using injectables at the time of the survey while close to a tenth 37 (7.4%) were using male condoms and the third popular method was withdrawal 29 (5.8%). Table 34 shows where the current family planning methods were obtained from.

TABLE 34: SOURCES OF THE CURRENT METHODS OF FAMILY PLANNING

FAMILY PLANNING METHOD	FREQUENCY	PERCENT
Government Health Centre	139	62.9
Government Hospital	38	17.2
Private Hospital/Clinic	12	5.4
Other Public	10	4.5
Field Worker	7	3.2
Family Planning Clinic	6	2.7
Other sources	3	1.4
Pharmacy	2	0.9
Friends/Relatives	2	0.9
Mobile Clinic	1	0.4
Shop	1	0.4
TOTAL	221	99.9

Four-fifths 177 (80.1%) of the mother obtained the family planning methods from government health facilities while private health facilities were a distant second 12 (5.4%). Four out of every ten 190 (39.7%) of the mothers said they had ever heard of a method known as Lactation Amenorrhea at the time

of the survey. Mothers who were not using family planning methods at the time of the survey gave varying reasons shown in Table 35.

TABLE 35: WHY MOTHERS WERE NOT USING FAMILY PLANNING METHODS

REASONS FOR NOT USING FP METHOD	FREQUENCY	PERCENT
BREASTFEEDING	158	31.7
FEAR OF SIDE EFFECTS	70	14.1
HUSBAND/PARTNER OBJECTS	54	10.8
KNOWS NO METHOD	51	10.2
NOT MARRIED	33	6.6
NOT HAVING SEX	22	4.4
MOTHER OPPOSED TO USING	22	4.4
POST-PARTUM AMENORRHEA	21	4.2
WANTS TO BECOME PREGNANT	16	3.2
INFREQUENT SEX	16	3.2
HEALTH CONCERNS	16	3.2
RELIGIOUS PROHIBITION	12	2.4
OTHER REASONS	10	2.0
INCONVENIENT TO USE	7	1.4
INTERFERES WITH BODY PROCESSES	7	1.4
KNOWS NO SOURCE	7	1.4
FATALISTIC	6	1.2
LACK OF ACCESS/TOO FAR	5	1.0
COSTS TOO FAR	1	0.2

Among the many reasons why mothers were not using family planning methods, breastfeeding 158 (31.7%) is the only reason which presents as a reasonable for not using. Majority of the other methods can be addressed. Slightly over a quarter 131 (27.6%) of the mothers reported they started to use a family planning method after delivery. Over ten percent 42 (13.9 %) said they started using a family planning method 6 weeks or earlier after delivery while a third 99 (32.7%) reported they started using 7 weeks or later. Table 36 shows when the last menstrual period began in months.

