DETERMINANTS OF FAMILY PLANNING OPTION AMONG WOMEN AGED 15-24 YEARS SEEKING POSTNATAL CARE SERVICES IN NAIROBI COUNTY, KENYA

BY

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DECLARATION

This thesis is my original work and it has not been presented in any other University for any award

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DEDICATION

I dedicate this work to my wife Joyce Nyanchama and my mother Lorna Wanjiru who had faith in me to the end. Moreover, to my late father whose wish has been fulfilled

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I thank our almighty God for enabling me to accomplish this task. I highly appreciate tireless guidance, assistance and support of my supervisors Dr. Margaret Keraka and Dr. Bonventure Okello Agina.

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OPERATIONAL DEFINITIONS OF KEY CONCEPTS AND TERMS

Abortion	The act of bringing a pregnancy to an end thus preventing the birth of a live baby
Contraceptives	Agents that are used to prevent the occurrence of pregnancy other than abstinence
Current contraceptive use	Contraceptive method the study respondent was using at the time of interview. Excludes all other method used prior to the interview.
Family planning	The planning of when to have children, and the use of birth control and other techniques to implement such plans
Maternal mortality	The death of a woman occurring as a result of pregnancy, either due to its direct complications or its effect on other medical condition of the affected woman
Modern contraceptives method	Contraceptives that are based on scientific knowledge of the process of conception
Natural contraceptives method	The use of calendar or rhythm of a woman's menstrual cycle to time sexual intercourse with the aim of preventing conception
Postpartum amenorrhea	The interval between childbirth and the return of menstruation. This is the period during which a woman becomes temporarily infecund following childbirth
Traditional contraceptive methods	Contraceptives which are prescribed or supplied by traditional healers or methods used traditionally in specific cultures without any prescription
Unmet contraceptive need	'Unmet contraceptive need' is the proportion of fecund women who wish to space their next birth or to limit childbearing altogether but are not using contraception.

LIST OF ABBREVIATIONS AND ACRONYMS

APHRC	African Population and Health Research Center
DHS	Demographic Health Survey
FGD	Focus Group Discussions
FP	Family Planning
HIV	Human Immunodeficiency Virus
IUD	Intrauterine Device
KAIS	Kenya AIDS Indicator Survey
KDHS	Kenya Demographic Health Survey
KNBS	Kenya National Bureau of Statistics
MOH	Ministry of Health
NASCOP	National AIDS and STI Control Program
NPC	National Population Council
SDH	South Africa Department of Health
STD	Sexually Transmitted Diseases
TFR	Total Fertility Rate
UNFPA	United Nations Population Fund

ABSTRACT

Sub-Saharan African countries largely are characterized by high fertility and correspondingly high rates of population growth for the foreseeable future. In most countries, the majority of women want around five children and more than one-third of population growth is attributable to the effect of wanted fertility. Kenya fertility level has declined over the years to the current level of approximately five children per woman, which is still high. According to KAIS study by Kenya government in 2007, there is a large (52.4%) unmet need for contraception in the country. Fertility would decline only modestly if women had no undesired childbearing. This is if greater access to quality family planning services responds to unmet needs. A high proportion of pregnancy among women aged 15-24 years in Kenya is undesired. Therefore this study identifies the factors that influence realization of unmet contraceptive needs among women aged 15-24 attending postnatal clinic in selected health facilities in Nairobi. The study used a cross sectional descriptive design where 418 respondents attending postnatal clinic were interviewed. Systematic random sampling was used to select the respondents. Data was collected using structured interviews, focus group discussions and key informant interviews. The collected data was analyzed using SPSS software. Descriptive statistics was used to summarize and organize the data. Chi- square statistic was used to test for association between variables and level of significance. In addition, responses from open-ended questions, key informant interviews and FGDs was analyzed qualitatively according to emerging themes. The qualitative data was used to supplement, explain and interpret the quantitative data. Results from this study show high prevalence in use of family planning where 95.2% were using at least one method. There is low proportion use of FP method in the age group (15-19) whereas majority of women using FP method are married (63.8%). Occupation was found to be one of the important socio-economic status indicators that influence the contraceptive behavior of women. The study also found educational level as significant factors affecting the adoption of family planning. Findings show an association between wife-husband discussion on family planning use and use of family planning. There is also a strong association between partner's approval and use of family planning. In the study, religion was found to be a significant determinant of the use of contraceptive. Muslims and Hindus showed a significant lower use of contraception. From the study, respondents used short-term methods when they needed limiting and using long-term methods when they needed spacing. The study concludes that condom is the most commonly used method followed by oral pill, injectable and natural method. Education, age, marital status, occupation, income, religion, discussion with, and approval of partner were significant and influence family planning use. Contraceptive methods used did not match contraceptive needs. The study recommends for education at the point of service to enable choice of method based on need focusing on the lower age (15-19 years). There is also need to economically empower women to make them self sustaining. The study also recommends for men to be continuously involved in family planning education as their approval influences family planning. The information obtained from the study will be used by decision makers to develop policies and program planning that addresses the unmet need for contraception in Kenya.

CHAPTER ONE: INTRODUCTION

1.1 Background

Sub Saharan Africa countries by and large are characterized by high fertility and correspondingly high rates of population growth for the foreseeable future. Most countries in the region will grow by 100-300 percent by 2050 and in total the population of the region will double over the next 45 years. The main driver of high fertility (5 children per woman) in most countries is persistent demand for large numbers of children, as expressed by women responding to questions about desired child bearing. Fertility would decline only if women had no undesired childbearing, that is, if greater access to quality family planning services respond to unmet need (Levin, 2009).The provision of a wide range of contraceptive methods increases the opportunity for individual couples to obtain a method that suits their needs (Ministry of Public Health and Sanitation, 2008). A recent study of contraceptive method of choice in developing countries confirmed that prevalence is highest in countries where access to a wide range of methods is uniformly high (Ross *et al*., 2002).

Studies of contraceptive method of choice in countries of sub-Saharan Africa are few probably because of the generally low contraceptive prevalence. With an average of seven children born per woman, Uganda has the highest fertility rate in Africa. Kenya and Tanzania, who were at the same level as Uganda in 1960s have managed to reduce their fertility rate 5 and 5.7 respectively according to World Bank (Namubiru, 2009). According to KDHS 2008-9, Fertility rate in Kenya stands at 4.6 births per woman. In Kenya, adolescents are likely to use short term contraceptive methods such as pills and injectables. Adolescents aged 15-24 years constituted only 10% of injectable users in 1989, but this proportion more than doubled to 22% in 1998 (APHRC, 2001). The 2008-9 KDHS reveals that 16.3% of women in Kenya have an unmet need for family

planning, 8.4% for spacing and 7.8% for limiting. The current Kenya family planning strategy goal is to make available quality and sustainable family planning services to all who need them, in order to reduce the unmet need for family planning (Magadi and Curtis, 2003).

1.2 Statement of the Problem

The population of Kenya was 10.9 million in 1969 and increased to 15.3 million in 1979, 21.4 million in 1989, 28.7 million in 1999 and in 2009, it stood at 38.6 million. In 2009 the population in Nairobi was 3,138,369 (Kenya National Bureau of Statistics, 2010). According to KAIS, 2007 of all women aged 15-49 years who either did not want a child ever in the future or who wanted a child but not in the next two years, 45% were using modern contraceptive methods and 52.4 % were not using any contraception at all. These findings indicate a large unmet need for contraception (KAIS, 2007). There has been an increasing trend in fertility rate in Nairobi from 2.6 children per woman in the 1998 KDHS to 2.7 in the 2003 KDHS, and 2.8 in the 2008-09 KDHS. Adolescents with no education have the most dramatic increase from 30 to 55% over the period 1993 to 2003.The other surprising trend is that among those with at least secondary education, adolescence pregnancy increased from about 10% to up to 21% during the period (Askew *et al*.,2009). Low or non use of contraceptives leads to high population growth that ultimately results to problems such as food shortages, pressure on social facilities like hospitals, schools, unemployment and social problems like crime. Low and non use of contraceptives is also attributable to the high prevalence of abortion. Maternal and neonatal morbidity and mortality levels in Kenya have remained unacceptably high (Ministry of Public Health and Sanitation, 2009).

Each year, contraceptive use averts 188 million unintended pregnancies, which in turn results in 112 million fewer abortions, 1.2 million fewer newborn deaths and 230,000 fewer maternal

deaths. In the developing countries, 36 million abortions are performed each year of which an estimated 20 million are unsafe and 80,000 results in deaths that could have been prevented (Guttmacher Institute, 2010). In Kenya, the annual number of women with abortion complications admitted to public hospitals on average is 20,893 women. The case fatality rate was estimated to 0.87%, so an estimated 182 of these women die annually. In a sample of 809 patients with abortion complications in all hospital wards, 16% were adolescents (14-19 years old) (Gebreselassie *et al*., 2005).The above problems are a real threat to public health and this study therefore aims to establish the factors that influence realization of unmet contraception needs among women aged 15-24 seeking postnatal care services in Nairobi.

