

**KAMPALA INTERNATIONAL UNIVERSITY
WESTERN CAMPUS
SCHOOL OF HEALTH SCIENCES
FACULTY OF CLINICAL MEDICINE AND DENTISTRY**

**FACTORS INFLUENCING UTILIZATION OF SKILLED BIRTH
ATTENDANCE AT GARISSA PROVINCIAL GENERAL HOSPITAL**

**A RESERCH SUBMITTED TO KAMPALA INTERNATIONAL UNIVERSITY IN
PARTIAL FULFILMENT FOR THE AWARD OF BACHELOR OF MEDICINE AND
BACHELOR OF SURGERY**

AUTHOR: IBRAHIM ABDINASIR ADAN
REGISTRATION NUMBER: BMS/0115/71/DF
SUPERVISOR: DR SAIMA ASLAM

DECLARATION

I, the undersigned, declare that this is my original work and has not been presented in any other University or college for examination purpose.

Signature: _____ Date: _____

Name: **IBRAHIM ABDINASIR ADAN**

BMS/0115/71/DF

DEDICATION

This research proposal is dedicated to my parents, for their moral and financial support throughout my Course.

ACKNOWLEDGEMENT

I would like to thank the Almighty God for giving me the strength to undertake this research project. I would also like to thank my supervisor, for her relentless support and guidance throughout this research project despite her busy schedule. My gratitude also goes to the Medical Superintendent Garissa Provincial General Hospital, the Nursing officer in charge maternal child Health department and all the staffs who contributed in one way or another to the success of this study.

ABSTRACT

The lack of skilled deliveries is a public health concern as it is associated with unacceptably high maternal and prenatal mortality in the developing countries. In order to achieve the millennium development goal 5, the Kenya's Ministry of Health (MOH), through Division of Reproductive Health developed the National Reproductive Health Strategy which aims at the reduction of maternal mortality to 170/100,000 from 590/100,000 live birth by the year 2015 and also increase the number of pregnant mothers attended by skilled attendant to 90% (MOH, 2003).

This research aimed at establishing the factors affecting the utilization of skilled birth attendance at Garissa provincial hospital which is situated in Garissa County-Kenya. The study design was descriptive cross-sectional involving 399 women of reproductive age attending Maternal - Child Health (MCH) clinic during the research period.

A structured and semi-structured questionnaire was administered by the research assistants to the individual women attending the clinic. The quantitative data was entered into excel and exported to SPSS for analysis where percentages, means and standard deviations was calculated.

Among the social demographic factors that were researched on, it is only age that showed highly significance in utilizing PGH Garissa maternity unit. The study indicated that women less than 25 years are **2.83** times more likely to utilize PGH Garissa than women older than 25 years, majority of women(**88.7%**) preferred PGH Garissa maternity as their place of delivery and most women(**68.9%**) started antenatal clinic in their last trimester of pregnancy (as from 25th week gestation. .

Key words: Hospital, deliveries, skills, attendants, women, health workers, utilization, maternal mortality.

TABLE OF CONTENTS

DECLARATION -----	ii
ACKNOWLEDGEMENT -----	iv
ABSTRACT -----	v
TABLE OF CONTENT -----	vi
SUPERVISOR’S PAGE -----	x
LIST OF ABBREVIATIONS -----	viii
DEFINATION OF OPERATIONAL TERMS -----	xi

CHAPTER ONE

1.1 INTRODUCTION AND BACKGROUND INFORMATION-----	1
1.2 PROBLEM STATEMENT-----	3
1.3 OBJECTIVES-----	5
1.4 RESEARCH QUESTION-----	6
1.5 JUSTIFICATION-----	6
1.6 ETHICAL CONSIDERATION-----	7

CHAPTER TWO-LITERATURE REVIEW-----8

CHAPTER THREE: METHODOLOGY-----15

3.1- STUDU DESIGN-----	15
3.2 STUDY VARIABLES-----	15
3.3 STUDY AREA-----	15
3.4 STUDY POPULATION-----	15

3.5 SAMPLING-----	16
3.6 SAMPLE SIZE-----	16
3.7 DATA COLLECTION-----	17
3.8 LIMITATION OF THE STUDY-----	17
3.9 DATA ANALYSIS-----	18
CHAPTER FOUR- RESULTS-----	19
CHAPTER FIVE- DISCUSSION, CONCLUS AND RECOM...-----	35
REFERENCES-----	42
QUESTIONNAIRE -----	45
TIME SCHEDULE-----	49
BUDGET-----	50
APPENDIX-----	51

LIST OF ABBREVIATIONS/ACROYMNS

AIDS: ACQUIRED IMMUNI-DEFECIENCY SYNDROME

ANC: ANTENATAL CLINIC

BEmOC: BASIC EMERGENCY OBSTETRIC CARE

CORPs: COMMUNITY OWN RESOURCE PERSONS

DANIDA: DANISH INTERNATIONAL DEVELOPMENT AGENT

DFID: INTERNATIONAL DEVELOPMENT

DHMT: DISTRICT HEALTH MANAGEMENT TEAM

DMOH: DISTRICT MEDICAL OFFICER OF HEALTH

EmOC: EMERGENCY OBSTETRIC CARE

FANC: FOCUSED ANTENATAL CARE

FP: FAMILY PLANNING

HIV: HUMAN IMMUNODEFECIENCY VIRUS

KDHS: KENYA DEMOGRAPHIC HEALTH SURVEY

KM: KILO METER

MCH: MOTHER – CHILD HEALTH CLINIC

MDG: MILLINIUM DEVELOPMENT GOALS

MIP: MALARIA IN PREGNANCY

MOH : MINISTRY OF HEALTH

MOP: MINISTRY OF PLANING
NEP: NORTHEASTERN PROVINCE
OBA: OUTPUT BASED APPROACH
PGH: PROVINCIAL GENERAL HOSPITAL
PMTCT: PREVENTION OF MOTHER- TO- CHILD TRANSMISSION
PHMT : PROVINCIAL HEALTH MANAGEMENT TEAM
SPSS: STATISTICAL PACKAGE FOR SOCIAL SCIENCE
TBA: TRADITIONAL BIRTH ATTENDENT
UNFP: UNITED NATION POPULATION FUND
UN : UNITED NATION
UNICEF: UNITED NATION CHILDREN FUND
WHO: WORLD HEALTH ORGANIZATION

SUPERVISOR'S PAGE

SUPERVISOR'S NAME: DR SAIMA ASLAM

QUALIFICATION - CONSULATANT OBSTETRICIAN AND GYNAECOLOGIST

SIGNITURE -----

DATE: -----

DEFINITION OF OPERATIONAL TERMS

Skilled deliveries – is the process by which a woman is provided with adequate care during labour, delivery and the early postpartum period by health care workers (Graham et al) These are nurses, clinical officers, doctors, midwives.

Skilled attendant – is an accredited health professional – such as a midwife, Doctor or nurse – who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns' (WHO, 2004)

Hospital deliveries – Deliveries that are conducted within hospital set-up

Home deliveries – Deliveries that are conducted outside the hospital

Maternal mortality – Death that occurred to a woman who is pregnant or within 42 days after termination of pregnancies that is aggravated by the existence of the pregnancy but not accidental or incidental

Utilization – act of using the available service that is provided by the health facility

Health Workers – These are all staff who are working at the provincial general hospital who contribute provision of deliveries services regardless of their cadre and qualifications.

CHAPTER ONE

1.1. INTRODUCTION AND BACKGROUND INFORMATION

Skilled delivery as defined by World Health Organization (WHO) is deliveries conducted by health professionals who are trained on Basic Emergency Obstetric Care (BEmOC) (WHO, 2005). It can be either hospital based or at home, but conducted by qualified health worker who meet the minimum standard in maintaining hygienic conditions.

Lack of skilled deliveries is a public health concern as it is associated with unacceptably high maternal and prenatal mortality in the developing countries (Lawson et al, 2003). Globally, more than 500, 000 women die every year on pregnancy related complications (Lawson et al, 2003, United Nation Population Fund -UNPFA, 2002,). Ninety nine percent (99%) of these deaths occur in the developing countries and half of it in Africa where resources are scarce and illiteracy is high (Ajibola, 2003, Lawson et al, 2003). Abortion, eclampsia, Hemorrhages, obstructed labour and puerperal sepsis are the most direct cause of these death while diseases like HIV, malaria, anemia and Tuberculosis are leading causes of indirect death (Lawson, 2003).

Kenya Demographic Health Survey (KDHS) 2008 estimates the maternal mortality in Kenya to be 488/100,000 compared to 2003 KDHS which stood at 414/100,000. Though KDHS did not disaggregate the data in terms of provinces, NEP is believed to have highest maternal mortality in the country. This is because, this area is inhabited by nomads who migrate from one place to another in pursuit of greener pasture for their livestock and the current health delivery system has failed to plan accordingly (Maalim, 2006).

In order to achieve the millennium development goal 5, the Kenya's Ministry of Health (MOH), through Division of Reproductive Health developed the National Reproductive Health Strategy which

aims at the reduction of maternal mortality to 170/100,000 from 590/100,000 live birth by the year 2015 and also increase the number of pregnant mothers attended by skilled attendant to 90% (MOH, 2003).

Currently, Kenya's skilled delivery stands at 44% with hospital delivery of 43% and in North Eastern, it is estimated at 31.6% and 17% respectively (KDHS, 2008). This shows a significant improvement from 8% of NEP's hospital delivery in KDHS of 2003. Conversely; pregnant mothers who at least visited antenatal clinic once are over 92% nationally and at 69.5% in North Eastern province (KDHS, 2008).

Recently, Ministry of Health in collaboration with other partners has put in place several mechanisms to improve maternal health in North Eastern province, and these indeed resulted into improved utilization of maternal services (UNICEF, 2008). To mention a few, new maternity rooms have been constructed and existing ones renovated, delivery kits and drugs were supplied, many partners employed staff and finally ,trainings related to maternal health were also conducted (Provincial Medical Office, 2008).

