

**DETERMINANTS OF DEMAND FOR MODERN FAMILY PLANNING
SERVICES AMONG WOMEN OF REPRODUCTIVE AGE: ACASE OF
IGEMBE SOUTH SUB-COUNTY, MERU COUNTY, KENYA.**

BY

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DECLARATION

This research project report is my original work and has not been submitted to any university for any award.

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

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DEDICATION

I dedicate this project report to my cherished mum Anne Munene and brother Dickens Munene for their love, support and patience during my writing of this project report.

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CHW	Community Health Worker
FHOK	Family Health Options Kenya
FP	Family Planning
HIV	Human Immunodeficiency Virus
KDHS	Kenya Demographic and Health Survey
KDHS	Kenya Demographic Health Survey
KNBS	Kenya National Bureau of Statistics
MCH FP	Mother and Child Family Planning
MDGs	Millennium Development Goals
MOH	Ministry of Health
MOMS	Ministry of Medical Services
MOPHS	Ministry of Public Health and Sanitation
NACOSTI	National Commission for Science, Technology and Innovation
PATH	Program for Appropriate Technology in Health
PC	Population Council
PPS	Probability Sampling Proportionate to Size
SBCC	Social Behavior Change Communication
SEF	Social Ecological Theoretical framework
TFR	Total Fertility Rate
UNDP	United Nations Development Program
UNEFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

ABSTRACT

The Kenya government, in collaboration with other stakeholders involved in the provision of family planning services, have put in place various strategies and policies to increase uptake of family planning services. These are aimed at increasing contraceptive prevalence rate (CPR), reduction in both total fertility rate (TFR) and unmet need for family planning services. Despite the various strategies and policies, total fertility rate still remains high at 4.6 percent, while CPR and unmet need for family planning are estimated at 46 percent and 24 percent, respectively. The purpose of the study was to examine the determinants of demand for modern family planning services among women of reproductive age in Kenya: A case of Igembe South Sub-County. The study objectives included the influence of income, cultural expectations, level of education and extent to which level of awareness influences demand for modern family planning services among women of reproductive age in Igembe South Sub-County. The study reviewed existing literature and used the socioecological model and identified a knowledge gap to be addressed through a cross-sectional household survey; targeting women aged between 15-49 years. This was conducted using a descriptive research design and an interviewer-administered questionnaire was administered to 289 participants on consenting to be part of the research. The findings showed that uptake of modern family planning services was quite low at 36% while awareness of modern family planning services was also low in that among those who had heard about modern family planning services, only 42% of them were on modern family planning methods. Those within the age of 25-30 were the majority in seeking family planning services. Among those on family planning services 66% of them were married while 36% of them had attained at least primary level education. Majority of the women said that they sought for family planning services in private health facilities at 57% while they get information regarding family planning services from doctors at 44% compared to the media at 2%. Among the major findings of this study was that 42% of the respondents said they travel for more than 10 kilometers to seek for family planning services compared to 9% who lived less than a kilometer away from the health facilities. It is across this bridge that primary health care may advance understanding individual and community-level barriers to uptake of modern family planning services, improving healthcare worker performance by identifying effective methods for training, supporting and supervising community health care workers, identifying and evaluating strategies to strengthen the links between need for service and its uptake and identifying the optimal program design, outcomes and costs given the number of competing public health priorities facing the rural Kenyan women of reproductive age. It is hoped that the findings and recommendations of this study will be useful to the Ministry of health and other stakeholders to review its policies to increase the demand for modern family planning services in health facilities. It is also hoped that the findings may also form a significant reference material to researchers in conducting modern family planning studies.

CHAPER ONE

INTRODUCTION

1.1 Background of the study

In recent years, the global community and many national governments have renewed their commitment to family planning. We have witnessed the dedication of new resources, the involvement of new actors, and the emergence of new ideas for delivering high-quality services to women and couples who want to plan their families (Population Council, 2013). However, the work of family planning services remains unfinished despite great progress over the last several decades (Family Planning Handbook, 2011). The unmet need for modern family planning has been a core concept in the field of international population for more than three decades now.

Family planning (FP) is the use of birth control methods to determine the number of children there will be in a family and even after those children are born (WHO, 2010). Other techniques commonly used as modern family planning services include sexual education, prevention and management of sexually transmitted diseases, pre-conception counseling, and infertility management, (Olaitan, 2009). According to (WHO, 2010), modern birth control methods adopted by women of reproductive age include long term methods, short term methods and emergency contraceptive methods? Most common birth control methods according to (WHO, 2015) include combined oral contraceptives (COCs) or the pill, Monthly injectable or combine injectable contraceptives (CIC), Combined contraceptive vaginal ring (CVR), Intrauterine device (IUD), Female condoms, Female sterilization and Emergency contraception.

