FACTORS INFLUENCING IMPLEMENTATION OF FREE MATERNAL HEALTH CARE IN GOVERNMENT HEALTH FACILITIES: A CASE OF KISIMA LOCATION; SAMBURU COUNTY, KENYA

BY

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DECLARATION

This research report is my original work and has not been presented for a degree or any other award in another University or institution of higher learning.

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This research report has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I owe to Stephanie; my wife and Craig; our son.

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ABBREVIATIONS AND ACRONYMS

ADEO	African Development Emergency Organisation
AIDS	Acquired Immuno- deficiency syndrome
APHIAplus	USAID Population and Health Integrated Assistance
CSO	Civil Society Organizations
EU	European Union
Fida	Federation of Women Lawyers in Kenya
HIV	Human Immuno-Deficiency Virus
ICU	Intensive Care Unit
IMBCI	International Mother Baby Childbirth Initiative
MDGs	Millennium Development Goals
MenKen	Men Engage Kenya Network
MNCH	Mother and Child
MoPHS	Ministry of Public Health and Sanitation
MoMS	Ministry of Medical Services
NCPD	National Council for Population and Development
NGEC	National Gender and Equality Commission
NGOs	Non-Governmental Organizations
PEPFAR	President's Emergency Fund for AIDS Relief
PMTCT	Prevention of Mother To Child Transmission
PNC	Post Natal Care
SAIDIA	Samburu County Aid in Africa
SBA	Skilled Birth Attendance

SDGs	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences
STI	Sexually Transimitted Infection
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling Centre
WHO	World Health Organization

ABSTRACT

Issues concerning maternal healthcare are highly prevalent in most developing nations as the quality of care is often low and too expensive for the local population. Kenya, like most other developing nations, has shown the desire to show its commitment towards reducing the problems associated with implementation of free maternal health care projects and programmes. The government's implementation strategy involved introduction of free maternal healthcare program in counties and regions that have limited healthcare services, through the devolution programme. Despite the plans to improve the maternal health care, Lorroki Division in Samburu County has the highest number of maternal health care problems with the high numbers in Kisima Location. The purpose of this study was to establish factors influencing implementation of free maternal health care in government health care facilities in Kisima Location. The objectives of the study were to; assess how demographic characteristics influences implementation of free maternal health care, determine how attitude of health care providers influences implementation of free maternal health care, assess how the level of awareness on maternal health influences implementation of free maternal health care and assess how availability of resources influences implementation of free maternal health care. An in-depth review of literature was done. A descriptive survey design was used in this cross sectional study. The target population was Lorroki Division residents and accessible population was Kisima Location residents from which a sample of 202 residents were selected using stratified sampling; 80 adult women, 75 men and 47 youth . Purposive sampling was used to select 10 health care providers. Data was collected through questionnaires, document reviews and interviews and descriptive statistics was used to analyse the data with aid of Statistical Package for Social Sciences version 20.Content analysis was applied for the qualitative data.The study established that 76.2% of the respondents were unemployed and 50% were uneducated. The quality of health care services was rated to be good but attendance on antenatal and post natal clinics was too low. There were two health facilities in Kisima location; Kisima and Mparigon.1 ambulance was available for the whole location. It was recommended that health care should be given priority and a favorable approach to maternal health care that covers from antenatal to postnatal stage should be introduced. Traditional birth assistants need to be trained on modern safe delivery skills. The study will aid in improvement and implementation in the health sector and thus overall promotion of comprehensive maternal health care services in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

All Kenyans need a right to a healthy and productive life with dignity, equity and opportunity. Giving birth is a significant event in life which should be dignified and respected. Muraya (2015) argues that the United Nations has viewed maternal mortality as a social injustice. This is because it breaks the family and thus interferes with the overall development of the country and world at large. Maternal morbidity and mortality in Kenya results from the interplay of social, cultural, economic and logistical barriers, coupled with a high fertility rate and inadequate and under-funded health services. Strengthening the health system and improving quality of healthcare delivery is pivotal to reversing the trend of high maternal morbidity and mortality (Ukachukwu, 2009).

The WHO 1990 declaration paper, stated that the degree of social justice and respect for human dignity and women rights in the society is reflected by maternal health status in a society. A healthy society reflects on the wealth of the Nation. Good health is important for the development, prosperity and growth of structural and human infrastructure within the Nation. About 800 women die from pregnancy- or childbirth-related complications around the world every day (World Health Organisation [WHO], 2012). In 2013, 289 000 women died during and following pregnancy and childbirth. In Africa maternal mortality rates are high compared to other continents.

In Eastern and Southern Africa, between 1990 and 2010 maternal mortality had fallen from 740 to 410 deaths per 100,000 births. However, the pace of progress is far too slow as per the UNICEF plan. Statistics show that only Eritrea was on track to reach MDG 5, reducing maternal deaths by three-quarters by 2015. Angola, Comoros, Ethiopia, Madagascar, Malawi, Mozambique, Rwanda, Tanzania and Uganda are making progress (annual average decline of 2-5.5 per cent), while the other countries are making insufficient (less than 2 per cent) or no progress at all. The annual decline of 5.5% is the UN requirement towards achieving MDG 5 (United Nations Children's Fund [UNICEF], 2012).These goals have later changed to

Sustainable Development Goals (SDG) which were adopted in September 2015 to replace the MDGs and guide global efforts through 2030 to end poverty, improve health, fight inequality and injustice and tackle climate change.

In Sierra Leone, the launch in 2010 of the Free Health Care initiative for women and children under five years old brought about huge gains; there was a 150 per cent improvement in maternal complications managed in health facilities and a 61 per cent reduction in the maternal mortality rate according to UN Organisation on MDG. Free maternal health care will improve health care hugely and Kenya introduced the same policy.

In Uganda the maternal mortality ratio is 438 deaths per 100,000 live births according to Africa Health Policy review (2015). In Kenya, 100 women die every month due to pregnancy related causes and most of these deaths usually occur during child delivery (Abuya, Njuki, Warren, Okal, Obare, Kanya, & Bellows, 2012). This has direct impact on the economy and social life of the country. Samburu County in Kenya forms one of the major regions in Kenya which is facing high rates of maternal mortality, currently facing a maternal mortality rate of 30% (Ziraba, Mills, Madise, Saliku and Fotso, 2009).

Other parts of Kenya like Turkana County have deaths of about 1000 mothers aged 15 to 28 years annually according to the (NCPD) National Council for Population and Development (Ochieng 2015).

Majority of deaths reported in Kenya occur due to child and mother death. In that sense, the provision of free maternal health care systems in Kenya forms one of the major strategies that the Kenya government is implementing in order to meet the Sustainable Development Goals (SDGs) by 2030. Specific MDGs related to health care were: MDG 4: Reducing child mortality, MDG 5: Improving maternal health and MDG 6: Combating HIV/AIDS, Malaria, TB and other diseases. Kenya did not meet the MDG 4 and 5 by 2015 because Child mortality fell by 50% instead of 67% and maternal mortality by 26% instead of 75 %.(Ziraba et al, 2009).The new SDGs will help in refining the strategy towards reduction in maternal and child deaths. Maternal and Child deaths are well covered in SDG 3 targets 3.1; by 2030 reduce the global maternal mortality ratio to less than 70 per 100,000 live births and 3.2; by 2030 end preventable deaths of newborns and under-5 children.

The Vision 2030 aims at reducing maternal health care related deaths by around 50% in order to meet the set global standards. UNICEF and WHO are also currently working with the Kenyan government in various parts of the country in order to promote access to free maternal health care systems. This has been achieved in various parts of Samburu County through initiation of various projects and health care practices by these non-governmental organizations (Ziraba et al, 2009).

In 1991 the Government of Kenya introduced user fees in public health facilities to raise additional fee to finance healthcare services. This was through a waiver fee and exemption policy to protect poor, vulnerable, and the children aged 5 years or less. This was brought about by the structural adjustment programme prescribed by the international community. This mechanism remained ineffective because of abuse.

The government thus came up with a plan to reduce the user fee to 10 shillings for registration and 20 shillings for service. This was the 10/20 policy of 2004.The Government later in July 2007 abolished all fees for deliveries in public hospitals so as to increase access to free maternal health care services.

The 10/20 policy didn't have a greater impact on reducing morbidity and mortality despite being a cheaper option for many (Russel, 2004).

The Jubilee coalition of 2013 has plans of providing free maternal health care and abolishing user fees to improve access to health care by the poor and vulnerable.

The government is currently initiating various measures as well as policies including implementation of free maternal health care systems in various parts of the country (Hynes, Sakani, Spiegel, & Cornier 2012).This includes the government plan of introducing a new contraceptive strategy with the aim of ensuring that all individuals at the reproductive age in the country can effectively afford contraceptives. This is because the use of contraceptives has been found to be very effective in reducing adolescent pregnancy levels in the country to about114% percent. The use of contraceptives also reduces women pregnancy levels to about 85% especially from early 2003 to late 2010 in the country (Otieno, Kohler, Bosire, Brown, Macharia, and John-Stewart, 2010).

Therefore, the adoption of contraceptive security campaigns forms one of the strategies that can be used in reducing the high levels of maternal mortality rate in Kenya. Furthermore, to promote health care safety and protection of all the mothers in the country, the government has developed various ways of increasing the quality of health care systems in various hospitals in the country and maternal health care systems in all clinical This means that mothers are not expected to pay money in order to receive maternal health care systems in various hospitals in the country as the government is currently catering for all the maternal health care services in the country (Scott, Chowdhury, Pambudi, Qomariyah and Ronsmans, 2013).

Kenyan child mortality between 1990 and 2015 fell by 50 percent, and maternal mortality by 26 percent. This did not meet Millennium Development Goals 4 and 5, which called for reducing the mortality rate for children under 5 by two-thirds and reducing the maternal mortality rate by three-quarters.

The government allocated 43 Billion for the health sector in 2014/2015 budget and 57.9 Billion for 2015/2016 budget. This amount if well used and implemented will help in promoting effective and proper health care services in Kenya.

Maternal healthcare in Lorroki Division has been facing several challenges in the maternal health care sector. Maternal mortality has been high in Kisima Location specifically. The major factors contributing to this high maternal mortality rate in the location include lack of access to effective and proper health care systems, lack of enough basic resources such as water and food as well as the low level of education systems attained by the various individuals in the region (Ziraba et al, 2009). Despite this, there are a number of non-governmental organizations, for example AMREF, the European Union, as well as the ministry of medical services in the country that are currently trying to provide proper maternal health care services in the Division. These organizations are also establishing various programmes that are aimed at reducing poverty levels in the region. Therefore, in order to bridge the gap of poor maternal health care system in Kenya, this study mainly aims at providing various factors that influence implementation of free maternal health care using the case study of Kisima Location in Lorroki Division.

1.2 Statement of the Problem

In Kenya, 100 women die every month due to pregnancy related causes and most of these deaths usually occur during child delivery (Abuya et al, 2012). Maternal mortality and morbidity forms one of major problems and challenges facing the health care systems of various countries. The number of deaths is high for the economy and health of the country. Samburu County faces high rates of maternal mortality of about 30% (Ziraba et al, 2009). In Lorroki Division the rate is highest at 47% within highest rates recorded in Kisima Location despite the presence of health care facilities. According to Samburu county government integrated plan (2013-2017) the number of women receiving antenatal care is 11.7% while contraceptive acceptance is 17.5%.This percentage is minimal and has direct impact on the improvement of free maternal health.

The government has come up with several projects and programmes under free maternal health care aimed at reducing these pregnancy related problems, but the problem is still there. This is due to failure on implementation part and other factors that promote poor maternal health care delivery systems in Samburu County including high levels of malnutrition, poor access to and utilization of MNCH services by women and children, low literacy levels, severely under-resourced health facilities and poor infrastructure among others (Ziraba et al, 2009).

Despite the various researches conducted on maternal health care strategies and policies, research on factors influencing implementation of free maternal health care in government health facilities has hardly been assessed thus it is necessary to find out the factors influencing implementation of free maternal health care in government health facilities using the case of Kisima Location.

1.3 Purpose of the Study

The purpose of the study was to establish the factors influencing implementation of free maternal health care in government health facilities in Kisima Location.

1.4 Objectives of the study

The objectives of the study were to:

(1) Assess how demographic characteristics of Kisima location residents influences implementation of free maternal health care.

(2) Determine how attitude of health care providers in Kisima location influences implementation of free maternal health care.