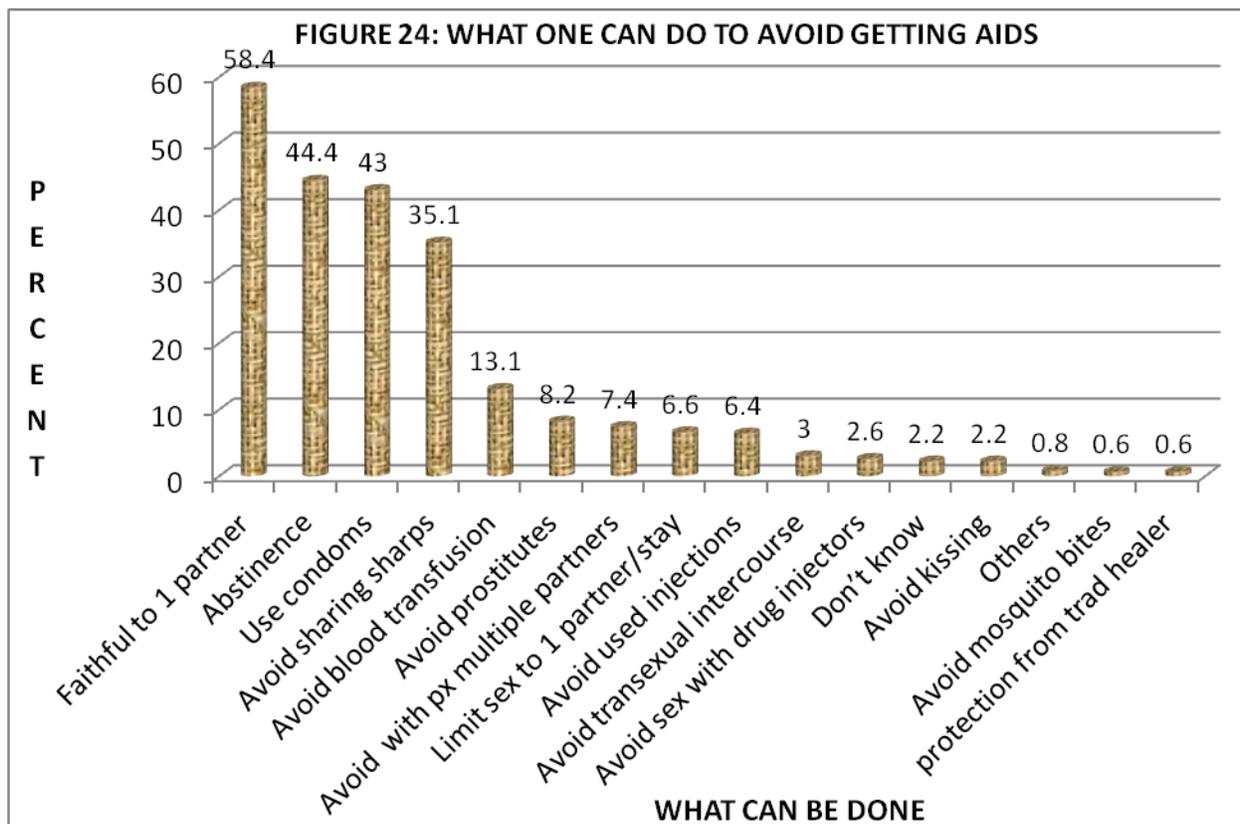
TABLE 36: DISTRIBUTION IN MONTHS WHEN LAST MENSTRUAL PERIOD STARTED

PERIOD IN MONTHS	FREQUENCY	PERCENT
0-1	73	29.2
2-3	54	21.6
4-5	32	12.8
6-7	51	20.4
8-9	19	7.6
10-11	6	2.4
12-13	9	3.6
14-15	3	1.2
16+	2	0.8
TOTAL	250	100.0

The distribution shows that three out of every ten 73 (29.2%) started their menstrual periods in less than a month while a half did so 127 (50.8%) in under 3 months. A few 6 (1.2%) said they had had hysterectomy and four out ten 225 (45.2%) had not yet started.

11.0 HIV/AIDS KNOWLEDGE ATTITUDES AND BELIEFS

Almost all the mothers 479 (97.2%) reported they have ever heard of AIDS. Nine out of ten 426 (86.9%) said they knew that something could be done to avoid getting AIDS or the virus that causes AIDS. Figure 24 shows what the mothers said can be done to avoid getting AIDS. It is quite evident that majority of the mothers are quite well versed with what should be done to avoid contracting HIV/AIDS. There are however some grey areas such as those who reported that they don't know 11(2.2%), avoid kissing 11 (2.2%) and mosquito bites 3 (0.6%).



The three top reasons advanced by mothers which they said would assist in avoiding contracting HIV/AIDS were:- being faithful to one partner 291 (58.4%), abstinence 221 (44.4%) and use of male condoms 214 (43.0%).

