

**MALE PARTNER INVOLVEMENT IN UTILIZATION OF PRECONCEPTION  
CARE IN NAIROBI CITY COUNTY, KENYA**

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## DECLARATION

This thesis is my original work and has not been presented for the award of a degree in any other University.

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## **DEDICATION**

This thesis is dedicated to my parents: Mr and Mrs Samuel Nyangena for their encouragement towards the study, my spouse Mr. Bernard Orang for being my study partner and my children Hanks and Hansenia for their support, time, prayer and words of motivation.

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**ABBREVIATIONS AND ACRONYMS**

<b>ANC</b>	Antenatal
<b>FGD</b>	Focused Group Discussion
<b>HIV</b>	Human Immunodeficiency Virus
<b>ICPD</b>	International Conference on Population and Development
<b>KDHS</b>	Kenya Demographic and health survey
<b>KII</b>	Key Informant Interview
<b>LBW</b>	Low birth weight
<b>LMIC</b>	Low- and Middle- Income Countries
<b>MMR</b>	Maternal mortality ratio
<b>MNCH</b>	Maternal, Newborn and Child Health
<b>SBA</b>	Skilled birth attendant
<b>SDGs</b>	Sustainable Development Goals
<b>SMEs</b>	Subject Matter Experts
<b>SPSS</b>	Statistical Package for social Sciences
<b>UN</b>	United Nation
<b>USA</b>	United States of America
<b>WHO</b>	World health organization

## OPERATIONAL DEFINITION OF TERMS

**Male partner** refers to spouse of female partner who is pregnant.

**Preconception care** is the provision of the biomedical, behavioral and social intervention to women and couples before conception occurs to address health problems, behaviors that could lead to health problems and individual or environmental risk factors that could contribute to maternal or childhood mortality and morbidity (Manson *et al.*, 2014)

**Utilization of preconception** refers to accepting to go for counseling before conceiving, use of folic acid, preconception HIV testing, utilization of a balanced diet etc.

## ABSTRACT

This study sought to establish male partner involvement in preconception care utilization among men in Embakasi East Sub-county, Nairobi City County, Kenya. The study specifically sought to determine the proportion of men involved in preconception care, their knowledge levels, attitude, existence of spousal communication and challenges affecting male partner involvement in preconception care utilization. Most men are the bread winners of their families and sole decision makers; this makes them have a strong influence on women's health and their access to care. However, it is evident that most men are not involved in preconception care as matters of childbearing are left to women. The study employed descriptive cross-sectional community based study design. The study used both quantitative and qualitative data collection methods. The study targeted a sample size of 422 respondents, who were systematic sampled for study. Quantitative data was collected using semi-structured questionnaires while qualitative data was collected using focused group discussion guides with study respondents and key informant interview schedules with female partners. Quantitative data was analyzed using Statistical Package for Social Sciences version 22.0. The results were presented in frequency tables, charts, percentages and graphs. Qualitative data was triangulated with quantitative data as direct quotes or narrations from focused group discussion and key informant interview respondents. Inferential statistics were done using Chi Square tests to determine the association between study variables at 95% confidence interval ( $p < 0.05$ ). The results revealed that only 35% of respondents were involved in utilization of preconception care services. 65% of respondents had low knowledge levels which was significantly associated ( $p = 0.031$ ) with utilization of preconception care. 64% of respondents had negative attitude towards male involvement in preconception care utilization. Spousal communication aspects such as respect for one another's opinion ( $p = 0.018$ ), commitment to relationship ( $p = 0.001$ ) and talking about preconception care ( $p = 0.013$ ) were associated with male partner involvement in preconception care utilization. The study further revealed that challenges which impeded male involvement in preconception care utilization included lack of access to health facility ( $p = 0.003$ ), time to accompany partners to seek medical care ( $p = 0.002$ ) and institutional practices ( $p = 0.001$ ). The study therefore, revealed low rates of male partner involvement in utilization of preconception care, which was attributed to low knowledge levels and negative attitude towards its utilization. Furthermore, there were low rates (35%) of utilization of male partner involvement in preconception care utilization in Embakasi East sub-county. The study recommends creation of awareness and sensitization programs to the general public through health messages to improve male partner involvement in preconception care utilization.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background of the study

Preconception care is the provision of the biomedical, behavioral and social intervention to women and couples before conception occurs to address health problems, behaviors that could lead to health problems and individual or environmental risk factors that could contribute to maternal or childhood mortality and morbidity (Manson *et al*, 2014).

Care is an essential component of reproductive health which aims for a healthy society. A large number of pregnancies each year are unplanned and therefore many women do not benefit from preconception care (WHO, 2018).

The aim of antenatal care is to continuously monitor the progress of a pregnant woman and to identify health issues before they become serious for both the mother and the baby. It is therefore important that women receive antenatal care as early as possible. Reproductive health education incorporated in preconception care is one of the most effective ways to prevent birth defects and disorders (WHO, 2015).

In most parts of the world, women are not able to access formal education and hence less financial empowerment which influence low utilization of preconception care. Therefore male involvement in preconception care helps in reduction of unplanned pregnancies as well as improves child survival (Manson *et al*, 2014).

The slow progress in reduction of maternal deaths is due to several factors including lack of preconception care services as well as where such services exist some husbands have been reported to refuse their wives to seek preconception care (Mokua, 2014). The periods of women's lives before and between pregnancies provide great opportunities for mothers and the health care workers to identify and manage health issues. Research has proven that early

health care access, acceptable health behaviors, and chronic health conditions all affect pregnancy outcomes (WHO, 2014). Due to the low antenatal care (ANC) attendance, Kenyan women face an unacceptable 1 in 20 lifetime risk of maternal death.

Most men are bread winners and sole decision makers in their households; this makes them have a strong influence on reproductive health issues of their spouses, and therefore the need for male involvement in preconception care becoming more important (Saffi & Howard 2015). For Kenya to achieve improved reproductive health, more needs to be focused on the understanding of men's reproductive behavior and their influence to their wives.

## **1.2 Problem Statement**

Despite the existence of national programs for improving maternal and child health in Kenya, deaths of mothers and children continue to soar. Most of these deaths can be reduced if women and men visited reproductive health centers before conceiving and during pregnancy, child birth and the 1<sup>st</sup> month after delivery (WHO, 2018).

Many women and men do not seek preconception care services and use of such services remains low (51%) in most areas. (Eerola 2015). Preconception care is key to ensuring that maternal health is improved and that maternal mortality ratio is reduced by 75% (WHO, 2015). Despite reduction of Maternal Mortality Rate (MMR), Kenya still remains among the countries with high maternal deaths. The rate of maternal mortality in Kenya stood at 362/100000 while neonatal mortality at 26.3/1000 live births (KDHS, 2014).

Lack of male partner involvement in preconception care influences women's decision to seek such services and the outcome is low birth weight, premature births, infant and maternal mortality (WHO, 2014). Antenatal care may be too late to address important health problems such as obesity, tobacco use and domestic violence which could be addressed in the preconception period (Manson *et al*, 2014). However statistics to show male partner

involvement in utilization of preconception care in Embakasi East Sub County has not been documented. It is against this realization that this study aims to investigate factors that influence male partner involvement in utilization of preconception care in Embakasi East Sub-county.

### **1.3 Justification of the Study**

In order to improve the health of future children and positive pregnancy outcome, it is recommended that men should also be involved in preconception care. This involves informing the prospective fathers to modify their individual behavior based on the knowledge gained (Endriyas *et al*, 2017).

Maternal mortality rates in Kenya remains high (KDHS 2014) and this study aims at contributing to better understanding on male partner involvement in utilization of preconception care in Embakasi East Sub County. Despite the efforts to lower maternal and child mortalities as outlined in Sustainable Development Goal (SDG) three, still these mortalities remains unacceptably high in developing countries (UN, 2015)

Early seeking of preconception care by partners would help detect complications and inform mothers and their male partners on how to care for themselves (Backhausen *et al*,2016).

This study was carried out in Nairobi County because it is a cosmopolitan town with diverse social cultural and economic backgrounds. Embakasi East Sub County was chosen from random numbers table selected from the 17 sub counties of Nairobi.

Therefore this study is not only important to men and women but also those in authority who are mandated in formulation of reproductive health policies. A better understanding of the male partner utilization of preconception care services will go a long way to help in attaining maternal goals as articulated in various strategies and vision (Ezegwui *et al* 2014)

## **1.4 Research Questions**

1. What is the proportion of men utilizing preconception care in Embakasi East Sub-County of Nairobi City County?
2. What is the influence of knowledge level on male partner involvement in preconception care Embakasi East Sub-County of Nairobi City County?
3. What is men's attitude towards male partner involvement in preconception care utilization in Embakasi East Sub-County of Nairobi City County?
4. What is the influence of spousal communication on male partner involvement in preconception care utilization in Embakasi East Sub-County of Nairobi City County?
5. What are the challenges of male partner involvement in utilization of preconception care Embakasi East Sub-County of Nairobi City County?

## **1.5 Null Hypothesis**

Male partner involvement in utilization of preconception care is not associated with knowledge levels, attitude and spousal communication in Embakasi East Sub-County of Nairobi City County.

## **1.6 Objectives**

### **1.6.1 Broad Objectives**

To establish male partner involvement in preconception care utilization in Embakasi East Sub-County of Nairobi City County.

### **1.6.2 Specific Objectives**

1. To determine the proportion of men utilizing preconception care in Embakasi East Sub-County of Nairobi City County.
2. To find out the influence of knowledge level on male partner involvement in preconception care in Embakasi East Sub-County of Nairobi City County.

3. To determine men's attitude towards male partner involvement in preconception care utilization in Embakasi East Sub-County of Nairobi City County.
4. To determine the influence of spousal communication on male partner involvement in preconception care utilization in Embakasi East Sub-County of Nairobi City County.
5. To identify challenges of male partner involvement in utilization of preconception care in Embakasi East Sub-County of Nairobi City County.

### **1.7 Significance and anticipated output**

The findings of this study are important to those in authority who formulate reproductive health policies. The results show the level of male partner involvement in utilization of the preconception care among their female partners. These findings are important to the government and other stake holders to use them in tackling the challenges encountered in campaigning for male partner utilization of preconception care services. This contributes to achievement of the desired goal that aims at improving maternal and child health indicators. The results are also invaluable to organizations that work directly in improving maternal and child health services in the country.

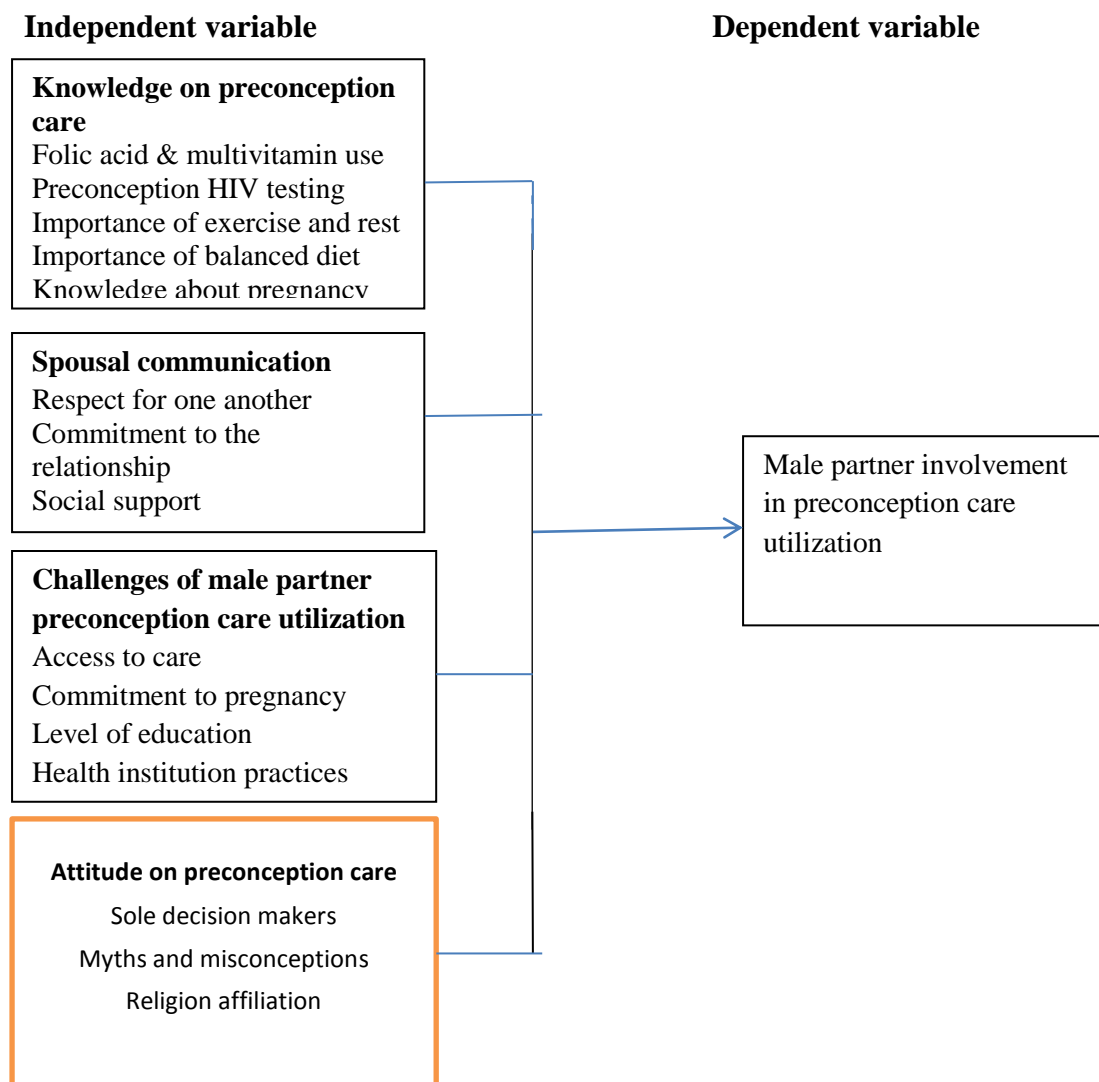
### **1.8 Scope and limitations of the study**

The study was carried out in Embakasi East Sub County which is one of the 17 sub counties in Nairobi. The study was limited to the Community and hence men who visited the health centers/Hospitals in Embakasi East Sub-county were not interviewed. The study participants were only men whose spouses were pregnant or who had fathered a child for the last 6 months prior to the study. The study did not cover all the issues pertaining to preconception care in men as outlined by WHO 2015.