(3) Assess how the level of awareness on maternal health in Kisima Location influences implementation of free maternal health care.

(4) Assess how availability of resources influences implementation of free maternal health care.

1.5 Research Questions

The study was guided by the following research questions:

(1) How do demographic characteristics of Kisima location residents influence implementation of free maternal health care?

(2) How does attitude of health care providers in Kisima location influence implementation of free maternal health care?

(3) How does level of awareness on maternal health by Kisima residents influence implementation of free maternal health care?

(4) How does availability of resources in Kisima location influence implementation of free maternal health care?

1.6 Significance of the study

The findings and results of this study are hoped to be beneficial to Kisima Location residents because the findings might help in improvement of the maternal health of the residents.

NGOs in Kisima Location may use the findings for betterment of their health related services in Lorroki Division and Samburu County at large and also increase on partnership between NGOs and private sectors.

The Ministry of Health may gain on the improvement and implementation in the health sector and thus overall promotion of comprehensive maternal health care services in Kenya. Kenya Medical Research Institute might use the information in formulation of public health policies in the country and on carrying out other researches.

Kenya Defence Forces conducts most of its training in Samburu area and thus being a stakeholder it may use the information for its community social responsibility to the society in provision of health care services to Kisima Location residents. This might include improving the status of the health care facilities through partnership with Samburu County and have the ripple effect of utilising their health facilities while in the training area.

The study may be important to Samburu County government and other counties as they come up with their strategic plans and in monitoring the process of planning, formulating and adoption of the integrated development plans. It may also help counties in formulation of Mother Newborn and Child Health Bills. Both National and County governments may also gain on coming up with sustainable budgets for the health sector and also improve on research and innovation on health systems.

Scholars may be able to identify more research gaps and use it for future research.

1.7 Delimitations of the study

The study was confined to Kisima location in Samburu County only. The population of the whole of Samburu County is uniform in their culture and thus Kisima location being the worst hit by maternal and child mortality was a good choice for a clear and thorough research. The literature reviewed was concerned with the rural areas and not urban areas. This is because Kisima location in Samburu County is in the rural area.

1.8 Limitations of the study

The study was limited by the fact that it was conducted in an area of nomadic community and hence most of the respodents were moving from one place to another.This was countered by conducting the research during the rainy season as the communities had adequate pasture for their livestock hence minimal movement. The study was also be limited by accesibility of the interior areas of the study.

1.9 Assumptions of the study

The study assumed that the selected respodents would be available and willing to give the information necessary for the research.The respodents were assured of confidentiality and anynomity throughout the conduct of the research and they were volunteers and no coercion was exercised on them. Resources were also assumed to be adequate to carry out the research.

1.10 Definition of Significant Terms

Awareness: Knowing that something (maternal health care) exists.

Government health care facilities: Facilities providing health care facilities to residents and their financing is by the government.

Health Care Facilities: The whole or part of a public or private institution, building or place, whether for profit or not, that is operated or designed to provide in-patient or out-patient treatment, diagnostic or therapeutic interventions, nursing, rehabilitative, palliative, convalescent, preventative or other health service.

Health Care Providers: Any person who has obtained health professional qualifications and licensed by the relevant regulatory body. They include medical officers, nurses, midwives and clinical officers.

Implementation of free maternal care: This refers to the actualization of free maternal health care projects at the right time and place and serving the purpose it is supposed to.

Maternal death: The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

Maternal Health: Is the health of women during their pregnancy, whilst giving birth and post partum (post delivery).

Maternal Health Education: Is the impacting of knowledge, skills and attitude to men and women on issues concerning the health of women during pregnancy, childbirth, and the

postpartum period. It involves family planning, preconception, prenatal, and postnatal care in order to reduce maternal morbidity and mortality.

Maternal morbidity: An overarching term that refers to any physical or mental illness or disability directly related to pregnancy and/or childbirth. These are not necessarily life-threatening but can have a significant impact on the quality of life.

Resources: Refers to both financial, material and human resources as used in implementation of free maternal health care.

Youth: Persons under the age of 18 years.

CHAPTER TWO

LITERATURE REVIEWED

2.1 Introduction

This chapter takes an in-depth review of the factors that determine implementation of free maternal health care in Kisima Location in Lorroki Division. It looks at the four objectives into detail; health care facilities, health care providers' attitude, maternal health education and husbands' involvement in maternal health. The conceptual framework and other research studies on free maternal health care implementation in Kenya, Africa and internationally were discussed too.

2.2 Demographic characteristics and implementation of free maternal health care.

Demographic characteristics are the social economic characteristics of a population expressed statistically such as age, sex, education level, income level, marital status, occupation, religion, birth rate, death rate, average size of family, average age at marriage.

Demographic characteristics affect the utilization of maternal health care services according to studies by Addai (2000).Other studies on utilization of maternal health services by Chubike (2013) showed that if a population is well educated an d maternal health services are available, some demographic variables like maternal age, parity, and number of children living affect the utilization of maternal health care services while maternal occupation and husband's level of education may not be important factors.

Studies conducted by Emelumadu (2014) in Annals of Medical and health sciences research showed that there is a correlation between antenatal care attendance and marital status, educational status, and parity. Women with low educational level, not in any marital relationship and lower parity were more likely to utilize health centre and TBA/maternity for ANC.

The factors that influence maternal health services utilization operate at individual, household and community levels. Studies by Elo (1992) in Peru showed that women with primary level education participated in maternal health than those without formal education.

The determinants for place of delivery include age, parity, marital status, religion and educational status.

The place of one's residence might have an influence on participation in maternal health care, women in urban areas tend to utilize maternal health care more than women in rural areas. Women in urban centres are more exposed to the knowledge on maternal healthcare and thus the reason for more participation.

Women's age has a correlation with utilization of skilled attendant at birth according to studies by Celik (2000).The older women become, the more the likelihood of utilizing maternal health care.

Poverty restricts one from utilising maternal health care services because one does not have the accessibility. Women with few children tend to be assisted during birth delivery but this decreases as the number of children increases.

2.3 Attitude of health care providers and implementation of free maternal health care.

The Health Bill, 2014 states that health care providers include any person who has obtained health professional qualifications and licensed by the relevant regulatory body. They include medical officers, nurses, midwives and clinical officers. The WHO doctor patient ratio is 1:600 Kinfu et al (2009).The country with the best ratio is Cuba at 1:170, Belgium 1:220,USA 1:390 , South Africa has 1:1,300,Kenya 1:7,100 , Democratic Republic of Congo 1:9100 and Malawi 1:50,000 to mention but a few according to WHO workforce crisis.

The increase of mortality rate in Kenya can be attributed to lack of enough specialized as well as skilled personnel and health care providers in the country, Otieno et al (2010). This is because professional as well as skilled assistance during childbirth is central to reducing maternal mortality rate.

The number of health care providers in Kenya is not enough to cater for the whole population as the country has 9,734 doctors for the nearly 46 million Kenyans according to the Economic survey 2016.This translates to 1 doctor for nearly 5000 Kenyans, the number is very low

compared to the WHO ratio of 1:600.Kenya has 2,300 doctors in public hospitals and 5,000 in private hospitals. Qualified health care providers are vital for proper and standard health care. In Samburu County the ratio is 3:100,000 people for doctors, 10: 100,000 for clinical officers and 63:100,000 for nurses according to the Ministry of health statistics of 2009.This shows that the availability for health care providers is too low compared to the demand and thus an acute shortage of health care providers. In Marsabit County for example no one applied for the advertised jobs in health department and yet the County has two level four hospitals lacking the specialists thus forcing them to recruit within the East Africa region (Ali, 2015).

Traditional birth attendants are many in the rural areas like Kisima. The WHO does not classify traditional birth attendants as qualified health providers even if they have received a short training course.

According to Samburu County integrated development plan (2013-2017) most of the Samburu county residents do not have a positive attitude towards skilled health care service. Plans have been put in place to change the local resident's attitudes. The health care providers should have a good attitude in provision of their services and thus attract and encourage the local residents to get involved in maternal health care services.

The Beyond Zero Campaign by the First Lady of Kenya, Margret Kenyatta aims at increasing the number of skilled health care providers in the various counties in the country. This will help in improving maternal health care in the Country.

In Samburu County AMREF contributes to reduction in maternal and neonatal deaths by creating demand for utilization of essential nutrition and maternal and newborn health services by strengthening community health structures. This will effectively help in scaling up essential nutrition actions, strengthening health worker's skills in essential and emergency obstetric care as well as other undertaking stop gap procurement of essential commodities Ziraba et al (2009).

The presence of a skilled attendant at birth is closely associated with better delivery outcomes and reduced maternal and neonatal mortality.

Attitude of healthcare providers towards their job is vital in determining the output of their work. This is directly related to the attraction of many people towards accessing and utilising skilled

services. For health care providers to have a positive attitude towards their work there are various motivation factors that need to be considered. The working conditions, pay, security and proper staffing are key for positive attitude. Having fewer health care providers results in work overload which affects ones attitude towards work and resulting in burn out and under performance. The county governments don't have adequate fund to pay salaries to the health care providers they have. The National government gave counties 757 intern doctors to Counties but they can only afford 464 according to their budgets.

According to the Economic survey 2016, Kenya has 46,000 registered and 27,500 enrolled nurses. This number is small compared to the population of Kenya. The Nursing council census of 2016 indicates that there are only 5 nurses per 10,000 people ,this is low compared to the WHO standard of 23 nurses, doctors and midwives per 10,000 citizens. Free maternity health services in Kenya have increased the number of birth rates yet the number of nurses is still low.

Religiosity and maternal health are intertwined in African context according to Lydia et al(2016).During pregnancy women intensify their prayers to God for intervention during their pregnancy and delivery. The method of communication to God depends on their religion as some use rosary, bible, artifacts, olive oil and blessed water among others. The fear of labour pain forces some women to become more religious.

2.4 Level of awareness on maternal health and implementation of free maternal health care.

Grossman (2000) suggests that there is correlation between years of formal schooling completed and good health. Schooling is more important than income as a correlate to health, this is because schooling increases efficiency of health production.

The Kenya Constitution (2010) provides for the right to health care services. Article 43 section 1 states that *"*every person has the right to the highest attainable standard of health, which includes the right to health care services, including reproductive health care, and in article 43 section 2 it is clear that a person shall not be denied emergency medical treatment .For this to be achieved, awareness has to be done at all levels.

Women with higher education are much more likely to receive antenatal care from a medical doctor than are those with no education. According to East African Journal of Public Health the majority of professional and educated women in urban areas are more likely to involve in maternal health care systems than the women who are less educated and come from rural areas.

The government has been on the forefront on health education in Kenya. Maternal education determines the outcome of pregnancy. Women of lower education levels have higher chances of experiencing stillbirth, miscarriage, abortion or preterm birth. Ziraba et al (2009) found out that majority of women lack basic maternal health care skills and usually suffer injuries and other critical mortal incidents during pregnancy delivery.

Knowledge on health matters gives one the basic skills on both antenatal and postnatal care. This knowledge is acquired through seminars, campaigns, experience and exchange between women. There are campaigns in the country that are aimed at encouraging mothers to involve in maternal health care delivery systems in various hospitals in the country. This is because despite low number of health care providers in the country, the government is making a number of efforts to ensure that professional health care services is accorded to various individuals in the country especially to pregnant mothers (Otieno et al, 2010).

According to Gill, Pande and Malhotra (2007) the probability of delivery at a health facility is significantly associated with women's education and wealth. Education gives one the necessary knowledge on ensuring a safe delivery.

The Government is also currently involved in various local health care providers' training programs in order to promote the level of maternal health care systems in the country. An example includes training midwives the appropriate diets that expectant mothers are supposed to undertake during and after delivery. In most cases non-governmental organizations mostly partner with the local communities in order to initiate various health care positive changes in rural communities in Kenya. For example, AMREF is planning to cover and change the lives of around 2000 individuals especially women and children in Samburu county by providing the best qualified and timely healthcare services. This will effectively promote the level of maternal health care systems in the region (Otieno et al, 2010).

It is important to have posters within government health care facilities displaying the National Patients Rights Charter so as to inform patients of its contents, and effectively handle complaints arising from the same.

According to AMREF international publication (2014) low level of education systems in the region of Samburu have been a barrier to good health. Good levels of education enable mothers to engage in proper maternal health care and thus reduction in maternal mortality. This is through proper feeding by the mother throughout the pregnancy and after pregnancy.

