INFLUENCE OF FREE MATERNITY DELIVERY POLICY ON SAFE MOTHERHOOD IN MANDERA COUNTY, KENYA

BY

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DECLARATION

I declare that this study has not been previously accepted in substance for any degree and not been concurrently submitted in candidature for any degree. I declare that this study is the result of my own independent investigation/work, except where otherwise stated.

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DEDICATION

This study is dedicated to thousands of women who have died as a result of childbirth in Mandera County.

ABSTRACT

More than half a million women die globally from pregnancy and childbirth-related causes. In Kenya maternal deaths are 488/100000 live births. Since maternity fee exemption policy is enhances the utilisation of skilled birth attendants and reduction of maternal mortality, it was introduced in Kenya in 2013 in line the Sustainable Development Goals. Unfortunately, despite the free maternity policy in Kenya, Mandera County continues to exhibit very worrying maternal health indicators with maternal mortality ratio of 3795/100,000 live birth and low skilled delivery of 38%. This trend requires empirical analysis into the dynamics of the implementation of this innovative policy. Such policy relevant study is critical to provide evidence for decision-making, policy reforms and to inform ongoing programs as well as academic debates. Against this backdrop, this study evaluated the effect of free maternity delivery policy on safe motherhood in Mandera County**. S**pecific objectives of the study examined factors that influence implementation of free maternity policy, determining factors that influence utilization of free maternity policy and analyzed trends in the utilization of skilled delivery since the inception of the policy in Mandera County. Guided by the Donabedian's SPO framework used to evaluate the quality of medical care (Donabedian, 1966**.** The study adopted correlation study design. Study population was 38,978 women who delivered during the implementation of free maternity policy and 150 health care-workers who are implementing the policy. Sample size of 340 households was determined using the Cochran formula (1977). Employing systematic, simple random, proportionate and multi-stage sampling techniques to execute quantitative aspects of the study, 340 mothers and 67 health workers from 9 health facilities in the sampled area were recruited to fill the tailored structured questionnaires. Qualitatively, Focus Group interview schedules (FGDs) interview schedules were used to guide 3 FGDs among the mothers, while key informant interview schedule was used to collect data from 9 health facility in-charges. Descriptive statistics and regression analysis were conducted on quantitative data while thematic analysis was used to analyze qualitative data. Data was presented through narratives, charts, figures and frequency tables. The main finding of this study is that while the free maternity policy is a key innovation toward reducing maternal and child mortality and associated problems, the extent of its implementation is dependent on the circumstances sounding beneficiaries and implementers. Specifically, the study found that access and utility of skilled delivery exhibited a positive trend during the period of implementation of free maternity policy; however, qualitatively, the outcome cannot be said to be positive since factors including attitudes of service providers, user fees charged, distance to the health facility, impeded implementation and utilisation of the policy. This study recommends that the policy should be implemented with a focus on contextual determinants of its success in an area like Mandera County. This can be through incremental adjustment to the policy to address the broader aspect of continuum of care for safe motherhood, institutional factors that affect implementation and social-cultural and economic factors that influence utilisation.

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LIST OF ACRONYM AND ABBREVIATIONS

ANC	-	antenatal care
CIPP	-	context input process and product
FMP	-	free maternity policy
FPC	-	free primary-health care
KBS	-	Kenya National Bureau of Statistics
KHRC	-	Kenya Human Right Commission
NHIF	-	National Hospital Insurance Funds
NGO	-	nongovernmental organisation
TBA	-	traditional birth attendants
RMNH	-	reproductive maternal neonatal health
SDG	-	Sustainable Development Goals
TCHP	-	The community healthcare plan
UNICEF	-	United Nation Children Education Funds
UNFPA	-	United Nation Population Funds
WHO	-	World Health Organisation

OPERATIONAL DEFINITION OF TERMS

Fee exemption/Free maternity- exclusion of women from paying charges for maternal health services at public health facilities.

Household- group of people who composes a family dwelling under the same roof and eat from the same pot.

Household head- An individual in a family who is a breadwinner and makes final decisions. Can be a father or a mother in-case of female headed household.

Maternal mortality- deaths resulting from pregnancy or childbirth.

Public policy- For this study, the term was utilized to mean a proposed cause of action of an institution or government to realize a specific purpose of safe motherhood within a given the domain of maternal health.

Safe motherhood- ensuring that all women receive care they need to be safe and healthy throughout pregnancy and childbirth. In this study, it means ensuring the continuum of care based on Donabedian's SPO framework is provided, and challenges limited.

Skilled delivery- a delivery attended to by either a nurse, midwife, physician, obstetrician, or other healthcare professional who provide basic and emergency healthcare service to women and their newborn during pregnancy, childbirth and postpartum period

User fees- these are fees that are charged on health services including drugs, maternity and laboratory services.

Health workers – this term will be used in this study to mean nurses, doctors, or social workers/community health extension workers who are involved in the implementation of the free maternity and delivery policy in Mandera County health facilities. Since the study was largely undertaken in rural areas, three forms of health workers were involved in this study: nurses, the clinical officers, and community health extension workers (CHEWs).

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Maternal and child healthcare is a dual problem constituting the most critical public policy concerns facing the globe and countries alike. Globally, more than half a million women die each year from pregnancy related causes and childbirth while millions more suffer from disability, disease, infection and injury (United Nations Development Program [UNDP], 2022). On average, around 1,500 women die each day from complications related to pregnancy and childbirth, most of them in sub-Saharan Africa and South Asia (UNICEF, 2009). The Free Maternal Health Care Initiative originated in various countries worldwide, driven by a shared commitment to reduce maternal mortality. It was influenced by international efforts, such as the Millennium Development Goals, and now Sustainable Development Goal, which prioritized maternal health. The initiative gained momentum through partnerships with organizations like the World Health Organization and UNICEF (Novoa et al., 2022; Servan-Mori, 2023; Guo et al., 2022). This global collaboration aimed to provide cost-free access to essential maternal healthcare services for vulnerable populations. Such services include cost-free delivery. Therefore, the Free Maternal Health Care Initiative (FMHCI) provides subsidized health insurance to expectant women. The initiative gives women access to an existing range of insurance benefits that include comprehensive maternity care with some notable exceptions such as ambulance service and post-partum family planning counselling. It is supported from the general pool of resources of the National Health Insurance Fund (NHIF), which includes contributions from international partners through the health sector budget support (Arhinful, 2010).

Maternal mortality is a serious public policy challenge and is not just a problem peculiar to developing countries alone. According to WHO, UNICEF and UNFPA (2015) the total amount spent on health care in the USA is greater than any other country in the world. Despite this, women in the USA have a greater lifetime risk of dying of pregnancy-related complications than women in 40 other countries. For example, the likelihood of a woman dying during childbirth in the USA is five times greater than in Greece, four times greater than in Germany, and three times greater than in Spain. These rates and disparities have not improved in more than 20 years with maternal mortality ratios having increased from a low of 6.6 deaths per 100,000 live births in 1987 to 13.3 deaths per 100,000 live births in 2005 (Becak, 2006).

Japan achieved a dramatic fall in maternal mortality over just a ten-year period from 1960 to 1970, with the maternal mortality ration (MMR) declining from 130 to 50, almost a two-thirds reduction (Hou & Ma, 2011). This provided encouragement to many developing countries that were trying to achieve significant falls in maternal mortality by 2015 - the target year for the Millennium Declaration. The success of Japan provides evidence of the three main interventions which are needed everywhere in the world; it has implemented universal access to skilled care at delivery; long investment in the training of professional midwives and nurses and ensuring their availability to women during pregnancy, delivery and post-natal care (at no cost) (WHO, UNICEF & UNFPA, 2015).

Investing in maternal health is a wise economic policy decision since women are the main income-earners in nearly one third of all households globally (Africa Progress Panel, 2010). However, introduction of user fees as a means of health system financing in low and middle-income countries has been a contentious topic in public health discourse. Previous studies suggest that user fees are not necessarily beneficial as it only raises an average of 5-7 percent of health sector recurrent expenditure at the national level (Pearson, 2004). In developing countries user fees are believed to be an important barrier to access of essential health services including delivery services. Akashi et al., (2004) posit that user fees have drastically reduced demand for health services, leading to catastrophic health expenditure and disparity in equity, due to expectant mothers looking for alternative/traditional birth assistant mechanisms (*Ibid*).

Recent studies reveal that fee exemption policies often represent an efficient means of increasing service utilisation but that there are barriers to their effective implementation (Meessen et al., 2011). The political decision to reduce or eliminate user fees is usually taken rapidly, leaving little time for planning the implementation. Since these decisions are politically driven, there has been inadequate involvement of service providers (as implementers) in policy design (Agyepong & Nagai, 2011; Olivier & Ridde, 2012; Walker & Gilson, 2004). Published evidence has provided limited information about what factors lead decision makers to design and implement user-fee abolition policies (Olivier & Ridde, 2012).

Studies by Thaddeus & Maine (1994), Griffiths & Stephenson (2001), Bourbonnais and (2013) suggests that implementation of free maternal healthcare services is influenced by a host of factors such as hospital infrastructure which includes ward spaces, delivery coach, infant

incubators, and ultra sound, theatre, laboratory and ambulance services. The studies further stated that, if pregnant women have the knowledge on the kinds of services offered by public hospitals, the value of implementing these services will be realised. Although the studies have tried to assess factors that influence implementation, less attention has been paid to accompanying measures for staffs such as staff motivation and health system strengthening in general, which should be put in place for proper implementation of free maternity services. This thesis pursued this gap, examining the influence of the user free maternal delivery policy implementation across the continuum of care.

Ghana introduced a free delivery care programme for all women in 2004, financed by money released from lower debt repayments. This programme led to an increase in births at medical facilities, specifically covering all institutional costs (Witter, 2009). Funding for the universal programme ended in 2007, when it was superseded by the National Health Insurance Scheme, also launched in 2004. From 2007, women who were not enrolled in NHIS had to pay delivery fees. In order to provide inexpensive access to care, the Government of Ghana announced in 2008 that all pregnant women were exempted from paying health insurance premiums, encouraging women to join the health insurance scheme and avoid paying user fees. Maternity services covered under the NHIS included antenatal care, delivery, caesarean section, management of emergency obstetric conditions, and postnatal care (Foster & Maillardet, 2012). There is a lack of policy-oriented analysis of the influence of this move on safe motherhood. Examining this gap in Kenya, could therefore generate critical insights which have a broader utility for policy makers in this sector.

Despite change in strategy on user fees on health services, Campbell, Oulton, McPake & Buchan (2011) present an important perspective in acknowledging the challenges presented by implementation of fee removal policy. The study questions the net benefit of increasing access to free health services with limited qualified health workers to provide care. Patient can queue all day only to be accorded an ineffectual consultation which undermines respect, trust, privacy and confidentiality. Such are the realities in many low-income countries, particularly in rural and remote areas where health workers are limited, often over-burdened or under-resourced. Mandera County, a purely rural based county, is not an exception. However, there are a lack of studies that have examined the dynamics of the free maternity health and delivery policy (FMH&P), and how the contextual factors have an impact on the policy's capacity to

qualitatively benefit women, and enhance safe motherhood. This study was geared toward filling this gap.

Lee et al. (2009) concurs Campbell, Oulton, McPake & Buchan (2011) by asserting that strategies to increase demand for services need to be accompanied by actions to ensure the supply side can cope with the increased demand. Financial challenges have been noted as one of the impediments to successful implementation of free maternal policy. Kenya Human Rights Commission (KHRC) (2013) underscored the fact that funding and implementation gaps can create friction between communities and health staff and between facility managers and higher levels of the health system. However, the study emphasized on institutional and inter-organizationalchallenges rather than considering health practitioner's attitudes, patients/mothers' knowledge on the importance of maternal health, access to health facilities and social-cultural challenges to utilisation of skilled delivery services, thus cannot be said to showcase the actual experiences of the target population, thus the influence of the policy on safe motherhood. Moreover, this is an old research. This study focused on these part of the stakeholders, as well as staff and lower cadre health practitioners (community health workers) to unearth a nuanced story on the influence of the policy on safe motherhood.

Kruk et al., (2007) argues that a higher proportion of government health financing is related with greater utilization of skilled birth attendants in the developing countries. Previous studies suggest that out-of-pocket payments for delivery are a barrier to use of health facilities for poor populations (Ensor & Ronoh, 2005; Borghi et al., 2006). Such evidence and global move toward user free delivery have pushed several African countries have enacted policies to make deliveries and/or health care for mothers and children free or nearly free in order to fulfill these mandates (Witter, 2009). In Zambia, fees were suspended for rural districts health facilities in 2006. Progress is slower in some regions than others, while every North African country has reduced maternal mortality by at least 5.5 per cent per year since 1990 (Foster & Maillardet, 2012). In Burkina Faso, an 80% subsidy policy for deliveries was launched in 2006. Other countries have followed suit, though with varying target groups, and are still at the stage of being elaborated.
A notable 12% increase in women delivering at facilities in two districts of Ghana was realized while in Senegal facility-based deliveries increased from 40% to 44% with caesarean section increasing from 4.2% in 2004 to 5.6% in 2005 (Witter, 2010). In Mali, both institutional

deliveries and caesarean section rates increased following fee removal for caesarean sections in public hospitals in 2005 (El Khoury et al., 2011).

Kenya launched her free maternity health and delivery policy in 2014. The country's free maternal health services policy is a potentially positive step in this direction. However, in order to comply with Kenya's international, regional, and local obligations, implementation of this policy must not override or diminish other rights provided by these frameworks as researchers have argued in other contexts (Guo et al., 2022). In Kenya, 3 out of 5 births are delivered in health facilities, indicating a slight improvement since 1998 which was at 42%. A report by Kenya Human Rights Commission (2012) on maternal health situation suggested that high cost of hospital delivery especially user fees charged at level 4 and level 5 health facilities were a key hindrance to facility-based deliveries. However, published studies on fee exemption policy done in Kenya are not evaluative in nature and emphasise on implementation of the policy rather than the outcome by analysing the trends in the utilisation of skilled delivery after the inceptions of free maternity delivery policy, a gap that is at the core of this thesis. To reverse the trends in facility-based deliveries and accelerate reduction in maternal mortality ratio which is at 488/100,000, the Kenya government initiated free maternity delivery policy in 2013 in all public facilities (GOK, 2013; KDHS, 2014). Conversely, implementation of maternity fee waiver may be influenced by duplication and overlaps between free maternity services, free primary health care (FPHC), the community healthcare plan (TCHP) and other healthcare programs. These programs interfere with each other, which has implication for their implementation and operation and ultimately affects their outcome and impact. It is critical to examine the dynamics of the fee exemption policy for delivery of mothers, especially in rural-contexts where social and economic factors constitute contextual barriers to not only implementation, but also outcomes, and consequently trends. This study was undertaken in Mandera County, and unearthed evidence that will go a long way to make safe motherhood attainable.

Overall allocations by the Kenya Government to the health sector have been incremental from 7.8 percent in FY 2012/13 to 9.1 percent in FY 2019/20. Despite these increases the trends still fall short of the government's pledged target of 15 percent of the total national budget as pledged in line with the Abuja Declaration (HP+. 2021). Insufficient or slow distribution of the government funds for the program could be a great constraint to the policy implementation (KHRC 2013). Data from KHRC found that only 36% of public health facilities offering delivery

services had all the basic delivery room infrastructure and equipment, with rural areas and lower-level facilities particularly unequipped (KNCHR, 2012). Hospitals have reported increased overcrowding in maternity wards, with some mothers forced to leave the hospital early to make room for others or even deliver on the floor due to lack of beds (KNCHR, 2012). However, there is methodological limitation to KNCHR's report on assessment on free maternity delivery because of its purposive nature and the methods of sample size calculation are not given. The report documented challenges encountered by health workers in implementation process but overlooked challenges at the community level who are the recipient of the free maternity delivery policy. By targeting the array of actors – expectant, pregnant, and 1-year old lactating mothers; community health facility in-charges, policy makers at the county level, community health workers (CHWs) and hospital based practitioners, this study was able to fill such a gap, and generate policy-relevant recommendations that will go a long way to informing safe motherhood discourses in Kenya and beyond.

In Mandera County, maternal health indicators are low with the County registering a Maternal Mortality Ratio (MMR) of 3,795 deaths per 100,000 live births, which is seven times higher than the national average of 488/100,000 (Kenya Population Situational Analysis Report, 2013; AFIDEP, 2022). Skilled delivery is the lowest in Kenya at 30% (KDHS, 2014). Evidence of influence of free maternity delivery policy on the outcome of skilled deliveries, maternal mortality and other continuum of safe motherhood is scanty and inadequate as there are limited studies conducted to evaluate the policy. This study therefore, evaluated free maternity delivery policy and its impact on safe motherhood in Mandera County, Kenya**.** It employed the Donabedian SPO framework model to understand implementation factors, outcome factors, and to understand trends.

1.2 Statement of the Problem

The problem under investigation in this study revolves around the influence of the Free Maternity Delivery Policy on safe motherhood in Mandera County, Kenya. Safe motherhood is the ability of duty-bearers (Government) to provide needed care to pregnant women and lactating women through their expectancy and at least one year into lactating. This means ensuring the SPO factors work to promote such care than to limit it. Mandera County faces a grave maternal health challenge, with an alarmingly high Maternal Mortality Ratio (MMR) of 3,795 deaths per 100,000 live births, which is a staggering seven times higher than the national average of

488/100,000. Skilled delivery rates in the county remain dismally low, standing at just 30%, as reported in the Kenya Demographic and Health Survey (KDHS) of 2014. These distressing statistics underscore the urgency of understanding the impact of the Free Maternity Delivery Policy, which was initiated in 2014 by the Kenyan government. The policy aims to improve maternal health outcomes by providing free maternity and delivery services in all public facilities. However, despite the introduction of this policy, there is a notable gap in the evaluation of its effectiveness and the extent to which it has contributed to the promotion of safe motherhood in Mandera County. This research seeks to address this critical gap by examining the complex factors that shape the implementation of the policy, its impact on safe motherhood outcomes, and the resulting trends in maternal healthcare utilization.

The core problem at the heart of this investigation lies in the inadequate understanding of how the Free Maternity Delivery Policy translates into tangible improvements in maternal health outcomes in Mandera County. While the policy aims to make maternity services accessible to all women, the current low rates of skilled delivery and alarmingly high MMR in the county suggest that its effectiveness remains uncertain. This poses a significant challenge for policy-makers, healthcare providers, and the community at large, as it hinders progress toward achieving safe motherhood.

Furthermore, the problem extends to the complexity of factors that influence the implementation and outcome of the Free Maternity Delivery Policy. It is essential to explore the role of healthcare infrastructure, the knowledge of pregnant women about available services, staff motivation, and broader health system strengthening in shaping the success or failure of the policy. Understanding these factors is critical for designing targeted interventions that can enhance the policy's impact on safe motherhood.

Another dimension of the problem lies in the economic constraints and funding challenges that may hinder the successful implementation of the policy. As previous research has indicated, inadequate funding, slow distribution of resources, and insufficient healthcare infrastructure can significantly impede the delivery of high-quality maternity services. Therefore, identifying these financial and resource-related challenges is vital to addressing the broader problem of maternal health in Mandera County.

1.3 General Research Question

The study sought to answer the question: What is the influence of free maternity delivery policy on safe motherhood in Mandera County, Kenya?

1.3.1 Specific Research Questions

1. What are the factors that influence implementation of free maternity delivery policy in Mandera County?
2. What are the factors that influence utilisation of free maternity delivery policy in Mandera County?
3. What are the trends in the utilisation of skilled deliveries since the inceptions of free maternity delivery policy in Mandera County?

1.4 Objectives of the Study

1.4.1 General Objective

This study evaluated the influence of the free maternity delivery policy on safe motherhood in Mandera County.

1.4.2 Specific Objectives

1. To examine the factors influencing implementation of free maternity delivery policy in Mandera County
2. To determine factors influencing utilisation of free maternity delivery policy in Mandera County
3. To analyse trends in the utilisation of skilled delivery since inceptions of free maternity delivery policy in Mandera County?

1.5 Significance of the Study

This study holds considerable normative significance as it directly addresses a critical moral and ethical issue - maternal and child health. The normative perspective emphasizes the fundamental right of every woman to access safe and quality maternal healthcare. By investigating the impact of the Free Maternity Delivery Policy in Mandera County, this research contributes to the realization of this right, ensuring that women in this underserved region have the opportunity to experience safe motherhood. The study's findings can help policy-makers and healthcare providers identify gaps and challenges in policy implementation, thereby paving the way for normative changes that prioritize maternal health as a basic human right. It emphasizes the moral

obligation to protect and enhance the health and well-being of mothers, which is crucial in a global context where maternal mortality continues to be a pressing concern.

Secondly, the research holds immense significance for policy reforms, particularly in the field of maternal health and public policy in Kenya and beyond. The study's insights into the implementation and effectiveness of the Free Maternity Delivery Policy can guide evidence-based policy reforms. These reforms may include adjustments to the policy itself, resource allocation, and the design of support mechanisms for healthcare providers and communities. By shedding light on the challenges faced in Mandera County, the study can help policymakers fine-tune the policy to better address the unique needs of this region. Furthermore, it can serve as a valuable reference point for other regions or countries considering similar maternal health policies, facilitating informed decision-making and fostering innovative reforms aimed at improving maternal and child health outcomes.

Thirdly, the philosophical significance of this research is rooted in the ethical foundations of healthcare access and social justice. It aligns with philosophical principles that underscore the need for equitable healthcare for all, regardless of geographic location, socioeconomic status, or cultural background. The study delves into the complexities of implementing a policy that aims to provide healthcare as a social good, and it addresses philosophical questions regarding the role of the state and society in ensuring access to essential services. It prompts discussions about the responsibilities of governments and communities in safeguarding the well-being of women during pregnancy and childbirth, reflecting the moral philosophies of justice, equity, and the common good. By examining these philosophical dimensions, the study contributes to a broader discourse on ethics, healthcare, and the role of public policy in upholding societal values.

Lastly, from an academic perspective, this study makes a substantial contribution to the field of public policy analysis. It provides a comprehensive case study that can be used as a model for examining the implementation and outcomes of healthcare policies, particularly in resource-constrained, rural settings. By using the Donabedian SPO framework model, the research offers a structured approach to assess policy impacts, a method that can be applied to various other policy domains. It contributes to the academic literature on public policy evaluation and adds to the growing body of research exploring the influence of healthcare policies on population health outcomes. Researchers and scholars in the field of public policy analysis can draw from the

methodology and findings of this study to enhance their understanding of how policies are enacted and the effects they have on society, ultimately advancing the academic discourse on public policy and its real-world implications.

1.6 Scope of the Study

This study may be limited in its comprehensive evaluation of free maternity delivery policy due to its inability to comprehensively cover all the continuum of care provided by safe motherhood including antenatal care and postnatal care services. The study has not evaluated the content of the free maternity delivery policy comprehensively. However, the study has evaluated the implementation of the free maternity policy and its outcome on safe motherhood in Mandera County, Kenya; explained factors influencing implementation of the policy and determine challenges in implementation of the policy; and analyzed the trends in skilled delivery from 2015 to 2018.

1.7 Theoretical framework

The theoretical Framework adapted for this study is a model for quality of care (Donabedian SPO model) developed by Avedis Donabedian in 1966, and revised in 1988. The model considered quality of care in three categories which are the structure, process, and outcomes. According to Donabedian model, structure means the environment/context in which the service is provided. Process means trend of giving and taking services and outcome means impact of services on health status of patients and people (Nikpour, & Majlesi, 2002). Structure is the context in which care is delivered which include hospital buildings, staff, financing, and equipment. Process describes transactions and interactions between patients and providers throughout the delivery of healthcare. The process of care includes technical performance and interpersonal interaction (Hillemeier, Weisman, Chase, Dyer & Shaffer, 2008). An outcome refers to the effects of healthcare on the health status of patients and population (Donabedian, 1980).

According to Donabedian (1980) quality is a positive property of medical care that can and does vary. He explained that the degree of quality reflects "the extent to which the care provided is expected to achieve the most favourable balance of risks and benefits." Quality, Donabedian concluded, "is not represented by health status, but by the extent to which the improvements in health status that are possible are realised."

He asserts, further, that, structure includes concrete factors that affect the delivery of care, these are the physical facility, equipment, and human resources, as well as organizational characteristics such as staff training and payment methods. These factors determine how health personnel and clients in a health setting perform and are indices of the average quality of care in health facilities. This is often easy to observe and quantify and it may be the source of problems identified in process. Process is the sum of all actions and interactions making up the healthcare system. These include diagnosis, treatment, preventive care, and patient education but may also include technical processes, how care is delivered, or interpersonal processes, encompassing the way in which care is rendered and patients and care givers are treated. Measurement of process is nearly equivalent to the measurement of quality of care because process contains all acts of healthcare delivery. Information about process can be obtained from medical records, interviews with patients and practitioners, or direct observations of healthcare visits.

Outcome contains all the effects of healthcare on patients or populations, including changes to health status, behaviour, or knowledge as well as patient satisfaction and health-related quality of life. Outcomes are sometimes seen as the most important indicators of quality because improving patient health status is the primary goal of healthcare. Each of the three domains has advantages and disadvantages that can help researchers to draw connections between them in order to create a chain of causation that is conceptually useful for understanding systems as well as designing experiments and interventions (Donabedian 1980).

1.8 Utility of the Donabedian Model and its Novelty to the Current Study

The utility of the Donabedian Model in this study is multifaceted and aligns with the existing literature and research approaches, while also offering a structured and comprehensive framework for evaluating the Free Maternity Delivery Policy in Mandera County within the context of safe motherhood (Mitchell, Ferketich, & Jennings, 1998).

The Donabedian Model has been widely employed in research studies related to healthcare quality assessment. This research approach encompasses a range of studies that explore the linkages between the structure, process, and outcomes of healthcare. It has been used in contexts such as South Africa's integrated communicable disease management (ICDM) model, where it serves as the dominant framework for evaluating the quality of medical care (Department of Health, Republic of South Africa, 2015; Kunkel, Rosenqvist, & Westerling, 2007).

The utility of the Donabedian Model lies in its ability to integrate the structure, process, and outcomes of healthcare, providing a holistic perspective on the quality of care. In this study, the model is utilized to assess the structural factors influencing the implementation of the Free Maternity Delivery Policy, which includes infrastructure, funding, staffing, and staff attitudes. The process domain focuses on the factors influencing the utilization of the policy, such as the role of mothers, social-cultural and economic factors, information provision, and the accessibility of healthcare facilities. Finally, the outcome domain measures the trends in the utilization of the policy and its impact on skilled delivery. By adopting this model, the study can comprehensively evaluate the policy's implementation and its influence on maternal healthcare (Donabedian, 1988).

The utility of the Donabedian Model in this study is particularly noteworthy because it addresses a critical gap in the literature. While the model has been widely applied in healthcare quality research, it has not been extensively used in studies that evaluate policies like free maternity or fee abolition policies. This novel application of the model in the context of maternal health and the Free Maternity Delivery Policy contributes to the expansion of its utility. It provides a structured approach to assessing policy implementation and its effects on healthcare outcomes (Donabedian, 2003).

The Donabedian Model also offers a structured framework for data collection and analysis. In this study, it allows for the collection of both primary and secondary data, including surveys, interviews, and health information system data. By employing a well-defined framework, the research can ensure that the data collected aligns with the three domains of structure, process, and outcomes. This structured approach enhances the rigor and comprehensiveness of the study (Donabedian, 1988).

In essence, the utility of the Donabedian Model in this study lies in its proven effectiveness in healthcare quality assessment and its structured approach to evaluating policy implementation and healthcare outcomes. By applying this model, the study aims to provide a comprehensive analysis of the Free Maternity Delivery Policy in Mandera County and its impact on safe motherhood, ultimately contributing to a better understanding of the policy's effectiveness and its implications for maternal health.