Garissa Provincial General Hospital (PGH) which is the only level 5 referral Centre for the districts in North Eastern province as well as some neighboring districts in Eastern and Coast provinces has received much attention from various partners in an effort to expand its capacity. The maternity ward was recently renovated and expanded while a new maternity theatre was constructed and equipped by the DANIDA project. Staffing level has tremendously improved and it acts as a teaching hospital for many cadres of different medical fraternity including interns from various universities.

Utilization of the delivery services at hospital reduces significantly child birth related complications. Many of these obstetric complications are preventable if diagnosed early and proper management

constituted promptly. This is only possible if the health provider has the proper skills backed by the right medical supplies and equipment.

This study therefore, investigates the reason why the high utilization of antenatal clinic at Garissa Provincial General Hospital (PGH) is not translated into high hospital delivery.

1.2. STATEMENT OF THE PROBLEM

Skilled delivery is one of the strategies that are advocated to reduce the unacceptably high maternal mortality in the Developing countries like Kenya (UNFP, 2002). Low skill attendances during delivery have been positively correlated with the higher maternal death globally and Sub-Saharan Africa is said to be affected most (Lawson, 2003). Within the country, NEP has the lowest hospital delivery (KDHS, 2008), and believed to have the highest maternal mortality

Interestingly, antenatal attendance which is the first contact by the pregnant mother at health facility is good both within the country as well as North Eastern Province. Currently, those who visited antenatal clinic at least once during their pregnancy stands more than 92% nationally, and nearly 70% in Northeastern province (KDHS, 2008). Comparatively, the proportion delivered at health facility is 43% in the country and 17% in NEP (KDHS, 2008). In 2008, Garissa Provincial General hospital's ANC clinic attended to more than 6,250 pregnant women and about 2600 deliveries were conducted, which translate only 41% of those attending ANC utilize maternity services (District Medical Officer of Health, DMOH, 2009). This is notwithstanding its advantage as referral centre, which attract many clients from different areas because of specialized services. There is widely held believe among the health expert in the hospital that many of these deliveries are involuntarily, mainly referrals.

Despite the hospital undergoing tremendous improvement in terms of physical infrastructure, equipments/supplies, human resource with specialized skills as well as introduction of OBA which caters the delivery cost, the utilization of delivery services is not optimal.

This therefore means a missing link between ANC utilization and hospital delivery in the hospital. The sensible argument would have been these good ANC attendance is translated to high utilization of maternity services. However there could be other factors that may contribute the low deliveries at the maternity unit of the hospital which in a sense may influences utilization of the maternity services.

These factors could either be related to the clients, the health providers or the health facility itself. In terms of the client, their cultural orientations and religion beliefs plays a pivotal role to either encourage or discourage to deliver in hospital. For the case of the Somali women, because of the societal conservativeness, this may negatively influence (Ganga-Limando et al,2006). The issue of decision making as well as resource ownership, which is vital in accessing the health care services, more so, the maternal care, is greatly determined by the culture and region. Similarly the existence of the TBA and their influence within the society is can equally affect the utilization of hospital delivery. In the Somali community, the TBA has been in existence for a long time and therefore playing an important role on women health including reproductive health.

Similarly, the factors that may be attributed to the health staff may emanate from their attitude and how they interact with the patients. This has been shown in some studies in other area how it influences on the client satisfaction and its future utilization (Lawson et al, 2003). Additionally, the staff gender may positively or negatively affects the utilization of reproductive health. This is more closely associated with cultural and religious belief where it may dictates the preference of one gender over other.

The factors that could be originating from the facility level may include distance that women covers in accessing the maternity services. Many a times, this will deter the women ambition in reaching the health facilities unless there is compelling reason like ready transport. However, even where the transport exist, the issue of cost in its many aspects including maternity fees, transport charges as well as opportunity cost will influence the client intention in using the maternity services especially among the poor. The quality of the services offered in the facility may also influence perception of client in utilizing the service. If this is poor, it may affect negatively particularly on subsequent utilization.

Though previous study have associated factors like the individual characteristics, quality of care, consumer-provider interaction as well as socio-economic environment of the community in NEP with utilization of health services like immunization and maternal health (Ganga-Limando et al 2006), there is no proper information that is available on the role of these factors in influencing utilization of hospital deliveries in relation to PGH Garissa which is unique in its set up.

1.3 OBJECTIVES

1.3.1 Broad objective

To determine Factors affecting skilled birth attendance at Garissa

1.3.2 Specific objectives

1. To describe social demographic factors influencing utilization of hospital deliveries at PGH Garissa
2. To determine the cultural factors influencing utilization of skilled birth attendance at PGH Garissa
3. To describe health facility factors influencing utilization of hospital deliveries services at PGH

4. To identify the relationship between staff attitude and service utilization at the hospital

1.4. RESEARCH QUESTIONS

What are the factors that affect the utilization of skilled delivery services at Garissa PGH?

1.5 JUSTIFICATION

The latest survey shows that NEP has the lowest hospital delivery but good utilization of ANC services (KDHS, 2008). A comparison between ANC and hospital delivery within PGH Garissa reveals a big disparity. Similarly, the province has highest maternal mortality – a perfect correlation with the low skilled delivery.

Skilled delivery is one of the proven strategies within the safe motherhood concept in reducing maternal death and therefore seeking client perspective is vital as their views will go a long way in providing proper maternal services (Lawson, Harrison and Bergstrom, 2003). This is more so in community like Somalis who are conservative in their culture and who may not otherwise get other forums to air their concerns. Their involvement in planning will instill a sense of ownership and help in proper utilization of the planned services.

This study will therefore investigate the reason for the existing gap between high utilization of ANC services and low delivery at PGH Garissa. To that end, the study will collect the views of women in relation to factors that may affect hospital delivery, particularly those related to their own culture, religion/belief and the role of TBA. It will also look into perceived factors related to facilities like quality of service provided; distance and fees charged as well as those that are linked to health staff like their gender and attitude.

As a result, the finding of the study is expected to give an insight to the health planners and implementers in various levels of the health ministry hierarchy. This is important because it will help to incorporate the feelings of the clients in their planning process and put the right measure to attract more mothers to utilize hospital delivery services. As a long term, the outcome of this research is also

anticipated to inform a policy change of the Ministry of Health as regards to maternal care principally at the ANC level so that linkage with maternity services is improved and in essence reduce the high maternal death. The other partners who are involved in the improvement of maternal health particularly in increasing uptake of hospital deliveries in North eastern province will also see the relevance of these results and adjust their interventions accordingly.

1.6 ETHICAL CONSIDERATION

This research is not an invasive procedure and therefore is not expected to cause any direct harm to the participant. The participant will be explained the objective of the study by the research assistants who will also be provided a written consent form that is translated both in English and the local language. The client is informed that the information they give will be confidential and they will be allowed to withdraw at any stage in case they feel so. They will be clearly informed that their refusal/withdrawal will not have any punitive consequences in their health seeking rights.

The author will seek permission from the hospital management where the study will be carried out.

In case of concerns and clarification, the participants are free to contact the principal researcher on mobile number 0715744442 or ibrahimabdinasir@yahoo.com

CHAPTER TWO

2.1 LITERATURE REVIEW

Somalis who are predominately Muslims is said to attribute all illness and disease to act of ALLAH (Bousery et al, 2009). Praying and reading of Quran is the first response to the sickness before taking the patient to health facilities especially in the rural areas. Though general health service provision in NEP is said to have been hindered by several other factors namely; long distance, lack of qualified personnel, as well as issues related to gender and cultural factors (Ganga-Limando et al 2006), this research is interested those factors that affect the perception of the pregnant women in utilizing hospital deliveries at PGH Garissa. These factors can be categories in relation to staff, health facility as well as the clients themselves.

2.1.0. HEALTH WORKERS FACTORS

2.1.1. Attitude

The relationship between patients and service provider is said to have an impact on future utilization of maternal services (Lawson et al, 2003). Patient satisfaction on quality of the services is charged by issues like privacy, confidentiality as well as sensitivity of the staff. It said to reflect on willingness to return for the same services in the forthcoming pregnancy. In Tanzania, a study associated poor communication by the health providers during antenatal attendance with low hospital delivery (Magoma et al, 2010). Similarly, others associated maternal delays in using maternal services with previous negative experiences with the health staff interaction (Sarker at el, 2010, Lawson et al, 2003). Likewise, rudeness by health workers and disrespect for strongly felt local cultural value causes resentment among clients.

Shortage of health professionals in terms of quantity and quality were attributed to underutilization of health services in NEP (Ganga-Limando et al 2006). Irregular opening hours, long waiting hours and

language barrier to relay health information are factors that were identified in previous studies in affecting the community of NEP when seeking health services (Ganga-Limando et al 2006). Some studies also mentioned feeling of mistrust, lack of respect and cultural insensibility among the health workers as some of the problems the clients face in reference to staff interaction during service delivery (Ganga-Limando et al 2006).

2.1.2. Gender

Though there are little information that relates health service utilization and staff gender in the global arena, the issue is very important in northeastern province where there are strong religious influences on preferences of health provider especially on maternal services. While one study has not shown any relationship between gender and service utilization in Northeastern province (Ganga-Limando et al 2006), another mentioned Lack of female staff in health facilities as contributing factor in dissatisfaction raised by the community in rural areas especially on maternity service (Bousery et al, 2009).

These issues are important because the interaction between the service provider and the clientele is imperative for the success of any intervention. NEP is inhabited by a community who are conservative in their culture more so among the women folk. This is compounded by the fact that most of the facilities are manned by male staff many of them from outside the community. These therefore may increase inaccessibility and barriers related to staff factors

2.2.0. FACILITY FACTORS

2.1.3. Distance

Unavailability of maternal services especially in rural communities is said to adversely contribute to delay in accessing emergency services. Lack of proper transport system, poor road infrastructure and lack of communication network in most of developing countries negatively impact on maternal health (Lawson et al, 2003).