1.3 Justification

Family planning programs that offer a variety of safe, effective, acceptable and affordable contraceptive methods helps women to prevent unwanted pregnancies and sexually transmitted diseases (STDs) and also achieve their child bearing goals. Method mix is a key determinant of the fertility impact of contraceptive practice. The use of more effective methods even by a smaller proportion of eligible couples can produce a greater decline in fertility than can the use of less effective methods by a large proportion of couples (Magadi and Curtis, 2003). According to KDHS, 2008/9, One-quarter of currently married women in Kenya have an unmet need for family planning, which remains unchanged since 2003.The unmet and unsatisfied demand for contraception inevitably lead to a substantial proportion of unplanned births- 17 percent of births in Kenya are unwanted, while 26 percent are mistimed (wanted later). Currently, 46% of married women use a method of family planning and 39% use a modern method most often injectables and pills.

Unmarried, sexually active women (where majority are in age group 15-24 years) use injectables most frequently (16.8%) and condom use was only 18.2% (KDHS, 2008/9). The adverse health effects associated with high population growth especially in urban areas like Nairobi include malnutrition, which is mostly experienced in highly populated slum areas. Susceptibility to disease like malaria, respiratory infection such as TB and immunosuppression in HIV victims is aggravated by malnutrition. Other diseases are gastrointestinal diseases related to water pollution, poor sanitation and inappropriate health and hygiene practices. In 1967, Kenya launched a national family planning program Under this plan, family planning was integrated into the maternal and child health division of the Ministry of Health. In 1984, the Government ratified a set of population policy guidelines to assist in the implementation of the program. Reflecting the 1994 International Conference on Population and Development (ICPD), these guidelines were further revised in the population policy for sustainable development,issued in 2000 (United-Nations 1994; Jain 1998; CBS *et al*. 2004).

Despite these developments in population policy and programs, there is still evidence of unmet need for contraception. This study will therefore explore the factors that influence realization of this need. Kenya's demographic and contraceptive-use indicators have also varied in interesting patterns. Contraceptive prevalence rose from just 7% in 1977/78 to 39% in 1998, but then did not change in 2003 (CBS *et al*. 2004). In the 2008/9 Kenya Demographic and Health Survey (KDHS) there was a slight increase to 46%. In view of this inconsistent contraceptive-use pattern, this study will provide knowledge that will create better understanding on family planning methods and inform the family planning programs. In Nairobi cases of abortion are

high an indicator of unplanned pregnancy. Unplanned pregnancy leads to maternal death during procuring an abortion or child mortality where child spacing is too close (KDHS 2008/9).

The knowledge will therefore support and influence productive policy discussions and decision-making. This will lead to improvements in quality of health care, program planning and management that will enable the country to realize the desired impact of its family planning policies and programs concerning unwanted fertility.

1.4 Research questions

i. What is the prevalence of family planning use among women aged 15-24 Years Seeking Postnatal Care Services in Nairobi?

ii. What socio demographic, cultural and economic factors influence the family planning option among women aged 15-24 Years seeking postnatal care in Nairobi?

iii. What is the association between family planning option and family planning needs among women aged 15-24 Years seeking postnatal care services in Nairobi?

1.5 Study Hypothesis

i. Socio demographic, economic and cultural factors have no significant influence on family planning choice among women aged 15-24 seeking postnatal care in Nairobi

ii. There is no significant association between family planning choice and user's family planning needs among women aged 15-24 seeking postnatal in Nairobi

1.6 Broad objective

To establish determinants of family planning options among women aged 15-24 years seeking post natal care in Nairobi

1.6.1 Specific objectives

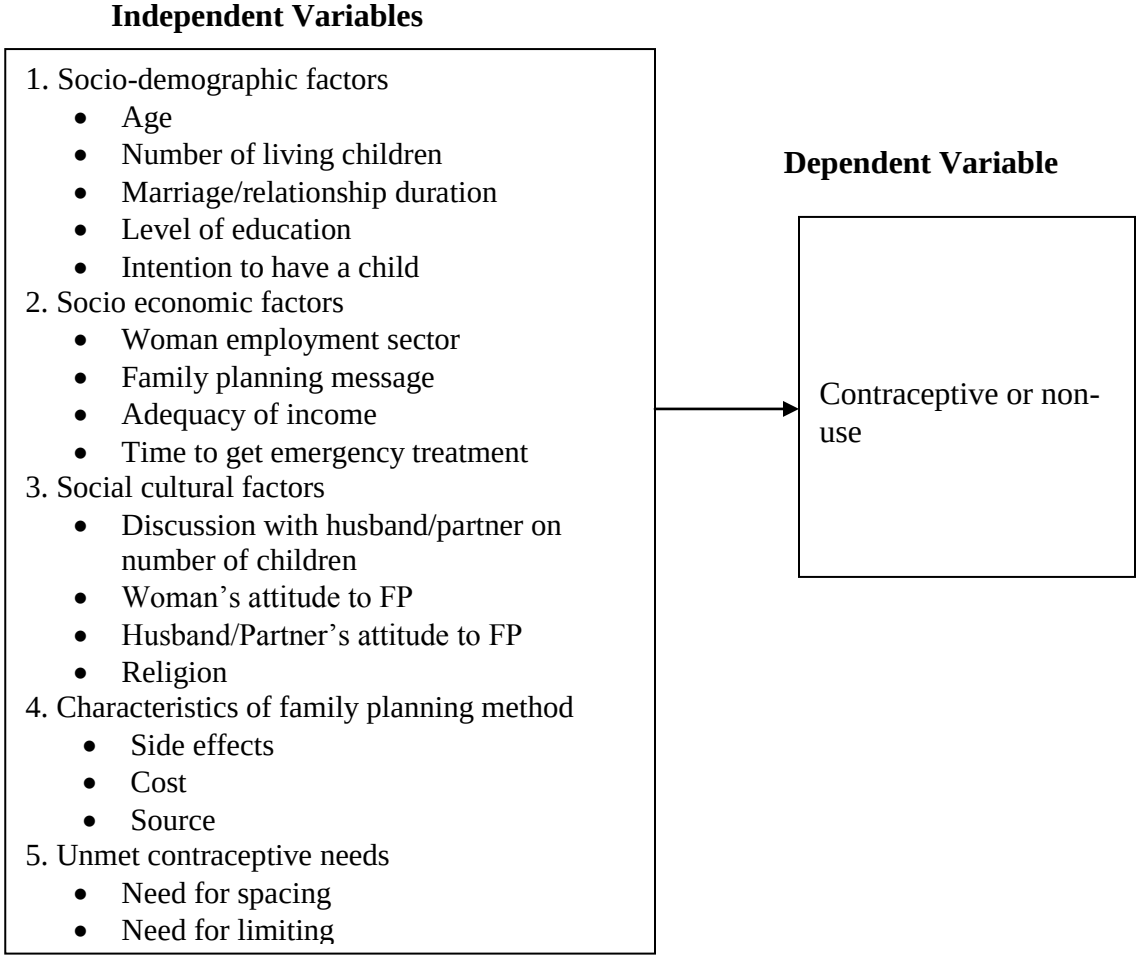
i. To determine the prevalence of family planning use among women aged 15-24 years seeking post natal care in Nairobi

ii. To determine socio demographic, cultural and economic factors that influence the family planning option among women aged 15-24 years seeking postnatal care in Nairobi.

iii. To determine association between the family planning options and family planning needs among women aged 15-24 seeking postnatal care services in Nairobi

1.7 Conceptual Frame Work

The following is a conceptual framework of the possible factors that influence family planning use among women aged 15-24 seeking postnatal care services in Nairobi.



Adapted from Altakhuyagiin *et al.* (2003)

CHAPTER TWO: LITERATURE REVIEW

2.1 Global overview of family planning use and options

In Latin America and the Caribbean, more than one half of pregnancies are unintended, even though about 65% of married women of reproductive age use modern contraceptives. Almost two-thirds of pregnancies in Caribbean (62%) and South America (63%) are unintended, as are 43% of pregnancies in Central America (including Mexico).Modern family planning services include counseling, provision of contraceptives and follow up (UNFPA, 2009).

Women in Mongolia married early and had their first child soon after marriage (Aassve & Gereltuya, 2002).Between 1963 and 1965; total fertility fluctuated between seven and eight children per woman. However, from 1975 onwards, there has been a continuous decline in total fertility; reaching 2.3 children per woman in 1998.This can be attributed to various population policies implemented in Mongolia over the period 1960 to 1998 (Altankhuyagiin *et al*.,2003). With the lifting of restriction on supply and distribution of contraceptives by Mongolian government, the uptake was rapid. Following the implementation of the UNFPA Maternal and Child Health project, the contraceptive prevalence rate among women of reproductive age increased from 25% in 1994 to 33.4% in 1998. In contrast, the proportion of traditional method users declined from 35.7% in 19194 to 10% in 1998.The use of some methods increased more than others ,with significant increases in the use of the pill, injection and female sterilization, although from a low base. Despite their absolute growth, in 1998 just 4% of women were using oral contraceptive, whilst injection and female sterilization accounted for 3% and 2.4 % respectively. The IUD and periodic abstinence in the overall contraceptive is 13% and more (Mongolian MoH & UNFPA, 2000; United Nations, 2001)

Substantial evidence is found in existing literature that broadening the choice of family planning methods increases overall family planning prevalence. The provision of a wide range of contraceptive methods increases the opportunity for individual couples to obtain a method that suits their needs. Contraceptive choice is also a central element of quality of care in the provision of family planning services and an important dimension of women's reproductive rights. To increase prevalence of use, family planning programs should offer a variety of safe, effective, acceptable and affordable contraceptive methods to help women prevent unwanted pregnancies and sexually transmitted diseases (STDs) and to help them achieve their childbearing goals (Magadi and Curtis, 2003).