In the current study, the Donabedian model is employed to assess the Free Maternity Policy's impact on safe motherhood in Mandera County. Utilizing Donabedian's conceptualization of healthcare quality (1988), this research operationalizes structural variables as elements influencing the implementation of the Free Maternity Delivery Policy regarding skilled delivery. These structural variables encompass factors like healthcare infrastructure, the allocation of funds for free maternity services, staffing levels, staff attitudes, and other related structural factors that impact policy implementation. The study aims to investigate both the policy's implementation and the structural challenges influencing its execution.

Furthermore, the study operationalizes the process aspect by examining factors that influence the utilization of the Free Maternity Delivery Policy. This includes assessing the role of mothers in accessing the policy, considering socio-cultural and economic factors that may affect utilization, evaluating the extent to which mothers perceive that they have been adequately informed about the policy, and considering the geographical proximity of healthcare facilities and other elements that influence the use of the Free Maternity Delivery Policy. Data on these process-related factors were collected through household questionnaires targeting mothers who gave birth within the past year, and focus group discussions (FGDs) were conducted with women's groups to delve into rural-specific issues and other significant factors that might impact policy utilization.

Lastly, the study operationalizes the outcome dimension by analyzing the trends in the utilization of the Free Maternity Delivery Policy, specifically focusing on its impact on skilled delivery. Data for the outcome variables were collected from secondary sources, spanning the last five years from 2015 to 2018, utilizing the Kenya District Health Information System (KDHIS2). This web-based district health information software is instrumental in housing and providing comprehensive health data in Kenya. The theoretical framework employed in the study can be visualized through the flowchart diagram below, encapsulating the interplay between structure, process, and outcomes in assessing the Free Maternity Policy's influence on safe motherhood.

`1.9 The Conceptual Diagram

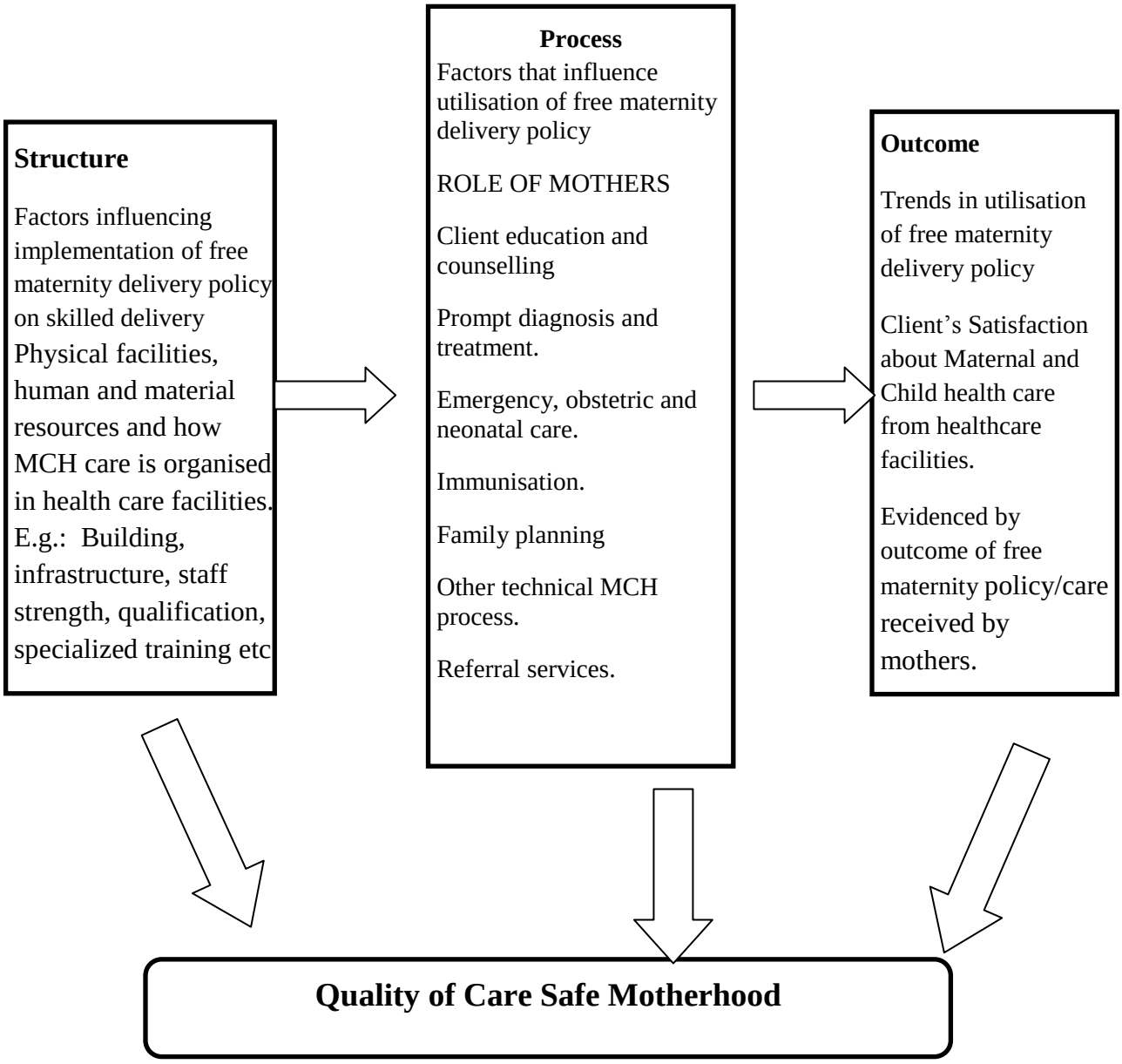

Figure 1.1: Conceptual Diagram

The provided conceptual diagram offers an illustration of Donabedian's theoretical framework. Under the structure component, we encompass elements that affect the implementation of the Free Maternity Delivery Policy in the context of skilled delivery. This involves evaluating physical facilities, including factors like the availability of human resources, the organization of maternal and child health (MCH) care within healthcare facilities, building infrastructure, staffing levels, staff qualifications, and specialized training. Donabedian (1980) elucidates that

the physical facility plays a crucial role in determining the degree of observability of interactions between healthcare personnel and clients, and it can be associated with the subsequent process. In this study, we utilize this aspect of Donabedian's theory to address the first research question, which focuses on identifying the factors that influence the implementation of the Free Maternity Delivery Policy in Mandera County.

When we turn our attention to Mandera County, Donabedian's second aspect, the process, comes into play. The process component encompasses factors that influence the utilization of the Free Maternity Delivery Policy. These factors can include actions such as client education and counseling, timely diagnosis and treatment, and immunization. In essence, it encompasses all actions and interactions occurring within the healthcare system. The study delves into this aspect to tackle the third research question, which explores the trends in skilled delivery utilization since the inception of the Free Maternity Delivery Policy in Mandera County.

Moreover, as per Donabedian's framework, the outcome is reflected in the trends in the utilization of the Free Maternity Policy. These trends are influenced by various factors, including client satisfaction and information derived from the Mandera County district healthcare information systems, among other pertinent considerations. Client satisfaction serves as an aggregate indicator, encompassing changes in health status, behavior, and knowledge levels among clients. Examining this aspect in our study aids in addressing the third research question, which centers on the shifts in skilled delivery utilization following the implementation of the Free Maternity Delivery Policy in Mandera County. In Donabedian's perspective, the amalgamation of these components collectively defines the quality of care.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter reviewed current literatures and studies on free maternity delivery policy, exemptions of user fee policy on maternal health, free maternity delivery policy and its impact. The study is divided in to 3 subtopics that revolve around the three specific objectives of the study, which include: free maternity policy and trends in skilled delivery; factors that influence implementation of free maternity policy; and finally challenges of free maternity policy.

2.2 Factors Influencing Implementation of Free Maternity Delivery Policy

According to Impact International (2018), a number of factors influence implementation of the free maternity delivery policy. The study avers that the implementation of the policy has not applied a system of standardized charging and failure of prompt and adequate reimbursement to the clinical facilities which in many cases led to near failure of the policy. Due this, the report argues that many facilities at one point reverted to collection of user fees. Other barriers to the success of the free maternity delivery policy according to the Impact International's report included; costs of transportation to the health facility, medicines and other supplies, long distances to health facilities, cultural and social barriers and preference for traditional birth attendants. Further, the study finds that an effective monitoring system was not put in place and therefore many of the deficiencies in financial flows, quality of care and issues related to poverty were not documented to ensure a successful implementation of the programme (Impact International, 2018). The study, however, do not show whether these experiences apply universally or depend on contextual circumstances under which free maternity delivery policy is implemented. This also speaks to the Universalist model of policy learning and change which currently drives FMDP, leading to challenges in implementation as policies may not be responsive to the contexts of the beneficiaries and implementers. This study takes a case study approach to the issue, and evaluates the Kenya's FMDP implementation in Mandera County, a unique context in its own right.

Recent research reveals that fee exemption policies often represent an efficient means of increasing service utilization but that there are barriers to their effective implementation (Meessen et al., 2011). The political decision to reduce or eliminate user fees is usually taken rapidly, leaving little time for planning the implementation. Since these decisions are politically

driven, there has been inadequate involvement of service providers (as implementers) in policy design (Agyepong &Nagai, 2011; Olivier de Sardan & Ridde, 2012; Walker and Gilson, 2004). Published evidence has thus far provided limited information about what factors lead decision makers to design and implement user-fee abolition policies (Olivier de Sardan & Ridde, 2012); however, these studies suffer from obvious methodological limitations, given the challenges encountered when reconstructing events in the past. This study aimed to make a value added contribution to this extant category of works by evaluating the FMDP to reveal implementation factors concerned with facilitating or limiting the policy. The application of mixed-methods design – involving both interviews and survey questionnaires as data collection tools and correlation analysis and thematic content analysis for data analysis the methodological gaps Agyepong & Nagai, 2011; Olivier de Sardan & Ridde, 2012; Walker and Gilson (2004) approach to the subject-matter.

Studies by Thaddeus & Maine (1994), Griffiths & Stephenson (2001), Bourbonnais (2013) suggests that implementation of free maternal healthcare services is influenced by a host of factors such as hospital infrastructure which includes ward spaces, delivery coach, infant incubators, and ultra sound, theatre, laboratory and ambulance services. The studies further stated that, if pregnant women have the knowledge on kinds of services offered by public hospital the value of implementing these services will be realised while if people do not utilise the service, then it doesn't make any economic sense. Hercot & Morestin (2009) build on the findings of Studies by Thaddeus & Maine (1994), Griffiths & Stephenson (2001), Bourbonnais, (2013) and provide a useful framework for informing and evaluating the policy process surrounding implementation of fee exemption policy, noted crucial factors, such as careful planning of implementation steps, broad communication strategies targeted to different groups, commitment to the expected budgetary burden among government and international partners, and clear rules for transferring resources to health facilities to compensate for loss of income or new costs. This study took these suggestions to the test by evaluating how they couldapply under the free maternity delivery policy of 2013. The study thus adds value to these works by assessing their applicability – putting theory into practice, and bridging the gap between what maternity and child healthcare academics suggest and what practitioners actually do.

For proper implementation of free maternity services, accompanying measures for staffs (incentives, training) and for strengthening the health system in general (equipment, infrastructure, and management) should be put in place. In contrast, Hercot, Meessen, Ridde &

Gilson (2011), finds these accompanying measures rarely funded and are not implemented in conjunction with new fee exemption policies, thereby reducing their impact and even threatening the health system as a whole. Ridde, Robert & Meessen (2012)further establish that caesarean sections (CS) were covered by fee exemptions in the 11 countries they surveyed, other obstetric complications during labor were not covered in two of those countries (Benin and Niger).This study will evaluate the effect of FMDP in promoting safe motherhood in Mandera County. The study while building on the shoulders of Hercot, Meessen, Ridde & Gilson (2011), Ridde, Robert & Meessen (2012)and others will add value to this set of works by revealing a micro-analysis dynamics of the factors that hinder or facilitate implementation of the Kenya FMDP.

A study conducted in Kenya by Chris (n.d.) indicated that implementation of maternity fee waiver may be influenced by duplication and overlaps between free maternity services, free primary health care (FPC), the community healthcare plan (TCHP) and other healthcare programs. These programs interfere with each other, which has implication for their implementation and operation and ultimately affects their outcome and impact. For example, The FPC was introduced approximately two years after the introduction of the TCHP. Because the FPC provides free primary healthcare, people in the TCHP catchment area are less interested in paying for insurance, as part of what the insurance package offers is already available at no cost. There is an overlap in the provision of maternal health care. The government offers FMC in all public facilities and the TCHP provides maternity services in its insurance package. The National Hospital Insurance Fund (NHIF) also offers a maternal health care package. The contextual factors are still changing; for instance, there are plans to channel FMC through the NHIF by July 2016, however, the NHIF is already offering an out-patient package as part of the benefit package. Despite fee exemption policies sharing the goal of improving financial access to maternal care, they operate independently and thus miss the opportunity to be mutually reinforcing. There is a lack of coordination both among different fee exemption policies in place and other major initiatives designed to improve financial access. Ridde, Robert & Meessen (2012) add that this duplication and lack of coordination substantially influence proper implementation of free maternity policy. These are important insights into the theoretical issues that concern FMDP especially as related to redundancy of programs as a limiting factor for implementation. However, these works only theorize and hence require empirical testing. This study undertake an empirical analysis of the FMDP as experienced by mothers in Mandera County.

Florence & Valéry (2009) assert that fee exemption policies are often adopted precipitously at the decision of a president or a minister, and implemented without leaving adequate time technicians to prepare. In other cases, the benefits package selected for the fee exemption is very limited for budgetary reasons, thus having little effect on maternal mortality; furthermore, accompanying measures to prepare for implementation often exist only on paper but are never budgeted for and are therefore not implemented.

Lang'at, Mwanri & Temmerman (2019) study revealed a positive correlation between a number of safe motherhood variables and fee exemption/free maternity policy. They found that there was a significant and sustained increase in antenatal care visits, live births and health facility deliveries. In addition, there was a significant increase of about 27% of women receiving Emergency Obstetric Care services at level 3, level 4 and level 5 health facilities. This study concludes that after two years of the implementation of the Free Maternity Service Policy, there was an immediate increase and sustained utilization of skilled care for pregnancy and childbirth. This indicates that hospital costs are a barrier to maternity care utilization. Through the Free Maternity Service policy for financing health, the full potential for accessing skilled care has been met. Upto 2020 when this study was undertaken, it could not be said by certainty the type of relationship between the FMDP and the safe motherhood variables, especially Mandera County. Therefore, this study built on the shoulders of these researchers to understand the relationship between the policy and maternity care utilization. This was. It is a value addition to extant works.

2.3 Emerging Gaps in Literature on Implementation

The literature on health policy implementation discusses factors influencing the implementation of the Free Maternity Delivery Policy. One emerging gap in this literature is the lack of context-specific understanding. For example, the Impact International study points out several barriers to the success of the policy, but it doesn't explore whether these experiences are universal or depend on the contextual circumstances in which the policy is implemented. This is a critical gap as policies may not effectively respond to the specific needs and challenges of different contexts. My thesis fills this gap by taking a case study approach and evaluating the implementation of Kenya's Free Maternity Delivery Policy in Mandera County, a unique context in its own right. This approach allows for a more nuanced understanding of the policy's implementation challenges and successes within a specific context.

Moreover, while previous research has touched upon these issues, it also suffers from methodological limitations when reconstructing events in the past. My study aimed to contribute to this area by evaluating the Free Maternity Delivery Policy, specifically focusing on implementation factors that either facilitate or limit the policy's success. The application of a mixed-methods design, including interviews and survey questionnaires, along with correlation analysis and thematic content analysis, addresses methodological gaps in previous studies and provides a more comprehensive understanding of the policy's implementation.

Overall, your thesis bridges the gap in the literature by offering a context-specific analysis of the Free Maternity Delivery Policy's implementation in Mandera County and by using a robust mixed-methods approach to explore the factors that influence its success or limitations. This approach helps provide valuable insights into the policy's implementation that can inform future policy design and decision-making.

2.4 Factors Influencing Utilisation of Free Maternity Delivery Policy

Campbell et al. (2011) present yet another perspective in acknowledging the challenges now presented by fee removal: "what is the net benefit of increasing access to 'free' health services if there is no qualified health worker available to provide care, or where you may queue all day only to be afforded an ineffectual consultation which undermines respect, trust, privacy and confidentiality? Such are the realities in many low-income countries, particularly in rural and remote areas, where health workers are drastically in short supply, and often over-burdened and/or under-resourced". Lee et al. (2009) concurs arguing that "strategies to increase demand for services need to be accompanied by actions to ensure the supply side can cope with the increased demand".

The utilization of free maternity has attracted a few studies. Meessen et al. (2005) for example, reviewed policy processes for user fee removal in six sub-Saharan African countries (Burkina Faso, Burundi, Ghana, Liberia, Senegal, and Uganda) according to Hercot et al.'s (2011) framework and hey have highlighted challenges, including insufficient preparation for the fee removal policy, poor design of the reform, and weaknesses in implementation processes. In Kenya, process-level research remain dearth (Chris, n.d) and this prompts further studies to unravel the dynamics of FMDP in Kenya. More need for such studies in Marginalized areas. This study aims to fill this gap, and unravel process-level variables concerned with FMDP.

Recent reviews of the growing trend to abolish or suspend user fees, highlight that for these policies to be effective careful planning of the supply side response to the stimulated demand has to take place (UNICEF, 2009). Studies by Meesen et al. (2011), McPake et al. (2011), Ridde and Morestin (2011), Witter et al. (2009), and Gilson & McIntyre (2005) have sought to identify critical lessons that could guide the process of planning and implementing fee removal, including the need for strong leadership, a rigorous situation analysis, setting clear priorities and objectives, involve and communicate with relevant stakeholders particularly the workforce, and monitoring and evaluation. McPake et al. (2011) propose a process for the estimation of additional requirements for human resources and drugs, and mobilisation of additional financial resources. Witter et al. (2009) add three more pragmatic lessons: "facilities must be adequately… reimbursed for their costs; staff must be motivated to provide appropriate care to all; and attention should be paid to improving quality of care". This study is an empirical investigation into these process factors, in a marginalized region context and contributes evidence to buttress the overwhelming theoretical work into the process-level factors.

Study by Witter et al. (2007) documented some challenges in utilization of free maternity policy. The study note shortfalls and unpredictability of funding that has caused concerns at all level of healthcare. Funds were issued at the start of the financial year, without guidance for managers as to how they had been calculated, how long they should last or when they would be replenished. The funds were not adequate for a full year and further installments were expected but not received until the next financial year. The failure to reimburse adequately and promptly had negative effects at all levels of the system. Patients, having been told they would receive free services, were reported to be angry when they were asked to pay, and staffs were suspected of taking a cut of the funds. Facility staff wondered if the funds had been siphoned off by people higher up the system. District and regional health managers were caught between facilities accumulating debts and the need to persist with the policy. A Witter et al. (2007) make these assertions based on their study undertaken in Ghana, the current study fills the gap of lack of such analyses in Kenya, to generate contextual insights into the issues around funding and its limitations to attaining safe motherhood under the FMDP.

Masaba & Mmusi-Phetoe (2020) explored the issue of funding from yet another angle - the level of utilization and barriers to free maternity service. They found that free maternal services has increased mothers utilization of skilled birth attendants. This is mostly for women living close to hospitals and did not afford these services before they were made free. The challenge that

remains is on poor women living in remote areas. This study recommends allocation of more funds to the free maternity program. Further to this it recommends that adequate infrastructure and human resources are needed. And lastly, road networks in the remote areas should be improved to incentivize poor rural women to access the health service. This study makes important findings but is limited on three grounds – methodologically, the study did not undertake a survey on the rural-based beneficiaries of the FMDP. This implies that empirically, the findings lack the voices of the primary target of the FMDP. This study attempted to bridge this gap by undertaking both a survey among sampled rural-based women and interviews both with groups of these women as well as healthcare workers and officer-in-charge of dispensaries where mother go to deliver their babies. Secondly, Masaba & Mmusi-Phetoe (2020) study do not zoom into the experiences of marginalized regions in Kenya, and suffer from the universalist approach to making claims around subject-matter of maternity and free delivery.

Gitobu, Gichangi& Mwanda (2018) conducted a time series study on health facility delivery services utilization. The study concluded that cost is a major deterrent to health facility delivery service utilisation. This has made free delivery services critical in promoting utilization of health facilities in times of delivery. The study notes that low quality delivery services in the health facilities contribute to low utilization. Also addressing the economic, social, contextual and political factors leading to pregnancy related deaths is important. Tis study will add value to Gitobu, Gichangi& Mwanda (2018) by employing a primary data and secondary data simultaneously as opposed to the scholars who based their argumentation purely on analysis of secondary materials

Njuguna, Kamau and Muruka (2017) study the utilization of maternal health services in referral hospitals and low-cost private hospitals participating in free delivery policy. They assessed the factors influencing increase in delivery numbers. They found that there was increased utilization in both cases in deliveries and antenatal attendance. Therefore, the Free Maternal Policy as an intervention increased the number of facility-based deliveries. The study concludes thus, that the only remaining need is to incorporate low-cost private hospitals into the policy to increase coverage.

The studies reviewed above do not speak to process according to Donabedian's view. Specifically, they do not respond to the question on factors that influence utilization of free maternity delivery policy in Mandera County which was the focus of this study.

2.4.1 Emerging Gaps from the Literature

From the review above, the existing literature discusses the challenges and issues related to free maternity policies but does not delve deeply into how these policies operate in specific contexts, especially in marginalized regions like Mandera County. My study addresses this gap by focusing on Mandera County, providing context-specific insights into the factors that influence the utilization of the Free Maternity Delivery Policy. Secondly, while some studies have reviewed policy processes for user fee removal in sub-Saharan African countries, including Ghana and several others, limited research has focused on the process factors related to Kenya's Free Maternity Delivery Policy. Your study aims to fill this gap by unraveling the process-level variables specific to the implementation of the Free Maternity Delivery Policy in Kenya.

Thirdly, studies have pointed out issues related to funding, such as shortfalls and unpredictability of funding, primarily based on experiences from other countries. My study addresses this gap by analyzing the specific challenges related to funding under the Free Maternity Delivery Policy in Kenya, providing contextual insights into funding issues and their impact on safe motherhood. Fourthly, while some studies have explored the impact of free maternal services on utilization, they may not have included the perspectives of rural-based beneficiaries. My study bridges this gap by undertaking surveys and interviews with rural-based women who are the primary targets of the Free Maternity Delivery Policy, providing a more comprehensive understanding of their experiences and needs. Additionally, some existing studies take a universalist approach, making claims about maternity and free delivery without considering the specific challenges faced in marginalized regions like Mandera County. This study offers context-specific insights into these challenges, helping to tailor policies to the unique needs of the region. Sixthly, some previous studies relied solely on secondary materials for their analyses. Your study adds value by using both primary and secondary data simultaneously, providing a more robust and comprehensive understanding of the factors influencing policy utilization. Lastly, the studies reviewed do not address the process aspect according to Donabedian's view, specifically regarding factors that influence utilization of the Free Maternity Delivery Policy in Mandera County. This study fills this gap by focusing on the process-level variables and providing a holistic view of the policy's implementation and utilization.

2.5 Free Maternity Delivery Policy and Trends and Outcomes in Utilisation of Free maternity delivery policy

Dzakpasu et al. (2013) argue that only limited evidence relating national user fee reforms to women's uptake of maternity services, such as institutional delivery and skilled assistance at birth, is available. Implying gendered insights remain under-investigated. Both Kippenberg et al. (2008) and Prata et al.(2004) argue that although it has not been possible to examine whether maternal deaths will decrease as a result of a fee reduction, as has been proposed, it has been possible to directly examine institutional deliveries and skilled assistance at birth. Witter et al. (2007) and Penfold et al. (2007) find a 10-36% increase in institutional deliveries in the Central and Volta regions of Ghana, although, when fees were temporarily reinstated, the number of institutional deliveries decreased. Deininger & Mpuga (2005) also report an increase in institutional deliveries after the abolition of user fees in Uganda. Skilled assistance at birth, on the other hand, does not increase following the abolition of user fees (De Allegri et al., 2011; Tann et al., 2007). What is the manifestation of outcomes and trends of those outcomes in Kenya especially in marginalized regions? This an important question that this study attempted bring out and which lack in current works.

Not only is the literature limited, it has generally ignored the role of supply side factors (Cheelo et al., 2010; Lagarde, Barroy & Palmer, 2012; Masiye et al., 2008) or limited the analysis to a comparison of average utilisation before and after the policy change (Masiye et al., 2008). Although panel data has been available, previous studies have not accounted for that structure in the data (Lagarde, Barroy & Palmer 2012), and, thus, have been unable to control for potential time invariant confounders. For instance, in the reporting of administrative data, which is used here, there could be consistent over- or under-reporting of information. Similarly, within a region there could be consistently more or fewer institutional deliveries, due to region-specific characteristics. Exploiting the information in the panel, allows one to address these concerns. Moreover, estimates obtained from an aggregate analysis often mask important heterogeneities that may warrant further attention.

Studies also reveal negative effects of user fees on utilisation (Nanda, 2002). The researcher find that utilisation of antenatal care (ANC) services in Zimbabwe and Tanzania declined with the introduction of user fees. In Ghana, with the introduction of the fee exemption policy on deliveries, the proportion of institutional deliveries increased in the Central and Volta region, and, encouragingly, the increases was higher for women facing the greatest financial barrier to

health care and were at the greatest risk of maternal mortality (Penfold et al., 2007). Asante et al. (2007) provide further evidence of equity improvements; fee exemption policy reduced the overall costs of delivery by 8% to 22%, depending on the type of delivery. Can these findings mostly from the West and West Africa be said to apply across the world, such as in the marginalized region of Kenya called Mandera? This study brings such hitherto hidden perspectives on the subject-matter of maternal delivery fee exemption as a means to promoting hospital and expert deliveries.

Other studies have explored the non-fees determinants of outcomes of fee exemption policies on the issue of maternal deliveries. Such studies assert that although user fees do matter, there are other factors affecting institutional deliveries. Gabrysch & Campbell (2009) identify 20 determinants, based on a review of 80 articles. They group determinants into four broad themes: (1) socio-cultural factors, (2) perceived benefit/need of skilled attendance, (3) economic accessibility and (4) physical accessibility. The identified factors influence decision-making at the individual and household level; they also include measures affecting the ability to pay and the role of distance as access obstacles. They suggest that other factors, such as the quality of care, are not easily captured in household surveys, although they are reported as being essential in qualitative studies. Thus, there is a need to examine the effect of supply-side factors, which is done here. This study mixes qualitative and quantitative to bridge this gap and to arrive at a more nuanced analysis of outcome variables related to fee exemption policy on maternal delivery.

