EFFECTS OF FREE MATERNITY PROGRAM ON UTILIZATION OF MATERNITY SERVICES AND CHALLENGES AT KAKAMEGA COUNTY HOSPITAL, KENYA

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REG.NO. SN/PGMNH/03/13

THESIS SUBMITTED TO MOI UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE MASTERS OF SCIENCE IN NURSING (MATERNAL AND NEONATAL HEALTH) DEGREE

DECLARATION

Declaration by the Candidate:

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DEDICATION

Dedicated to my husband and children and to my mentors

ABSTRACT

Background:

Maternal mortality is a serious problem particularly in resource strained countries including Kenya. Many countries have come up with various reproductive health interventions with the aim of reducing the maternal mortality. In Kenya, one such key intervention was the introduction of the Free Maternity care program whose objective was to increase access and improve utilization of maternity services with the aim of reducing maternal mortality.

Objective:

To assess the effects of Free Maternity Care program (FMC) on utilization of maternity services and challenges of the program implemented by the Kenyan Government in 2013 at Kakamega county Hospital. Specifically, to examine the levels of utilization of maternity care services before and after the implementation of the FMC program, determine level of client satisfaction in the era of the program and identify challenges facing the program.

Methods:

Hospital based cross-sectional descriptive design involving both quantitative and qualitative methods were employed. Two hundred and twenty three (223) post natal mothers selected systematically were interviewed on client satisfaction and challenges. Challenges facing the program were also sought from health care providers and the administration. Records pre –post program periods were reviewed to compare utilization of services. Questionnaires and interview schedules were the tools of data collection. Independent T-test and chi-square were used in analysis which was done by use of SPSS version 20. P of <0.05 was considered significant. Qualitative data was analyzed in themes.

Results

There was a significant difference in mean number of deliveries pre and post free maternity program periods (p=0.001). However, there was no difference in the number of new ANC clients and postnatal attendance (p=0.790 and p=0.449) respectively. Majority of the clients interviewed were satisfied with the services offered. The administrators, the health care providers and the clients all agreed that the program was good though it was facing some challenges which needed to be addressed by the policy makers.

Conclusion

Free maternity care program has led to increased utilization of facility deliveries just like in other countries with similar programs. It is a timely and noble idea with acceptance by all stake holders though it is faced with some challenges which need to be addressed by the policy makers.

Recommendations

All efforts should be made to sustain the FMC program including the policy makers addressing the challenges raised by the stake holders and taking into consideration the suggestions raised. Monitoring and evaluation of the program is essential to foresee its sustainability.

Keywords: Free Maternity care Program, Utilization of Maternity Services, Client Satisfaction, Maternal Mortality.

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ACKNOWLEDGEMENT

Special thanks go to my supervisors Professor Arthur Kwena, Associate Professor School of Medicine, Moi University and Dr. Theressah Wambui, School of Nursing for their valuable input and efforts in the design and writing of this study.

It would have been more difficult to develop this work without the support of Mr. Benson Milimo , school of Nursing , Moi University , who encouraged me in the initial stages of this work, providing valuable guidance on literature review and proposal development.

I also wish to thank my employer, Ministry of Health, Kakamega County for offering me a study leave which enabled me to accomplish this work.

Finally, I would like to acknowledge the support of my family who provided both moral and financial support without which I would not have realized my study goals.

LIST OF ABBREVIATIONS

ANC----------Antenatal care

DHS----------Demographic Health Surveys

FMC----------Free maternity care program

MCH----------Maternal Child Health

MDG----------Millennium Development Goal

MMR----------Maternal Mortality Ratio

PNC----------Postnatal care

UNFPA----------United Nations Population Fund

UNICEF----------United Nations Children's Fund

WHO----------World Health Organization

NHIS…….National Health Insurance Scheme

CPR…….Contraceptive Prevalent Rate

KI…….Key informants

CHAPTER ONE

1.0. INTRODUCTION

The chapter presents the background to the study, the statement of the problem, the research objectives, the research questions, the significance of the study, the scope and the conceptual framework of the study

1.1 BACKGROUND

Sustainable Development Goal 3– to improve maternal health remains global health challenge. Ensuring all women give birth with the help of a skilled birth attendant and access to emergency obstetric care is accepted as the most crucial intervention for reducing maternal and newborn deaths (Dzakpasu, Powel-Jackson, & Campbel, 2013). Of the 520,000 estimated deaths each year, over 99% of these occur in resource strained countries such as Kenya and nearly half occurs in Africa (WHO, 2008). Another 300 million women in resource strained countries suffer a long term illness as a result of pregnancy and childbirth. According to Dzakpasu et al. (2012) many factors can influence the rate at which women seek skilled birth attendance services including the cost of care. This has led to a growing movement, globally and particularly in the Africa region, to reduce financial barriers to health care generally, but with special emphasis on high priority services and vulnerable groups. This aims at increasing utilization of health care services and thus reducing maternal mortality. A long list of countries including Benin, Burkina Faso, Burundi, Cameroon, Ethiopia, Ghana, Kenya, Liberia, South Africa, Nepal, Mali, Senegal, Zambia, Uganda, Niger, and Sudan have pursued fee removal or exemption policies for delivery care and/or caesarean section as

revealed by (McPake et al., 2013) . McPake et al. also support the fact that if the Free Health care policies work as intended, service utilization rates increase.

Campbell et al. (as cited in McPake et al., 2013), however present another perspective in acknowledging the challenges now presented by fee removal: Does increasing access to Free health services have any benefit if there is no qualified health worker available to provide the services, or where one may have to queue all day only to be afforded an ineffectual consultation which undermines respect, trust, privacy and confidentiality?

The most recent estimates by the Kenya Demographic Health Survey (2014) set the maternal mortality rate in Kenya at 362 deaths per 100,000 live births, well above the MDG target of 147 per 100,000 by 2015. Despite improvement in other health indicators, the high rates have persisted. The problem is driven partly by lack of access to quality maternal health care services, including ante-natal, childbirth, and post-natal services. Health sector infrastructure has grown over the past decade but still many women live at a considerable distance from health care facilities, are unable to pay fees for maternal care services, and/or face other barriers to accessing quality heath care (MOH, 2015). For every woman who dies in childbirth in Kenya, it is estimated that approximately about 20-30 other women also suffer serious injury or disability due to complications during pregnancy or childbirth (Bourbonnais, 2013). KDHS (2010) report indicate that although more than 90 percent of Kenyan women received antenatal care from a medical professional, fewer than half of all births took place in a health facility . According to the report, when the women were asked the reason why, 42% said that the hospitals were far away or that there was no transport or both and that it was not necessary 21%. Also cited frequently was that the cost was high to have a childbirth in the facility at 17%. However, the situation seems to be changing as according to KDHS (2014) report 62 percent of births in Kenya are delivered by a

skilled provider and a similar proportion of deliveries (61 percent) take place in health facilities but this is still well below the target of 90% of deliveries by 2015. In 2007, the country developed the National Reproductive Health Policy Framework whose goal was to improve reproductive health state of all people in Kenya by increasing equitable access and improving quality, efficiency and effectiveness of service delivery at all levels and improving responsiveness to clients needs. Despite this, according to 2012 yearly report, Western province (Kakamega County) recorded a mortality ratio of 88 deaths per 100,000 live births per year. KDHS (2010) report indicates that the province recorded the lowest proportion of birth assisted by medical professionals at 26%. According to the report, women in the County cited cost as the number two factor at 22.2% after no transport or too far or both at 42.7%. However the KDHS (2014) report now reveals that the number of facility deliveries has increased to 61% though this does not symbolize universal access to health services.

On June 1, 2013, the Government of Kenya took action to address this problem by initiating a program of free maternal care services in the Kenyan public facilities, effective immediately. The program on removal of health fees stems from the Jubilee Alliance political campaign platform of President Kenyatta, whose manifesto pledged to abolish user charges at all public health facilities offering maternity services and provide free maternal deliveries to promote greater health equity in the form of access to care. The government's commitment to provide free maternal health services is expected to encourage more women to have childbirth in health facilities and to reduce maternal mortality. On the day of the announcement, Pumwani Maternity Hospital which is a national referral hospital for childbirth had an unprecedented 100 births. By July 2013, the Director of Public Health and Sanitation estimated a 10% increase in

deliveries across the country, with increases of 50% in certain counties like Nakuru and Mombasa among others. According to representatives of Kenyatta National Hospital (KNH) which is the country's largest referral hospital, within a month the number of pregnant women seeking maternal care had increased by 100 per cent (Bourbonnais, 2013). However, Bourbonnais also confirms that the program is facing some challenges just like the same programs in other countries.

1.2. Problem Statement

Maternal mortality is a serious problem particularly in resource strained countries including Kenya. Despite the interventions that the country has put in place aimed at reducing maternal mortality for example the introduction of the National Reproductive Health Policy Framework in 2007; Kakamega County still recorded the lowest proportion of birth assisted by medical professionals at 26% (KDHS, 2010). The 2012 Kakamega county hospital yearly report also reported high mortality of 88 deaths per 100,000 deliveries.

On June 1st, 2013 the president of Kenya announced that the government will provide free maternity care services in all public hospitals to improve the attainment of MDG 4 and 5. This was expected to encourage more women to deliver at health facilities and to result in fewer maternal deaths. However, KDHS (2014) report indicate that only 61% of women give birth in health facilities and this is well below the 90% target by 2015 and Records at the hospital still indicate that maternal mortality is still high despite some increase in the numbers of mothers receiving skilled delivery. With this report, reducing of maternal mortality and reaching the MDG 5 target by 2015 is proving a serious challenge and the question is, with all these mechanisms in place, why is there still a high mortality rate in the country? Thus this study seeks to assess the effects of

Free maternity care program on utilization of maternity services at Kakamega county Hospital so as to help in achieving the Sustainable Development Goal 5 on maternal health by 2015.

1.3 Research questions

1. What are the levels of utilization of the maternity care services before and after the implementation of the free maternity health care program?

2. What is the level of client satisfaction on quality of care in the era of free maternity care program?

3. What are the challenges associated with the free maternity health care program?

1.4. Broad objective

The main objective of the study was to assess the effects of Free Maternity Care program on utilization of maternity services and the challenges of the program at Kakamega county Hospital.

1.4.1. Specific Objectives

1. To determine the level of utilization of maternity care services before and after the FMC program.
2. To establish the level of client satisfaction on quality of care in the era of free maternity care program.
3. To identify the challenges associated with free maternity health care program.

1.5. Significance

Previous records have shown that Kakamega County still has high maternal mortality despite the mechanisms that the government has put in place to increase utilization of maternity care services with an intention of reducing maternal mortality. Findings from this research will enable the county to know the level of utilization of maternity care services and the challenges associated with the Free maternity care program. The findings will also give recommendations on the strategies that can be put in place in order to solve the challenges so that maternal mortality in the county can be reduced. In addition, the findings can inform other countries starting or planning to implement similar service-based exemption programs and also contribute to existing body of knowledge on maternal health. The findings will eventually help in achieving the Millennium Development Goal 5 on maternal health by 2015.

1.6. Scope of the study

The study focused on mothers who had delivered in the health facility. Health care providers in maternity unit, pharmacy, laboratory, Radiology department and maternity theater and MCH were interviewed. The members of administration were also interviewed.

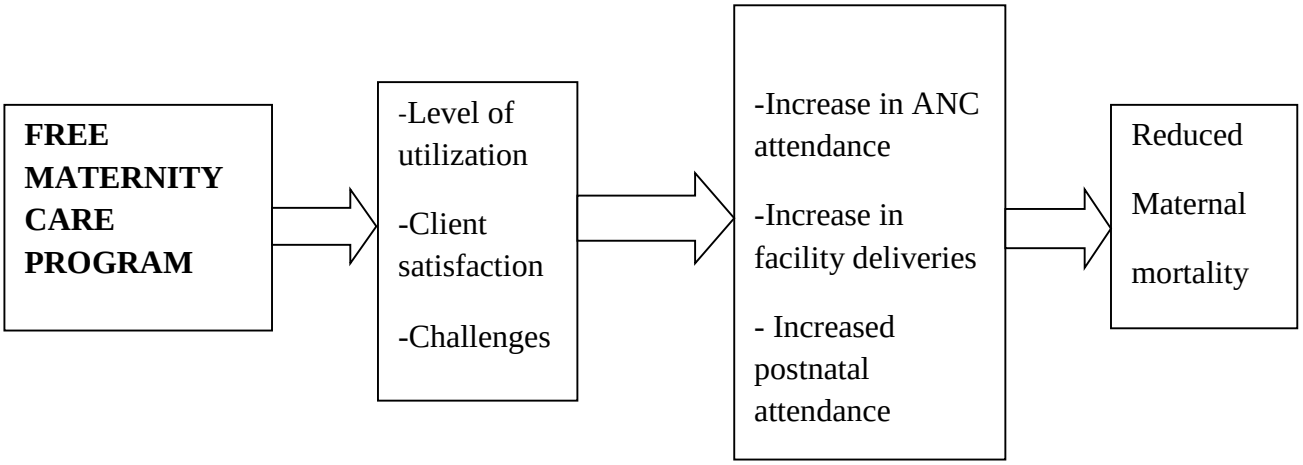

Fig 1.7: Conceptual framework **Source: Researcher 2014**

CHAPTER TWO

2.0 Literature review

This chapter presents literature on the studies done on Free Maternity care programs and their effects on utilization of maternity care services throughout the world. It will give an overview of levels of utilization of the maternity care services, Level of client satisfaction on quality of care and the challenges facing free maternity health care programes.

2.1 Free Maternal Care Program

In resource-poor settings, the high cost of user fees for childbirths hinders access to skilled birth attendance, and highly contributes to maternal and neonatal mortalities. This has led to a growing number of countries experimenting with different approaches to dealing with financial barriers to maternal health care (Witter, Arthinful, & Kusi, 2007).

Nigeria is one such a country which has experimented with different approaches including introduction of exemption fee. Mojekwu and Ibekwe (2012) support the fact that Nigeria has one of the highest maternal mortality ratio. However, they also agree that attempts made in the past aimed at reducing maternal mortality in Nigeria, especially by the Federal and state governments have generally not proved very successful in achieving the desired results. WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division in their estimate on Trends in maternal mortality: 1990 to 2013, noted that Nigeria has shown some progress in reducing Maternal Mortality Ratio.

Nepal is also one of the countries which has experimented with the Free Health Care Program and has one of the lowest maternal mortality ratios of about 320 deaths per 100,000 live births. According to WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division in their estimate on Trends in maternal mortality: 1990 to 2013, Nepal was ranked as being on track of achieving the MDG 5. One of the reasons for this achievement as cited by Adhikari (2013) in her working paper was the success of Nepal's Free Health Care Schemes whose aim is to provide universal free health services. However, according to the Ministry of Health and Population (2012), Nepal's skilled birth is still low at 35%. The question then is, what is Nepal doing to improve its maternal mortality given that most deliveries still take place at home despite the Free Health Care scheme?