Young people have a real need for reproductive health and family planning information and services. The age at which young people have their first sexual experience is falling, while the number of unmarried sexually active young people is growing significantly (National Research Council, 2006). Although many adolescent claim to know about contraception and safe sex, their actual knowledge is often quite poor (Bankole *et al*., 2007). Many young people believe that you can't get pregnant the first time you have sex, for example, or that you can't get pregnant if you have sex standing up (Boonstra, 2007). As a result of incomplete knowledge about family planning, adolescents are vulnerable to sexually transmitted infections and unwanted pregnancy. A conservative estimate of the total number of abortions among adolescents in developing countries ranges from 2.2 to 4 million annually. Research shows that unmet need for contraceptive among sexually active adolescents, those who express a desire to prevent pregnancy but aren't using any contraception, is high in many regions (Djamba, 2004).

Many societies disapprove of premarital sex and consider reproductive health care for young people in appropriate. As a result parents, educators and health care providers often are unwilling

to give young people the information and services they need. Laws and policies restrict adolescent's access to services, for example by limiting family planning services to married adolescents (PATH & UNFPA, 2006) or by including conditions such as parental or spousal approval. In addition to ignorance about sexual and reproductive health and harmful sexual behaviours that carry on into adulthood, negative attitudes to young people's sexuality lead to stigma against young people who use or ask for contraceptive, reinforcement of local cultural and faith based restriction on access to services, service provider's reluctance to provide contraceptives to young people, difficulties for young people in insisting on condom use with their partners and in accessing contraceptives, unwanted pregnancies among adolescents and young people and increased rates of sexually transmitted infections, including HIV.

2.2 Family planning use and options in Sub-Saharan Africa

Sub-Saharan Africa has the highest fertility rates of any world region, 5.4 births per woman on average-double that of Asia (excluding China) and more than three times that of Europe. One of the factors underlying high maternal mortality rate is the low use of modern contraception. Only 18% of married women in Sub-Saharan Africa use modern methods of family planning. An estimated 35 million women in Sub-Saharan Africa have unmet need for family planning. They want to delay or stop childbearing but are not using any method (Smith *et al*., 2009).

The relatively high birth rate in Nigeria which has been accompanied by stead declines in death rates has resulted in high rates of population growth. Nigeria's annual rate of population growth of about 2.87 % has been a major concern for population experts and policy makers for some time. With an estimated doubling period of less than 25 years at the current rate of population growth, the current level of consumption can only be maintained if production of goods and

services will also double in less than 25 years. Unfortunately, this is almost impossible to achieve as all available literature indicates that the rate of growth of the economy has been lower than the rate of growth of the population. Standards of living tend to worsen when the rate of population growth exceeds the rate of economic growth. Within the last four decades, there have been increased pressure towards family limitation in Nigeria (Oyedokun, 2004). These are the results of the rapid growth of the large towns, the very great extension of educational facilities, and among the elite, the far greater difficulty of securing top jobs that have come with independence. In response to this situation, a national policy on population for development, unity, progress and self-reliance was formulated in 1998 and revised in 2004. The major goal of the policy is a reduction in fertility through increased adoption of contraception (Federal Government of Nigeria, 2004).

South Africa's demographic transition is considerably more advanced than those of other Sub-Saharan African nations; its total fertility rate (TFR) has declined from approximately 6.0 births per woman in 1980 to 2.2 in 2007 (SDH, 2002, US Bureau of Census, 2008).Over the same period, contraceptive use among the four major population groups (black, white, colored and Asians) has increased (Swartz, 2002; Burgard, 2004).Yet the overall modern contraceptives prevalence of 61% (urban 66%,rural 53%) masks wide racial disparities and injectables represent 30% of all use. Contraceptive method of choice is a fundamental indicator of quality of care in a family planning program. The more contraceptive methods that are available, the more likely it is that a programm can meet the range of contraceptive needs of a diverse client population.

2.3 Family planning use and options in Kenya

In Kenya the trend of family planning use among married women in the reproductive age between 15-24 years has gradually been increasing from 7% in 1978 to 46% in 2008.This has resulted to decline in fertility rate over the years from 8.1 births per woman in 1977/8 to 4.7 in 1998, 4.9 in 2003 and 4.6 in 2008 (KDHS, 2008/2009). However, this fertility rate (approximately five children per woman) is still high in a developing country. The contraceptive methods available in Kenya include male or female sterilization, oral pills, intrauterine device, injections, implant, male and female condom. The traditional methods include withdrawal and rhythm/natural method (NASCOP, 2007). The IUD has virtually disappeared from the national mix of modern family planning methods in Kenya over the past 15 years, despite its proven safety, effectiveness, acceptability and low cost. While the percentage of women using any modern contraceptive has more than tripled since 1984, the proportion of contraceptive users choosing the IUD decreased from 31% to 15% between 1984 and 2008-9. Despite the increased use of contraceptive methods, as more Kenyans enter reproductive age, unmet need continues to grow. Limited donor resources and a skewed method mix toward short-term (and more costly) methods compound this unmet need (FHI, 2004).Modern contraceptive use increases dramatically with woman's education. More than half of married women with at least some secondary education use modern methods, compared with only 8% of women with no education (KDHS, 2003).

Contraceptive use has increased only slightly since 1998 form 39% to 41% of married women(excluding the northern districts for comparability).this is a dramatic slowing of an upward trend that begin in the 1980s.

2.4 Factors contributing to unmet family planning need

Unmet family planning need refers to Women who are not practicing contraception, but do not want any more births (limiting) or want to postpone the next birth at least two years (spacing) (Bayer, 2002). In East Africa young women have an unmet need for family planning and, without access to modern contraception; they face the risk of an unintended pregnancy. In Tanzania, 22 %of young married women ages 15-24 have an unmet need, as do 40 % of sexually active, unmarried women in this age group. In Rwanda 35% of young married and 55% of sexually active, unmarried women report an unmet need. Data are not available on young women in Uganda (Khan and Mishra, 2008). According to APHRC, 2001 the proportion of married and sexually active non-users aged 15-24 is increasing and their reproductive health needs are different from those of older married women who have been the traditional focus of family planning activities in Kenya. Understanding the factors that contribute to unmet family planning need is critical to the efforts of programmes to meet the demand for contraception.

Much unmet need for family planning persists, even in settings where knowledge of family planning methods is high.

2.4.1 Household wealth

In Tanzania, household wealth is related to unmet need: 23% of young poor women report having an unmet need, while 16% of young wealthy women do. However, household has little effect in Rwanda; 33% of both poor and wealthy young women indicate that they have an unmet need for family planning. Women with unmet need also have low status and weak bargaining power within the household.

2.4.2 Misconceptions and concern about health related risks

Studies suggest that many potential users choose not to use more reliable methods due to misperceptions and concern about health-related risks. For example a study in Maldives found that knowledge of family planning was universal, but only 30% of couples were using a contraceptive. Several studies, including one from Malaysia, found that non-use of contraceptive was linked to fears about side effects (Oyedokun, 2004).

2.4.3 Female education

Female education has been seen as a key determinant of contraceptive use (NPC and ORC Macro 2004).Better-educated women are argued to be more willing to engage in innovative behavior than are less educated women and in many Third World context, the use of contraception remains innovative (Oyedokun,2007).Better educated women are also argued to have more knowledge of contraceptive methods or of how to acquire them than are less educated women because of their literacy, greater familiarity with modern institutions and greater likelihood of rejecting a fatalistic attitude towards life. Koc (2000) finds a positive association between the educational level of both spouses and the use of contraceptive methods in Turkey.

2.4.4 Gender of couple's living children

The study by Koc, 2000, also shows that, to a greater extent, contraceptive use and choice of modern method depend on the sex of couple's living children, implying some preference for sons although generally women prefer to have children of both sexes. In another study by Chacko (2001), among married women, in four villages in rural West Bengal, India, it was found that the number of living sons a woman has influence her contraceptive use.

2.4.5 Spousal communication on family planning

Female autonomy and seclusion, equality between spouses linked with spousal communication, influence contraceptive use (Narzary, 2001). Shrestha (2000) found in a study in Nepal that spousal communication on family planning was a significant predictor of contraceptive use in the study area. Sometimes women think that their husbands oppose contraceptive use when infact they approve. Thus lack of communication about family planning between partners also contribute to unmet needs.

2.4.6 Religious Affiliation

In a U.S. study, elevated levels of religious affliation, was associated with increased uptake of contraceptives (Stephenson *et al*., 2002).

2.4.7 Man's attitude

A study in South Western Nigeria reveals about 63% of men compared to just 35% of women would approve the use of family planning (Oyedokun, 2007).the study also found that men's . Husband's opposition emerges as a prominent reason for unmet need although women themselves do not cite it as their principal reason for not intending to use contraceptives.

2.4.8 Source of Contraceptives

In a comparison of 15 countries, Blanc *et al*. (2002) showed that within a year of starting a method, 7-27 of women ceased to practice contraception for reasons related to quality of the service environment. The provision of a range of contraceptive methods at family planning services has also been shown to influence contraceptive option. In a U.S. study, rapid population growth, high rates of unemployment, elevated levels of religious affiliation, higher socioeconomic status and ready access to family planning services were all associated with

increased uptake of contraceptives. Similarly, a study in Philippines found that the presence of family planning services and community labor-market conditions and infrastructure development were strong influences on contraceptive use. Other studies have examined other community characteristics including the influence of levels of community economic development, levels of school participation, economic roles of children and community fertility norms on contraceptive (Chacko, 2001; Stephenson *et al*., 2002). The study by Chacko, 2001 also shows that the availability and quality of permanent village-based government health care affects the use of modern contraception. In a study in Guatemala, it was reported that after controlling for sociodemographic factors, access to services was found to be a significant correlate of contraceptive use among Mayans (Bertrand *et al*., 2000).