Family Planning (FP) is one of the most important interventions in reproductive healthcare as it contributes to the improvement of the health of women and children in developing countries, through provision of safe and effective means to reduce the number of births and high-risk pregnancies (WHO ,2010).In spite of efforts towards fertility control, there remains a substantial proportion of women in the reproductive age group 15 to 49years who are not using FP methods even though they do not want a pregnancy.

About two thirds of women of reproductive age (15-49 years) are at risk of unintended pregnancy. This results from either non-use or ineffective use of contraceptive methods. Provision should be made for women of all ages throughout their reproductive lives to be able to space and limit their births according to their abilities and desires,(Bongaarts et al., 2012).There are individual reasons why women do not use modern methods of contraception.An analysis of 13 developing countries found that a significant number of women do not have adequate knowledge about contraception, have health concerns about using modern contraception or could not afford or easily obtain contraceptive supplies or services (Sedgh et al.,2007).

At the broader political level, lack of access to supplies and services could be associated with reductions in political commitment and funding for family planning in recent decades. For example, restrictions on funding for reproductive health by the US Government during the presidency of George .W. Bush i.e., the Mexico City Policy or ‘Global Gag Rule’ led to dramatic cuts in money available for family planning for a number of years. While these restrictions are no longer in place, they led to cuts in services in many countries, which is likely to have contributed to increasing unmet need for family planning,(Lancet/UCL 2009). In addition, reductions in funding may have come about due to the belief by donors that

family planning is already fully funded. In part, the success of family planning programmes has led to this false belief. Also, while there have been large increases in funding to population budget lines, much of this has gone towards HIV/AIDS rather than family planning, (Lancet/UCL, 2009).

The lack of transparency in budget lines and the lack of a dedicated budget line specifically for family planning have led to a false confidence that family planning has received. In lieu of the above, the expected consequences due to lack of adequate and effective family planning services include: increase in maternal and child morbidity and mortality, particularly when births cannot be adequately spaced (Ashford, 2003); Mackenzie, (Drahot et al, 2010). This leads to an increase in unsafe abortions, (Ashford, 2003); Mackenzie, (Drahot et al, 2010); contributes to the incidence of HIV and sexually transmitted infections (STIs) (WHO, 2010); compromises women's abilities to be productive in their communities and national economies Mackenzie, (Drahot et al., 2010); forces girls and young women to drop out of school due to unplanned pregnancies, (Barot, 2008); exacerbates women's lower social status and gender inequality (FHI, 2013); increases poverty and slows economic growth (Sinding et al, 2009); and contributes to unsustainable population growth, (Ashford, 2003).

According to World Health Organization (2015), an estimated 222 million women in developing countries would like to delay or stop childbearing but are not using any method of contraception. Population Council (2013) further explains that 222 million women in the developing world who would want to avoid pregnancy are not using modern contraceptive methods. One in four people in developing countries are women of reproductive age 15 to 49. These 222 million women would wish to avoid a pregnancy completely or space or limit future pregnancies, (Singh et al, 2012). Despite these desires, they are not using any form of

modern contraceptive. These 222 million women have an unmet need for modern contraception, (Singh Darics et al, 2012). They are women who are using either traditional methods of family planning, which have been shown to have high failure rates or no method at all (Singh et al, 2009).

The rate of modern contraceptive use is relatively low in the Eastern Europe and Central Asia (UNFPA, 2003). The region has a modern contraceptive prevalence rate of 54% for women in age group 15-49. This rate clearly lags behind Asia and the Pacific (62%) and Latin America and the Caribbean (67%) (Donna et al, 2000). National family planning programmes in Eastern Europe and Central Asia region have made significant progress during recent decades. However, this progress has been constrained by a number of factors including a decline in political and financial commitment to family planning. Out of 17 United Nations Population Fund (UNFPA) Programme countries, only five provide contraceptives to the public using the national budget.

All others rely on the private sector or donor support and Kenya is no exception (UNFPA, 2008). As a result the most disadvantaged populations lack access to affordable modern contraceptives and this contributes to high figures of abortion and in some cases maternal deaths. Inequity in accessing and using family planning services remains a challenge that slows down the achievement of Millennium Development Goal (MDG) and most especially the fifth MDG which is to improve maternal health which entails universal access to reproductive health including family planning (FHI, 2013).