### **1.9 Conceptual framework**

The conceptual framework for this study was adopted and modified from Petteri Eerola (2015). This focused on Responsible Fatherhood, a narrative approach developed in

Jyvaskyla University in Finland. In the last 30 years, child care in Finland has broadened notably, with fathers becoming more nature oriented towards their families. In the men's narrative, involvement of fathers in care giving before conception is a major component of becoming a responsible father. Petteri Eerola found out that for men to become responsible fathers, there should be frequent spousal communication with their partners, raising the knowledge of men in regards to maternal and child health issues, and changing their attitude towards childbearing. This study therefore hinged on assessing the influence of spousal communication, knowledge levels, attitude and challenges men face towards utilization of preconception care services.



**Fig 1.1: The conceptual framework** Source: Adopted and modified from Petteri Eerola, (2015)

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

The purpose of doing this literature review is to gain more information and insight on the literature related to the study undertaken by the researcher. This chapter encompasses reviewed literature on overview of male partner utilization of preconception care from the Global perspective, preconception care utilization in Africa, male partner knowledge on preconception care, male attitude towards preconception care, influence of spousal communication on preconception care utilization, challenges of male partner involvement in preconception care utilization and summary of literature highlighting the existing gaps.

### 2.2 Overview of male partner utilization of preconception Care in Global perspective

Over the last few years, maternal and child health support has increased through utilization of preconception care. With increasing concern and demand over the need to provide such care in most places equitably, new strategies and intervention methods are being tested for delivery and integration within and outside the healthcare system (Arba *et al*, 2016).

Changes in both men's and women's knowledge and behavior are a must in achieving a peaceful relationship between them. This would improve communication between a couple on reproductive health issues therefore improve understanding of their joint responsibilities (Backhausen *et al*, 2014). There is positive trend in the world of increasing male involvement in preconception care services which have some challenges to overcome.

There were communities which mainly focused on educating women about pregnancy and child care. These interventions identified that preconception care and counseling improved in changing women's health behaviors' i.e. some women stopped smoking. In a study conducted in Kenya by Moku (2014) women who received counseling and reproductive health education were more likely to use folic acid, breast feed and use safe delivery kits at home births in developing countries as well as attend antenatal care.

### **2.3 Overview of male partner utilization of preconception Care in Africa**

Currently, there has been an increase in focus on male preconception care and there has been need to expand health promotion to other parts on the importance of these services to men and pregnant women (WHO, 2015).

To show how important this subject is, preconception care congress was initiated by European countries to help in addressing preconception care issue among male partners. The need and benefits of male preconception care has evolved over time with experts recommending that men should be encouraged to be directly, actively and constructively involved in preconception care to help in improving the pregnancy outcomes (Gray, 2016).

Much of the attention in the past was directed to women hence men rarely benefited from conception care services hence reduced knowledge on the same as reported by reproductive health experts across the world. It has been reported that in most countries men's reproductive health issues are normally neglected until maybe issues of infertility begin to arise (Apanga, 2017).

Preconception care is needed most in low to middle income countries (LMIC) of sub-Saharan Africa and South Asia, where there is an increase in maternal and child deaths. This is because of rampant poverty, lack of water, sanitation and food. Weak education and inadequate health systems, as well as social norms mean that women are most of the time not empowered to gain access to healthcare (Backhausen *et al*, 2014).

To increase male involvement in preconception care requires health care workers to understand men's health perspective behavior and practices. Though pregnancy is not an illness, it is associated with physical and emotional demands on the mother. The awareness about demands of pregnancy could result into the necessary support the pregnant woman needs from the family members including the husband (Apanga, 2017).

This shows that despite most women being aware of maternal health services, there is lack of knowledge on preconception care. This therefore may have influenced their utilization of preconception care because for these women to utilize the maternal health services, they must be knowledgeable about the existing services.

Men's preconception care is important in many ways even if its utilization is low in many countries especially in developing countries (Davidson *et al*, 2016). When men seek for preconception care they gain in terms of helping better their wives' pregnancy, seeking fertility treatment early, child spacing, prevention of mother to child transmission, social support among other benefits. However, research findings have reported that male lack knowledge on the importance of preconception care and thus explain the low uptake of the preconception services (Vlassoff, 2014).

#### **2.4 Male partner Knowledge influence on preconception care services**

Study findings showed that women with spouses who had a higher education had 2 times higher odds of giving birth at the health facilities when compared to those with partners who are illiterate (Arba *et al*, 2016). In a study done in Uganda, it was found that, educated women reported use of a modern contraceptive method (Ahumuza *et al*, 2014). Existing literature on men's development as responsible fathers should start from the preconception period which includes pregnancy, birth, and early infancy education awareness program should be initiated by various Organizations and other voluntary groups to stress the involvement of men in preconception care in other communities (Kingori & Muthoni, 2016).

Men's knowledge on preconception care especially on timing and spacing of pregnancies and contraceptive use is low and middle income countries. Study results in Nigeria revealed that men had low knowledge when it comes to pregnancy issues thus explaining the low uptake of preconception care (Ekem *et al*, 2016). The practice of preconception care is almost nonexistent in developing countries since many reported to have not known why it is

important to seek for such services. In Nigeria, men who sought for preconception care reported that the main reason that made them seek the services was to enable their spouses to have a better management of pregnancy and thus help in decreasing perinatal and maternal mortality (Ezegwui *et al*, 2014).

In high income countries preconception care has been known as a prevention strategy which aims at improving obstetric outcomes and thus helps in identifying and reducing the risks associated with pregnancy. However, in low and middle income countries with low utilization of preconception care, cases of infant and maternal complications and deaths are high. A study in Jordan revealed that couples who attended preconception care would easily identify danger signs of pregnancy and therefore seek early treatment hence improving obstetric outcomes (Al-Akour *et al*, 2015).

Maternal health status before and during pregnancy is a very decisive factor that affects pregnancy outcomes. Women seek for preconception care together with their husbands to enable them get access to the provided supplements such as folic acid, multivitamins and other drugs (WHO, 2015). When male partners seek for preconception care accompanied with their spouses they tend to encourage them to adhere to taking such supplements because they have been taught on its importance. A study findings in Middle East countries revealed that women whose husbands sought preconception care sought for nutrient supplementation as required as compared to those whose husbands didn't utilize such services (Saffi *et al*, 2015).

One of the most important components of preconception care service is Human Immunodeficiency Virus (HIV) testing and counselling. Couples are supposed to be tested before pregnancy in order to help in predetermining effective model of care, avoid mother to child transmission as well as effective guidance and counselling. Study results from United States of America (USA) revealed that men who sought for preconception care mainly

viewed it as a way of knowing their HIV status and thus help in predetermine the most effective model of care to avoid transmissions (Lassi *et al*, 2014).

Exercise and balanced diet is normally advisable before and during pregnancy among the couples. During preconception care couples are counseled and trained on the importance of exercise, rest and balanced diet to the infant and pregnant mother. However, in many low-income countries where poverty is high affording a balanced diet is a problem thus pregnant woman and the developing infant becomes at risk of health conditions. A study which was conducted in rural parts of South Africa revealed that there was an association between balanced diet and better pregnancy outcomes among pregnant women (Gibbs *et al*, 2015).

### **2.5 Influence of male attitude on preconception care utilization**

Myths and misconceptions towards male preconception care greatly affect its utilization. Men presume that pregnancy is a women affair and thus the society doesn't recognize preconception care as an important aspect of reproductive health (Nwokocha, 2014). In Nigeria, even when diet is an important component of preconception care, women who have conceived are forbidden from eating eggs and snails despite the rich protein content which they have that is greatly needed by the mother and unborn child. Women who are pregnant are not restrained by their husband from consumption of locally made gin (Etee-te) which could increase to pregnant complication (Kasim *et al*, 2016).

The poor attitude of men towards reproductive health and maternal health especially in Africa has been attributed to the practice of male dominance, as the dominance of men over women in most matters and the man is the final decision maker even in matters pertaining pregnancy and child birth. It has been reported that men rarely discuss with their wives matters pertaining to reproductive health and thus low utilization of preconception care and thus high incidences of bad pregnancy outcomes (Al-Akour *et al*, 2015).

Knowledge on preconception care can be gained through experience or education and trainings. Older women are presumed to be more knowledgeable and experienced on pregnancy issues (Machiyama *et al*, 2017). The male partners of older women have been reported to taking less or no time discussing with their wives on matter pertaining reproductive health. This has been attributed to the belief that preconception care is only for the younger women thus their husbands rarely seek for such services.

However with the diversity in context and change of information and guidelines on preconception care it is important for couples to seek for such services prior to conception. A study conducted in Malaysia found out that spouses of older women reported low uptake of preconception care comparatively (Kasim *et al*, 2016).

Seeking for male preconception care has been perceived by men as time wasting. It required approximately 10 minutes according to world health organization, to receive the preconception care services. Mixed reactions have been reported on time needed to seek for the services with some reporting that the time is insufficient with others reporting that it is time wasting in receiving such services. Research findings that were presented in the European congress on preconception care revealed that the time set aside for preconception care was not sufficient enough especially in developed countries (Ahumuza, 2016). However, in low income countries men reported that they perceived seeking for preconception care as a waste of time.

Religion plays a crucial role in educating couples on reproductive health in general. In some religion programs focusing on married couples, they have been designed to address issues facing families as well as preconception care. They are taught on the importance or need of attending to preconception care and also invite experts to talk to couples in helping explain myths and misconceptions about preconception care. A study finding from USA revealed that

men who had strong religious beliefs were associated with higher utilization of preconception care (Susheela *et al*, 2014).

## **2.6 Spousal communications as an influence towards utilization of preconception care**

It is argued that women who are married are more likely to seek services in their first trimester. This is because of the support they receive from their partners and are more likely to have income required to access maternal health services. In Nigeria, a study done revealed that acceptance of male partners was a barrier towards access of maternal health services among female counterparts (Ekpenyong *et al*, 2017).

Most of our traditional system spelt out that boys were to grow up knowing that they were expected to be strong and hardworking so as to be able to take care of their wives. Girls were expected to be good with domestic activities and to be submissive so as to find good husbands (Machiyama *et al*, 2017). Thus they were robbed of every initiative which could enable them make decisions affecting them and the family. Parenting is no longer a mother's task alone, men generally see the provision of physical needs of the family as their main task (Endriyas, 2017).

Couples need to consult each other on matters pertaining to reproductive health especially on pregnancy. Consultation normally encompasses talking about spacing and timing of pregnancies, family planning practice among others (Ganle *et al*, 2016). Researches which have been conducted have revealed that when partners consult each other on reproductive health issues the incidences of unplanned pregnancies as well as negative birth outcomes are reduced. A study conducted in Denmark revealed that spouse consultation led to pregnancy planning and improved lifestyle prior to conception and early stages of pregnancy and thus associated with improved or positive birth outcomes (Backhausen *et al*, 2014).