While distance between health facilities in most part of Kenya are within than 5 km, that of NEP is said to be a real challenge so much so that community has to trek a long distance to access health care (Mureithi and Mwanthi, 2005) . Mean distance to reach a static health facility in Northeastern is estimated to be over 10 km though most of the rural population travels longer distance to access health facility (Bousery et al, 2009). This is compounded by poor road infrastructure, poor communication network, lack of referral system and inadequate community mobilization. The nomads are the most affected as they roam around looking for pasture and water for their animals and there are no proper mechanisms to meet their health care needs (Bousery et al, 2009). A study conducted in Garissa, Kenya also revealed strong association between the distance from the health facility and utilization of antenatal services (Sheikh, 2010)

2.1.4. Cost

Many studies associated high cost of medical care with reduced utilization of health services especially maternal health in Africa (Sarker et al, 2010, Mubyazi et al, 2010 and Magoma et al, 2010). This is exacerbated by high poverty rate in the developing world. Introduction of cost-sharing in Kenya in the late 1980s reduced significantly the use of many important services (Collins, et al 1996). Fee for services acts a powerful deterrent to maternal care, especially among the poor and greatly contribute low coverage (Lawson et al, 2003, Witter Et al, 2003).

In Northeastern, the issue of cost is very important because of high poverty index among the community (Boursery et al, 2009). Cost for service is already said to be affecting the provision of health care especially in rural area in NEP (Ganga-Limando et al 2006). Apparently, interventions like Output based Approach which supported by UNICEF was expected to remove maternity charges from the client in NEP including PGH. However, there could be other costs that are incurred by the clients - directly or indirectly- that also affects the utilization of maternity services.

2.1.5. Quality of the services

Quality of care can be perceived from different stand point– provider, clients or even administrators/managers perspective. In the client point of view, quality of service can be seen in respective of time taken to offer the services, maintain of privacy, cleanliness as well as availability of medical supplies and equipments (Sheikh, 2010, Sarker et al, 2010). As stated, patients will not use services unless they see their own need are catered and convinced that an effective remedy is available at in the health facility (Witter et al, 2003). Quality services in relation to the client perception is to make service cost-effective by meeting women health needs in appropriate way and this reflect in the future use of the services (Lawson et al, 2003).

Quality of the service provided is also said to improve staff ethics as properly trained staff with the right resources needed is more likely to facilitate positive attitude towards the clients (Lawson et al, 2003). Similarly, good quality of the service is associated with timely used of the maternal services by the community (Sarker et al, 2010).

Quality of the service provided will have a profound effect on acceptability and uptake of the service. Dissatisfaction of the health service offered in northeastern is stated in some studies as contributory factor in low service utilization (Boursery et al, 2009 and Ganga-Limando et al 2006).

2.1.6.MOTHER'S PERCEPTION

Cultural practices

Globally, women are disadvantaged compare to men in not only health issues but many other developmental activities (Lawson et al, 2003). Traditional practices that affects reproductive health is as varied as there are ethnics groups in Africa. Though some cultural practices promote both prenatal and maternal health, majority of the practices are exceedingly detrimental and discriminatory to women (Lawson et al, 2003). Formal education which is one of the proven interventions that contribute better outcome of maternal health is very low in many African women. Related to this is economic empowerment and ownership of properties which marginalize many women that is also link with cultural practices (Lawson et al, 2003).

Women in northeastern province equally encounter considerable problems that stems from cultural practices which make them more vulnerable than men (Sheikh, 2010). They have less access to general health care including reproductive health, education -both formal and informal as well information (Ganga-Limando et al 2006). Essentially, this means few skills, little decision making-making power and no control over income (Bousery et al, 2009). Some studies claim the Somali women are subordinate to men in virtually all aspect of their life to the extent that the health of the pregnant mother and unborn baby largely depend on the husband (Bousery et al, 2009). All these affect their ability to make prompt decision to access health care including during emergency. It has been shown in previous study that the women are educated the higher chances of using antenatal care (Sheikh, 2010)

2.17. Traditional birth attendant

Many African countries previously encouraged the Traditional birth attendant to conduct deliveries after undergoing trainings. However, though some success has been reported on reduction of neonatal tetanus through cord care, they have no impact on reduction of maternal death and therefore cannot replace the midwives (Lawson et al, 2003). TBA is embedded in many Africa culture and cannot easily be wished away especially in the rural set ups where the practices is popular (Mubyazi et al, 2010).

According to some studies in north eastern, most of mothers trust the Traditional Birth Attendant (TBA) over health facilities during deliveries, though the trend seems to be changing especially in the urban centers (Boursery et al, 2009). However, there are strong indications that most mothers understood and embraced the importance of antenatal and immunization services (Sheikh, 2010). Some argue that the existing facilities were not catering the need of mothers as maternal service was unavailable because of many factors including the basic design of health facilities model (Ganga-Limando et al 2006).

2.18 Religious

Religion plays an important role on the behavior of the individual. Some writers blamed religious belief and practices for restricting the role of women in social activities that pessimistically impact on their health (Lawson et al, 2003). Most of the factors discussed above like low education, decision making and economic empowerment which all contribute the low status of women have also religious links. This is because there are various religious beliefs that affect ones attitude toward formal education, discriminate some facets of the community in participating in decision making especially women and also have vows related to poverty or economic empowerment.

In NEP this is very important as religion play a pivotal role in not only the health of the individual but many sphere of the individual life. This is considerably more so among the women in the Somali. Religion dictate the interaction between men who are majority health providers including the maternity services and the client –this case the women who are seeking the services

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Design

The research will adopt a descriptive cross-sectional design. This is because cross-sectional study gives the outcome immediately without waiting for result to occur. It is also well suited to the goal of describing variables and their distribution pattern.

3.2 Variables

The expected outcome variable of interest in the study is utilization of hospital delivery services PGH Garissa. The predictive variables are categorized into the outcome of previous hospital deliveries, social demographic factors, maternal factors - cultural, TBA etc, those associated with health staff – gender, attitude and those attributed to the health facility like distance, fee and quality of services.

3.3 Study area

The study was conducted in PGH Garissa which is situated in Garissa County.

3.4 Study population

The target populations in this study were all women of reproductive age attending MCH clinic and maternity unit in PGH Garissa. This includes all pregnant women plus non-pregnant mothers who come for others services like immunization and FP but have previously delivered at PFG Garissa and those who are in maternity unit during the study. The women, who had used PGH maternity unit, whether pregnant or non-pregnant, is expected to give information on their perception in relation to their previous experience. Those pregnant women who never used PGH maternity unit – either primigravida or otherwise, are equally expected to provide information on what they think about the hospital services.

3.5.0 Sampling

3.5.1 Sampling procedure

All pregnant women, using the clinic in PGH Garissa will be purposively selected for the study. This will constitute 70% of the sample size (representing the ANC coverage at PGH in 2009). Other women who come for other services like immunization and FP who previously used maternity service in PGH Garissa and those who are currently in the maternity will also be selected and will be 30% of the sample- equally sharing 15% each. The interview will continue till required number of 399 respondents is reached.

3.5.2 Inclusion criteria

The inclusion criteria are all pregnant women attending ANC clinic plus those who had had previously delivered at the hospital and currently using the clinic for other services. They will be identified through screening as they enter the ANC waiting area. Those who are at maternity ward during the study period will be automatically included.

3.5.3 Exclusion criteria

Mothers who are not pregnant and have no experience in maternity service of PGH Garissa will not be included in the study.

3.6.0 Sample size

5. This is a single population proportion and therefore the following formula applies
6. $n = z^2 \{p (1-p)\}/d^2$
7. Where
8. n = sample size
9. z = normal deviates taken as 95% confidence interval

10. p = estimated proportion of women who delivered a PGH Garissa, 2009

11. d = margin error taken as 0.05

12. This will be

13. $n = \{1.96 * 1.96 * 0.41(1-0.41)\} / (0.05 * 0.05)$

14. $n = 399$

3.7.0 Data collection

Before the commencement of the research, the developed questionnaires were pre-tested in another facility away from the study site. This was to ensure that it's valid and reliable.

To collect data on the factors affecting utilization of hospital deliveries, an opened and closed ended structured questionnaire was administered to the individual women attending the clinic. Those in maternity were also administered a similar questionnaire through an exit interview after the client has been discharged from the ward.

Research assistants who were also trained prior to the exercise administered the questionnaire. The researcher closely supervised the assistants and crosschecked the filled questionnaire regularly to ascertain correctness and completeness.

3.8 LIMITATIONS OF STUDY

-Existence of other public and private clinics that provide both ANC and delivery services in Garissa Town. This may cause some women who attended ANC in PGH to deliver in other clinics and vice versa. This may contribute inconsistency in patient attendance and overall utilization of maternal services in PGH.

-Again PGH is a referral centre and therefore attracts many clients from far and wide because of its superiority in providing specialized service.. These could introduce some biases in the study and may limit its scope.

4.8 MINIMIZATION OF THE BIASES

To reduce bias related to the sampling procedure, the study focused only on women who seek maternal and child health services from PGH Garissa and the method of sampling was random selection.

To reduce biases during the data collection period, the enumerators were trained on how to conduct interview and collect information. The data collection tools were also pre-tested in different but similar area. The principal researcher supervised the enumerators and verifies the data collected on daily basis

3.9 Data analysis

The data was analyzed using various methods. The quantitative data was entered into Ms excel and exported to Statistical Package for Social Science (SPSS) version 17. A descriptive analysis of the data from social demographic information as well as those from perception of the women on factors related to health facilities, health providers and those of the client themselves were entered in a dumpy table (as shown below) where rates, means and standard deviation of variables were calculated. Thereafter, multiple regression analysis performed to describe the association between dependent and independent variables.