Most women among the nomadic communities in Kenya undergo female genital mutilation (FGM). FGM involves the partial or total removal of the external female genitalia or other injury to the female organs for cultural or other non-therapeutic reasons. Currently campaigns on zero tolerance to FGM have been organized by World Vision. The FGM act does not add any value to women and it is traumatizing, the Tumdo nee lel initiative by Dr Susan Chebet has had some positive impact. It advocates for abandonment of the FGM act as a rite of passage because it is a violation of human rights (Kibor, 2015)

Knowledge change is affected by culture. In Samburu County FGM cases are still high despite the campaigns against FGM. The Samburu culture advocates for FGM practice. FGM has negative impacts on the reproductive health of women. The government has been fighting against FGM through the free universal primary education.

The numbers of incidents of early marriages in Samburu County have been high. Young girls at the age of 12 years have been married off to elderly men (Githaiga, 2015). At this age most girls know nothing about motherhood.

Unwanted pregnancies among women has been seen as an outcast and thus forcing women to illegal abortion practices which end up leading to deaths due to severe hemorrhage. Article 26(4) of the Kenya constitution (2010) states that abortion is not permitted unless, in the opinion of a trained health professional, there is need for emergency treatment, or the life or health of the mother is in danger, or if permitted by any other written law. Sensitisation on issues related to abortion should be well conducted in the marginal areas.

Most women shy away from maternal health care and thus end up not attending the recommended four antenatal clinics by WHO before birth. They opt for traditional birth attendants who are not recognized as skilled by WHO. (WHO, 2012)

There have been several initiatives aimed at good maternal health care in the world. The International Mother Baby Childbirth Initiative (IMBCI) which aims at improving the quality of maternal care through research, education, advocacy and policy is based on the WHO 1990 citation that the degree of social justice and respect for human dignity and women rights in the society is reflected by maternal health status in a society.

According to the Kenya Demographic and Health Survey [KDHS], 2009 the other problem that brings about the high maternal mortality rates experienced can be associated with low literacy levels. This is because the majority of women and children in the region lack the ability to read and write. The affected people have not been exposed to proper healthcare customs and practices that they can easily learn from reading both the print and social media articles on the proper practices available to them. Poor transport systems as well as poor and low quality infrastructural systems in the region also contribute to this problem (Njuki et al, 2013).

Education brings about awareness on the reproduction health and thus mothers are able to monitor their pregnancy well and thus have no complications. This awareness is also practiced post delivery. Quality education brings about sustainable living and hence holistic development.

In Samburu there are various community organizations that offer preventive and curative health care services to children and their families through the maternal program available in the region. There are projects in the region that mainly aim at providing education skills about the effect of HIV/ AIDS, proper hygiene and immunization procedures on individual health systems. There are mobile clinics in the region that aim at promoting the general health systems of the local communities (Ziraba et al, 2009).

There is also the Wasichana Wote Wasome Project that is mainly designed to promote girl education challenge in Samburu County in order to promote the maternal health care systems in the region. The project initiative targets around 25 schools in Samburu County as well as other schools in various parts of Kenya (Ziraba et al, 2009).Most of the pastoral communities are

engaged in early marriages and this puts many youth to get involved in parenthood either as mothers or fathers. The youth have little knowledge on parenthood.

It is through these programmes and projects that women and men learn more about reproductive health. Women should not be discriminated on education issues as this affects their approach on issues, whether political, social, technological or economic. Total elimination of all harmful practices against women should be addressed.

The Samburu culture has various set of beliefs and practices concerning aetiology, diagnosis and treatment of infant and children diseases like measles and diarrhea. For example water and breast milk is withheld during measles. This might lead to dehydration and hence cause death. The use of herbs during disease cure is also common. This can only be changed through awareness on modern medical care.

Awareness on issues of maternal health and health generally can be improved by having Health Extension Programmes (HEP) like in Ethiopia which involves having women trained and employed as frontline health workers who are in direct link with the locals. They offer awareness on basic healthcare and public health to the local population and serve as role model to girls because cases of early marriages are high in Ethiopia. HEP has helped in reduction of mortality and morbidity cases. Awareness is mostly done through education in schools and medical outreaches. It can also be carried out in PMTCT and VCT centres.

Men need to be educated and informed on maternal health care .This will help in having an holistic approach to the issue of health care and family growth and development. An observation study carried out in Nepal in 2007 showed that involving husbands in maternal health care had positive health outcomes (Mullany BC, Hindin MJ, Becker S, 2007). Husbands are the heads of most families and thus they determine women access to maternal health care services through active participation in attendance of antenatal care, presence during delivery, helping wife during pregnancy, delivery and at post partum, financial support for pregnancy and child related expenses.

Kenya has had several networks and initiatives that address gender equality and gender based violence. The Men Engage Kenya Network (MenKen) is one of the networks through the

National Gender and Equality Commission (NGEC) which aims at engaging men and boys in promoting gender equality in collaboration with women and women's rights organizations. There should be gender equality in health decision making.

Recently a section of morans have joined the campaign on Anti FGM and have vowed not to marry girls who have undergone FGM .This was through a campaign sponsored by Federation of Women Lawyers in Kenya (Kigneno and Mwakale, 2015).This will improve the involvement of husbands in maternal health and get them to be aware of maternal health care related issues.

There are various current developments involving men engagement in maternal health care systems in order to promote health care systems. This include men providing psychological support to women, providing funds during child health care systems as well as husbands involvement in various reproductive health care practices (Ziraba et al, 2009). The constructive men's engagement projects mainly involves men activities in promoting gender equity with regard to reproductive health, increases men's support for women's reproductive health and children's well-being as well as advances the reproductive health of both men and women (Ziraba et al, 2009).

This has promoted the maternal health care in Kenya as majority of men usually involve in the delivery of safe maternal health care services in various parts of the country. According to recent research, reproductive health issues mostly relate to men and men involvement in maternal health care systems can improve child and mother health care services delivery (Ziraba et al, 2009). There are various initiatives in Samburu County that aims at involving men in health care delivery systems especially in Lesidai Dispensary in Samburu central, Samburu County. This was an area with low uptake of reproductive health services and involvement of husbands in these activities has effectively reduced the challenges in maternal health care support in the region.

There is a clear association between male attendance to at least one antenatal care visit and delivery by a skilled birth attendant. In most cases, men have the capacity to encourage their wives to attend health care centers and can also accompany their wives to antenatal care, help prepare and save money for delivery and arrange transportation to the birthing center. A study conducted in early 2010 in Nairobi County in Kenya found that the outcomes associated with

male attendance at maternal health care included knowledge of maternal health care services, women giving birth at a health clinic, distance to health facility and men desiring no further children. The study also found out that one of the strongest factors was knowledge about maternal health care services. Therefore, husbands' awareness on maternal health care systems is very critical and can be used in improving and implementation of free maternal health care in Kenya.

Unequal structures or power dynamics within a community can have an impact on male involvement in women's reproductive health. Although there may be advantages to having men involved in maternal health, it is not clear if women would find this involvement acceptable and how it could be negotiated. It is important that patriarchal patterns are not repeated through the involvement of husbands and that women also want their partner's assistance in pregnancy and delivery. A 2001 study of condom use and decision making in rural Kenya demonstrated that the effect of empowering women does not take away from the effects of empowering men; rather it enables both to make informed decisions.

Gender equity in all spheres of life will help improve on maternal health as it makes men to be responsible for their sexual and reproductive behavior and their social and family roles including responsible parenthood, prevention of unwanted and high-risk pregnancies and shared control and contribution to family income. (Shen & Williamson, 1999)

In that sense, awareness and involvement of both men and women in maternal issues will effectively improve the level of maternal health care systems in Kenya leading to faster implementation of free maternal health care systems in the country.

2.5 Availability of resources and implementation of free maternal health care.

Resources are limited and due to the rising health care demand allocation of resources has to be done in a better way. Resources are divided into financial, material and human resources. Proper allocation of resources will ensure that implementation is done and there will be sustainability. For proper improvement and growth in healthcare funding has to be done well. According to World bank Kenya has been decreasing in spending on health care. The highest spending was in 2010 but currently it has dropped. Kenya is expected to spend 15% of its total collected revenue on health but it spends 7.8%.

The health sector has been devolved but it has faced major financial challenges. This has made it difficult to achieve the set targets. Financial resource is vital towards meeting these targets. In the FY15/16 budget the government allocated Shs.4.3 billion for free maternal health care and in the recent FY16/17 budget the free maternal allocation has been reduced to Shs.4.1 billion. This reduction in budget allocation will affect free maternal health care.

Material resources for free maternal health care include the health care facilities, drugs and medical equipment. The Kenya government is in plan of ensuring each County has two fully equipped hospitals with state of the art facilities according to the FY15/16 budget plans. Equipment to be put in these places include modern theatre equipment, surgical and sterilisation equipment, laboratory equipment, kidney dialysis equipment, ICU facilities, digital X ray machines, ultra sound and imagery equipment. This has been through allocation of Shs.4.5 billion in FY 14/15 and Shs.4.3 billion in FY15/16 for lease financing.

The Beyond Zero Campaign has been on the fore front to try and have mobile ambulance in all counties and staff to manage the ambulances in a professional way.

The human resource is the most expensive and critical resource for the success of any project. The health care sector needs health care providers who are highly trained and professionals. Kenya has an approved staffing establishment of 59,667 but only 49,096 staff posts are filled according to KDHS. According to the Economic survey 2016, Kenya has 46,000 registered and 27,500 enrolled nurses. This number is small compared to the population of Kenya. The Nursing council census of 2016 indicates that there are only 5 nurses per 10,000 people ,this is low compared to the WHO standard of 23 nurses, doctors and midwives per 10,000 citizens. Free maternity health services in Kenya have increased the number of birth rates yet the number of nurses is still low.

Traditional birth attendants are many in the rural areas like Kisima. The WHO does not classify traditional birth attendants as qualified health providers even if they have received a short training course.

The staff includes doctors, nurses, technical and support staff who work together for the improvement of health care. Training of health care staff to high level of professionalism and management demands for money allocation. Remuneration of health workers in Kenya has been

faced by challenges and thus strikes which lead to downfall on the health sector. Health care providers need to be motivated for their output to be high.

The government has a transformation plan for all the Counties. This is in line with the devolution of health system in Kenya which provides a strategic approach to accessing and managing equipment while ensuring improved quality of care for Kenyans and saving tax payers money.

Samburu County will be one of the beneficiaries of the transformation project; Maralal District hospital and Baragoi Sub district hospital are the level V and IV hospitals respectively to benefit. The overall transformation of the healthcare will have 5 dialysis machines for each of the 47 counties, 98 hospitals equipped with state of the art digital x-ray, ultra sound and other imaging equipment, 94 hospitals fully kitted with theatre equipment, 11 hospitals equipped with ICU facilities, 94 hospitals equipped with state of the art sterilizing equipment and complete surgical sets for all operations and 94 hospitals equipped with state of the art laboratory equipment. This transformation strategy is in line with the devolution process aims at promoting public access to health care services in various parts of the country. The government has signed a Kshs. 38 Billion deal for this transformation strategy (Jamah, 2015).The challenge for this strategy is the ability of the government to ensure its end state is achieved and not a loophole for corruption.

Otieno et al, (2010) found out that majority of women in various regions in Kenya mostly do not access maternal health care services due to lack of transport in order to reach the nearby hospital in their surroundings. The accessibility of health care facilities is dependent on the distance of the facility from the user. Accessibility within the arid and semi arid areas is difficult because of the nomadic way of living of most of the residents. The County government of Samburu has come up with a strategy of ensuring accessibility to the health facilities by introducing and availing motor cycles and bicycles to facilitate health officers access remote parts. This new project is through partnership with African Development Emergency Organisation (ADEO), under the EU, which has come up with a project to ensure skilled delivery of expectant mothers in Maasai Community by providing 150 motor cycles and 200 bicycles (Githaiga, 2015). This will help in reducing mother and child mortality. In most cases, the majority of women in Kenya usually deliver their babies at homes and this has resulted into high increase in the level of maternal mortality rate in the country.(Otieno et al, 2010).The idea of bringing the health workers closer to the need users will ensure quality attendance during delivery.

Samburu County has several government health care facilities; Baragoi Sub district hospital, Kisima health centre, Loroki, Lesirkan, Saidia health centre, Marti Dispensary, South Horr centre, Suguta Marmar health centre and Maralal District hospital. The health services provided in the above health facilities include curative inpatient, family planning, immunization, PMTCT, HIV Counseling and testing and Antiretroviral Therapy.