There are currently over one billion people between the ages of 15 and 24, by far the largest childbearing cohort in history (Bayer, 2002). Sexual activity among youth places them at risk of unintended pregnancy and STIs, including HIV/AIDS. Meeting the reproductive health needs of this underserved population is therefore an essential matter for global and domestic discussion since addressing the unmet contraceptive needs will dramatically impact on their health and on future world population. This study therefore will provide a proper understanding of factors influencing realization of contraceptive needs of this age group.

2.4.9 Factors influencing the family planning option

Individual contraceptive use is influenced by factors at the individual, household, and community level, but the geographic distribution of contraceptive use is often associated with contextual variables, particularly at the community level (Stephenson *et al*., 2007). These contextual variables typically include social, economic, and cultural influences at the community

level (Burgard, 2004). Increased use of contraception is linked to rapid population growth rates, high levels of unemployment, religious affiliation, higher socioeconomic status and greater availability of contraceptive services (Grady, 1993). A study in the Philippines found that provision of family planning outreach services and the average community wage for women were significant community-level predictors of the use of contraceptive services (DeGraff, 1997). Research in South Africa has also shown significant relationships between the wealth status, level of female autonomy, level of female education of communities, and the choice of contraceptive method. (Stephenson *et al*., 2008). Other studies have examined the relationship between spatial patterns of use of contraceptive methods and the influence of community-level factors. In Bangladesh and India, districts located on the border and which share a common language were positive outliers for contraceptive use (Amin *et al.*, 2002).

CHAPTER THREE: METHODOLOGY

3.1 Study design

A cross-sectional descriptive study design was used. The design helped in collection of information that is objective and relevant to allow empirical testing of the hypothesis. Both qualitative and quantitative data were collected.

3.2 Study variables

3.2.1 Independent variables

Independent variables included intention to have a child, age, number of living children marriage/relationship duration, discussion with husband/partner on number of children, woman's highest level of education, woman/wife's attitude to FP, Man/husband's attitude to family planning, woman's employment sector, religious affiliation, family planning message, adequacy of income and time to get emergency treatment.

3.2.2 Dependent variables

Dependent variable was use of family planning or non-use

3.3 Study area

The study was conducted in Nairobi County. Nairobi lies between latitude 1^0 .17' South and 36^0 49' East. The county covers an area of about 6966.1 km^2. Nairobi has the highest urban population in East Africa with about 3,138,369 people according to 2009 census. Contraceptive use was 55% in Nairobi (KDHS, 2008/9). Overall, 17% of births are unwanted and 26% mistimed or wanted later. In Nairobi cases of abortion are high an indicator of unplanned pregnancy KDHS 2008/9. Unplanned pregnancy leads to maternal death during procuring an abortion or child mortality where child spacing is too close that is below 36 months which is safest and healthiest for both mother and the child (UNFPA, 2009).

3.4 Study population

Women aged 15-24 years seeking postnatal care in selected health facilities in Nairobi

3.4.1 Inclusion Criteria

Women between 15- 24 years of age, without postpartum amenorrhea, seeking postnatal care in health facilities in Nairobi, two months or more after delivery

3.4.2 Exclusion Criteria

Women below 15 years and above 24 years of age and those who did not give consent

Women with postpartum amenorrhea

3.5 Sampling procedure

The health facilities where the study was conducted were picked using simple random sampling method from a list of health facilities that provide postnatal services in Nairobi province. The sampling frame for participants constituted women aged 15-24 attending postnatal clinic in selected health facilities in Nairobi. Participants were selected using systematic random sampling. The study population (N) was estimated at 1000 postnatal clients in selected clinics while the sample population (n) was 384 respondents. The sampling interval therefore, was $1000/384 = 2.604 \approx 3$ that is every third client attending the clinic who met the inclusion criteria was selected as a participant. Focused group discussion participant were conveniently selected from study population. They consisted of postnatal women who met the inclusion criterion and had not been interviewed.

3.6 Sample size determination

Sample was determined using formular by Kothari (2003)

$n=Z^2 qp/e^2$

Where n= desired sample size

Z= standard deviate at 95 % level of confidence

p= proportion of sexually active women currently using any family planning method (KDHS 2008-9 = 51.3%)

q=1-p

e= acceptable error margin

Therefore, the minimum sample size was calculated as follows

$$n=\frac{1.96^2 \times 0.49 \times 0.51}{(0.05)^2}$$

= 384

This sample size was adjusted for spoilt and incomplete questionnaires and therefore the final sample size used was 418.

3.7 Data collection methods

Both primary and secondary data were collected. Primary data was collected using interviews. Face to face interviews was conducted by interviewers who were research assistants. Key informant interviews and focus group discussions were conducted by the principal researcher. Secondary data was collected through reviewing the published literature.

3.8 Data collection tools

Both qualitative and quantitative data was collected. Quantitative data was collected using structured questionnaire that was administered by interviewers .Focus group discussion guide

was used to conduct FGDs. Key informant interview guide was used to conduct key informant interviews.

3.9 Data quality control

To ensure data quality, the data collection tools were pre-tested to ensure reliability and validity. Research assistants were trained before taking part in the research and they were also appropriately supervised while in the field to ensure professionalism when collecting the data. There was continuous scrutinizing of the data collected to ensure accuracy, consistency and uniformity of the data.

3.10 Data analysis

The collected data was be coded, entered into the computer, cleaned and analyzed using the Statistical Package for the Social Sciences (SPSS) software, version 21. Descriptive statistics was used to summarize and organize the data. Analysis of contingency tables was done to establish relationship between variables and Chi square statistic used to test for association between variables and level of significance. In addition data from open ended questions, focus group discussion and key informant interviews was analyzed qualitatively according to emerging themes. Qualitative data was used to supplement, explain and interpret quantitative data.

3.11 Ethical Considerations

Permission to carry out the study was sought from Kenyatta University and the Ministry of Higher Education Science and Technology. Informed consent was sought from all the study participants. Confidentiality, anonymity and privacy were fully guaranteed throughout the study.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1 Study population

Four hundred and eighteen (418) respondents were interviewed where women in age category 20-24 years were 320 (76.6%) and the rest 98(23.4%) were 15-19 years. Majority of the respondent 82.5% had attained secondary education and below while, 17.5% of the respondents had attained beyond secondary school level of education. A higher proportion of the respondents were married 261(62.4%), not married had a representation of 138(33%), while divorced and separated were 19(4.5%). Respondents with a single child were 66.3% while those with two constituted of 31.6%. Only 2.2% had three children. Table 4.1 summarizes the above findings.

Table 4. 1: Socio-demographic, characteristics of the study population

Characteristic	Category	Frequency (N=418)	Percentage
Age	15 - 19years	98	23.4
	20 - 24years	320	76.6
Level of education	Below Secondary	345	82.5
	Above Secondary	73	17.5
Marital Status	Married	261	62.3
	Not Married	138	33
	Separated/divorced	19	4.5
Number of children	1 child	277	66.3
	2 Children	132	31.5
	3 Children	9	2.2

The respondents who were employed in the private or public sector were 41.4% while 32.8% were self-employed. Majority of the respondents felt that their income was not enough with a representation of 84.2%, those who were comfortable with their income had a representation of 15.8%. the proportion of respondents who get family planning information from the media was 30.6% while those who do not get was 69.4% (Table 4.2)

Table 4. 2 Socio-economic characteristics of the study population

Characteristic	Category	Frequency (N=418)	Percentage
Employment status	Unemployed	108	25.8
	Self employed	137	32.8
	Employed in private/public sector	173	41.4
Adequate Income	Not enough	352	84.2
	Enough	66	15.8
Gets FP information on media	No	290	69.4
	Yes	128	30.6

Respondents who had desire but would prefer to wait for more than two years from then had a representation of 47.1%, those who had no desire completely had a representation of 36.1%. While those who desired to have a child soon were of 12.9%.

Table 4. 3 Socio- cultural characteristics of the study population

Characteristic	Category	Frequency (N=418)	Percentage
Want to have another child	Do not want	151	36.1
	Want soon	54	12.9
	Want, but wait for more than 2 years from now	197	47.1
	Undecided	16	3.8
Discussion with partner on the number of children	Never discussed	141	33.7
	Ever discussed	277	66.3
Recommendation on FP use	Yes	180	43.1
	No	238	56.9
Husband/partner approval on FP use	No	162	38.8
	Yes	256	61.2
Religious affiliation	Catholic	136	32.5
	Protestant	241	57.7
	Muslim	30	7.2
	Hindu	11	2.6
Influence of religion on use of FP	No	309	73.9
	Yes	109	26.1

Those who ever discussed family planning with their partners were 66.3% while 33.7% reported never discussed. The husbands/partners who approve the use of family planning were 38.8% while 61.2% did not approve. The respondents consisted of Catholics (32.5 %), Protestants (57.7%), Muslims (7.2%) and Hindu (2.6%). majority of the respondent reported their religion does not influence their use or non use of contraceptives with a representation of 73.9%.