Commitment in marriages by both partners is very crucial component of relationships. Unfortunately in African settings pregnancy is always viewed as a women affair or responsibility (Mprah *et al*, 2017). Study findings have shown that when men partners who understood the risks women were exposed to during pregnancy gave them support when required. Commitment in marriage have been associated with positive birth outcomes as revealed in studies in America that provided women with necessary support (Frey, 2013 and Tanja, 2016).

Research findings from studies across Sub Saharan Africa revealed that male partners usually leave decisions of child bearing to women alone. A few couple takes time to talk about giving birth before conception while many couples reported some pregnancies occurred as a surprise to them. It has been documented that 4 in 10 women reported that their pregnancies were unplanned due to lack of proper communication between spouses (Davidson, 2016).

Respect within marriages is an important component of reproductive health. When couples respect one another they tend to have a feeling of sharing and communicating. This reduces incidences of gender based violence and the associated effects on the reproductive health of the partners (Tanabe *et al*, 2015). A study which was conducted in Bangladesh revealed that there was an association between respecting each other in a relationship and the utilization of male preconception care. Respect between couples ensures they seek preconception care through proper communication and commitment to one another (Hossain *et al*, 2017).

## **2.7 Challenges of male partner involvement in preconception care**

Lack of meaningful source of income appears to have a negative effect on fathering. Men who don't have a source of income, undergo financial crisis, this is due to the fact that they are unable to provide for their families and hence a function of the vulnerability of fathering to perceived success socially. Fathering suffers from negative forces such as racism which

combine to create emotional distress associated with more negative parenting styles and more difficulty in co-parental relationship.

A study in the USA showed that that medical care before conception resulted in cost savings compared with prenatal care only (Lassi et al, 2014). In addition to achieving its intended health benefits, preconception care can also substantially reduce costs. Accessing preconception care may require finances that can be an impediment to many men especially those from low socio economic status. Health care in many countries such as in Sub Saharan Africa countries is not easily accessible to the poor (Vlassoff *et al*, 2014).

In many African countries health care is not easily accessed due to lack of hospitals or poor infrastructures. Lack of adequate health care personnel is also a common phenomenon in poor countries hence higher ratio of patients to doctors (Ganle *et al*, 2016). Sometimes one may want to seek for preconception care but due to lack of specialists it becomes a major issue and thus makes one require to wait for longer before getting attended to. Lack of access to health care and sexual education services needed by men and women is sometimes associated to poverty; therefore there is need for creation of empowerment programs that will boost a couple's finance situation (Stern *et al*, 2015).

A study conducted in India found out that lack of enough man power was a major challenge of providing preconception care while they also reported struggle in increasing the coverage of prenatal care, skilled care at birth (Mason *et al*, 2014). According to studies conducted in LMIC, men have reported to be preoccupied with other roles they presume to be more important such as bread winner to provide for the family as well as other community roles. Due to this, they rarely find time to seek for the pre conception care and so they don't benefit from the services (Dean *et al*, 2014).

## **2.8 Summary of literature and existing gaps**

Preconception health is not new; globally it has been shown to contribute to greater health benefits to the mother and child. Most policy directive has been developed towards improvement of women's health, reproductive freedom, child survival and reducing adverse pregnancy outcomes. However, it has been demonstrated that there are some pertinent issues or concern that have not yet been addressed by previous studies on male partner involvement in preconception care services. Since the introduction of the free maternity services in the country, there is no single study which has been conducted to establish factors that influence male partner involvement in utilization of preconception care in Embakasi East Sub County.

Though studies have been conducted to assess male partner utilization of preconception care, most of these studies were conducted in developed countries while those conducted in Africa concentrated on male partner utilization on maternal health services. These constitute gaps that this research work sought to fill by investigating factors that influence male partner utilization of preconception care in Embakasi East Sub County of Nairobi City County.

## CHAPTER THREE: METHODS AND MATERIALS

### Introduction

This chapter presents the methods and the materials used for data collection in the study.

### 3.1 Study design

This research adopted a descriptive cross-sectional community-based approach in collecting data from the sampled research respondents. It was preferred because it ensured complete description of the situation making sure that there was minimal bias in data collection. This provided an operational framework, through which the facts were placed, analysed and produced valuable output. The design was justified as it captured information on factors that influence male partner involvement in utilization of preconception care services among their female partners in Embakasi East Sub County

### 3.2 Study variables

#### 3.2.1 Independent study variables

The independent variables of this study included;

- i. Male knowledge on preconception care such as knowledge on folic acid & multivitamin use, preconception HIV testing, importance of exercises and rest, Importance of balanced diet and Knowledge about pregnancy.
- ii. Spousal communication such as respect for wife opinion, commitment to marriage, consulting wife on reproductive health issues and talking about preconception care.
- iii. Challenges of male partner involvement such as accessibility, affordability, time and health institution impediments.
- iv. Male partner attitude towards preconception care. It encompassed matters such as discussing with wife on matters pertaining reproductive health, wife support, sole decision makers (patriarchy), myths and misconception about pregnancy and religious affiliation. This was measured using a 4-point Likert scale.

### **3.2.2 Dependent variable**

The dependent variable was Male involvement in Preconception care utilization. This was measured through enquiring whether the respondents had been involved in preconception care in the last 6 months and the number of those who had been involved and those who had not been involved was recorded.

### **3.3 Study area**

This study was based in the community, carried out at Embakasi East sub-county, one of the 17 sub counties in Nairobi City County. It is situated east of Nairobi City 20km from the central business district. The rate of maternal mortality in Nairobi City County is 212/100,000 live births (UNFPA, 2014). The sub county comprises of 5 wards: Mihango ward has a population of 22,936 with 6,849 households, Embakasi airport ward has a population of 37,620 with 11,234 households, lower savannah ward has a population of 34,195 with 10,212 households, Upper savannah ward has a population of 41,693 with 12,437 households and Utawala ward has a population 27,414 with 8,199 households. The total population for Embakasi East Sub County is 163,858. It covers an area of 64.70 square km. There are 48,931 total households in the sub-county (KNBS and ICF International, 2015). The layout of the sub county is illustrated on the map in appendix i (page 53).

### **3.4 Study population**

The target population constituted of men above 18years whose partners were pregnant or had fathered a child at most 6 months earlier. The study population consisted of adult men whose partners were pregnant or had fathered a child at most 6 months earlier who were residents of Embakasi East sub-county. The study participants hailed from varied socio- economic and cultural background. The study population also included women who were the Key Informants to the study. They included women whose husbands reported utilizing preconception care services thus making them more informed and knowledgeable.

### **3.4.1 Inclusion criteria**

Those included in the study were men above 18 years whose female partners were pregnant and who were willing to participate. Those who had fathered a child for at most 6 months earlier and had stayed in Embakasi East Sub County for a period of over 6 months.

### **3.4.2 Exclusion criteria**

Those excluded in the study were men who were mentally ill.

### **3.5 Sampling techniques**

Nairobi City County was purposively chosen because it hosts people from different cultural diversities and it is the capital city of Kenya. Embakasi East Sub-County was randomly selected from the table of random numbers. All the five wards in the sub-county were included in the study. Each ward was divided into 4 zones (A, B, C, and D). The households for inclusion in the study were selected using systematic random sampling at a predetermined interval in the selected villages. The first household was randomly selected. Every subsequent fifth household was selected until a sample size of 422 was reached. If the subsequent household selected lacked a respondent with the desired characteristics, the researcher moved to the next household. The questionnaires were then administered with the help of research assistants to the identified research respondents.

Women involved as the key informant interviewees were purposively chosen based on whether they were pregnant and had delivered their babies within a period of less than 6 months. Those whose husbands utilized preconception care were included. Twenty (20) KII respondents were interviewed in their households. Those selected must have sought preconception care prior to their pregnancy. Focused group discussants were purposively selected. One FGD session was held in each ward hence making a total of 5. Each FGD consisted of 9 men who met the inclusion criteria. The FGDs were held in the nearest shopping center in each ward.

**Table 3.1: Sampling frame**

Ward	Population	HH	Total sample size
Mihango'	22,936	6,849	59
Utawala	27,414	8,199	71
Embakasi Airport	37,620	11,234	77
Lower savannah	34,195	10,212	97
Upper savannah	41,693	12,437	118
Total	163,858	48,931	422

### 3.6 sample size determination

The sample size was determined by Fishers et al., (1998) formula for population estimates more than 10,000. The estimated number of married men above 18 years in Embakasi East Sub County was 79,958.

$$\text{Sample size, } n = \frac{Z^2 pq}{d^2}$$

Where;

n= Desired sample size

p= Estimated proportion of men involved in preconception care (50%).

q= Estimated proportion of men not involved in preconception care (50%)

Z= Standard normal deviate usually at 95% confidence interval (1.96)

d= Margin of error at 95% confidence interval (0.05)

Therefore:

$$\text{Sample size, } n = \frac{(1.96)^2 (0.5) (1-0.5)}{(0.05)^2}$$

$$n = 384$$

10% of respondents were added to cater for non-responses. Therefore 422 questionnaires were distributed.

### 3.7 Research Instruments

#### 3.7.1 Questionnaires

Questionnaires were administered to the 422 selected male respondents who met the inclusion criteria at their households. They contained semi-structured questions. They were

administered by research assistants who were trained beforehand by the Researcher. Data collection was done between August to September. 2018.

### **3.7.2 Focus group discussion and key informant interview schedules**

Five focused group discussions (FGDS) were held with male partners who met the inclusion criteria. Each ward had one purposively chosen FGD which provided additional information on preconception care. Each group was made of 9 respondents. FGD note taker forms were used to make notes during the focus group discussions held in the nearest shopping center in each ward. The study also interviewed key informants using interview schedules. The key informants were randomly selected from their male partners who had been interviewed and gave consent. The views of women who were either pregnant or had given birth within a period of six months whose male partners reported utilizing preconception care were included.

### **3.8 Pretesting of research instruments**

A pretest of the questionnaires, interview schedules and focused group discussion guides was done. The instruments were pretested at Embakasi South Sub-County. This was done by randomly selecting 42 participants (10% of 422) with the desired characteristics and administering the questionnaire to them. The selected households had a man who had fathered a child within a period of 6 months. Any deviations, corrections and errors to the research instruments were addressed. One FGD was held to pretest the FGD guide while four women were used to pretest the interview schedules. The interviews were conducted in the key informants' households. This ensured the research instruments were standardized to provide the desired information.

#### **3.8.1 Validity**

Validity refers to the ability of a test to measure what it purports to measure. Content validity was enhanced by consulting subjects matters experts (SMEs) who reviewed the content of the

research collection instrument in line with the study objectives. Pretesting of the research tools further enhanced validity. Internal validity was strengthened by limiting the study to men who were above 18 years and their female partners were pregnant or had fathered a child for the last 6 months.

### **3.8.2 Reliability**

In this study, reliability of research instruments was ensured through training and monitoring of research assistants to ensure they were competent and administered the questionnaires in the right way. There were daily field meetings with the research assistants and close observations by principal investigator to further safe guard reliability of data collected. All the questions were asked in English and where necessary translated in Kiswahili; there were definition of operational terms. Completed questionnaires were checked for completeness and errors were corrected immediately.

### **3.9 Data collection**

The researcher with her research assistants administered questionnaires to study participants and moved from one sampled household to the other. The respondents were guided to fill their responses in the questionnaires provided. In order to obtain additional information, the study also obtained data from FGD session with men who met the inclusion criteria. The research assistants took notes as the main researcher moderated the sessions. Further qualitative data was collected from women who were the key informants for the study. Their responses were dealt with strict confidentiality.

### **3.10 Data Analysis and presentation**

Qualitative and quantitative data analysis techniques were used to analyze field data. Quantitative data collected through research questionnaires first cleaned in order to iron out inconsistencies in recording after which they were coded and keyed into the Statistical Package for Social Science (SPSS). The quantitative data was then analyzed using inferential

statistics such as frequencies, percentages and cross-tabulations. Qualitative data collected from FGD and KII were analyzed using thematic analysis whereby the data was arranged according to their patterns and trends and grouped into categories. Qualitative data from FGD sessions were triangulated with quantitative data as verbatim quotes.

### **3.11 Logistical and ethical consideration**

Authorization to do the research was sought from Kenyatta University graduate school. Ethical clearance was sought from Kenyatta University Ethics Review Committee. A research permit was obtained from the National commission of Science, Technology and Innovation. Research authorizations were further sought from Nairobi County Government; Health Ministry, and consent from research respondents was obtained. The respondents were assured of their privacy and confidentiality in participating in this research. The researcher has a plan to disseminate the findings of this study to the relevant stakeholders for further action as well publishing them for future academic reference.