In Kisima Location there are two major health facilities; Kisima and Suguta Marmar dispensary. Kisima dispensary has a capacity of 6 beds and 2 cots. The health care facilities are spaced at a distance of 20 Kilometres apart. Other local health facilities in Kisima Location include Kirimon NYS dispensary, Lodokejek Catholic dispensary, Samburu Friends dispensary, Suguta mar-mar Catholic dispensary and Loltulelei friends dispensary. The distance between government health facilities makes it a challenge for expectant mothers to access the services provided.

The availability of health care facilities ensures the relevant maternal health care services; Antenatal Care (ANC), Delivery Care, Postnatal Care (PNC), Newborns Care as well as Emergency Obstetric Care (EmOC), are well delivered to expectant mothers and new born. Expectant mothers are recommended to receive four or more antenatal clinics. The facilities might also be available but inaccessible due to distance or lack of knowledge on importance of delivery at facility. The cost at the facility might also discourage attendance. This has led to most births in rural areas being home deliveries.

According to Ziraba et al, (2009) most of the health facilities are under-resourced and have poor infrastructure. This leads to poor delivery of services within the health facilities. Otieno et al, (2010) established that abrupt delivery and lack of enough hospital maternal facilities and tools also include some of the conditions that have resulted into high maternal mortality rate in Kenya especially in a number of rural areas in the country. Countries with good maternal health care like Denmark have 99% of their hospitals as public hospitals and the government spends 8% of its taxable income on health care.

2.6 Theoretical framework

Ludwig von Bertalanffy advanced what he called Allgemeine Systemlehre (general theory of systems or more popularly, general system theory) as a response to the increasing fragmentation and duplication of scientific and technological research and decision making in the first half of

the 20th century. The theory connotes a complex of interacting components together with the relationships among them that permit the identification of a boundary-maintaining entity or process. System theory can be used to explain the integration between government, healthcare providers, women, youth and men involved in maternal health care. It aids in a holistic approach to the issue of free maternal health care implementation.

2.7 Conceptual Framework

Conceptual framework is a schematic presentation which identifies the variables that when put together explain the issue of concern. The conceptual framework is therefore the set of broad ideas used to explain the relationship between the independent variables (factors) and the dependent variables (outcome). Conceptual framework provides the link between the research title, the objectives, the study methodology and the literature review (Coulthard et al, 2004).The conceptual framework to be used in this study is adopted from the conceptual framework of Anderson and Newman. The Anderson and Newman model suggests that individual's access to and use of health is a function of three characteristics:

Predisposing factors: These are the socio-cultural characteristics of an individual that exist prior to their illness such as education, ethnicity ,social networks, social interactions and culture, age, gender and attitudes and knowledge people have towards health.

Enabling factors: These are the logistical aspects of obtaining care such as income, health insurance, a regular source of care, travel time and cost, extent, quality of social relationships, availability of health personnel and facilities, waiting time, genetic factors and psychological characteristics.

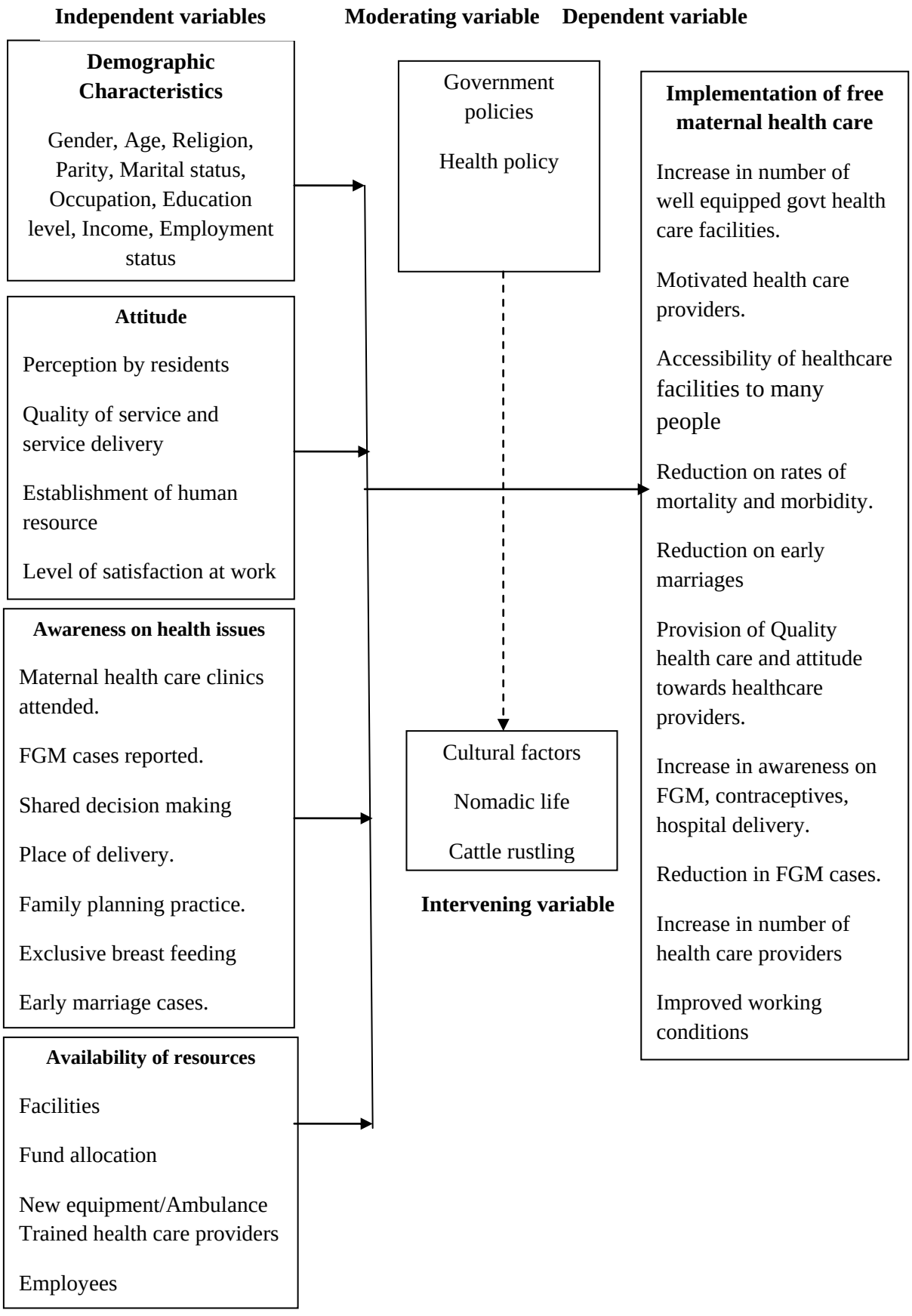
Need factors: These are the most immediate cause of health service use, from functional and health problems that generate the need for health care services. This includes perceived need, that is, how people view their own general health and functional state, as well as how they experience symptoms of illness, pain and worries about their health and whether or not they judge their problems to be of sufficient importance and the magnitude to seek professional help.

This study concentrated on some of the predisposing factors (education and gender), and enabling factors (health personnel and facilities availability) and explain how these factors relate to implementation of free maternal health care in Kisima Location. There are four independent

variables and one dependent variable; Implementation of free maternal health care was the dependent variable while demographic characteristics, attitude of health care providers, level of awareness on free maternal health and resources in free maternal health care were the independent variables.

Government policies were moderating variable and culture was the intervening variable.

Figure 1 Conceptual framework


Independent variables
Moderating variable
Dependent variable
Demographic Characteristics
Gender, Age, Religion, Parity, Marital status, Occupation, Education level, Income, Employment status
Attitude
Perception by residents
Quality of service and service delivery
Establishment of human resource
Level of satisfaction at work
Awareness on health issues
Maternal health care clinics attended.
FGM cases reported.
Shared decision making
Place of delivery.
Family planning practice.
Exclusive breast feeding
Early marriage cases.
Availability of resources
Facilities
Fund allocation
New equipment/Ambulance
Trained health care providers
Employees
Government policies
Health policy
Cultural factors
Nomadic life
Cattle rustling
Intervening variable
Implementation of free maternal health care
Increase in number of well equipped govt health care facilities.
Motivated health care providers.
Accessibility of healthcare facilities to many people
Reduction on rates of mortality and morbidity.
Reduction on early marriages
Provision of Quality health care and attitude towards healthcare providers.
Increase in awareness on FGM, contraceptives, hospital delivery.
Reduction in FGM cases.
Increase in number of health care providers
Improved working conditions

2.8 Summary of literature reviewed

The literature review was based on the four objectives and it discussed the relationship of demographic characteristics, attitude of health care providers, level of awareness on maternal health care and resources on implementation of free maternal health care.

The demographic characteristics; age, religion, parity or birth order, marital status, income, occupation, education level, household size were discussed into detail as they influence implementation of free maternal health care.

The importance of awareness on maternal health care was discussed and was highlighted as being a key state brought about by education.

Resources; human, material and financial involved in successful implementation of free maternal health care were discussed into depth as allocation of resources is critical for implementation of free maternal health care.

However, there is gap in terms of studies already done locally to investigate factors influencing implementation of free maternal health care in government health facilities in Kenya. This indicates a local knowledge gap on maternal healthcare implementation in the marginalized areas. Therefore, this study seeks to investigate factors influencing implementation of free maternal health care in government health facilities in Kisima Location, Samburu County in a modest attempt to bridge this gap.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the procedure the researcher used in conducting the study and explains the design and methodologies that were adopted.It stipulates the systemic approach, procedure and the techniques that were applied in the collection and analysis of data.The chapter also describes the target population,sample and sampling techniques used,instruments for collecting data,the measurement of variables and the techniques used in analyzing the data collected.The chapter also covers the operational definition of variables, conceptualization of varaiables and ethical issues.

3.2 Research Design

A cross sectional survey was used during the study.It involved describing the characteristic of a particular pronominal by seeking an answer to questions like what, when and how and therefore the researcher considers it most appropriate. The survey design is well suited to studies in which individuals are used as a unit of analysis in order to measure generalizations (Gall and Borg, 2003). The design allowed the researcher to gather numerical and descriptive data to assess the relationship between the variables because it involved an in depth study. The cross sectional survey was conducted among 202 respondents to examine the various factors that influenced implementation of free maternal health in government health care facilities in Kisima Location. The research used questionnaires and interview guide to gather this information. The study recorded information about the subjects and respondents information related to free maternal health care in Kisima Location and it took a minimum of two weeks.

3.3 Target Population

The target population is the total number of respondents in an area that the research is interested in. For this study it was Lorroki Division residents on which the findings were generalized on. The Kisima Location residents comprising of 14,020 people according to Kenya Demographic and Health Survey [KHDS] (2008-2009) was the accessible population .It is from this accessible

population that the sample was drawn from. The participants in this study included adult women especially pregnant and lactating mothers, youth, men and health care providers.

10 Ministry of health workers in Kisima Location were targeted as they had most of the statistics required for the research. Only participants with informed consent participated in the research study. With the help of the local administration and translators the population was made aware of the intended study and the benefits of the study to them.

3.4 Sampling Design and Sampling Procedure

Sampling procedure is a systematic process of identifying individuals for a study to represent a larger group from which they are selected, Mugenda and Mugenda (2003). The study involved both probability and non probability sampling methods to come up with a sampling frame. Stratified sampling method was used in this study in order to select the study population samples. The strata included women, men and the youth. The researcher adopted a formula by Cochran (1963) to determine the sample size of respondents at 7% level of significance as follows:

; $n = \frac{N}{[1+N\ (e^2)]}$

Whereby n is the sample size

N is the target population =14,020

e is the level of significance = 0.07

$$\frac{14{,}020}{[1 + 14{,}020 \text{ x } 0.07^2]} = 202 \text{ respodents}$$

A sample of 202 respondents' was selected using simple random sampling technique as shown in Table 3.1and purposive sampling was also used to purposely select the group of medical health care providers as they were believed to be reliable in the study. This was a target of 10 health care providers.

Table 3.1 Proportionate sampling of Kisima Location residents

Group	No	Sample size
Women	5,552	80
Men	5,205	75
Youth	3,263	47
Total	**14,020**	**202**

3.5 Research instruments

The primary data collection included questionnaires and interviews as the main instruments. The questionnaires were developed based on the themes in the literature review section and research objectives. They involved both close ended and open ended questions for each group of respondents. An interview guide was prepared.