4.2.0 Prevalence of family planning use among respondents

Out of 418 respondents, 20 (4.8%) were not using any family planning, while the rest 398 (95.2%) were using at least one method of family planning.

Modern methods are more popular to women than traditional methods; 86.4 percent of women use at least one modern method, and only 8.9 percent know a traditional method as shown on table 4.4

Table 4. 4 Types of family planning methods used

Method	**Frequency (N=418)**	**Percentage**
Traditional (Natural/rhythm, withdrawal)	37	8.9
Modern (IUD, inplant, injectable, condom-both male and female, tubal ligation, oral pill)	361	86.4
No method	20	4.7

These results show that, condom is the most popular family planning method among women aged 15-24 years seeking postnatal care services in Nairobi. Among the respondents, the most widely used methods of contraception is the condoms-both male and female (38%) followed by the pill (26.3%) and injectables (15.1%). The least used method is tubal ligation (1.7%).

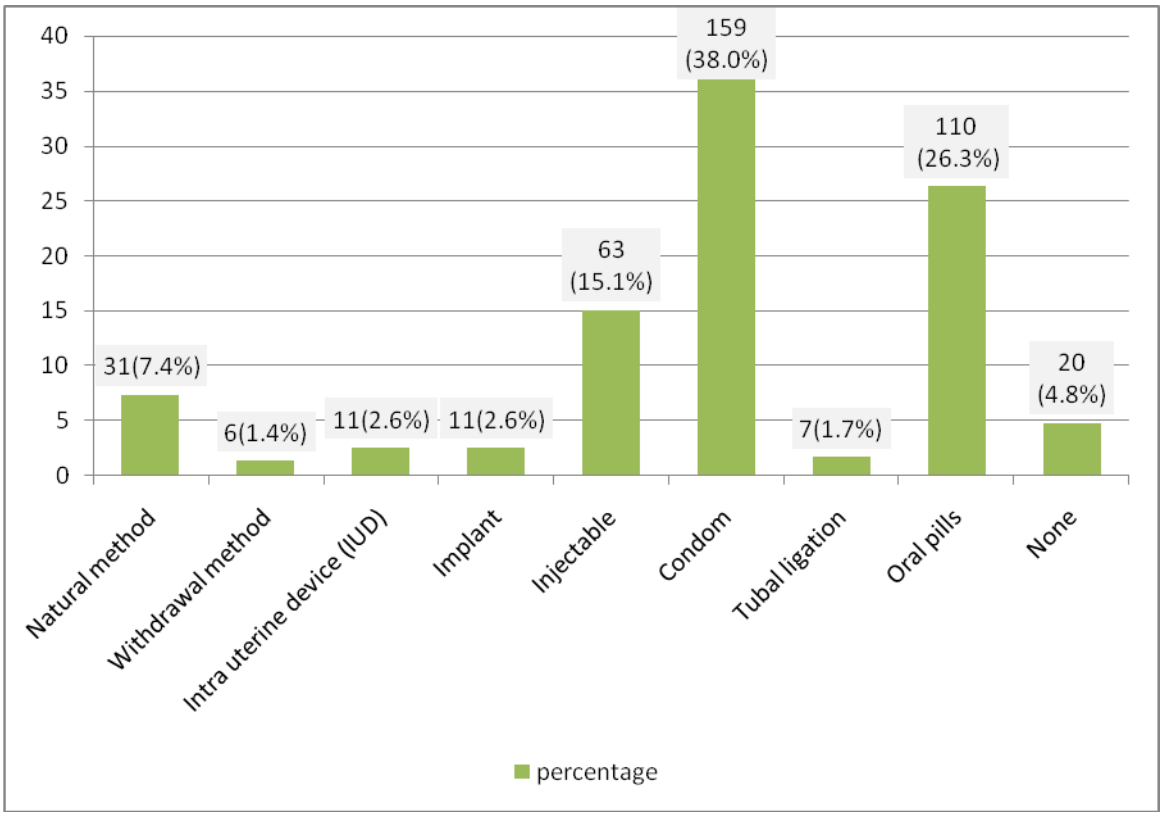


Figure 4. 1: Family planning methods used by the respondents

4.3.0 Socio-demographic, economic and cultural characteristics that influence the use of family planning among respondents

In this section, the overall results given above from this study are further analyzed to elicit possible relationship that will contribute to making inferences. This section shows the relationship between the socio-demographic, economic and cultural characteristics of the respondents and the use of family planning.

4.3.1 Socio-demographic characteristics that affect the use of family planning among respondents

The association between socio-demographic characteristics and use of family planning is analyzed using chi square.

4.3.1.1Age of the respondent and use of family planning

The women in age group 20-24 years seek postnatal care services more, 320(76.6%) than those in age category 15-19 years, 98(23.4%). The use of a particular family planning options vary with age group. use of oral pill increase from 23.9% in age group 15-19 years to 27.2% in age group 20-24 years, injectable increase significantly from 6.1% in 15-19years to 17.8% in 20-24 years, condom increased from 35.7% (15-19 years) to 38.8% (20-24 years). However for the other method (implant, tubal ligation, withdrawal method and injection) use of FP it decreased from 18.4% in 15-19 years to 11.6% in 20-24 years (Table 4.5). The chi square test results indicated an association between age of the respondents and the contraceptive of choice (χ^2 ==23.72: df =4, p=0.001).

4.3.1.2 Level of Education of the women and use of family planning

Majority of women aged 15-24 years seeking postnatal care and using FP methods (82.5%) have education level of secondary and below. For the women with education level of secondary school and below, the most preferred family planning method is condom while the least popular the natural method (5.8%). On the other hand, other methods (27.4%) was the most popular while the natural method and the pill were the least preferred (15.1%) as shown on table 4.5. There was a significant association between the level of education and FP methods (χ^2 =34.73, df =4, p=0.001).

4.3.1.3 Number of children and use of family planning

The percentage of use of family planning method varied with the number of children of the respondent. Condom remained the most popular method for respondents with one child (39.4%) as well as for those with 2 or more children (35.5%). The natural method was the least used by

respondents with one child (6.9%) and was also the least popular method for those with two or more children (8.5%) compared to other methods (Table 4.5). This study found no significant association between the number of living children and contraceptive use (χ^2 =7.37, df =4, p=0.12).

Table 4. 5 Association between demographic characteristics and family planning

Characteristics	Category	Family planning option					**Statistical Test Significant at p< 0.05**
		Natural method n (%)	Others n (%)	Injectable n (%)	Condom n (%)	Oral pills n (%)	
Age group	15 - 19years	16(16.3)	18(18.4)	6(6.1)	35(35.7)	23(23.9)	=23.72: df =4, p=0.001
	20 - 24years	15(4.7)	37(11.6)	57(17.8)	124(38.8)	87(27.2)	
Level of education	Secondary and below	20(5.8)	35(10.1)	47(13.6)	144(41.7)	99(28.7)	=34.73: df =4, p=0.001
	Above secondary	11(15.1)	20(27.4)	16(21.9)	15(20.5)	11(15.1)	
Number of children	1 child	19(6.9)	39(14.1)	33(11.9)	109(39.4)	77(27.8)	=7.37: df =4, p=0.12
	2 or more Children	12(8.5)	16(11.3)	30(21.3)	50(35.5)	33(23.4)	
Marital status	Married	12(4.6)	19(7.3)	47(18)	107(41)	76(29.1)	=33.34, df =4, p=0.001
	Not married	19(12.1)	36(22.9)	16(10.2)	52(33.1)	34(21.7)	
Duration in marriage/relationship	0 - 4 years	24(6.8)	44(12.5)	55(15.6)	139(39.5)	90(25.6)	=3.97: df =4, p=0.4
	5 years and above	7(10.6)	11(16.7)	8(12.1)	20(30.3)	20(30.3)	

4.3.1.4 Marital status, duration in marriage/relationship and FP method used

There were two categories of marital status; not married (single, separated, divorced) 37.6% and married 62.4% (Table 4.5). The most commonly used method of FP among both marital statuses is condom. The natural method was the least popular for the married with a proportion of 4.6% while the injectable was the least used among the not married. Among the never married group, the use of other methods had a higher proportion than other FP 31.8%. There was a statistical

significant association between the marital status and FP method (χ^2=33.34, df =4, p=0.001).

The percentage use of FP varied with duration in marriage/ relationship of the respondent. The condom is the most popular method (39.5%) for those with 0-4 years in marriage while condom and oral pill are most widely used (30.3%) by respondents with 5 years and above in relationship. However there was no significant association between Marriage duration and the FP method (χ^2=3.95, df =4, p=0.4).

4.3.2 Socio-economic characteristics that affect the use of family planning among respondents

Association between socio-economic characteristics and use of family planning is analyzed using chi square as shown on table 4.6.