Ghana implemented the Delivery-fee exemption policy in 2003 in the four poorest regions of the country believed to have the highest maternal mortality rates (Grepin, 2009). According to WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division in their estimate on Trends in maternal mortality: 1990 to 2013, Ghana's Maternal Mortality ratio in 2013 was estimated to be at 380 deaths per 100,000 live births and it was ranked as making progress in meeting the MDG 5.

The Government of Kenya just like any other Government in the developing world has experimented with several strategies aimed at reducing maternal mortality. In 2007 the government of Kenya came up with the National Reproductive Health Policy Framework whose goal was to improve reproductive health state of all people in Kenya by increasing equitable access and improving quality, efficiency and effectiveness of service delivery at all levels and improving responsiveness to clients needs. Despite the Reproductive Framework, WHO, UNICEF, UNFPA, The World Bank and the United

Nations Population Division in their estimate on Trends in maternal mortality: 1990 to 2013, estimated that by 2013 Kenya's maternal mortality would be 400 deaths per 100,000 live births and it was ranked as showing insufficient progress in meeting the MDG 5 by 2015. On June 1, 2013, the Government of Kenya took action to address this problem by initiating a program of Free Maternity services in public facilities offering maternity services and it was to be effected immediately. The new program on health fees stems from the Jubilee Alliance political campaign platform of President Kenyatta. In his manifesto President Kenyatta pledged to abolish user charges in public health facilities offering maternity services and also provide free childbirth services to promote greater health equity in the form of access to care. The commitment to provide free maternal health services by the government is aimed at encouraging more women to have their childbirths at health facilities and to help reduce maternal mortality. On the day of the announcement, Pumwani Maternity Hospital delivered an unprecedented 100 births. By July, the Director of Public Health and Sanitation estimated a 10% increase in deliveries across the country. Some counties had high increases of up to 50%. According to representatives of the largest country's referral hospital (Kenyatta National Hospital- KNH), the number of pregnant women seeking maternal care had increased by 100 per cent within a month (Bourbonnais, 2013).

2.2 Utilization of the maternity care services

Utilization of health services is a complex behavioral phenomenon and the use of health services is related to availability, quality and cost of services as well as to health beliefs, personal characteristics of the users and social structure (Dzakpasu et al., 2012).

2.2.1. Antenatal care utilization

The WHO recommends at least four ANC visits for effective antenatal care. A number of studies have indicated the existence of an association between the use of antenatal care and positive maternal outcome. A study by Ameyaw (2011) in New Juaben in Ghana established that antenatal care reduced maternal mortality by improving nutrition and screening for high risk pregnancies. This was also anchored by Esena and Sappor (2013) in their study on factors associated with the utilization of skilled birth services in the Ga East municipality of Ghana. Ameyaw (2011) also agree that although antenatal care in itself alone cannot prevent all obstetric emergencies, the information provided by antenatal service provider goes a long way to support for the successful management of pregnancies and the subsequent wellbeing of the child. Simkhada, Teijlingen, and Porter (2008) in their systematic review of literature on factors affecting utilization of ANC in developing countries also noted that in addition, ANC during pregnancy appears to have a positive impact on the utilization of postnatal healthcare services.

The Government of Gambia announced the use of free maternal and child health care program in 2007 and according to Republic of Gambia (2013) most of the women (86%) receive antenatal care from a skilled professional. However, the survey also noted that antenatal coverage varies little by mother's characteristics. According to the systematic review of the literature on Factors affecting the utilization of antenatal care in resource strained countries, the major factors that were noted to affect the uptake of antenatal care services included maternal education, husband's education, marital status, availability, cost, household income, women's employment status, media exposure and having a history of obstetric complications. According to the systematic

review, women with high economic status were more likely to receive adequate and early ANC than those with low economic status.

2.2.2. Utilization of skilled health personnel during delivery

Delivery care through access to health facilities and skilled health personnel are two important interventions for safe motherhood. Historically, increasing women's access to health facilities with the capacity to provide emergency obstetric care has been responsible for large drops in maternal mortality (Wang, Alva, & Fort, 2011). In their study on levels and trends in the use of maternal health services in resource strained countries, Wang et al. (2011) note that generally, the younger the mother is, the more likely she is to use a health facility. That is, the age of the mother at last birth is inversely related to the use of a health facility for birth. According to them this pattern is most prominent in sub-Saharan Africa, where in a majority of countries the percentage of women under age 20 who gave birth in an institutional setting is greater than the percentage among women age 35-49. The study also revealed that birth order has a strong inverse relationship with use of a health facility for delivery. Consistently across all four regions in this study, the proportion of births delivered in a health facility declines with birth order. A larger proportion of women with just one birth deliver at a health facility compared to women with four or more births. The study also noted that there is a strong positive association between mother's education and use of a health facility for delivery.

According to the systematic review of the literature on Factors affecting the utilization of antenatal care in resource strained countries, many studies identified cost as a barrier for poor people in these countries. Cost of accessing care (travel cost, service fees, equipment cost) is an important determinant of whether the woman would seek care or

not, particularly where facilities are far away. The review also established that poor quality of care and negative attitudes of service providers were barriers to utilization in Zimbabwe. Poor relationships between patients and healthcare providers, and rude and unfriendly attitudes of nurses were noted as the major reasons women preferred not to go to some health facilities. Simkhada et al. (2008) also noted that Health facility user fee is one of the proximate determinants of utilization of skilled delivery services. In resource strained countries, the high cost of user fees for childbirth denies most women access to skilled attendance and in turn increases maternal and neonatal mortality. The factors that motivate women to have childbirth at home and therefore fail to promote institutional childbirth were established to conclude that, real or perceived high costs of skilled care, poor or lack of transport as well as its high cost, poor attitude of medical personnel and family members' decision on home childbirth were commonly affecting uptake of skilled attendance. According to Lerberg, Sundby, and Jammeh (2014), some of the barriers to skilled attendant were that they did not have enough time to reach the Hospital, the health facility was far and that they lacked means of transport among other factors.

Muckle et al. (2013) in their study on Barriers to Access of Maternity Care in Kenya: A Social Perspective in Asembo Bay found out that, fear of harsh treatment from the nursing staff at health facilities was one of the reasons why women feared to seek maternity services.

2.2.3. Utilization of postnatal care

Postnatal care, especially within the first 48 hours after childbirth, is critical to the management of postpartum hemorrhage, an important cause of maternal deaths in developing countries. Most demographic health surveys note that use of postnatal care,

its timing and type of provider vary according to whether or not women delivered at a health facility. Wang et al. (2011) found substantial differences in receiving postnatal care between women who delivered at a health facility and women who did not. Overall, at least two-thirds of women who delivered at a health facility reported postnatal checkups within 41 days after delivery. The study also noted that the timing of the first postnatal checkup is very different between women who delivered at a health facility and women who delivered in other places. Women who gave birth in a health facility received postnatal care within two days of delivery, and many of them (63-97 percent) reported having the first checkup within 24 hours after delivery. In most countries in sub-Saharan Africa, the percentage of women who delivered at a health facility and who reported postnatal care tends to increase as mother's age at birth increases; mothers under age 20 are least likely to report postnatal care. Nevertheless, postnatal care does not appear to be associated with birth order for institutional births, although a slightly lower level is seen for birth orders 4 or higher. For non-institutional births, higher births orders are generally less likely to receive postnatal care. In most countries, for both institutional and non-institutional births, women in urban areas are more likely to report postnatal care than women in rural areas. However, regardless of whether the delivery was in an institution or not, women with more education are more likely to report postnatal care, although in some countries the association starts from the secondary or higher levels of education.

2.2.4. Utilization of maternity care services in Kenya before FMC Program

In Kenya, levels in maternity care utilization are not different from other countries implementing free maternity care policy. According to KDHS report (2010) women's level of education is associated with antenatal care coverage. The proportion of women

who do not receive antenatal care services declines as education level increases. Similarly, the higher the wealth quintile, the more likely a woman is to get antenatal care from a skilled birth attendance. One in seven women in the lowest wealth quintile does not get any antenatal care.

KDHS (2010) report indicated that 43 percent of births in Kenya are delivered in a health facility, while 56 percent of births take place at home. Births to older women and births of higher order are more likely to occur at home. Similarly, it reports that mothers in rural areas are more than twice as likely to deliver at home compared with those in urban areas. Similarly, children whose mothers had more antenatal care visits during the pregnancy are less likely to deliver at home. However, with the introduction of free maternity care policy the trend has slightly changed as the KDHS (2014) report revealed that the number of deliveries occurring in health facilities has risen to 61%.

Most maternal and neonatal deaths occur during the first 48 hours after giving birth. Thus, postnatal care is essential for both the mother and the child to treat complications arising from childbirth, as well as to provide the mother with important information on how to care for herself and her child (Wang et al., 2011 & KDHS, 2010). According to KDHS (2010) report slightly more than one quarter (28 percent) of women received postnatal care within four hours of delivery, while 7 percent received care between 4 and 23 hours after delivery. Another 7 percent received a check-up within two days of delivery, and four percent received care between three and 41 days after delivery. However, the report also noted that births of higher order and those in rural areas are more likely not to receive postnatal care than those of lower order and those in urban areas. Similarly, mothers in the lowest wealth quintile are twice as likely not to utilize postnatal care services as are women in the highest wealth quintile. With the Free Maternity care program in force, the trend in postnatal attendance seems to be changing

in a positive way as the KDHS (2014) report indicates. Generally, the report shows an increase in PNC in Kenya. In the 2003 KDHS, only 10 percent of women who had a live birth two years prior to the survey received a postnatal check up in the first two days after their last live birth. This proportion increased to 42 percent in the 2008-09 KDHS and to 51percent in the 2014 KDHS.

2.3. Level of client satisfaction

Schoenfelder, Klewer, and Kugler (2011) and Chawani (2009) define patient satisfaction as a patient's judgment on the quality of care in all aspects, but particularly as concerns the interpersonal process. Schoenfelder et al. noted that client satisfaction is related to technical and interpersonal behavior, partnership building, immediate and positive non verbal behavior. It is also related to more social observation, courtesy, consideration, clear communication and information, respectful treatment, frequency of contact, length of consultation, service availability and waiting time. Ige and Nwachukwu (2010) noted that the level of patient satisfaction is an important determinant in the assessment of quality of care. Studies on quality of care, patient satisfaction, and utilization of health services identified some determining factors as follows: Attitude of staff, affordability of cost of care, time spent at the hospital, as well as availability of doctors, drugs, equipment and laboratory facilities among other factors.

According to several literature reviewed on client satisfaction, it was noted that older people tend to be more satisfied with the services than the young ones and those with low level of education also tend to be satisfied than the highly educated. This, according to the literature could be because the highly educated know their rights and have knowledge on what they want (Schoenfelder et al., 2011; Chawani, 2009; Bazant

& Koenig, 2009; Nyongesa et al., 2014). They also note that experiences in previous hospitalization are determinants of the level of client satisfaction.

Report from the Kakamega County Referral Hospital Client Satisfaction Survey (2012) indicates that 70% of the clients receiving in patient services were satisfied with the services offered.

2.4. Challenges facing the free maternity health care program

Although evidence of the positive sides of the free maternity care programs suggests that fee removal can be cost-effective and can promote utilization, and that despite being universal in application, they can be beneficial to the poor, there are also certain challenges drawn from case studies, particularly on the need for adequate funding, and also for strong institutional ownership (Witter, Adjei, & Graham, 2009). Witter et al. also assert that for the potential of the success of free maternal health care to translate into reduced mortality for mothers and babies will fundamentally depend on the effectiveness of its implementation. Careful consideration is also to be given to staff motivation and the quality of care constraints should be taken into consideration when designing the exemptions program. All of this should be supported by regular and intensive monitoring and evaluation (Witter et al., 2009).

In his study on assessment of the effect of the free maternal care policy on the utilization of maternal care services in the new Juaben municipality, Ameyaw (2011) noted that some of the challenges of free maternity care policy include delay at the service points, the policy has to do with the drugs not being comprehensive and that the drugs were not of good quality.

Dzakpasu et al. (2013) in their systematic review discovered that two Nigerian hospital studies reported increases in maternal and perinatal deaths following fee introduction.

According to them another study in a tertiary hospital in South Africa also found out that the institutional MMR increased following fee removal. They noted that authors speculated that quality of care deteriorated as an increased patient load was not accompanied by increases in the health care providers and other health facility resources.

According to a study carried out by Adei, Fiscian, and Ephraim (2012) on Access to Maternal Health Care Services in the Cape Coast Metropolitan Area in Ghana, it was noted that women face same challenges in accessing antenatal care, delivery and postnatal health care. Some of the challenges noted were related to cost (money), distance, and the behavior of health personnel. This was also noted by Mahamadu (2012) in his study and he concluded that the attitude of health staff and the distance that clients had to cover from their communities to service delivery points were seen as impediments towards access and utilization of free maternal health services. In evaluating Ghana's free maternal health care initiative, HERA, Belgium and Health Partners (2012) revealed that some of the challenges raised by women on free maternal health care in Ghana included long waiting time, lack of privacy and confidentiality during health care delivery and poor attitude of the healthcare personnel.

CHAPTER THREE

3.0 Research Methodology

The chapter deals with the study site, research design, study population along with the sample size and sampling procedures; instrumentation, validity and reliability, data collection procedures, data management and analysis and ethical issues.

3.1 Study site

Kakamega County Referral Hospital is situated in Kakamega town, which is situated 55 kilometers from Kisumu city of Kenya. Kakamega town in Kenya is in Kakamega County and it is ranked second after Nairobi County in population. The Hospital is the county's referral hospital and receives referrals from neighboring counties in Kenya such as Vihiga County, Bungoma County and various hospitals in Busia County in Kenya. The hospital has a bed capacity of 448 beds and 80 cots. The hospital is among the approved teaching and referral hospitals in Kenya, and also for the internship of medical interns, registered clinical officers, nursing interns and also community health and development graduates from their respective colleges. The hospital is in the heart of the Kenyan western region making it accessible to many people in the region. Being a referral hospital, it offers comprehensive health services.

3.1.1. Population

Kakamega County is the second most populous county in Kenya. It has an estimated population of 1, 660,651. The largest proportion of this population is aged below 15 years (KDHS, 2010). The population growth rate is 3.7%, and the female to male population ratio is 11:10. Life expectancy is 60yrs for females and 58yrs for males.

3.2 Study design

The study employed a hospital based cross-sectional descriptive design involving both qualitative and quantitative methods.