3.5.1 Pilot testing of the instruments

The pilot study was conducted by selecting 10% of the sample size respondents in Porro Location. This helped in testing the credibility, logic, clarity, brevity and duration of completing the questionnaires so as to enable the researcher makes amendments before the actual collection of the data. The flow of the interview guide was also checked.

3.5.2 Validity of instruments

Validity refers to the degree to which results obtained from analysis of the data actually represent the phenomenon under study (Mugenda and Mugenda, 2003). A content validity test was used to measure instrument validity. This type of validity measures the degree to which data collected using a particular instrument represents a specific domain of indicators or content of a particular

concept (Mugenda and Mugenda, 1999). Research experts, health project experts and the supervisor were consulted to ensure that the instrument measures what they intended to measure.

3.5.3 Reliability of instruments

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda and Mugenda, 1999). This was measured through test-retest technique by administering the questionnaires to 10% of the sample size, with similar characteristics as the actual sample size. The test was repeated after two weeks. Scores obtained from both tests were correlated to get the coefficient of reliability. A Spearman's correlation coefficient of 0.7 was accepted and any discrepancies in the questionnaire were corrected accordingly. The reliability of the questionnaires was also tested during the pilot study conducted at Porro Location.

3.6 Data collection procedure

Questionnaires were administered to the respondents and interviews conducted; phone interviews as well as face to face interviews with health officer in charge, health care providers in Kisima Location and health officers in the County offices were organised. The researcher also conducted phone and face to face interviews with the respondents who understood English and Swahili language.

An appointment was booked with the respondents and all respondents were explained on the purpose of the exercise. Documents with information and data on health issues within Kisima Location were sourced from the Ministry of Health at Samburu County headquarters and reviewed in depth. The data collection exercise took a duration of two weeks in order to cover a wide range of the local population in the area of study. An assistant local interviewer with knowledge of Samburu language was used to enable translation of the questionnaires to the local language.

A total of 202 questionnaires were administered to obtain as much information as possible relevant to the aims of the study.

3.7 Data Analysis technique

Both qualitative and quantitative data were obatined during the study. The collected data was coded by the researcher for efficiency in order to reduce the replies given by the respondents to a small number of classes. After the coding was complete, the data was classified on the basis of common characteristics and attributes. The raw data was assembled and tabulated in form of statistical tables to allow for further analysis. This facilitated the summation of items and detection of errors and omissions.

Descriptive statistics was used to analyse the data. This entailed use of measures of central tendency such as the mean, mode, median and measures of normal distribution. Microsoft Excel and Statistical Package for Social Sciences(SPSS) version 20 was used to aid the statistical analysis of the data. Content analysis was applied for the qualitative data in order to identify patterns, themes and biases. The results were presented descriptively using tables,bar chart and line graph.The data was interpreted and inferences made. The data was stored in soft and hard copies in form of tables.

3.8 Ethical Issues

This study considered a number of ethical issues including seeking for permission before involving in data collection in the target area of study. This entailed obtaining permission from Samburu County health department. The study also maintained the confidentiality of the information provided by the respondents from the target population. Respondents were encouraged to provide information freely and voluntarily. The researcher remained neutral and avoided giving his views during data collection.

3.9 Operational definition of variables

This section defines and explains the research variables used in the study and the indicators the researcher used to measure the variables.

The study had one dependent variable; implementation of free maternal health care. This was measured by reduction in maternal and child deaths and morbidity rates within Kisima location.

There were four independent variables; demographic characteristics, attitude of health care providers, level of awareness on free maternal health and availability of resources in free maternal health care.

Table 3.2 illustrates the variables which were used in the study, the indicators and methods of analysis.

Table 3.2 Operational definition of variables

Objective	Variable	Indicator	Measure	Scale	Tools of Analysis	Type of Analysis
	Dependent: Implementation of free maternal health care.	Reduction in maternal & child deaths & morbidity rates	No. of deaths and morbidity cases	Ratio	Percentage Frequency	Descriptive
Assess how demographic characteristics of Kisima location residents influences implementation of free maternal health care.	Independent: Demographic characteristics (Gender, Age, Religion, Parity, Marital status, Occupation, Education level, Income, Employment status)	Gender distribution	Men and women in maternal health care	Ratio	Frequency Percentage	Descriptive
		Married couples distribution	Married couples utilising health care services	Ratio	Frequency Percentage	Descriptive
		Occupation distribution	Employed and unemployed people utilising free maternal health care	Ratio	Percentage Frequency	Descriptive
		Age when married distribution	Age for marriage and early marriages	Ratio	Percentage Frequency	Descriptive
		Religion distribution	No of Christians,muslims and traditionalists with fully immunized children	Ratio	Percentage Frequency	Descriptive
		Number of wives	Wives each male has	Nominal	Percentage Frequency	Descriptive

		Education level distribution	Level of education attained	Nominal	Percentage Frequency	Descriptive
		Number of children	Children each mother has	Nominal	Percentage Frequency	Descriptive
		Birth order distribution	Parity	Nominal	Percentage Frequency	Descriptive
Determine how attitude of health care providers in Kisima location influences implementation of free maternal health care.	Independent: The attitude of health care providers	Increase in hospital deliveries.	Preference of delivery in health facilities.	Ratio	Percentages Frequency	Descriptive
		Establishment of health care workers	Increase of health care workers .	Ratio	Percentages	Descriptive
		Complains reported against health care providers	Reduction in complains reported on services rendered	Ratio	Percentages	Descriptive
		Rating on service delivery	Attitude on service delivery	Ratio	Percentages	Descriptive
Assess how the level of awareness on maternal	Independent: The level of awareness on free maternal health	Attendance to clinics	Ante/post natal clinics attended	Ordinal	Frequency	Descriptive
			Clinic and NHIF cards	Ratio	Frequency Percentage	Descriptive
			Stage when maternal	Ratio	Frequency Percentage	Descriptive

health in Kisima Location influences implementation of free maternal health care.			service is attended			
		Women breast feeding benefits	Women exclusively breast feeding	Ratio	Frequency Percentage	Descriptive
			Duration of exclusively breast feeding	Ratio	Frequency Percentage	Descriptive
		Immunisation standards	Fully immunized children	Ratio	Frequency Percentage	Descriptive
		FP benefits	Usage of FP	Ratio	Frequency Percentage	Descriptive
		FGM cases	Reduced FGM cases	Ratio	Frequency Percentage	Descriptive
		Existence free maternal health care	Awareness of free maternal health	Ratio	Frequency Percentage	Descriptive
		Maternal health is a family issue	Accompaniment to health facilities	Ratio	Frequency Percentage	Descriptive
Assess how availability of resources influencei	Independent: Resources	Increase of funds allocation	Increase in hospitals	Ordinal	Percentage	Descriptive
		Increased employment	Increase in number of employees	Ratio	Frequency Percentage	Descriptive
		Purchase	Increase in	Ratio	Frequency	Descriptive

mplementation of free maternal health care.		of new vehicles	number of ambulances		Percentage	
		High drug stock levels	Improved level of drugs for maternal health	Ratio	Percentage	Descriptive
		Increased training of healthcare providers	More trained health workers	Ratio	Percentage	Descriptive
		Leadership & management training of healthcare providers	Health workers trained on leadership & management	Ratio	Percentage Frequency	Descriptive

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents the data analysis, presentation and interpretation of findings on the data collected from adult women, youth and men in Kisima location and health care providers on factors influencing implementation of free maternal health care in government facilities in Kisima location. The study sampled 80 adult women, 75 men, 47 youth and 10 health care providers.

The data was interpreted as per the research questions. The analysis was done through descriptive and inferential statistics by use of SPSS Version 20.

The findings were presented in form of frequency tables and percentages.

4.2 Response rate

Out of the 202 questionnaires issued 185 were returned giving a 91.0% response rate and 8 of the 10 health care providers were available for the interview giving an 80.0% response rate. In all responded questionnaires, all the questions were answered giving a 100% response rate per questionnaire. Males made up 45.9% of the respondents and females made up 54.1%. This is attributed to the fact that women mostly participate in maternal health issues more than men. Age is a key factor in determining utilization of free maternal health care. 77.8% of the respondents were made up by respondents who were over 18 years of age. This is because maternal health care is mostly associated with people who are adults.

Table 4.1 shows the distribution of respondents by gender.

Table 4.1 Distribution of respondents by gender

Gender	Frequency	Percentage
Male	85	45.9
Female	100	54.1
Total	**185**	**100**

Table 4.2 shows the distribution of respondents by age.

Table 4.2 Distribution of respondents by age

Age	Frequency	Percentage
Under 18 years	41	22.2
Over 18 years	144	77.8
Total	**185**	**100.0**

4.3 Demographic characteristics

Various demographic characteristics; gender, marital status, occupation, age when married and religion were measured in order to determine their influence on implementation of free maternal health care. Descriptive analysis of distribution of the various demographic factors was done.

4.3.1. Age when married

Age when married refers to the age one had attained at the time he or she got involved into a marital relationship. 55.7% of the respondents were married at the age of 18 years and above while 22.6% of the respondents were married while at the age of below 18 years. Table 4.3 shows distribution of respondents according to age when married.

Table 4.3: Distribution of respondents according to age when married

Age when married	Frequency	Percentage
9-12 Years	1	0.5
13-15Years	8	4.3
16-18Years	33	17.8
18+Years	103	55.7
Single	40	21.6
Total	**185**	**100.0**

4.3.2 Marital status

Marital status refers to the state of relationship one has. This may be never married currently married or formerly married. 77.8% of the respondents are currently married while 6.5% were formerly married. 15.7% are not married. Table 4.4 shows distribution of respondents according to marital status.

Table 4.4: Distribution of respondents according to marital status

Marital status	Frequency	Percentage
Never married	29	15.7
Currently married	144	77.8
Formerly married	12	6.5
Total	**185**	**100.0**

4.3.3 Occupation status

Occupation is the nature of employment one is involved in or not. This may be employed, self employed or unemployed.76.2% of the residents were unemployed with 14.6% being self employed and 9.2% being employed workers. Table 4.5 shows distribution of respondents according to occupation status.

Table 4.5: Distribution of respondents according to occupation status

Occupation	Frequency	Percentage
Employed	17	9.2
Self employed	27	14.6
Unemployed	141	76.2
Total	**185**	**100.0**

4.3.4. Number of wives

Number of wives is the physical number of wives a husband is legally married to. 51.7% of the male respondents had 3 or more wives and 22.4% were not married. Table 4.6 shows distribution of respondents according to number of wives.

Table 4.6: Distribution of respondents according to number of wives

No of wives	Frequency	Percentage
0	19	22.4
1-2	22	25.9
3 +	44	51.7
Total	**85**	**100.0**

4.3.5. Mode of transport

Mode of transport is nature of transport the respondent uses to reach the health facilities. This may be by foot, bicycle, motorbike, vehicles; public or private. Most of the respondents used motorbikes (56.8%) and bicycles (29.2%) as mode of transport to health care facilities. Few (1.6%) used private means to health care facilities. Table 4.7 shows distribution of respondents according to mode of transport.

Table 4.7: Distribution of respondents according to mode of transport

Mode of transport	Frequency	Percentage
Walk	18	9.7
Bicycle	54	29.2
Motorbike	105	56.8
Public transport	5	2.7
Private vehicle	3	1.6
Total	**185**	**100.0**

4.3.6. Family planning

Family planning is the usage of various contraceptives for the purpose of having planned births.81.6% of the respondents did not practice the use of family planning. Table 4.8 shows distribution of respondents according to usage of family planning.

Table 4.8: Distribution of respondents according to usage of family planning

FP usage	Frequency	Percentage
Yes	34	18.4
No	151	81.6
Total	**185**	**100.0**

4.3.7. Education level

Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits. This can be attained at different level like primary or secondary.49.7% of the residents had nil education status with 45.9% of the respondents having attained primary level education. Few respondents; 4.3% had attained secondary level of education. Table 4.9 shows distribution of respondents according to education level.

Table 4.9: Distribution of respondents according to education level

Education level	Frequency	Percentage
None	92	49.7
Primary level	85	45.9
Secondary Level	8	4.3
Total	**185**	**100.0**

4.3.8. Involvement of wife in decision making

Mutual decision making involve the involvement of either spouse in making family decisions. 92.4% of the respondents were not involved in mutual decision making. Only 7.6% of the respondents were involved. Table 4.10 shows distribution of respondents according to involvement of wife in decision making.