Family planning has been cited as essential to the achievement of Millennium Development Goals (MDGs), and has a direct influence on women's health and consequence of each pregnancy (UDHS, 2012). The use of modern contraception significantly varies among countries. In Albania for example, only 11% of currently married women use modern contraception, whereas in Uzbekistan this figure is 59%. Furthermore, there are large disparities of access within countries related to income, age, gender, geographical location and marital status. Women with low income have less access to family planning services than their peers with higher income levels. Access in rural areas is significantly lower compared to urban locations. Many economies in the Sub-Saharan Africa (SSA) are characterized by rapid population growth. This according to Oyedokun, (2007) is partly attributed to high fertility rate, high birth rates accompanied by steady declines in death rates, low contraceptive prevalence rate and high but declining mortality rate. In these countries, the rate of population growth is one of the highest in the world, estimated at 2.8 percent compared to the rest of the world (USAID/HPI, 2007).

In Nigeria, the prevalence rate for modern contraceptives is approximately 11-13%. There is ample research evidence identifying the various factors that contribute to the low prevalence of modern contraceptive use in Nigeria, with the most common factor being the myth about the side effects of modern contraceptives (Health Project Policy, 2012). However, what is lacking is a political will in Nigeria to provide family planning programmes on a much larger scale, using community-oriented approaches and communication programmes, to help change the myth about the side effects of modern contraceptives (USAID, 2009). This review highlights current methods and concepts in contraception, reasons for low contraceptive use and practice in Nigeria, and the need for Nigeria to generate a political priority and a will to make a change in maternal health indicators, with the ultimate goal of

providing direction to guide changes in the Nigerian Population Policy as it affects contraceptive use and family planning, (USAID, 2012). An average woman in Nigeria gives birth to 6.5 children in their lifetime, (USAID, 2009).

Most of the world's population growth occurs in poor, developing nations, which are least able to support rapid population growth and whose socio-economic development is most likely to be hindered by high fertility. Uganda for example is the third fastest growing country in the world with a total population of approximately 40 million, (World fact book, 2014). However, Contraceptive use is low and the unmet need for family planning is high, (UDHS, 2007). Tanzania has been experiencing a steady increase in contraceptive use although the country's total fertility rate remains high at 5.4 children per woman, and only 24% of women age 15-49 use a modern method of family planning. Childbearing in Tanzania begins early; 28% of women have given birth by age 18, 55% by age 20 and 88% by age 25, (FHI, 2012).

Kenya's total fertility rate was once about 8.3, the highest in the world, (WHO, 2008). By the early 80s Kenya became one of the very few countries alongside Botswana and Zimbabwe to implement a National Family Planning programme (Wawire, 2009). Since then the country's fertility narrative tells of a history marked with fertility declines, stagnation and lately a revitalized slowing of number of children a woman has as a result of renewed efforts to increase use of contraceptives. As fertility began to slowly drop in Kenya during the late 90s, a renewed focus on the HIV epidemic meant that a lot of domestic and donor-funding was redirected away from Family planning commodities (Population council, 2006). The initial progress made by FP efforts began to regress and with that, contraceptive use stalled and fertility began to rise once more. This stimulated a push for increased national prioritization

for FP in the mid-2000s led by government bodies such as the Division of Reproductive health (DRH), National Council of Planning and development (NCPD), and partners who lobbied for funding to support Family Planningsupply.

To increase service provision in Kenya, the Association of Social Franchising for Health was formed in the year 2013 by the coming together of Kenya’s six leading Social Franchisee Networks into one consolidated body,(ASFH,2015).This was done to strengthen the quality and provision of health services through the development of knowledge sharing platform. The Networks in the consortium include Population Services Kenya, Gold Star Kenya, Family Health Options Kenya, Marie Stopes Kenya, Kisumu Medical and Education Trust and Sustainable Healthcare Foundation. They work by organizing community outreach programmes in rural areas by offering subsidized or free services and use of modern family planning methods has been a major focus. According to World Bank, (2003), the use of family planning services is an important issue for a developing country like Kenya which needs to be taken up from all sectors so as to widen choices available to people, particularly women, by allowing individuals and society more opportunities for social and economic development.