Table 4. 6: Association between socio-economic characteristics of the respondents and use of family planning

Characteristics	Category	Family planning option					**Statistical Test Significant at p< 0.05**
		Natural method n (%)	Others n (%)	Injectable n (%)	Condom n (%)	Oral pills n (%)	
Occupation	Unemployed	14(13)	27(25)	5(4.6)	39(36.1)	23(21.3)	=34.93: df =8 p=0.001
	Self employed	9(6.6)	13(9.5)	24(17.5)	50(36.5)	41(29.9)	
	Employed in private/public sector	8(4.6)	15(8.7)	34(19.7)	70(40.5)	46(26.6)	
Income adequate to meet your basic needs	Not enough	26(7.4)	41(11.6)	50(14.2)	138(39.2)	97(27.6)	=7.08: df =4, p=0.13
	Enough	5(7.6)	14(21.2)	13(19.7)	21(31.8)	13(19.7)	
Get family planning on media	No	24(8.3)	31(10.7)	42(14.5)	114(39.3)	79(27.2)	=6.26: df =4, p=0.18
	Yes	7(5.5)	24(18.8)	21(16.4)	45(35.2)	31(24.2)	

4.3.2.1 Occupation and income

The occupation of the respondents was categorized into three major divisions. Out of the 418, 41.4%were employed in the public/private sector, 32.8% were self employed and 25.8% were unemployed. In all the three occupations, condom method was the most up taken FP method 159/418(38%) whereas, the natural method was the least FP methods 31/418(7.4%) among this study group. Condom was the most widely used method for the unemployed, self employed and employed (public and private sector) at 36.1%, 36.5% and 40.5% respectively compared to all other methods. Among the unemployed group, the least FP method was injectable (4.6%), while the natural method was the least popular among the self employed (6.6%) and those employed in the public and private sector (4.6%). There was statistical significance association between occupation and FP methods; (χ^2=34.93, df =8, p=0.001).

Of the 418 respondents, 84.2% felt their income was not enough while 15.8% had enough income. Condom was also the most preferred method for respondents with enough income (31.8%) and for those whose income was not enough (39.2%). The natural method was the least used form of FP for both respondents without enough income (7.4%) and for those with enough income (7.6%). There was no statistical significance association between income and FP methods; (χ^2=7.08, df =4, p=0.13)

4.3.2.2 Source of Information

A higher proportion of respondents 290(69.4%) did not get information on family planning through media while 128(30.6%) did. Among those who did not get information from media, a higher proportion were using condom, 119(39.3%), followed by oral pills 79(27.2%) and the least was the natural method 24(8.3%). on the other hand, among those who received

information from media, there was no much difference in proportion with the other group that received information. Condom was the most used (35.2%) while the natural method was the least used (5.5%). There was no statistical significance association between the source of information and the Family planning option; (χ^2 = 6.25, df =3, p=0.18)

4.3.3 Socio-cultural characteristics that influence the use of family planning among respondents

Association between socio-cultural characteristics and use of family planning is analyzed using chi square as shown on table 4.7.

4.3.3.1 Influence of religious affiliation on family planning option

The respondents belonging to the Catholic faith were 32.5% while 57.7% were protestant, and 9.8% were Muslims and Hindus. The majority of the respondents were affiliated to protestant churches. Majority of the respondent reported their religion does not influence their use or non use of contraceptives with a representation of 73.9%, However, the use and non use of the contraceptives is influenced by religion with a representation of 26.1%. women affiliated to catholic and protestant had even distribution in all the FP methods however among the Muslim and Hindus injectable and pills had minimal users (Table 4.7).there was a significance association between the FP method and religion, (χ^2=31.7, df =4 and p=0.001).

4.3.3.2 Discussion with the partner on family size and family planning option

The use of condom increased from 32.6% for those who have never discussed with their husband/partner of to 40.8% for those who have ever discussed. Use of oral pills increased from 24.1% for those who have never discussed with their husband/partner of to 27.4% for those who have ever discussed. Use of injectable was 8.5% for those who have never discussed with their

husband/partner and 12.2% for those who have ever discussed. Discussion with partner on family planning is found to be a significant factor affecting its uptake among women aged 15-24 years; (χ^2= 29.3, df =4, p = 0.001).

4.3.3.3 Husband/partner approval to family planning option and use of family planning

Among the women interviewed, 57.2% of their partners approved use of family planning and 42.8% did not approve. The oral pill was the most used method (48%) among those whose partners did not approve FP use, whereas condom was used by majority (59.4%) of respondents whose partners approved use of family planning. Partners approval to family planning option is statistically significant to the family planning option (χ2= 143.54, df =4, p = 0.001).

Table 4. 7: Association between socio-cultural characteristics of the respondents and use of family planning (N=418)

Characteristics	**Category**	**Family planning option**					**Statistical Test Significant at p< 0.05**
		Natural method n (%)	Others n (%)	Injectable n (%)	Condom n (%)	Oral pills n (%)	
Religious affiliation	Catholic	15(11)	10(7.4)	22(16.2)	60(44.1)	29(21.3)	=29.14: df =8 p=0.001
	Protestant	12(5)	31(12.9)	37(15.4)	90(37.3)	71(29.5)	
	Muslim and Hindu	4(9.8)	14(34.1)	4(9.8)	9(22)	10(24.4)	
Discuss with your husband/partner on number of children to have	Never discussed	19(13.5)	30(21.3)	12(8.5)	46(32.6)	34(24.1)	=29.3: df =4 p=0.001
	Ever discussed	12(4.3)	25(9)	51(18.4)	113(40.8)	76(27.4)	
Does your husband/partner approve FP use	No	13(7.3)	19(10.6)	44(24.6)	17(9.5)	86(48)	=143.54: df =4 p=0.001
	Yes	18(7.5)	36(15.1)	19(7.9)	142(59.4)	24(10)	

4.4.0 Family planning option and family planning need

According to figure 4.2, the use of FP varied with the desire of respondent to have another child. The use of condom was 37.1% for those who did not desire to have another child, 27.1% for those who desired to have another child soon and 42.6% to those who desired to have another child but after two years. A proportion of 22.9% of respondents who wanted to have a child soon were using oral pill at the time of interview while 12.9% were using injectables. Use of natural method was least for those who did not want another child (7.3%) as well as among those who wanted to have another child after 2 years (4.6%)

Use of oral pills was 20.5% for those who did not desire to have another child, 22.9% for respondents who desired to have another child soon and 32% for those who desired to have another child but after two years. The use of injectables decreased from 19.2% for those who did not desire to have another child to 12.9% to those who desired to have another child soon and decrease to 12.7% to those who desired to have another child but after two years (Figure 4.2). The findings show that the contraceptive use rate decreases with the increase in desire of additional children.

This study shows there is an association between the desire to have a child and use of family planning;(χ^2 =27.59, df =8, $p \leq 0.001$). Family planning need is therefore a major determinant of FP method use among women aged 15-24 years. Despite of the association, there were challenges cited by the key informants that hinder the provision of family planning services to meet these needs.

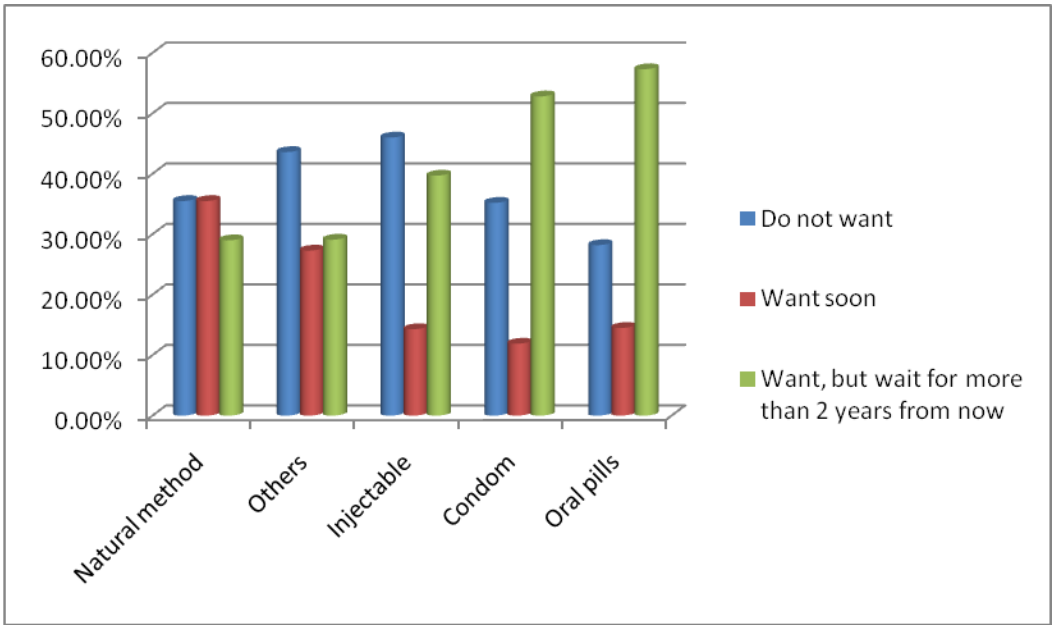


Figure 4. 2: Distribution of use FP method by the respondent and the desire to have another child

The main one that was cited by a higher proportion was limited supply of some contraceptives (21.43%). One key informant said, *"… despite of a higher turnout of the mothers for the FP, sometimes lack of supply of some FP methods hinders our delivery in that you end up leaving your clients unsatisfied …"* This challenge was followed by some contraceptives having side effects, failure of the clients to use the FP as recommended and some mothers had low knowledge of the available FP; each having 14.3%. One key informant said, "… *clients are advised well and given the contraceptives that suit their needs but some clients do not take the FP as recommended…"* and another one said *"…some clients skip the dates and return dates to the clinic, leaving us unaware whether the FP met her needs."* (Figure 4.3)

lastly, some clients will seek the FP services over the counter in some chemist outlets and only goes to FP center when having health complications (7.14%) (Figure 4.3).