Table 4.10: Distribution of respondents according to involvement of wife in decision making

Involvement of wife in decision making	Frequency	Percentage
Yes	14	7.6
No	171	92.4
Total	**185**	**100.0**

4.3.9. Number of children

Children refer to the blessings of siblings one has from God. 58.4% of the respondents had three or more children.22.7% of the respondents had no children. Table 4.11 shows distribution of respondents according to number of children.

Table 4.11: Distribution of respondents according to number of children

No of Children	Frequency	Percentage
0	42	22.7
1-2	35	18.9
3 +	108	58.4
Total	**185**	**100.0**

4.3.10. Birth order

Birth order refers to the order a child is born. The spacing between births is important for child growth. 21.1% of the respondents had their births after less than two years.11.4% had their births after more than 4 years. Table 4.12 shows distribution of respondents according to birth order.

Table 4.12: Distribution of respondents according to birth order

Birth order	Frequency	Percentage
Below 2years	39	21.1
2-4 years	9	4.9
over 4 years	21	11.4
Not yet	116	62.7
Total	**185**	**100.0**

4.3.11. Religion

Religion refers to a particular system of faith and worship like being a Christian, Muslim or traditional. 83.2% of the respondents were Christians and 16.2% were practicing traditional beliefs.0.5% were of Muslim faith. Table 4.13 shows distribution of respondents according to religion.

Table 4.13: Distribution of respondents according to religion

Religion	Frequency	Percentage
Christian	154	83.2
Muslim	1	0.5
Traditional	30	16.2
Total	**185**	**100.0**

4.4 Attitude of health care providers

Attitude is an expression of favor or disfavor toward a person. It can either be good or bad. Attitude of healthcare providers towards their job is vital in determining the output of their work.

4.4.1 Preference of place of delivery

Place of delivery refers to the location where an expectant woman gives birth. It can be at a health facility or at home.34.1 % of the respondents preferred delivery in a health facility while 13% preferred delivery at home. Table 4.14 shows the preference of place of delivery.

Table 4.14: Preference of place of delivery

Place of delivery	Frequency	Percentage
Health facility	63	34.0
Home	24	13.0
Not yet delivered	98	53.0
Total	**185**	**100.0**

4.4.2 Establishment of health care workers

Health care workers are the employees employed in health care facilities at various levels to perform different duties. There are twelve health care workers in Kisima location who work in public health care facilities; 7 in Kisima dispensary and 5 in Mparigon dispensary.

4.4.3 Complains reported on services rendered

Complains are dissatisfaction or annoyance about something or someone.46.5% of the respondents complained against the health care providers' provision of services. Table 4.15 shows the complaints on healthcare providers.

Table 4.15: Complaints on healthcare providers

Complains	Frequency	Percentage
Yes	86	46.5
No	99	53.5
Total	**185**	**100.0**

4.4.4 Rating on service delivery

Service delivery is the interaction between providers and clients where the provider offers a service like heath care service. Rating was based on quality of health care services and the attitude of health care providers. This is shown in Table 4.16 and 4.17.

Quality is the state that one has towards a service. It can either be good, fair or bad. The quality of health care services was rated to be good by 50.3% of the respondents as shown in Table 4.16.

Table 4.16: Quality of healthcare service

Quality	Frequency	Percentage
Good	93	50.3
Fair	68	36.8
Bad	24	13.0
Total	**185**	**100.0**

Attitude is an expression of favor or disfavor toward a person. It can either be good or bad. The attitude of health care providers was also rated as good by 60.5% of the respondents as shown in Table 4.17.

Table 4.17: Attitude towards HCP

Attitude	Frequency	Percentage
Good	112	60.5
Bad	73	39.5
Total	**185**	**100.0**

4.5 Level of awareness

Awareness of maternal health care among people encourages participation and proper utilization of the maternal services.

4.5.1 Attendance of ante/post natal clinics

Antenatal clinics are the recommended clinics an expectant mother is expected to attend. The recommended is four or more antenatal clinics. 58.9% of the respondents claimed not to have attended antenatal clinics as shown in Table 4.18

Table 4.18: Attended antenatal clinics

Attended antenatal clinics	Frequency	Percentage
Yes	76	41.1
No	109	58.9
Total	**185**	**100.0**

Post natal clinics are clinics after delivery. 95.1% of the respondents have not attended postnatal clinics as shown in Table 4.19.

Table 4.19: Attended postnatal clinics

Attended postnatal clinics	Frequency	Percentage
Yes	9	4.9
No	176	95.1
Total	**185**	**100.0**

Clinic card are official cards that expectants mothers are issued with to track their health and that of the foetus during pregnancy and after delivery.21.6% of the respondents had clinic cards as shown in Tables 4.20

Table 4.20: Clinic card

Clinic card	Frequency	Percentage
Yes	40	21.6
No	145	78.4
Total	**185**	**100.0**

NHIF cards are insurance cards that offer security through insurance to the unborn child and mother. 17.3% respondents had NHIF cards as shown in Tables 4.21.

Table 4.21: NHIF Card

Have NHIF Card	Frequency	Percent
Yes	32	17.3
No	153	82.7
Total	**185**	**100.0**

Expectant mothers are encouraged to attend clinics prior, during and after delivery to ensure thorough preparedness. Pregnancy is divided into three trimesters of three months each. 50.0% of the female respondents seeked medical care services during the second trimester of their pregnancy as shown in Tables 4.22

Table 4.22: Time when women seek care

Time	Frequency	Percentage
First trimester	1	12.5
Second trimester	5	62.5
Third Trimester	2	25.0
Total	**8**	**100.0**

4.5.2 Women exclusively breast feeding women

Exclusive breastfeeding means that the infant receives only breast milk. No other liquids or solids are given – not even water – with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines. 89.7% of the women did not practice exclusive breast feeding as shown in Table 4.23.

Table 4.23: Women exclusively breast feeding

Exclusively breast feeding	Frequency	Percentage
Yes	19	10.3
No	166	89.7
Total	**185**	**100.0**

Breast feeding should be done immediately after birth and up to two years of the child. Most women, 37.3% breastfed their children between 0 to 6 months, as shown in Table 4.24.

Table 4.24: Duration of breastfeeding

Duration of breastfeeding	Frequency	Percentage
0-6 Months	69	37.3
7-12 Months	5	2.7
13-18 Months	1	.5
Total	75	40.5
Missing system	110	59.5
Total	**185**	**100.0**

4.5.3 Fully immunized children

Immunization is the process whereby a person is made immune or resistant to an infectious disease, like measles, mumps, rubella, hepatitis B, polio, tetanus, diphtheria, and Pertussis (whooping cough) typically by the administration of a vaccine.70.3% of the respondents had their kids not being fully immunized as shown in Table 4.25.

Table 4.25: Fully immunized children

Fully immunized children	Frequency	Percentage
Yes	55	29.7
No	130	70.3
Total	**185**	**100.0**

4.5.4 Family planning usage

Family planning is the usage of various contraceptives for the purpose of having planned births.18.4 % of the respondents used family planning as shown in Table 4.26.

Table 4.26: Family planning usage

FP usage	Frequency	Percentage
Yes	34	18.4
No	151	81.6
Total	**185**	**100.0**

4.5.5 FGM practice

Female genital mutilation (FGM), also known as female genital cutting and female circumcision, is the ritual removal of part or all of the external female genitalia.73.0 % of the female respondents practiced FGM as shown in Table 4.27.

Table 4.27: FGM practiced

FGM practiced	Frequency	Percent
Yes	73	73
No	27	27
Total	**100**	**100.0**

4.5.6 Means of awareness

Means of awareness is the method by which one got information about maternal health care. 34.6 % of the respondents learned about maternal health care from traditional attendants, 22.7% from schools as shown in Table 4.28.

Table 4.28: Means of awareness

Means of awareness	Frequency	Percentage
School	42	22.7
Friend	35	18.9
Media	33	17.8
medical officers	11	5.9
Traditional attendants	64	34.6
Total	**185**	**100**

Maternal health care is free according to the constitution and no payment should be paid to receive the service in public health facilities. 63.2% of the respondents were aware that maternal healthcare is free as shown in Table 4.29.

Table 4.29: Aware maternal health is free

Aware maternal health is free	Frequency	Percent
Yes	117	63.2
No	68	36.8
Total	**185**	**100.0**

4.5.7 Maternal health involvement by both men and women

Most men (79.5%) did not accompany their wives to health facilities despite them being aware that maternal health care is for both men and women. As shown in Table 4.30.

Table 4.30: Accompany wife to health facility

Accompany wife	Frequency	Percentage
Yes	17	20.5
No	66	79.5
Total	**83**	**100.0**

4.6 Availability of resources

Resources are divided into financial, material and human resources. Proper allocation of resources will ensure that implementation is done and there will be sustainability.

4.6.1 Number of health facilities in Kisima location

There are only two public dispensaries in Kisima location that cater for maternal healthcare; Kisima dispensary and Mparigon dispensary.

They are level III health facilities able to provide out-patient services, limited emergency care, maternity services, laboratory services and it is headed by clinical officer.

4.6.2 Number of employees

There are twelve health care workers in Kisima location who work in public health care facilities; 7 in Kisima dispensary and 5 in Mparigon dispensary.

4.6.3 Number of ambulances

Ambulances are emergency vehicles for medical purposes. There is only one ambulance in the location which is stationed at Kisima dispensary.

4.6.4 Improved level of drugs for maternal health

Maternal health drugs are important for healthy living of the mother and child. 71.4% of the respondents claimed that maternal health drugs were not available in the facilities as shown in Table 4.31.

Table 4.31: Availability of drugs

Availability of drugs	Frequency	Percentage
Yes	53	28.6
No	132	71.4
Total	**185**	**100.0**

4.6.5 Training of health care workers

Training is the teaching a person a particular skill. It should be continuous as the medical situation is changing. 62.5% of the health care workers had not attended refresher training in the last two years as shown in Table 4.32.

Table 4.32: Done refresher training in last two years

Done refresher training	Frequency	Percentage
Yes	3	37.5
No	5	62.5
Total	**8**	**100.0**

4.6.6 Health workers trained on leadership & management

Leadership and management skills are important for proper sustainability and continuous improvement of any project.75.0% of the health care workers had not attended refresher training in the last two years as shown in Table 4.33. Only two health care providers are trained on leadership and management. This affects the management of the resources and proper monitoring and evaluation.

Table 4.33: Done leadership and MGT Course

Leadership and MGT Crse	Frequency	Percentage
Yes	2	25.0
No	6	75.0
Total	**8**	**100.0**

4.6.7 Status of maternity wards

The two dispensaries; as shown in Table 4:34 have operational maternity wards but are not at the expected standards. Water is a challenge and most delivery materials are not in stock. The maternity buildings are in place.

Table 4.34: Maternity wards operational

Maternity wards operational	Frequency	Percentage
Yes	6	75.0
No	2	25.0
Total	**8**	**100.0**

4.6.8 Participation in strikes

Most health care providers complained on delay in their salaries. This affected their performance.87.5% Participated in strike as shown in Table4:35.

Table 4.35: Participation in strike

Participated in strike	Frequency	Percentage
Yes	7	87.5
No	1	12.5
Total	**8**	**100.0**

4.6.9 Mode of transport

The use of motor bikes for transport is most common. The roads are rough and bumpy. This has impact on pregnancy.56.8% of respondents use motorbikes as shown in Table 4.36.

Table 4.36: Mode of transport

Mode of transport	Frequency	Percentage
Walk	18	9.7
Bicycle	54	29.2
Motorbike	105	56.8
Public transport	5	2.7
Private vehicle	3	1.6
Total	**185**	**100.0**

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

5.1 Introduction

This chapter presents summary of the findings, discussion, conclusions reached and recommendations following the objectives of the study.

5.2 Summary of the findings

Relying on the responses given by the respondents, the researcher came up with findings which were used to make conclusions and give recommendations. The main findings are based on the results of data analysis in chapter four as shown in Table 5.1.

Table 5.1 Summary of findings

Objective	**Findings**
Assess how demographic characteristics of Kisima location residents influences implementation of free maternal health care.	1. There were few cases of early marriages. 2. Most of the respondents were married. 3.Unemployment level were high 76.2%. 4.Most respondents had 3+ wives. 5. Motorbikes, bicycles and walking were the most common means of transport. 6. 81.6% of the respondents did not use of family planning methods. 7. 50% of the respondents were uneducated. 8. 92.4% non mutual decision making. 9. 58.4% of the respondents had three or more children. 10. 21.1% of the respondents had their births after less than two years.