Figure 1: Contraceptive prevalence in Kenya (World Bank 2009)

Despite all these, Kenya still records high population growth particularly Igembe South sub county which has a total population of 252,885 according to KNBS, (2009). In Kenya the unmet need for family planning has stagnated at 25% over the last 10 years. According to Population Services Kenya (2012), as much as use of contraceptives has risen steadily from 33% - 39% in 2008, trends show increase in short-term methods and a decline in use of long-term methods. There are many reasons for this including lack of access to information and appropriate health services, traditional gender norms that prevent women from using contraception, opposition by community and family members, real and perceived concerns about safety and side effects, and cost. Other underlying socio-behavioral issues, including risk perception, ambivalence, and social costs, may also play a role in demand and use (Ian and Martha, 2013). To address this issue of unmet need for family planning needs to be scaled up from all points especially at the county levels, now that health services are devolved from the national government in Kenya.

1.2 Statement of the problem

The Kenya health system is administered from top to bottom by the Ministry of Health and is strongly impacted by the work of NGOs, FBOs and private health facilities or providers. In the year 2008, the government of Kenya operated 48% of the country's health activities with NGOs and Faith Based Organizations (FBOs) at 2% and 13% respectively, (Ngigi & Macharia, 2006). This explains that although it is the government's mandate to ensure that every citizen in Kenya accesses quality healthcare, other entities too have a responsibility to provide healthcare as long as it is quality and standard. Like many other healthcare sectors, the issue of family planning services has been a challenge to both the government and other providers.

In Igembe South Sub-County, there has been an unmet need for family planning and this is attributed to the four objectives which are to assess how level of income, cultural expectations, level of education and how awareness levels determine demand for modern family planning services among women of reproductive age in Igembe South Sub-County. Igembe south is a Sub- County in the larger Meru County and currently is the most populated in the county according to statistics in the 2009 census data with a total population of 252,885 and an area of 270.70 sq. (Kenya National Bureau of Statistics, 2009). The area has only 12 government health facilities thus 10 dispensaries and 2 district hospitals respectively which are likely to provide the family planning to the women of reproductive age (MOMS annual report, 2012). The private health providers who provide family planning services also are few compared to other sub counties in the county. Population Services Kenya for example is an NGO that works with private health providers in its Tunza Franchise network and according to the current statistics, there are only two clinics in the sub-county as compared to more clinics in other sub counties, (PSK, 2014).

According to Askew et al, 2013, adolescents are an important vulnerable group in all populations and they have a right to safe and efficient reproductive health services. Recently there has been a big number of girls who fall in this age group, dropping out of school due to early and unplanned pregnancies in Igembe South Sub-County. There is no doubt that this issue has had strenuous consequences on the budgets allocated for due to the increasing numbers of women seeking the services. Few studies have been conducted to establish the factors influencing demand for modern family planning services among women of reproductive age in Igembe South Sub-County. This study will therefore contribute significantly to this body of knowledge by finding out how the factors discussed determine the demand for modern family planning services among women of reproductive age.

1.3 Purpose of the study

The purpose of this study was to examine the determinants of Modern family planning services among women of reproductive age in Igembe South Sub-County.

1.4 Objectives of the study

- I. To assess how the level of income determine demand for modern family planning services among women of reproductive age in IgembeSouth Sub-County.
- II. To assess extent to which cultural expectations determine the demand for modern family planning services among women of reproductive age in Igembe South Sub-County.
- III. To establish extent to which the level of Education determines the demand for modern family planning services among women of reproductive age in Igembe south sub-county.
- IV. To assess how the level of awareness determines the demand for modern family planning services among women of reproductive age in Igemebe South Sub-County.

1.5 Research Questions

- i. How does the level of income determine demand for modern family planning services among women of reproductive age in Igembe South Sub-County?
- ii. To what extent do cultural expectations determine demand for modern family planning services among women of reproductive age in Igembe South Sub-County?
- iii. To what extent does the level of education determine demand for family planning services among women of reproductive age in Igembe South Sub-County?
- iv. How does the level of awareness determine the demand for modern family planning services among women of reproductive age in Igembe South Sub-County?

1.6 Significance of the study

The findings and recommendations may be useful to the Ministry of Public Health and Sanitation (MOPHS) and Ministry of Medical Services (MOMS) to review their policies on modern family planning in health facilities. The findings and results from this study were hoped to form a significant reference material to researchers while conducting family planning studies.

1.7 Delimitations of the study

This study was delimited to households in Igembe South Sub-County and only women of reproductive age 15 to 49 years living in the selected areas participated in the study. A total of 289 women will participate in this study. The sample was comparable to the nature of the population that is highly affected by lack of modern family planning services among women of reproductive age in Kenya. The study was also delimited to the determinants of demand for family planning services among women of reproductive age in Igembe South Sub-County.