## CHAPTER FOUR: RESULTS

This chapter presents the results and the analysis of the data. It is presented in form of tables and figures. The results are organized according to the study objectives

### 4.1 Questionnaire Return Rate

The study administered 422 questionnaires to men above 18 years whose spouses were pregnant or had delivered a baby within a period of six months and had lived in Embakasi East Sub-County of Nairobi City County. The study was conducted between August to September 2018. Duly filled and returned questionnaires were taken into account and considered for analysis. After data checking and cleaning, 391 questionnaires were deemed fit for analysis representing a response rate of 92.65%. The returned rate superseded the minimum sample of 384 respondents making it adequate for this study. KII were female partners to the men who participated in the study. They filled 20 questionnaires.

### 4.2 Socio demographic characteristics of Respondents

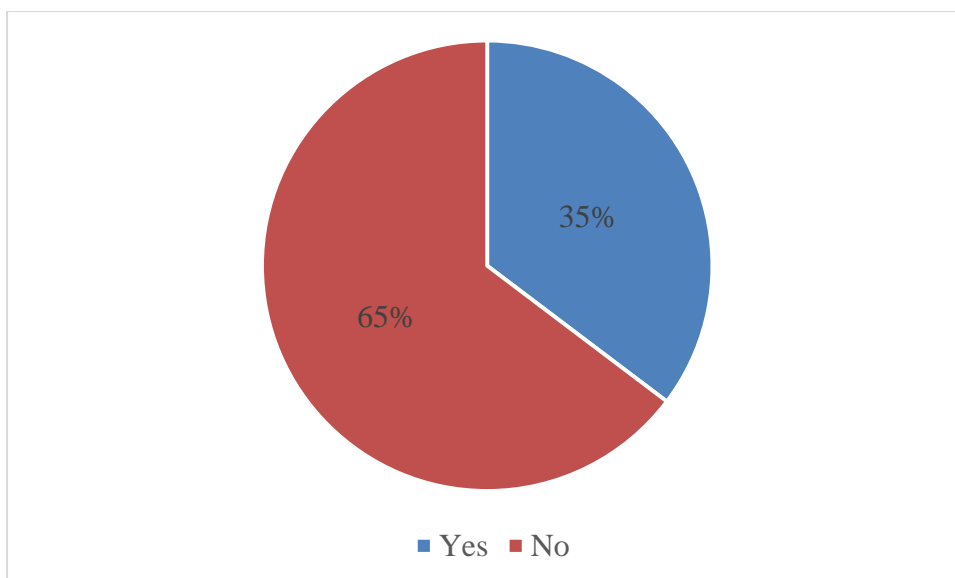
The results revealed that less than a half 157(40.2%) of the respondents were aged 28-37 years followed by 129(33.0%) aged 38-47 years. Concerning their highest education level attained, slightly more than a half 203(51.9%) had secondary education followed by 114(29.2%) with tertiary education.

Regarding religion of respondents, the results showed that most 301(77.0%) of respondents were Christians followed by 74(18.9%) who were Muslims. Concerning occupational status, the results revealed that more than a half 211(54.0%) of the respondents were self-employed followed by 147(37.6%) who were employed. Slightly less than a third 114(29.2%) of the respondents had average monthly family income of 21,000-30,000 shillings followed by 97(24.8%) earning 31,000-40,000 shillings

**Table 4.1: Socio-demographic characteristics of respondents (n=391)**

Variable	Respondent response	Frequency (N)	Percentage (%)
Age	18-27	33	8.4
	28-37	157	40.2
	38-47	129	33.0
	48 and above	72	18.4
	Total	391	100.0
Highest education level attained	No formal education	24	6.1
	Primary education	50	12.8
	Secondary education	203	51.9
	Tertiary education	114	29.2
	Total	391	100.0
Religion	Christians	301	77.0
	Muslims	74	18.9
	Others	16	4.4
	Total	391	100.0
Occupation	Employed	147	37.6
	Self-employed	211	54.0
	Not employed	33	8.4
	Total	391	100.0
Level of monthly family income (KShs)	<10,000	41	10.5
	11,000-20,000	82	21.0
	21,000-30,000	114	29.2
	31,000-40,000	97	24.8
	41,000 and above	57	14.6
	Total	391	100.0

#### 4.1 Proportion of male partners involved in preconception care

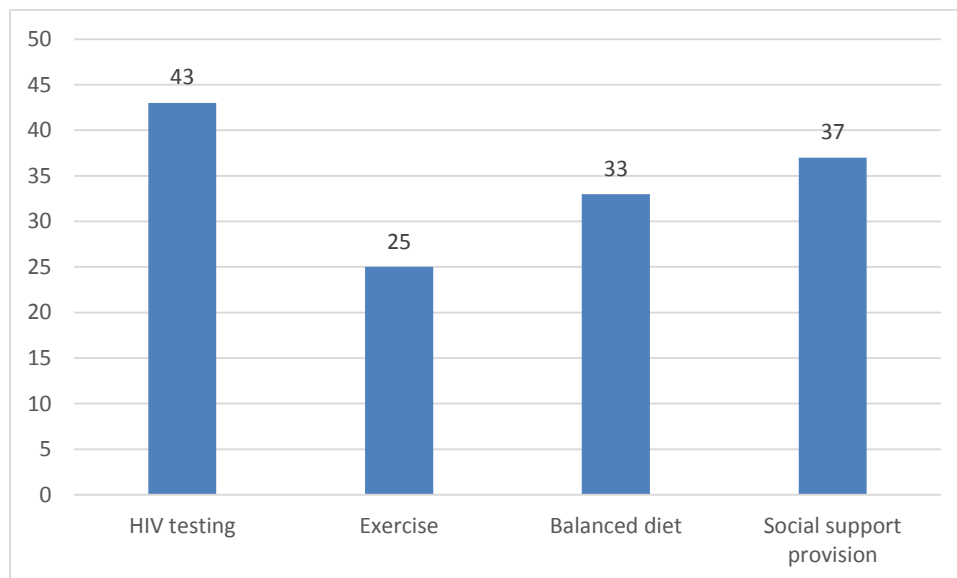
**Fig 4.1 Utilization of preconception care among respondents**

The researcher explained to the respondents what preconception care was and their utilization status was recorded. The study results revealed that majority 253(65%) of respondents had not sought for any preconception care while the rest 138(35%) had sought for preconception care in regards to their wives' latest pregnancy.

Qualitative results established that men are rarely involved in seeking preconception care services as it is solely left to their wives. One of the Key Informants gave her view on preconception care and said,

*(...My husband could rather provide me with money to facilitate me to seek hospital care than escort me to the clinic....He said he had no time to accompany me to health facility to seek for preconception care...)*

#### 4.2.1 Areas of male partner preconception care involvement



**Fig 4.2: Areas of preconception care involvement**

The research further sought to establish the areas of preconception care involvement among respondents (men) who had utilized this service. This was to enable the research assess the knowledge of the key components of preconception care. Among the reasons for seeking preconception care, results indicated that almost a third 121(31.1%) of respondents had sought for preconception care to test for their HIV status prior to conception followed by 37(26.8%) who thought of giving their partners social support. The results further indicated

that 33(23.9%) utilized preconception care to get advice on balanced diet while 25(18.1%) thought it was important for exercise.

#### 4.3.1 Responses on questions on knowledge of preconception care

**Table 4.2: Knowledge factors on preconception care among respondents (n=391)**

Knowledge variable	Respondent's knowledge response	Frequency (N)	Percentage (%)
Preconception care is important for better management of pregnancy	Correct	178	44.2
	Incorrect	213	55.8
Swelling of the face, hand and legs is a danger sign of pregnancy	Correct	203	51.9
	Incorrect	188	48.1
Folic acid should be given to pregnant women	Correct	163	41.7
	Incorrect	228	58.3
Preconception HIV testing predetermines effective model for the care of HIV infected	Correct	155	39.6
	Incorrect	236	60.4
Exercise and rest during pregnancy increases insulin sensitivity which improves ovarian function	Correct	147	37.6
	Incorrect	244	62.4
Balanced diet during pregnancy leads to poor maternal-fetal outcomes	Correct	197	50.4
	Incorrect	194	49.6
Knowledge on pregnancy helps partners seek proper guidance and counselling on prenatal care	Correct	179	45.8
	Incorrect	212	54.2

Regarding respondents' knowledge on preconception care, the study participants were given a checklist containing seven (7) statements on preconception care. They were supposed to indicate whether the statements were true or false according to them. Their responses were computed as either correct or incorrect. In relation to whether preconception care was important for better management of pregnancy, the findings indicate that more than a half 213(55.8%) of respondents had incorrect knowledge while the rest 178(44.2%) had correct knowledge.

Qualitative results from key informants revealed that men were indeed not concerned about their wives' regarding management of pregnancies. During the KII sessions with women who were either pregnant or had a child not exceeding 6 months, one KII had this to say:

*(...My husband once told me that am responsible for taking care of my pregnancy. That his only work was to provide for the family and not being involved in managing our unborn child...)*

Slightly more than a half 203(51.9%) of respondents had correct knowledge on swelling of the face, hands and legs being a danger sign for pregnancy while the rest 188(44.1%) had incorrect knowledge. On whether folic acid should be given to pregnant women, majority 228(58.3%) of respondents had incorrect knowledge while the rest 163(41.7%) had correct knowledge. Majority 236(60.4%) of respondents had incorrect knowledge regarding preconception HIV testing predetermining effective model for the care of HIV infected while the rest 155(39.6%) had correct knowledge. Most 244(62.4%) of respondents scored incorrectly in relation to whether exercise and rest during pregnancy increases insulin sensitivity which further improves ovarian function while the rest 147(37.6%) had correct knowledge.

The results revealed that more than a half 197(50.4%) of respondents had correct knowledge on whether balanced diet during pregnancy leads to poor maternal-fetal outcomes while the rest 194(49.6%) had incorrect knowledge. The results further showed that majority 212(54.2%) of respondents had incorrect knowledge since they thought it was not important for partners to seek proper guidance and counselling on prenatal care during pregnancy while the rest 179(45.8%) had correct knowledge. The results are presented in table 4.2 above.

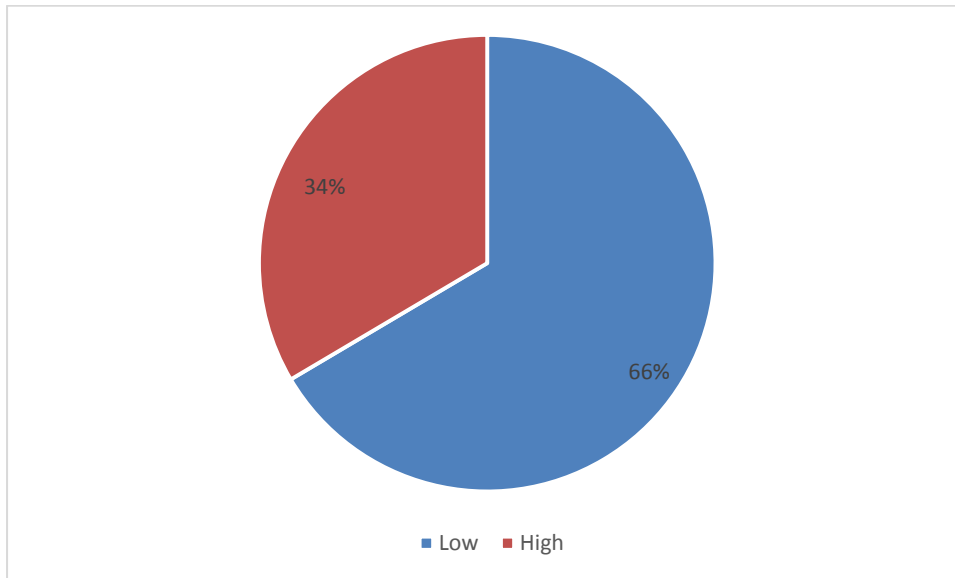
One of the KII narrated how her husband reacted when she told him to accompany her to a health facility prior to the conception of her newborn baby;

*(...Matters of childbearing is left to women alone. That's none of my business accompanying you to the clinic. Do you think I don't have other work to do? Let your mother-in-law escort you to the facility...)*

Qualitative results revealed that men were not mostly involved in consulting their spouses towards seeking preconception care. Reproductive health issues were left to women alone by

most men as they had an excuse of time constraint and busy trying to provide for the family as they were solely bread winners.