	11. 83.2% of the respondents were Christians.
Determine how attitude of health care providers in Kisima location influences implementation of free maternal health care.	1. Preference of delivery in health facilities was high. 2. Twelve health workers are few to man the facilities. 3. 46.5% of the respondents complained against the health care providers' 4. The quality of health care services was rated to be good. 5. Low attendance of antenatal and post natal clinics.
Assess how the level of awareness on maternal health in Kisima Location influences implementation of free maternal health care.	1. Low attendance of antenatal and post natal clinics. 2. Few respondents had clinic and NHIF cards. 3. Breast feeding is mostly for six months and not exclusive. 4. Most children not fully immunized. 5. FP not fully utilized. 6. High practice of FGM.
Assess how availability of resources influence implementation of free maternal health care.	1. Two public dispensaries in Kisima location. 2. Few employees. 3. Few ambulances and infrastructure. 4. Low levels of training on leadership and management. 5. 62.5% of the health care workers had not attended refresher training in last two years. 6. Shortage of drugs and funds.

5.3 Discussion of findings

This is based on the four objectives of the study as per the findings.

5.3.1 Demographic characteristics and implementation of free maternal health care

Demographic characteristics are the social economic characteristics of a population expressed statistically such as age, sex, education level, income level, marital status, occupation, religion, birth rate, death rate, average size of family, average age at marriage and parity.

Results of the study indicate that there are few cases of early marriages; marriage by persons below the age of 18 years, among the respondents. Cases of married couples are high within the residents. This has direct influenced on participation in maternal health as strengthened by Chubike's (2013) observation that that if a population is well educated and maternal health services are available, some demographic variables like maternal age, parity and number of children living affect the utilization of maternal health care services while maternal occupation and husband's level of education may not be important factors. This is also in agreement with Celik (2000) who observed that women's age had a correlation with utilization of skilled attendant at birth and this influenced the utilization of health care.

Most of the residents are unemployed with few people being self employed in through practicing pastrolism. Occupation gives one income and thus ability to access the facilities and services for maternal health care. Despite the services been free there are associated costs like transport which need money for attainment.

Cases of polygamy are high as most of the respondents had more than one wife. The education level of most of the respondents was nil education and those with highest level of education was secondary level. The findings are in agreement with Elo (1992) who observed that women with primary level education participated in maternal health than those without formal education.

The number of children among the respondents was high, with 58.4% of the respondents having three or more children. The parity; birth order was 21.1% for births being after less than two years. This is in agreement with Emelumadu (2014) who observed that there is a correlation between antenatal care attendance and marital status, educational status, and parity.

The religion for most of the respondents was Christians. Only 1 respondent was a Muslim. Religious Christians or Muslims are advised on importance of immunization for children and thus their practice into maternal health care. This is not in agreement with Lydia et al (2016) who observed that religiosity and maternal health are intertwined because most of the respondents were religious but preferred deliveries at home and most children were not immunized.

5.3.2 Attitude of health care providers and implementation of free maternal health care

Attitude affects relationship. Positive attitude breeds good mutual working and support. 46.5% of the respondents complained against the health care providers'. This affects the mutual relationship and thus the lower participation in free maternal health care this is strengthened by Samburu County integrated development plan (2013-2017) which observed that most of the Samburu county residents do not have a positive attitude towards skilled health care service.

The quality of health care services was rated to be good. The better the services the more the encouragement to clients to utilize the services available.

The morale and attitude of health care workers is affected by the work load too. Twelve health workers are few to man the facilities. This leads to stress and fatigue hence under performance of duty. This is in agreement with The Beyond Zero Campaign which aims at improving the number of workers as the state has been low. Studies (Otieno et al, 2010) are also in agreement that the increase of mortality rate in Kenya can be attributed to lack of enough specialized as well as skilled personnel and health care providers in the country. This has adversely affected the implementation of free maternal health care.

5.3.3 Level of awareness and implementation of free maternal health care

Awareness of maternal health care among people encourages participation. Those aware of maternal health care will prefer to deliver in health facilities and use heath care services for the better. Low attendance of antenatal and post natal clinics was due to lack of awareness. This is in agreement with studies by Gill et al (2007) that the probability of delivery at a health facility is significantly associated with women's education and wealth. This also affected the number of respondents with clinic and NHIF cards and hence high mortality rates.

Exclusive breast feeding and immunization is recommended for good growth and development of children .Few women breast fed their children beyond six months and most children were not fully immunized. This leads to infant mortality. This is strengthened by studies in AMREF international publication (2014) that low level of education systems in the region of Samburu have been a barrier to good health by lack of awareness on importance of exclusive breastfeeding and immunization.

Practice of FGM was very common among the female respondents 39.6%.This was attributed to cultural issues and minimal awareness. This is in agreement with (Kibor, 2015) that the Samburu culture advocates for FGM practice.

5.3.4 Availability of resources and implementation of free maternal health care

Resources are critical for sustainable implementation .There are two public dispensaries in Kisima location. The strain on the dispensaries because of the population size is high. Few ambulances and infrastructure affects service delivery in a timely manner. The drugs are inadequate for maternal health care.

Human resource is critical for any proper implementation of projects. Few employees affects the performance of the health care workers this is in agreement with studies by (Otieno et al, 2010) who observed that the increase of mortality rate in Kenya can be attributed to lack of enough specialized as well as skilled personnel and health care providers in the country. This has adversely affected the implementation of free maternal health care.

Continuous training of employees is good for sustainable growth. This is through training on the new and compulsory skills.

5.4 Conclusions of the study

The following conclusions were made based on the findings of the study:

1. Implementation of free maternal healthcare in public health care facilities requires a holistic approach of several factors.

2. Awareness of maternal health issues is important for sustainable implementation.

3. Attitude of health care workers is key for the beneficiaries of maternal health to participitate fully.

4. Resource availability and allocation for maternal health care in marginalized areas should be given first priority. Infrastructure is key for any implementation on health care to be successful.

5.5 Recommendations of the study

The following recommendations were made from the study to promote implementation of free maternal health care.

1. Investment in maternal health care measure should be given a priority. Training of traditional birth assistants on safe delivery skills and increase the number of maternal health care dispensaries to cater for the whole location and be equally distributed in the location.

2. Having mobile clinics that are readily available to serve the pastoralists in Kisima location.

3. Introduce a favorable approach to maternal health care that covers from antenatal to postnatal stage like Oparanya Care.

4. Address role of culture on implementation of free maternal health care.

5.6 Suggestions for further research

Based on the study, the following areas are suggested for further study;

1. Transparency in health sector as a key involvement in improving health care.

2. An investigation of relationship between women empowerment and maternal health.

3. An investigation of impact of cattle rustling conflict on implementation of health care.

4. An investigation of impact of Health Insurance in Rural Areas.

5. The impact of media on maternal health improvement in Kenya.

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APPENDICES

Appendix 1: LETTER OF TRANSMITTAL

Victor M Muithya

P.O Box 3101-10140

NYERI

Dear Sir/Madam,

REF: REQUEST FOR PARTICIPATION IN RESEARCH STUDY

I am a student of the University of Nairobi pursuing Master of Arts Degree in Project Planning and Management. I am carrying out a research project on factors that influence implementation of maternal health care service in Kenya using the case study of Kisima Location in Samburu County.

I will appreciate if you could kindly take part in the study. Your identity will be treated with outmost confidentiality.

Thank you.

Victor M Muithya

L50/66409/2013

Appendix 2: INFORMED CONSENT

Victor M Muithya

P.O Box 3101-10140

NYERI

16 June 2016

To Whom It May Concern

Dear Respondents,

RE: FILLING OF QUESTIONNAIRE

I am Masters Student at University of Nairobi pursuing a Masters of Arts Degree in Project Planning and Management. I am currently undertaking a research on factors that influence implementation of free maternal health care service in Kenya using the case study of Kisima Location in Samburu County. The questionnaire attached is meant for collecting information which will assist in the study. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. Please you can ask me or give me a call wherever you come across a statement which you don't understand. Your participation in this research is entirely voluntary.

When you participate in this research there may not be any benefit for you but your participation is likely to help us find the answer to the research question. There may not be any benefit to the society at this stage of the research, but future generations are likely to benefit.

All the information you will give will be held in utmost confidence and will not be used for any other purpose except for this study. It will not be shared with or given to anyone except the researcher and the University Board. Your positive response will be highly appreciated.

This report has been reviewed and approved by the University Board which is a committee whose task it is to make sure that the researcher has adhered to all the research requirements. It has also been reviewed by the Ethics Review Committee which ensures that all the research participants are protected from harm.

Yours Sincerely

Victor M Muithya

Certificate of consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Participant's Personal number

Signature of Participant

Date

Day/month/year

Appendix 3: QUESTIONNAIRE FOR ADULT WOMEN, YOUTH AND MEN INVOLVED IN FREE MATERNAL HEALTH CARE

INSTRUCTIONS

Please fill in the questionnaire by honestly as possible by ticking the appropriate boxes except where otherwise indicated. Please give relevant details where necessary.

SECTION A: Demographic Characteristics

1. Gender Male ☐ Female ☐
2. Age Bracket (Years) under 18 ☐ over 18 ☐
3. What is your marital status?
   (a) Never Married ☐
   (b) Currently Married ☐
   (c) Formerly Married ☐
4. What is your religion?
   (a) Christian ☐
   (b) Muslim ☐
   (c) Traditional ☐
5. Age when you got married?
   (a) 9-12 years ☐
   (b) 13-15 years ☐
   (c) 16-18 years ☐
   (d) 18+ years ☐
6. What is your occupation?
   (a) Employed ☐
   (b) Self employed ☐
   (c) Unemployed ☐

7. What is your highest education qualification?

   (a) None ☐

   (b) Primary level ☐

   (c) Secondary Level ☐

   (d) Post secondary level ☐

8. Number of children?

   (a) 0 ☐

   (b) 1-2 ☐

   (c) 3 + ☐

9. Number of wives?

   (a) 0 ☐

   (b) 1-2 ☐

   (c) 3 + ☐

10. What is the distance from the nearest health facility?

   (a) 0-5KM ☐

   (b) 5-10KM ☐

   (c) 10-15KM ☐

   (d) 15+KM ☐

11. How long do you take from your home to health facility?

   (a) 5-10 Mins ☐

   (b) 15-30Mins ☐

   (c) 45-60Mins ☐

   (d) 1 Hr + ☐

12. What mode of transport do you use to go to health facility?

(a) Walk ☐

(b) Bicycle ☐

(c) Motorbike ☐

(d) Public transport ☐

(e) Private vehicle ☐

13. Do you involve your wife in making family decisions? (a) Yes ☐ (b) No ☐

14. In your opinion, who should ensure that FP methods are used in families?

(a)	The husband	
(b)	The wife	
(c)	Both husband and wife	
(d)	The government	
(e)	Health personnel	

15. Has birth order affected your number of clinic attendance?

(a) Yes ☐ (b) No ☐

16. Were you pressured to have children immediately after you got married?

(a) Yes ☐ (b) No ☐

17. Have you practiced FGM? (a)Yes ☐ (b) No ☐

SECTION B: HEALTHCARE PROVIDERS' ATTITUDE

18. Do you prefer delivery by healthcare providers or by midwives?

(a) Healthcare provider ☐ (b) Midwife ☐

19. Where do you prefer delivering?

(a) Public ☐ (b) Private ☐ (c) Private ☐

20. Do you have a clinic card? (a) Yes ☐ (b) No ☐

21. There are complaints against health care providers?

(a) Yes ☐ (b) No ☐

22. The service of health care providers is?

(a) Good ☐ (b) Fair ☐ (c) Bad ☐

23. The community attitude towards health care providers is good.

(a) Yes ☐ (b) No (c) Not sure ☐

24. Health care providers provide satisfactory care during labour?

(a) Yes ☐ (b) No ☐ (c) Not sure ☐

25. How often do health care providers visit women in the villages?

(a) Weekly ☐

(b) Fortnightly ☐

(c) Monthly ☐

(d) Never ☐

SECTION C: AWARENESS ON FREE MATERNAL HEALTH

26. Are you interested in maternal health care issues? (a) Yes ☐ (b) No ☐

27. Are you aware that maternal health care is free? (a) Yes ☐ (b) No ☐

28. How did you learn about maternal health care?

(a) School ☐

(b) Friend ☐

(c) Media ☐

(d) Medical Officers ☐

(e) Traditional attendants ☐

29. Have you received post natal care? (a) Yes ☐ (b) No ☐

30. How many antenatal clinics have you attended?

(a) 0 ☐ (b) 1-2 ☐ (c) 3-4 ☐

31. How many postnatal clinics have you attended?

(a) 0 ☐ (b) 1-2 ☐ (c) 3-4 ☐

32. Do you have an NHIF card? (a) Yes ☐ (b) No ☐

33. Your children are fully immunized? (a) Yes ☐ (b) No ☐

34. You practice exclusive breast feeding? (a) Yes ☐ (b) No ☐

35. Where do you prefer delivery?

(a) Health care facility ☐ (b) Home ☐ (c) Not yet delivered ☐

36. Reason for not delivering in a health facility?

(a)	Too far/ no transport	
(b)	Abrupt delivery	
(c)	Not necessary	
(d)	Costs too much(associated costs)	
(e)	Facility not open	
(f)	Poor quality service	
(g)	Family did not allow	
(h)	Husband did not allow	
(i)	No female provider	

37. Which facility do you prefer to go for maternal health care in Kisima location and why?

.....