3.3. Target population

The study targeted mothers who had delivered in the facility (postnatal mothers). The mothers were interviewed on exit to provide information on client satisfaction and the challenges they encountered in their effort to utilize the free maternity services. They also suggested some strategies that could be used to solve the challenges. Health care providers in maternity unit, Maternity Theater, pharmacy, Radiology department, MCH and laboratory were also interviewed. This is because they were on the ground and were therefore in touch with the reality after the implementation of the Free Maternity Program. They were therefore useful in stating the challenges encountered and the possible strategies to counteract the challenges. Hospital administration was also included as key informants (KI) and they provided information on challenges and also suggested possible strategies that could be put in place to counteract the challenges.

3.4 Inclusion/exclusion criteria

3.4.1 Inclusion

For health care providers, they were supposed to have been at the site of the study for at least three years. This is because they would be in a position to provide information concerning the period before and after the policy. The mothers were to be of child bearing age of above 18 years and should have consented to participate in the study. They should also have delivered in the hospital during the period of the study.

3.4.2 Exclusion

Those whose babies had died during delivery were excluded since several studies on client satisfaction show that those clients/patients whose outcomes are poor tend to be dissatisfied with the services offered. Mothers who were mentally challenged and those who declined to consent were also excluded.

3.5. Sample size

To assess the utilization of maternity services in the pre and post program period, the study used 30% of total data from the period one and a half years prior to the implementation of the program (December 2011- May 2013) and the period one and a half years after the implementation of the program (June 2013- November 2014) (Mugenda &Mugenda, 2003). Basing on the 30% of the total data as recommended by Mugenda, a total of 3600 files, 1800 from each period were reviewed. The findings from desk review were meant to confirm whether the utilization had increased or it had decreased. The researcher decided on this period because studies have shown that during early periods of implementing a program, the results could not be very accurate because the implementers will still be adjusting to the new program and also clients could be excited and come in large numbers only to reduce in numbers as the days go by (McPake & Winter, 2013). However, some studies also agree that the laggards could respond to the program late and therefore give a complete different picture. The study covered the policy as far as it had come. Two hundred and twenty three postnatal mothers on exit after delivery in the facility during the study period were included in the study. This was calculated basing on Yamane's formula method of sample size determination when the target population (N) is known (Reid & Bore, 1991).

$$\frac{N}{1 + N\,(e)^2} = \frac{500}{1 + 500\,(0.05)^2} = 222.22 \sim 223 \text{ mothers (Yamane's formula)}$$

Where **N** is the known population of the mothers delivering in the hospital and it is 500 mothers per month and **e** is the standard of error which was 0.05 (5%)

Health care providers working in the maternity unit, pharmacy, maternity theater, Radiology department, MCH and laboratory were sampled using simple random sampling so that each officer was given an equal chance of participating in the study. One health care provider from each department was sampled (maternity unit-labor ward, postnatal ward and antenatal ward, maternity theater, laboratory, radiology department, MCH and pharmacy). The departments were sampled purposefully because they directly deal with mothers seeking maternity services and were therefore able to give an account of effects of FMC program. Three members from the hospital administration (medical superintendent, hospital secretary and nursing officer in charge of the hospital) were sampled purposively because they had the information that was required.

3.6. Sampling technique

Systematic sampling was employed for the postnatal mothers and the K^{th} factor was 2, meaning that every second postnatal mother on exit was interviewed unless she fall in the exclusion criteria. Purposive sampling method was employed for key informants because they were believed to have the required information. Simple random sampling was employed for health care providers. The 30% of the total files from both pre and post policy period were also sampled randomly.

3.7. Data collection instruments

Questionnaire and interview schedule were used as the main data collection tools. Data was collected through interviewer administered questionnaires on client satisfaction and an interview schedule on challenges faced by the women in their effort to utilize the free maternal care services. These provided information on client satisfaction and the challenges faced by the women and also suggested possible strategies that could be used to counteract the challenges and make the program serve them better. Part A of the interview schedules for postnatal mothers contained demographic characteristics and part B contained the questions to guide the interview on challenges. This was done by the researcher assisted by trained research assistants in the field of study. The researcher and the research assistants were not in uniform to avoid bias. In-depth interview was done for health care providers and the key informants. Part A of the interview guide contained the demographic characteristics while part B contained the questions to guide the interview. This was by use of interview guides and allowed for personal accounts and explanations as relates to the challenges encountered and the possible strategies to counteract the challenges. Secondary data from previous records before and after the policy were reviewed using data extraction form to determine the level of utilization of maternity services before and after the program and helped the researcher to compare the figures and note any relationship between free maternity care program and utilization of the services. This in turn was also used to relate the challenges with the outcome of utilization.

3.8. Reliability and validity

3.8.1. Reliability

Reliability refers to the capacity of an instrument to produce consistent results in several trials. Polit and Beck (2004) concur that an instrument's reliability is the consistency with which it measures the targeted attribute. In this study, reliability of the data collection tool was assessed through a pilot study that was conducted in a site different from where the actual study was conducted (Vihiga County hospital). 10% of the sample size population was interviewed as recommended by (Mugenda & Mugenda, 2003).The results of the pilot study were used to refine the data collection tools prior to the actual study. According to the pilot study results, the reliability test indicated a cronbach's alpha value of 0.853 implying that the scale used to measure client satisfaction was reliable. Alpha was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1 and acceptable values range from 0.70 to 0.95. A low value of alpha could be due to a low number of questions, poor interrelatedness between items or heterogeneous constructs (Tavakol & Dennick, 2011).

3.8.2 Validity

Validity refers to the degree to which an instrument measures what it is supposed to measure. For this study, the study instruments were submitted to the experts in the area of the study (supervisors) to assess face, content and construct validity.

3.9. Data collection Procedure

Permission was sought from the Kakamega County hospital after the study had been approved by IREC Moi University. Research assistants had a two days training on the

data collection procedure. Data collection was then done from 22nd April 2015 to 21st May 2015. It was mainly done in maternity unit where postnatal mothers were interviewed on exit and in maternity records department where all the files for both pre and post FMC program periods are kept. Health care providers were interviewed in their own departments i.e. laboratory department, MCH, Pharmacy, Maternity Theater, radiology department, antenatal ward, postnatal ward and labor ward. Interviews for KI took place in their offices. Postnatal mothers sampled systematically on exit were taken to a separate room to ensure privacy and confidentially. They were given information about the study and asked to sign a written consent if they agreed to participate. Thereafter, the researcher and the research assistants proceeded with the interview. A total of 223 mothers were interviewed on client satisfaction but only 20 mothers were interviewed on challenges as by this time the researcher had reached saturation and no more new information was coming out. An extra 3 mothers were interviewed to confirm that they could also come out with the same information like the rest of the mothers and they came up with the same information confirming saturation.

Health care providers were interviewed by the researcher and their interviews took about 20-30 minutes in which they gave information about the program. Permission was sought from them to allow the researcher to write what they were saying and they agreed. The interview results were therefore recorded in a hard covered book for analysis later. KI informants were interviewed in their offices and the same procedure as for health care providers followed.

Desk review was done by both the researcher and the research assistants though the researcher could sometimes leave the research assistant alone to go and interview the health care providers and the KI because they dictated the time for interview depending

on their schedule. However, to check for accuracy, the researcher did random sampling of the files from each research assistant and compared the recorded information on the data extraction form with the one in the files. Files from the pre FMC program period were coded red while those from the post FMC program period were coded green and each research assistant indicated on the files he/she reviewed her initial. This made it easier for the researcher to know who reviewed which file incase of anomalies. Data extraction forms for pre FMC period were coded 'PR' (pre-program) while those from post FMC period were coded 'PO' (post-program). This made it easier for the researcher to know which data extraction forms belonged to which period of the program. The data extraction form extracted demographic data of mothers receiving care in pre visa viz post Free Maternity program. Information on the outcomes of both mother and baby in pre and post Free maternity program was also extracted. The complications that occurred in pre and post program period were also extracted from the files.

3.10. Data management and statistical analysis

On completion of data collection, data was cleaned, coded and entered into access computer software. Prior to coding and tabulating the questionnaires for analysis, all the items were checked for inaccuracies. This helped the researcher to establish if instructions had been followed uniformly and whether all items had been responded to. It was later transferred to SPSS V.20 for analysis. Descriptive statistics (frequencies, means and standard deviation) were used to summarize the data. To compare utilization of services pre and post FMC program implementation, independent T-test was used for continuous/discrete variables while Chi-square was used for categorical variables. P-value <0.05 was considered significant. Results were presented in form of tables, line-

graphs, bar-graphs, histograms and pie-charts. Qualitative data from the health care providers, administrators and the women utilizing the free maternity care services was analyzed in themes as they emerged.

3.11: Ethical considerations

Approval to conduct the research was sought from Institutional Research and Ethics Committee (IREC) Moi University. Permission was also sought from Kakamega County Referral hospital administration. The purpose of the study was explained to the participants before seeking a written informed consent from them. Participation was on voluntary basis and participants were free to withdraw at any stage of the study. Privacy was ensured by interviewing the mothers in a separate room and anonymity ensured by not having any form of identification on the data collection tools. Confidentiality was assured by storing all the questionnaires collected in lockable cabinets accessible only to the researcher and research team. Further, a password was used to protect electronic data in the computer.

3.12: Study limitations

This was a hospital based study with a sample size based on the number of deliveries in the hospital and the results could therefore not be generalized to other counties whose numbers of deliveries are much higher than Kakamega county Referral hospital. Another limitation was that some data on postnatal attendance was missing but not to the extent of altering the results of the study.

CHAPTER FOUR

4.0. RESULTS

The chapter presents results related to the three objectives

4.1. Level of utilization of maternity services in pre and post Free maternity care program

The first specific objective was to determine the level of utilization of maternity care services before and after the program implementation. Information was elicited from secondary data using data extraction form and the findings were as follows:

Objective 1: Level of utilization of services pre-post free maternity program implementation

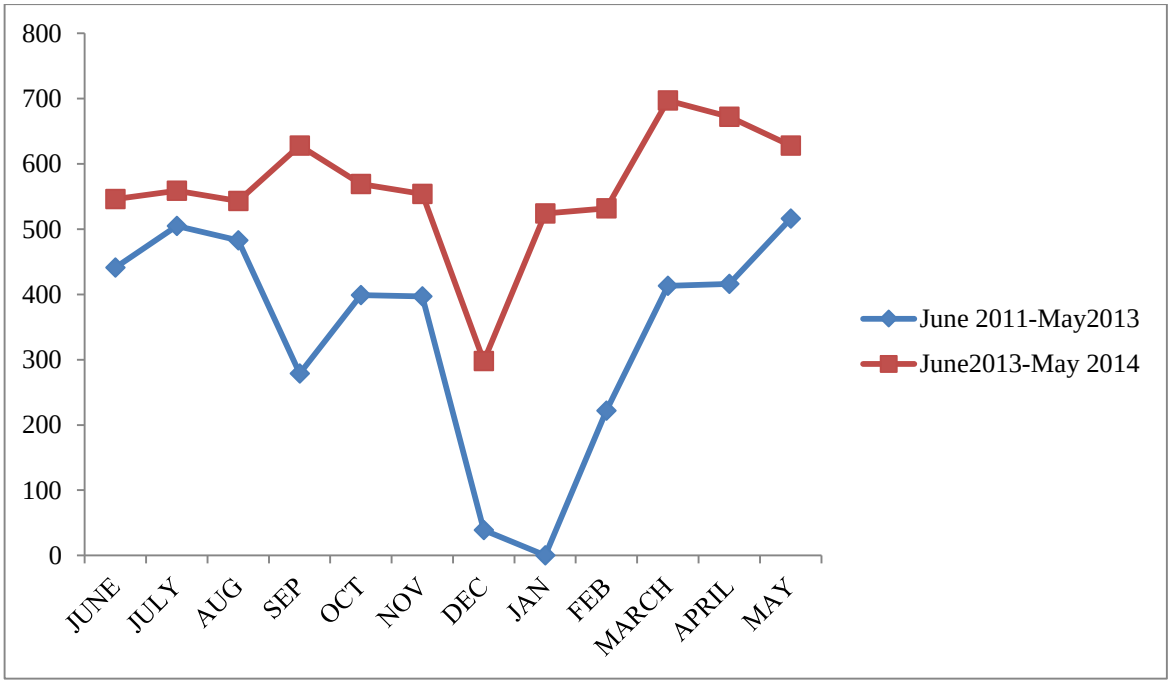

Fig 4.1.1: Deliveries in pre and post FMC program

The number of deliveries was higher in the post maternity period compared with pre-period in the same months (fig 4.1.1)

The study also went further and looked at the demographic characteristics of the women who utilized the facility delivery services in the pre and post program implementation and the results were as follows:

Table 4.1.1: Demographics of clients who came to deliver in the health facility pre and post FMC program

Characteristic	Period		statistic	P-value
	Pre	Post		
Mean age ±SD	24.9±5.7	24.8±5.8	t=0.862	0.389
Median parity (IQR)	1(0, 2)	1(0, 2)	Z=0.573	0.567
Education (Client)				
None	14(1.7)	14(2.5)		
Primary	354(42.9)	194(34)	χ2=95.348	<0.001
Secondary	252(30.5)	223(39.1)		
Tertiary	206(24.9)	137(24)		
Others Specify	0(0)	2(0.35)		
Education (Spouse)				
None	17(5.4)	1(0.3)		
Primary	48(15.3)	80(27.8)	χ2=32.610	<0.001
Secondary	48(15.3)	59(20.5)		
Tertiary	201(64)	148(51.4)		
Others Specify	0(0)	0(0)		
Occupation (client)				
Employed	170(13.6)	105(9)		
Unemployed	618(49.3)	476(40.7)	χ2=55.714	<0.001
Self employed	410(32.7)	526(44.9)		
Student	55(4.4)	63(5.4)		
Others Specify	0(0)	0(0)		
Occupation (Spouse)				
Employed	474(34.7)	302(26.5)		
unemployed	91(6.7)	129(11.3)	χ2=102.282	<0.001
Self employed	777(56.8)	671(58.8)		
Student	25(1.8)	39(3.4)		
Others Specify	0(0)	0(0)		
Length of stay				
Days	1782(99)	1793(99.6)	χ2=3580.167	<0.001
Weeks	18(1)	7(0.4)		
Complication at birth (baby)				
Yes	189 (10.5)	214 (11.9)		
no	1605 (89.5)	1582(88.1)	χ2=1.716	0.190
Baby outcome				
Alive	1715 (95.5)	1738(96.6)	χ2=2.968	0.085
death	81 (4.5)	61(3.4)		
Maternal outcome				
Alive	1787(99.4)	1796(99.8)	χ2=4.594	0.032
death	11(0.6)	3(0.2)		
Complication at birth				
(mother)	347(19.3)	350(19.5)	χ2=0.16	0.899
Yes	1449(80.7)	1446(80.5)		
No				
Status of admission(mother)				
Booked				
unbooked	545(35.7)	533(34.8)		
	982(64.3)	998(65.1)	χ2=1.255	0.534
Condition of mother on discharge				
Good				
Fair	1663(93)	1689(95.2)		
Poor	115(6.4)	77(4.3)		
died	00	4(0.2)	χ2=17.231	0.002
	11(0.6)	3(0.2)		
Condition of baby on discharge				
Good	1578(88.3)	1569(87.7)		
Fair	99(5.5)	115(6.4)		
Poor	22(1.2)	19(1.1)	χ2=1.463	0.691
died	88(4.9)	86(4.8)		

There was a significant difference in the utilization of health facility delivery services between pre and post program implementation periods in terms of education level and occupation (both client and spouse), ($p<0.001$), complication at birth, maternal outcome and condition on discharge ($p<0.05$). However no difference was observed in age and parity (Table 4.1.1).