CHAPTER FOUR

RESULT

This study was carried with the aim of understanding factors that affects utilization of hospital delivery at Garissa Provincial General Hospital. Thus; women who sort various maternal health services; namely antenatal care, postnatal care, immunization, maternity services at the hospital was interviewed. In total, 399 mothers were interviewed (5th to 24th December 2012).

The generated and analyzed data are presented separately- quantitatively and qualitatively. Firstly, the quantitative descriptive results with the various variables – social demographic, women factors, health facility and health workers factors are discussed. These are followed by the results of the respective statistical tests (Bivariates and multivariate) and the outcome of their associations. Thereafter, the chapter presents the findings of the qualitative results.

4.1. ANALYSIS OF THE QUANTITATIVE DATA

A total of 399 women seeking various maternal and child health services at Garissa Provincial General Hospital (PGH), a level5 hospital, were interviewed. Information on selected demographic characteristics and various aspects of health care provision was collected and presented as below.

4.1.1 Demographic characteristics of the participating women.

Tables 5.1 and 5.2 presents selected demographic characteristics of the study participants.

4.1.1.1 Age of the women

The highest proportions of the mothers (**52.1%**) were aged between 20 and 25 years, with small proportions (7.8% and 11.8%) aged less than 20 years and above 30years respectively.

4.1.1.2 Religion of the participants

In term of religions, muslim was the predominant religion accounting for 79.2% of the participants with the rest representing Christianity.

4.1.1.3 Marital status of the participants

On the marital status, the greater majority of the participants were married (93.2%) with only 4.3% said to be single.

4.1.1.4 Education level (secular)

More than half of the participants (58.1%) had no secular education with 11.3% having secondary or higher.

4.1.1.5 Religious education

In terms of religious education, a high proportion of the participants (69.9%) had attended Dugsi (Quran learning centre). However, only 20.6% complete the Quran while 49.3% reported incomplete Quran. 5% of the participants said to have attended madarasa (Islamic institution).

4.1.1.6 Main occupation of the participants

A significant majority of the participants (90.5%) were housewives. only 3% are employed while 5.3% carryout business.

Table 4.1: Social demographic characteristics of the mothers

Variables	N=399	
	n	%
Age in years		
<20	31	7.8
20-25	208	52.1
26-30	113	28.3
>30	47	11.8
Religion		
Muslim	317	79.4
Christian	82	20.6
Marital status		
Single	17	4.3
Married	372	93.2
Divorced/separated	8	2.0

Widow	1	0.3
Other	1	0.3
Highest level of secular education		
None	232	58.1
Incomplete primary	63	15.8
Completed primary	59	14.8
Secondary	18	4.5
Secondary incomplete	26	6.5
College middle level	1	0.3
Highest religion education attended		
None	85	25.1
Dugsi complete quran	70	20.6
Dugsi incomplete quran	167	49.3
Madrassa primary	13	3.8
Madrassa secondary and above	4	1.2
Missing	60	
Main occupation		
Housewife	361	90.5
Employee	12	3.0
Business	21	5.3
Other	5	1.3

4.1.1.7 Parity of the women

A high proportion of the mothers (53.6%) had between 1 and 2 parity, the smallest proportion (6.3%) having more than 6 children.

4.1.1.8 Reason for coming to PGH

When asked why they came to PGH, a greater majority (69.9%) had come for Antenatal care, with 12.0% coming for delivery and 11.8% for immunization.

4.1.1.9 Gestation during clinic visit

Out of 279 coming for ANC, 68.9% were in their 25th or more weeks. Only 23 mothers, constituting 8.25 came to ANC with a gestation of less than 16 weeks.

Table 4.2, social demographic characteristics of the participants

Variables	N=399	
	N	%
Parity		
1-2	214	53.6
3-4	108	27.1
5-6	52	13.0
>6	25	6.3
Main reason for coming to hospital		
ANC	279	69.9
Immunization/weighing	47	11.8
Delivery	48	12.0
Other	25	6.3
Duration of pregnancy in weeks		
<16 weeks	23	8.2
16 - 24 weeks	64	22.9
25 - 32 weeks	126	45.2
>32 weeks	66	23.7
Not applicable	120	

4.1.2 Women factors

The survey participants were asked whether they ever delivered at Garissa PGH and when was it. More than half the participants (59.1%) reported to have ever delivered at Garissa PGH, 71.6% having delivered within the last 2 years.

Similarly, the women were assessed for their perception on quality of the services delivered by the hospital. Out of 236 participants who ever delivered at Garissa PGH, a significant majority (94.9%) reported in favor of the quality of services they received. Out of the 12 that rated the service as poor, 83.3% raised issues to do with poor staff attitudes. On farther probing with regard to the participants

preferred place of delivery while pregnant, an overwhelming majority (88.7%) indicated that they would prefer going to deliver at Garissa PGH. This is presented in Figure 4.1.

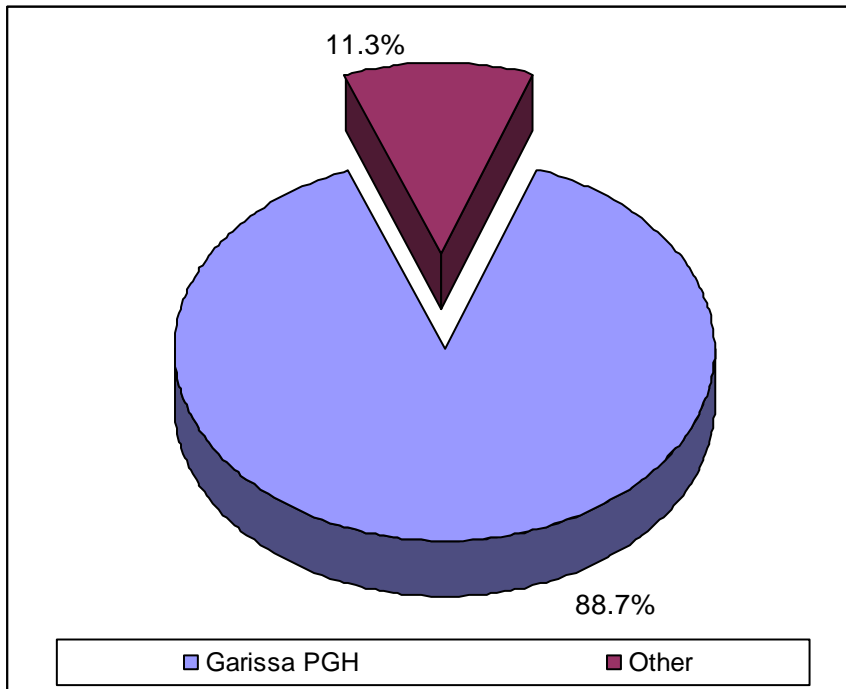


Figure 4.1: Preferred place of delivery while pregnant

Out of 19 who preferred home delivery, 89.5% indicated that they would prefer being assisted by a Traditional Birth attendant (TBA). Surprisingly, a further probe revealed that 92.5% of the participants would advise someone to deliver at Garissa PGH in case they get pregnant.

Cultural beliefs and practices that refrains the mothers to deliver in a Hospital were cited by a small proportion of the participants (5.3%) with large number (94.7%) stating no cultural beliefs and other practices that refrain them to deliver in a hospital. The only two sources of beliefs that were mentioned as obstacles to hospital deliveries were comparable i.e. Religion (47.6%) and culture (52.4%).

It was interesting to find out that there was minimal interference on decision about place of delivery by other family members. An overwhelming majority of participants (96.8%) indicated that the decision on where to deliver when pregnant was done by self (54.4%) or husband (42.4%) representing 96.8% of the study population.

Table 4.3: Women factors in relation to their perception on quality of services, religion/ cultural belief and influence of the TBA

Variables	N=399		Variables	N=399	
	n	%		n	%
Ever delivered at Garissa PGH			If home, preferred attendant		
Yes	236	59.1	TBA	17	89.5
No	163	40.9	Relatives	1	5.3
Last delivery at Garissa PGH			Self	1	5.3
<1 year ago	90	38.1	Not applicable	380	
1 - 2 years ago	79	33.5	Will advice someone to deliver at Garissa PGH		
2 - 3 years ago	32	13.6	Yes	369	92.5
3 - 4 years ago	16	6.8	No	30	7.5
>4 years ago	19	8.1	Existing belief that refrain the mother to deliver at Hospital		
Not applicable	163		Yes	21	5.3
Quality of services at Garissa PGH			No	378	94.7
Excellent	10	4.2	If yes, which one		
Very good	41	17.4	Religion	10	47.6
Good	173	73.3	Cultural	11	52.4
Poor	10	4.2	Not applicable	378	
Very poor	2	0.8	Who decides where you deliver when pregnant		
Not applicable	163		Self	217	54.4
If poor, why			Husband	169	42.4
Poor staff attitudes	10	83.3	Mother	6	1.5
Served by students	1	8.3	Father	2	0.5
Sharing of beds	1	8.3	Mother in law	4	1
Not applicable	387		Others	1	0.3
Preferred place of delivery while pregnant					
Garissa PGH	354	88.7			
Home	19	4.8			

Other hospitals	GOK	9	2.3			
Private hospitals		2	0.5			
Other		15	3.8			

4.1.4 Health facility factors

The participants were assessed the role of health facility related factors that may enhanced or hinders their effort to access maternity services at PGH Garissa. These were mainly distance, costs and quality of the services provided by the hospital. A summary of the findings is in Table 5.3.

When asked the distance they cover to reach PGH, Garissa, almost three-quarter of the participants (73.6%) reside less than 4 kilometres from Garissa PGH. Slightly more than one-quarter (27.8%) indicated that distance to reach Garissa PGH maternity is a problem. While nearly a quarter (24.6%) walk to Garissa PGH, 17.5% use public means. The rest (57.9%) use family car, taxi and in rare cases ambulance.

Part of the question was if there exist other maternity services near their residence. 23.6% of the participants reported there indeed a maternity service near their residences. However, Out of 94 participants that reported existence of other maternity services near their residence, only 21 (22.3%) indicated their willingness to use these maternity services, another indication that mothers still prefer to use PGH Garissa maternity.