In addition to the factors mentioned by Gabrysch & Campell (2009), Gage (2007) finds that the use of ANC services positively affects the utilisation of institutional deliveries and skilled attendance, as does previous delivery at a health facility (Bell et al., 2003; Stephenson et al., 2006). Essentially, experiences with the health system, especially positive ones, gained through ANC visits or previous deliveries can affect delivery. Similarly, ANC provides opportunities for health workers to recommend a place of delivery, based on pregnancy risk assessments, and women with lower risks may be encouraged to deliver without a skilled assistant. Moreover, ANC attendance breeds familiarity with the health system and health facility; thus, women who seek ANC are more likely to use the same facility for delivery. However, the positive relationship observed between seeking ANC and delivering at a health facility could result from other confounding factors, such as the availability and access to services (Breen & Ensor, 2011; Gabrysch & Campbell, 2009); the same has been suggested for previous deliveries (Gabrysch & Campbell, 2009; Stephenson et al., 2006). For instance, the use of ANC or delivery services may

indicate the presence of a nearby health facility offering delivery services. In many developing countries, it should be noted, ANC services are provided through outreach services, mobile clinics and small facilities, many of which do not offer delivery services. To address these problems, this study included factors to proxy for the availability of health services. All these studies outline important variables concerning outcome-level of analysis according to the Donabedian SPO framework. Important to note, however, is that these studies are all undertaken in out-of-developing countries context hence may not be very reflective of the experiences of such countries. Secondly, they are not based on primary data, hence the need for empirical analysis to add value to such literature. This study aimed at unpacking these issues with in the Kenyan context

Finally, alternative delivery options should also be considered, as they are likely to impact on institutional delivery and skilled birth attendance. In the African context, the primary alternative is a traditional birth attendant (TBA), an alternative that may or may not be an appropriate substitute. TBAs may not provide satisfactory assistance, due to low levels of literacy, nonexistent to poor training and limited obstetric skills, all of which negatively affect the delivery process, especially when there are complications (Garces et al., 2012; Singh et al., 2012). On the other hand, TBAs could be better than nothing, especially if they are properly trained. Although maternal mortality rose after TBAs were banned in Malawi, they then fell, once TBAs were trained and reinstated (Ana, 2011). There is further evidence that trained TBAs reduce neonatal mortality (Gill et al., 2012), and are a feasible and affordable option in countries with limited medical skills capital; however, they need an appropriate support network to work effectively (Stekelenburg et al., 2004). This study is undertaken in largely rural-based areas of Mandera County, and where socio-cultural dimensions of health could be manifest.

A review by WHO found that the direct costs of maternal health care range between one and five percent of total annual household expenditures, rising to between five and 34% if the woman suffers a maternal complication (WHO 2006a). Several studies note an immediate positive impact on utilisation of services for delivery care (El Khoury et al. 2011; Witter et al. 2010; Meesen et al. 2009; Altaras 2009; Yates 2009; Witter et al. 2007b; Burnham et al. 2004) and, in some cases, show that “service usage increases more within poorer quintiles than richer quintiles when such fees are abolished” (UNICEF 2009). These general trends were tested in this study hence the findings unravelled by this study makes a contribution to existing works by showing evidence from a marginalized region context.

Studies reviewing utilisation following the abolition of user charges for deliveries and other related maternity care have observed a rise in assisted deliveries and caesarean sections at health facilities (Meesen et al. 2009; Penfold et al. 2007; McIntyre et al. 2005). In Ghana, Witter et al. (2007) noted a 12% increase in women delivering at facilities in two districts, while in Haiti, the access of women to maternal health services increased as a result of the full fee removal and partial exemptions/reduced fee policies piloted by an international NGO from 2006 in several regions (Altaras 2009). In Senegal facility-based deliveries rose from 40% to 44% of expected deliveries over 2004-5 caesarean section rates increased from 4.2% in 2004 to 5.6% in 2005 (Witter 2010). In Mali, one study show that both institutional deliveries and caesarean section rates increased following fee removal for caesarean sections in public hospitals in 2005 (El Khoury et al., 2011).

The study also established that the reduction in ANC utilisation was followed by a modest financial recovery in provincial and district hospitals. Nevertheless, the sample facilities experienced a gradual long-term decline in ANC utilisation from 1990 to 1993. The authors inferred that the decline was attributable to either mothers' lack of awareness that the fee program did not apply to ANC or the "one-stop-care" effect, whereby a patient tries to achieve several objectives in one visit. For instance, a mother would travel to a facility for a combined ANC and general clinic visit, with the latter requiring user fees. The authors did not analyse the impact of fees on maternity care services, although they did not find any significant effect of fees on admissions and average length of stay.

Another study conducted in Kenya by Nganda (2003) used monthly attendance data from selected public facilities and found a decline in average utilisation of delivery care services following an upward fee adjustment. The ANC services, however, remained unaffected by the adjustment as average attendance continued to increase. Maternal mortality has received increased attention from the international community following the inclusion of a reduction in maternal mortality among the Millennium Development Goals. The general set of strategies advocated by the World Health Organisation (WHO) and other health organisations to improve health outcomes during pregnancy is known as the Safe Motherhood (SM) Initiative, which grew out of a major international conference on maternal health organised by the World Bank, the WHO and the United Nations Population Fund (UNFPA) during the late 1980s. The four main components of the SM strategy are *family planning, antenatal care, skilled assistance at delivery, and access to emergency obstetric care* (Asante et al., 2007). The SM strategy has been

adopted and implemented to various degrees by most countries in the developing world over the past 20 years. This study delved into an assessment of the effect of the policy in attainment of factors for safe motherhood.

The empirical evidence on the role of skilled delivery on improving maternal outcomes is actually quite weak largely due to the measurement challenges associated with measuring maternal mortality. The importance of ensuring skilled delivery has been advocated largely due to an intuitive belief of its effectiveness based on a number of pieces of evidence. First, the bulk of maternal deaths, up to two thirds, occur during the labor, delivery, and immediate postpartum periods (Graham, Bell & Bullough, 2001).Therefore, it is believed that ensuring that deliveries are supervised by trained medical personnel, who are able to deal with the main complications of the delivery process and to refer the most complicated cases to emergency obstetric care, should reduce maternal deaths. Second, the reduction in maternal mortality that occurred in developed countries occurred during a time period where there were large increases in the professionalization of delivery, however, this time period also corresponded to a period when many other major changes to the practice of medicine were ongoing (Hogberg, 2004) Finally, cross country correlations between coverage of skilled delivery and maternal mortality suggest a relationship exists between higher proportion of births supervised by trained personnel and lower maternal mortality (Graham, Bell & Bullough, 2001).

Yates(2009) assert that the slow progress in reducing the high levels of maternal and neonatal deaths in low-income countries has led to a renewed commitment to improve provision and access to reproductive, maternal and newborn health services (RMNH). At least three-quarters of neonatal deaths and a similar proportion of maternal deaths occur outside hospital (Hofmeyr et al., 2009). Progress in MDG5 is clearly of concern given these figures, but progress in MDG 4 is significantly affected by the continuing high level of neonatal deaths, which was 42% of under-5 deaths in 2008 compared to 37% of under-5 deaths in 2000" (Lawn et al. 2009a). This supports the view that public subsidies of various sorts are likely to be necessary to improve access and skilled attendance.

A paradigm shift in global health policy regarding user fees has been evident in the last decade with a growing consensus that user fees are regressive and undermine equitable access to essential health services (Yates, 2009). particularly, a concern that pregnant women and children under five are negatively affected by such financial barriers has prompted many low and middle-income countries to reconsider levying user charges by ensuring either more thorough

implementation of exemption or waiver mechanisms, significant reduction in fee levels or their abolition altogether (Campbell et al., 2010; Witter, 2010). Access to and provision of basic maternity services could eliminate 80 percent of existing maternal mortality and 40–70 percent of neonatal mortality (Darmstadt et al., 2005).

2.5.1 Emerging Gaps in the Literature

The gaps flowing from the trend data analysis above can be seen along three angles. Firstly, the literature reviewed mainly draws from Western, West African, and generalized global contexts. However, your study delves into the specific regional dynamics of Mandera County, Kenya, thereby enriching the understanding of how trends and outcomes in utilization unfold in a marginalized, local setting. Past research often overlooked supply-side factors and conducted aggregate analyses, which may mask important variations. This study, by considering both supply- and demand-side elements and employing longitudinal data, contributes to a more nuanced analysis of trends and outcomes within the free maternity delivery policy. Thirdly, the reliance on secondary data in previous research may undermine the depth and accuracy of findings. By collecting primary data, this study provides essential empirical evidence to support your insights into the trends and outcomes associated with the utilization of free maternity delivery policy.

2.6 Summary of Literature Review

The gaps in the studies conducted above prompted this study which sought to establish the structural, process and outcome determining factors of implementation, utilization, and trends respectively of the Kenya FMDP which came into being in 2013. The gaps in the literature above are into four formations which include methodological and non-methodological issues. First, research into the value and dynamics fee exemption for maternal deliveries remain scarce in the sub-Saharan Africa (SSA). This calls for more studies in SSA to unravel the value and dynamics of fee exemption policies in this region, which is also tagged as the region hosting the bottom billion countries.

Secondly, the scarce extant studies are general in terms of their utility within urban-urban dynamics, and are, for that matter, non-disintegrated to showcase the variances between rural and urban experiences with the free delivery policies. This study targets the subject-matter from a rural/marginalized region context (Mandera County), and as a result generated fresh insights that

will go along to inform the public policy debates and show policy lapses – hence drive policy reforms thereof.

Thirdly, most studies reviewed and in existent prior to this study are largely what I can call single design studies, with qualitative studies properly biased against. Most of the existing studies are reviews of secondary materials (journal articles of the subject), or reviews administrative data (data from health information systems), or purely quantitative studies. Following this trajectory, recent researchers have called upon new researchers to undertake comprehensive mixed methods studies. The present study is one in the quest to bridging this gap. The study used administrative health information systems data to explore trends (objective three), collected primary quantitative and qualitative data from FMDP beneficiaries as well as from implementers – health workers and health facilities in-charges to enable a complete and nuanced research findings into the real value and dynamics of the policy on safe motherhood in a context like Mandera. This study is therefore one of the few that undertook a complete approach to investing the problem at hand.

Fourthly and lastly, extant research do not fall short of what I can refer to as 'complete analysis of the Donabedian variables'. As is openly clear from the analysis of the literature in this chapter, most studies prioritize a given level/stage of analysis from the Donabedian SPO framework. They either explore structural factors, or process factors or outcome factors. While this approach may yield in-depth information, it seems the opposite because new most recent studies have called upon new work to try to draw the lines and assess the inter-level relationships. This study was undertaken across the three levels of assessing healthcare systems – undertook a systems approach the subject matter.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This section describes the methods employed in conducting the study, with emphasis on the study type and design, a profile of the study area, population, sampling techniques, sample size determination, data collection methods, data analysis and ethical consideration.

3.2 Research Design

This study used acorrelational design**,** utilizing both quantitative and qualitative methods of data collection and analysis. According to Simon (2011) correlational research design investigates one or more characteristics of a group to discover the extent to which the characteristics vary together. A correlational design aims at providing inert images of situations as well as establish the relationship between different variables (McBurney and White, 2009). Correlational studies examine variables in their natural environments and do not include researcher-imposed treatments. Correlational studies display the relationships among variables by such techniques as cross tabulation and correlations. The main purpose of a correlational study is to determine relationships between variables, and if a relationship exists, to determine a regression equation that could be used to make predictions to a population. Correlational research is concerned with establishing relationships between two or more variables in the same population or between the same variables in two populations (Leedy & Ormrod, 2010). In nursing (Prematunga, 2012) and indeed other disciplines (Fitzgerald et al. 2004) exploring the relationships among various variables is a significant part of healthcare research. Understanding the associations/relationships that exist among "human phenomena is an abiding impetus for scientific enquiry in all of the social science disciplines, and that impetus transcends even the most polarised paradigmatic distinctions between various research methods ..." (Fitzgerald et al., 2004). This justifications from the design informed its choice in this study which employing Donabedian SPO framework, explored the correlations between safe motherhood variables under structure (S), process (P) and outcome (O) (as outline in the theoretical diagram (section 1.9) and the FMDP policy implemented in 2013.

3.3 Study Area

The study was conducted in Mandera County. The choice for Mandera is that it lags behind all other counties in terms of progress made in preventing maternal mortality. Mandera County was

purposively selected due to its high maternal mortality which estimated at 3795/100,000 seven times higher than the national average of 488/100,000 (UNFPA, 2015; AFIDEP, 2022). Mandera County is one of 15 counties that account for over 60% of maternal deaths in Kenya and remains the highest in the country (AFIDEP, 2022). The County has the lowest utilisation of skilled delivery in Kenya which is estimated at 38% (KDHS, 2014), despite implementation of free maternity delivery policy. There are 57 health facilities that provide skilled delivery services distributed within the 6 sub-counties and the staffing level is estimated below 10%. The county has 6 sub-counties which double as constituencies they include Mandera East, Mandera South, Mandera West, Lafey, Banissa and Mandera North.

3.4 Study Population

This study encompassed three main population cohorts of participants namely: women (lactating and pregnant at the time of the fieldwork); the health workers implementing the FMDP and the health administrators at each of the sampled public health facilities. The study population was for the first cohort was 38,978 women who had delivered a baby at least within the past one year prior to the study or were pregnant during the time of fieldwork of the study (2020) (Mandera County Government, 2020). The second cohort - health workers who were implementing free maternity delivery policy were also part of the population. The total number of health workers who were dealing with maternal health services was 150 (*Ibid*).The health workers include nurses, doctors, health administrations, or social workers and many more sub-categories attached to health facilities. For this study, the study targeted largely rural-based health facilities, where the health workers were mainly the nurses, the clinical officers, and the social workers (community health extension workers [CHEWs]) and community health volunteers (CHVs). Sampling of each of these sub-cohorts are described into detail in section 3.6.

3.5 Sample Size Determination

This study applied Cochran's (1977) formula to calculate sample size for a design with relative desired precision of +or-5, t estimated at 95% confidence interval with value of 1.96, expected prevalence of deliveries is 38% and q of 1-p. The sample size calculated was multiplied by a factor called the design effect to account for the heterogeneity between clusters with regard to the measured indicator. This study adopted 1.5 as the design effect, considering that the prevalence of skilled delivery is not very different, however, can be fairly heterogeneous (see Henry, 1990)

The formula is n= $\left(\frac{t^2 \times p \times q}{d^2}\right) DEFF$

Therefore, $\left(\frac{1.96^2 \times 38 \times 1-38}{5^2}\right) 1.5 = \left(\frac{3.84 \times 38 \times 37}{25}\right) 1.5 = 323.9$

After calculating the sample size by substituting the numbers into the formula, the numbers of sample was 324 mothers from 324 households. In order to obtain reliable data and cater for non-response, the researcher increased sample size by 5% imagining the non-response of 5%. Therefore the sample size is 340.2 rounded to 340 (see e.g., National Research Council, 2013).For health workers, 45% who are from the sampled clusters were interviewed this 45% is way above Mugenda & Mugenda (2013) provision that for a population that is finite, less 10, 000, a sample size between 10% - 30% is enough for generalization. The total numbers of health workers who are dealing with maternal health services as implementers are 150. Therefore 67 health workers were surveyed within the health workers cohort. The procedure for the selection within the health workers cohort is elaborated in 3.6 below.

3.6 Sampling Procedures

The study adopted multistage sampling design which involved different techniques at different levels – including, simple random sampling, systematic sampling and proportionate techniques will be explained in detail under this sub-section. Kothari (2004) describes multi-stage sampling comprehensively as follows:

> *This is a further development of the idea of cluster sampling. This technique is meant for big inquiries extending to a considerably large geographical area like an entire country. Under multi-stage sampling the first stage may be to select large primary sampling units such as states, then districts, then towns and finally certain families within towns. If the technique of random-sampling is applied at all stages, the sampling procedure is described as multi-stage random sampling(p. 16).*

This sampling design was befitting of this study because a county is such a huge site and hence reaching to the final target population requires sampling at various stages. These stages in this study included the administrative areas. Hence, multi-stage sampling in this study involved selecting the county (this was informed by the worrying characteristics of the county in terms of maternal health – or safe motherhood aspects despite the existence of the FMDP). Hence selection of Mandera involved analysis and comparison of national-level data on safe motherhood and skills deliveries in formal health facilities (data for Mandera shown above in section 3.2). Upon settling on Mandera County, the next stage was the selection of sub-counties which are the immediate administrative units after the counties in the current devolved set-up.

The study then divided the county along 6 sub-counties which are, Mandera North, Mandera West, Mandera East, Mandera South, Lafey and Banissa and 3 sub-counties were randomly selected through a lottery process and these included: Mandera East, Mandera West and Mandera South. Moreover, choosing three out of 6 sub-counties was informed by the fact that all the counties have a rural-element and host a rural health facility, hence exhibited the minimum requirement for drawing study participant hence were accorded equal chances to be chosen. After the selection of the sub-counties, the researcher listed all locations in each sub-county and assigned them a number after which through a lottery process three locations from each sub-county were chosen (a total of 9 locations). This was followed by the selection of a rural health facility from each of these locations. The process of selecting the health facilities was again a simple random process which involved a lottery process whereby all the public health facilities in each of the randomly chosen locations were listed in a piece of paper, shuffled and one randomly selected – giving equal chances to all the listed facilities.

Upon successful selection a health facility, the households within the proximity, about 1km, of each of the chosen facilities were selected through systematic sampling with the sampling interval being 35 (that is after every household surveyed 35 households were skipped the next survey). There was no predetermined list, but the researcher, upon identification of the study area randomly conducted the surveys. Both lactating and pregnant women were identified and interviewed. In case eligible respondent was not found the researcher moved to the next household until the required sample is achieved. The questionnaires were administered proportionately which means the researcher calculated the population in each of the levels/stages of sampling and proportionately spread the number of questionnaires to be filled within the coverage of each health facility. The table below summarizes the multi-stage sampling process and the proportionate sample sizes for the greatest cohort of this study – the pregnant and lactating mothers.

Table 3.1: Multi-stage Sampling Procedure

	Population	**Health facilities**	**Pregnant and lactating mothers (3.8%)**	**Sampled households**
Mandera South sub county				
Wargadud	30399	Wargadud HC,	1155	33
Elwak north	27347	Elwak SCH,	1039	30
Shimpir fatuma	44274	Shimpirfatuma HC,	1682	48
Mandera East sub county				
Khalaliyo	20580	Khalaliyo dispensary,	782	22
Neboi	52612	Neboi dispensary,	1999	57
Township	35080	county referral hosp,	1333	38
Mandera West sub county				
Takaba	33542	Takaba SCH,	1275	36
Dandu	37494	Dandu HC,	1425	41
Gither	33271	Gither Disp,	1264	35
TOTAL			**11,954**	**340**

Other than the selection of lactating and pregnant mothers (which was just but one of the population cohorts), the study also involved health workers. Based on information available to the researcher at the time of the research from official government data at the County Information Systems (Madera County Government, 2020) there were 150 health workers serving at the 9 randomly selected health facilities. The research decided to survey almost half of this number (67) which translates to 45% (still way beyond 10-30% provision by Mugenda & Mugenda (2013) for a finite/below 10,000). The number 67 was spread across the 9 facilities and across the four main formations of public health workers – nurses, clinical officers, and CHEWs and CHVs. The surveys from each of this sub-cohorts of health workers was done proportionately using simple random sampling retrieving a list of the sub-cohorts of the health workers based on the numbers at each of the health centers as summarized in the table below and randomly selecting participants into the study.

Table 3.2: Sampling Procedures for the Health Workers

	Population	Health facilities	HEALTH WORKERS		Sample Size
Mandera South sub county					
Wargadud	30399	Wargadud HC,	Nurses	3	1
			Community Health Extension Workers	5	2
			Community Health Volunteers	9	4
			Clinical Officers	1	1
Elwak north	27347	Elwak SCH,	Nurses	2	1
			Community Health Extension Workers	4	1
			Community Health Volunteers	10	5
			Clinical Officers	1	1
Shimpir fatuma	44274	Shimpirfatuma HC,	Nurses	1	1
			Community Health Extension Workers	3	1
			Community Health Volunteers	8	4
			Clinical Officers	2	1
Mandera East sub county					
Khalaliyo	20580	Khalaliyo dispensary,	Nurses	2	1
			Community Health Extension Workers	3	1
			Community Health Volunteers	8	4
			Clinical Officers	2	1
Neboi	52612	Neboi dispensary,	Nurses	2	1
			Community Health Extension Workers	4	1
			Community Health	10	5

			Volunteers		
			Clinical Officers	1	1
Township	35080	County referral hosp,	Nurses	12	1
			Community Health Extension Workers	6	3
			Community Health Volunteers	14	8
			Clinical Officers	6	2
Mandera West sub county					
Takaba	33542	Takaba SCH,	Nurses	2	1
			Community Health Extension Workers	2	1
			Community Health Volunteers	4	2
			Clinical Officers	1	1
Dandu	37494	Dandu HC,	Nurses	2	1
			Community Health Extension Workers	2	1
			Community Health Volunteers	5	2
			Clinical Officers	1	1
Gither	33271	Gither Disp,	Nurses	1	1
			Community Health Extension Workers	3	1
			Community Health Volunteers	6	2
			Clinical Officers	1	1
TOTAL				150	67

Concerning the last population cohort for this study – the in-charges of the public health facilities, the selection procedures involved purposive sampling. Kothari (2004) argues that for qualitative or interview research it is imperative for the researcher to know priori whether the

participants will be fit to give the expected data and make a judgment based on this consideration. This study therefore involved recruiting the health-in-charges deemed by the researcher to possess the requisite information as set out in the study key informant interview schedule. 9 of the health in-charges were recruited into the study from each of the nine public health facilities and served as key informants in this study, answering to questions related to policy implementation dynamics; hence adding value to the notions and perceptions of the lactating and pregnant mothers from an informed/implementers perspectives and setting the stage of data triangulation, and consequently nuanced analysis and discussions.

3.7 Data Collection Methods

The study utilized both qualitative and quantitative methods of data collection. Primary data was collected by use of structured household and health workers questionnaires, in-depth interview schedules for facility in-charges at health facility level, and focus group discussions. The study also collected secondary data on deliveries and maternal mortality from the facility by reviewing facility records and district health information dashboard that house health information records. The secondary data was important in giving information for objective two and three which focused on influence of utilisation of free maternity policy and the trends in utilisation of free maternity policy.

3.7.1 Structured Questionnaires

Kothari (2004) identifies two types of questionnaires: closed or structured or open ended which can be semi-or-non structured questionnaire. The structured questionnaire is best fitted for a study which is uses mixed methods hence the researcher loses nothing by closing all questions since he will still have the opportunity to collect qualitative data (QUAL) using interviews. The same is true in fully quantitative studies where some questions can be opened so has to get into understanding the quality aspects of the questions (Ibid). This is why this technique was utilized in this study. Benign a mixed methods study, the study opted to close all the questions in the questionnaire (see appendices 3 and 4).

The questionnaire collected information about the respondents as well as the information pertaining to the objectives of the study. The data included demographic characteristics (age, occupation, marital status, income), factors affecting implementation of free maternity services (reasons for not using public health facilities during delivery, who attended to delivery, attitudes of the health workers, reasons for using health facilities during delivery, accessibility, any

charges paid, reasons for payment, information sharing, availability of amenities such as water, sanitation at the facilities, satisfaction with workers attitudes, free maternity services received), factors affecting utilisation of free maternity delivery policy (utilisation of skilled delivery, reasons using or not using public health facilities during deliveries), trends in utilisation of free delivery policy.

Two sets of questionnaires tools were utilized in this study. Set one was administered to the lactating and pregnant women (340 participants) and the second to the health workers (67 participants). The data of each questionnaire was conducted separately by the emerging findings were corroborated and triangulation enabled jointly interpretation of the findings.

3.7.2 Key Informant Interviews

Key informant interviews are a key part of the techniques employed in gathering qualitative data. According to Babbie (2008) to understand the nuances around statistical summaries, and to corroborate data from project beneficiaries with policy-level/relevant information, key informant interviews come in handy. For this matter, this study undertook in-depth interview for key informants with 9 health facilities in-charges within the 9 locations and respective health facilities. The key informants targeted were the in-charges of health facilities. The main purpose of key informant interview was to collect information on health facility, trends in skilled delivery (number of deliveries during fee exemption phase, has deliveries increased, quality of services, maternal deaths), factors affecting implementation of free maternity policy(how it was introduced, perceptions about process of introduction of FMP, role of facility in implementing FMP, opinion on infrastructures after implementation of FMP, factors limiting provisions of free delivery at the facility), challenges in implementation of FMP(services affected by FMP, funding mechanisms of FMP, financial requirement of the facility and remittance of FMP fund, challenges noticed). To achieve the aim of this method, a key informant schedule tool was utilized (see appendix 6).

3.7.3 Focus Group Discussions

Lastly, the study further utilized FGDs. According to Kothari (2004) focus group discussions provide an opportunity for a sub-group in a scientific study to ventilate in a conversational mode issues raised by a researcher. The researcher gains from this method since its value lies in the opportunity to notice whether participants affected by the problem under study have agreement or not, and to explore themes that emerge beyond those already suggested from data collection

methods which are undertake in a one-on-one mode. To gain more insights and to unpack new themes, three focus group discussions were conducted. One FGD was conducted from each sub-county targeting women who gave birth during the free maternity period to get salient issues that may not have been covered by others tools. The focus group discussions were intended to clarify subjective issues within the findings of the quantitative part of the study and to benefit from the group interactions in getting further insight on the socio-cultural issues that impinge on free maternity services. The principal investigator, who is a native resident of Mandera County, moderated the focus group discussions and the note taker was a local who was chosen from among the residents. The participants of each focus group were ranged between 6-8and the sessions were conducted in the local language, recoded using an audio recorder and later on transcribed for thematic content analysis. The sessions lasted about 1hour to 1 hour 3o minutes. Bring a Somali, like most women, the researcher was able to enjoy the natural rapport that results between tribesmen. Moreover, the researcher was able to create an enabling environment and hence his gender was used to the advantage of creating a very enabling environment rather than fear. Strategically, the note taker and an additional assistants were females, hence furthering a conversational environment during the FGDs.

3.7.4 Desk Top Review

The study reviewed health facility records and district health information dashboard using a checklist at the level of local health institutions to get number of deliveries since inceptions of free maternity delivery policy. Kenya started a process of replacing the information system for health currently in use to swap it with the free and open-source, District Health Information Software (DHIS2) which is web-based in 2010. Afterwards, DHIS2 was approved and its deployment in all of the country's 8 regions (now the 47 counties in the decentralised structure of government) was concluded by December 2011. The DHIS2 system has been in use actively all over the nation (Karuri et al., 2014). The purpose of desktop review was to collect information on the trends in utilisation of delivery services since inceptions of FMP. Data on number of deliveries, maternal deaths, and other related indicators was collected.

3.8 Data Analysis Methods

The study used both descriptive and inferential statistics to analyse the findings. Quantitative data was analysed using statistical packages for social sciences version 20. The specific techniques employed for analyzing data for each objective depended on the resulting information

from the research. The study descriptively analyzed data at objective 2and 3 through tables, charts and percentages. The study also conducted inferential analysis for objectives 1, 2 and 3. Further, a regression analysis was conducted for objective 2 and 3. A correlation analysis for objective 2 was also conducted. Qualitative data was analysed using thematic content analyses and themes was developed for key Informants and focus group discussions for all the objectives.

3.9 Validity of the Instrument

Both Kothari (2004) and Babbie (2008) stresses that validity is an essential criterion for evaluating the quality and acceptability of research. To ensure validity, this study would use different instruments to collect data. On the whole, the following miscellaneous procedures were used to validate the instruments and the data of this study.

3.9.1 Content Validity

Content validity is related to a type of validity in which different elements, skills and behaviours are adequately and effectively measured. To this end, this study subjected its data collection instrument to expert review. These experts are research supervisors from the school of strategic studies, Maseno University.

3.9.2 Internal Validity

This study will apply the following methods recommended by Babbie (2008): triangulation, supervisor's checks, and peer examination. In order to strengthen the validity of evaluation data and findings, the study collected data through several sources that include; household questionnaires, in-depth interviews, review of records. The study data and findings was reviewed and commented by study supervisors who are experienced experts.

3.9.3 External Validity

To enhance external validity, Kothari (2004) puts emphasis on the research design and states that "Is the research design such that we can generalise beyond the subjects under investigation to a wider population?" therefore this study adopted a study design that derive study sample from the whole population. The sample was representative in nature so that the results can be generalized to the study population and the wider population that is for external populations as representative by the three major cohorts of population in this study: pregnant and lactating mothers; health workers; and health administrators – in-charges.