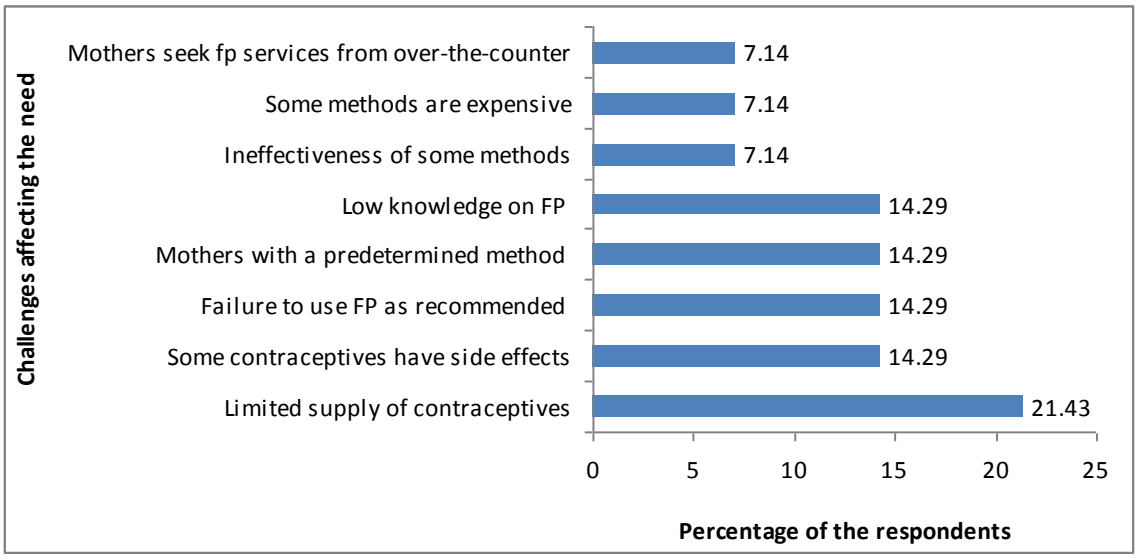


Figure 4. 3: Challenges that hinder meeting the desired FP need of the mothers

4.5 Multivariate Analysis

All those factors that were significant at bivariate level were subjected to Linear logistic regression analysis. The factors that were significant at bivariate analysis included Age, level of education, Religion affiliation, occupation, marital status, discussion with the partner, Approval from the partner to use a given FP and the desire to have another child.The factors that were significant at multivariate were: (a) Age, (b) level of education, (c) occupation, (d) discussion with the partner, (e) Approval from the partner to use a given FP and the desire to have another child.

Linear logistic regression model of multivariate analysis was used to determine the factors that influence contraceptive use among women seeking postnatal care services. The factors that were significant at multivariate were: (a) The age of women, (b) Level of education, (c) Employment status, (d) discuss with your husband/partner on number of children to have and (e) Want to have another child (Table 4.8). Those factors that were not significant include, Marital Status and Religious affiliation (Table 4.8).

Table 4. 8: Multivariate Analysis of the factors that influence family planning use

Logic Regression Multivariate model

Dependent Variable	B	S.E.	Wald	df	Sig.	Exp(B)
a.) Age [a]	0.399	0.426	0.878	1	**0.034**	1.491
b.) Marital Status [b]	0.000	0.000	0.076	1	0.783	1.000
c.) Level of education [c]	-0.997	0.491	4.118	1	**0.042**	0.369
d.) Religious affiliation [d]	-0.057	0.147	0.148	1	0.700	0.945
e.) Employment status [e]	1.413	0.620	5.190	1	**0.003**	4.108
f.) Discuss with your husband/partner on number of children to have [f]	-0.600	0.377	2.533	1	**0.011**	0.549
g.) Want to have another child [g]	-0.466	0.377	1.526	1	**0.017**	0.627
Constant	**1.532**	**2.041**	**0.563**	**1**	**0.453**	**4.626**

Where the equation of the regression was: $\mathbf{Y= e^{(a+b+c+d+c+f+g)}}$

Where **a, b, c, d, e, f** and **g** are values that were significant at bivariate analysis in the table above.

4.4.0 Discussion of Results

4.4.1 Prevalence of family planning use

Results from this study show high prevalence in use of family planning where 95.2% were using at least one family planning method. This agrees with findings of a separate study conducted in Nairobi's Harambee and Jericho Estates where family planning prevalence rate was at 92.7% and 87.8% respectively (APHR, 2011). The high prevalence of family planning use could also have been due to the fact that the study was done in a hospital setting where health education is given before and after delivery.

This study shows there is low proportion use of FP method in the age group (15-19). This could be because the women were at the beginning of childbearing and hence they limited their use of family planning methods. Even so, those who were using family planning were more likely to use short-term methods. According to Kennedy (2011), the prevalence of modern methods of contraception among married adolescents is low in most countries. Low contraceptive use among

young women is often considered to reflect a desire to become pregnant, particularly in settings where there is socio-cultural pressure to prove fertility (Oyedokun, 2004)

Majority of respondent in the age group 20-24 years prefer using injectables and oral pill and tubal ligation that are long-term methods. Respondents from the age group 15-19 years prefer using the short-term methods. These are natural method, withdrawal method, intra uterine device (IUD) and the condom. Condom was the most preferred in terms of cost; however, pills were more preferred than injectables due to their side effect.

4.4.2 Socio Demographic Factors

This study shows that family planning use shifts with the number of children the woman has. Women with one child prefer to use short-term FP method such as condom and oral pills. Those with two or more children shift to a more long term FP method such as injectable. It indicates that few young married females use contraceptive when they have no living children. This is in line with a study by Chacko (2001) in four villages in rural West Bengal, India, where it was found that the number of living children a woman has influence her contraceptive use.

Majority of women using FP method are married (63.8%). This contrast the logic that unmarried women are perceived to be the highest consumers of FP since they are not ready to start a family. However this may also imply that women within this age bracket acknowledge the importance of a small family considering the current economic downfall. The findings show that women who have stayed long in marriage were more likely to use long-term FP method than those who have just married. This may be due to the fact that those who have stayed long in marriage have already established family and have no desire to have another child.

This implies that those women in new relationship do not care much about FP method since they are eager to have children in contrast to those who have stayed in the relationship and have one

or more children therefore takes a lot of caution when it comes to FP.

4.4.3 Socio Economic Factors

Occupation is one of the important socio-economic status indicators that influence the contraceptive behavior of women. Some of the studies have established that working-women are more inclined to adopt one or the other methods of family planning as compared to housewives. The findings of the study reveal that a majority of women aged 15-24 years who practices family planning methods have a secured job in either private or public sector. The study also shows that those who are self employed are considerably many. This indicates that they are financially independent and have the capability of making decision on family planning method that suits them. From the above evidence it is shown that the women who are currently working in private/public job are more likely to use contraceptive than those who are self employment and more less to those who are not working. This means that women's occupation has effect on contraceptive use. This is in line with a study in two districts in India where working-women were more inclined to adopt one or the other methods of family planning as compared to housewives (Kumari, 2005).

Educational level of women appears to be one of the significant factors affecting the adoption of family planning and fertility behavior. Data from the developing countries indicate that the education of women increases the opportunities for them to work outside their homes. Also, education is found to have a positive association with adoption of family planning. The relationship is less consistent in the developing countries. Generally, a positive relationship appears to have existed between family planning adoption and the educational level both in the United States and Europe since the late 19th century. Earlier research in most developing countries also support the fact that there is a strong positive association between the levels of

women's education and the adoption of family planning. Koc (2000) found a positive association between the educational level of both spouses and the use of contraceptive methods in Turkey.

The study show that majority of women do not get information on family planning on media. This may indicate that there are other sources of information on family planning, those who do not get information from media use commonly known contraceptive like condom and pills in contrast to those who get information from media who use injectable and other FP methods.

The study show that financial inadequacy is a major problem to the women aged 15-24 seeking prenatal care services and practicing FP methods. This may hinder them from utilizing the most effective family planning method. The study shows that majority of women aged 15-24 who use FP planning method had no adequate money to meet their basic needs. Though they use contraceptive, they use those which are cheap and readily available like condoms while those with enough income used injectable and other FP methods. A few studies have proved that couples with higher income are coming forward for the adoption of family planning. Also, a positive relationship between economic status of the family and the adoption of contraception has been observed by a few studies (Kumari, 2005).

4.4.4 Socio Cultural Factors

The study shows that majority of men also takes part in family planning. This indicates that women aged 15-24 years involve their husbands in their family planning decisions. Those who have ever discussed used more long-term methods such as injectable, condom use among women who have ever discussed was also higher than those who have never discussed. This indicates that wife- husband discussion is very important in determining the FP method used by women. According to the KDHS (2008-9), use of family planning methods is facilitated when couples discuss and agree on the issue.

This study shows that most men do approve the use of family planning. There is also a strong association between partner's approval and use of family planning. Partners disapprove due to various reasons as discussed in the focus group discussion. These include the claim that the process is tiresome, difficult to perform, expensive, encourages sex before marriage, destroy reproductive organs and it have side effects. This implies that majority women aged 15-25 are supported by their partners in using FP and this results to effective family planning.

In this study, contraceptive use is lower, among respondents whose husbands have approved of family planning compared to those whose husbands have not approved of family planning. This means that the married female adolescents are more likely to use contraceptives even though their husbands do not approve.

The use and non-use of contraceptives is influenced by religion. In the study religion was found to be a significant determinant of the use of contraceptive. Muslims and Hindus showed a significant lower use of contraception. Those women who were influenced by religion were more likely to use other methods of family planning more than they would use other contraceptives such as condom, pills and injections.