Table 4.1.2: Multivariate analysis

Variable	B	S.E.	Sig.	OR	95% C.I.for OR	
					Lower	Upper
Length of stay(Days)	-.906	.450	.044	.404	.167	.976
Complication at birth (No)	-.150	.108	.167	.861	.697	1.064
Maternal outcome (Alive)	-2.230	.736	.002	.108	.025	.455
Condition of Mother			.001			
Good	.941	.355	.008	2.562	1.277	5.143
Fair	1.340	.383	.000	3.817	1.802	8.084
Constant	2.189	.795	.006	8.924		

Multivariate analysis indicated that in the pre policy period, length of stay in the hospital was less likely to be in days compared to the post period (OR; 95%CI: 0.404; 0.167-0.976). Maternal outcome was also less likely to be alive in the pre-period compared to the post policy period (OR;95%CI: 0.108; 0.025-0.455). Condition of the mother was more likely to be good and fair in the pre period compared to the post period as in table 4.1.2

Level of utilization of antenatal services pre and post FMC program

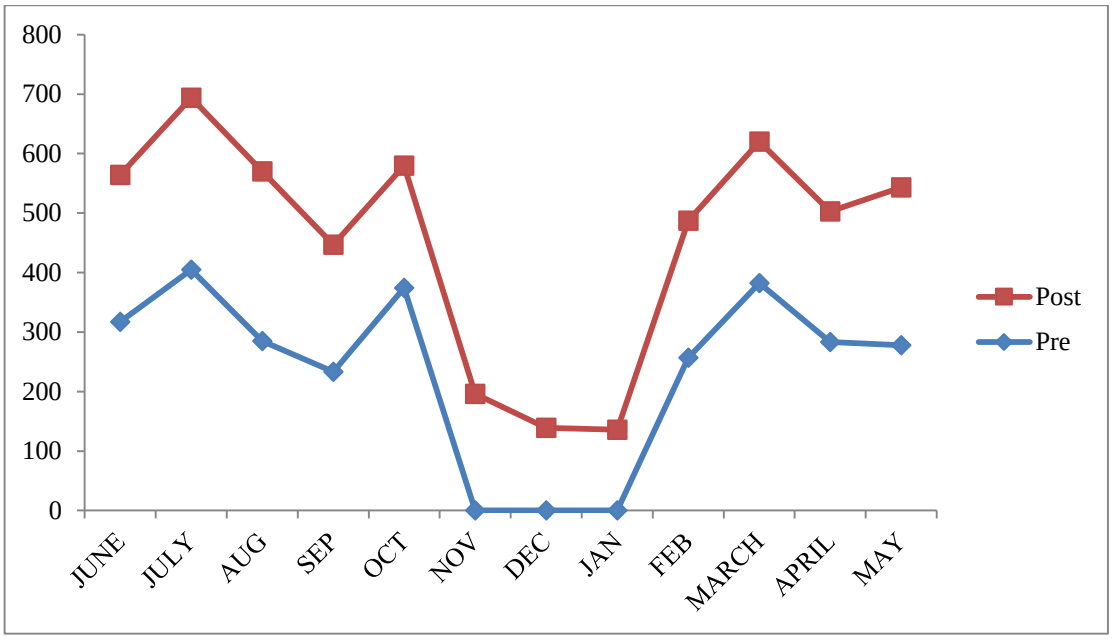

Fig 4.1.2: New ANC Clients (Pre-post free maternity)

Similarly, the number of New ANC clients was higher in the post maternity period compared with pre-period in the same months (fig 4.1.2)

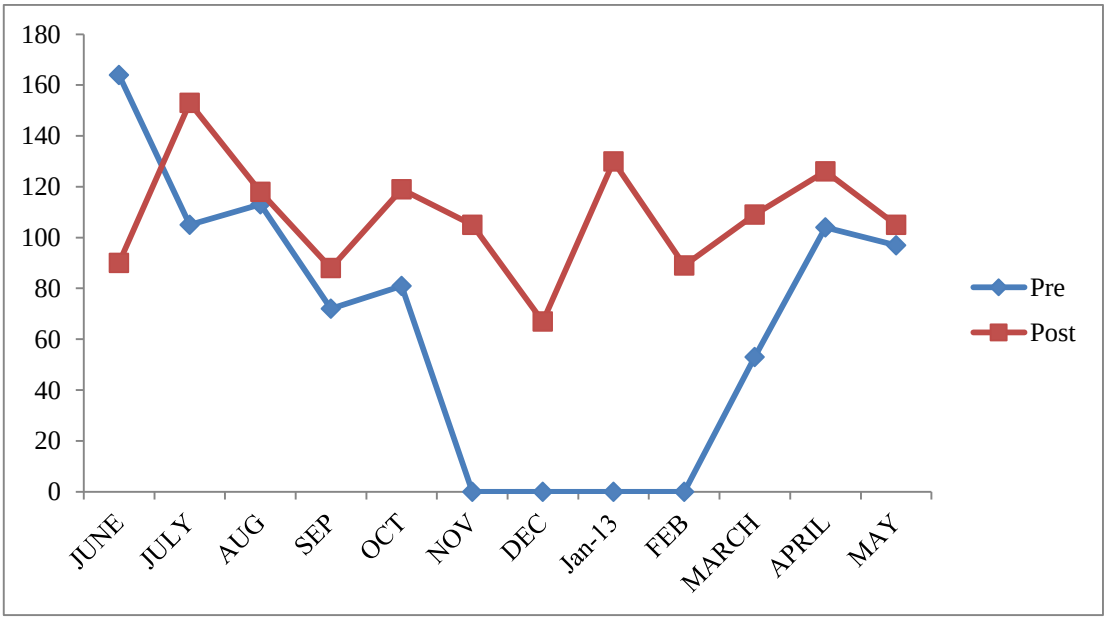

Fig 4.1.3: 4th ANC visits (Pre-post free maternity)

The number of 4th ANC visits was higher in the post maternity period though not much higher compared with pre-period in the same months except for the months of June and August (fig 4.1.3)

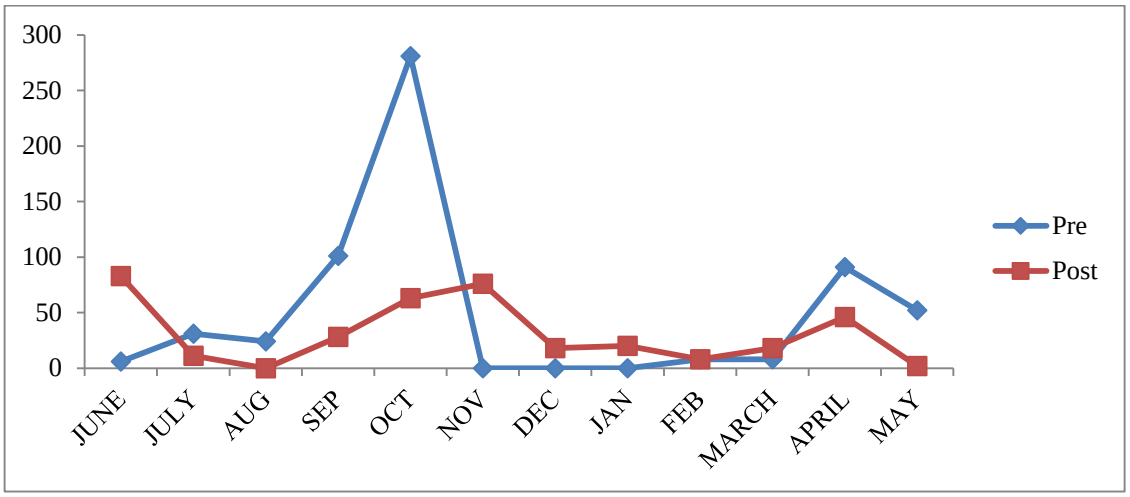

Fig 4.1.4: Post natal attendance in pre and post program

There was no much difference in postnatal attendance in pre and post policy except for the months of September and October where postnatal attendance in pre policy implementation was high (Fig. 4.1.4)

Table 4.1.3: Mean differences in the utilization of Services (Pre-post free-maternity)

Service	Pre	Post	t-value	P-value
Deliveries	342.5±173.3	562.5±100.8	3.801	0.001
New ANC	234.5±150.6	223.1±49.1	0.272	0.790
ANC revisits	395.8±270.5	518.8±174.1	1.324	0.201
4th ANC visit	65.8±55.3	108.3±23.0	2.459	0.027
Postnatal	50.2± 80.7	31.1±28.9	0.771	0.449
PNC revisits	20.0±24.9	29.3±35.2	0.750	0.461

There was a significant difference in mean number of deliveries and 4th ANC visits in pre and post free maternity periods (p=0.001 and p=0.027) respectively. Higher numbers were observed in the post compared to the pre free maternity period. However, there was no difference in the New ANC clients (p=0.790) and post natal attendance (p=0.449)

Mortality

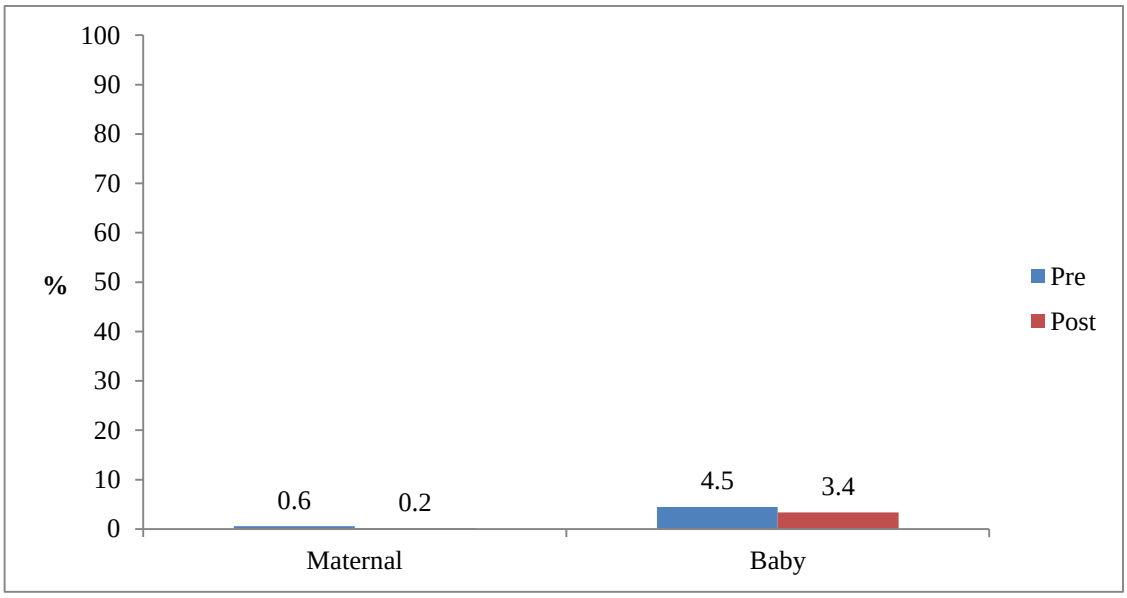

Fig 4.1.5: Maternal and child mortality (pre-post) policy implementation

There was a slight difference in the maternal and child mortality between pre and post policy implementation (fig 4.1.5) though the difference was significant ($\chi 2=4.600$, p=0.032) for maternal and not significant ($\chi 2=2.97$, p=0.085) for child mortality.

4.2. Client satisfaction

Objective 2 sought to establish the level of client satisfaction on quality of care in the era of free maternity care program. A total of 223 clients were interviewed. Their mean age (in years) was 25.1(SD 7.6). The median parity (IQR) was 3(1, 4). Most of them were married 139(62.3%) and a significant number 119(54.1%) was unemployed. A

majority of the respondents 113(51.6%) had primary level education and most of them 146(65.5%) were Christians.

Table 4.2.1: Socio-demographic characteristics

Characteristic	Frequency (%)
Marital status	
Single	67(30)
Married	139(62.3)
Widowed	8(3.6)
Separated	9(4.1)
Occupation	
Employed	25(11.4)
Unemployed	119(54.1)
Self employed	41(18.6)
Student	35(15.9)
Education	
None	7(3.2)
Primary	113(51.6)
Secondary	71(32.4)
Tertiary	28(12.8)
Religion	
Christian	146(65.5)
Muslim	75(33.6)
Others	2(0.9)

Length of stay in the ward

Majority 170(76.9%) had stayed in the ward for days and only 4(1.8%) had stayed for months (fig 4.2.1)

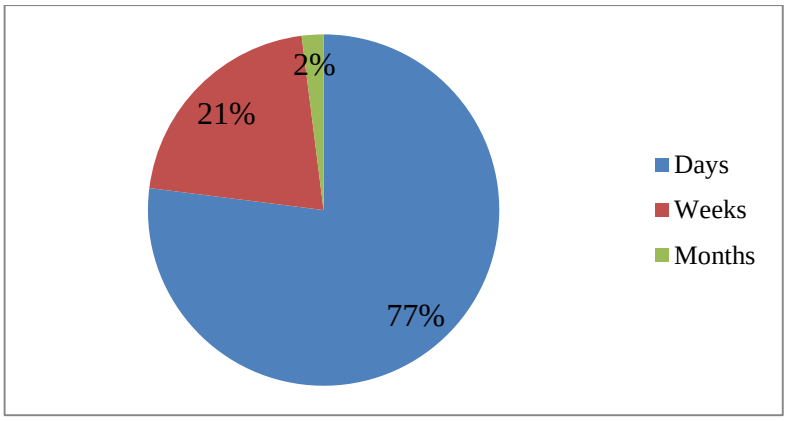

Fig 4.2.1: Length of stay in the ward

More than half of the patients 129(57.8%) had been admitted to the ward before the free maternity care program and only 58(26%) were satisfied. Among the satisfied, majority 36(62%) reported friendly staff while 15(25.9%) reported that it was because of good environment (Fig 4.2.2).