When asked who paid their hospital charges last time they delivered at PGH Garissa, Out of 236 who delivered at Garissa PGH, a greater majority (78.8%) were assisted to pay hospital charges by family members while other relatives account for 11.0%. The identified Government/donors contribution was very minimal (2.5%). May be due to scarcity of financial resources in this region, slightly over a quarter (25.3%) indicated that indeed hospital cost prevents people to deliver in a hospital.

Regarding service provisions at Garissa PGH, the most commonly mentioned services the mothers liked include; Staff attitude (62.3%), Facility cleanliness (57.6%), Availability of medical supplies (33.5%) and time taken to be attended (21.6%). On the contrary, the most commonly mentioned

service the mothers disliked was lack of psycho-social support (20.3%) and long time taken to be seen (19.9%). Lack of privacy was also mentioned by 12.7%.

Table 4.3: Health facility factors that affect utilization of delivery services at PGH Garissa

Variables	N=399		Variables	N=399	
	n	%		n	%
Distance to Garissa PGH			Hospital cost prevent someone not to deliver at the hospital		
< 1km	66	16.5	Yes	10 1	25.3
1-3km	228	57.1	No	29 8	74.7
4-6km	75	18.8	Aspects of PGH service the mother liked		
more than 6km	30	7.5	Psycho-social support	11	4.7
Other maternity services near residence				13	
			Facility cleanliness	6	57.6
Yes	94	23.6	Staff attitude	14 7	62.3
No	305	76.4	Time taken to be attended	51	21.6
Would deliver in other maternity services			Availability of medical supplies	79	33.5
Yes	21	22.3	Privacy	11	4.7
No	73	77.7	Others	8	3.4
Not applicable	305		Not applicable	16 3	
Distance to reach Garissa PGH maternity a problem			Aspects of PGH the mother disliked		
Yes	111	27.8	No psycho-social support	48	20.3
No	288	72.2	Facility unclean	37	15.7
Means of transport to deliver in hospital			Poor staff attitude	19	8.1
Walking	98	24.6	Long time taken to be attended	47	19.9

Family car	16	4.0	Lack of medical supplies	41	17.4
Taxi	213	53.4	No privacy	30	12.7
Ambulance	2	0.5	Other	1	0.4
Public transport	70	17.5	None	70	29.7
Who paid the hospital charges last time delivered in Garissa PGH			Not applicable	16	
				3	
Family	186	78.8			
Other relatives	26	11.0			
Well wishers	3	1.3			
Government/donors	6	2.5			
Others	6	2.5			
Don't know	9	3.8			
Not applicable	163				

4.1.5 Health worker factors

The third factor that was assessed during the study was related to health workers. These covers staff gender and their attitudes. Table 5.5 presents a summary of health workers factors.

The study participants were asked their gender preferences. Approximately two-thirds of the participants (66.2%) have preferences on staff gender to assist them in delivery at the hospital, 92.0% indicating preference to females. Surprisingly, 90.2% of the 264 that indicated preferences on staff gender revealed that lack of preferred gender in the facility will not stop them to deliver in the hospital.

When the participants were asked how they perceive staff attitude in relation to their previous experience, out of 236 who have ever delivered at Garissa PGH, an overwhelming majority (94.5%) reported in favor of staff attitudes during delivery. When further probed whether staff attitude impact on future utilization of maternity services, 33.9% indicated that staff attitude affect utilization of the future maternity services.

Table 4.4: Health workers factors that affect utilization of hospital delivery

Variables	N=399	%
Have preferences on staff gender to deliver her at the hospital		
Yes	264	66.2
No	135	33.8
Preferences on staff gender to deliver the mother at the hospital		
Male	21	8.0
Female	243	92.0
Not applicable	135	
Lack of preferred gender stops her to deliver in the hospital		
Yes	26	9.8
No	238	90.2
Not applicable	135	
Staff attitudes during delivery at Garissa PGH		
Excellent	5	2.1
Very good	53	22.5
Good	165	69.9
Poor	12	5.1
Very poor	1	0.4
Not applicable	163	
Staff attitude affect utilization of the maternity		
Yes	80	33.9
No	156	66.1
Not applicable	163	

4.1.6 Analysis of the association between utilization of Garissa PGH maternity services and various factors

This section will determine the association between utilization of PGH Garissa maternity services (dependent variable) and various factors under study (independent variables). These are social demographic factors of the participants, women and health facility as well as health workers factors. To get more in-depth relationship between these factors against the independent variable ie; utilization of maternity services at PGH Garissa, a bivariate and multivariate analysis was done.

4.1.6.1 Bivariate Analysis

Utilization of Garissa PGH in relation to social demographic characteristics

Relationship between utilization of hospital deliveries at Garissa PGH and selected demographic characteristics was analyzed as presented in Tables 5.5.

Out of six selected social demographic characteristics, only one emerged to relate with utilization of Garissa PGH maternity services. A significantly high proportion of mothers aged ≤ 25 years showed willingness to utilize Garissa PGH (92.5%) compared to those aged >25 years (83.1%), (OR=2.49; 95% CI: 1.32 – 4.70; $p=0.004$).

Table 4.5: Utilization of Garissa PGH in relation to social demographic characteristics

Variables	Garissa PGH (N=354)		Other (N=45)		OR	95% CI		p value
	n	%	n	%		Lower	Upper	
Age in years								
≤ 25	221	92.5	18	7.5	2.49	1.32	4.70	0.004
>25	133	83.1	27	16.9	Reference			
Religion								
Muslim	282	89.0	35	11.0	1.12	0.53	2.37	0.768
Christian	72	87.8	10	12.2	Reference			
Marital status								
Currently not married	23	85.2	4	14.8	0.71	0.23	2.16	0.547
Currently married	331	89.0	41	11.0	Reference			
Highest level of education								
None	206	88.8	26	11.2	Reference			
Primary	111	91.0	11	9.0	1.27	0.61	2.67	0.523
Secondary and above	37	82.2	8	17.8	0.58	0.25	1.39	0.223
Highest education attended								
None	77	90.6	8	9.4	Reference			
Dugsi	210	88.6	27	11.4	0.81	0.35	1.86	0.615
Madrasa and above	17	100.0	0	0.0	UD	UD	UD	0.998
Missing	50		10					

Main occupation								
Housewife	322	89.2	39	10.8	1.55	0.61	3.94	0.355
Generating some income	32	84.2	6	15.8	Reference			

Utilization of maternity services at Garissa PGH in relation to maternal characteristic of the study population

Relationship between maternity utilization of Garissa PGH and maternal factors was analyzed as presented in Tables 4.6.

Out of two maternal factors, one emerged to relate with utilization of Garissa PGH. A significantly high proportion of mothers coming for ANC services showed willingness to utilize Garissa PGH (92.1%) compared to those coming for Immunization/weighing (80.9%).

Table 4.6: Utilization of maternity services at Garissa PGH in relation to maternal characteristics

Variables	Garissa PGH (N=354)		Other (N=45)		OR	95% CI		p value
	n	%	n	%		Lower	Upper	
Parity								
0-2	197	92.1	17	7.9	2.14	0.97	4.72	0.059
3-4	92	85.2	16	14.8	1.06	0.47	2.39	0.886
5 or more	65	84.4	12	15.6	Reference			
Main reason for coming to hospital								
ANC	254	91.0	25	9.0	2.41	1.04	5.54	0.039
Delivery	41	85.4	7	14.6	1.39	0.47	4.09	0.553
Other	21	84.0	4	16.0	1.24	0.34	4.53	0.741
Immunization/weighing	38	80.9	9	19.1	Reference			

Utilization of maternity services at Garissa PGH in relation to women factors

Relationship between utilization of maternity services at Garissa PGH and Quality of the Services provided in Garissa PGH was analyzed as presented in Tables 4.7. All the six Quality of the Services factors emerged to relate with utilization of Garissa PGH.

A significantly high proportion of mothers who indicated history of delivery at Garissa PGH showed willingness to utilize Garissa PGH (91.9%) compared to those without history of delivery at Garissa PGH (84.0%). Specifically, majority of those who delivered ≤ 2 years ago showed willingness to utilize Garissa PGH (93.5%) compared to those without history of delivery at Garissa PGH (84.0%).

In the same token, majority of those who reported in favor of quality of service showed willingness to utilize Garissa PGH (95.1%) compared to those without history of delivery at Garissa PGH (84.0%). There was reduced willingness to utilize Garissa PGH in future among those who reported poor performance on quality of service provided (33.3%) compared to those without history of delivery at Garissa PGH (84.0%).

Majority of the participants who indicated that they would advice someone to deliver at Garissa PGH showed willingness to utilize Garissa PGH (95.1%) compared to those that would not advice (10.0%).

Non-existence of religion and cultural was associated with increased willingness to utilize Garissa PGH among the women (90.7%) compared to existence of religion and cultural beliefs (52.4%).

A significantly high proportion of the mothers who indicated that they normally make self decision from where they want to deliver showed willingness to utilize Garissa PGH (87.6%) compared to those decided upon by relatives other than the husband (61.5%). An even higher proportion of mothers who indicated that decision from where they want to deliver is normally done by the husband showed willingness to utilize Garissa PGH (92.3%) compared to those decided upon by relatives other than the husband (61.5%).