3.10 Reliability of the Instrument

Reliability deals with the consistency, dependability and replicability of the results obtained from a piece of research (Mohajan, 2017). By and large, Creswell and Miller (2000) suggest that the dependability of the results can be ensured through the use of three techniques: the investigator's position, triangulation and finally audit trial. The study used different procedures such as questionnaires, interviews and focus group discussions, and document analysis to collect data; and also different techniques: thematic content analysis, inferential statistics, and document analysis to analyze the data collected. The data from different sets of population, analyzed in different ways was later triangulated hence bridging gaps inherent in a single population cohort and a single method of collecting or analyzing data, leading to more reliability of the findings in the final analysis.

Also, the researcher conducted a pilot study in Wajir County to test the reliability of the data collection tools. This pilot was conducted in Wajir town. Specifically, Almaaraj Medical Center and Nursing Home where 5 health workers were interviewed for their opinion on the FMP. Further to this 10 lactating and 10 pregnant mothers who attend the children's clinic at Almaaraj Medical Center and Nursing Home were given the questionnaire to fill. Lastly, a group of five women in Wajir town were involved in a simulatory FGD that tested the viability of the FGD guide. This exercise was critical and led to adjustments in the data collection tools before the actual study. It also helped the researcher to conduct preliminary analysis of the data and also conduct several tests.

3.11 Ethical Considerations

The researcher obtained permit to execute this study from the National Commission of Science, Technology and Innovation at the Ministry of Education, Science and Technology. This was preceded with authorization from the Maseno University Ethics Review Committee. Also a letter of authorisation to conduct research was obtained from the School of Graduate Studies, Maseno University. The study protocol was presented to government officials in Mandera County for approval. The researcher asked for informed consent from the participants and their spouses before they participated in the study. Information gathered was treated with confidentiality and was only used in this study. The participants and the respondents were assured of their anonymity and to implement this none of the products of the study has in any way named participants explicitly with their names. FGDs, KIIs, and all other techniques used have been

coded for that matter. Data management is also an important aspect of ethics in scientific enquiry. The researcher created a lockable metallic box where he kept all the manual questionnaires, and all soft copy data were stored in a personal laptop and in a location with a special password. The soft copy was also backed-up in the clouds for safety in case of any loss.

CHAPTER FOUR

FACTORS THAT INFLUENCE IMPLEMENTATION OF FREE MATERNITY POLICY

4.1 Introduction

The purpose of this study was to evaluate free maternity delivery policy and its influence on safe motherhood in Mandera County. This chapter contains the data analysis section, presentation and the interpretation of data findings for Objective one. The data in this chapter is descriptively analyzed using frequencies and percentages. This mode of analysis and presentation was because the information collected from objective one was not that which could facilitate correlational and regression analysis (see Appendix 3 and 4). It further discusses the findings in light of the literature and theoretical framework. According to Donabedian SPO framework, Structure (S) is the contexts in which care is delivered which include hospital buildings, staff, financing, and equipment. Following this theoretical assertion, if follows that this objective is coined on analysis of data from the implementers of the FMDP, that is, the health workers. Following this logic, the objective targeted 67 health workers involved in the implementation of free maternity delivery policy in Mandera County. The findings reveal the perceptions of health workers on the manifestation of the factors influencing the implementation of the FMDP, hence it's ability to impact positively on safe motherhood. The Donabedian S-factors examined in this objective include: funding, funding, quality of care, morale of staff, effect of patient volume on quality of care, medical suppliers, frequency of supervision, reimbursement of used funds to health facilities, influence on maternal morbidity and mortality.

4.2 Gender of Health Workers

The study sought to understand the gender of health workers.

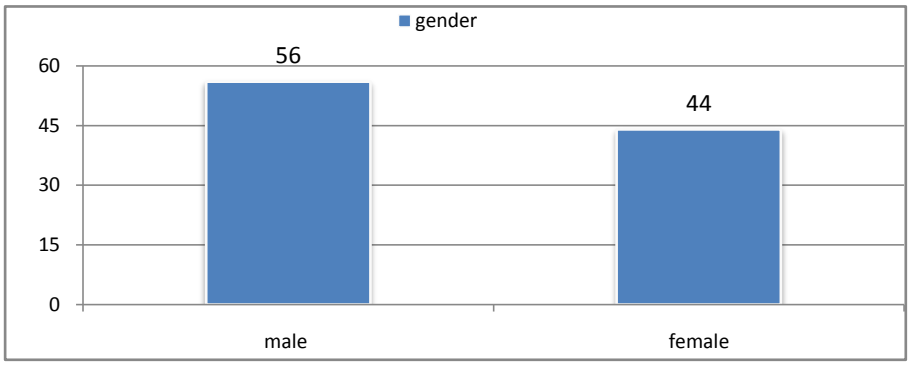

Figure 4.1: Gender of Health Workers

Among the 67 health workers who participated in this study, 56% of them were male health workers while 44% of them were female health workers. This is reflective of a study conducted by MONDKAL and Intra Health International (2012) which found out that majority of health workers in Northern Kenya were male. The study showed that 63% of the workforce were male compared to female staff who formed just 35% of workforce across all cadres. This shows a disparity in workforce staffing by gender in the region which is a pattern that has not changed since it was noted in a 2012 study. Though this was beyond the scope of this study, it is an issue which could require inquiry into by future studies. Moreover, in a context like Mandera County where female patients prefer to be treated by fellow females due to cultural understandings of 'privacy' this is a key pointer to the gendered dimensions of staffing affecting access to safe motherhood.

4.3 Years Worked in Current Health Facility

The study also sought to establish the number of years a health worker has worked in their particular health facility. Findings are as shown below.

Figure 4.2: Number of Years Worked in Current Health Facility

In terms of the years a health worker has worked in their respective facility, of the 67 health workers who were surveyed, 35 (52%) had worked in that specific health facility below 5 years. This is the period in which the free maternity delivery policy was being implemented.On the other hand, 32 (48%) of health workers have worked in the period before and after the implementation of free maternity delivery policy. This means they were knowledgeable and understand the free maternity period as well as the pre-free delivery policy.

4.4 Funding for Free Maternity Policy

In terms of the free maternity funding, the researcher wanted to understand the respondent's opinion on the amount of funds disbursed by the government. Findings are as presented below.

Table 4.1: Adequacy of Funding for Free maternity delivery

	Frequency	Percentage
Strongly disagree	8	10.73
Disagree	15	22.7
Neither agree nor disagree	22	33.3
Agree	15	22.7
Strongly agree	7	10.7
Total	**67**	**100.0**

From table 4.1, 22.7% of respondents were of the opinion that free maternity delivery policy is inadequately funded by the government hence slow uptake leading to a lack of opportunity to

attain to safe motherhood amongst them. While the equal number of the respondents 22.7% agreed that free maternity delivery policy is adequately funded by the government. About 33.3% of the respondents neither agree nor disagree that, free maternity delivery policy is in adequately funded by the government while an equal number (about 10%) strongly agree and strongly disagree with the statement. This shows that only 10.7% feel that the FMDP has been accompanied by inadequate finding. This finding from questionnaires was corroborated by the results from the in-depth interviews from health in-charges. The interviews indicated that free maternity policy is inadequately funded as county health official in charge of health stated that:

> *free maternity is funded inadequately by the government, what we experienced the last 5 years, we have been conducting many deliveries and we have not been reimbursed, this is a challenge and this free maternity issue may not be sustainable (Health In-charge, ID-9).*

Further to the above, another participant in charge of a sub-county stated that:

> *Actually, basically we ask the mothers to buy most of the things. Supplies are out of stock and we are not replenishing because we don't have money, so it is wiser to tell them to pay and use that money instead (ourselves at facility level) so that we procure whatever we need at the facility. It could have been better than telling them the service free and (then) we are not providing it and the quality of service is not good quality services…. (Community Health Extension Worker, ID-6)*

Another participant further stated that:

> *…at the facility level, you don't receive what you requested. Accounts of some facilities especially dispensaries so it is hard for them to have contingencies or essential supplies, you would not complain to anybody, managers are appointed by the county bosses… the hospital management fund where you collect your revenue bank on a quarterly basis is no more, it is now a revenue base for the county… things are not working well…that is why we ask mothers to chip in, this is their health (Clinical Officer, ID-2)*

This finding resonates with Donabedian's view of structure which is the contexts in which care is delivered and which include hospital buildings, staff, financing, and equipment. Inadequate funding may affect the quality of care given. Funding will affect the staff and their morale. It will also mean that the resultant is inadequate equipment is available for quality healthcare to be delivered. This finding from the interviews is in line with some of the literature particularly Witter et al. (2007) who undertook his study in Ghana and documented some of the challenges in the implementation of the policy. As per her study shortfalls and unpredictability of funding is a concern at all levels of the healthcare system. Funds are issued at the start of the financial year

with no proper guidance on how to calculate, how long they should last or when they would be replenished. Further to this confusion, she documents that funds were not adequate for a full year and further installments expected are never received until the next financial year.

Another study by Masaba and Mmusi-Phetoe (2020) found that free maternal services have increased utilisation of skilled birth attendants. The study however notes that there are funding issues in the program and therefore, recommend allocation of more funds to the free maternity program. Further the study is also consistent with the study by Lee et al. (2009) which noted that, financial challenge is one of the impediments to successful implementation of free maternal policy.

4.5 Quality of care and its impacts on implementation and utilisation of free maternity

Quality of care is a key component of the structural (S) of a successful implementation of a health policy. For this study is also an important aspect safe motherhood, as the safety of the new born and the mother are both in question.

The study revealed that majority of the respondents,61.3% agree that poor quality services has impacted on the utilisation of free maternity delivery services, while 18.6% of the respondents disagreed that poor quality service has impacted on utilisation of free maternity delivery policy. About 20% of the respondents neither agreed nor disagreed. These findings show that poor quality of health care in the facilities plays a major role in hindering access to safe motherhood a the Donabedian structural (S) level. Poor quality is a factor of the work load on personnel as well as the conditions in the facilities which are mostly serving a high number of clienteles.

This finding was corroborated by the result of the in-depth interview where a participant stated that:

> *When the financial barrier on skilled delivery was removed, many people clogged the facilities so the health workers were overwhelmed and burnout, hence quality of care was compromised so some mothers felt it wise not to utilise the service, they said they'd rather pay and get that quality service. I am sure if there is provision of quality-of-care utilisation would be more than the current status (Facility In-charge, ID-3).*

Another participant stated that:

> *Because the workload has increased because of the free maternity but the same nurses and health workers are working in the same facility, so even the quality of care is reduced. Is this the objective of implementing free maternity policy. I doubt myself (Nurse-ID 4).*

This also relates to Donabedian's view on structure and particularly on the issue of staff. With a staff that has a heavy workload, the quality of care will definitely be affected. This finding is similar to findings of Witter et al. (2009) who noted that among other issues, attention should be paid towards improving quality of health care. Their finding showed that quality of healthcare was in a poor state; therefore, need to improve its state. Additionally, Masaba and Mmusi-Phetoe (2020) noted that the perceived low quality of health care is a major barrier to the utilization of maternal health services. The low-quality leads to delay for women in deciding to seek healthcare. Lastly, Gitobu, Gichangi, and Mwanda (2018) found out that low quality delivery services in health facilities contribute to low utilization. This shows that number of patients utilizing health facilities is highly reliant on the quality of services offered by the health facility.

4.6 Morale of health workers

From table 4.2 below, 29.3% of the respondents (had an unfavorable opinion)/ at least disagreed that low morale of the health workers has hindered the implementation of free maternity delivery policy, implying about 30 thought moral was not a hindrance for implementation of the FMDP. However, 21.3% still had an unfavorable opinion that is indicated that low morale among the staffs is a hindrance to the implementation of free maternity delivery. Yet still, a whooping, almost half of the sample (49.3%) neither agree nor disagree signifies that most respondents could not correlate low morale and implementation of FMP.

Table 4.2: Morale among health workers hinders implementation of FMP

	Frequency	**Percentage**
Strongly disagree	6	9.3
Disagree	13	20
Neither agree nor disagree	33	49.3
Agree	11	16
Strongly agree	4	5.3
Total	**67**	**100.0**

This finding is corroborated by the results from in-depth interviews conducted by the researcher. For instance, one participant stated that:

> *…I think staff morale plays an important role in provision and implementation of this free maternity thing…. If you provide free service and the staffs who were supposed to implement it have no right attitude, or is a motivated one to provide the services for you. So the morale of the staffs should be streamlined so that they provide quality of care and implement the policy as per its objectives. (Facility in-charge, ID-9)*

> *Free maternity policy gives so much to patients but situation of health workers is not good. Therefore, the gains cannot be much. Health workers are still paid peanuts and no incentive is added to them. Their dedication is not 100% and so the free maternity is not giving its maximum output which is could have achieved if staff were motivated (Nurse, ID-7)*

The above resonates with Donabedian's model which places structure and the question of staff as an important aspect of quality delivery. When staff, are for example, underpaid they may not have the incentive to deliver their best. As stated in the interview above their dedication will not be 100 per cent. This finding is consistent with Wamalwa (2015) who conducted a cross sectional study on health workers to find out the challenges facing implementation of the free maternity policy. The study found that failure to boost workforce contributes to low motivation while implementing the policy which in turn reduces the morale and motivation of the workers. As per the study the lack of motivation among the workers in hospitals is the major challenge in implementing the free maternity policy in Kenya. Mwangi and Jonah (2017) also studied effects of free maternity on access and outcomes to maternal and newborn health. The study found that low morale among the staff is a hindrance to the free maternal healthcare programme. Lastly, KEMRI and Wellcome Trust (2017) through their report on improving free maternity services mention that one of the main challenges towards implementing free maternal services is increased client numbers which consequently increase staff workload, reduce their motivation and lead to burnouts.

Analysis of the qualitative findings from this study also showed that low morale of the health workers, high patient volume resulting from free service, shortages of medical supplies and equipment because of high patients' volume are some of the factors that hindered the implementation of free maternity delivery policy in Mandera. These findings are consistent with the findings from a study by Hercot, Meessen, Ridde and Gilson(2011) which went further to give relevant recommendations that for proper implementation of free maternity services,

accompanying measures for staffs (incentives, training) and for strengthening the health system in general (equipment, infrastructure, and management) should be put in place. Further the findings are also in agreement with Donabedian's theory on which this study is anchored. Donabedian argues that structure (which includes the contexts in which care is delivered which - hospital buildings, staff, financing, and equipment) is important in arriving at quality healthcare.

4.7 Patient Volume and Quality of Free delivery

This study established that majority of the respondents (60%) had an unfavorable opinion - agree that patient volume which result from free service is affecting the quality of service. This is indicative of the increase in utilisation of maternity service. About 20% of the respondents had a favourable opinion - don't agree that high patient volume affect the quality of care. These findings are indicative of earlier assertions made by respondents. The high numbers of patients overstretch health care facilities capacity and many may be operating above recommended capacity. Therefore, it is expected that quality of services reduces as facilities may not be adequately equipped to serve the high numbers of patients coming to benefit from FMP.

Table 4.3: Health Workers Perceptions on Patient volumes impact on quality Safe motherhood

	Frequency	Percentage
Strongly disagree	8	12.0
Disagree	5	8.0
Neither agree nor disagree	13	20.0
Agree	13	20.0
Strongly agree	28	40.0
Total	**67**	**100.0**

The above findings are corroborated by qualitative findings that showed there was a considerable increase in patients by most health facilities. This led to patients flooding facilities that were not improved to handle large number of patients as indicated by one respondent who argued that:

> *...we experienced a huge increase in patients but resources to our facilities were still overstretched. Therefore, quality of service was not good especially when we lacked equipment and other necessities used in service delivery (Community Health Volunteer, ID-2)*

Similar conclusions were made by Tama et al., (2018) who concluded that while FMP had improved access to services with more pregnant women delivering in health care facilities, there

were no steps taken to increase the facilities' capacity to enable adequate handling of increased clients. This resulted to low standard services from health facilities and therefore in agreement with Donabedian's theory which emphasized context around which care is delivered. Further evidence for the increased volume of patients is also captured by other studies for instance Lang'at, Mwanri and Temmerman (2019) who showed that there was a significant and sustained in-crease in antenatal care visits, live births and health facility deliveries. Additionally, a significant increase in number of women receiving Emergency Obstetric Care services at level 3, level 4 and level 5 health facilities was noted. According to the study after two years of the implementation of FMS policy, there was an immediate increase and sustained utilization of skilled care for pregnancy and childbirth. This bourgeoning of clientele affected the access and quality of maternal care in the healthcare facilities.

4.8 Shortage of Medical supplies and equipment and quality of free maternal care

Medical supplies is also a structural determinant for implementing a health policy such as the FMDP. This study reveals important findings into how and why. The study established that majority of the respondents 58.6% agree that there is a shortage of supplies and equipment because of high patient volume. This has affected quality of free maternal care. However, 20 26.6% disagreed with this conclusion while 14.7% neither agree nor disagree.

These results are corroborated by results from the in-depth interviews. One respondent who opposed stated that:

> *It is not just a matter of not paying. People are not paying yes but if there no beds to deliver or supplies and there are not privacy I may not use this service. It is good to be realistic. Most of the supplies are out of stock we don't have money to procure them ourselves (Clinical Officer, ID-10).*

> *There are few structures in the facilities to take care of patients now. We also receive supplies after long periods so most times we are trying to ration and make sure supplies take long because restocking is really slow from government (Nurse, ID-7).*

Donabedian's theory emphasizes structure which speaks to the above findings where the study found out that there was shortage of medical supplies and equipment. And, this was bound to impact on the quality of delivery. This finding is in line with findings of various studies. For instance, Thaddeus and Maine (1994), Griffiths and Stephenson (2001), and also Bourbonnais (2013)all suggested that the implementation of free maternal healthcare services is influenced by a host of factors such as hospital infrastructure which includes ward spaces, delivery coach, infant incubators, and ultra sound, theatre, laboratory and ambulance services. These are the very

equipment that improve the quality of healthcare and make implementation of healthcare effective. KEMRI and Welcome Trust (2017) also point out that the current limited capacity and increased use of healthcare facilities has compromised quality of care.

4.9 Frequency of Supervision due to High Work Load

With fee exemption for deliver comes another issue, supervision of delivery. This study inquired into the effect of the policy on this matter. It found that majority of the respondents 58.7% agreed that supervision is done infrequently due to high workload, hence that may have compromised the quality of service provided under free maternity delivery policy. Around 26.6% of the respondents disagreed while 14.7% neither agreed nor disagreed. From this finding it is evident that high workload by supervisors contributes to infrequent supervision and therefore health workers end up being lax. This has affected service delivery as supervision visits are far and wide between. This finding is reflective of human resources *vis-a-vis* amount of work. Most health facilities have a high patient capacity compared to available health personnel.

Table 4.4: Supervision is done infrequently due to high workload

	Frequency	Percentage
Strongly disagree	9	13.3
Disagree	9	13.3
Neither agree nor disagree	10	14.7
Agree	29	44.0
Strongly agree	10	14.7
Total	**67**	**100.0**

This finding is similar to findings of Wamalwa (2015) who found out that staff recommended there should be an increase in personnel involved in implementation, training opportunities should be availed to enhance skills and there should be improves supervision from the management. The study concluded that to mitigate the challenges in implementation of free maternity policy, supportive supervision should be provided to the healthcare workers.

4.10 Re-imbursement time of FMF funds

About 58.6% of the respondents stated that reimbursement of free maternity fund to the hospitals is not done on time which has compromised the implementation of the policy while 13.3% of the respondents disagreed with them.

This finding was corroborated by the findings from in-depth interviews as noted by one participant who stated that:

> *There was no understanding of the maternal services that were affected by the policy and some places are charging for laboratory services and actually some facilities are charging fees for deliveries. The policy has classified the services well. Some facilities are complaining that the government is not reimbursing promptly. (Nurse, ID-3).*

Another participant stated that:

> *…before devolution we use to have the capacity to budget and spend facility improvements fund, but know, procurement is done from the county and the hospital no longer have a hospital account. And there are no direct remittance to the facility from the government. This is a problem, free maternity envisage a situation where the government remits to the facilities so that they use the fund the run the facility (Clinical Officer, ID-8).*

This finding is consistent with literature by Impact International (2018) which reported that implementation of the free maternity policy did not apply a system of standardised charging and failure of prompt and adequate reimbursement to the clinical facilities led to near failure of the policy. This speaks to the question of context which Donabedian's theory points out by saying that success of delivery will highly depend on context. In this case the lack of consistency is bound to affect delivery. This is consistent with the findings of Witter et al. (2007) who opined that the failure to reimburse adequately and promptly had negative effects at all levels of the system. This was accurately noted by Tama et al., (2018) who noted that reimbursements were not made on time. Further, they did not commensurate the deliveries conducted at the health facilities. The inconsistent and unpredictable payments hardened the planning process for implementing free maternity for most facilities. Another study by Pyone, Smith & van den Broek (2017) that interviewed respondents at all the levels of the health system showed that there were inefficiencies in the reimbursement process. There were delays in receiving disbursements and the funds received were insufficient.

4.11 Effects of free maternity on maternal morbidity and mortality

Majority of the respondents 72.0% when asked to what extent free maternity delivery policy has affected maternal diseases and deaths, stated that free maternity has affected maternal diseases and deaths positively to a large extent. This indicates FMP has had positive effects and that mothers were utilising skilled delivery more in this period of free policy. However, 13.3% of them stated that the policy has affected the deaths and diseases to a very small extent.

This finding was verified by the results of the in-depth interview where a participant stated that:

> *"We have so many mothers, it (the FMP) is a good policy, however, they need to increase the number of personnel to take care of these people because it can be overwhelming. Otherwise it is a political scam" (Nurse, ID-7).*

This positive finding, however, must be put side-by-side along other findings on implementation. It is important to explain here that while the numbers show good progress, quality of care is not as yet achieved, a this depends not just on the quantitative increases, but largely as to whether women being attended are able to access quality and timely and regular/predictable attention with their health needs during maternity period, and early months (first one year) of their deliveries.

Another participant stated that:

> *"Free maternity has increased the number of patients for us and human resource is a challenge. It means the demands are higher but the staff they are low" (Health worker, ID-6).*

The challenge of human resource relates to context in Donabedian's view which will definitely interfere with delivery. This finding is similar to findings of Gitobu, Gichangi, and Mwanda (2018) that showed that there is a statistically significant increase in facility-based delivery service utilization.

4.12 Summary of the Chapter

This chapter of the thesis presented the findings of the study from data gathered from objective one of the study. The findings were primarily based the responses from 67 health workers – nurses, clinical officers, community health extension workers and community health volunteers attached to the nine public health facilities across the Mandera County. The chapter examined S-factors in the Donabedian SPO framework. The findings of the

chapter basically showcase health workers perceptions on factors affecting implementation of the FMDP. The findings of the chapter can be summarized as follows.

Regarding staff, the study revealed that in terms of gender there is an imbalance with more male than female health staff. Specifically, 56% were male and 44 were female. This is factor concerned with implementation of the FMDP in a place like Mandera because the cultural and religious issues teaches that female patients should be strictly handled by their female counterparts as the health attendants. Concerning funding, 10.7% only 10.7% think that the policy has been accompanied by adequate funding, the rest perceive the finding as inadequate. This points to the greatest challenge perhaps facing the policy and the attainment of safe motherhood, as almost everything else about the structural issues depend on the variable of funding. Additionally, on the issue of quality, a majority of 61.3 thought that the policy has hampered quality due to such factors such as overcrowding due to non-pay by the patients. How on staff morale, about half of the respondents (49.3%) thought had a moderate opinion with only 21.3% agreeing that the moral of the staff determined the implementation of the policy hence, had a role to play in achieving safe motherhood. Concerning medical suppliers, more than half of the health workers showed that fee exemption for deliveries has negatively impacted on medical suppliers with late, irregular and less supplies being the norm something which most of the health workers felt was not common before the FMDP was implemented.

Concerning the Government's re-imbursement of funds used for free deliver back to the facilities, 58.6% of the health workers showed that this is not done in time, and do not only affect the policy but also other health operations at the facilities, including buying of basic medication. On the positive side, however, the study revealed that 72% of the study respondents agreed that the FMDP had reduced maternal diseases and mortality and was one of the best innovations in the health sector. Hence most of the respondents felt that the policy is good and would really lead to safe motherhood if the implementation factors were handled.

CHAPTER FIVE

FACTORS THAT INFLUENCE UTILISATION OF FREE MATERNITY POLICY FOR ATTAINMENT OF SAFE MOTHERHOOD

5.1 Introduction

This study evaluated the free maternity delivery policy and its impact on safe motherhood in Mandera County. This chapter focuses on the factors that influence the utilization of free maternity policy on skilled delivery. The unit of analysis was households from which the mother (unit of observation) were drawn. It also gives an overview of the respondent's demographic data. The respondents in this chapter were the mothers – lactating or at least into motherhood at the time of the field work. Their responses are relevant in understanding utilization because in Donabedian framework, process (P) relates to utility of the health program which can best be understand and studied from the angle of the utilizers themselves, in this case the mothers. The chapter analyses data descriptively using tables, charts, frequencies and percentages. Inferential analysis to determine the factors associated with the place of delivery as experienced by the policy primary target beneficiaries' is presented and discussed. Further, a correlation was conducted to measure the satisfaction levels of respondents against attendance by skilled persons during delivery. This is presented and discussed. Lastly, the chapter analyses, interprets the data and further discusses the findings in light of the literature as well as the aspect of theory that focus on this issue. In particular, and, in line with Donabedian's theory, the study operationalized process as the factors that influence utilization of free maternity delivery policy (role of mothers in utilizing the policy, social cultural and economic factors; the extent to which they perceived that they were provided with information pertaining to the policy, distance of health facilities and other factors that influence utilisation of free maternity delivery policy.

5.2 Demographic information

Demographic information comprised of; age of the respondents, marital status, level of education, occupation of the respondents and average house hold monthly income. This information was collected to find out the characteristics of the female population[1] in Mandera County. It was also collected to determine whether the respondents' demographic characteristics relate to the utilisation of the free maternal delivery policy.

[1]Mothers with children below 1 year and those pregnant at the time of fieldwork.

5.2.1 Respondent Age

In terms of the respondents' age, the data collected revealed that 62% of the respondents were of the age between 21-36 years indicating that majority of the respondents were in their most reproductive age, while 39% were of age 37 and above years. This indicates that most women in the study were within their most reproductive age and likely experienced the policy intervention being investigated in this study.

5.2.2 Marital Status

Marital status is an important socio-demographic factor is a social enquiry especially in the developing country context as it denotes an important cultural factor as regards gender roles and thus can speak volumes in terms women experiences with a given social policy intervention. This study found that most of the respondents (81.5%) were married women while 13.6% and 4.8% were widowed and divorced respectively. This finding is reflective of the Somali community, which is majorly Muslim and are the majority of respondents in the study. Most women are married early and most tend to stay in their marriages unless grave or serious reasons inhibit this. Further the levels of divorce are extremely low therefore, very few are divorced. This socio-demographic finding is thus consistent with the natural expectation in the social context in which the study was conducted, thus showing a level of reliability with study outcome.

5.2.3 Respondent Level of Education

Regarding the level of education, most of the respondents 57.7%) who were interviewed had no formal education at all. The rest had gone up to primary26.1% secondary school 11.9% and those who have attained college/university level were only 4.3%. This finding generally shows that people in Mandera County have low levels of education hence the low literacy rates reported in the county. Further evidence to support this is corroborated with what is the Mandera County Integrated Development Plan CIDP (2019) that shows the Net Enrollment Ratio (NER) where both the primary and secondary NER are very low compared to the national rate particularly for females. This, as a result, may affect utilization and in line with Donabedian's view of process, especially if the framework of analysis is expanded to involve the nexus between culture, education and uptake of policy intervention such as the FMDP. The low levels of education may result in lack of appreciation of the free delivery policy and the benefits of professionalized care and with such attitude low, utilization.