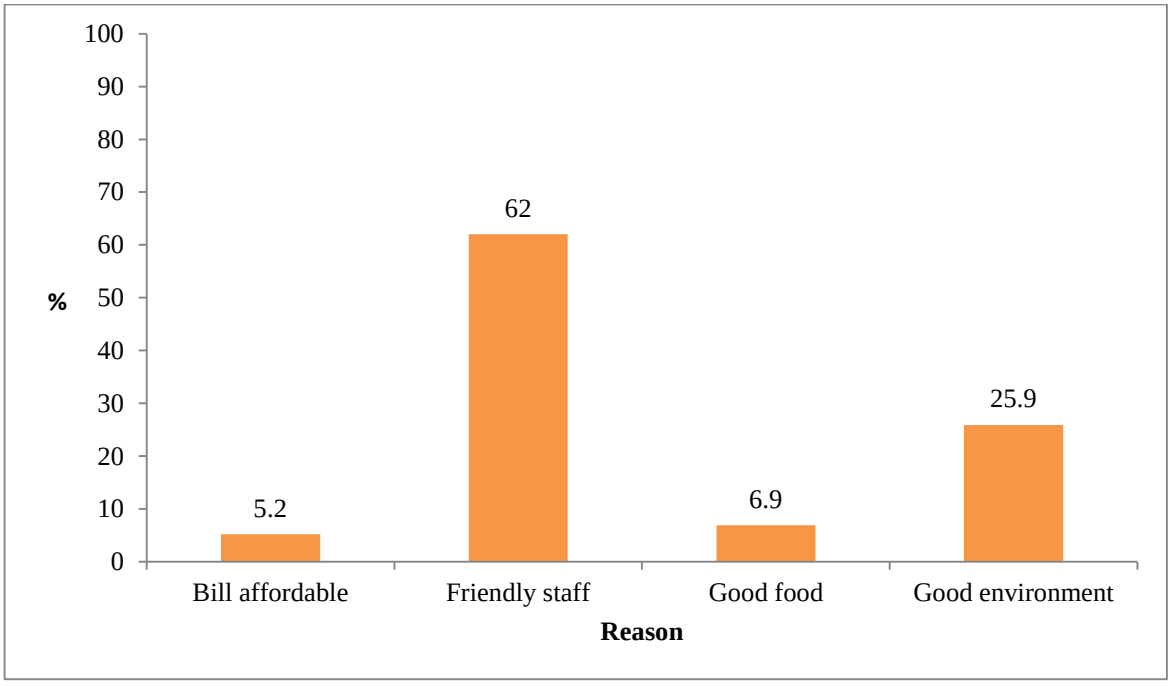

Fig 4.2.2: Reason for satisfaction

Among the dissatisfied, 51(72.9%) was because of high bill, 11(15.7%) unfriendly staff (fig 4.2.3)

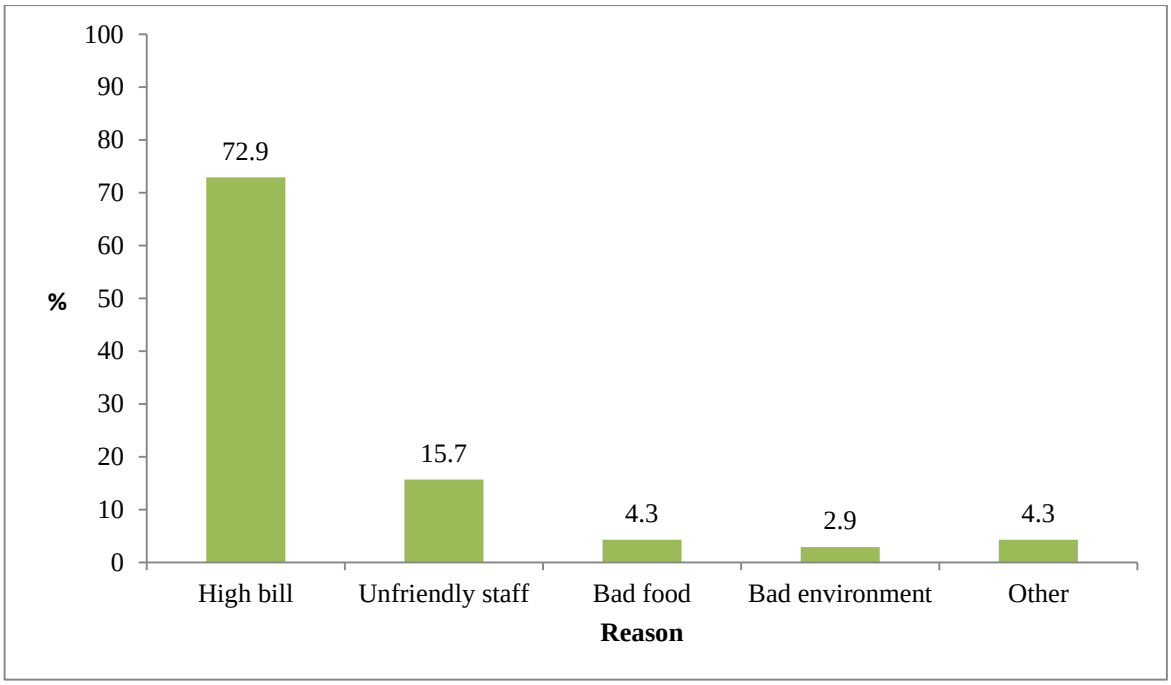

Fig 4.2.3: Reason for dissatisfaction

Majority rated the services received as good 135(61.7%) and only a small number 3(1.4%) rated it as poor (fig 4.2.4)

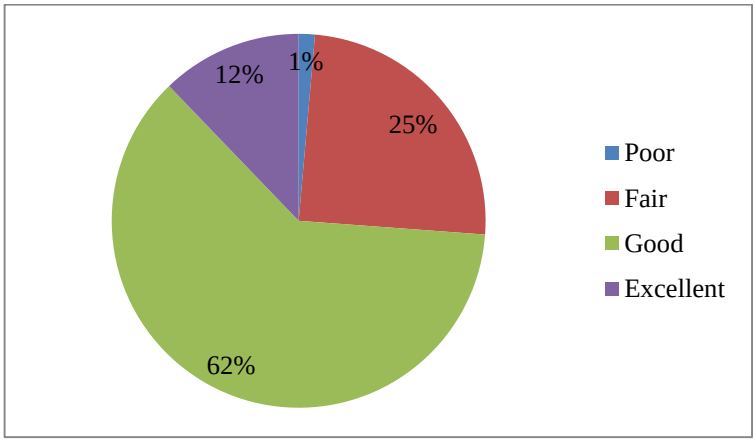

Fig 4.2.4: Quality of service

Close to half 106(47.7%) received quality services they wanted and 65(29.3%) did not (table 4.2.2)

Table 4.2.2: Received quality service wanted

Response	Frequency (%)
No definitely	15(6.8)
No not really	50(22.5)
Yes, generally	51(23)
Yes, definitely	106(47.7)

More than half 137(61.7%) of the respondents would definitely recommend the facility to other clients and only 16(7.3%) would not do so (table 4.2.3)

Table 4.2.3: Recommend the facility to other clients

Recommend	Frequency (%)
No definitely	3(1.4)
No don't think	13(5.9)
Yes, think so	69(31.1)
Yes, definitely	137(61.7)

Majority of the patients 197(88.7%) were willing to come back to the facility and only 25(11.3%) were not (fig 4.2.5)

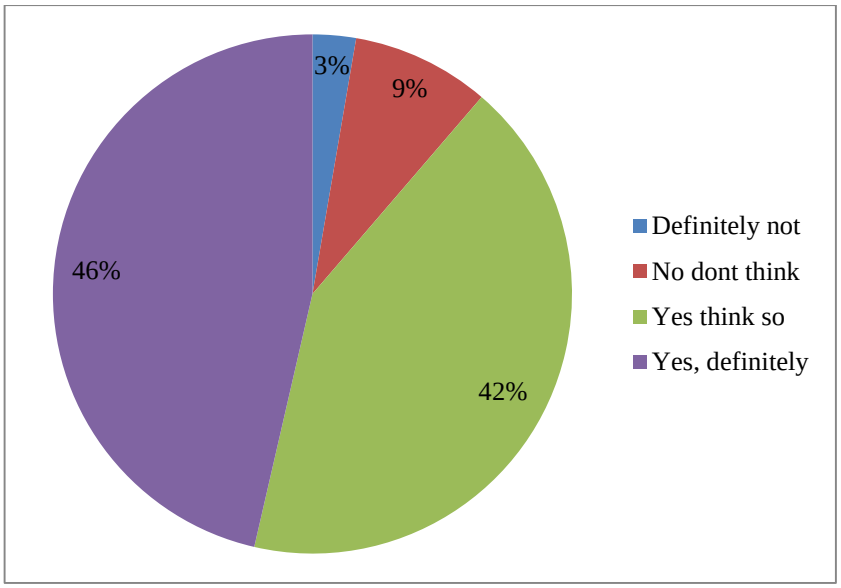

Fig 4.2.5: willingness to come back to facility

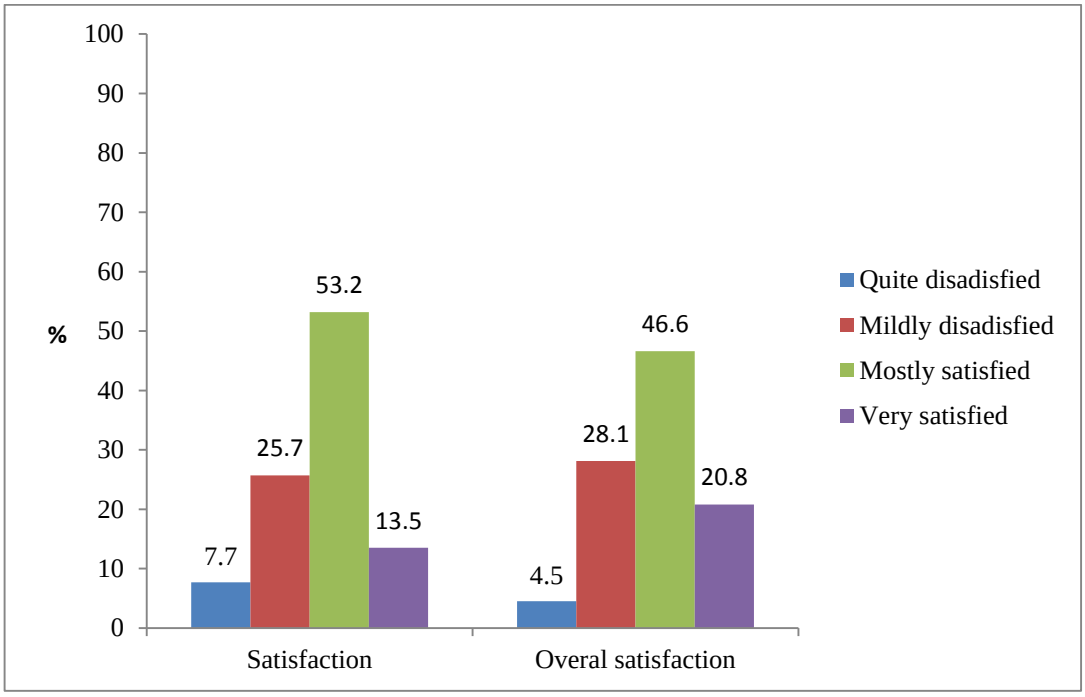

Fig 4.2.6: Satisfaction with services

As in figure 4.2.6, overall only 72(32.6%) of the clients were dissatisfied with the facility services while more than half of the clients 151(67.4) were satisfied

Table 4.2.4: Factors associated with satisfaction of the clients

Factor	Satisfaction		statistic	p-value
	Satisfied	Dissatisfied		
Age	25.6±7.9	24.2±7.1	t=1.303	0.194
Parity	2.5±3.9	2.3±3.9	t=1.128	0.260
Marital status				
Single	23(34.3)	44(65.7)	$\chi2$=0.239	0.887
Married	43(31.4)	94(68.6)		
Other	6(35.3)	11(64.7)		
Occupation				
Employed	8(32)	17(68)		
Unemployed	34(28.6)	85(71.4)	$\chi2$=3.772	0.287
Self employed	14(35.9)	25(64.1)		
Student	16(45.7)	19(54.3)		
Education				
≤Primary	27(22.9)	91(77.1)	$\chi2$=10.841	0.001*
≥Secondary	45(43.7)	58(56.3)		
Religion				
Christian	41(28.5)	103(71.5)	$\chi2$=3.174	0.075
Muslim	31(40.3)	46(59.7)		
Length of stay in ward				
Days	60(35.7)	108(64.3)	$\chi2$=2.636	0.268
Weeks	11(23.4)	36(76.6)		
Months	1(25)	3(75)		
Ever admitted before			$\chi2$=0.016	1.000*
Yes	42(33.1)	85(66.9)		
No	30(32.3)	63(67.7)		

Among the factors associated with client satisfaction, only education was found to be significant ($\chi2$=10.841, p=0.001). Higher proportion of those with lower education level were satisfied compared to those with higher levels of education (77.1% vs. 56.3%)

Objective 3 sought to identify the challenges associated with free maternity health care program and the solutions that could be put in place to mitigate the challenges. Qualitative data was elicited from the postnatal mothers, health care providers and the administration.

4.3. Findings from clients on challenges

A total of 20 postnatal mothers were interviewed. Their mean age (in years) was 25.4(SD7.2) and the median parity was 2(1, 4). More than half 14 (70%) were married and 14(70%) were Christians. 12(60%) were unemployed and 11(55%) had primary education as in table 4.3.1

Table 4.3.1: Demographic data for clients interviewed on challenges

Characteristic	Frequency (%)
Marital status	
Single	4(20)
Married	14(70)
Separated/divorced	2(10)
Religion	
Christian	14(70)
Muslim	6(30)
Occupation	
Employed	2(10)
Unemployed	12(60)
Self employed	4(20)
Student	2(10)
Education	
None	1(0.7)
Primary	11 (55)
Secondary	5(25)
Tertiary	3(15)

The theme that came up was knowledge on free maternity care program and the majority of the clients were aware of the program which they had heard of from the media and also from mothers who had benefitted. Most of them understood the FMC program as *"no fee for delivery"* others said *"clinic, medication and delivery are free", "I am not sure if you have a caesarean section whether it will be free".* All these sentiments indicate that it may not be very clear to most women what the scope of FMC program is. There is therefore need to reinforce on the scope of FMC program.

The other theme was challenges encountered in the process of utilizing the free maternity services, the sub themes that emerged were staff attitude, environment and privacy. The staffs were said to be arrogant and had arrogant comments. Negligence and use of abusive language from health care providers especially in maternity unit, the laboratory department and the radiology department was also reported. The respondents also reported that the environment was not conducive as they shared beds with other women. There was congestion in most departments leading to lack of privacy and long waiting time. One woman said, *"if you went to the pharmacy or Lab right now, you can be sure that you might not be served because the line is too long and you will not be reached…hata utalala hapo (you might even spend a night there)"* The woman was saying this at around 9 am.