#### 4.3.2 Respondents' knowledge level on preconception care



*Fig 4.3: Respondents' knowledge level*

This section consisted of results concerning knowledge on preconception care among respondents. The six questions on knowledge had scores which ranged from 0-7 marks. Each correct answer was awarded a score of 1 while an incorrect answer was awarded a score of zero (0). The scores on knowledge were further divided into two categories; low knowledge level ranged from 0-3 scores while high knowledge level ranged from 4-7 scores. The results revealed that more than a half 260(66%) of the respondents had low knowledge levels while the rest 131(33%) had high knowledge levels as shown in figure 4.3 below.

#### 4.3.3 Association between knowledge level and male partner involvement in preconception care

The results showed that majority 162(64.0%) of respondents with low knowledge levels did not utilize preconception care. There were significant statistical association ( $p=0.031$ )

between knowledge levels and utilization of preconception care among respondents. The results are presented in table 4.3

**Table 4.3: Association between knowledge level and male partner involvement in preconception care among respondents (n=391)**

Independent Variable	Respondent response	Dependent variable (Utilization of preconception care)		Statistical significance
		Yes (N=138)	No (N=253)	
Knowledge level	Low	98(71.0%)	162(64.0%)	$\chi^2=1.954$ df=1 p=0.031
	High	40(29.0%)	91(36.0%)	

Based on the table 4.3, there is increased utilization of preconception care among men who have knowledge on the reproductive health issues.

#### 4.4 Men's attitude towards male partner involvement in preconception care

##### 4.4.1 Respondents' responses on attitude towards preconception care

**Table 4.4: Attitude towards male partner involvement in preconception care among respondents (n=391)**

Independent variable	Respondent's response (%)			
	Strongly Disagree	Disagree	Agree	Strongly agree
I discuss matters pertaining reproductive health with my wife	89(22.8%)	130(33.2%)	115(29.4%)	57(14.6%)
I believe in planning and seeking for counselling before wife's conception	73(18.7%)	130(33.2%)	107(27.4%)	81(20.7%)
Misconceptions/myths in the community can prevent one from seeking preconception care	49(12.5%)	147(37.6%)	88(22.5%)	107(27.4%)
Older women also need support from their spouses even if they are experienced in pregnancy	107(27.4%)	123(31.5%)	88(22.5%)	73(18.7%)
I think it is not a waste of time for me to seek preconception care	82(21.0%)	64(16.4%)	138(35.3%)	107(27.4%)
I don't believe in leaving matters of childbearing to women alone	64(16.4%)	97(24.8%)	140(35.8%)	90(23.0%)
Men who have strong religious believes are more likely to be involved in preconception care	107(27.4%)	121(30.9%)	90(23.0%)	73(18.7%)

Regarding attitude of respondents towards preconception care, there were seven (7) questions on a Likert scale of scores ranging 1-4 in which “1” meant strongly disagree and “4” meant strongly agree. The results revealed that slightly more than a half 219(56.0%) of respondents of which 130(33.2%) disagreed and 89(22.8%) strongly disagreed that they discussed matters pertaining reproductive health with their wives. The results revealed that slightly more than a half 203(51.9%) of which 130(33.2%) disagreed and 73(18.7%) strongly disagreed that they believed in planning and seeking for counselling before wife’s conception.

The results revealed that slightly more than a half 196(50.1%) of respondents of which 147(37.6%) disagreed and 49(12.5%) strongly disagreed that misconception/myths could prevent one from seeking preconception care. Majority 230(58.9%) of respondents which 123(31.5%) disagreed and 107(27.4%) strongly disagreed that older women also needed support from their spouse even if they had vast experience with regards to pregnancy. Qualitative results from key informant interviews revealed that older women did not need much support as pertains to preconception care. One of the KII informant had this to say:

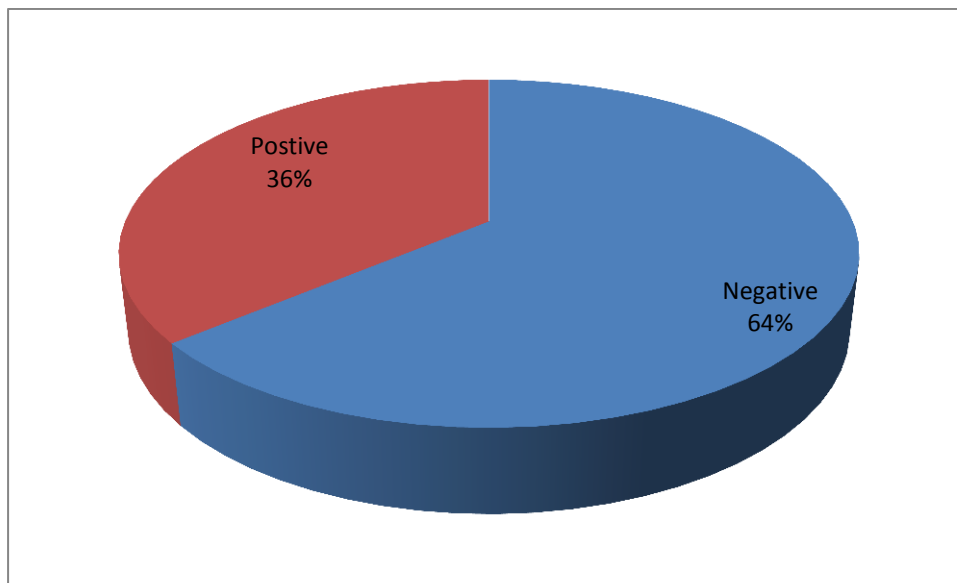
*(...this is not my first child. I have never faced any difficulty in conceiving since I have never miscarried. I do not see the need to involve my husband to seek for preconception care... i let him perform his roles in the family as I also do my part...)*

Majority 245(62.7%) of respondents of which 138(35.3%) agreed and 107(27.4%) strongly agreed that it was not a waste of time for seeking preconception care. The results revealed that more than a half 230(58.8%) of respondents of which 140(35.8%) agreed and 90(23.0%) strongly agreed that they don’t believe in leaving matters of child bearing to women alone. More than a half 228(58.3%) of respondents of which 121(30.9%) disagreed and 107(27.4%) strongly disagreed that men who had strong religious beliefs were more likely to be involved in preconception care. The results are presented in table 4.4

Qualitative results further established that most men are not so much concerned with matters related to childbearing. They only think that their role is to only father children as indicated by FGDs held with men. From the consensus report:

*(...we know we are able to sire children and therefore don't think there is need for us to seek preconception care. What will we gain from such care? What don't we know about ourselves? If our wives intend to go for such care let them go on their behalf...)*

#### 4.4.2 Attitude towards preconception care



**Fig 4.4: Respondents' attitude level**

This section consists of results concerning attitude towards preconception care among respondents. The seven (7) questions on attitude had a minimum score of 7 and a maximum score of 28. The scores were further divided into two categories; Negative attitude scores ranged from 7-17 while positive attitude had scores ranging from 18-28. The results revealed that majority 250(64%) of respondents had a negative attitude towards seeking preconception care while the rest 141(36%) had a positive attitude. The results are presented in figure 4.4.

#### 4.4.3 Association between attitude and male partner involvement in preconception care

The results showed that majority 170(62.7%) of respondents who were not involved in preconception care had negative attitude. There were slight differences in utilization of preconception care among the two attitude levels. The results further indicated that there were no significant statistical association ( $p=0.078$ ) between attitude and being involved in preconception care among respondents. These results are presented in table 4.5 shown below.

**Table 4.5: Association between attitude and male partner involvement in (n=391)**

Independent Variable	Respondent response	Dependent variable (Preconception care utilization)		Statistical significance
		Yes (N=138)	No (N=253)	
Attitude	Negative	80(58.0%)	170(67.2%)	$\chi^2=3.294$ df=1 p=0.078
	Positive	58(42.0%)	83(32.8%)	

Based on table 4.5 men had negative attitude towards involvement in preconception care. Matters of children have been left to women.

#### 4.5 Influence of spousal communication on male partner involvement in preconception care

The study sought to determine the extent of spousal communication associated with preconception care utilization among respondents

**Table 4.6: Association between spousal communication and male partner involvement in preconception care among respondents (n=391)**

Independent variable	Respondent response	Dependent variable (Preconception care utilization)		Statistical significance
		Yes (N=138)	No (N=253)	
Respect for one another's opinion	High extent	64(46.4%)	90(35.6%)	$\chi^2=7.994$ df=2 p=0.018
	Some extent	50(36.2%)	88(34.8%)	
	Never	24(17.4%)	75(29.6%)	
Commitment to the relationship	High extent	74(53.6%)	113(44.7%)	$\chi^2=18.055$ df=2 p=0.001
	Some extent	56(40.6%)	83(32.8%)	
	Never	8(5.8%)	57(22.5%)	
Consulting with your wife in case of a reproductive health concern	High extent	41(29.7%)	81(32.0%)	$\chi^2=18.826$ df=2 p=0.087
	Some extent	49(35.5%)	131(51.8%)	
	Never	48(34.8%)	41(16.2%)	
Talking about preconception care with wife	High extent	16(11.6%)	91(36.0%)	$\chi^2=27.280$ df=2 p=0.013
	Some extent	90(65.2%)	113(44.7%)	
	Never	32(23.2%)	49(19.3%)	

The results revealed that less than a half 154(39.4%) of the respondents reported that they respected their spouse's opinion to a higher extent. It was further revealed that of this proportion, 64(46.4%) had utilized preconception care. There was a significant statistical association (p=0.018) between respect for one's opinion and utilization of preconception care. Qualitative results were in support of this as indicated by FGDs held with men. From the consensus report;

*(...we will always respect our wives' opinion especially when it comes to constructive ideas contributing to the growth of our marriage... This brings cohesion and strengthens our relationship. We would even accompany them to the clinic if they request for the same...)*

In regards to spousal commitment to relationship, the results showed that slightly less than a half 187(47.8%) of the respondents reported to be highly committed so as to see their marriage prosper. Of this, 74(53.6%) of the respondents were involved in preconception care. There was a significant statistical association (p=0.001) between commitment to relationship and utilization of preconception care among respondents. Qualitative results attributed commitment to relationship as factor that plays a significant role towards involving men in preconception care. In one of the Key Informant Interview session, one female partner reported her story on preconception care experience;

*(...when we decided to have our first child with my husband, he advised me that we need to seek preconception care. He said that it was good for us as a newly married couple to get a piece of advice from care givers who are experts in matters related to childbearing...He said that this would help us in raising our child in an healthy manner... )*

The results revealed that less than a half 180(46.0) of the respondents reported that they consulted their wives when they felt that they had concerns about their reproductive health issues. Of this proportion, slightly more than a half 131(51.8%) of them were not involved in preconception care. There was no significant statistical association ( $p=0.087$ ) between consulting their wives on reproductive health concerns and utilization of preconception care.

Regarding talking about preconception care with their wives, the results revealed that more than a half 203(51.9%) of respondents reported that they were involved to some extent. It was further revealed that of this proportion, 90(65.2%) were involved in preconception care. There was a significant statistical association ( $p=0.013$ ) between talking about preconception care and being involved in it. The results are presented in table 4.6 above.

#### **4.6 Challenges of male partner involvement in utilization of preconception care**

The study sought to determine the challenges of male partner involvement in utilization of preconception care. These challenges were subjected to a cross tabulation and a Chi Square done to test the association between them and utilization of preconception care.

**Table 4.7: Association between challenges and male partner involvement in preconception care among respondents (n=391)**

Independent variable	Respondent response	Dependent variable (Preconception care utilization)		Statistical significance
		Yes (N=138)	No (N=253)	
Ability to access a health facility	Yes	89(64.5%)	123(48.6%)	$\chi^2=9.067$ df=1 p=0.003
	No	49(35.5%)	130(51.4%)	
Accompanying your wife to seek medical services	Yes	65(47.1%)	80(31.6%)	$\chi^2=9.172$ df=1 p=0.002
	No	73(52.9%)	173(68.4%)	
Preconception care is affordable	Yes	41(29.7%)	130(51.4%)	$\chi^2=17.045$ df=1 p=0.122
	No	97(70.3%)	123(48.6%)	
Practices that impede men from seeking preconception care	Supporting a huge household	48(34.8%)	42(16.6%)	$\chi^2=23.271$ df=3 p=0.001
	Lack of knowledge on modern FP methods	21(17.4%)	41(16.2%)	
	Lack of access to quality health services	33(23.9%)	57(22.5%)	
	Low income levels	33(23.9%)	113(44.7%)	

The results on table 4.7 revealed that majority 89(64.5%) of respondents who utilized preconception care reported that they were able to access a health facility. The results further indicated a significant statistical association (p=0.003) between access to a health facility and utilization of preconception care.

In regards to whether respondents got time to accompany their wives to seek medical services, most 173(68.4%) of the respondents who did not utilize preconception care reported that they didn't. There was a significant statistical association (p=0.002) between accompanying wives to seek medical services and utilization of preconception care.