4.4.5: Contraception Need

Respondents with one child had a representation of 67.7% while those with two had a representation of 32.3%. This indicates that majority of women in 15-24 age bracket values the importance of a small manageable family. It may also imply they are aware of FP methods and practices it to reduce the changes of unplanned pregnancies. The study shows that most women within the age bracket of 15-24 years would desire to have a child under condition that it comes after two years. This is a clear indication that majority of women within this age bracket are keen to plan their family. The findings show that the contraceptive use rate decreases with the increase

in desire of additional children. The women who do not want to have children use FP methods regularly especially the ones that are cheap and easily available like condom. Those women who desire to have another child are not keen in using FP methods, though they use so cautious of their effectiveness, condom, injectables and or pills are not their favourite.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1 Conclusion

From the analysis of the study some major conclusions are drawn:

1. Condom is the most commonly used method followed by oral pill, others and injectable.

2. Education, age, employment status, income, religion, discussion with, and approval of spouse were significant and influence family planning option.

3. Contraceptive methods used do not match contraceptive needs. Respondents were using short term methods when they needed limiting and using long term methods when they needed spacing.

5.2. Recommendations

Based on the findings from the study some recommendations are

1. Education should be given at the point of service to enable choice of method depending on the type of need for contraception (limiting and spacing)
2. There is need for advocacy on girl child education. From the findings, it is found that contraceptive use is low among who have no education and primary education and who are not working. Therefore, field worker should give more attention to this target group. Appropriate intervention should also be taken to increase education among these women.
3. There is need to economically empower women to make them self sustaining. The results show that contraceptive use rate is low among respondents without adequate income. Social self-help support groups can be empowered through the process of starting businesses, which would put more income in women's hands.

4. It is important to stress men's shared responsibility and promote their active participation in responsible parenthood and sexual and reproductive behavior, including family planning and other reproductive rights. Men should be continuously involved in family planning education.

5. Research should be replicated in a rural set up. Further research will also be needed to find out the status of reproductive health of adolescents, premarital sex and knowledge of the risk of early pregnancy.

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APPENDICES

Appendix 1 Consent Form

Hello, my name is Anthony W. Wairagu a Master of Public Health (MPH) Student from Kenyatta University. I am here today to carry out a study on contraception. You responses will be of great importance to inform policy makers (the Government) and other stake holders on how to improve family planning policy and programs to ensure better quality services are offered in Kenya. Therefore, please be sincere as much as possible in your responses. The information you give will be used for this purpose only. Confidentiality will be guaranteed throughout the interview and this is no time you will be required to identify yourself by name or any other personal identification details. You are free to chose to participate or not participate in this study.

Are you willing to participate in this study Yes [ ] No [ ]

If yes,

Signature…….Date……

Appendix 2 Structured Questionnaire for Participants

Family planning method currently used

1. What family planning method are you currently using?
   a) Natural method
   b) Withdrawal method
   c) Intra uterine device (IUD)
   d) Implant
   e) Injectable
   f) Condom
   g) Tubal ligation
   h) Oral pills
   i) None

2. What do you like and don't like about them
   a) Side effects
   b) Cost
   c) Source

Demographic Characteristics

3. What is your age?.....

4. What is your age group?

   a) 15-19 years [ ]

   b) 20-24 years [ ]

5. What level of education have you attained?
   a) No formal education [ ]
   b) Completed primary school [ ]
   c) Completed secondary school [ ]
   d) Completed college/university [ ]

6. What is your marital status?
   a) Married
   b) Not married
   c) Separated/divorced
   d) Widowed

7. How long have you been in your marriage/relationship?

   ……..

8. How many living children do you have?

a) 1 [ ]
b) 2 [ ]
c) 3 [ ]
d) 4+ [ ]

9. Do you want to have another child?
a) Do not want [ ]

b) Want soon [ ]

c) Want, but wait for more than 2 years from now [ ]

Socioeconomic Characteristics

10. What is you employment status?
i. Unemployed [ ]
ii. Self employed [ ]
iii. Employed in private/public sector [ ]

11. Is you income adequate to meet your basic needs?
a) Enough [ ]
b) Not enough [ ]

12. Do you get family planning on media?
a. Yes [ ]
b. No [ ]

15. How long do you take to get an emergency treatment?
a) < 30 minutes [ ]
b) 30-60 minutes [ ]
c) 60 minutes or more [ ]

Social Cultural factors

16. Do you discuss with your husband/partner on number of children to have?
a) Never discussed [ ]
b) Ever discussed [ ]

17. As a woman can you recommend use of family planning?
a) Approve [ ]
b) Disapprove [ ]

18. Does your husband/partner approve family planning use?
a) Yes [ ]
b) No [ ]

19. What is your religious affiliation?
    a) Catholic
    b) Protestant
    c) Muslim
    d) Hindu
    e) Others (Specify)……
20. Does your religion influence your use/non use of contraceptives?
    a) Yes
    b) No

Appendix 3 Focus Group Discussion Guide

1. What do you think of family planning in general?

What do you appreciate more in family planning?

What do you dislike in family planning?

2 Are you or your spouse currently using any family planning method?

2.1 If yes which one? (If one say yes but don't remember, name different FP methods to help him/her remember

2.1.1 For how long have you been using FP?

2.1.1.1 Why have decided to use FP?

2.1.1.2 How and where did you learn about FP?

2.1.1.3 Why are you using that specific method and not others?

2.1.1.4 What advises could you provide to the new young users of FP in general and to the users of this specific method in particular?

2.2 If not, why not? (Give options such as: breastfeeding, pregnant, not informed about existing methods, too expensive, too far, personally opposed to FP, husband/partner opposed to FP, fear of secondary effects of FP on health and fertility, forbidden by my religion, not aware of existing methods, etc)

2.3 How do men learn about family planning?

2.4 What are the best ways to influence men about family planning issues?

3. In Kenya, according recent KDHS (2008/2009) the average number of children per woman is $4.6 \approx 5$.

3.1 What do you think of having more than five children per woman? According to you, are 5 children per woman, per family too many? Is it a good number of children? Or is it a low number of children?

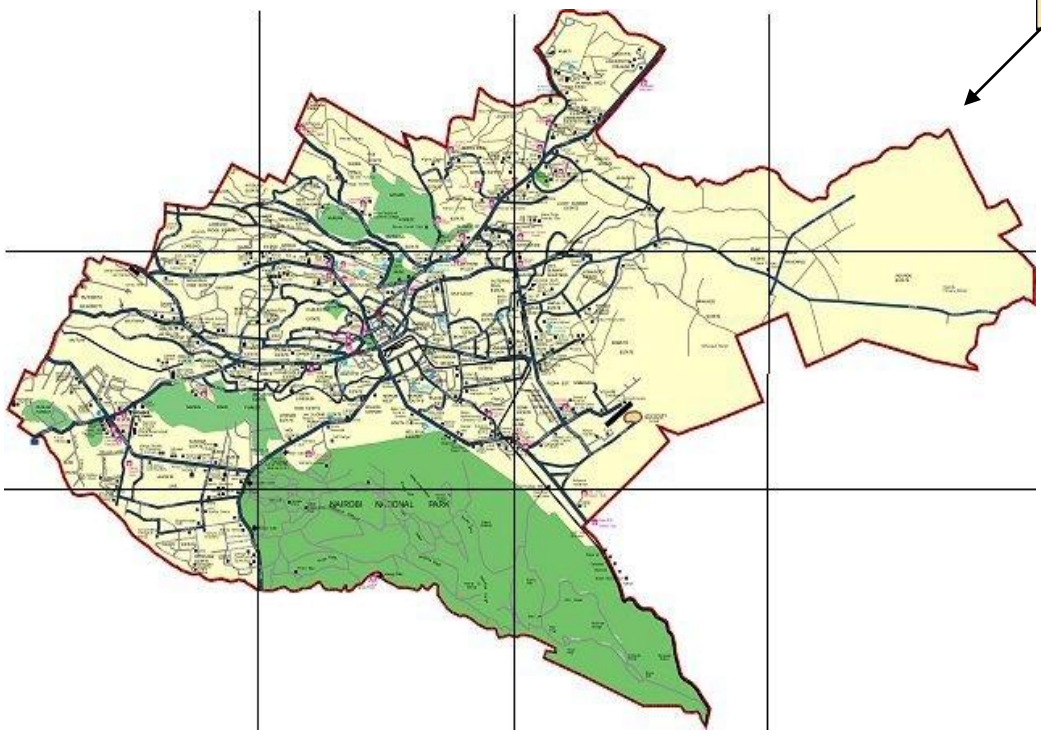
3.2 What could be the reasons for having 5 children per house?(let them answer first and then probe on the following: cultural, traditional, religious reasons, ignorance, children take care of parents as parents get older or in need, women incapacity to refuse sex from her husband/partner, women incapacity to use FP without husband's consent etc)

3.3 Why do young women who want to space or limit births not use any method? (Let them answer first then probe: fear of secondary effects, cultural, traditional, religious, ignorance, and women incapacity to refuse sex from her partner)

Appendix 4: Key Informant Interview Guide

1. What can say about family programs in Kenya?
2. Do you think the programs are addressing the current contraceptive need?
3. What challenges do you face when offering family planning services?
4. What would you like improved in the program to ensure success?

Appendix 5: Map of the Study Area

Map of Kenya

Map of Nairobi