No specific traditional hindrance was reported with regards to accessing and utilization of free maternal healthcare services

Operational constraints

a) Access to services

The sub themes that came up from the theme of access were transport and insecurity. Most of the women reported that reaching the hospital especially at night was a big challenge and the road network was also poor. Others said that their main challenge was with insecurity which is a threat especially at night. One commented, "*..at night you won't reach my home. Thugs just cut people without caring. Maybe your ambulance can be respected because they know that it does not have money to be stolen."*

b. **Utilization of services**

On Utilization as a theme, almost all the women reported that they faced a lot of challenges when it comes to utilization of the services. Some the challenges that came out were; long waiting time, harassment from some casual laborers, harassment from some health care providers (nurses, doctors and some staffs in the laboratory department) and lack of some essential items to be used in their care like pads. One woman narrated her encounter with a casual laborer and she said this*, "....when she came and found me standing next to that door, she just roared like a lion; you woman, move the other side, don't you have eyes to see what am doing? You think am your maid, the one you always mistreat in your house....move. And before I moved she poured dirty water just next to me so that I could be soiled."*

Suggestions to improve FMC Program

Most of the responses fall under transport, staff, infrastructure and continuous supply of item as the sub themes. Respondents suggested that ambulances be provided to assist in transporting laboring women especially at night, more staff to be employed to match the large numbers of women seeking free maternal services but those available should change their attitude so that they stop harassing the clients. Infrastructure should be improved and continuous supply of items should be maintained.

Suggestions to the policy makers

To the policy makers this is what the women suggested, "at *the periphery there is inadequate staff, equipment and medicine compared to the general hospital. We would rather use the general hospital because there is better service, but the challenge we get,*

is that we have to pay for fuel for the ambulance, why not provide everything to the lowest level."

4.5. Findings from administrators

Overall opinion on free maternity care program

The theme was overall opinion by the administration on FMC program. They reported it as a good program that requires more refined implementation. It is not free as suggested as it has cost especially when funds delay and the supplies are missing, clients are left with no option but to buy. However, they agreed that it allows mothers to deliver in safe environment attended by skilled labor. It has increased hospital deliveries and reduced maternal mortality and length of stay in the facility after delivering.

One of them said this, *"This is a worthwhile program. Long time ago this mamas (mothers) were delivering at home, but now they come to hospital. It requires continuous monitoring of service delivery to maintain quality", "this is a good idea, it increases access to mothers", "FMC" is a noble idea. It is an opportunity to give our mothers quality care"*

Challenges encountered in line of duty included

The challenges they encountered in their line of duty included; Delayed release of funds and mothers admitted with antenatal complications declining to go home until they deliver. This made the wards to be congested and thus need to expand the facilities. They reported of increased workload, shortage of staff and inadequate supplies.

One of them said this bitterly, *"Monthly reports for reimbursement have been provided regularly to the national office, but we have not received reimbursement for the last quarter. The national government claims that we do not submit our reports, but this is not true…..I can even show you a copy of our latest report….but see, no funds have been reimbursed yet…."*

To improve the program, the following remedies were suggested.

The administrators suggested that there should be prompt release of funds, higher vote head for operative delivery, more staffing, motivation for healthcare providers and improvement in maternity wards especially expanding the space.

Suggestions to policy makers

In addition they suggested that the policy makers should review the program to identify challenges encountered and also get views from stake holders. They suggested that emphasis should be put on family planning. They also suggested that the policy makers should come on the ground to see for themselves what is happening and the hospitals to be allowed to use part of the money to hire nurses in maternity ward. On the changes observed following the introduction of the FMC program, the administrators agreed to have observed changes in maternal health following introduction of the program as the number of maternal deaths had reduced and there is increase in hospital deliveries.

On sustainability of the program, they all foresaw sustainability of the program as long as it is supported by National government and that it becomes law and not a political tool.

One said, *"Why not…..it will be sustained, but it should be passed as law and not just left as a political tool. Political ideas do not last; they disappear with politicians when they do not make it to the parliament"*

4.6. Findings from Health care providers

Among the 8 healthcare providers that were interviewed 4(50%) were male and the mean age was 43.3 years. All 8(100%) were married and 4(50%) had degree level of education.

On the level of utilization of maternity care services in the era of the FMC program as a theme, they all said that utilization of services had increased and more mothers were delivering in the hospital.

A staff from the laboratory said, *"Wards are full everyday….in our department, sometimes we even lack blood to give to labor ward for transfusion."*

On the level of client satisfaction in the era of FMC program as a theme, they all thought that it was very low. They reported that the clients were not satisfied because the services were poor, they shared beds and the environment was dirty because of the congestion. A staff in pharmacy said that the clients went as far as quarreling them especially when they are told that the drugs are out of stock.

In postnatal ward a health care provider commented *"what do you mean level of client satisfaction? Can you be satisfied in such an environment? Congested and even sharing the bed and the linen….they are not satisfied at all."*

On the challenges encountered in their line of duty, they reported that there was increased workload, shortage of drugs and supplies and working for long hours without offs.

One health care provider said this*, "the situation is pathetic…can you imagine I missed my annual leave last year? Sometimes we even work morning and evening duties without breaking…can you actually deliver?"*

In radiology department this was said, *"Many mothers are turning up for ultrasound and we are not able to manage the high numbers. We end up just booking some to come back later and I guess only a few returns."*

TABLE 4.3.2 RATING PERCEPTIONS ON THE IMPACT OF POLICY

	1	2	3	4	5
General maternal health	0(0)	2(25)	2(25)	4(50)	0(0)
Minimizing mobility	0(0)	2(25)	3(37.5)	2(25)	1(12.5)
Minimizing mortality	0(0)	1(12.5)	3(37.5)	2(25)	2(25)
Enhancing patronage of antenatal services	0(0)	1(12.5)	3(37.5)	2(25)	2(25)
Enhancing patronage of supervised delivery	0(0)	1(12.5)	2(25)	3(37.5)	2(25)
Enhance patronage of postnatal services	0(0)	2(25)	2(25)	4(25)	2(25)

All the health care providers interviewed agreed that they had observed changes in maternal health following the introduction of the FMC program.

Positive changes that came out included: general improvement in health status, reduced morbidity and mortality, increased skilled birth attendance and increased ANC attendance leading to detection of complications early.

Negative change observed in maternal health was that most mothers did not use Family Planning services and therefore they did not space their pregnancies.

Health care provider in MCH commented, *"These mothers don't use FP nowadays. They just deliver at a close interval because the services are free and they want to use*

them. This makes them so weak that some of them fail to carry the pregnancies to term."

On what can be done to make the program serve the clients better, health care providers suggested better planning, increased allocation of funds to reduce stock outs, employing more staff, introducing incentives to motivate staff, improving on infrastructure, making services free right from antenatal profile, specialized clinics and treatment. They also reported that more equipment like delivery packs should be bought and more space created. Upgrading of the available infrastructure e.g. maternity theater also came out from them.

On suggestions to the policy makers, the health care providers suggested that the policy makers should improve infrastructure and the program to be passed as a law to call for legal backing. They reported that the program should consider mothers right from conception to delivery and not only care about the last stage of pregnancy. This however calls for more information about the scope of the program for it covers antenatal, delivery and postnatal care unlike the health care providers' suggestions. They also suggested that the policy makers should introduce cheap insurance cover for all citizens and they should follow up closely on how funds are used by the hospital. They agreed that it is a good and noble idea and therefore it should be maintained.

One said, *"in fact, the program should be monitored closely and evaluations done regularly….this can easily enhance the outcome of the program."*

On sustainability of the FMC program, half of the health care providers reported that they foresaw sustainability of the program.

The remaining half however reported that it will not be sustained due to high level of corruption in the country and high poverty level. One said amidst laughter*, "What! Ha-ha, this one surviving, let as wait and see. The money is already missing or it is between the County government and the National government. With corruption around, I don't see it survive."*

CHAPTER FIVE

5.0 DISCUSSION

The chapter discusses the results of the study. It compares the results from this study with results from other studies globally. The chapter also discusses the conclusion made and gives recommendations.

5.1. Level of utilization

5.1.1. Health facility deliveries

The study noted that there was a significant difference in mean number of facility deliveries pre and post free maternity periods (p=0.001). Higher numbers were observed in the post compared to the pre free maternity period. The results are in line with findings from a systematic review of user fee impacts which concluded that removing them increased utilization of maternal services, usually in the form of one sharp rise (Lagarde & Palmer, 2008). Other studies specific to facility delivery care carried out in Ghana also reported increase in percentage of facility delivery after fee removal (Penfold, Harrison, & Bell, 2007; Asante, Chikwama, & Daniels, 2007; Witter et al., 2007). According to them this could be attributed to reduced costs but also due to extensive public health messages promoting facility deliveries. The results of this study are also supported by the Comprehensive Assessment report (2015) which was carried out in Kenya to assess the Status of implementation of free maternity services program in the devolved health. The report noted that with the introduction of FMC services, there was an increase in the proportion of health facility deliveries. This was also supported by the KDHS (2014) report which noted an increase in health facility

delivery to 61% up from 44% recorded in the KDHS (2010) report. This increase is arising from the reduction in the financial barriers to accessing maternal health services. However, Dzakpasu et al. 2013 and Ridde and Morestin (2011) have a different opinion. According to them, seventeen studies examined the impact of user fees on facility delivery and it was noted that with the introduction of fees facility deliveries increased and they decreased following the removal of fees. These was exceptionally observed in Cambodian hospital study where increasing facility delivery was observed following fee introduction and quality of care improvements and Burkina Faso which showed temporal and geographic fluctuations in facility delivery. However, there was no overall impact seen following fee changes. Authors of the Cambodian study ascribed the increase of facility deliveries to improved quality.

This study noted a significant difference in the utilization of health facility delivery services between pre and post program implementation periods in terms of education level and occupation (both client and spouse) at ($p<0.001$). However no difference was observed in age and parity. According to the results women with higher education and employed and whose husbands are also educated and employed utilized the services more in the pre program period compared to the post program period. These results could be ascribed to perceived poor quality of services by the clients as a result of increased workload. This is supported by Grepin (2009) who noted that in Ghana wealthier patients were able to identify and opt for services of higher quality.

5.1.2. Utilization of ANC services

Similarly, the number of New ANC clients was higher in the post maternity period compared with pre-period in the same months. However the results were not statistically significant ($p = 0.201$). These results are similar to those reported by

Amayaw (2011) and Mahamadu (2012) in two studies carried out in Ghana. The studies noted an increase in the antenatal attendance in post policy periods but the difference was not significant. This could be because the FMC program does not directly deal with the antenatal attendance and clients still pay some fee for services like antenatal profile. Nevertheless, Dzakpasu et al. (2013) in their Systematic review on the impact of user fees on maternal health services utilization had a different opinion. They noted nine studies which reported on the impact of user fees on ANC visits. As expected, visits would decrease with the introduction of fees and increase following the fee removal. Exceptions to this pattern, visits increased at a hospital in Cambodia following fee introduction. This according to the authors of the study was attributed to perceived improved quality of care.

KDHS (2014) report also agrees with the results of this study as it noted an increase in antenatal attendance up to 96% up from 92% and 88% reported in the KDHS (2010) and (2003) respectfully. This is supported by the MOH (2015) comprehensive report which also noted that there was increased utilization of ANC services in the year of initiating FMC. The results are attributed to the removal of user fees which has been one of the barriers to utilizing maternity services.

5.1.3. Postnatal services

According to this study, there was no difference in the utilization of postnatal services between pre and post program periods. Literature review reveal that most of the studies measuring the impact of user fee removal on utilization of maternal services have not reported much on postnatal services probably because data was missing or the data that was available was not significant enough to make a reliable conclusion. Nevertheless, for those who documented their results like Mahamadu (2011) noted that postnatal

attendance was progressing slowly and needed a boost. In Kenya, postnatal services utilization have shown some improvement as reported by KDHS (2014) which noted an increase in proportion to 51% percent up from 42% in the previous KDHS (2010). The results could be ascribed to the fact that most mothers are delivering in health facilities following fee removal and they are likely to come back for postnatal checkups unlike those who deliver at home. Another reason for the increase could be, increased recording of postnatal attendance unlike before.

5.2. Client satisfaction

One of the specific objectives was to establish the level of client satisfaction on quality of care in the era of free maternity care policy. A total of 223 clients were interviewed. Their mean age (in years) was 25.1(SD 7.6). A majority of the respondents 113(51.6%) had primary level education and most of them 146(65.5%) were Christians. More than half of the patients 129(57.8%) had been admitted to the ward before the FMC and only 58(26%) were satisfied. Among the satisfied, majority 36(62%) reported friendly staff while 15(25.9%) reported that it was because of good environment. Mean age in years in this study is similar to that of KDHS (2014) and this is because fertility rate of women picks broadly around this age. It is for this reason that most of the women in the postnatal ward were around this age. These results are also similar to results from other studies which established that determinant of client satisfaction included friendliness from the health care providers and clean and comfortable environment (Nyongesa et al., 2014; Schoenfelder et al., 2011; Chawani, 2009). When the environment is clean, one feels comfortable and will want to come back to the same place for services and the relationship created between the client and the health care provider will also make the client either to be satisfied or to be dissatisfied.

Hundred and thirty seven (61.7%) would definitely recommend the facility to other clients and only 16(7.3%) would not do so and majority of the clients 197 (88.7%) were willing to come back to the facility and only 25(11.3%) were not. According to Bazant and Koenig (2009), recommending the facility to other clients and the willingness to come back to the same facility for care indicates that the client was satisfied with services she received. These results are in line with results of the study carried out in Nairobi's informal settlements on women's satisfaction with delivery care. The results are ascribed to the fact that the environment was clean making the clients to feel comfortable and the health care providers were friendly.

Close to half 106(47.7%) respondents reported to have received quality services that they wanted and 65(29.3%) did not. Many studies indicate that quality of care is a measure of client satisfaction but they also agree that definition of quality is an individual's perspective and therefore subjective. A Meta Synthesis on patient satisfaction with nursing care carried out by Chiwani (2009) revealed 49 themes related to client satisfaction. The themes were ranked according to their importance and quality of care was ranked second to caring. This therefore implies that the respondents in this study were satisfied with the services they received. Furthermore overall, more than half of the clients 151(67.4%) were satisfied with the services offered. This percentage though is slightly lower than that noted by a comprehensive assessment report (2015) carried out by the Ministry of health in Kenya which indicated that 80% of the clients were satisfied with the services offered and the interpersonal skills of the heath care staffs. The difference in percentage could be due to the fact that in the comprehensive report, many parameters to define quality were measured compared to only few that were measured in this study.