38. You prefer attendance by traditional birth assistant or health care provider?

(a) Traditional birth assistant ☐ (b) Health care provider ☐

39. What is the spacing between your births?

(a) Below 2 years ☐

(b) 2 – 4 years ☐

(c) Over 4 years ☐

40. How was your pregnancy?

(a) Complicated ☐ (b) To term ☐ (c) Miscarried ☐

41. Which was your nature of delivery? (a) Natural ☐ (b) Caesarian section ☐

42. Do you know of any danger signs during pregnancy? (a) Yes ☐ (b) No ☐

43. Are you aware of maternal health care complications? (a) Yes ☐ (b) No ☐

44. Have you suffered from maternal depression? If yes, which one?.....

(a) Yes ☐ (b) No ☐

45. For how long do you breast feed your child?

(a) 0-6 Months ☐

(b) 7-12 Months ☐

(c) 13-18 Months ☐

(d) 18 Months + ☐

46. Have you practiced FGM? (a)Yes ☐ (b) No ☐

47. Are you aware of the effects of FGM on maternal health? (a)Yes ☐ (b) No ☐

48. What challenges do you face during delivery?

(a)……

(b)……

(c)……

(d)……

49. Do you use any family planning method? (a) Yes ☐ (b) No ☐

50. If *yes* for question above, which one?

(a)	Condoms- male	
(b)	Condoms- female	
(c)	Injectables	
(d)	IUCD	
(e)	Oral pills	

51. Reason for not using family planning method?

(a)	It is expensive	
(b)	Desire for more children	
(c)	Wife opposition	
(d)	Don't like	
(e)	Religion	
(f)	Others (specify)	

52. Are you aware of AIDS/ HIV and STIs? (a) Yes ☐ (b) No ☐

53. Have you attended any maternal health care clinics with your wife/husband?

(a) Yes ☐ (b) No ☐

54. Free maternal health care is for both men and women? (a) Yes ☐ (b) No ☐

55. Reason for not accompanying your wife/husband to a health facility?

(a)	It's a woman's duty	
(b)	Pre-occupied with other tasks	
(c)	Embarrassed	
(d)	Customary	
(e)	Lack of knowledge	

SECTION D: RESOURCES

56. Are there adequate health care facilities in Kisima Location? (a) Yes ☐ (b) No ☐

57. Do they offer free maternal health care services? (a) Yes ☐ (b) No ☐

58. Are maternal health care services available on a 24hrs basis? (a)Yes ☐ (b) No ☐

59. Are the prescribed drugs available in the health care facilities? (a) Yes ☐ (b) No ☐

60. What is the distance between health care facilities?

(a) 0-5KM ☐

(b) 5-10KM ☐

(c) 10-15KM ☐

(d) 15+KM ☐

Appendix 4: INTERVIEW GUIDE FOR MINISTRY OF HEALTH OFFICERS

INSTRUCTIONS

Please fill in as honestly as possible by ticking the appropriate boxes except where otherwise indicated. Please give relevant details where necessary.

SECTION A: BIO DATA

1. Gender Male ☐ Female ☐

2. Qualifications Certificate ☐ Diploma ☐ Bachelor's Degree ☐ Master's Degree ☐

3. Position held in the Ministry of Health (job description)

   (a) Doctor ☐

   (b) Nurse ☐

   (c) Midwife ☐

   (d) Other ☐ Specify.....

SECTION B: Demographic characteristics

4. How many mothers/husbands participate in free maternal health care in your health facility?.....

5. When do pregnant women seek for health care services?

   (a) First trimester

   (b) Second trimester

   (c) Third trimester

6. Which group of women utilize maternal health care services more in the following groups?

Age	Under 18	
	Over 18	
Education	None	
	Primary level	
	Secondary Level	
	Post secondary level	
Place of residence	Rural	

	Urban	
Religion	Christian	
	Muslim	
	Traditional	
Occupation	Employed	
	Self employed	
	Unemployed	
Parity	0	
	1-2 Births	
	3 + Births	

SECTION C: Attitude

7. How many births are delivered in your health facility annually?

(a) 0-20 ☐ (b) 21-40 ☐ (c) 41-50 ☐

8. How is the attendance during workshops and seminars organised by your health care facility?

(a) Excellent ☐

(b) Good ☐

(c) Fair ☐

(d) Poor ☐

9. Have you participated in strikes? (a) Yes ☐ (b) No ☐

SECTION D: Awareness on maternal health

10. How long have you worked in Kisima Location?

(a) 0- 1 Years ☐

(b) 2-3 Years ☐

(c) 4+ Years ☐

11. How many medical seminars are conducted annually by your health facility?

(a) 0-2 ☐ (b) 3-4 ☐ (c) 4+ ☐

12. How is the Kisima Location population informed on free maternal health care?

(a) Very Well informed ☐

(b) Fairly Well informed ☐

(c) Moderately informed ☐

(d) Poorly informed ☐

(e) Not informed at all ☐

(f) Don't Know ☐

13. What is the ratio of husband to mothers during the workshops? ……

14. What is the percentage of contraceptive prevalence in your health care facility annually?

(a) 0-10% ☐

(b) 11-50 % ☐

15. What is the fertility rate of the residents between 2010 and 2015? ……

16. What is the prevalence of HIV and STIs the residents between 2010 and 2015? ……

SECTION E: RESOURCES

17. Which type of health facility do you work in?

(a) Level I ☐ (b) Level II ☐ (c) Level III ☐

(d) Level IV ☐ (e) Level V ☐ (f) Level VI ☐

18. How many heath workers are in your facility?

(a) Doctor .....

(b) Nurse.....

(c) Midwife.....

19. Which free maternal health care related challenges do you face in your health facility?

(a)……

(b)…….

(c)…….

20. Give remedies for the challenges in question 19 above.

(a)……

(b)……

(c)……

21. What is the average distance between your health care facilities and others within Kisima location? ……

22. What are the major causes of maternal deaths in your health facility?

(a) .....

(b) .....

(c) .....

23. How is the liaison between traditional birth attendants and health care facility workers?

(a) Excellent ☐

(b) Good ☐

(c) Fair ☐

(d) Poor ☐

24. Have you done refresher training on maternal health care in last two years?

(a) Yes ☐ (b) No ☐

25. What role do you play in implementation of maternal health care?

.....
.....

26. What strategies have you put in place towards implementation of free maternal health care?

.....
.....
.....
.....

27. Explain on challenges encountered by health care providers in provision of their services?

.....
.....
.....
.....

28. How is the management system for proper accountability of funds?

.....
.....
.....
.....

29. Are the maternity wards operational or non operational?

(a) Operational ☐ (b) Non operational ☐

30. In your own opinion how is the management of the facility?

(a) Good ☐ (b) Fair ☐ (c) Bad ☐

31. Have you attended leadership and management training?

(a) Yes ☐ (b) No ☐

Appendix 5: PERMIT TO CONDUCT RESEARCH

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349,3310571,2219420
Fax: +254-20-318245,318249
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Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: NACOSTI/P/16/94559/12231

Date: 2nd August, 2016

Victor Mwendwa Muithya
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Factors influencing implementation of free maternal healthcare in government facilities; a case of Kisima Location, Samburu County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Samburu County** for the period ending **30th July, 2017.**

You are advised to report to **the County Commissioner and the County Director of Education, Samburu County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

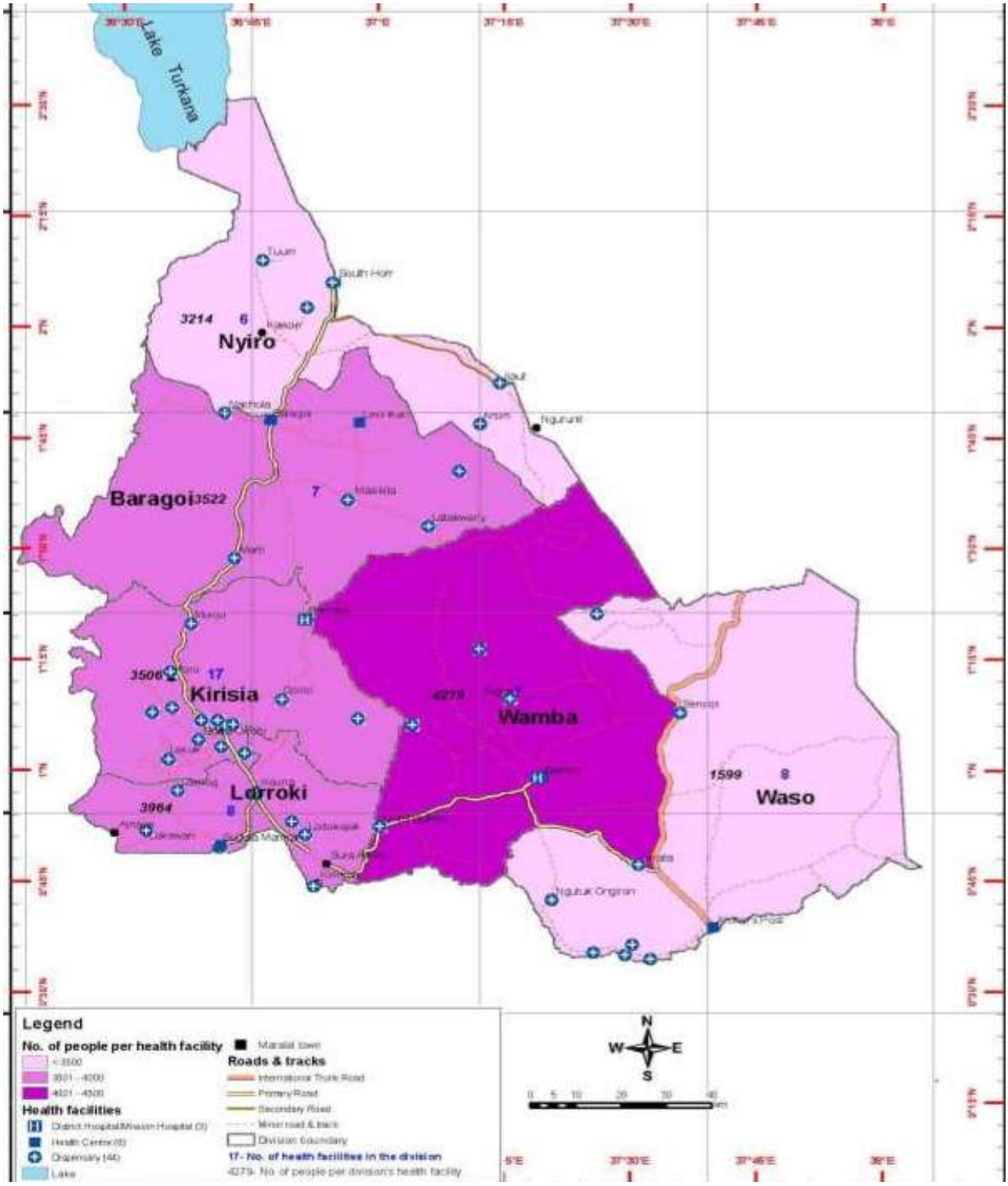
BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Samburu County.

The County Director of Education
Samburu County.

Appendix 6: SAMBURU MAP



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