Table 5.1: Highest Level of Education

Education Category	Frequency	Percentage
None	196	57.7
Primary school	88	26.1
Secondary School	40	11.9
College and universities	14	4.3
Total	**340**	**100.0**

5.2.4 Occupation of the Respondents

Most of the respondents 71.3% were housewives with no independent income and economic decision making while 22.7% were businesswomen and 6.0% were workers or salaried who has some form of independent income and independency in economic decisions. This is in agreement with the Donabedian view that in terms of process the economic disposition of an individual may influence on whether they utilize the available quality care delivered or not. This finding is representative of the Somali people cultural and traditional order where women are regarded as home keepers and care givers while men are tasked with duties outside the house such as income generation. Their main role is mostly confined to the homestead and this explains the reason why most respondents in the study were housewives. The Somali community is also well known for its business prowess and this explains the relatively high levels of women in business. It is however noted that most of these businesses are flexible and allow for home keeping and child care.

Regarding the household monthly income of the respondents, most respondents income 65.9%, ranged between 8001 and 16000 Kshs classified within the poor and within the target group of the free maternity policy. About 22.7% and 11.4% ranged between 16001 to 32000 Kshs and more than 32000 Kshs respectively. From this data, it is evident that most of the households in Mandera County own small businesses in the urban and rural center. Hence most are categorized as poor therefore, the need for government support, safety nets and welfare such as the free maternity program.

5.2.5 Household Monthly Income

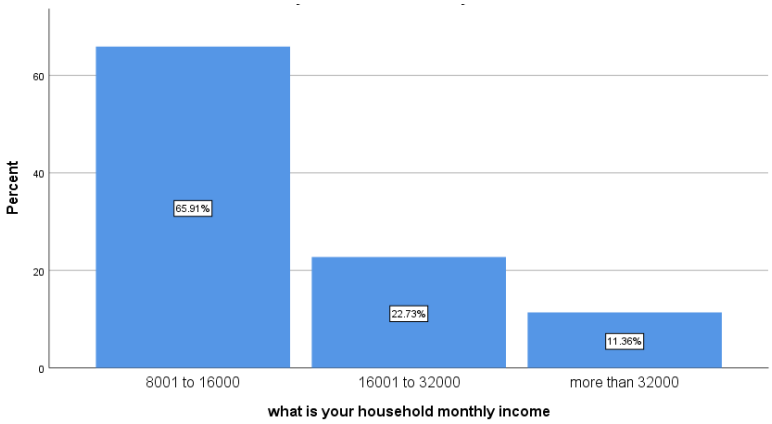

Figure 5.1: Average Household Monthly Income

Donabedian's theory cites factors that influence utilization of free maternity delivery policy such as social and cultural factors. In other words, the social status of a person in society may influence their utilization of the free maternity delivery policy. In order to understand how demographic characteristics, relate to free maternity services, the researcher conducted a cross tabulation of education against payment for maternity services.

From the cross-tab below, findings show that education may not be a major determinant on if one pays or doesn't pay for maternity services. However, the pattern shows that more educated women tend not to pay while less educated tend to pay. Also, more women of the less educated respondents did not pay compared to the less educated women who paid for maternal services as shown in the cross tabulation below. This could be interpreted that the social status, acquired through schooling, did not matter here. This conclusion may need further research and more advanced correlational analysis.

Table 5.2: Cross tabulation of Education against Payment for Maternity Services

Education	None	Primary	Secondary	Coll./University
Response				
Yes	34	12	5	5
No	75	30	15	8
Total	**105**	**42**	**20**	**13**

5.3 Factors Influencing Utilization of Free Maternity Policy by Pregnant and Lactating Mothers

The following are findings, analyses and discussions of the factors that influence utilization of the FMDP. These are the factors related to process according to Donabedian SPO framework.

5.3.1 Formal versus Traditional Birth Places

Regarding the health facilities visited for delivery or attendance (ANC) when pregnat, a majority of the respondents 184 (54%) delivered at public health facilities while almost half 46% of the respondents delivered at home or got attended by TBAs during their pregnancy time. Utilisation of skilled delivery is higher which may indicate that free delivery service has attracted mothers to give birth at the government health facilities. This is consistent with the finding in objective one whereby the health workers reported reduced maternal morbidity and mortality. However, 46% is such a huge number (almost half) and reflects the continued relevance of the traditional birth attendants (TBA) something which shows a major hindrance to utilization, but also need for more studies into this matter to understand the safety, and factors facilitating it.

This was corroborated by the results of the focus group discussion for women, as indicated by one participant who stated that:

> *Ok it is good to state that more people now come to the health centres for ANC and delivery because it is now free. As you can see the clinic is so full and I have to wait longer. It is getting harder to see women deliver at home or with TBAs. In the past women don't come to clinic because most of our people are poor, they cannot afford. You know if you sell a goat which is like 5000ksh still is not enough for the expense of delivery before (Pregnant Mother, FGD 1).*

This was also further verified qualitatively through focus group discussion, a participant in the third FGD stated that:

> *I gave birth to the child before this one at home with the help of a TBA, but I almost died from serious bleeding. In fact, at the end, I was rushed to the hospital and given blood that's how I survived. I also benefited from the free delivery service. I did not pay any fees for the service (Lactating Mother, FGD 3)*

However, another participant stated that:

> *"I have heard of any free treatment at the government health centre, if I have know I would gone to seek for treatment…when we deliver at our homes, we pay money for the soaps to the TBAs, I thought of the money I will spend at the facility since I did not have, I decided to deliver at home under the assistance of TBA, where it is almost free" (Lactating Mother, FGD 1).*

This finding speaks to the question of availability of the facilities as well as the awareness that the facilities offer free services which then translate into utilization. The finding is also in tandem with the Donabedian model that when mothers increasingly perceive that they are provided with information pertaining to the policy then they will tend to utilize it more. This finding is similar to some studies for instance one by Njuguna, Kamau and Muruka (2017) who studied utilization of maternal health services in referral hospitals and low-cost private hospitals participating in free delivery policy. Their study assessed the factors influencing increase in delivery numbers and the findings show that there was increased utilization in both cases in deliveries and antenatal attendance as the services are freely rendered. Therefore, free services translate to higher utilization of health facilities. Also, the MOH (2015) noted that there was an increase in the number of normal deliveries and the number of caesarean section deliveries at 22% and 17% respectively. Further, live births increased by 21% in the year FMS was introduced compared to the previous year.

5.3.2 Statistical Significance of Factors associated with the place of Delivery

Upon undertaking a Chi-square analysis, the study found that among the factors associated with place of delivery, occupation, one's age, income and marital status with a sig. value of .0000 which is below p value 0.001; were found to be statistically significant to the choice of place of delivery while education was not statistically significant (sig. value .932) as shown in table 5.3 below.

Table 5.3: Factors associated with the place of Delivery

Variables in the Equation							
		B	**S.E.**	**Wald**	**Df**	**Sig.**	**Exp(B)**
Step 1[a]	Education	.014	.167	.007	1	.932	1.014
	Occupation	-4.082	.535	58.201	1	.000	.017
	Marital	1.009	.158	40.964	1	.000	2.744
	Income	1.009	.157	40.560	1	.000	.018
	Age	.024	.167	.890	1	.000	1.200
	Constant	6.005	1.063	31.888	1	.000	405.621
a. Variable(s) entered on step 1: education, occupation, marital.							

It was also noted that for every one-unit increase in educational status (so, for every additional point on education status of the respondents), we expect a 0.014 increase in the log-odds of delivering at the government health facility. However, Occupation and marital status are statistically significant.

The explanation for the lack of education as promoting factor for uptake of skilled delivery lies in the fact that most women whose responses this study was based were largely those with low levels of education, and thus cultural issues and religious issues were treated by them as key as opposed to education.

5.3.3 Reasons for not using health facilities for delivery

The study further explored reasons which can make one opt for TBA and not for a health facility. It was established that the 47.7% of the respondents who did not deliver at the health facilities, reasons given were as follows; 42.9% of the respondents stated that "it is against cultural norms", 15.5% of them stated that "the delivery service at the health facilities are expensive", 14.3% stated that "the distance is far", 10.1% stated that "lack of privacy at the facility", 5.4% stated that "health workers are hostile" and 11.9% of them stated that "it is against their religious norms".

According to the Donabedian theory cultural factors may affect utilization. The dominant reason given "it is against cultural norms" is similar to findings of a study by (N'Gbichi et al., 2019) which showed that there is preference for female over male health care service providers. The culture, traditional beliefs and religion in the area discourages male breach of women's privacy and therefore, women are discouraged to visit healthcare facilities where there are male service providers. This in turn negatively influences utilization, according to the Donabedian conceptualization. To solve this issue N'Gbichi et al., (2019) recommended that male health service providers should be allocated other duties instead of attending to women in labor. One mother reinforced this during the interviews thus:

> *According to our culture, it is very unique and unexpected to be handled by a man. Women should be handled by fellow women and men by fellow men. If a hospital only has men attendants, I will likely look for an alternative, perhaps a traditional avenue for giving birth and forego the skilled care (Lactating Mother during, FGD 1 Proceedings).*

5.3.4 Number of Times visited Health Facility during pregnancy

Of the respondents who visited health facilities during their last pregnancy or were visiting at the time of the research as they expectant (184 as revealed in the immediate sub-section above) 49 (26.6%) of the respondents visited public health facilities 1 to 3 times for their ANC services while 135 (73.4%) visited health facilities more than 3 times.

Table 5.4: Number of Times visited Health Facility during pregnancy period

	Frequency	**Percentage**
1 to 3 times	49	26.6
More than 3 times	135	73.4
Totals	**184**	**100**

This finding is similar to a study by the Ministry of Health (2015) which showed that there was increased utilization of ANC services after initiating the FMS particularly among ANC re-visits. The number of pregnant mothers attending their 4th ANC visit increased by 11% while other ANC services showed increased utilization.

5.3.5 Services Received at Health Facility

Of the respondents who have visited health facility during their pregnancy period 136 (73.9%) of the respondents received physical examination, 16 (8.7%) received ultrasound service, 8 (4.3%) received gynecological examination, 8 (4.3%) HIV testing, 8 (4.3%) nutritional supplement, and 8 (4.3%) received tetanus toxoid. This indicates that most of the services that were covered by the free maternity policy and are in the continuum of care for safe motherhood were provided.

Table 5.5: Services Received at Health Facility

What health services did you receive when you visited the facility?

Health Service	Frequency	Percentage
Physical examination	136	73.9
Gynecological examination	8	4.3
Ultrasound	16	8.7
HIV/STD testing	8	4.3
Nutritional supplement	8	4.3
Tetanus Toxoid injection	8	4.3
Total	**184**	**100**

This finding was also noted by the MOH (2015) which recorded that there was an increased utilisation in other services related to ANC. These services included ANC clients HIV test (6% increase) and also ANC partner HIV testing (33% increase).

5.3.6 Reasons for Using Government Health Facilities during delivery

When asked why they chose to give birth at the government hospital/dispensary, findings indicate that majority 128 (69.6%) of them stated that it is because of "good service", a significant percentage 40 (21.7%) stated "no money is charged for the service" indicating that some respondents are using the service due to removal of user fees, 16 (8.7%) stated "the distance is near".

Table 5.6: Reasons for Using Government Health Facilities for Delivery

Reason	Frequency	Percentage
No money charged for the service	40	21.7
Health facility is near	16	8.7
Service is good	128	69.6
Total	**184**	**100**

This was corroborated by the result of the focus group discussion for women, where a participant stated that:

> *"Health facilities are, where there is more safety, you can deliver safely, and complications can be managed easily. There are good services for pregnant women delivering in hospital. I think free care also includes clinic, tetanus toxoid, blood test" (Lactating Mother, FGD 2).*

5.3.7 Attitude of the Service Providers

When the respondents were asked to describe the attitude of the health workers who attended to them when they were giving birth, 61.4% stated that the staffs were "cooperative", 14.7% said they were "reliable", however,23.4% described them as hostile to them. This may have compromised the utilisation of the free maternity service. Qualitative result of the FGD on the hostility of the service provider, poor attitude of the service providers was an issue, a participant stated that

> *"The main reasons why some of us come here despite the harsh attitude of these nurses is to collect free bed net, free immunisations and do free HIV test". (Pregnant Mother, FGD 1).*

Another participant stated that:

> *We were told in the community that we should come to a health facility to give birth as the delivery is now free. I came and registered, but when I came weeks later, a nurse asked me to pay Ksh. 1000, I told her I don't have, and she refused to attend to me and shouted at me……she asked me not to disturb her with my problems. This is frustrating (Lactating Mother, FGD 2)*

A result from FGD 3 also showed negative attitude from service providers may be an issue in service utilisation. As noted by one participant:

> *"The main reasons why some of us come here despite the harsh attitude of these nurses is to collect free bed net, free immunisations and do free HIV test". (Lactating Mother, FGD 3).*

On the other, previous stud N'Gbichi (2019) established similar complaints from pregnant mothers from health workers when it found there is a range of complaints against pregnant women by healthcare providers. This study, however, finds that pregnant and expectant mothers expect the expressed this challenge came from the health workers. Their attitude was described as rude, disrespectful and abusive. In extreme cases patients complained of physical assault and maltreatment. This discouraged women from visiting healthcare facilities in Garissa which has highly similar characteristics to Mandera in terms of population. Another study in Kenya is by Muckle et al., (2013) who studied the social perspective of barriers to access of maternity care in Kenya and noted that some of the barriers to utilization of maternal services included poor attitude from the health care providers and lack of or poor transport system.

5.3.8 User Fees Charged

From table below, 56 (30.4%) of the respondents who delivered at public health facilities indicated that they paid for the service while 128 (69.6%) stand that the service was free.

Table 5.7: User Fees for the Service

Did you pay any money for the services?

Response	Frequency	Percentage
Yes	56	30.4
No	128	69.6
Total	**184**	**100**

This was corroborated by the result from the qualitative part where a participant from the FGD stated that:

> *"When I came to the hospital to deliver my third child, they did not collect money from me and this made me happy as I never had money, I was told the president has declared the maternity service and specially the delivery part free". (Lactating Mother, FGD 1).*

Another participant stated that:

> *In the past, the cost was too much for most of us, and you can even be deprived of some necessary drugs or caesarian section because you could not afford it, even if it would save your life. But now the doctors and midwives do not hesitate to do anything possible to save your life because it is free. (Participant FGD 1)*

However, on the flip side a participant who paid money for the delivery stated that:

> *This is my first time of coming to the health centre for delivery; I was advised by my friend to come hospital for the delivery, and they did not collect money from her, however I paid Ksh 500 to the Nurse who helped to deliver as a token. (Lactating Mother, FGD 2)*

Another participant stated that money is paid in one way or another

> *"If you want to deliver in the hospital the nurses will give you a very long list that includes soap, razor blade, thread to tie cord or cord clamp, kerosene for a lantern in case of no electricity, groundnut oil, bleach, spirit, sanitary pad, detergent, hand towel disinfectant among others. Where will one get the money to buy all these? And if you come without them, they will send you back with insults. That is why when we do ANC here, we go to deliver with TBA" (Lactating Mother, FGD 3).*

The above speaks to process in the Donabedian model. The long list of items that nurses require obscures the possibilities for delivering at public health facilities. Furthermore, the poverty levels and the attitudes (as brought out earlier) of the nurses who send you back when you do not come

with the items discourages mothers from utilizing the free maternity delivery policy. This finding is corroborated by recent studies such as Gitobu, Gichangi, and Mwanda (2018) who conducted a time series on health facility delivery services utilization. The study concluded that cost is a major deterrent to health facility delivery service utilisation. Another study that reinforces our findings was conducted by Lang'at, Mwanri and Temmerman (2019) who also show there is a significant and sustained in-crease in antenatal care visits, live births and health facility deliveries due to Free Maternity Service Policy. There was also a significant increase of about 27% of women receiving Emergency Obstetric Care services at level 3, level 4 and level 5 health facilities. Therefore, the immediate increase and sustained utilization of skilled care for pregnancy and childbirth is related to costs which are a barrier to maternity care utilization.

5.3.9 Amount Spent on Delivery and the Purpose for Spending

All those who have paid for the deliveries at the public health facilities spent less than Ksh. 10,000 for the service. There were no respondent who paid more than 10,000 shillings for delivery services. This is shown in the table below.

From table below, 24 (42.9%) of the respondents who paid for the service stated that the money paid was for the delivery fees, 8 (14.3%) of the respondents stated that it was paid as a token to the midwife, and 24 (42.9%) of the respondents don't know the real reason for the payment. This indicate that despite the government abolishment of delivery fees and other user fees for maternal health service there are mothers who are still paying user fees for the maternal health service. This can be a barrier considering that almost half of the respondents are still delivering at home.

Table 5.8: Purpose for the Money Paid

Purpose	Frequency	Percentage
Delivery fee	24	42.9
Token for the health worker	8	14.3
Don't Know	24	42.9
Total	**56**	**100**

This finding is collaborated by findings of Gabrysch and Campbell (2009) which identified socio-cultural factors, perceived benefit/need of skilled attendance, economic accessibility and

physical accessibility as determinants to accessing maternal services. Further to this, another study by Ensor and Ronoh (2005) and Borghi et al., (2006) suggested than out-of-pocket payment for delivery is a major barrier to use of health facilities.

These findings are in line with results of other studies on Fee exemption policy which highlighted challenges associated with fee exemption policy that included delay at service points, drugs not being comprehensive and being of poor quality and payment of out of pocket despite the service being free. Such studies included study by Ameyaw (2011) in the New Juaben Municipality in Ghana by Ameyaw (2011), Adei et al. (2012) and Esna and Sappor (2013) also had the same results.

On the purpose for the money paid, the results from the qualitative part indicate health facilities collect money from mother with a different reason. This came clear during the FGD when a discussant stated that

> *They made us believe that delivery services are free but they ask you to buy sanitary pad, detergents, gloves and other supplies, and all those things are not free. I don't know why they say the service is free… they could talk of shared cost (Lactating Mother, FGD 2).*

Another participant from an FGD stated that:

> "*Apart from payments for drugs and other supplies, women were often given a prescribed list of items to purchase in preparation for childbirth….."*

5.3.10 Distance to Health Facility

On how long they take to reach next health facility for maternal health services, majority of the respondents 132 (71.7%) stated that they take less than 30 minutes to reach the health facility while 33 (17.9%) of the respondents stated that they take one hour to 1 hour and 30 minutes hindering their ability to utilise skilled delivery. Another 18 (9.8%) stated that they take more than 1 hour and 30 minute to reach the facility. This may indicate the reason as to why the utilisation is higher than non-utilisation and speaks to the process in the Donabedian model where as a result of distance taken to reach facilities, the mother's role in utilizing the free facility may be hampered.

Table 5.9: Distance of Health Facilities

	Frequency	Percentage
Less than 30 Min	132	71.7
1 hr to 1hr 30 min	33	17.9
More than 1hr and 30 min	18	9.8
Total	**184**	**100**

On the distance a participant stated that:

> *"I tried to come to the hospital to deliver, but the distance was far. On the way, I couldn't hold it anymore, so they had to put leaves on the ground for me and call the TBA to help me" (Lactating Mother, FGD 1).*

Another participant stated that:

> *The health centre is far from here, and I do not have transport to go there often for ANC. Sometime even if we manage to get there, they will write out the prescription for us to buy at the local chemist shop, which is not reliable and we do not have money to buy. (Pregnant Mothers, FGD 1).*

This finding is similar Gabrysch and Campbell (2009) which identified physical accessibility as determinants to accessing maternal services. From this study, we can therefore conclude that distance to a health facility remains a major barrier to utilization of Free Maternity and ultimately affects the quality of care provided. Another study by Bourbonnais (2013) also concurred that some of the challenges facing the FMC program in Kenya are poor infrastructure, inadequate number of staffs and long waiting time due to increased workload and unwarranted payments. The study also found out that distance to the health facility plays an important role in utilisation of maternal health service.

5.3.11 Mode of Transport to the Health Facility

On the mode of transport, they use in reaching the health facilities, 136 (73.9%) stated through "walking", 32 (17.4%) through "public transport" while 8.7% through their "personal car". These findings reflect the hardships experienced by women of Mandera in accessing healthcare services. Walking which is the dominant mode, may include long distances to reach health facilities or rugged geography which hinders accessibility. Public transport may also present challenges incase costs are high or public vehicles are unavailable. These scenarios may cause a delay or make facilities inaccessible to patients as alluded to by Gitobu et al. (2018).

Table 5.10: Mode of Transport to the Health Facilities

	Frequency	Percentage
Walking	136	73.9
Personal car	16	8.7
Public transport	32	17.4
Total	**184**	**100**

5.3.12 Time Taken to See a Health worker

On the average amount of time respondents wait to see a health worker, a vast majority 64.3% stated that they take less than 30 minutes, 13.0% stated that they take 30 minutes to 1 hour while a significant number of 22.7% stated that they take more than 1 hour to see a health worker indicating a barrier to healthcare utilisation. From the bar chart above, we can conclude that majority or over half the respondents are seen within 30 minutes by health workers in the health facilities. This promotes utilization of healthcare facilities.

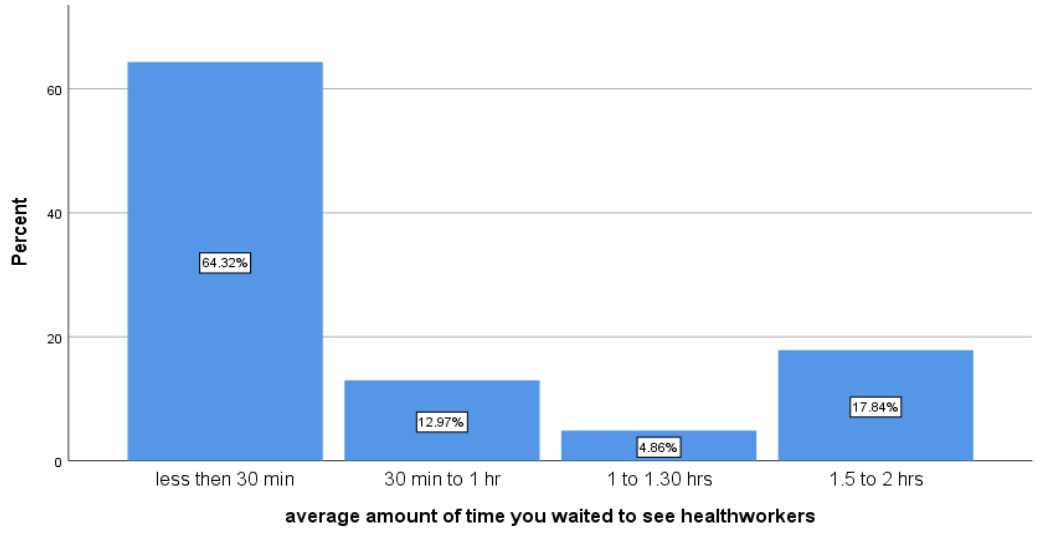

Figure 5.1: Time Taken to See a Health worker

This can be affirmed by studies such as Bourbonnais (2013) who concurs that some of the challenges facing the FMC program in Kenya are poor infrastructure, inadequate number of staffs and long waiting time due to increased workload and unwarranted payments. As per the study the long waiting time is a big hindrance to access and discourages patients from seeking maternal services from health facilities.

5.3.13 Free Maternity Service Provided

On the free maternity delivery services received at the health facilities visited 141 (76.6%) of the respondents stated that they received delivery services, 16 (8.7%) antenatal services and postnatal services respectively and 11 (6%) of the respondents stated laboratory services. This indicates that, services that are covered by free maternity service are provided at the respective facilities.

Table 5.11: Free Maternity Service Provided

	Frequency	Percentage
Antenatal service	16	8.7
Delivery service	141	76.6
Postnatal service	16	8.7
Laboratory service	11	6.0
Total	**184**	**100**

On the qualitative part the Participants seems to have knowledge on the services that are provided under the free maternity regime. A discussant in FGD stated that:

> *"If we go to clinics, they are using ultrasound to see the development of the foetus in the womb, or easily get treated for diseases of pregnancy, such as malaria or HIV infection…we are given prevention injections and complications are managed.." (Pregnant Mother, FGD 1)*

Another discussant stated that:

> *While pregnant a woman is prone to encounter several health problems, this is why they (nurses) have asked us to come for monthly checkups for some incurable diseases like AIDS, sukari(Diabetes)… They will counsel on what pregnant women should do to avoid infecting the unborn babies. Similarly, they would also give us medications such as multivitamins to boost our immunity (Pregnant Mother, FGD 2).*

5.3.14 Patient Satisfaction

Majority of the respondents 73.3% who have utilised free maternity delivery service were completely satisfied with the service they received while 26.6% of the respondents were dissatisfied with the service they received.

This validated by the result from the qualitative part where a participant of FGD stated that:

> *we are satisfied by the service provided at our clinics…any women now come to the health centres for ANC and delivery because it is now free. As you can see the clinic is so full and I have to wait for some more time. It never used to be like this in the past. Women are now not delivering at home. We are happy (Pregnant Mother, FGD 1).*

5.3.15 Reasons for Dissatisfaction

Reasons for dissatisfactions were, 33.3% said the staffs were rude and insensitive to them, 50% stated their preference of wanting female staff to attend to them were not met, and 16.7% stated that the service was expensive to them. This can be a barrier to utilisation of the free maternity delivery service.

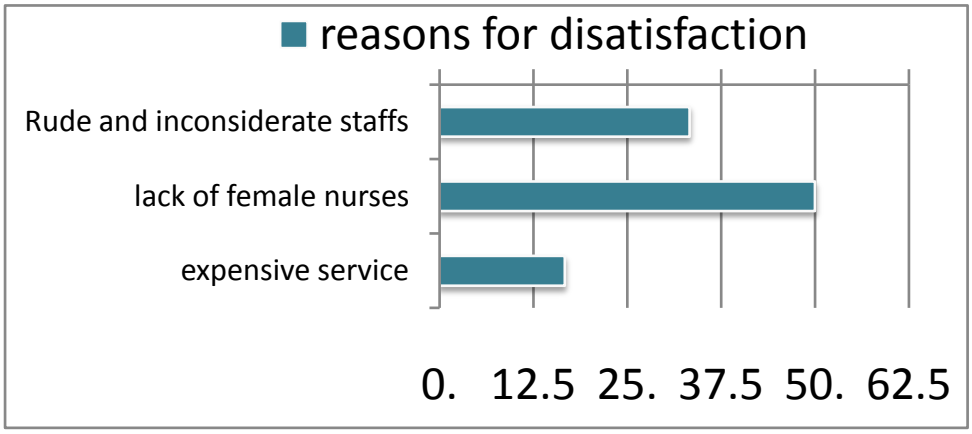

Figure 5.2: Reasons for Dissatisfaction

Results from the qualitative part vary with reason for dissatisfaction ranging. An FGD discussant stated that:

> *They made us believe that delivery services are free but they ask you to buy sanitary pad, detergents, gloves and other supplies, and all those things are not free. I don't know why they say the service is free… they could talk of shared cost (Participant, FGD 2).*

Another participant from an FGD stated that:

> *"Apart from payments for drugs and other supplies, women were often given a prescribed list of items to purchase in preparation for childbirth….."*

However, contrary voices were also present as alluded to the fact that although the maternity is supposed to be free, in the real sense it more expensive. She stated that:

> *When you are delivering at public hospital, the daktari (doctor) will ask you to bring along a long list of items such as soap, razor blade, thread to tie cord or cord, bleach, spirit, sanitary pad, etc. etc…. Unfortunately, if you are unable, you are sent back with abuses (Pregnant Mother, FGD 3).*

The researcher conducted a bivariate correlation on two variables to measure their relationship in the study. The researcher measured satisfaction levels of respondents against attendance by skilled person during delivery. Using the Spearman's rho correlation coefficient, the researcher found that the test statistic is valid and the correlation coefficient is significant. From the

correlations table satisfaction levels and attendance by a skilled person are positively related with a Spearman's rho correlation coefficient of r = 1.000 and the significance value is less than 0.001. (r =1.00 at p < .001) This indicates there is a genuine relationship between satisfaction levels of mothers and the attendance of a skilled person during delivery.