Among the factors associated with client satisfaction, only education was found to be significant ($\chi 2=10.841$, $p=0.001$). Higher proportion of those with lower education level was satisfied compared to those with higher levels of education (77.1% vs 56.3%). These results are similar to those of a Meta Synthesis analysis by (Chiwani, 2009). In the Meta Synthesis, it was noted that the educational levels of patient can influence patients' expectations of nursing care and satisfaction. It reported that educational levels of the patient influence the patients' expectations of care where patients with high levels of education were reported to be dissatisfied with the quality of care provided. One of the reasons could be that patients with high levels of education demand more information on quality of care and always try to establish trusting nurse-patient relationships. The same analysis reported that greater satisfaction is associated with less education. It may be concluded that patients with less education do not know what they are entitled to or what constitutes good quality care. A study in Ghana on determinants of Consumer Satisfaction of Health Care also had the same results (Nketiah-Amponsah, 2009). Most of the clients who utilized the services in the post FMC program period had attained primary level education and this explains why the level of client satisfaction was high.

5.3. Challenges

Although evidence of the positive sides of the free maternity care program suggests that delivery exemptions can be effective and cost-effective, and that despite being universal in application, they can benefit the poor, certain challenges were raised both by the clients who are utilizing the services, the health care providers and the administration.

5.3.1. Challenges raised by the clients

Majority of the clients had heard of the FMC and they understood the services that were being offered under the policy unlike the respondents in the study carried out by Adei et al. (2012) which revealed that although the women had heard about free maternal health care under the NHIS scheme, they did not know what it entailed. However some of them were not sure of the services offered under the program. There is therefore need to reinforce on the scope of FMC program. The challenges raised included little attention from health care providers, congestion in the wards leading to sharing of the beds and some important items like pads and some drugs missing and thus leaving the mothers with no options but to buy. The clients also reported that they paid for services in other departments like in the laboratory and in the radiological department. These findings are not unique as many other studies on Fee exemption or FMC policy noted the same challenges. One study in the New Juaben Municipality in Ghana by Ameyaw (2011) also noted that the challenges associated with FMC policy according to the clients included delay at service points, drugs not being comprehensive and being of poor quality. These results can be explained from the fact that with fee removal more mothers come for the services and therefore led to congestion given that the number of staff was not increased to deal with the increased demand, Challenges associated with access to services included insecurity especially when labor starts at night and lack of ambulance to assist in transporting the women to the health facility while those associated with utilization of services included long waiting time, harassment from some casual laborers and harassment from some health care providers. These results were also noted in Ghana by Mahamadu (2012) in his study on access and utilization of free maternal health services in the Savelugu-Nanton District in the Northern region and in Nigeria by (Galadanci et al., 2010). Another study in Kenya by Muckle et al.

(2013) on barriers to access of maternity care in Kenya: A Social Perspective also 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. Adei et al. (2012) and Esna and Sappor (2013) also had the same results. Bourbonnais (2013) also agree 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. A comprehensive assessment report (2015) by MOH on Status of implementation of Free Maternity services (FMC) program in the devolved health system in Kenya came up with the same challenges. The challenge on poor infrastructure noted in most studies in Africa is due to the fact that most African countries are still in the developing stage and therefore most of the infrastructure is not well established. The long waiting time is due to increased number of mothers seeking services in relation to less number of staff available to deal with the large numbers.

In order to improve access and utilization of services in the FMC program period, clients suggested that ambulances should be provided to assist in transporting laboring women especially at night, more staff to match the large numbers of women seeking free maternal services should be employed, infrastructure should be improved especially creation of more space, continuous supply of supplies should be ensured and healthcare providers to stop harassment. These suggestions are not unique to this study as Bourbonnais (2013), Comprehensive assessment report (2015) and Galadanci et al. (2010) also agree that some of the strategies to improve utilization and access to maternal services under the FMC program include investing in ambulances in order to enhance access to facilities and increasing the budget allocation on health in order to strengthen health systems and ensure sufficient infrastructure, equipment, and staff to

implement universal maternal health care effectively. This is supported by the KDHS (2010) report which indicated that the most critical barriers to maternal health care in Kenya on a national scale was lack of physical access to facilities, due to the insufficient number of facilities, distance to facilities and inadequate transportation infrastructure. According to the report the largest percentage (42%) of women who delivered outside a health facility did so either because the facility was too far away or there was no transport to the facility, compared to only 17% who cited the cost of delivery as the key barrier. These strategies were also suggested by Mahamadu (2012) in a study carried out in Ghana. This is because most African countries share problems given that they are resource strained countries and they have almost same solutions to their problems.

5.3.2. Challenges raised by the health care providers

All the health care providers reported to observe no changes in maternal health following introduction of free maternal health care policy reason being that the number of skilled deliveries had increased but had not reduced maternal death and more mothers were becoming pregnant to enjoy the free service. However the administration reported reduced maternal mortality and the desk review also noted reduced maternal mortality. This is attributed to the fact that most mothers come to the health facility in time enabling the health care provider to detect any abnormalities early and thus prevent mortality. The findings of health care providers are also contrary to those of MOH (2015) which noted a decline in the maternal complication during labor leading to improved maternal health and an increase of about 1.5% of clients who enrolled for FP services. KDHS (2014) also noted an improvement in CPR which is 58% up from the 46% reported in the KDHS (2010) report.

However a study in Nigeria by Dzakpasu et al. (2013) also discovered that two Nigerian hospital studies reported increases in maternal and perinatal deaths following introduction of user fees. According to them another study in a tertiary hospital in South Africa also established that the institutional MMR increased following fee removal and these they attributed it to increased workload in relation to less number of staff. This led to women giving birth without assistance as the health care provider is busy attending to another client. Conversely, following delivery fee exemptions, Bosu, Armar-Klemesu, and Bell (2007) reported reductions in institutional maternal mortality ratios (MMRs) and delivery-related mortality ratios in Ghana's Central and Volta regions. The challenges raised included; Staff shortage, lack of enough supplies, low family planning uptake, lack of motivation and increased number of client/workload. These challenges have also been noted in most studies carried out in resource strained countries effecting the FMC policies like Ghana, Uganda, Zambia and Senegal (McPake et al., 2013 & Witter et al., 2009). This therefore explains why the results are similar as these countries being low income countries bare almost same problems.

The results indicate that most health care providers agreed that there is need to employ more staff, introduce incentives to motivate staff and improve infrastructure and supplies. Studies have shown that a number of countries that removed fees also increased health worker pay to some extent at around the same time, although it is not clear that this was directly in compensation of changes brought about by fees in all cases (McPake et al., 2013). These results are also supported by Bourbonnais (2013) who agrees that Kenya just like any other low income country has a shortage of staff and with the increased workload as a result of FMC program, more staff should be recruited. He further agrees that improving incentives given to the health care providers

boosts their morale and this makes them work towards achieving the objectives of the program. This was also supported by (Mahamadu, 2012; Witter et al., 2009; Deen, 2012; Amayaw, 2011). These suggestions are similar in most of the studies. This is because with fee removal, most mothers come to utilize the services and it is just in order that the number of staff is increased to cope with the demand so that quality of care is not compromised.

5.3.3. Challenges raised by the administration (Key Informants)

They all agreed that it was a good program which requires more refined implementation. They agreed that it allows mothers to deliver in safe environment attended by skilled labor and that apart from increasing hospital deliveries and reducing maternal mortality it has also reduced the length of stay in the facility after delivering. These findings are similar to those of the MOH (2015) report where the key informants reported the same on the FMC program. According to them some of the challenges encountered include; delayed release of funds increasing the debt burden, shortage of staff due to increased work load and inadequate supplies. The results on delayed reimbursement are contrary to the results reported by the MOH (2015) report which noted that 74% of health facilities included in the study had received their reimbursement including all the referral facilities by the time of the study. However, the report also agrees that 25% of the facilities had delayed in receiving their reimbursing. According to the report, missing to receive reimbursement or delaying to receive reimbursement on time was due to reasons like no feedback, reimbursement reports not prepared, inaccurate reports, inactive health facility bank accounts and other administrative issues. Nevertheless, the Key Informants in the study insisted that the

reports were sent to the National Government in time but the reimbursement still delayed. This therefore needs to be streamlined.

The following solutions were suggested to improve the program; prompt release of funds, higher vote head for operative delivery, more staffing, motivation for healthcare providers, and improvement in maternity wards. Such solutions have also been suggested by other studies carried out in countries implementing FMC (Mahamadu, 2012; Witter et al., 2009; Amayaw, 2011; Galadanci et al., 2010).

To the policy makers, the following were suggested; review the program to identify challenges faced and also listen to the views of stake holders. This also came out in the MOH (2015) report which suggested that the policy makers should take in the suggestions by the stakeholders i.e. the clients, the healthcare providers and the administration among others in order to make the program serve the clients even better.

Both the administration and the health care providers foresaw sustainability in the program as long as it is supported by National government and that it becomes law and not a political tool and as long as the suggestions raised by the stakeholders are put into consideration.

Galadance et al. (2010) also suggested that for the FMC policy in Nigeria to be sustained, there was need to have the policy in the state developed and institutionalize. They stated that the Bill on the free maternal and child health services should be pushed to the state house of assembly for adoption and legalization to ensure sustainability of the free services. This according to them was necessary in order to have a legal backing for the program as well as ensure that the program is backed up by adequate funding for provision of adequate supplies. The program stems from the Jubilee Alliance political

campaign platform of President Kenyatta. President Kenyatta's manifesto pledged user charges removal at public health facilities offering maternity services with the aim of promoting access to care. This according to the stakeholders is a political move and they are therefore suggesting that it should be passed to be law in order to receive legal backing and therefore be sustained. Nevertheless, 50% of the healthcare providers reported that according to them the program will not be sustained as it was a political weapon and also due to the high corruption level in the country. Most of programs which come up because of political ambitions end up collapsing especially if the concerned political party does not remain in power. This is why it is in order to pass the program into law.

The administration and the health care providers also suggested that for the program to be sustained, proper monitoring and evaluation of the program should be done. This suggestion was also raised by (Bourbonnais, 2013 & MOH report, 2015). Both agree that clear monitoring and evaluation procedures to track results of the program should be established. This was also suggested in other studies carried out in Ghana and Nigeria ((Mahamadu, 2012; Witter et al., 2009; Galadanci et al., 2010). Administration also suggested that higher vote head for operative delivery should be considered. This was also noted in the MOH report (2015) where some of the key informants were not happy with the factors that were considered in costing reimbursement for delivery in health facilities.

CHAPTER SIX

6.0. INTRODUCTION

The chapter presents the conclusion of the study. It also gives recommendations as per the results of the study and recommends other studies in relation to FMC.

6.1. CONCLUSION

- Free maternity Care Program is an excellent initiative and every effort should be made to sustain it. It has helped to reduce cost as a barrier to maternity services that many persons in Kenya were facing. As it is, there are already a number of mothers who are benefiting from it as it has been shown from the study that free health care have an effect on utilization of maternity health care services, particularly on childbirths occurring in the facilities.
- However, the program is still faced with a number of operationalization challenges which should be addressed by the policy makers. The high utilization without coherent evidence of increased investments to cater for this (more infrastructure, staff, commodities) suggest reduced quality of service delivery due to less available investments even though more than half of the clients interviewed were satisfied with services.
- Clear monitoring and evaluation of the progress of the program and the use of FMC funds is key to the success of the program
- Reimbursement based on deliveries suggest poor targeting of the reimbursements and therefore inefficiencies may arise in the use of the refunds to improve maternity services

- The program is sustainable as long as it is passed as law in order to have legal backing instead of being a political tool.

6.2. RECOMMENDATIONS

- Any Government intending to remove user fee must therefore plan strategically and link this single action to broader improvements within the health system.
- National and County governments need to put strategies which will help them to jointly assess, map and plan investments to improve quality of service delivery for FMC through prioritizing investments in Human Resource, infrastructure and commodities based on the anticipated demand for FMC.
- The National and County Governments should also establish clear monitoring and evaluation procedures to track results of the program and also establish a tracking system to ensure that FMC refunds are committed to improving maternal health services as advised. This monitoring system should cover utilization trends and give health workers and managers opportunity to give feedback on health facility experience.
- The National Government should increase the efficiency of claims processing and payment, minimize the payment delays, and frequently review the amount allocated to deliveries to meet the growing cost of items.
- The law makers should make the FMC program a Kenyan law and not just a political tool to ensure sustainability.

6.3. FUTURE RESEARCH

1. Future research is needed to determine health impacts in relation to increased utilization

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APPENDICES

APPENDIX 1: CONSENT FORM

My name is Beatrice Mukabana, an MScN (MNH) student at Moi University. I am carrying out a study to assess the Free maternity care program implemented by the Government of Kenya in June 2013 at Kakamega County Hospital in partial fulfillment of my post graduate program.

I am requesting for your consent to participate in the study. Information gathered during this process will enable us to know the level of utilization of maternity care services in the county and the challenges facing the Free maternity care program and therefore how achievable the MDG 5 is.

To ensure anonymity, do not write your name on the questionnaire and the information gathered will be kept confidential. The process and outcome of the study will pose no harm to the subject neither will it have direct benefits. You are free to decline participation before or during the study without being penalized.

Thank you.

I----------agree to participate in the study to assess the Free maternity care program implemented by the government of Kenya in June 2013 at Kakamega county hospital.

I have been informed of the benefits of the study and my confidentiality has also been assured. I understand that I can decline from participation before or during the study without being penalized

I consent to participate _____(signature, thumbprint)

Date_____

BARUA YA MAKUBALIANO

Kwa majina naitwa Beatrice Mukabana, mwanafunzi kutoka chuo kikuu cha MOI.

Nafanya utafiti kuhusu mpango wa wamama kujifungua bila malipo ulioanzishwa na serikali ya Kenya mnamo mwaka wa 2013 katika hospitali kuu ya Kakamega.

Naomba idhini yako ili uweze kuhuzishwa na huu utafiti . Matokeo itatusaidia kujua vile mpango huu unaendelea na changamoto zilizoko ili wanainchi waweze kuudumiwa vyema. Hakuna faida ya kibinafsi nitakayopata ilihali itanufaisha wanainchi kwa jumla.

Unapojibu maswali, usiandike jina lako na kila utakalolisema litakuwa ni siri kati yangu na wewe. Unaweza kukataa kuhuzishwa na hata unapoanza kujibu maswali uko huru kakataa kabula ya kumaliza na hutaadhibiwa na yeyote na hakuna madhara yoyote ambayo utapata kwa kuhuzishwa na huu utafiti.

Asante.