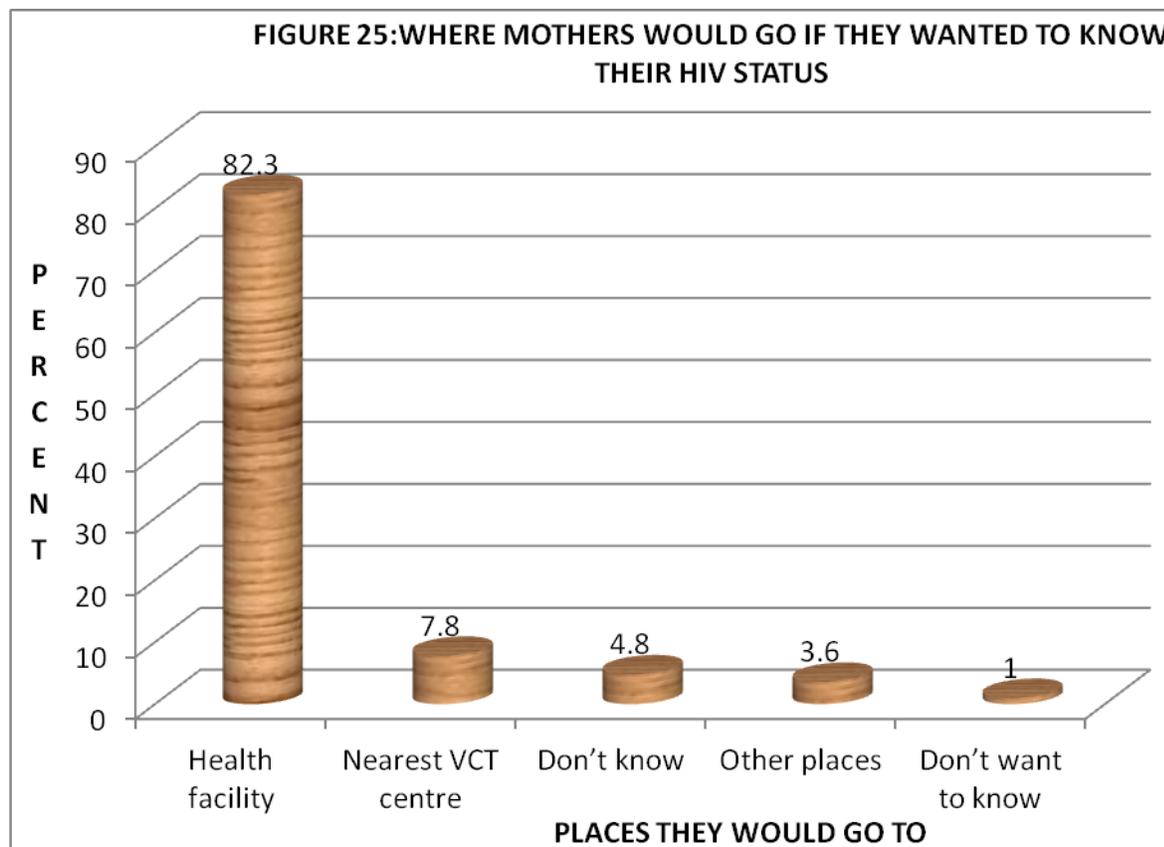
Two-thirds 330 (67.6%) of the mothers said it was possible to pass-on the virus that causes AIDS to a new born baby. Of concern are those who said it was not possible together with those who said they did not know totaling 158 (32.4%). Of those who said it was possible to pass-on the virus four-fifths 278 (84.2%) reported this would be done through breastfeeding, close to a fifth 52 (15.8%) said it would be through mixed feeding and the rest said it would be through other methods while others did not know at all.

Table 37 shows the precautions mothers said should be taken to avoid transmitting the virus to a newborn baby. Majority 166 (50.3%) said exclusive breastfeeding was the most effective while others said other measures 70 (21.2%) and others said taking antiretroviral drugs would be effective.

TABLE 37: PRECAUTIONARY MEASURES THAT SHOULD BE TAKEN TO AVOID TRANSMITTING THE HIV VIRUS TO A NEWBORN

MEASURES	FREQUENCY n =330	PERCENT
EXCLUSIVE BREASTFEEDING	166	50.3
OTHER MEASURES	70	21.2
TAKE ANTI-RETROVIRAL DRUGS	57	17.3
DON'T KNOW	41	12.4
TAKE HERBS	3	0.9

Some did not know 41 (12.4%) while others said that taking herbs would be a worthwhile measure. Figure 25 shows where they reported they would go for testing if they were supposed to know their HIV status.



The health facility 410 (82.3 %) would be the most popular place for mothers to get tested with the nearest VCT centre being a distant second.