Table 5.12: Correlations coefficient

Correlations coefficient Table

Spearman's rho			***during deliveries were you attended by a skilled person***
how satisfied were you	*Correlation Coefficient*		*.949***
	Sig. (2-tailed)		*.000*
	N		*352*

***. Correlation is significant at the 0.01 level (2-tailed).*

The correlation coefficient squared of the above value is used to measure the amount of variability between two variables. In this case, amount of satisfaction levels by mothers that is shared by the attendance by a skilled person during delivery. From the correlation of 1.00 and R2 will therefore be (1.000)2 = 1. This figure is converted into a percentage by multiplying by 100 in order to obtain the variability. Therefore, in this case its 100%. This means that amount of satisfaction levels by mothers can account for 100% of attendance by a skilled person during delivery. From the above this study shows that the satisfaction levels of the mothers was based on the attendance by a skilled person during delivery. To this end, the presence of skilled delivery increases the utilization of free maternity delivery service in public health centers.

5.3.16 Suggestion for Improvement

When asked on the suggestion for improvement on service delivery and utilisation of free maternity delivery 129 (36.6%) of the respondents stated “improvement on privacy of the pregnant mothers”, 22 (6.3%) stated “improvement on medical supplies for the maternity

service", 18 (5.1%) stated "improvement on staff attitude towards the pregnant mothers", and 15 (4.3%) of them stated "stopping collection of side fees or non-official user fees".

Table 5.13: Suggestion for Improvement

Suggestion for improvements

	Frequency	**Percentage**
Improve on privacy	129	36.6
Improve on supplies	22	6.3
improve staff attitude	18	5.1
Stop collection of side fees	15	4.3
Total	**184**	**100**

In order to determine the correlation between free maternity delivery policy and skilled delivery, the researcher conducted a linear regression. Further to this, the researcher strengthened the model by controlling for variables on age and education of the respondents.

From the model, the sig. value is 0.000 which is significant at $p < 0.001$. This indicates that the value F (43.878) is significant as p value is less than 0.001. This shows that this linear regression model predicts skilled delivery and the data provides a good fit to the data. Further analysis on the coefficients table shows that free maternity delivery policy (p=.000) and age (p=.000) are statistically significant. Secondly, Age and free maternity delivery policy are the most important predictors of skilled delivery. Age (β=.530) followed by free maternity delivery policy (β=.286) has the biggest impact on skilled delivery. Education (β=.039) has the least impact on skilled delivery.

In terms of the direction of the relationship among these variables, both age (.530) and free maternity delivery policy (.286) have a positive relationship with skilled delivery. This means that the older a respondent is, the higher the possibility of them utilizing skilled delivery. Also, the implementation of free maternity delivery policy leads to increased skilled delivery. On the other hand, education (-.039) has an inverse relation with skilled delivery. Therefore, the more educated a respondent is the lower the possibility of them seeking skilled delivery.

Table 5.14: Linear Regression Model examining influence of free maternity delivery policy on skilled delivery

Variable	B	P
Free maternity Delivery policy	.286	.000
Education	-.039	.498
Age	.530	.000

5.4 Chapter Summary

This chapter explored the factors that influence utilization of free maternity policy on free delivery; variables which according to Donabedian model are called process factors. The study found that slightly above average (52.2%) of the respondents were utilizing health facilities. However 47.7% (almost a haft) still preferred to deliver their children at home. Moreover, when a linear regression was conducted, the study found that factors that affected place of delivery significantly were occupation and marital status, yet education did not portend significant influence on the same. Most of the respondents who never utilized the FMDP argued that the manner of service was against their cultural norms and other religious beliefs. These are therefore important contextual issues that may be considered for improving the program in Mandera County.

The study also established that majority (73.4%) of the respondents had visited the health facility more than three months during their pregnancy. Of those who visited the facilities, majority - 73.9% received physical examination while the least category received gynecological examination (4.3%) and tetanus toxoid (4.3%). When asked why they preferred government facility, respondents that utilized the FMDP stated different reasons: majority (69.6%) stated the services were good, while the least (8.7%) category stated that they used these services because they were to where they stayed.

Distance to facility is another Donabedian process variable related to utilization of free maternity polity. This study found that most (71.7%) respondents stayed closer to the facilities and only took less than 30 minutes to reach facility. This was confirmed by a further question that explored the means of transport used by the policy users. The study found in this regard that majority (73.9%) walked into the facilities to seek services, implying that these facilities were no far from their residences. This shows that the government has taken it upon herself to build

health facilities in a bid to create the infrastructure need to implement her FMDP. The study further explored the type of maternity service provided. 76.6% reported that they received delivery services, 8.7% received ante and post natal care, and 6% received laboratory services. The study also explored patient satisfaction which is a key measurement for the success of the process of the FMDP. The study revealed that the policy is doing well, as majority 73.3%) of those who have used it (beneficiaries) reported to be satisfied and only about a quarter (26.6%) were no satisfied. However, those who were dissatisfied pointed to important loopholes which are critical to consider if the policy should be improved and increase the uptake and impact. For example, half of those dissatisfied stated said that this was because they were attended by male health workers, which limited their ability to trust, and which was against their cultural and religious beliefs. Additionally, about 20% (16.7%) stated that the services were expensive, which reveals that the FMDP is not as free as is expected and the beneficiaries have to meet certain costs which could be a hindrance to access these services owing to the fact that most of the mothers in Mandera do not have the required education and incomes to pay for such services.

CHAPTER SIX

TRENDS IN THE UTILISATION OF SKILLED DELIVERY SINCE THE INCEPTION OF FREE MATERNITY POLICY IN MANDERA COUNTY

6.1 Introduction

This chapter specifically focuses on the trends in the utilization of skilled delivery since inception of the free maternity policy. The collected data is analysed, interpreted and discussed. The data is analysed descriptively and presented using tables, charts and graphs in order to determine the trends in the utilization of skilled delivery. The main source of information presented here are data from Health Information Systems hosted at the County Health Ministry and accessible online through the County's web page. Qualitative data is used to triangulate the quantitative data. The discussion is anchored on theory and reflection on other available studies. According to the Donabedian model the trends in the utilization of skilled delivery can be equated to outcomes which contain all the effects of healthcare on patients or populations, including changes to health status, behaviour or knowledge as well as patient satisfaction and health-related measurements of quality of life.

6.2 Trends in the Utilisation of Skilled Delivery since the inception of free maternity policy

The figure below indicates that, the numbers of skilled deliveries in the Mandera County increased over time, from N= 8438 in 2014 to N = 22153 in 2018. This is the period for the implementation of free maternity delivery policy.

6.2.1 Skilled deliveries Trends for Mandera County

The skilled delivery trends for the County are as shown below. There is a general increase in numbers of patients seeking and receiving skilled deliveries.

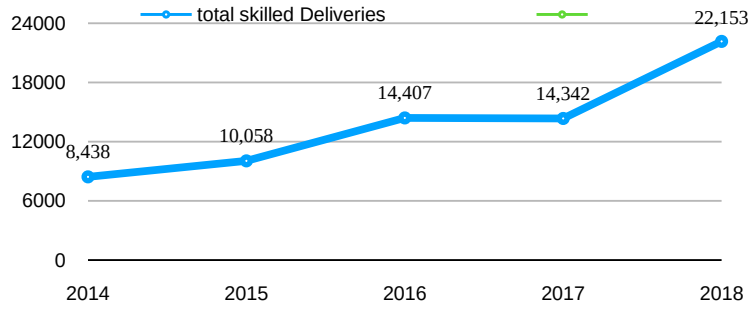

Figure 6.1: Skilled deliveries Trends for Mandera County between the year 2014 to 2018

This upward trend was validated by in-depth interview from the health care service providers, a participant in the in-depth interview stated that:

> *"There are so many mothers who are giving birth at the facility now than before 2013, no doubt this is one good policy intended to reduce maternal deaths. However, they need to invest more on staffing to avoid burnout." (Nurse, ID-7)*

> *"Free maternity delivery has increased the number of patients for us." (Clinical Officer, ID-6)*

Another participant stated that:

> *"I can say there are more than 45% increase in terms of the workload." (Sub-county public health Nurse, ID-2)*

The above finding resonates with the Donabedian view which points out to the overall satisfaction of populations which leads to increase in utilization trends which, for example, corresponds to the 45% increase in workload for the nurses. Overall, findings show that the county seems to have registered higher numbers of those seeking skilled delivery after 2013. This important finding is similar to findings of N'Gbichi (2019) which indicated that free maternity delivery policy leads to awareness on the benefits of skilled birth attendance among the community members. This increases the likelihood of attracting more women to utilise maternity services therefore reducing the adverse maternal and newborn health outcomes that were previously experienced. Secondly, the United Nations (2015) noted that some Sub-Sahara Africa countries have experienced an increase in the proportion of skilled birth assistance accompanying reduction in maternal and neonatal deaths.

The figure below indicates that, the percentage of skilled deliveries in the Mandera County increased over time post implementation of free maternity delivery policy, from 11% in 2013 to 38.8% in 2018. However, three years before implementation of free maternity delivery policy (2010, 2011, 2012), the coverage was on gradual increase from 10% to 35.1%. In 2013, there was a big drop in the coverage of skilled delivery in Mandera, but it later picked up. This is in line with the assumptions of the Donabedian model.

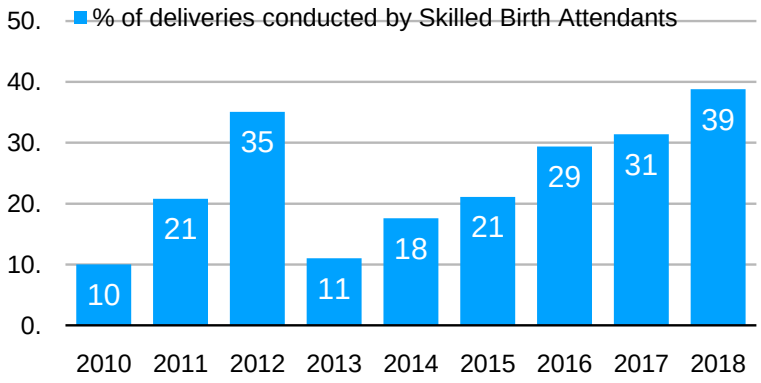

Figure 6.2: Percentage of Skilled deliveries Trends for Mandera County between 2010 and 2018

This general increase is in line with the country case where an increase in skilled deliveries was reported by the Ministry of Health (MOH) in 2015. Specifically, normal deliveries and caesarean section deliveries increased at 22% and 17% respectively. The number of live births increased by 21% in the first year of introduction of the FMS compared to the previous year. As per the MOH increase in the use of skilled birth attendants can potentially reduce maternal and infant deaths significantly (MOH, 2015). More recent studies such as Orangi et al., (2021) indicate that 62% of births in the county are attended by a skilled healthcare provider while Nyongesa et al., (2018) indicated that 94.8% of women have a likelihood of seeking skilled attendance at the time of delivery.

6.2.2 Skilled deliveries Trends for Mandera County Sub-counties

The figure below shows that Skilled deliveries is at an increasing trajectory in all the sub counties of Mandera County since the inception of free delivery policy.

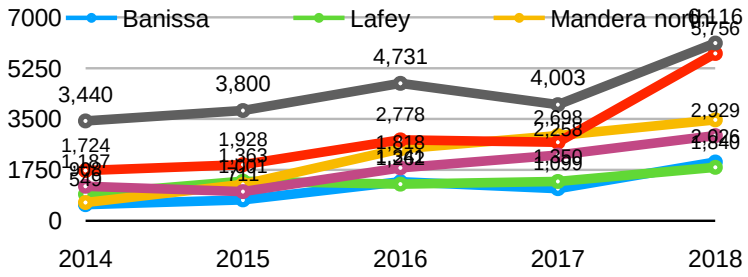

Figure 6.3: Skilled deliveries Trends for Sub-counties in Mandera County between the year 2014 to 2018.

From the graph trends indicate that in Banissa sub-county (2017) the trend decreased from 1341 deliveries to 1099, Lafey sub-county (2016) from 1363 to 1262 and Mandera south sub-county (2017) from 2778 to 2698. However, in subsequent years the trends were on the increase. The decrease during this period may be due factors that have presented in the objective one and two.

These results were in line with other studies for instance one conducted by Witter (2009) which concluded that there was an increase in birth at medical facilities in Ghana after introduction of free delivery care program in 2004, a study by Witter, 2010 which highlighted a notable 12% increase in women delivering at facilities in two districts of Ghana, and in Senegal facility-based deliveries increased from 40% to 44% with caesarean section increasing from 4.2% in 2004 to 5.6% in 2005. The study was also in consistent with a finding by El Khoury et al., 2011 which states that both institutional deliveries and caesarean section rates increased following fee removal for caesarean sections in public hospitals in Mali in 2005. The findings of this study and those from the studies reviewed connect to the Donabedian model anticipates a positive outcome on all the effects of healthcare on patients or populations including changes to health status, behaviour or knowledge as well as well as patient satisfaction and health-related quality of life.

6.2.3 Coverage of Skilled Attendance in the County

In terms of the coverage of skilled attendance, Mandera shows there has been in upward trajectory in this period of free maternity delivery policy. As shown in the figure below the coverage increased from 17.6% in 2014 to 39% in 2018 with a yearly mean increase of 5.4%.

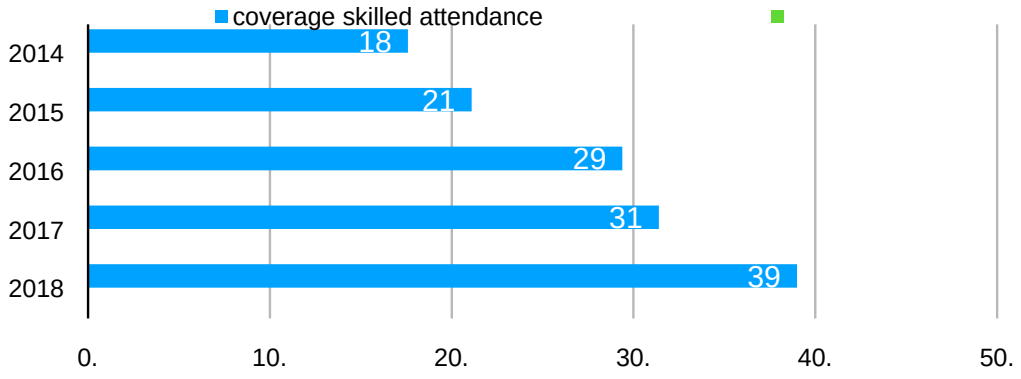

Figure 6.4: Coverage of Skilled Attendance in the County

6.2.4 ANC attendance trends in the County

The trends in ANC attendance after inceptions of free maternity delivery policy indicates an upward trend from the inception of the policy where the ANC attendance rose from 8015 in October, 2012 – September, 2013 to 14,821 in October, 2013 – September, 2014, this clearly shows increase of 84.9% (n= 6806).

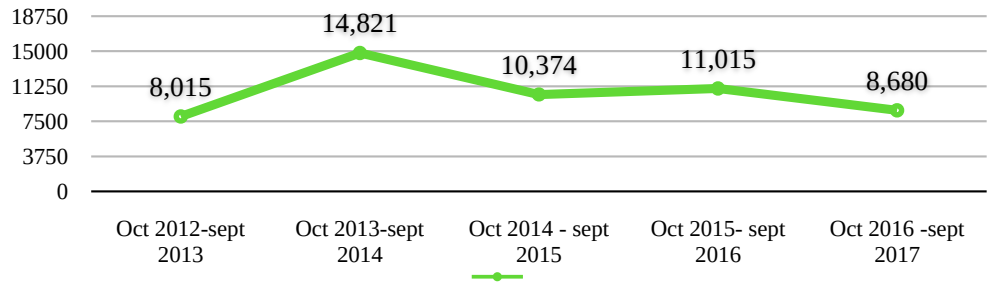

Figure 6.5: ANC attendance trends in the County

However, for the period between October, 2014 and September, 2015 the trend drastically reduced from 14821 to 10374 while the period between October, 2015 and September 2016, there was slight increase of 641 in the attendance, however, it reduced to 8680 in the period between October, 2016 and September, 2017. This can be as a result of quality of care or any other factors that may have presented in the objective 1 and 2. These results are similar to the results from a study by Amayaw (2011) and Mahamadu (2012) studies carried out in Ghana. These studiesshowed an increase in the antenatal attendance in post policy periods but the difference was not significant.

6.3 Chapter Summary

This chapter mainly depended on quantitative data from the County Health Information Systems to study trends in utilization of the FMDP. The data was corroborated with qualitative data from health facility in-charges and health workers and literature existing on the subject matter. Generally, the study found that during the period of policy implementation 2013 – to 2018 (when complete data could be retrieved), there has been a positive change.

For example, number of women utilizing skilled deliveries had increased from 8438 in 2014 to 22153 in 2018. An examination of this statistics into detail reveal that there increase has been constant for this period, unlike before. For example, in terms of percentages, 10% of the women

were seeking skilled deliveries in 2010. This increased to 21% and 35% in 2011 and 2012 respectively, just to fall again to 11% in 2013. In contrast, from 2014 to 2018, the increase has been constant that is 21%, 29%, 31% and 39% from 2014, 2015, 2016, 2017 and 2018 respectively. This positive trend was also observed when analysis was zoomed in to the sub-counties in Mandera County. For example, in Mandera East sub-county, increased from 3440 in 2014 to 3800 in 2015 to 4751 in 2016 with a reduction to 4003 in 2017 and an increase in 6116 in 2018. The same was noticed in Mandera North which stood at 549 skilled deliveries in 2014 and increased to 711 in 2015, to 1818 in 2016 to 2698 in 2017, to 2929 in 2018. This trend cut across the sub-countries as evidenced in section 6.2.2 in this chapter. However, skilled antenatal care has experienced a downward trajectory in the period of the FMDP implementation. As already presented, as at 2014 ANC was at 14821, this reduced to 10374 in 2015 which slightly increased to 11015 and which then had a sharp decrease to 8670.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATION

7.1 Introduction

This chapter summarizes the study findings and discussions. It further gives a conclusion and recommends possible practical steps with regards to free maternity delivery policy implementation, and utilization.

7.2 Summary

This study conducted an extensive evaluation of the Free Maternity Delivery Policy and its implications for safe motherhood in Mandera County. It meticulously scrutinized the multifaceted aspects related to the policy, which encompassed factors influencing its implementation, determinants impacting its utilization, and the discernible trends in the utilization of skilled delivery services since the policy's inception in Mandera County. The overarching framework that guided this investigation was Donabedian's SPO framework, renowned for its ability to comprehensively assess the quality of medical care.

To compile a well-rounded understanding of the policy's dynamics, both quantitative and qualitative data were diligently collected. The quantitative facet involved survey questionnaires, administered in two distinct formats. The first set was distributed to 67 health workers involved in the implementation of the Free Maternity Delivery Policy (utilized for Objective 1), while the second set was disseminated to 340 mothers who were the primary beneficiaries of the policy (pertaining to Objective 2). Additionally, time series data were harnessed from the County Health Information Systems, offering invaluable insights into the trends in skilled delivery service utilization since the policy's introduction (relevant to Objective 3).

To complement and corroborate these quantitative insights, 9 key informant interviews were conducted, engaging health facility in-charges. These interviews aimed to illuminate essential issues, enabling a more comprehensive interpretation of results obtained from health workers and policy implementers (related to Objective 1). Furthermore, the study included 3 focus group discussions with mothers. These discussions were instrumental in validating and enhancing the understanding of quantitative findings derived from Objective 2. Collectively, these qualitative data sources played a crucial role in unraveling the intricate trends in utilization explored in Objective 3.

The empirical findings derived from Objective 1 highlighted several key aspects. The study observed that the majority of respondents fell within the prime reproductive age bracket, typically between 21 and 36 years, and most were married. Notable challenges identified in the policy implementation included insufficient funding, subpar service quality, financial constraints, demotivated health workers, and overwhelming patient volumes. Additionally, free services and shortages of medical supplies and equipment, primarily due to the high patient turnout, emerged as significant factors influencing the successful implementation of the Free Maternity Delivery Policy.

Objective 2, focusing on utilization, assessed Donabedian's Process Variables. The study unveiled several crucial determinants affecting the utilization of skilled delivery services and choices regarding the place of delivery. Statistically significant associations were noted between occupation, age, income, and marital status ($p=0.001$) concerning the utilization of skilled delivery services. Factors such as socio-cultural considerations, accessibility, service providers' attitudes, service quality, user fees, delays at service points, incomplete and subpar drug supplies, and geographical distance to health facilities were all identified as influential factors affecting the utilization of the Free Maternity Delivery Policy.

Finally, in relation to Objective 3, the study probed the trends in skilled delivery service coverage. Notably, it observed an incremental increase in the coverage of skilled deliveries during the period coinciding with the Free Maternity Policy's implementation in Mandera County. This increment exhibited a yearly mean rise of 5.4% from 2014 to 2018. Conversely, antenatal clinic attendance followed a divergent trend, declining from 14,821 in 2015 to 8,680 in 2017, with only a slight uptick between 2015 and 2016. These trends offer valuable insights into the policy's impact on service utilization and its potential implications for maternal and child health.

7.3 Conclusion

Overall, in quantitative terms, the Government of Kenya's implementation of the free maternity delivery policy in 2013 has exhibited a positive trend, particularly concerning enhanced access to skilled deliveries at public health facilities. Nevertheless, when examined qualitatively, the policy's impact appears compromised due to numerous challenges in both its structural

implementation and utilization processes. These challenges impede the policy's capacity to facilitate attainment of safe motherhood.

In relation to the first objective, it is evident that structural factors, encompassing aspects like funding, staffing, and staff morale, exert a significant influence on the realization of the Free Maternity Delivery Policy (FMDP). This underscores the importance for policymakers and implementers to grasp the contextual manifestations of these factors, enabling them to proactively address and mitigate these issues to advance the cause of safe motherhood.

With regard to the second objective, it is apparent that process-related factors play a pivotal role in shaping the utilization of the FMDP. This study emphasizes the significance of policy beneficiaries in shedding light on the intricate dynamics of utilization, thereby providing valuable insights to inform policy makers and implementers on areas necessitating improvement. The research has effectively unveiled multiple determinants of policy utilization, which, if duly considered, can drive policy reforms and enhance the quality of implementation.

Concerning the third objective, there is a noticeable scarcity of time series research examining the Free Maternity Delivery Policy. This study, however, has demonstrated the utility of trends analysis in quantitatively assessing the outcomes of the FMDP. Yet, to obtain a comprehensive qualitative understanding of the policy's effects, it is imperative to investigate the structural and process variables. This holistic approach is essential for drawing comprehensive conclusions about the policy's outcomes.

7.4 Recommendations

Given the multifaceted factors uncovered by this study that impact the implementation and utilization of free maternity delivery services, several recommendations emerge. It is advisable to consider gradual policy adjustments to encompass a broader spectrum of the continuum of care for safe motherhood. This should encompass addressing institutional factors influencing implementation, as well as the socio-cultural and economic determinants influencing utilization.

One pivotal recommendation is to refine the policy itself to comprehensively map all maternal health services falling under its ambit. An essential element is to clearly define and allocate the specific financial resources earmarked for free maternity services within the policy framework. This adjustment should extend to encompass community health services, fostering social

transformation and encouraging greater utilization of maternal health services. Moreover, the incremental policy adjustments should also encompass the maternal score sheets concerning the revenue allocation to health facilities. Exploring avenues to expedite government reimbursement of funds employed by facilities to facilitate free deliveries is imperative, considering its broader impact on hospital operations.

To ensure the sustained effectiveness of the program, the establishment of well-defined monitoring and evaluation procedures is crucial. These procedures should enable the tracking of program outcomes and progress, thus contributing to a more informed decision-making process. Furthermore, this study proposes that future research should adopt a longitudinal approach, ideally incorporating randomized controlled trials with two distinct groups. These groups would consist of mothers utilizing free maternal services and those who do not, allowing for the rigorous testing of the free maternity delivery policy's effectiveness. To enhance research validity and timeliness, there should be an emphasis on the prompt availability and update of data pertaining to the implementation and utilization of the Free Maternity Delivery Policy. An example of this challenge was encountered when analyzing trends in ANC, as the study was limited to data available only up to 2017, highlighting the necessity for more up-to-date data in future research endeavors.

7.5 Suggestions for future Studies

1. Research into the subject matter free maternity policy and the perspectives of the mothers who prioritize TBAs as opposed to formal skilled deliveries. Large part of this study is based on 184 women who said they used the program and hence it was only logical to understand utilization from their perspectives. Non-utilization is also key hence a study into TBA, its value and dynamics needs to be undertaken.

2. Comparative studies of urban versus rural or rural areas of different contexts may serve to add value to this current study. For example, does what is observed in Mandera Coounty (a rural county) differ from, say an urban county like Nairobi and why? Such studies will further generate evidence that will limit blind application of policy without cognizance of context. A study of rural-versus rural experiences will serve the same purposes and reveal how rural areas experience the policy the same and differently so that policy makers and implementers know

how context should be treated to increase the attainment of safe motherhood as a goal for the FMDP.

7.6 Contribution to Knowledge

This study makes important contributions to the field of public policy analysis, and to debates around health policy and maternal health. First, the study contributes to the existing literature by focusing on the specific case of Mandera County, Kenya. While there is literature on free maternity policies in general, the research provides a localized perspective, considering the unique challenges and circumstances faced in this region. This helps to fill a gap in the literature by offering insights into how such policies operate at the sub national level, narrowing down to Kenya. Secondly, the research conducts an empirical analysis of the implementation of the free maternity policy in Mandera County. By examining factors that influence both the implementation and utilization of the policy, the study provides valuable data-driven insights. This contributes to the existing literature by offering concrete evidence of the policy's impact on maternal healthcare in a specific context. Thirdly, the study employs a mixed-methods approach, combining both quantitative and qualitative data collection and analysis. This contributes to the literature by showcasing the importance of a multifaceted research strategy. It recognizes that policy implementation is influenced by a wide range of factors, including human behavior, financial considerations, and geographic challenges, which can be effectively captured through both quantitative and qualitative methods. Lastly, the study concludes with recommendations for policy improvements based on the findings. This contributes to the literature by offering practical insights for policymakers and healthcare practitioners. These recommendations are rooted in the data and analysis conducted in my study, making them more relevant and actionable for addressing the maternal healthcare challenges in Mandera County. This can serve as a model for evidence-based policymaking in other settings.

REFERENCES

Abdu, Z., Mohammed, Z., Bashier, I., & Eriksson, B. (2004). The impact of user fee exemption on service utilisation and treatment seeking behaviour: the case of malaria in Sudan. International Journal of Health Planning and Management, 2014 (19), 95-106

Abel, S. (1993). Financing Health Services in Developing Countries: The Options. NU News on Health Care in Developing Countries, Vol. 7

AFIDEP. (2022). Reproductive, Maternal, Neonatal and Child Health: Mandera County. Fact Sheets. Accessed from: https://www.afidep.org/publication/reproductive-maternal-neonatal-and-child-health-mandera-county/#:~:text=Mandera%20County%20is%20one%20of,the%20highest%20in%20the%20country.

Agyepong, I. and Nagai, R. (2011). We Charge Them: Otherwise We Cannot Run the Hospital' Front Line Workers, Clients and Health Financing Policy Implementation Gaps in Ghana. Health Policy, 2011 (99), 226–233

Akashi, H., Yamada, T., Huot, E., Kanal, K., & Sugimoto, T. (2004). User fees at a public hospital in Cambodia: effects on hospital performance and provider attitudes. Social Science and Medicine, 2004 (58), 553-564.