Table 4.7: Utilization of maternity services at Garissa PGH in relation to women factors in Garissa PGH

Variables	Garissa PGH (N=354)		Other (N=45)		OR	95% CI		p value
	n	%	n	%		Lower	Upper	
Ever delivered at Garissa PGH								
Yes	217	91.9	19	8.1	2.17	1.16	4.07	0.014
No	137	84.0	26	16.0	Reference			
When delivered at Garissa PGH								
<=2 years ago	158	93.5	11	6.5	2.73	1.30	5.72	0.008
>2 years ago	59	88.1	8	11.9	1.40	0.60	3.27	0.438
Never delivered at Garissa PGH	137	84.0	26	16.0	Reference			
Quality of services								
Good	213	95.1	11	5.9	3.67	1.76	7.68	0.001
Poor	4	33.3	8	66.7	0.09	0.03	0.34	<0.001
Never delivered at Garissa PGH	137	84.0	26	16.0	Reference			
Would advice someone to deliver at Garissa PGH								
Yes	351	95.1	18	4.9	175.50	48.63	633.36	<0.001
No	3	10.0	27	90.0	Reference			
Existing belief that refrain the mother to deliver at Hospital								
Yes	11	52.4	10	47.6	Reference			
No	343	90.7	35	9.3	9.09	3.57	25.00	<0.001
Who decides where you deliver when pregnant								
Self	190	87.6	27	12.4	4.40	1.34	14.43	0.015
Husband	156	92.3	13	7.7	7.50	2.14	26.24	0.002
Others	8	61.5	5	38.5	Reference			

Utilization of maternity services at Garissa PGH in relation to health facility factors

Relationship between maternity services utilization of Garissa PGH and health facility factors was analyzed as presented in Tables 5.8. Out of six health facility factors, three emerged to relate with utilization of Garissa PGH.

Majority of the participants who resided less than 4 kilometers from Garissa PGH showed willingness to utilize Garissa PGH (91.2%) compared to those residing more than 6 kilometers from Garissa PGH (73.3%). A significantly low proportion of the participants experiencing a problem in terms of distance to reach Garissa PGH showed willingness to utilize Garissa PGH (81.1%) compared to those not experiencing a problem (91.7%).

Although existence of other maternity services near residence did not relate significantly with willingness to utilize Garissa PGH, a significantly low proportion of those indicating willingness to deliver in this maternity services showed willingness to utilize Garissa PGH (61.9%) compared to those indicating non-existence of other maternity services near residence (89.8%).

Table 4.8: Utilization of maternity services at Garissa PGH in relation to health facility factors

Variables	Garissa PGH (N=354)		Other (N=45)		OR	95% CI		p value
	n	%	n	%		Lower	Upper	
Distance to Garissa PGH								
<4 km	268	91.2	26	8.8	3.75	1.52	9.25	0.004
4 – 6 km	64	85.3	11	14.7	2.12	0.75	5.94	0.154
>6 km	22	73.3	8	26.7	Reference			
Other maternity services near residence								
Yes	80	85.1	14	14.9	0.65	0.33	1.27	0.205
No	274	89.8	31	10.2	Reference			
Would deliver in other available maternity services								
Yes	13	61.9	8	38.1	0.18	0.07	0.48	0.001
No	67	91.8	6	8.2	1.26	0.51	3.15	0.616
No other maternity available	274	89.8	31	10.2	Reference			
Distance to reach Garissa PGH maternity a problem								
Yes	90	81.1	21	18.9	0.39	0.21	0.73	0.003

No	264	91.7	24	8.3	Reference			
Means of transport to deliver in hospital								
Walking	92	93.9	6	6.1	2.26	0.77	6.68	0.139
Family car/taxi/ambulance	201	87.0	30	13.0	0.99	0.45	2.20	0.977
Public transport	61	87.1	9	12.9	Reference			
Hospital cost prevent the mother to deliver at the hospital								
Yes	85	84.2	16	15.8	0.57	0.30	1.11	0.093
No	269	90.3	29	9.7	Reference			

Utilization of maternity services at Garissa PGH in relation to health worker factors

Relationship between maternity service utilization of Garissa PGH and a single health work factor was analyzed as presented in Figure 5.2.

Majority of the participants without staff gender preference during delivery showed willingness to utilize Garissa PGH (93.3%) compared to those with staff gender preference).

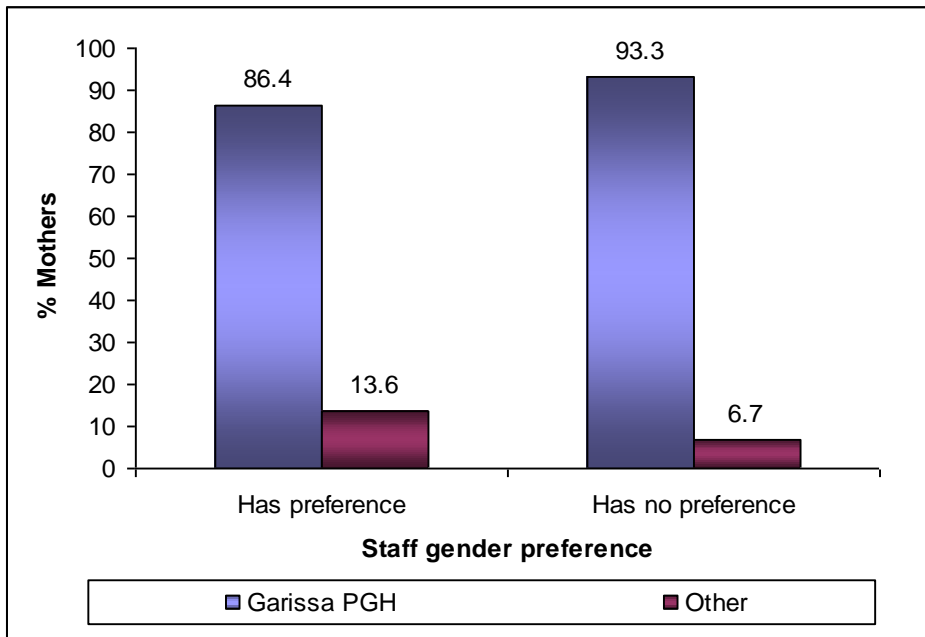


Figure 5.2: Utilization of Garissa PGH in relation to staff gender preference during delivery

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter presents the general discussion that is driven from the results and outcome of the variables that were already analyzed. Using the factors under investigation as a guide, it will try to merge the valuable information revealed by both the quantitative and qualitative methods while bring out any new information that can be associated with underlying issues. It also concludes and summaries the information generated while giving the recommendations that guides the action to be addressed both in the short and long run.

5.1. Discussion

Kenya's national reproductive health policy (2007) encourages elimination of factors that may impede equitable access to reproductive services. It particularly mentions those related to financial, social and cultural barriers (MOH, 2007). Previously, slow progress in attainment of maternal and neonatal targets in Kenya was attributed to issues like limited availability of services, poor access and low utilization (MOPHS 2010). This study was carried out with the aim of determining the factors that affect utilization of maternity services at Garissa provincial general hospital. Beside the demographic variables, other specific factors that were investigated include women factors (cultural/religious beliefs and TBA influence), Health facility factors (distances, cost and quality of services provided) as well as those related to the health workers like their attitudes and gender.

As a result, the study revealed many issues that may contribute to low utilization of the services provided by the hospital. Whilst some variables are found to be non-significant, there are those which showed significance but when subjected further test still lack strong association with the dependent variable. However, others still retained their significance and are confirmed by the qualitative results. The specific factors and information generated is discussed below.

5.1.1 Social Demographic characteristics

Among the social demographic factors that were researched, it is only age that showed highly significance in utilizing PGH Garissa maternity unit. The study showed that women less than 25 years are **2.83** times more likely than women greater than 25 years. This is against the finding of another research that found age is not associated with utilization of ANC services among pregnant women in Garissa town (**sheikh 2010**). However, other researchers in other part of the world

concurred fully with the former (Lieu and Dibley 2007, Nigussie and Mitike, 2004). On similar note, while the same study and others (Awoyemi et al, 2011) shows education of the participants is highly significant in utilization of reproductive health services, this study reveals otherwise in regards to utilization of maternity services in PGH Garissa. 58.1% of the research participants in this study have totally no formal education. However, nearly 70% of the participants said to have some form of religious (Islamic) education which may also masks the educational impact. It could be as well be argued that since this study purely targets women who are in urban centre and are already accessing the hospital, their exposure to urbanization may have significantly improved their level of awareness, perhaps reducing the influence of education as a factor.

The study reveals that very few women are coming to ANC within the first 16 weeks of pregnancy. Majority, **68.9%** comes after 25th week (3th trimesters). This in reality translates to less mothers attending the 4th ANC as recommended by WHO; thus reducing the quality of the care and confirming KDHS (2008) findings of low 4th ANC visit in the country in general and NEP in particular. Quality ANC service is one of the proven strategies that reduce complications during pregnancies, intra-partum and post-partum (WHO, 2005). Apparently, women who are coming for ANC services show high willingness to deliver in PGH Garissa compare to others who are coming for other services like immunization. However, when other factors were controlled, the multivariate analysis shows this to be insignificant as there are no association between ANC attendance and utilization of PGH Garissa. The lack of the association may construe that by coming to ANC at the hospital may not be necessary translates to delivering in the same hospital. The latest KDHS indicates the ANC coverage; both nationally and NEP to be high which doesn't transform the low skilled delivery (KDHS, 2009). This is further supported by another study in Garissa that also shows 83% ANC utilization among women living in Garissa (sheikh, 2010). All these are a pointer that despite high ANC attendance, the same is not translated to a Hospital delivery – at least not in PGH Garissa. Other maternal characteristics like parity and gestation period has no significance in utilizing PGH Garissa maternity. This is also found in another study (Sheikh, 2010)

Other variables within the social demographic characteristics that have no associations during the multiple statistical tests are religion, marital status, religious education and main occupation. This seems concurred with a similar other studies conducted (Gunter, 2009, sheikh, 2010).