12.0 HEALTH CONTACTS AND SOURCES OF HEALTH INFORMATION

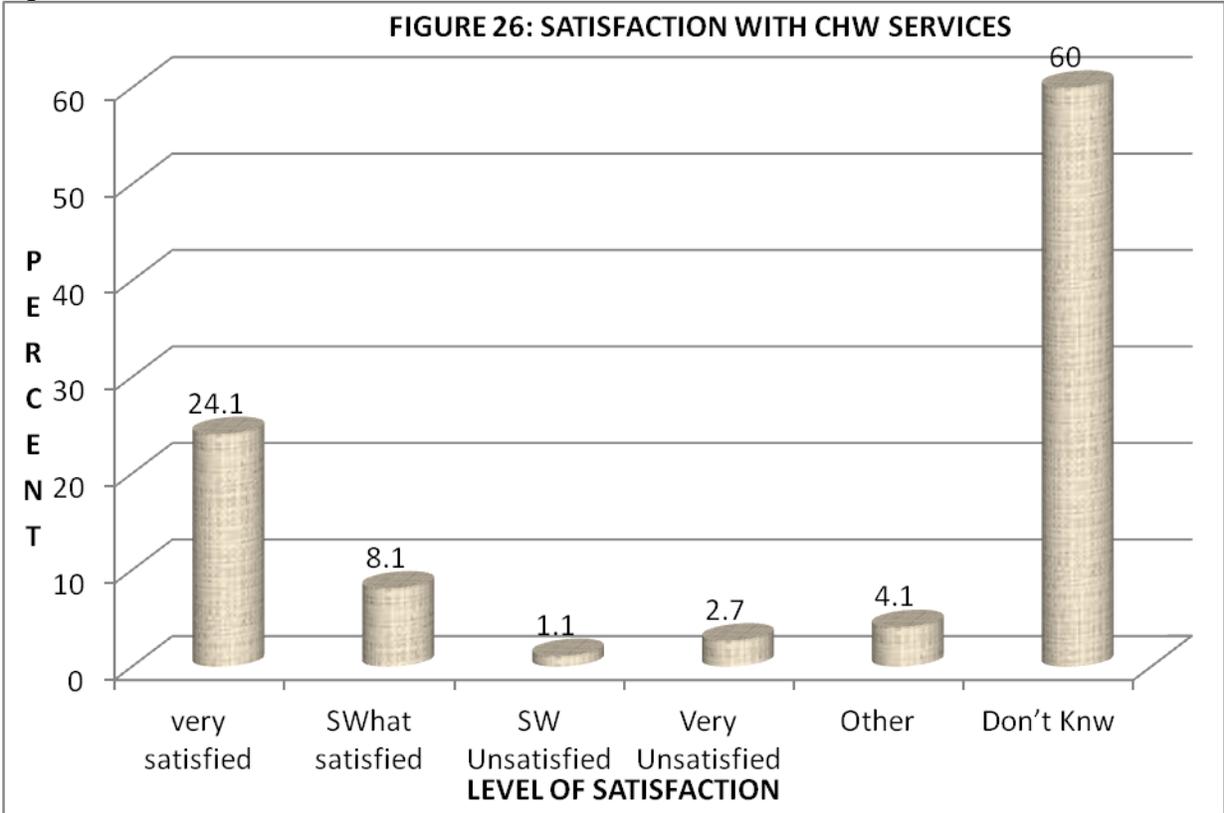
Only three out of ten of the mothers 141 (28.3%) said they knew the roles of Community Health Workers. Table 38 shows the number of times that the mothers reported that CHWs paid them visits during the past three months preceding the survey.

TABLE 38: FREQUENCY OF VISITS BY CHWS TO MOTHERS LAST 3 MONTHS

FREQUENCY OF VISITS	FREQUENCY	PERCENT
ONE TIME	44	11.6
TWO TIMES	50	13.2
THREE TIMES	19	5.0
MORE THAN THREE TIMES	3	0.8

NEVER	189	49.7
DON'T KNOW	75	19.7
TOTAL	380	100.0

The survey further went to establish the levels of satisfaction with the services CHW provided them. Figure 26 shows the various levels of satisfaction.



It is quite evident that only a quarter 89 (24.1%) were satisfied with the services provided by the CHWs.