Qualitative results revealed that most men do not accompany their spouses to health facilities to seek medical care. From the FGD consensus report:

*(...It really challenges us to find time to accompany our wives to health facilities to seek medication... Not unless they are very sick not just going for a minor medical examination. Most of the time they are accompanied by the nannies...)*

Slightly more than a half 130(51.4%) of respondents who reported that they thought preconception care was affordable although they did not utilize such services. However, there was no significant statistical association ( $p=0.122$ ) between affordability of preconception care and its utilization among the males. Qualitative results revealed that it was just a mere perception from the male counterparts regarding affordability of preconception care. One of the KII sessions reported,

*(...My husband does not even know what preconception care is. He only demands that I should bear him children without considering my health status...He even fears going for HIV testing...)*

The study further sought to find out what factors impede men from being involved in utilization of preconception care with their female partners. Low income levels was the most common impediment to utilization of preconception care as reported by more than a third 146(37.4%) of respondents. In fact, the results further showed that less than a half 113(44.7%) of the respondents who never utilized preconception care had reported to have low income levels hence unable to meet all family needs. There were significant statistical association ( $p=0.001$ ) between certain practices that hindered men from utilizing preconception care among their female partners. The results are presented in table 4.7 above.

## **CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter presents the discussions, conclusions and recommendations that are derived from the study. The chapter is organized thematically according to the objectives as follows: male partner involvement in preconception care, knowledge factors on preconception care, attitude of men towards preconception care, influence of spousal communication on preconception care, and challenges of male partner involvement on preconception care.

### **5.2 Discussions**

#### **5.2.1 Male partner involvement in preconception care**

The results revealed low rates of male partner involvement in utilization of preconception care among their female partners. This would be because matters of child bearing have been left to women and a lot of emphasis is placed on women as mothers. In this regard, based on societal gender roles, women are the ones who are tasked with the responsibility of family planning as well as raising their children. (Nwokocha 2014) The results were similar to a study done in the United States of America which revealed that much attention has been focused on women thus men rarely get involved in preconception care and thus less likely to benefit from such services (Gray, 2016). Consistent results were also reported by a study done in Nigeria which revealed low utilization of preconception care among male partners (Ekem et al., 2016).

Regarding the areas of male partner preconception care involvement, the results showed that the majority of respondents sought preconception care for HIV testing and provision of social support. This means that they were much aware of the need to prevent mother-to-child transmission among other pregnancy-related issues. Across many countries it has been reported that men's reproductive health issues have been neglected until issues of infertility begin to arise (Hossain *et al*, 2017). The need for male involvement in preconception care

has evolved overtime with reproductive health experts emphasizing that men should be encouraged to be directly and actively involved in preconception care (Davidson *et al.*, 2016).

The results also concurred with a report by the World Health Organization which showed that male partners are rarely involved in preconception care and advocates for interventions aimed at engaging them in counselling services prior to conception (WHO, 2015). In a study done in USA, it was revealed that weak education and inadequate health systems meant that men were not empowered to gain access to reproductive health services (Lassi *et al* 2014). Most men have left matters of childbearing to women thus the low utilization rates of preconception care services amongst them. There is need to expand preconception services to all areas through international initiatives to encourage men to utilize such services.

### **5.2.2 Influence of knowledge levels on male partner involvement in preconception care**

The second objective was to find out the influence of knowledge level on male partner involvement in preconception care in Embakasi East sub county of Nairobi City County

The results revealed that majority of respondents did not have the correct knowledge as regards to the importance of preconception care in managing their partners' pregnancies. This would be attributed to the fact that the concept of preconception care was not commonly practiced among respondents. The male partners did not think their partners would encounter complications as they manage their pregnancies.

The results were consistent with a study done in Nigeria which indicated that the practice of preconception care is almost non-existent in developing countries since many respondents never saw the significance of seeking such services (Ekem *et al.*, 2016). Preconception care is only given priority when couples fail to conceive a child as a result of infertility issues. In another Nigerian study, it was revealed that men sought for preconception care to enable their

spouses to be prepared to carry pregnancies and thus help decreasing perinatal and maternal mortality associated with birth complications (Ezegwui *et al.*, 2014).

Majority of respondents perceived swelling of the face, hands and legs among pregnant women as a danger sign of pregnancy. This is a common occurrence that is always witnessed among some pregnant women. In developed countries where preconception care is well incorporated in the health system, there are improved obstetric outcomes due to prevention strategies that are put in place to identify and reduce risks associated with pregnancy (Lassi *et al.* 2014). However, low male involvement in utilization of maternal and child services have been attributed to poor maternal outcomes in low and middle income countries. The results were consistent with a study in Jordan which revealed that couples who attended preconception care would easily identify danger signs of pregnancy and therefore seek early treatment hence improving obstetric outcomes (Al-Akour *et al.* 2015)

Majority of respondents reported that provision of food supplements were not necessary for pregnant women. This is because men regard pregnancy as a normal state for women and thus no need of provision of specific diet to cater for better fetal development. They do not know that maternal health status before and during pregnancy is a very decisive factor that affects pregnancy outcomes. In fact, preconception care enables partners to get access to supplements such as folic acid, multivitamins and other drugs that are necessary for fetal development (WHO, 2015). Male partners who seek preconception care ensure their pregnant wives are provided with the required food supplements since they know its importance. The results were contrary to study findings from Middle East countries which showed that women whose husbands sought preconception care sought for required nutrient supplementation compared to those whose husbands didn't utilize such services (Safi *et al.*, 2015).

One of the most important components of preconception care service is HIV testing and counselling. Couples are supposed to be tested before pregnancy in order to help in

predetermining effective model of care, avoid mother to child transmission as well as effective guidance and counselling. However, in this study majority of the respondents reported that they were not tested prior to their wives' conception. Most pregnant women know their status when they attend their first facility antenatal care visit (Ezegwui *et al.*, 2016). The results were contrary to a study done in USA which reported that men who sought for preconception care wanted to know their HIV status and thus avoid mother to child transmission (Lassi, 2014).

Exercise and balanced diet is normally advisable before and during pregnancy among the couples. The results revealed that majority of the respondents reported that provision of a balanced diet to pregnant women was important for better delivery outcomes. During preconception care couples are counseled and advised on the importance of exercise, rest and balanced diet to the infant and pregnant mother. However, in many low-income countries where poverty is high affording a balanced diet is a problem thus pregnant woman and the developing infant becomes at risk to poor delivery outcomes. Similar results were reported in a study conducted in rural parts of South Africa which revealed that there was an association between balanced diet and better pregnancy outcomes (Gibbs *et al.*, 2015). The results were contrary to a study in Nigeria which showed that pregnant women were forbidden from eating snails and meat despite being rich in proteins (Nwokocha, 2014).

Based on the knowledge variables studied, the results revealed that the respondents had low knowledge levels concerning preconception care. This is explained by the fact that there was low utilization of preconception care among male partners. In fact knowledge on preconception care had a significant association with male partner involvement in its utilization. Men's knowledge on preconception care especially on timing and spacing of pregnancies and contraceptive use is low in low and middle income countries. The results were similar to a study done in Nigeria which revealed that men had low knowledge on

pregnancy issues thus explaining the low uptake of preconception care (Ezegwui, 2014). This study therefore shows that knowledge influences male partner involvement in preconception care utilization.

### **5.2.3 Influence of attitude towards male partner involvement in preconception care**

The third objective was to determine men's attitude towards male partner involvement in preconception care utilization in Embakasi East sub county of Nairobi City County.

The results revealed that majority of respondents did not discuss matters pertaining reproductive health with their wives. This explained by the fact that men also seem to be secretive especially when they are suffering from reproductive health conditions such as infertility as they feel ashamed of sharing such information. This is attributed to the practice of male dominance as especially in most sub-Saharan African countries. In most family issues, the man is the final decision maker even in matters pertaining to pregnancy and child birth (Mprah *et al.*, 2017).

Majority of respondents reported that they did not believe in planning and seeking for counselling prior to their wives' conception. Seeking for male partner preconception care has been perceived by men as time wasting. This is because most men are bread winners to their families and leave matters of childbearing to be tackled by their wives. It requires approximately 10minutes according to world health organization, to receive the preconception care services (WHO, 2014). Mixed reactions have been reported on the time needed to seek for such services. Research findings that were presented in the European congress on preconception care revealed that the time set aside for preconception care was not sufficient especially in developed countries (Susheela *et al.*, 2014).

Majority of respondents reported that misconception/myths could not prevent one from seeking preconception care. Myths and misconceptions towards male preconception care greatly affect its utilization. Men presume that pregnancy is a women affair and that the

society doesn't recognize preconception care as an important aspect of reproductive health. In Nigeria, even when diet is an important component of preconception care, women who have conceived are forbidden from eating eggs and snails despite the rich protein content which they have that is greatly needed by the mother and unborn child (Ezegwui *et al.*, 2014). Women who are pregnant are not restrained by their husband from consumption of locally made gin (Etee-te) which could increase pregnancy complication. This leads to increase in maternal morbidities and mortalities of mothers and their infants (Nwokocha, 2014).

The results revealed that majority of the respondents were of the view that strong religious beliefs were less likely to use preconception care. Religion can influence reproductive health both negatively and positively. Some religions advocate for prayers to medical care while other religions have family life programs where they educate their members on reproductive health issues. In some religions programs focusing on married couples have been designed to address issues facing families. They are taught on the importance of attending to preconception care and also invite experts who help in dispelling myths and misconceptions about preconception care (Arba *et al* 2016). The findings were similar to a study done in USA which revealed that men who had strong religious beliefs were associated with higher utilization of preconception care (Susheela *et al.*, 2014).

The results revealed that older women did not need support from their spouses when pregnant. Older women are presumed to be more knowledgeable with a vast experience in pregnancy related issues. The male partners of older women have been reported to taking less or no time discussing with their wives on matter pertaining to reproductive health (Ahumuza *et al.*, 2014). This has been attributed to the belief that preconception care is only for the younger women thus their husbands rarely seek for the preconception care. However with the diversity in context and change of information and guidelines on preconception care it is important for couples to seek for such services prior to conception. Similar results were

reported by a study done in Malaysia which revealed that spouses of older women had low utilization of reproductive health services including preconception care (Kasim *et al.*, 2016).

The results further revealed that men had negative attitude towards involvement in utilization of preconception care among male partners. Generally, matters of children have been left to women in most African societies whereby gender-division of labour, where childbearing and care is defined as a woman's role (Tanabe, 2015). The little attention paid to male partner involvement in preconception care is attributed to this. This in our view explains why majority of the men respondents reported low utilization of preconception care.

#### **5.2.4 Spousal communication influence in male partner involvement in preconception care**

The fourth objective was to determine the influence of spousal communication on male partner involvement in preconception care utilization in Embakasi East sub county of Nairobi City County.

The results revealed that most of the respondents who utilized preconception care reported respecting their partner's opinion. When couples respect one another they tend to have a feeling of sharing and communicating. This would be attributed to the fact that respect for a partner's opinion reduced the issues of male dominance in which men's decisions were final. This was thought to greatly enhance cohesion and strengthen relationships in marriage. In fact, in most African systems men were expected to be strong and hardworking to take care of their wives (Tanja, 2016). On the same note, women were expected to perform domestic chores as well as be submissive to their husbands.

These results were consistent to a study done by Bhutta *et al* (2014) argued that women should be empowered to make decisions affecting their families. In contemporary society matters of family parenting are no longer a mother's task alone; fathers and men generally

see the provision family needs as their main task. The results were similar to a study done in Bangladesh which revealed an association between respecting each other in a relationship and the utilization of male preconception care. It was further reported that when couples respect each other they tend to seek reproductive health services such as preconception care together (Hossain *et al.*, 2017).

Spousal commitment to relationship played a significant role in determining male partner involvement in preconception utilization among respondents. Men generally show commitment and support to their wives during their early stages of their marriages. In most African settings, pregnancy is always viewed as a women affair or responsibility (Apanga, 2017). These findings were similar to a study done in Kenya, in which it was argued that women were more likely to seek medical services especially in their first pregnancy when married (Kingori *et al.*, 2016). This was attributed to the support they received from their partners as a means of access to maternal health services.

Studies done in developed countries have shown that when male partners understand the risks women are exposed to during pregnancy; they are likely to give the required support to their wives. Commitment in marriage has been associated with positive birth outcomes as revealed in studies in done in United States of America where women received with necessary support from their husbands (Frey, 2013). This reduces incidences of unplanned pregnancies and cases of abortion thus improved maternal and child outcomes.