5.1.2 Women factors

Factors emanating from the individual are essential component as it influences on how the person interact with his soundings (Awoyemi et al, 2011). The study was purposely looking into the women related factors as it immensely contributes to utilization of the maternal services. As it was investigating the perception of the women in regards to the maternity services provided at PGH, 59.1% of the participants reported to have ever delivered at Garissa PGH, 71.6% having delivered within the last 2 years and showed strong indication in future use . The association during the multi-variance analysis is even stronger with mothers having history of delivery at Garissa PGH having 3.55 times more likely to utilize delivery services at Garissa PGH compared to one without history of delivery. Additionally, 94.9% of these women have some favor for the quality of the service they received- 73.3% terming it good while 5% said it poor or very poor. Again, 88.7% indicated that PGH is their preferred place of delivery. However, during the in-depth interview , the women raised a number of concerns against the hospital. Chief among these were issues related to availability of supplies, staff attitude as well as time taken to be attended to. In fact critical analyses of their concerns suggest that they prefer the hospital not because it's the best but they seem to say that they have no other alternatives.

Many a times, cultural beliefs are blamed for poor utilization of service delivery especially in a conservative community like Somalis (Ganga-Limando et al 2006, (Boursery et al, 2009). This study found out that very few (5.3%) of the participants mentioned that culture or religion restrain them to utilize maternity services. Both Uni-variance and multi-variance analysis suggest that non-existence of religion and cultural beliefs are significantly and strongly associated with increased willingness to utilize Garissa PGH among the mother. This is in confirmatory with the qualitative results where women even claim the Islamic leaders are openly encouraging women to utilize maternity unit; though on condition that they are attended by female staff. This is a big developments and a sign the community is becoming more open and readily accepting the conventional services delivery especially maternal services.

Decision making process is a key component in accessing quality and timely health care. Many researchers claim that women in Africa are deprived the power to make decision in many aspects that have a profound effect on their life (Awoyemi et al 2011, Lawson et al, 2003). Most of the problem that befell the women; lack of education, economic empowerment, marginalization etc are associated with lack of decision making processes among women leading lack of freedom that affects their daily

life. Previous studies indicated that the individual woman within the Somali has little role on where she will deliver (Maalim, 2006, Bousery et al 2009, Ganga-Limando et al 2006). This study reveals a remarkable shift in regards to who decides on where the pregnant woman should deliver. 96.8% of the participants indicated that the decision is by self (54.4%) or husband (42.4%). However, the association was insignificant when backward regression was done during multi-variance analysis. Even then, during the qualitative interviews, the participants came out very strongly that they collectively make decision with consultation of their spouse, indicating that other relatives has minimal role.

5.1.3 Health Facility factors

As distance can be a hindrance or enhancing in accessing and utilizing health services, this study tried to see the effect of distance in utilizing hospital delivery in PGH. While It indicates that majority of the participants resides less than 4 kilometers from Garissa PGH, they have shown a strong willingness to utilize Garissa PGH (91.2%) compared to those residing more than 6 kilometers from Garissa PGH (73.3%). This is not surprising as it is in line with other researches in other part of Africa as well as Garissa (Awoyemi et al 2011, Boursery et al 2009, sheikh, 2009). in fact it shows that a mother residing less than 4 kilometers from Garissa PGH is 4.83 times more likely to utilize delivery services at Garissa PGH compared to one residing more than 6 kilometers . Though insignificant when subjected to multi-variance analysis, even the women who mentioned existence of other maternity near their residence still showed willingness to deliver in PGH Garissa. This affirms that PGH still remains a preferred place for delivery among Garissa residents.

Cost is a real deterrent in accessing health service delivery especially among the poor (Awoyemi et al 2011, Witter, 2003). According to Kenya economic survey 2007, 73.9% of Garissa residents live below the poverty line. While PGH is government institution, hence subsidizing the cost, still over a quarter of the participants indicated that hospital charges prevent people to utilize the maternity. This indicates that cost may partly contribute to under utilization of the maternity services as shown in other studies elsewhere (Awoyemi et al, 2011). Unfortunately, only 2.5% of the participants are aware the waiver systems or other opportunities like the UNICEF funded OBA services that are in place at the hospital. The study reveals that 78.8% of those who delivered in the hospital are assisted to offset hospital charges by relatives. Combined these with high number who are using hired taxi (54.4%) to access the maternity, it is justifiable to assume that cost related to hospital delivery is considerably high and not affordable to many of the Garissa population.

5.1.4 Health workers' factors

The issues related to health workers that were under investigation were mainly clients' perception on staff attitudes and gender preferences. While majority of the women have positive perception on health staff, some had unpleasant experience. Even as the lower level staffs like guards and cleaners were widely mentioned, some of the higher staffs like nurses were equally accused being insensitive and lacking courtesy. This was more prominent during the FGD as many women complained the approaches and responses of some of the staff. It is interesting to learn from the participants that male health workers are said to be more sensitive compared to female staff. Some other studies reported mixed results in regards to health staff attitude as a barrier in utilizing reproductive health services ([Biddlecom et al, 2008](#), [Boursery et al 2009](#)). This is important as more than a third of the participants said that attitude of the health care staff affects their future utilization of maternity services.

On gender preferences and considering the conservativeness of the Somali community coupled with religious beliefs, overwhelmingly majority preferred to be delivered by a female staff. However, further probe reveal that the absence of their preferred gender won't stop them to deliver in the hospital. This is interesting in that while many other studies showed the gender preferences aspect ([Boursery et al 2009](#), [Ganga-Limando et al 2006](#)), the second scenario; majority of women will still come for the hospital delivery regardless of staff gender, is a new development and encouraging. However, many of staffs manning the hospital maternity are currently female nurses which resolved the participants' concerns.

5.2 Conclusions

This study was generally to assess factors affecting utilization of delivery services at PGH Garissa maternity unit. Beside the socio-demographic variables, it more specifically investigated women factors (cultural/ religious belief and influence of the TBA), health facility factors (distance, cost and quality of services) as well as health workers factors (staff gender and attitude). By and large, there is a clear shift in seeking health care services especially maternity services among women in northeastern province, more so Garissa town where this study was conducted. Among the social demographic factors that were researched on, it is only age that showed high significance in utilizing PGH Garissa maternity unit. The study showed that women less than 25 years are 2.83 times more likely to utilize PGH Garissa than women older than 25 years. Other factors associated in

utilization of hospital delivery at PGH Garissa includes; existence of cultural/religious belief, previous history in delivering PGH and Distance to access the services.

Women are considerably making their own decision (often with their partners) on where they will deliver as oppose to previously held belief that this was solely decided by other relatives, more so mothers/mother in –laws. There are clear indications that the influence of the TBA as preferred delivery provider for majority of the pregnant women is waning. Similarly, the study suggests, there are no cultural or religious beliefs that refrain women to utilize the maternity services. The only religious teaching widely mentions by the participants are preferences of female staff in conducting deliveries which is already being practiced in PGH Garissa maternity unit.

Despite, concerns raised by the women, this study revealed that Maternity ward at PGH Garissa is the preferred place for delivery by the women of Garissa town. The hospital is rated highly on the areas like cleanliness, comprehensive services like surgical, diagnostic as well as skilled personnel (specialized skills). Though distance to access the maternity services at the hospital is not perceived as a big problem by the clients, the transport and delivery cost remains an issue.

Whilst staff attitude is appreciated positively, there are major complaints that were raised. The lower cadres like security guards and cleaners, which often are not given much attention, were extensively mentioned as disrespectful to clients and lacking courtesy in handling the visitors. Technical staff like nurses were also said to be not treating the mother well. It is also interesting to note, the study postulates that while female staffs are preferred to deliver women, they are said to be more rude and unkind as oppose to their male counterparts. This degree of dissatisfaction couple with lack of quality of health education provided at ANC to transit women to maternity unit may explain why the high antenatal coverage is not proportionate to hospital deliveries. In fact the participants generally seem to suggest that they have no alternative to turn to as the hospital is unique in its services.

As this study targeted only women who are accessing the maternity services at PGH Garissa, the finding of the study may not be entirely generalized to the whole population of northeastern province. A further research is therefore recommended to get more in-depth views on women who are not accessing the hospital, more so those using other maternities including private nursing homes.

5.3 Recommendations

The study makes the following recommendations both as short term and long term interventions;

- While the hospital administration made great stride in staffing female nurses at the maternity ward, it is imperative to ensure the staff are responsive to the need of the clients. Special attention need to be given to the lower staff (guards and cleaners).
- The hospital management should constitute measures that are meant to enlighten the community on available options in case someone can't afford hospital charges (waivers, OBA etc).
- Issues related to essential supplies like cotton wool and malaria control should be resolved immediately.
- The quality of health education provided at ANC should be assessed with a view to improve the quality of the information transmitted. Specifically, this should try to bridge the gap between service utilization at ANC and Maternity unit.
- As the long run, the policy makers should devise ways to reduce/remove delivery related cost so that this essential service is available and affordable to all.
- A further research is recommended to get more in-depth views on women who are not accessing the hospital, more so those using other maternities including private nursing homes

REFERENCES

- ✚ Magoma, M., Requejo, J., Campbell, O. M. R., Cousen, S. and Filippi, V. (2010). High Antenatal care Coverage and low skilled attendance in a rural Tanzania district: A case for implementing a birth plan intervention. *BMC, Pregnancy and childbirth*. Vol. 10 (13). Available at <http://www.biomedcentral.com/1471-2393/10/13>.
- ✚ Mubyazi, G. M., Bloch, P., Magnussen, P., Byskov, J. Hansen, K. S. and Bygbjerg I. C. (2010). Women's experiences and views about costs of seeking malaria chemoprevention and other antenatal services: a qualitative study from two districts in rural Tanzania. *Malar Journal*, vol. 9 (54). Available at <http://www.ncbi.nlm.nih.gov/pubmed/20163707>.
- ✚ Fotso, J., Ezech, A.C. and Essendi, H. (2009) 'Maternal health in resource-poor urban settings: how does women's autonomy influence the utilization of obstetric care services?' *Reproductive Health* 2009, 6:9 [Online] Available from: <http://www.reproductive-health-journal.com/content/pdf/1742-4755-6-9.pdf>.
- ✚ Ajibola, S. (2003). Mother and baby care: Pregnancy related death. *The Health Care Journal*. Issu(2) pages 29 – 30.
- ✚ Kamara, A. Maine, D. Murat, Z and Ward, M. (1997). *The design and Evaluation of Maternal Mortality Programs*. Centre for Population and Family Health. School of Public Health .Columbia University. New York.
- ✚ Sarker, M., Schmid·G. Larsson, E. Kirenga·E. Allegri, M. Neuhann, F. Mbunda·T. Lekule·I. and Müller·O. (2010). Quality of antenatal care in rural southern Tanzania: a reality check. *BMC journal*, Vol. 3 (209). Available at <http://www.biomedcentral.com/1756-0500/3/209>.
- ✚ Abouzahr, C. (2003a). Safe motherhood: A brief history of the global movement 1947 – 2002. *British Medical Bulletin*. Vol. 67 pg 13 – 25: In REDOCK, C. (2003). *Pregnancy: Reducing Maternal death and Disability*. Oxford University Press. Oxford, UK.