Mimi.....nakubali kuhuzishwa na utafiti kuhusu mpango wa wamama kujifungua bila malipo ulioanzishwa na serikali mnamo mwaka wa 2013 katika hospitali kuu ya Kakamega. Nimeelezwa ya kwamba yale nitakayoyasema yatawekwa siri na hakuna madhara yoyote yatakayonipata kwa kuhuzishwa na huu utafiti. Nimeelezwa ya kwamba naweza kukataa kuhuzishwa na huu utafiti na sitaadhibiwa na yeyote na pia hakuna faida ya kibinafsi ambayo nitapata ilihali itanufaisha wanainchi kwa jumla.

Nimekubali kuhuzishwa.

Sahihi.....(Alama ya Kidole)

APPENDIX 2: TIME FRAME (APRIL 2014 – JULY 2015)

ITEM	APR	MAY	JUN	JUL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	OCT
Proposal writing															
Proposal defense															
Pilot study															
Analysis of pilot study results and correction of data collection tools															
Data collection															
Data Analysis															
Report Writing															
Mock Defense															
Final Defense															

APPENDIX 3: RESEARCH BUDGET

ITEM	QUANTITY	UNIT COST	TOTAL
Materials			
• Erasers	11pc	10	110
• Rulers	11pc	10	110
• Sharpeners	11pc	10	110
• Pencils	11pc	30	330
• Ball pens	11pc	20	220
Proposal development and Thesis Writing			
• Browsing (Literature review)		20,000	20,000
• Flash disk	2 in number	1200	2,400
• CD-R	5 in number	50	250
Questionnaire typesetting			**150**
• Questionnaire production	10	10	100
• Finalization of the questionnaire	223	10	2,230
Data collection			
Training Research Assistants (lunch)	2 people	1000	2,000
Pretesting questionnaires (lunch for Research Assistants)	2 people	1000	2,000
Data collection (lunch for 30 days for 3people)	3 people	500	45,000
• Data analysis (technical assistance)			20,000
• Final Thesis copies	6 copies	3000	18,000
• Miscellaneous			11,301
TOTAL			**124,311**

N/B. The budget will be fully financed by the student.

APPENDIX 4: DATA COLLECTION TOOLS

Interview guide for health care providers in Maternity unit, Maternity Theatre, MCH , radiology, pharmacy and laboratory staff)

Part A: Socio-demographic data of respondents

1. SEX: Male Female

2. AGE……..

3. Marital Status……...

4. Cadre……

5. Highest level of education.....Certificate ☐ Diploma ☐ Degree ☐

Masters Degree ☐

Part B: General information on FMC

6. What do you think of the level of utilization of maternity care services in the era of the free maternity care program? Explain.

7. In your opinion, what do you think of the level of client satisfaction on quality of care in the era of free maternity care program? Explain

8. What are the challenges you encounter in your line of duty that you think are associated with the free maternity health care policy?

9. How will you rate the following items in terms of how you perceive the Free Maternal Health care program have positively impacted on them. Use 1…5, 5 being the highest rating. Circle the appropriate rating item you select.

Maternal Issue	**Impact Rating**				
(i) General Maternal Health	1	2	3	4	5
(ii) Minimizing Morbidity	1	2	3	4	5
(iii) Minimizing Mortality	1	2	3	4	5
(iv) Enhancing patronage of Antenatal Service	1	2	3	4	5
(v) Enhancing Patronage of Supervised Delivery	1	2	3	4	5
(vi) Enhancing Patronage of Postnatal Services	1	2	3	4	5

10. Do you observe any improvement in maternal health following the introduction of the

    Free Maternal Health Care program? Please explain what you mean

11. What do you think can be done to make the free maternity care program serve the clients even better?

12. What are your suggestions to the policy makers on Free maternity care program?

13. Do you foresee any sustainability in the free maternal health care Program? Explain

Interview guide for the administrators

1. What is your overall opinion on the free maternity care program?

2. As an administrator, what are the challenges you encounter in your line of duty that you think are related to the free maternity care program?

3. What do you think can be done in order to make the free maternity care program serve the clients better?

4. As an administrator, what would you suggest to the policy makers to do so that the policy implementers would implement the free maternity care program even better?

5. Do you observe any improvement in maternal health following the introduction of the Free Maternal Healthcare program? Please Explain

6. Do you foresee any sustainability in the free maternal health care program? Explain

Interview guide for the clients on challenges facing them

Questionnaire Identification Number

SEC A: Demographic data

1. Age (years) ……

2. Marital status

a) Single ☐
b) Married ☐
c) Widowed ☐
d) Separated/Divorced ☐

3. Religion

a) Christian ☐
b) Muslim ☐
c) Other,specify…….

4. Occupation……..

5. Education level None ☐ Primary ☐ Secondary ☐ Tertiary ☐

6. Parity.....

Part B: Challenges and recommendations to counteract the challenges

1a. Have you ever heard of the Free Maternal Health Care Programs?

Yes..... No .....

1b. If YES, where did you hear it from and what is it?

2. What are the challenges you encounter in your effort to utilize maternity services that you think are associated with the free maternity health care program?

3. Are there any specific traditional hindrances to access and utilization of Free Maternal Health Services? (Probe)

4. What are the operational constraints with regard to:

a) Access to Services.

b) Utilization of Services

5. What do you think can be done to make the free maternity care program serve you better?

6. What are your suggestions to the policy makers on Free maternity care program?

Client satisfaction questionnaire

Questionnaire Identification Number

SEC A: Demographic data

1. Age (years) ……

2. Marital status

a) Single ☐

b) Married ☐

c) Widowed ☐

d) Separated/Divorced ☐

3. Religion

a) Christian ☐

b) Muslim ☐

c) Other,specify…….

4. Occupation……..

5. Education level None ☐ Primary ☐ Secondary ☐ Tertiary ☐

6. Parity.....

7.How long have you been in the ward.....?

8.Have you been admitted for maternity services before the FMC? Yes ☐

No ☐ (If yes, answer question 9)

9.Were you satisfied with the services you received? Yes ☐ No ☐

(if yes answer question 10 and if no answer question 11)

10. What made you feel satisfied.....?

11 what made you feel dissatisfied.....?

SEC B: Client satisfaction

12. How would you rate the quality of service you have received?

1	2	3	4
Poor	Fair	Good	Excellent

13. Did you receive the kind of service you expected?

1	2	3	4
No, definitely	No, not really	Yes, generally	Yes, definitely

14. If a friend was in need of similar help, would you recommend our facility to her?

1	2	3	4
No, definitely not	No, I don't think so	Yes, I think so	Yes, definitely

15. How satisfied are you with the amount of help you have received?

1	2	3	4
Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied

16. If you were to seek help again, would you come back to our facility?

1	2	3	4
No, definitely not	No, I don't think so	Yes, I think so	Yes, definitely

17. In an overall, general sense, how satisfied are you with the services you have received?

1	2	3	4
Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied

Maswali kuhusu kuridhishwa kwa wamama na huduma wanaoupata

SEHEMU YA A:

1. Una miaka Mingapi? ……

2. Umeolewa?

   a) Hapana ☐
   b) Ndio ☐
   c) Tumeachana ☐

3. Dini yako ni gani?

   a) Mkristo ☐
   b) Muislamu ☐
   c) Ndini zingine sizipokuwa hizi mbili…….

4. Unafanya kazi gani?……..

5. Kiwango cha elimu ☐ Primary ☐ Secondary ☐ Chuo kikuu

6. Mimba ilikuwa ya ngapi.....

7.Umekuwa kwa hospitali kwa siku ngapi sasa?.....?

8. Umewai lazwa hospitali kwa huduma ya wamama kabla ya mpango wa wamama Kujifungua bure? (ikiwa ndio jibu swali la 9)

9. Uliridhishwa na huduma ambao ulipata? (ikiwa ndio jibu swali la 10 na ikiwa la jibu la 11) 10. Ni nini ilikufanya uridhike.....?

11. kwa nini hukuridhishwa..... .....

Maswali kuhusu kuridhishwa kwa wamama na huduma waliopata

SEHEMU YA B

12. Ungepimaje huduma ambao umepata katika hii hospitali

1	2	3	4
Ni mbaya sana	Mbaya	mzuri	Mzuri zaidi

13. Je, ulipata huduma vile ulitarajia?

1	2	3	4
hapana	Sio vile	kidogo	ndio

14. Rafiki yako angekuwa na shida kama hii yako, je ungemuelekeza katika hii hospitali kwa huduma?

1	2	3	4
La	Sio vile	Nadhani	ndio

15. Umeridhishwa kwa kiwango gani na huduma ambao umepata katika hii hospitali

1	2	3	4
sijaridhishwa	kidogo	nimeridhishwa	Nimeridhishwa sana

16. Ungetaka huduma tena, je ungerudi katika hii hospitali?

1	2	3	4
La	sidhani	Nadhani	Ndio

17. Kwa jumla, umeridhishwa na huduma ambao umepata

1	2	3	4
Sijaridhishwa	Nimeridhishwa kidogo	nimeridhishwa	Nimeridhishwa sana

DATA EXTRACTION TOOL

S/NO	A	B	C1	C2	D1	D2	E	F	G	G1	G2	G3	H	H1	I	J	K	

KEY FOR THE DATA EXTRACTION FORM

A - Age in years

B - Parity

C1 - Education level of the spouse

C1a – None

C1b – Primary

C1c – Secondary

C1d – Tertiary

C1e – Others specify

C2 - Education level of the client

C2a – None

C2b – Primary

C2c – Secondary

C2d – Tertiary

C2e – Others specify

D1 – Occupation of the spouse

D1a – Employed

D1b – unemployed

D1c – self employed

D1d – Student

D1e – Others specify

D2 – Occupation of the client

D2a – Employed

D2b – unemployed

D2c – self employed

D2d – Student

D2e – Others specify

E - Residence

1- Kakamega County
2- Other Counties

F - Length of stay

D for Days

W for Weeks

M for Months

G - Baby's Outcome

1- Alive
2- Dead

G1 – Scores

G2 – Birth weight

G3 – Complication at birth

1. Yes
2. NO

H - Maternal Outcome

1. Alive
2. Dead

H1 – Complication at birth

1. Yes
2. NO

I - Status of admission

1. Booked (those who attended ANC at the county hospital and came to deliver in the hospital)
2. Unbooked (those who did not attend ANC at the hospital but come to deliver at the hospital)

J - Condition of the mother on Discharge

Good

Fair

Poor

K - Condition of the baby on Discharge

Good

Fair

Poor

APPENDIX 5: PILOT STUDY ANALYSIS REPORT

A total of 20 subjects participated in the study. Their mean age was 26.5 (SD 5.6) majority were married 14(70%) and all 20(100%) were Christians. Three quarters 15(75%) had attained primary level of education and 13(65%) were unemployed (Table 1)

Table 1: Demographic data

Characteristic	N (%)
Marital status	
Single	5(25)
Married	14(70)
Sep/Div	1(5%)
Religion	
Christian	20(100)
Muslim	0(0)
Occupation	
Unemployed	13(65)
Self employed	7(35)
Education level	
None	
Primary	15(75)
Secondary	5(25)
Tertiary	

Mean number of days in ward 3(SD 1.2)

Median (IQR) parity 2(1, 4) min 1 max 6

Over half reported to have been admitted for maternity services before FMC of which 4(50%) were satisfied with services they received

Client satisfaction scale

The reliability test indicated a crombach alpha value of 0.853 implying that the scale is reliable.

In general, all the clients 20(100%) were satisfied with the services they received.

APPENDIX 6: IREC APPROVAL

INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

MOI TEACHING AND REFERRAL HOSPITAL
P.O. BOX 3
ELDORET
Tel: 33471//2/3

MOI UNIVERSITY
SCHOOL OF MEDICINE
P.O. BOX 4606
ELDORET

Reference: IREC/2014/234
Approval Number: 0001329

21st January, 2015

Ms. Beatrice Mukabana,
Moi University,
School of Nursing,
P.O. Box 4606-30100,
ELDORET-KENYA.

INSTITUTIONAL RESEARCH & ETHICS COMMITTEE
21 JAN 2015
APPROVED
P. O. Box 4606-30100 ELDORET

Dear Ms. Mukabana,

RE: FORMAL APPROVAL

The Institutional Research and Ethics Committee has reviewed your research proposal titled:-

"Assessment of Free Maternity Care Policy at Kakamega County Hospital"

Your proposal has been granted a Formal Approval Number: ***FAN: IREC 1329*** on 21st January, 2015. You are therefore permitted to begin your investigations.

Note that this approval is for 1 year; it will thus expire on 20th January, 2016. If it is necessary to continue with this research beyond the expiry date, a request for continuation should be made in writing to IREC Secretariat two months prior to the expiry date.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you must notify the Committee of any proposal change (s) or amendment (s), serious or unexpected outcomes related to the conduct of the study, or study termination for any reason. The Committee expects to receive a final report at the end of the study.

Sincerely,

PROF. E. WERE
CHAIRMAN
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE

cc Director - MTRH Dean - SOP Dean - SOM
Principal - CHS Dean - SON Dean - SOD

APPENDIX 7: KAKAMEGA APPROVAL

Telegram: "PROVMED", Kakamega
Telephone: Kakamega 056–30050/1/2
When replying, please quote:

ERC REF: 00104/2015

COUNTY GENERAL HOSPITAL KAKAMEGA
P. O. Box 15 - 50100
KAKAMEGA

21ST APRIL 2014

COUNTY GENERAL HOSPITAL, KAKAMEGA
ETHICS AND RESEARCH COMMITTEE

Ms. Mukabana Beatrice

Moi University

ELDORET.

Dear Ms. Beatrice,

REF: RESEARCH PROPOSAL APPROVAL TO COLLECT DATA (00104/2015)

This is to acknowledge that the PGH ERC has received your request to collect data from our institution for the purpose of your study titled **"Assessment of Free Maternity Care Policy at Kakamega County Hospital".**

Seeing that your work has already undergone ethical review by the IREC at Moi University/MTRH, approval number 0001329, we therefore approve you to proceed with your work. The approval periods are up to 5th March, 2016. Any continuation thereafter will necessitate a request for renewal.

Note that this approval is only for the work that you have submitted to us. The committee must be notified of any changes or amendments and serious or unexpected outcomes related to the study. You will be expected to submit a final report at the end of the study and may be requested to do a presentation of the same to the hospital.

This information will form part of the database that will be consulted in future when processing related research studies so as to minimize chances of study duplication.

Thank you for your interest in research in our institution.

MEDICAL SUPERINTENDENT
PROVINCIAL GENERAL HOSPITAL
KAKAMEGA

Dr. Wambulwa B.W.
CHAIRMAN
ETHICS AND RESEARCH COMMITTEE

CC. Medical Superintendent
PGH KAKAMEGA

APPENDIX 8: MAP OF KAKAMEGA CENTRAL SUB-COUNTY SHOWING THE KAKAMEGA COUNTY HOSPITAL