In regards to consulting their wives in matters related to reproductive health concerns, the results revealed that majority of respondents who reported this did not get involved in utilization of preconception care. This was attributed to the fact that male partner involvement in preconception care was a new concept to them as reflected in the current study. Men always leave decisions concerning childbearing to women alone. A few couples takes time to talk about preconception as they report some pregnancies occurs as a surprise.

The results were consistent to a study done by (Arba *et al* ,2016) who documented that every 4 in 10 women reported that their pregnancies were unplanned due to lack of proper communication between spouses.

Consultation normally encompasses talking about spacing and timing of pregnancies, and family planning practice among others. Researches which have been conducted revealed that when partners consult each other on reproductive health issues the incidences of unplanned pregnancies as well as negative birth outcomes are reduced (Arba *et al* 2016). A study conducted in Denmark revealed that spousal consultation led to proper pregnancy planning and improved lifestyle prior to conception and early stages of pregnancy leading to improved or positive delivery outcomes among couples (Backhausen *et al*, 2014).

### **5.2.5 Challenges of male partner involvement in preconception care**

The fifth objective was to identify challenges of male partner involvement in utilization of preconception care in Embakasi East sub county of Nairobi city county

Male partner involvement in utilization of preconception care has been marred with a number of challenges. According to the results of this study, it was revealed that majority of respondents who did not utilize preconception care had minimal access to health facilities. This would be attributed to the fact that in most cases women are the ones who are tasked to take care of maternal and child health issues. Lack of proper access to health care and sexual education services needed by couples prohibits men from utilizing preconception care services. In fact some do not even know whether preconception care exists (Stern, 2015). In another Indian study, lack of enough human resources hindered provision of preconception care as they also struggled to increase prenatal and skilled delivery coverage (Mason *et al*, 2014).

The results revealed that majority of respondents did not get time to accompany their wives to seek medical services. Men do not consider preconception care to be important. Little

attention is paid to men even when they attend preconception care in the company of their wives. The little they get to hear is as a result of being present when their wives are being counseled. It is only through escorting their partners that males get counseled and advised on the importance of preconception care. According to studies conducted in low and middle income countries among men, it has been reported that men are preoccupied with other roles which they presume to be more important such as providing for the family as well as other community roles. They rarely find time to seek for preconception care which they think is of less benefit to them (Dean *et al.*, 2014).

Majority of respondents perceived preconception care to be unaffordable to them. This could be explained by the fact that most of the respondents reported low income levels was an impeding factor towards accessing and utilizing preconception care. Seeking preconception care entails both direct and indirect costs which can be an impediment to low income earners. Little attention is paid to males' involvement in utilization of preconception care unless issues of infertility arise (Ezegwui *et al.*, 2014). The little income generated is attached to cater for meeting family needs which are seemed to be of more importance.

The results were inconsistent with a study in USA which showed that showed partner involvement in preconception medical care resulted in cost savings compared with prenatal care only (Lassi *et al.*, 2014). In addition to achieving its intended health benefits, preconception care could substantially reduce costs. Accessing preconception care may require finances which may be an impediment to many men especially those from low socio-economic status. Health care in many sub-Saharan Africa countries is not easily accessible due to poverty ((Vlassoff *et al.*, 2014).

### **5.3 Conclusions**

The study concludes, first there is low male partner involvement in utilization of preconception care in Embakasi East sub-county. These were, however, cases where

preconception care utilization was noted, HIV testing and provision of social support to their wives. Low utilization is attributed to leaving matters of child bearing to women and a lot of emphasis is placed on women. Low educational levels and inadequate health systems meant that men were not empowered to gain access to reproductive health services.

Secondly, there were low knowledge levels in regards to male partner involvement in Embakasi East sub-county. It was noted that men were not aware what preconception care entailed. They perceived that matters pertaining childbearing is women's role. Knowledge played a significant role in determining the utilization of preconception care.

Thirdly, the study concludes that there was a negative attitude towards male partner involvement in utilization of preconception care among men. Generally, matters of children have been left to women in most societal settings. There is little attention paid to male partner involvement in preconception care. This further explains the reason for majority of respondents reporting low utilization of preconception care.

Fourthly, the study concludes that spousal communication played a significant role in determining male partner involvement in preconception care utilization. Improved spousal communication means partners share much information including matters related to preconception care. Hence respect for one another's opinion, commitment to relationships and proper communication between couples is important in male partner involvement if preconception care utilization is to be realized.

Consequently the study underlines that men in Embakasi East sub-county have low male partner involvement in utilization of preconception care and what it entails. This is largely due to lack of understanding of what it entails, societal belief that pregnancy and child birth are a concern for women.

#### **5.4.1 Recommendations from the study**

- i. The Ministry of Health through the reproductive health department should create programs that address preconception care that cater for the men's role.
- ii. The Ministry of health should educate the community on preconception care and its importance to maternal and child health through family life programs. They should also scale up outreach programs to ensure that everybody is included.
- iii. The non-governmental organizations can also educate men on the importance of preconception care and help in dispelling the myths and issues of leaving maternal health issues to women alone.
- iv. The study further recommends that ministry of health should come up with programs and hold sessions to teach couples on the importance of proper spousal communication to improve preconception care service utilization.
- v. The County Government of Nairobi and media stations should come up with health messages to create awareness and sensitize the general public on the importance of male partner involvement in preconception care.

#### **5.4.2 Recommendations for further study**

This study recommends a study to be conducted to determine quality of preconception care provision in health facilities in Kenya.

- ❖ Male partner preconception awareness on couples who don't have children.

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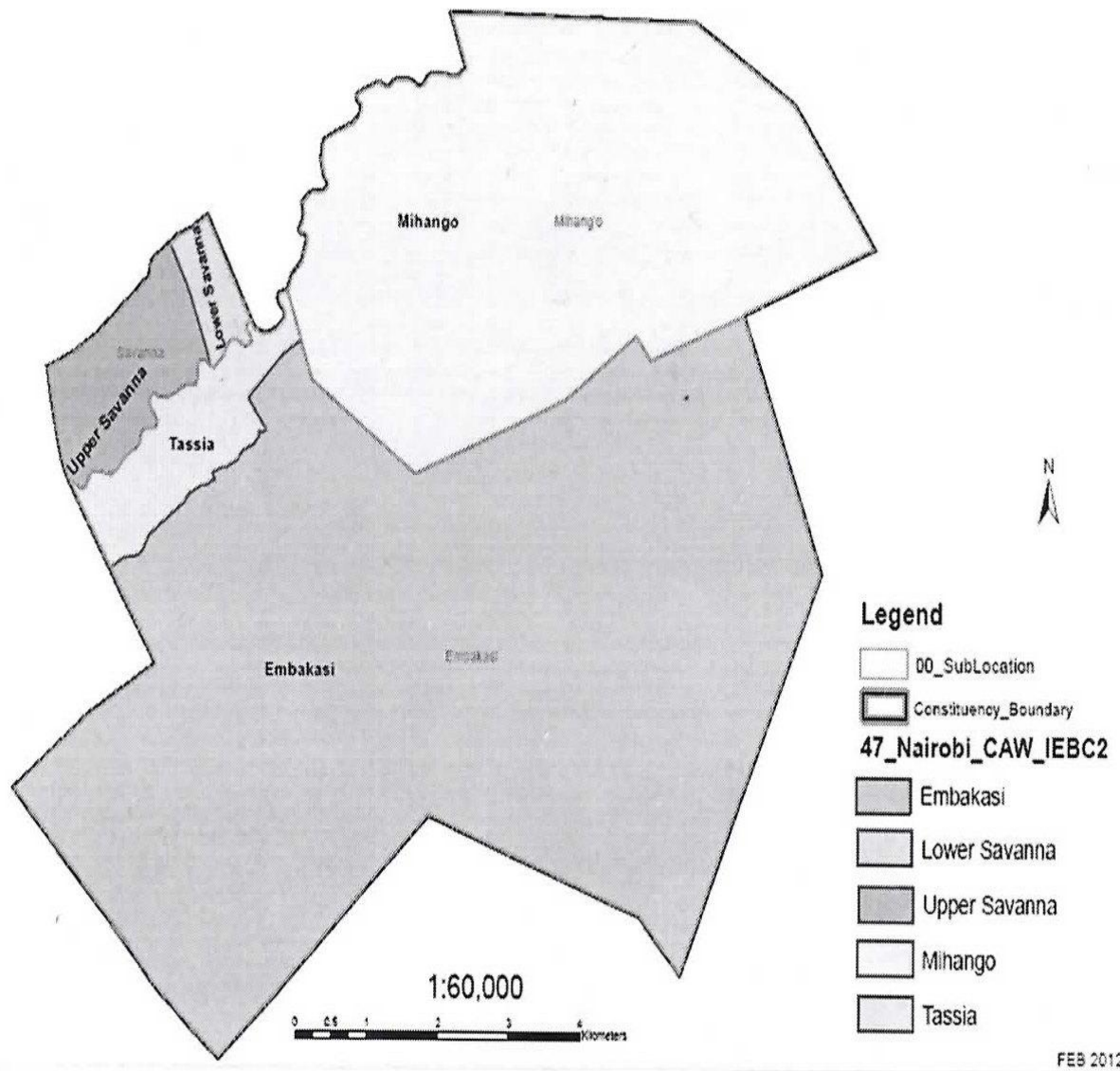
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### Appendix i: Map of Embakasi East Sub County

IEBC REVISED EMBAKASI EAST CONSTITUENCY COUNTY ASSEMBLY WARDS



## **Appendix ii: Informed Consent**

My name is MIRIAM KWAMBOKA ORANG 'I am a MASTERS student from Kenyatta University. I am conducting a study on male partner involvement in utilization of preconception care. The information will be used by the ministry of Medical Services and Ministry of Public Health and Sanitation to improve access to quality for preconception care in our hospitals in Kenya.

### **Procedure to be followed**

Participation in the study will require that I ask you some questions. I will record the information from you in a questionnaire. You have the right to refuse participation in this study. You will get the same care and medical treatment whether you agree to join the study or not and your decision will not change the care you will receive from our hospitals.

Please remember that participation in the study is voluntarily. You may ask questions related to the study at any time. You may refuse to respond to any question and you may stop the interview at any time. You may also stop being in the study at any time without any consequences.

### **Discomfort and risks**

Some of the questions you will be asked are on intimate subject and may be embarrassing or make you uncomfortable. If this happens you may refuse to answer these questions if you so choose. You may also stop the interview at any time

### **Benefits**

If you participate in this study you will help us to learn how to provide effective preconception care services that can improve the health of women and reduce the risk of preterm births & maternal mortality.

**Confidentiality**

The interviews and examinations will be conducted in a private place away from people  
Your name will not be recorded on the questionnaire. The questionnaires will be kept in a  
locked cabinet for safe keeping at Kenyatta University. Everything will be kept in private.

**Contact information**

If you have any questions you may contact: 1) Prof. Margaret Keraka – 0721817521 OR  
2) Dr. Pacifica Okemwa 0722839040

The Kenyatta University Ethical Review Committee Secretariat on  
[chairman.kuerc@ku.ac.ke](mailto:chairman.kuerc@ku.ac.ke), [secretary.kuerc@ku.ac.ke](mailto:secretary.kuerc@ku.ac.ke), [ercku2008@gmail.com](mailto:ercku2008@gmail.com).

**Participant's statement**

The above information regarding my participation in the study is clear to me. I have been  
given a chance to ask questions and my questions have been answered to my satisfaction. My  
participation in this study is entirely voluntary. I understand that my records will be kept  
private and that I can leave the study at any time. I understand that I will still get the same  
care and medical treatment, whether I decide to leave the study or not and my decision will  
not change the care I will receive from any hospital any other time.

Code participant.....

Signature..... Date.....

**Investigator statement**

I, the undersigned, have explained to the volunteer in a language she/he understands the  
procedures to be followed in the study and the risks and benefits involved.

Name of interviewer .....

Signature ..... Date.....

**Appendix iii: Research Permission Letter**

Miriam Kwamboka Orang'

P.O. Box 7454001001

Nairobi

Reg NO. Q139/CTY/PT/27328/2013

[Orangmiriam2016@gmail.com](mailto:Orangmiriam2016@gmail.com)

13/2/2018

Kenyatta University Graduate School and Ethic Committee

P.O. Box 43844-00100

Nairobi.

**Ref: Permission To Conduct A Study At Embakasi East Sub County In Nairobi, Kenya**

Am a student at Kenyatta university pursuing master's degree in public health, reproductive health. I hereby request to be granted permission to conduct a study at Embakasi East Sub County in Nairobi

The aim of the study is to find out factors influence male partner involvement in utilization of preconception care in Embakasi East Sub County

The study is not only beneficial to couples but also policy makers. A better understanding of the male partner utilization of preconception care services will aide in attaining national maternal goal as articulated in various strategies and vision, like beyond zero campaign.