- ✚ World Health Organization Report. (2005). Health in the Millennium Development Goals. WorldHealthOrganization.GenevaSwitzerland.Availableathttp://.www.who.int.mdg/publication/mdg-report/en/index.html.
- ✚ World Health Organization Report. (2007). Output based payment to boost staff productivity in public health contracting in Kabutare district in Rwanda. *Bulletin of World Health Organization*. Vol 85 (2).
- ✚ Collins, D., Quick J. D., Musau S. N., Kraushaar, D. and Hussein I. M. (1996). The fall and rise of cost sharing in Kenya: *The impact of phased implementation. Health Policy and Planning*; 11(1): 52-63.
- ✚ District Health Management Team (2011). *Garissa District annual health report, 2011*.
- ✚ Gonzalez, D. Portino, M and Ruiz. M. (2006). Knowledge gaps in scientific literature on maternal mortality : A system review. *International Journal of Public Health* . Vol. 84 (12). World Health Organization .Geneva. Switzerland.
- ✚ Lenel, A. and Griffith, D. (2007). *Voucher schemes as a financing option in the health sector. The experience of German finance cooperation*. Kfw Bunkengruppe, corporate communication. Frankfurt, Germany.
- ✚ Lawson, B., Harrison, A. and Bergstrom, S. (2003). Maternity care in Developing Countries.
- ✚ Kenya Demographic Health Survey. (2003). *National Council for Population and Development: Central Bureau of Statistic*.
- ✚ Ministry Of Health. (2003). *Kenya National Post –Abortion care Curriculum*. Trainee’s Manual. Ministry of Health. Nairobi. Kenya.
- ✚ Sittoni, P. (2009). Executive Board delegation visit in urban and rural projects in Kenya. UNICEF- Kenya Report. <http://www.unicef.org/infrobycountry/kenya>.
- ✚ United Nation Population Fund Annual Report. (2002). Reproductive Health and safe motherhood. A commitment to saving women’s lives. UNFPA report. Geneva, Switzerland.

- ✚ Witter, S. Ensor, T. Jowett, M. and Thompson. R. (2000). *Health economics for developing countries: A practical guide*. University of York. Centre for health economics international program.
- ✚ Provincial Medical Officer Of Health Report. (2007). North Eastern Province annual report.
- ✚ Ministry Of Planning. (2000). *Kenya service Provision Assessment Survey 1999*. National Council for population and Development, Ministry of Planning. Nairobi. Kenya.

QUESTIONNAIRE [Please complete this questionnaire in pencil]

FACTORS AFFECTING UTILIZATION OF HOSPITAL DELIVERY SERVICES AT GARISSA PROVINCIAL GENERAL HOSPITAL

Name of interviewer: _____ Facility name: _____

Date of interview: ____/____/____ Started time: _____ finished time: _____

1. Where are you currently residing?(Specify)

District: ----- Division: -----Sub-location ----- Village: -----

2. What is your age?(tick) 1 = less than 20 years 2 = 20 – 25 3 = 26 – 30 4 = 31 – 35
5 = above 35 years

3. What is your religious affiliation?(tick) 1 = Muslim 2 = Christian 3 = Others (Specify)-----

4. What is your marital status?1 = Single 2 = Married 3 = Divorced/Separated
4 = Widow 5 = Other (Specify)-----

5. What is your highest level of secular education attended(tick)?

- 1 = None -----
- 2 = incomplete Primary -----
- 3 = completed primary -----
- 4 = Secondary -----
- 5 = College (middle level) -----
- 6 = University-----
- 7 = Others (Specify) _____

5. What is your highest level of religious education attended(tick)

1 = Dugsi completed Quran-----

2 = Dugsi incomplete Quran -----

3 = madrasa primary -----

4 = madrasa secondary and above -----

5 = others (specify)_____

7. What are your main occupations?(tick) (Allow multiple answers)

- = Housewife
- = employee
- = Business
- = Other (Specify)_____

8. What is the main reason for coming to the hospital? (tick)

= ANC

= immunization/ weighing

- = FP
- = treatment
- = PMTCT
- = delivery
- = others (specify) _____

9. If pregnant, how many weeks pregnancy?(tick)

- = less than 16 weeks
- = 16 wks – 24 weeks
- = 25 wks – 32 weeks
- = over 32 weeks

10. What is your parity? (tick)

- = 0
- = 1-2
- = 3-4
- = more than 5

A. Maternal factors

11. Have you delivered at Garissa Provincial General Hospital (GPGH) before? (tick)

- = Yes
- = No

If no go to question 16

12. If yes, when was it?

- = Less than a year ago = 1 – 2 years ago = 2-3 years ago
- 1 = 3-4 years ago = more than 5 years ago

13. How were the services?

- = Excellent = very good = good = poor = very poor

14. If answer is poor or very poor, why _____

15. Will you advice someone to deliver at PGH Garissa? = Yes = No

16. Where would you prefer to deliver in this pregnancy or if you could be pregnant?

- = home = Garissa PGH, = other GOK hospitals = private hospitals
- = others (specify) _____

17. If home, whom do you prefer to deliver you?

- = TBA = relatives = self = Health workers = others (specify) _____

18. Why do you prefer that person _____

19. Is there any belief (s) that refrain you to deliver in a hospital? = yes = no

20. If yes which one

= Religion = Cultural others (specify)_____

21. Who decides where you will deliver when pregnant

= self = your husband = your mother = your father

mother-in-law = TBA others (specify) _____

B. Health facility factors

1) Distance

22. How far do you travel to reach Garissa PGH maternity ward?

1. Less than 1 km 2. 1-3 km 3. 4-6 km 4. more than 6 km

23. Do you think that distance to reach PGH maternity is a problem? yes no

24. Are there other maternity services near your residence? Yes No

If No, go to question 27

25. Would you deliver in the above mentioned maternity? Yes No

26. If No, why _____

2) Cost

27. In case you delivered in hospital, what means of transport do you use to come to the maternity?

1 walking 2 family car 3 taxi 4 ambulance 5 public transport

6. others (specify) _____

28. If you used paid transport, how much do you paid? _____

29. How much do you pay to the hospital as delivery charges? _____

30. Who paid the hospital charges last time you delivered in PGH Garissa?

1 Family members 2. Others relatives 3 well wishers 4. Government/donors 5.
Don't know 6 = others (specify) _____

31. Does hospital cost discourage you to deliver at the hospital? 1. Yes 2. No

3) Quality of services at the hospital

32. What aspect of the PGH maternity service did you like? *Allow multiple answers*

1. psycho-social support 2. Facility cleanliness 3. Staff attitude 4. Time taken to be attended to 5. Availability of medical supplies 6. privacy 7= Others (specify) _____

33. What aspects of PGH maternity service do you dislike? *Allow multiple answers*

1. No psycho-social support 2. Facility unclean 3. poor staff attitude
 4. Long time taken to be attended to 5. Lack of medical supplies 6. No privacy 7= Others (specify) _____

C) Staffs factors

34. Do you have any preferences on staff gender to deliver you at the hospital? 1. Yes 2. No

35. If yes who do you prefer? 1. Yes 2. No

36. Why do you prefer that gender?

37. Does the lack of your preferred gender stop you to deliver in the hospital?

1. Yes
 2. No

38. How do you rate general staff attitude during delivery at PGH maternity?

1. Excellent 2. Very good 3. Good 4. Poor 5. Very poor

39. Does this affect you in your future utilization of the maternity service in the hospital?

- 1 yes
 2 No

41. In a scale of 5, where 1 is lowest rate and 5 the highest, how do you rate the general services delivery in PGH maternity?

1	2	3	4	5
---	---	---	---	---

44. Any general comments on how to improve maternity service in Garissa PGH

THANK YOU

RESEARCH TIMELINE

<i>ACTIVITY</i>	<i>TIME FRAME</i>	<i>PERSONS RESPONSIBLE</i>
<i>Proposal development and completion</i>	<i>By 30th October 2012</i>	<i>Abdinasir</i>
<i>Data collection</i>	<i>By 30th December 2012</i>	<i>Abdinasir/research ass.</i>
<i>Data Analysis</i>	<i>By 30th January 2013</i>	<i>Abdinasir/ Experts</i>
<i>Report writing and dissemination</i>	<i>By 15th February 2012</i>	<i>Abdinasir</i>

BUDGET BREAKDOWN FOR THE PROPOSAL

s/numb	Activity description	quantity	Unit	unit cost(ksh)	total cost(Ksh)	sources of fund
1	proposal development and completion expenses					
	printing/photocopying services	5000	papers	1	5000	self
	proposal submission fees	2	fee	1000	2,000	self
2	Data collection expenses					
	printing/photocopy services for questionnaires	5	reams	500	2500	self
	stationeries for data collection tools (pens, note books etc)	5	set	100	500	self
	recruitments of 4 research assistance for two months	4	persons	500	14000	Self
	data entry and analysis				15,000	self
	Final research printing expense				5000	self
3	Total budget				43000/=	