Akin, J., Birdsall, N., De, F., & Bank, W. (1987). Financing Health Services in Developing Countries: An Agenda for Reform. World Bank Policy Study. Washington, DC: World Bank

Alkin, M. (2004). Evaluation roots: Tracking theorists' views and influences. Thousand Oaks, CA: Sage

Altaras, R. (2009). Increasing Financial Access to Primary Health Care for the Rural Poor: A study on changes in health service use and costs following the removal of user fees in the Grande Anse, Haiti. Paris, France, Médecins du Monde France

Ana, J. (2011). Are traditional birth attendants good for improving maternal and perinatal health? Yes. BMJ, 342

Asante, F., Chikwama, C., Daniels, A., & Armar-Klemesu, M. (2007). Evaluating the Economic Outcomes of the Policy of Fee Exemption for Maternal Delivery Care in Ghana. Ghana Medical Journal 41(3), 110.

Babbie, E. (2008 4th Edition. The Basics of Social Research. Thompson: Autralia.

Baghanian A, Aghamohammadi G, Saie A, Rahmani H, Saeedpour J. [Management in health care]. 2nd ed. Tehran:Gap Publication;2003:795-9.

Bell, J., Curtis, S., & Alayon, S. (2003). Trends in delivery care in six countries (DHS Analytical Studies No. 7). Calverton: ORC Macro and International Research Partnership for Skilled Attendance for Everyone (SAFE)

Benard, M. (2015). Influence of devolved governance and performance of the health sector in Kenya, the strategic journal of business change management, 51(2), pp 67-105. ISSN: 2312-9492. Retrieved from www.strategicjournals.com, ©strategic Journals

Bitran R., & Giedion, U. (2003). Waivers and Exemptions for Health Services in Developing Countries. Washington, DC: The World Bank

Borghi, J., Enso, T., Somanathan, A., Lissner, C., & Mills, A. (2006). Mobilising financial resources for maternal health. The Lancet, 2006(368), 1457–1465.

Borghi, J., Ensor, T., Neupane, B., & et al. (2006). Financial implications of skilled attendance at delivery in Nepal. Tropical Medicine and International Health, 2006(2), 228-37

Borghi, J., Ensor, T., Neupane, B., & Tiwari, S. (2006). Financial implications of skilled attendance at delivery in Nepal. Tropical Medicine and International Health, 2006(11). 228-37.

Bourbonnais, N. (2013). *Implementing free maternal health care in Kenya: challenges, strategies, and recommendations* (No. BOOK). The Kenya National Commission on Human Rights.

Breen, S., & Ensor, T. (2011). Contextual influences and individual determinants of skilled attendance at delivery in Zambia: a multivariate analysis of the 2007 Demographic and Health Survey. Mobilising Access to Maternal Health Services in Zambia (MAMaZ), Health Partners International.

Burnham, G., Pariyo, G., Galiwango, E., & Wabwire-Mangen, F. (2004). Discontinuation of cost sharing in Uganda. Bulletin of the World Health Organisation, 2004 (82), 187–95

Burns, A. (1999). Collaborative action research for English language teachers. Cambridge: CUP.

Campbell, J., Oulton, J., McPake, B., & Buchan, J. (2009). Removing user fees? Engage the health workforce. The Lancet, 374(9706), 1966.

Campbell, J., Oulton, J., McPake, B., & Buchan, J. (2011). Increasing access to 'free' health services: are health workers not a missing link? International Journal of Clinical Practice, 65(1), 12-15.

Campbell, O., & Graham, W. (2006) Strategies for reducing maternal mortality: getting on with what works. Lancet; published online Sept 28. DOI:10.1016/S0140-6736(06)69381-1.

Center for Evaluation Innovations Organisational Research Services (2009). Pathways for change: 10 Theories to Inform Advocacy and Policy Change Efforts. www.evaluationinnovation.org

Cheelo, C., Chama, C., Pollen, G., Carasso, B., Palmer, N., Jonsson, D., Lagarde, M., & Chansa, C. (2010). Do User Fee Revenues Matter? Assessing the Influences of the Removal of User Fees on Health Financial Resources in Zambia. Department of Economics, Working Paper No. 2010/1. Lusaka, University of Zambia

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, *39*(3), 124-130.

Chris, E. (n.d.) maternity fee waiver in Kenya. Retrieved from http://includeplatform.net/

Chuma, J., Gilson, L., & Molyneux, C. (2007). Treatment-seeking behaviour, cost burdens and coping strategies among rural and urban households in Coastal Kenya: an equity analysis. Tropical Medicine International Health 12(5), 673–686.

Chuma, J., Musimbi, J., Okungu, V., Goodman, C., & Molyneux, C. (2009). "Reducing user fees for primary health care in Kenya: Policy on paper or policy in practice?" International Journal for Equity in Health, 2009 (8), 15

Chuma, J., Thiede, M., & Molyneux, C. (2006). Rethinking the economic costs of malaria at the household level: evidence from applying a new analytical framework in rural Kenya. Malar Journal, 2006(5), 76.

Clinton, J., McNeill, R., Irvine, R., Silva, M., & Brown, P (2009) An evaluation of the Gardening for Health and Sustainability initiative: an initiative supported by Let's Beat Diabetes. Counties Manukau District Health Board 1-44.

Cochran, W. (1990). sampling techniques (3rd ed.). Newyork, john willey & sons.

Darmstadt, G., Bhutta, Z., Cousens, S., Adam, T., Walke, N., & de Bernis, L. (2005). for the Lancet Neonatal Survival Steering Team. Evidence-based, cost-effective interventions: how many newborn babies can we save? Lancet, 2005(365), 977–88.

De-Allegri, M., Ridde, V., Louis, V., Sarker, M., Tiendrebéogo, J., Yé, M., Müller, O., & Jahn, A. (2011). Determinants of utilisation of maternal care services after the reduction of user fees. a case study from rural Burkina Faso. Health Policy, 99(3), 210-218.

Deininger, K., & Mpuga, P. (2005). Economic and welfare impact of the abolition of health user fees: evidence from Uganda. Journal of African Economy, 2005(14), 55-91

Department of Health, Republic of South Africa. Integrated Chronic Disease Management Manual. 2014. http://www.kznhealth.gov.za/family/Integrated-chronic-disease-management-manual.pdf

Donabedian A. An introduction to quality assurance in health care, vol. 1. 1st ed. New York: Oxford University Press; 2003

Donabedian A. Quality assessment and assurance: unity of purpose, diversity of means. Inquiry. 1988;25(1):173–92

Dzakpasu, S., Powell-Jackson, T., & Campbell, O. (2013). Impact of user fees on maternal health service utilisation and related health outcomes: a systematic review. Health policy and planning, 2013, 1-14

El-Khoury, M., Gandaho, T., Arur, A., Keita, B., & Nichols, L. (2011). Improving Access to Life Saving Maternal Health Services: The Effects of Removing User Fees for Caesareans in Mali. Bethesda, MD, Health Systems 2001(20), 20

Ensor, T., & Ronoh, J. (2005) Effective financing of maternal health services. a review of the literature. Health Policy, 2005 (75), 49-58

Fleming, M., & Parker, E. (2007) Health promotion: Principles and practice in the Australian context. Allen & Urwin, New South Wales, Australia

Fraenkel, J., & Wallen, N. (2003). How to design and evaluate research in education (5thed.). New York, USA: McGraw-Hill.

Gabrysch, S., & Campbell, O. (2009). Still too far to walk: literature review of the determinants of delivery service use. BMC Pregnancy and Childbirth, 9(1), 34.

Gage, A. (2007). Barriers to the utilisation of maternal health care in rural Mali. Social Science & Medicine, 65(8), 1666-1682

Garces, A., McClure, E., Chomba, E., Patel, A., Pasha, O., Tshefu, A., Esamai, F., Goudar, S., Lokangaka, A., & Hamidge, K. (2012). Home birth attendants in low income countries: who are they and what do they do? BMC Pregnancy and Childbirth, 12(1). 34.

Gill, C., Guerina, N., Mulenga, C., Knapp, A., Mazala, G., & Hamer, D. (2012). Training Zambian traditional birth attendants to reduce neonatal mortality in the Lufwanyama Neonatal Survival Project (LUNESP). International Journal of Gynaecology and Obstetrics. 118(1), 77-82

Gilson, L., & McIntyre, D. (2005). Removing user fees for primary care in Africa: the need for careful action. British Medical Journal, 2005(331), 762–5.

Gilson, L., & S, Russell. (1994). Can Fees Recover Costs? Health Action, Issue 9.

Gitobu, C. M., Gichangi, P. B., & Mwanda, W. O. (2018). The effect of Kenya's free maternal health care policy on the utilization of health facility delivery services and maternal and neonatal mortality in public health facilities. *BMC pregnancy and childbirth*, *18*(1), 1-11.

Government of Kenya, (2013). Free maternity delivery program/ Health centres and dispensaries services, Nairobi: Ministry of Health.

Graham, W., Bell, J., & Bullough, H. (2001) Can skilled attendance at delivery reduce maternal mortality in developing countries? Studies in Health Services Organisation and Policy, 2001 (17), 97-130.

Henry, GT. (1990). Practical sampling, applied social research method series. Sage publication 1990, (21)

Hercot, D., & Morestine, F. (2009). Multi-country review on abolition of user fees in the health sector: Uganda country report. Antwerp. Institute of tropical medicine. Google scholar.

Hercot, D., Meessen, B., Ridde, V., Gilson, L. (2011). Removing user fees for health services in low-income countries: a multi-country review framework for assessing the process of policy change. Health policy and planning 26 (2) ii5-ii15

Hillemeier MM, Weisman CS, Chase GA, Dyer AM, Shaffer ML. Women's pre-conceptional health and use of health services: implications for preconception care. Health Service 2008 Feb;43(1 Pt 1):54-75

Hofmeyr, G., Haws. R., Bergström, S., Lee, A., Okong, P., Darmstadt, G., Mullany, L., Shwe, O., & Lawn, J. (2009). Obstetric care in low-resource settings. What, who, and how to overcome challenges to scale up? International Journal of Gynaecology and Obstetrics, 2009, (107) 21–45

Hogberg, U. (2004). The Decline in Maternal Mortality in Sweden. The Role of Community Midwifery. American Journal of Public Health 94 (8).1312-1320.

Holla, A., & Kremer, M. (2009) Pricing and Access. Lessons from Randomised Evaluations in Education and Health. The Centre for Global DevelopmentWorking Paper 158, Washington, D.C.

Intarakamhang, U., & Patcharee, D. (2012) Effects of health behavioural modification program on metabolic diseases in risk Thai clients. Asian Biomedicine 6: 2.

James, C., Hanson, K., McPake, B., Balabanova, D., Gwatkin, D., Hopwood, I., Kirunga, C., Knippenberg, R., Meessen, B., Morris, S., Preker, A., Soucat, A., Souteyrand, Y., Tibouti, A., Villeneuved, P., & Xuh, K. (2006). To Retain or Remove User Fees?: Reflections on the Current Debate in Low- and Middle-Income Countries. Applied Health Economics and Health Policy, 5 (3), 137-53

Kamau, L. M. (2016). *Determinants for utilization of free maternal services in Kenya* (Doctoral dissertation, University of Nairobi).

KEMRI and Wellcome Trust (2017) FREE MATERNITY SERVICES IN KENYA: How can the policy be improved going forward Retrieved from https://resyst.lshtm.ac.uk/sites/resyst/files/content/attachments/2018-08-21/Free%20maternity%20services%20in%20Kenya_0.pdf

Kenya Demographic Health Survey (2014) Kenya population situation analysis report (2013). Retrieved from www.monitor.co.ke>tag>kenya-population-analysis-report

Kenya Ministry of State for the Development of Northern Kenya and other Arid Lands (MONDKAL) and Intra Health International. (2012). Human Resources for Health (HRH) Assessment in Northern Kenya: An overview of health workforce distribution across 10 counties. Nairobi, Kenya

Kenya national commission on human rights (2015). Realising sexual and reproductive health rights in Kenya. A myth or a reality. A report of the public inquiry in to violations of sexual and reproductive health rights in Kenya

Kippenberg, J., Sahokwasama, J., & Amon, J. (2008). Detention of insolvent patients in Burundian hospitals. Health Policy and Planning, 23(1), 14-23.

Kothari, C.R., (2004 2nd edn.). *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers.

Krukm M., Galeam S., Prescott, M., & Freedman, L. (2007) Health care financing and utilisation of maternal health services in developing countries. Health Policy and Planning, 2007, (22), 303-10

Lagarde, M., Barroy, H., & Palmer, N. (2012). Assessing the effects of removing user fees in Zambia and Niger. Journal of Health Services Research & Policy, 17(1),30-36.

Lang'at, E., Mwanri, L., & Temmerman, M. (2019). Effects of implementing free maternity service policy in Kenya: an interrupted time series analysis. *BMC health services research*, *19*(1), 1-10.

Lawn, J., Lee, A., Kinney, M., Sibley, L ., Carlo, W., Paul, V., Pattinson, R., Darmstadt, G. (2009a). Two million intrapartum related stillbirths and neonatal deaths: Where, why, and what can be done? International Journal of Gynaecology and Obstetrics. 2009a, (107), 5–19

Lee, A., Lawn, J., Cousens, S., Kumar, V., Osrin, D., Bhutrta, Z., Wall, S., Nandakumar, A., Syed, U., & Darmstadt, G. (2009). Linking families and facilities for care at birth. What works to avert intrapartum related deaths? International Journal of Gynaecology and Obstetrics, 2009, (107), 65–88

Masaba, B. B., & Mmusi-Phetoe, R. M. (2020). Free Maternal Health Care Policy in Kenya; Level of Utilization and Barriers. *International Journal of Africa Nursing Sciences*, *13*, 100234.

Masiye, F., Chitah, B., Chanda, P., & Simeo, F. (2008). Removal of user fees at primary health care facilities in Zambia. a study of the effects on utilisation and quality of care. Regional Network for Equity in Health in East and Souther Africa Discussion Paper 57

Mbugua, J., Bloom, G., & Segall, M. (1995). Impact of user charges on vulnerable groups. The case of Kibwezi in rural Kenya. Social Science & Medicine, 1995 (41), 829–35.

McBurney, D. & White, T. (2009). *Research Methods*. New York, NY: Cengage Learning.

McIntyre, D., Gilson, L., & Mutyambizi, V. (2005). Promoting equitable health care financing in the AFrican context: current challenges and future prospects. Equinet discussion paper number 27. Regional Network for Equity in Health in Southern Africa (EQUINET). http://www.equinetafrica.org/bibl/docs/DIS27fin.pdf [downloaded 02/06/16]

McIntyre, D., Thiede, M., Dahlgren, G., & et al. (2006). What are the economic consequences for households of illness and of paying for health care in low- and middle-income country contexts? Social Science and Medicine, 2006 (62), 858–865.

McPake, B. (1993). User charges for health services in developing countries: a review of the economic literature. Social Science and Medicine, 36(11), 1397–405.

McPake, B., Brikci, N., Cometto, G., Schmidt, A., & Araujo, E. (2011). Removing user fees: learning from international experience to support the process. Health Policy and Planning, 26 (2), 104-117

Meesen , B., Hercot, D., Noirhomme, M., Ridde, V., Tibouti, A., Tashobya, C., & Gilson, L. (2011). Removing user fees in the health sector: a review of policy processes in six sub-Saharan African countries. Health Policy and Planning, 26(2), 16–29

Meessen, B., Hercot, D., Noirhomme, M., Ridde, V., Tibouti, A., Bicaba, A., Kirunga, C., & Gilson, L. (2009). Removing User Fees in the Health Sector in Low-Income Countries – A Multi-Country Review. New York: UNICEF.

Merriam, S. (1998). Qualitative research and case study applications in education. San Francisco: Jossey-Bass.

Ministry of Health. (2004). Household Health Expenditure and Utilisation Survey Report 2003. Nairobi.

Ministry of Health. (2015). Status of implementation of free maternity services (FMS) program in the devolved health system in Kenya: a comprehensive assessment report.

Ministry of Medical Services. (2008). Facts and Figures on Health and Health Related Indicators. Nairobi.

Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliabil ity. *Annals of Spiru Haret University. Economic Series*, *17*(4), 59-82.

MoMS and Ministry of Public Health (MoPH). 2009. Kenya Household Expenditure and Utilisation Survey Report 2007. Nairobi.

Mubyazi, G., Massaga, J., & et al. (2006). User charges in public health facilities in Tanzania: effect on revenues, quality of services and people's health-seeking behaviour for malaria illnesses in Korogwe district. Health Service Managers, 19(1),23-35.

Mwabu, G. (1986). Health care decisions at the household level: results of a rural health survey in Kenya. Social Science and Medicine 22(3): 315–319.

Mwangi, D., & Jonah, M. (2017). *Effect of the Free Maternity Programme on the Access and Outcomes of Maternal and Newborn Health (MNH) In the County of Kiambu* (Doctoral dissertation, United States International University-Africa).

N'Gbichi, C., Ziraba, A. K., Wambui, D. W., Bakibinga, P., Kisiangani, I., Njoroge, P., ...& Mohamed, E. (2019). "If there are no female nurses to attend to me, I will just go and deliver at home": a qualitative study in Garissa, Kenya. *BMC pregnancy and childbirth*, *19*(1), 1-9.

Nanda, P. (2002) Gender dimensions of user fees: implications for women's utilisation of health care. Reproductive Health Matters 2002 (10), 127–134

National Council for Population and Development (NCPD) &The Population Studies and Research Institute ((PSRI), (2013) Policy Brief No. 38, October 2013:

National Research Council. (2013). *Nonresponse in social science surveys: A research agenda*. National Academies Press.

Nicholas, H. (2007) public administration and public affaire (10th ed.). Upper saddle river, NJ: Pearson/prentice hall.

Nikpour B, Majlesi F. [Evaluating the quality of health services]. Tehran:Tehran University;2002:105.

Njuguna, J., Kamau, N., & Muruka, C. (2017). Impact of free delivery policy on utilization of maternal health services in county referral hospitals in Kenya. *BMC Health Services Research*, *17*(1), 1-6.

Nunan, D. (1999). Research methods in language learning (8thed.). Cambridge: CUP.

Nyongesa, C., Xu, X., Hall, J. J., Macharia, W. M., Yego, F., & Hall, B. (2018). Factors influencing choice of skilled birth attendance at ANC: evidence from the Kenya demographic health survey. *BMC pregnancy and childbirth*, *18*(1), 1-6.

Olivier de Sardan, J, & Ridde, V. (2012). Les contradictions des politiques publiques. Un bilan des mesures d'exemption de paiement des soins au Burkina Faso, au Mali et au Niger. Afrique Contemporaine, 2012(3), 243.

Orangi, S., Kairu, A., Malla, L., Ondera, J., Mbuthia, B., Ravishankar, N., & Barasa, E. (2021). Impact of free maternity policies in Kenya: an interrupted time-series analysis. *BMJ Global Health*, *6*(6), e003649.

Overbosh, G., Nsowah-Nuamah, N., van der Boom, G., & Damnyag, L. (2003). Determinants of Antenatal Care Use in Ghana. A Report Prepared for Human Resource Development for Poverty Reduction and Household Food Security. Ouagadougou, Burkina Faso: Sécurité Alimentaire Durable en Afrique de l'Ouest Centrale

Pearson, M. (2004). The Case for Abolition of User Fees for Primary Health Services, DFID Health Systems Resource Centre

Pyone, T., Smith, H., & van den Broek, N. (2017). Implementation of the free maternity services policy and its implications for health system governance in Kenya. *BMJ global health*, *2*(4), e000249.

Salzer MS, Nixon C, Schut JA. Quality as relationship between structure, Process, and outcome [microform]: a conceptual framework for evaluating quality. Washington, D.C.:ERIC Clearinghouse;1996.

Simon, K. (2011). Dissertation and Scholarly Research: Recipes for Success. Seattle, WA: Dis sertation Success LLC

Singh, S., Chhabra, P., & Sujoy, R. (2012). Role of Traditional Birth Attendants (TBAs) in Provision of Antenatal and Perinatal Care at Home Amongst the Urban Poor in Delhi, India. Health Care for Women International, 33(7).666-676.

Stekelenburg, J., Kyanamina, S., Mukelabai, M., Wolffers, I., & Roosmalen, J. (2004). Waiting too long: low use of maternal health services in Kalabo, Zambia. Tropical Medicine & International Health, 9(3).390-398.

Stephenson, R., Baschieri, A., Clements, S., Hennink, M., & Madise, N. (2006). Contextual influences on the use of health facilities for childbirth in Africa. American Journal of Public Health, 96(1).84-93

Tama, E., Molyneux, S., Waweru, E., Tsofa, B., Chuma, J., & Barasa, E. (2018). Examining the implementation of the free maternity services policy in Kenya: a mixed methods process evaluation. *International journal of health policy and management*, *7*(7), 603.

Tann, C., Kizza, M., Morison, L., Mabey, D., Muwanga, M., Grosskurth, H., & Elliott, A. (2007). Use of antenatal services and delivery care in Entebbe, Uganda. A community survey. BMC Pregnancy and Childbirth, 7(1).23.

UNFPA, (2007) Skilled attendance at birth: fact sheet, UNFPA, Geneva. http://www.unfpa.org/mothers/skilled_att.htm (accessed 20/4/2016).

UNICEF, (2009). Maternal and Child Health: The Social Protection Dividend - West and Central Africa. Regional Thematic Report 4. Dakar, UNICEF Regional Office for West and Central Africa

UNICEF.(2008). Countdown to 2015. Tracking Progress in Maternal, Newborn and Child Survival: Report; New York: UNICEF

United Nations (UN) (2015). The Millennium Development Goals Report 2015 [Internet]. New York: United Nations. Available from: http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG 2015 rev (July 1).pdf

Walker, L. and L. Gilson (2004). We are Bitter but We are Satisfied': Nurses as Street-level Bureaucrats in South Africa. Social Science & Medicine 59 (6).1251–1261.

Wamalwa, E. W. (2015). Implementation challenges of free maternity services policy in Kenya: the health workers' perspective. *Pan African Medical Journal*, *22*(1).

WHO. (2005) World health report 2005. Make every mother and child count. Geneva.

WHO. (2006a) Moving towards universal coverage series, maternal, newborn health and poverty. WHO, Geneva. http://www.who.int/ reproductivehealth/ universal_coverage/index.htm (accessed 17/5/2016).

WHO. (2006b) Making a difference in countries: strategic approach to improving maternal and newborn survival and health. WHO Making Pregnancy Safer, Geneva. http://www.who.int/making_pregnancy_safer/publications/StrategicApproach2006.pdf (accessed 17/5/2016).

Witter, S. (2005). An unnecessary evil? User fees for health care in low income countries. London: Save the Children,

Witter, S. (2010). Mapping user fees for health care in high-mortality countries: evidence from a recent survey, HLSP Institute.

Witter, S., Arhinful, D., Kusi, A., & Zakariah-Akoto, S. (2007). The Experience of Ghana in Implementing a User Fee Exemption Policy to Provide Free Delivery Care. Reproductive Health Matters, 15 (30), 61-71.

Witter, S., Dieng, T., Mbengue, D., Moreira, I., & De-Brouwere, V. (2010).The national free delivery and caesarean policy in Senegal. evaluating process and outcomes, Health Policy and Planning, 2010(25)384–392.

Witter, S., Khadka, S., Nath, H., & Tiwari, S. (2011), "The national free delivery policy in Nepal: early evidence of its effects on health facilities", Health Policy and Planning, vol. forthcoming (November

World Bank. (1987). Financing health services in developing countries. An agenda for reform. Washington DC

World Health Organisation Study Group. (1993). Evaluation of Recent Changes in the Financing of Health Services. WHO Technical Report Series 829. WHO, Geneva

Xu, K., Evans, D., Carrin, G., Aguilar-Rivera, A., Musgrove, P., & Evans, T. (2007). Protecting households from catastrophic health spending. Health Aff (Millwood), 26(4). 972–983

Xu, K., Evans, D., Kawabata, K., Zeramdini, R., Klavus, J., & Murray, C. (2003). Household catastrophic health expenditure. a multicountry analysis. Lancet, 2003 (362),111-7.

Yamane, T. (1967). Statistics: An Introductory Analysis (2nd ed.). Newyork , Hamper and Row.

Yates, R. (2009). Universal health care and the removal of user fees. Lancet 373(9680), 2078-2081.

Zhang, G., Zeller, N., Griffith, R., Metcalf, D., Williams J, Shea C., et al, (2011). Using the Context, Input, Process, and Product Evaluation Model (CIPP) as a Comprehensive Framework to Guide the Planning, Implementation, and Assessment of Service-learning Programs. Journal of Higher Education Outreach and Engagement. 15(4):57-83.

APPENDICES

Appendix 1: CONSENT FORM
SCHOOL OF GRADUATE STUDIES, MASENO UNIVERSITY

MASTERS IN RESEARCH AND PUBLIC POLICY

Consent form
You are requested to participate in this study on evaluation of free maternity delivery policy and its impact on safe motherhood in Mandera County. This research is being conducted by Kassim Haji Abdinoor, a student at Maseno University, school of graduate studies undergoing masters in research and public policy and it should take approximately 35 minute to complete.

Your participation in this study is voluntary and you may refuse to take part in the research or exit the study at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason. You will receive no direct benefits from participating in this research study, However, your responses may help us learn more about free maternity policy and its impact on safe motherhood and thereby aid our interaction with the policy in future. There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life. Your responses will be stored in a password protected electronic format only accessible to the researcher. This study will not collect identifying information such as your name, email address, or IP address. Therefore, your responses will remain anonymous.

If you have questions at any time about the study or the procedures, you may contact my research supervisor, Dr. Mary Ochieng at 0703439370. If you feel you have not been treated according to the descriptions in this form, or that your rights as a participant in this research have not been honoured during the course of this study, or you have any questions, concerns, or complaints that you wish to address to someone other than the investigator, you may contact the coordinator for masters in research and public policy Prof. Nyambetha at 0713816189

If you agree please sign here sign ——————————————————————————

Thank you

Appendix 2: HOUSEHOLD QUESTIONNAIRE
Evaluation of free maternity delivery policy and its impact on safe motherhood in Mandera County.

Factors influencing utilisation of free maternity delivery policy.

I. Investigator information

Name of the investigator ……

Date……..…….

Start time……. End time ……

II. Sub-county…… Cluster Name…… Cluster No……..

III. Filter questions

Have any women in your household given birth in the last 4 years? (please tick in the appropriate box)

Yes	No

If yes, may I speak with her?

1. Demographic questions

1. What is your age (Please state)……..
2. What is your occupation? (Please state)……..
3. What is your marital status? (please tick in the appropriate box)

Married	Not married	Divorced	Widow

4. What is your household monthly income? (please tick in the appropriate box)

Less than Ksh. 8500	Ksh 8501 to 16000	Ksh. 16001 to 32,000	More than Ksh. 32000

5. How old is your last child?(please tick in the appropriate box)

Less than 1 year	1 year to 2 years	2 years to 4 years	More than 4 years

6. During your last pregnancy, which type of health facility did you visit for your delivery?(please tick in the appropriate box)

Government hospital/dispensary	Private clinic/hospital	NGO clinic/hospital	Traditional birth attendant-at home

NB. If the respondent has not used government facilities go to question No 10 and end the interview.

7. How many times did you visit the facility during your pregnancy?(please tick in the appropriate box)

1 to 3 times	More than 3 times

8. What health services did you receive when you visited the clinic during your pregnancy? (please tick in the appropriate box)

Physical examination(weight, blood pressure, heart rate)	Gynecological examination	ultrasound	HIV/STD testing	Blood testing	Nutritional supplement	Tetanus toxoid	Don't know

9. Where do you preferred to give birth for your next delivery?

home	Health facility

10. If you did not use government facility, what was the reason for not using it?(please tick in the appropriate box)

Service not satisfactory	Long waiting periods	Health workers not available	Medicine not available	Long distance	Treatment is costly	Others(please specify)

11. During delivery were you attended by a skilled birth attendant (Nurse, Doctor, and Midwife)?(please tick in the appropriate box)

Yes	No

12. Who were you attended by? (please tick in the appropriate box)

Doctor	Nurse	Midwife	Don't know

.13. Kindly describe their (Nurses) attitude towards patients

Cooperative	Reliable	Hostile	Others

14. If you gave birth at health facility for the recent baby, why?

I was sick	No fees	Health facility near	Good service	Family allowed	Save mothers life	Received health talks	Others specify

15. If delivered at government facilities, how long it takes you to reach the facility(please tick in the appropriate box)

Less than 3o min.	30 min to 1 hr.	1 hr. to 1hr and 30 min	More than 1 hr. and 30 min

16. Which modes of transport do you use to go to government health facility? (please tick in the appropriate box)

Walking	Car	Public transport	Donkey cart

17. What was the average amount of time that you waited to see medical staff when you visited the facility? (please tick in the appropriate box)

Less than 30 min.	30 min. to 1 hr.	1 hr. to 1.5 hrs.	1.5 hrs. to 2 hrs.	More than 2 hrs.