Data collection will be in the month of August to September 2018

Thank you for your continue support

Yours faithfully

Miriam Kwamboka Orang'

### Appendix iv: Questionnaire for the Male Partner

Factors affecting male partner utilization of preconception care in Embakasi East Sub county

Participant number.....Household number.....Name of ward.....

Date of the interview.....

#### Section A: Socio-Demographic Characteristics of the study population

1) Age in years

[1]18-27                      [2]28-37                      [3]38-47                      [4]≥48

2) What is your highest level of education?

[1] No formal education                      [2] Primary  
[3] Secondary                      [4] Post-secondary

3) What is your religion?

[1] Christian                      [2] Muslim                      [3]Others

4) What do you do for a living?

[1] Employed                      [2] Self-employed                      [3] Not employed

5) Level of family income

[1] ≤10,000                      [2] 11,000-20,000                      [3] 21,000-30,000  
[4] 31,000-40,000                      [5] 41,000

#### Section B: Male Involvement

6) Are you involved in preconception care?

[1]Yes                      [2] No

7) If Yes, What are the Areas of involvement? (Pick the most appropriate)

[1] HIV testing before pregnancy                      [2] Exercise  
[3] Balanced diet                      [4] Provision of social support

#### Section C: Men's knowledge on preconception care influence on usage.

8) Do you think preconception care is important?

[1] Yes                      [2] No                      [3] Don't know

9) Why do you think preconception care is important?

[1]For better management of the pregnancy [ ]

[2] For the couple to seek early treatment [ ]

[3] So as to implement prevention of mother to child transmission of HIV [ ]

[4] I don't know [ ]

[ ]

10) Do you know the danger signs of pregnancy at risk?

1) Severe lower abdominal pain [ ]

2) Per vaginal bleeding [ ]

3) Swelling of the face, hand and legs [ ]

4) Lack of fetal movement after 20 weeks gestation [ ]

5) Premature rupture of membranes (vaginal leaking before 37 weeks gestation) [ ]

6) Don't Know [ ]

11) Which drugs/supplements do pregnant women need to use?

[1] Folic acid [ ]

[2] Multivitamin [ ]

[3] Antimalarial [ ]

[4] None [ ]

12) What is the importance of Folic acid on preconception care?

[1] Promotes proper development of the brain and skull

[2] Important for red blood cell production

[3] Supports proper cell division

[4] Supports healthy bone formation

[5] Helps prevent depression

[6] Together with vitamin B12, folic acid helps manufacture DNA

13) What is the need for Preconception HIV testing in Preconception care?

[1] Predetermines the effective modes of care for HIV infected

[2] Reduces the risk of child infection

[3] Encourages guidance and counselling based on depressions

[4] Helps in prescribing antiretroviral therapy (ART)

[5] Informs the partners on effective methods of delivery

[6] Optimizes the woman's health prior conception

14) Importance of exercise and rest on preconception care

[1] Increases insulin sensitivity which improves ovarian function

[2] Increases probability of conception

[3] Reduces risks of excessive weight gain

[4] Reduces maternal fetal diseases

[5] Improves body image and mood

[6] Prevents complications of obesity

15) Importance of balanced diet in preconception care

[1] Helps in reduction of poor maternal-fetal outcomes

[2] Decreases lifelong risk for chronic diseases

- [3] Reduces risks associated with obesity
- [4] Leads to mature and high birth weight
- [5] Improves wellbeing of female partner

16) What is the importance of Knowledge about pregnancy on preconception care?

- [1] Reduces unintended pregnancy
- [2] Helps in seeking basic and appropriate prenatal care services
- [3] Helps partners seek proper guidance and counselling on prenatal care
- [4] Guides on utilization of better contraceptive methods

**Section D: Men's attitude towards preconception care effect on usage**

17) I discuss with my wife on matters pertaining reproductive health

- [1] Strongly disagree
- [2] Disagree
- [3] Agree
- [4] Strongly Agree

18) I belief in planning and seeking for counseling before my wife conceives

- [1] Strongly disagree
- [2] Disagree
- [3] Agree
- [4] Strongly Agree

19) Misconception/ myths regarding pregnancy can prevent on from seeking for preconception cares services?

- [1] Strongly disagree
- [2] Disagree
- [3] Agree
- [4] Strongly Agree

20) Older women need support from their spouse even if they have experience in conception

- [1] Strongly disagree
- [2] Disagree
- [3] Agree
- [4] Strongly Agree

21) I don't think it is a waste of time for me to seek for preconception care

- [1] Strongly disagree



31) What health institution practices impede you from involving in utilization of preconception care among their female partners?

- [1] Difficulties in providing support to huge household
- [2]Lack of knowledge on modern contraceptive methods
- [3]Lack of access to quality health care services
- [4]Low income levels
- [5] Housing problems/unhealthy residence

**Thank you so much for your time**

**Appendix v: Key informant: Questionnaire for the female partner**

**Factor affecting female partner utilization of preconception care**

Participant number.....Household number.....Name of the ward.....

Date of the interview.....

1) How old are you?.....

2) How many deliveries have you had?.....

3) What is your highest level of education?.....

4) What do you do for a living?.....

5) State any preconception care services that you expect to receive in the hospital?

.....  
.....

6) Name some of the danger signs of pregnancy

.....  
.....

7) State the measures to be undertaken in case of the above cases?

.....  
.....

8) What is the importance of preconception HIV testing?

.....  
.....

9) What can hinder you from seeking preconception HIV test?

.....  
.....

10) Why do you think it is important for pregnant women to receive IPT (intermittent presumptive treatment of malaria?)

.....  
.....

12) Name some of the traditional beliefs that may hinder you from seeking preconception care services (specify the community)

\*

13) If you have ever sought the TBA (Traditional Birth Attendants) during any of your pregnancies? If yes give reasons

14) Name any factors that may hinder you from seeking preconception care from the public health centers?

15) In your own opinion, comment on the following:

Training of the preconception care staff

Motivation of the preconception care staff

Respect to client

Support to clients

Provision of privacy to clients

Discrimination along economic status

Giving adequate information to clients

**THANKS FOR YOUR PARTICIPATION**

**Appendix vi: Research authorization from Kenyatta University Graduate School**



**KENYATTA UNIVERSITY  
GRADUATE SCHOOL**

E-mail: [dean\\_graduate@ku.ac.ke](mailto:dean_graduate@ku.ac.ke)

Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P.O. Box 43844, 00100  
NAIROBI, KENYA  
Tel. 8710901 Ext. 57530

Our Ref: Q139/CTY/PT/27328/2013

DATE: 17<sup>th</sup> December, 2016

Director General,  
National Commission for Science, Technology  
& Innovation  
P.O. Box 30623, 00100,  
NAIROBI

Dear Sir/Madam,

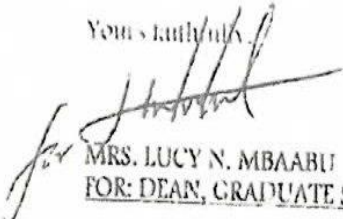
RE: RESEARCH AUTHORIZATION FOR ORANG' KWAMBOKA MIRIAM REC NO.  
Q139/CTY/PT/27328/2013

I write to introduce Ms. Orang' Kwamboka Miriam who is a Postgraduate Student of this University. She is registered for M.P.H. degree programme in the Department of Population and Reproductive Health.

Ms. Kwamboka intends to conduct research for an M.P.H. Proposal entitled, "Male Partner Involvement in Utilization of Preconception Care in Embakasi East Sub-County, Nairobi, Kenya".

Any assistance given will be highly appreciated.

Yours faithfully,

  
MRS. LUCY N. MBAABU  
FOR: DEAN, GRADUATE SCHOOL

Appendix vii: Ethical clearance from KU Ethics and Review Committee



KENYATTA UNIVERSITY  
ETHICS REVIEW COMMITTEE

Fax: 8711242/8711575  
Email: [kuerc.chair@ku.ac.ke](mailto:kuerc.chair@ku.ac.ke)  
[kuerc.secretary@ku.ac.ke](mailto:kuerc.secretary@ku.ac.ke)  
Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P. O. Box 43844,  
Nairobi, 00100  
Tel: 8710901/12

Our Ref: KUERC/APPROVAL/VOL.1 (107)

Date: 4<sup>th</sup> June 2018

Miriam Kwamboka Orang  
P.O. Box 451-001001  
Nairobi

Dear Miriam

APPLICATION NUMBER: PKU/709/1780 "MALE PARTNER INVOLVEMENT IN UTILIZATION OR PRECONCEPTION CARE IN EMBAKASI EAST SUBCOUNTY NAIROBI, KENYA"

1. IDENTIFICATION OF PROTOCOL

The application before the committee is with a research topic "Male Partner Involvement In Utilization Or Preconception Care In Embakasi East Subcounty, Nairobi, Kenya" received on 26<sup>th</sup> January, 2018 and discussed on 13<sup>th</sup> February, 2018

2. APPLICANT

Miriam Kwamboka Orang

3. SITE

Embakasi East Subcounty, Nairobi, Kenya

4. DECISION

The committee has considered the research protocol in accordance with the Kenyatta University Research Policy (section 7.2.1.3) and the Kenyatta University Ethics Review Committee Guidelines and APPROVED that the research may proceed for a period of ONE year from 13<sup>th</sup> February, 2018.

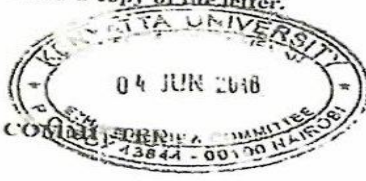
5. ADVICE/CONDITIONS

- i. Progress reports are submitted to the KU-ERC every six months and a full report is submitted at the end of the study.
- ii. Serious and unexpected adverse events related to the conduct of the study are reported to this committee immediately they occur.
- iii. Notify the Kenyatta University Ethics Committee of any amendments to the protocol.
- iv. Submit an electronic copy of the protocol to KU-ERC.

When replying, kindly quote the application number above.  
If you accept the decision reached and advice and conditions given please sign in the space provided below and return to KU-ERC a copy of the letter.

*[Handwritten signature]*

DR. TITUS KAHIGA  
CHAIRMAN ETHICS REVIEW COMMITTEE



I, MIRIAM K. ORANG accept the advice given and will fulfill the conditions therein.  
Signature: *[Handwritten signature]* Dated this day of 4th June 2018.

cc. DVC-Research Innovation and Outreach

## Appendix viii: Research authorization from National Council for Science, Technology and Innovation



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2713471  
 2241749, 3310571, 2219120  
 12227254-20-318215, 318249  
 Email: dg@nacosti.go.ke  
 Website: www.nacosti.go.ke  
 When replying please quote

NACOSTI Upper Kabete  
 Off. V. J. Way  
 P.O. Box 30623-00100  
 NAIROBI-KENYA

Ref: NACOSTI/P/18/24642/23249

Date: 11<sup>th</sup> July, 2018


Miriam Kwamboka Orang  
 Kenyatta University  
 P.O. Box 43844-00100  
 NAIROBI.

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Male partner involvement in utilization of preconception care in Embakasi East Sub County, Nairobi, Kenya*" I am pleased to inform you that you have been authorized to undertake research in Nairobi County for the period ending 10<sup>th</sup> July, 2019.

You are advised to report to the County Commissioner, the County Director of Education and the County Director of Health Services, Nairobi County before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

  
 DR. STEPHEN K. KIBIRU, PhD.  
 FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner  
 Nairobi County.

The County Director of Education  
 Nairobi County.

## Appendix ix: Research permit from National Council for Science, Technology and Innovation

THIS IS TO CERTIFY THAT:  
**MS. MIRIAM KWAMBOKA ORANG**  
 of KENYATTA UNIVERSITY, 7454-100  
 NAIROBI, has been permitted to conduct  
 research in *Nairobi County*

Permit No : NACOSTI/P/18/24642/23249  
 Date Of Issue : 11th July, 2018  
 Fee Received : Ksh 1000

on the topic: **MALE PARTNER  
 INVOLVEMENT IN UTILIZATION OF  
 PRECONCEPTION CARE IN EMBAKASI  
 EAST SUBCOUNTY, NAIROBI, KENYA**

for the period ending:  
 10th July, 2019



  
 .....  
 Applicant's  
 Signature

  
 .....  
 Director General  
 National Commission for Science,  
 Technology & Innovation

### CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.



REPUBLIC OF KENYA



National Commission for Science,  
 Technology and Innovation

**RESEARCH CLEARANCE  
 PERMIT**

Serial No.A 19327

CONDITIONS: see back page