18. Did you pay any money for maternal health service?(please tick in the appropriate box)

Yes	No

19. If yes; In total how much did your household spend for maternal health service for your last pregnancy? (Please tick in the appropriate box)

Less than Ksh. 10,000	Ksh. 10,000 to 20,000	More than Ksh. 20,000

20. For what purpose was the money paid?

21. Was it demanded or did you pay it on your own?(Please tick in the appropriate box)

Demanded	Paid on my own

22. Does The health facility/workers shares information on free maternal health care with community members?

yes	**no**

23. Does the health worker regularly visit your village for household identification of pregnant women for counseling and advice?

yes	**no**

26. Are you satisfied with the attitude of the personnel/ staff administrating the free maternal health care in the facility

Yes	no

27. How did you get information on the free maternal health care?

Radio	Hospital/dispensary staff	Community health worker	Mosque	women group	Women groups	Spouses	Others specify

28. What free maternal services do you receive from the health facility?

Antenatal services	Delivery	Postnatal services	Family planning	Others specify

29. Did you receive medical care during your pregnancy at the government primary health facility? (please tick in the appropriate box)

Yes	No

30. How satisfied were you with the care you received from the skilled birth attendant? (please tick in the appropriate box)

Completely satisfied	Partially satisfied	Neither satisfied or dissatisfied	Dissatisfied

31. What are the reasons for your dissatisfaction? (Open ended)

_____

32. Did you experience any complication during delivery? (please tick in the appropriate box)

Yes	No

33. Did the facility provide emergency care for these complications? (please tick in the appropriate box)

Yes	No

34. Were you taken to another hospital/facility for emergency care? (please tick in the appropriate box)

Yes	No

35. Overall, how satisfied were with the maternal health services you received? (please tick in the appropriate box)

Completely satisfied	Partially satisfied	Dissatisfied

36. What are challenges of maternal health services that you noticed during your last pregnancy?(open ended)

37. What are your suggestions for improving maternal health services at government primary health facility? (open ended)

_____

_____

_____

Thank you

SOMALI TRANSLATION
SU'AALO GURIYEYNTA
QIIMEYNTA SIYAASADDA DHALMADA OO LACAG LA'AAN AH IYO SAAMEYNTA AY KU LEEDAHAY HOOYADA NABDOON EE GOBOLKA MANDERA
Caqabadaha saameynaya isticmaalka siyaasadda dhalmada ee lacag la'aanta ah.
Warbixinta baadhaha
Magaca baaraha……..
Taariikhda……..
Waqtiga bilowga…… Waqti dhammaadka……
Gobolka hoose…….Magaca Kombuyuutarka……..……sukeennadiisa…….
Su'aalaha sifee……..
Ma jiraan dumar qoyskaaga ka tirsan oo dhashay 4tii sano ee la soo dhaafay? (fadlan sax ku dhig sanduuqa ku haboon)
haa (.)
Maya (.)
Haddii ay haa tahay, ma la hadli karaa iyada?
Su'aalaha Daabacaadda
1. Waa maxay da'daadu (Fadlan sheeg) .....
2. Waa maxay shaqadaadu? (Fadlan sheeg) ..... ^
3. Waa maxay xaaladdaada guurka? (fadlan sax ku dhig sanduuqa ku haboon)

Is-guursan (.)
Ma guursan (.)
4. Maxay tahay dakhligaaga bishii? (fadlan sax ku dhig sanduuqa ku haboon)
In ka yar Ksh. 8500 (.)
Ksh 8501 ilaa 16000 (.)
Ksh. 16001 ilaa 32,000 (.)
In ka badan Ksh. 32000 (.)
5. Immisa ayuu jiraa cunugaaga ugu dambeyn (fadlan sax ku dhig sanduuqa ku haboon)
In ka yar 1 sano (.)
1 sano ilaa 2 sano (.)
2 sano ilaa 4 sano (.)
In ka badan 4 sano (.)
6. Inta lagu jiro xilligii uurkaagii ugu dambeeyey, nooca rugta caafimaadka ee aad u soo booqatay siintaada (fadlan sax sanduuqa ku haboon)
Isbitaalka dawladda / isbitaalka (.)
sbitaalada gaarka loo leeyahay / isbitaalka (.)
Kiliinikada caafimaadka ee isbitaalka / isbitaalka (.)
Dhalashada dhaqameed -ka guriga (.)
NB: Haddii jawaab celiyuhu uusan isticmaalin xarumaha dowladda u tag qaybta 3aad iyo soo afjar wareysiga
7. Imisa jeer ayaad booqatay rugtaada intaad uurka leedahay (fadlan sax sanduuqa ku haboon)
1 ilaa 3 jeer (.)
In ka badan 3 jeer (.)
8. Waa maxay adeegyada caafimaad ee aad heshay markaad booqatay rugta caafimaadka intaad uurka leedahay (fadlan sax sanduuqa ku habboon)
Baaritaanka jirka (miisaanka, cadaadiska dhiigga, heerka garaaca wadnaha) (.)
Baaritaanka caafimaadka dumarka (.)
baaritaanka HIV / STD (.)
Baaritaanka dhiigga (.)
dheecaanka nafaqada (.)

Tetanus toxoid (.)
Ma garanayo (.)
9. Halkee ayaad jeceshahay in aad dhaleysid dhalmadaada xigta?
guriga (.)
Xarun caafimaad (.)
11. Haddii aadan isticmaalin xarunta dawlada, maxay ahayd sababta aysan u isticmaalin? (Fadlan sax sanduuqa ku haboon)
Adeeg aan ku qanacsanayn (.)
Waqtiga sugitaanka mudada dheer (.)
Shaqaalaha caafimaadka ee aan la heli karin (.)
Daawo aan la heli karin ^ Meel fog Waqti (.)
Daaweyn waa qaali (.)
Kala hadal wareysiga kadib
12. Inta lagu guda jiro dhalmada waxaad ka soo qaybgashay qof uur leh xirfadle (kalkaalis, dhakhtarka, iyo ummulisada) (fadlan sax ku dhig sanduuqa ku habboon)
Haa (.)
Maya (.)
13. Yaad ka qaybgashay? (fadlan sax ku dhig sanduuqa ku haboon)
Dhakhtarka (.)
Nurse (.)
Umulisadaada Ha ogaanin (.)
14. Si sharaf leh u sharrax fikraddooda (Nurses) dabeecadooda
Wadashaqeyn
Aamina
Dagaal
Kuwa kale (qeex)
15. Haddii aad ku dhalatay xarun caafimaad ilamaha dhowaan, maxaay sababta?
Waxaan jiranahay (.)
Wax kharash ah ma leh (.)
Xarun caafimaad oo ku dhow guriga (.)
Adeeg fiican ah (.)
Qoyska la oggol yahay (.)
Badbaadinta hooyooyinka nool (.)
La helay wadahadal caafimaad (.)
16. Haddii aad ku dhalatay xarumaha dawlada, intee le'eg ayay kugu qaadataa inaad gaarto xarunta (fadlan sax sanduuqa ku haboon)
In ka yar 3o daqiiqo (.)
30 min ilaa 1 saac. (.)
ilaa 1 saac iyo 30 min (.)
In ka badan 1 saac. iyo 30 daqiiqo (.)
17. Meelaha gaadiidka noocee ah ayaad u isticmaashaa inaad tagto xarunta caafimaadka ee dawladda? (fadlan sax ku dhig sanduuqa ku haboon)
Socodka (.)
Babur (.)
Gaadiidka Dadwayn (.)
Dareemka Dareemaha (.)
18. Muxuu ahaa celceliska qiyaasta waqtiga aad sugaysay si aad u aragto shaqaalaha caafimaadka markii aad soo booqatay xarunta? (fadlan sax ku dhig sanduuqa ku haboon)
In ka yar 30 daqiiqo. (.)
30 daqiiqo. ilaa 1 saac. (.)
1 saac. ilaa 1.5 saacadood. (.)
1.5 saacadood. ilaa 2 saacadood. (.)
In ka badan 2 saacadood. (.)

19. Miyaad bixisay wax lacag ah ee adeega caafimaadka hooyada (fadlan sax sanduuqa ku haboon)
Haa (.)
Maya (.)
20. Haddii ay haa tahay; Qiyaas ahaan intee ayuu qoyskaaga ku bixiyay adeegga caafimaadka hooyada xilligii uurkaagii ugu dambeeyey? (Fadlan sax ku dhig sanduuqa ku haboon)
In ka yar Ksh. 10,000 (.)
Ksh. 10,000 ilaa 20,000 (.)
In ka badan Ksh. 20,000 (.)
Muxuu yahay ujeedada lacagta ahayd?……..
21. Miyuu dalbaday ama ma ku bixisay adiga keligaa? (Fadlan sax sanduuqa ku haboon)
Codsaday (.)
lacag iga siisay (.)
22. Meelaha caafimaadku ma wadaagaan macluumaad ku saabsan daryeelka caafimaadka hooyada oo bilaash ah xubnaha bulshada?
Haa.( )
Maya (.)
23. Xarunta caafimaadku waxay ku taallaa dhismaheeda iyo dhismaha wuxuu ku sugan yahay dayactir wanaagsan / xaaladiisu waa mid qarsoodi ku filan?
Haa (.)
Maya (.)
24. Goobta caafimaadku waxay leedahay biyo joogto ah, musqul shaqeyn, awood koronto joogto ah iyo qalab kasta oo lagama maarmaanka u ah adeegyada hooyada?
Haa (.)
Maya (.)
25. Miyaad ku qanacsan tahay mawqifka shaqaalaha / shaqaalaha ee maamulaya daryeelka caafimaadka hooyada ee xarunta xannaanada?
Haa (.)
Maya (.)
26. Sideed ku heshay macluumaad ku saabsan daryeelka caafimaadka hooyada xorta ah?
Raadiyaha (.)
Isbitaalka / Shaqaalaha Bixiyeyaasha (.)
Shaqaalaha Caafimaadka Bulshada (.)
Masaajida dumarka (.)
Guryaha ( )
27. Waa maxay adeegyada hooyada bilaashka ah ee aad ka heshay xaruntan caafimaad?
Adeegyada umusha ah (.)
Diyaarinta (.)
Adeegyada dhalmada ee (.)
Qorsheynta qoyska (.)
Qaar kale ayaa tilmaamaya (.)
28. Miyaad heshay daryeel caafimaad intii lagu guda jiro uurkaaga rugta caafimaadka ee aasaasiga ah ee dawladda? (fadlan sax ku dhig sanduuqa ku haboon)
Haa (.)
Maya (.)
29. Intee in le'eg ayaad ku qanacsaneyd daryeelka aad ka heshay shaqaalaha xirfadlaha ah ee xirfadda leh? (fadlan sax ku dhig sanduuqa ku haboon)
Si buuxda u qanacsantahay (.)
Qayb ahaan qanacsanaayeen (.)
Anigana kuma qanacsanayn ama aan ku qanacsanayn (.)
Qancin la’aan (.)
Maxay yihiin sababaha ku qanacsanaantaada? (Furan furan)……..
30. Miyaad la kulantay wax dhib ah inta lagu jiro dhalmada? (fadlan sax ku dhig sanduuqa ku haboon)
Haa (.)

Maya (.)
32. Xaruntu ma bixisay daryeel degdeg ah dhibaatooyinkaas? (fadlan sax ku dhig sanduuqa ku haboon)
Haa (.)
Maya (.)
33. Ma lagaa qaaday isbitaal / goob kale oo loogu talagalay daryeelka degdegga ah? (fadlan sax ku dhig sanduuqa ku haboon)
Haa (.)
Maya (.)
34. Maxay yihiin caqabadaha adeegyada caafimaadka hooyada ee aad ka dareentay intii aad uurka lahayd?……
35. Maxay yihiin talooyinkaaga ku saabsan kor u qaadida adeegyada caafimaadka hooyada ee xarun caafimaad ee aasaasiga ah ee dawladda? (waa la furay)…….

MAHADSANID.

Appendix 3: Questionnaire for Health workers
MASENO UNIVERSITY

MASTERS IN RESEARCH AND PUBLIC POLICY

EVALUATION OF "FREE" MATERNITY DELIVERY POLICY AND ITS IMPACT ON SAFE MOTHERHOOD IN MANDERA COUNTY

QUESTIONNAIRE FOR HEALTH WORKERS

Please fill out the questionnaire in the spaces below on:

FACTORS AFFECTING IMPLEMENTATION OF FREE MATERNITY DELIVERY POLICY IN MANDERA COUNTY. .

Kindly tick only one response that best represents your opinion

SECTION A: GENERAL INFORMATION

1. gender .

Male ( ) 2. Female ( )

2. Name of the hospital _____
3. Number of years that you have worked in this hospital?

Below 5 years ( ) 6-10 years ( ) 16-20 years ( ) 20 years and above

4. What position do you hold in this hospital??

( ) Surgeons ( )Doctors ( )Nurses ( )Laboratory technicians ( )Allied health professionals ( )Other hospital staff ( )

5. How long have you held this position?

Below 5 years ( ) 6-10 years ( )

above 10 years ( )

SECTION B: implementation of free maternity policy

1. How many health care workers are working in this facility

Doctor …….

Nurse…….

Midwife…….

2. What role do you play in implementation of maternal health care?
3. What strategies have you put in place towards implementation of free maternal health care?
4. Kindly indicate the extent of agreement of each of this statement on implementation of free maternity delivery policy.

Use the Likert scale that ranges from 1 -5 where 1= strongly disagree; 2 = Disagree; 3= neither agree nor disagree; 4= agree and 5= strongly agree;

kindly rate the extent to which it applies in your facility.

Response	1	2	3	4	5
High transportation costs impacts on patients need to access our facility					
Healthcare facilities are inadequately funded by the government to cater for all medical needs					
Free maternal health service was shunned for fear of poor quality of health care					
Healthcare providers are unknowledgeable on maternal health policies and guidelines					
Risk of infections like HIV/AIDS by health workers is another challenge					
Low morale among the working staff is a hindrance to free maternal healthcare					
Our aging workforce affects healthcare provision					
Low salaries of staff at our hospital negatively affects quality of service delivered to our patients					
The high numbers of patients at our facility affect the quality of service that we give them					
Congestion in pediatric and maternity wards lead to overworked hospital staff					
Patients have no knowledge of their rights to healthcare provision					
Shortages of supplies and equipment affect the quality of maternal care					
Lack of evaluation of the implementation of the free maternal care policy affected its quality					
Supervision is done infrequently due to high workload thus quality of services is affected					
Re-embursement of free maternity fund is done in time					

1. To what extent has free maternity services affected the mortality and morbidity rates?

Not at all (.)

Little Extent (.)

Moderate Extent (.)

Large Extent (.)

Very Large Extent(.)

2. What are the challenges that affect the implementation of the free maternity program? .....

THE END

APPENDIX 4: Focus Group Discussion for Women

EVALUATION OF FREE MATERNITY DELIVERY POLICY IN MANDERA COUNTY, KENYA.

Basic Information about the Focus Group Discussion (FGD) Participants

Type of Focus Group: ……..

Location of FGD: ……..

Date of FGD:…….

Name of FGD Facilitator: ……

Name of the FGD Rapporteur……

Sex: ……

Age: …….

Introduction

Thank you all very much for taking part in this focus group discussion. My name is Kassim Haji Abdinoor and I am a student from Maseno University. This is Mr. Abdinasir Mohamad Ibrahim, who will be taking notes during our discussion today. We are presently conducting a study on an evaluation of free maternity delivery policy in your area. The purpose of this study is to evaluate free maternity delivery policy and its impact on safe motherhood in Mandera County. The results of this focus group discussion, as well as many other interviews with other people, will be used by decision makers and others responsible for health programs in Mandera County to improve on delivery of free maternity service in the county.

To guide our discussion today, I will ask a series of questions. As key issues arise, I may also ask follow-up questions to the group. Everyone's viewpoints are valuable, so I encourage you all to speak up and share your thoughts. There is no need to come to consensus on any answer. We have scheduled 1 hour for our discussion today.

CONSENT

Before we get started, please be assured that all your responses will be held in strict confidence. Findings will be presented in summary, and no statements or quotes used in the report will be attributed directly to you. Your participation is voluntary, and you may decline to answer any question or leave the discussion at any point. We would like to audio tape the whole discussion for our reference and assure you that the tapes will be destroyed once we prepare the notes from it. Do you agree to continue?

Yes…… No……Facilitator's Initials……

I would like to ask the following questions in relation to maternal health in your area.

1. What are the major maternal health care problems of the community? Please give examples ?
2. What is free maternity delivery services ?

3. How does the community get information about maternal health care? give some examples?
4. Who in this household determine the place of birth?
5. What are the practices and experience of the mother on selection of delivery place?
6. What are the real costs and the perceived costs involved with birth at home

7. What are the real costs or perceived cost involved with birth with skilled attendant? Consequences
8. What is the difference between giving birth at health facility or home? (probe for more answers)
9. What are your opinions on quality of health care? (including the infreustructure, staffs attitude, equipment and services, drugs)
10. How can this community prevent maternal death during pregnancy and child birth?
11. What is the role of mothers and the community in reduction of maternal morbidity and mortality?
12. Before we finish, I would like to hear what did you think about the subjects we have discussed were important? Do you think that this group covered issues that are important to mothers? What has been done here to improve mother's health? Is there anything the government can do?
13. Do you have any questions for me? If anyone would like to speak with me in private, I will stay here after we end.

Thank you all for your time and ideas. This has been extremely helpful. As I said in the beginning, the purpose of this discussion was to know about the situation of maternal health care and the problems you are facing. I hope this study will help full to address the problems and improve the service in this area

SOMALI TRANSLATION

FALANQAYNTA KOOXDA EE HAWEENKA

QIIMEYNTA MAS'UULKA LACAG LA'AANTA SI LOO HELI KARO MANDERA COUNTY, KENYA.

Macluumaadka Aasaasiga ah ee ku saabsan Ka Qayb-Qaadashada Kooxda Focus Group (FGD)

Nooca Kooxda Focus ……

meesha .....

Date Date of FGD .....

Magaca Fudude FGD …….

Hordhac

Waad ku mahadsantihiin wax badan inaad ka qayb qaadatid doodaan kooxeed. Magacaygu waa Kassim Haji Abdinoor waxaan ahay arday ka socdo Jaamacadda Maseno. Tani waa Cabdinaasir Maxamad Ibraahim, oo qaadan doona qoraallo intii lagu jiray dooddeena maanta. Waxaan hadda diyaarineynaa daraasad ku saabsan qiimeynta siyaasad dejinta xorta ah ee xaafaddaada.Ujeedada daraasaddan waa in la qiimeeyo siyaasadda dhalmada oo lacag la'aan ah iyo saameynta hooyada nabdoon ee Gobolka Mandera. Natiijooyinka doodan kooxeed, iyo sidoo kale wareysiyo kale oo badan oo lala yeesho dadka kale, ayaa loo isticmaali doonaa go'aan qaadayaasha iyo kuwa kale ee ka mas'uulka ah barnaamijyada caafimaadka ee Gobolka Mandheera si loo hagaajiyo bixinta adeegga umusha ee bilaashka ah ee gobolka.Si aan u hagno wadahadalkeena maanta, waxaan weydiin doonaa su'aalo taxane ah. Maaddaama arimaha muhiimka ah ay soo baxaan, waxaan sidoo kale weydiin karaa su'aalaha dabagalka ah kooxda. Aragtida qof walba waa qiimo, sidaas darteed waxaan kuugu dhiirigelinayaa inaad wada hadashaan oo wadaagaan fikradahaaga. Ma jirto baahi loo qabo in la isku raaco jawaab kasta. Waxaan qorsheynay 1 saac oo ah wadahadalkeena maanta

KORONTADA

Ka hor intaanan bilaabin, fadlan hubso in dhammaan jawaabahaaga lagu kalsoonaan karo. Natiijooyinka waxaa lagu soo bandhigi doonaa soo koobid, mana jiraan wax hadal ama xigasho ah oo loo isticmaalo warbixinta ayaa si toos ah laguu xisaabin doonaa. Ka qaybgalkaada waa ikhtiyaari, waxaadna diidi kartaa inaad ka jawaabto su'aal kasta ama aad ka tagto doodda meel kasta.Waxaan jeclaan lahaa in cajaladaha codka lagu duubo dhamaan wadahadalkeena si aan u hubinno in cajaladaha la burburin doono markaan diyaarinno qoraallada. Ma ogolaatay inaad sii waddo?

Haa .....Maya ..... Fududeeyaha Hore ee ……

1. Waxaan jeclaan lahaa inaan weydiiyo su'aalaha soo socda ee ku saabsan caafimaadka hooyada ee xaafaddaada
2. Maxay yihiin dhibaatooyinka daryeelka caafimaadka hooyada ee bulshada? Fadlan bixi tusaalooyin

3. Waa maxay noocyada dhibaatooyinka hooyooyinka heystaan?
4. Sidee ayuu dhibku u muuqday 3-dii sanno ee ugu dambeeyey?
5. Waa maxay adeegyada dhalmada bilaashka ah?
6. Sidee ayay bulshadu u heli kartaa macluumaad ku saabsan daryeelka caafimaadka hooyada? Sii tusaalooyin ah?
7. Waa sidee habka go'aan qaadashada ee la xidhiidha halka uu ku yaal halka dhalashada iyo uqaabilaha dhalashada. Yaa waa go'aanka rasmiga ah?
8. Waa maxay doorka dhalashada la doorbidayo / uqaabilaha dhalashada? Waa maxay sababta?
9. Waa maxay xirfadaha iyo waayo-aragnimada hooyada marka la dooranayo booska dhalashada?
10. Waa maxay kharashyada dhabta ah iyo kharashyada la dareemay ee ku lug leh dhalashada guriga iyo dhalashada ee leh xirfadle aqoon leh? Natiijooyinka
11. Waa maxay farqiga u dhexeeya dhalashada xarunta ama guriga?
12. Waa maxay fikradahaaga ku saabsan tayada daryeelka caafimaadka? Adeegyada hadda jira ma caawiyaan hooyooyinka xilliga uurka iyo dhalashada?
13. Maxay yihiin diimaha, dhaqanka iyo dhaqanka ee bulshada ee xilliga uurka iyo dhalashada ilmaha?
14. Sidee ayaa bulshadani looga hortagi karaa geerida hooyada xiliga uurka iyo dhalashada ilmaha?
15. Waa maxay doorka hooyooyinka iyo beesha ee yareynta dhimashada hooyada iyo dhimashada?
16. Ka hor inta aan dhammayn, waxaan jeclaan lahaa inaan maqlo waxa aad ka fikirtay mawduucyada aan ka wada hadalnay muhiim? Miyaad u maleyneysaa in kooxdani ay soo bandhigtay arrimo muhiim u ah hooyooyinka? Maxaa halkan lagu qabtay si loo wanaajiyo caafimaadka hooyada? Ma jiraan wax dawladu samayn karto?
17. Wax su'aal ah miyaad ii qabtaa? Haddii qof uu jeclaado inuu aniga ila hadlo, aniga waan joogayaa halkan ka dib markaan dhammaado
18. Waad ku mahadsantihiin dhammaan waqtigaaga iyo fikradahaaga. Tani waxay ahayd mid aad ufiican. Sida aan hore u sheegnay, ujeedada dooddani waxay ahayd in la ogaado xaaladda xannaanada caafimaadka hooyada iyo dhibaatooyinka aad haysato. Waxaan rajeynayaa in daraasaddani ay ka caawin doonto buuxda si wax looga qabto dhibaatooyinka ayna u hagaajiso adeegga aaggan

Appendix 5: In-depth Interview Guide for Health-workers

EVALUATION OF FREE MATERNITY DELIVERY POLICY IN MANDERA COUNTY, KENYA.

These interview guides are for research purpose and informants are requested to respond as naturally as possible. Your anonymity is assured. Please be specific as possible. Thank you.

Name of the informant…….. Responsibility……..

Health facility …… Location …….. Sub-county……

Interviewers name …… Date…….

B. Utilisation of free maternity delivery policy.

I. Briefly describe the utilization of skilled delivery services prior to the introduction of the free maternity policy?

II. How has the implementation of the free maternity policy (FMP) affected the utilisation of skilled attendance at delivery? Please expound on it

III. How has the implementation of the FMP affected the equity in the utilisation of skilled attendance at delivery?

IV. Briefly describe the situations of maternal deaths in this location prior to the introduction of the free maternity policy?

V. How has the implementation of the FMC affected pregnancy outcome? E.g. maternal mortality?!

C. Factors affecting implementation of free maternity policy

i. Tell me briefly, why the free maternity delivery policy was introduced?
ii. How was it introduced.
iii. What are your perception/ opinion about this process?
iv. What has the government done to make FMP known to the public?
v. What has the government done to introduce FMP to health care providers?
vi. What is the role of your institution in implementing FMP?
vii. What are the limiting factors that affect utilisation of FMDP by mothers in this facility?
viii. What actions have been taken to address these limiting factors?
ix. How would you describe the infrastructure base supporting the free maternal health care? (probe on whether there has been improvement to cater for the rising pressure)
x. What are the main factors limiting the provision of the services under the free maternal health care initiative?
xi. Does FMP eliminate all user charges for obstetric deliveries?
xii. What are the funding mechanisms for the FMP? How well have these mechanisms operated? Is the volume of funding satisfactory?
xiii. How is the workload after the inception of the free maternity delivery policy?

a) What is your estimate of the financing requirements and what are the potential financing sources for continuing implementation of FMP?
b) What needs to be done to secure the continuation of FMP in the short, medium and long term?
c) What are the challenges in implementation of FMP in your facility

Thank you

Appendix 6: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **585077**

Date of Issue: **30/March/2020**

RESEARCH LICENSE

This is to Certify that Mr.. kassim Abdinoor Haji of Maseno University, has been licensed to conduct research in Mandera on the topic: an evaluation of free maternity delivery policy and its impact on safe motherhood in mandera county,kenya for the period ending : 30/March/2021.

License No: **NACOSTI/P/20/4637**

585077

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR
SCIENCE,TECHNOLOGY &
INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix 7: SGS Approval Letter

MASENO UNIVERSITY
SCHOOL OF GRADUATE STUDIES

Office of the Dean

Our Ref: MA/DS/00052/2015

Private Bag, MASENO, KENYA
Tel:(057)351 22/351008/351011
FAX: 254-057-351153/351221
Email: sgs@maseno.ac.ke

Date: 22nd July, 2019

TO WHOM IT MAY CONCERN

RE: PROPOSAL APPROVAL FOR KASSIM HAJI ABDINOOR — MA/DS/00052/2015

The above named is registered in the Master of Arts in Research and Public Policy in the School of Development and Strategic Studies, Maseno University. This is to confirm that his research proposal titled "Evaluation of Free Maternity Delivery Policy and its Impact on Safe Motherhood in Mandera County" has been approved for conduct of research subject to obtaining all other permissions/clearances that may be required beforehand.

Prof. J.O. Agure
DEAN, SCHOOL OF GRADUATE STUDIES

DEAN SCHOOL OF GRADUATE STUDIES MASENO UNIVERSITY 15 AUG 2019 P.O. Box PRIVATE BAG, MASENO