1.8 Limitations of the study

The study was limited to self-reported data which was likely to result into selective memory or lack of interest of the subject by the respondents. This was reduced by working with the respondents who were willing to participate in the study and also gave them space and time to answer the questions. For respondents who did not have a basic understanding of English; questionnaires were translated to them in local language. Since the study was health related, participants were not unwilling to give information out of fear although this was overcome by reassuring the respondents that the information sought was purely for academic purpose as it was evidenced by the introductory letter from the University and the permit from the National Commission for Science, Technology & Innovation to authenticate the study. Respondents were reassured that all information given was to be treated with utmost confidentiality.

1.9 Basic assumptions of the study

The basic assumption of this study was that the researcher targeted female respondents from the selected households and assumed that they were willing to participate in the study. The researcher also assumed that the respondents would give sincere feedback and that there would be at least one woman aged between 15-49 in the sampled households. The final assumption was that the targeted respondents would be available to answer questions that would guide this study.

1.10 Definitions of Significant terms as used in the study

A Household - Members of a single family and their relatives, who live together at the time of data collection.

Awareness - Having knowledge of modern family planning services.

Contraceptive Prevalence Rate - The proportion of women of reproductive age (15-49 years) who are using (or whose partners are using) contraceptive methods at a given point in time.

Contraceptives - Modern birth control methods used for purposes of family planning.

Demand for family planning services - Willingness and/or ability to seek, use and pay for modern family planning services.

Modern Family Planning services - Other practices used as modern family planning services for example Sexual education, pre-conception counseling and prevention and management of sexually transmitted illnesses.

Family planning - Use of birth control methods to determine the number of children there will be in a family, and even after the children are born.

Health Facilities - Places that provide family planning services for the women of reproductive age.

Reproductive age-Child bearing age usually between 15-49 among women.

Unmet Family Planning Need- The percentage of women of reproductive age who are not using any method of family planning but who would like to access a family planning method.

1.11 Organization of the study

The study consisted of five chapters. Chapter One dealt with the background of the study, statement of the problem, purpose of the study and objectives of the study, research questions, significance of the study, assumptions of the study, limitations, delimitations and definition of significant terms as used in the study.

Chapter Two on the other hand consisted of literature review related to factors influencing demand for family planning services among women of reproductive age. Concepts discussed include, income levels, cultural expectations, levels of education and levels of awareness. Theoretical framework, conceptual framework and knowledge gaps will also be discussed in this chapter.

Chapter Three incorporated the research methodology which contained research design, target population, sample size and sampling technique, research instruments, the reliability, validity and procedures of data collection and analysis techniques.

In Chapter Four, the results of the study were presented, analyzed and discussed according to the research objectives.

Finally, in Chapter Five summary of findings, discussions, conclusions and recommendations for further action and contributions of the body of knowledge were discussed and suggestions for further research highlighted.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Literature Review means the work that a researcher consults in order to understand and investigate the research problem. It is an account of what has been published on topics by accredited scholars and researchers. It is a critical look at the existing research that is significant to the work that the researcher will be carrying. It involves examining documents such as books, magazines, journals and dissertations that have a bearing on the study being carved out (Kombo and Tromp, 2006). This chapter consists of related literature. It contains of introductory part, levels of income, cultural expectation, level of education and awareness levels, theoretical and conceptual framework of the study.

2.2 Determinants of Demand for Modern Family Planning Services among women of reproductive age

Globally, there is an increasing unmet need for safe and effective family planning services (UNFPA, 2009). Most women in Africa, just like in many parts around the world, desire to control both the number and timing of births but lack an effective contraceptive method (Askew et al, 2013). Several studies have been conducted in an attempt to provide solutions to this incessant issue that has been a great topic of discussion. Foregoing reviewed literature regarding this topic will be used as the basis for this study.

2.2.1 Income levels and demand for modern family planning services among women of reproductive age.

Poverty Rates of unmet need for family planning remain high in developing countries, according to a recently released report from the U.S.-based Guttmacher Institute

(2008).According to, (USAID 2011), one in seven married women in these countries has an unmet need for contraception but in sub-Saharan Africa, the ratio is nearly 1-in-4.A study conducted to determine factors affecting utilization of family planning services among women of reproductive age byAcayo, (2012) in Padine town of Lamwo district in Uganda showed that 18%of the women interviewed in a crosssectional survey ,18% were student, 39% were not employed nor were they studying while 24% of the women were in small businesses. Only 16% of the women were employed leading to a conclusion that majority of the women could not afford some of the family planning services on their own.

Ensuring access to family planning can prevent unintended pregnancies and reduce maternal and child mortality. Among married women ages 15 to 49, the poorest women have the highest unmet need for family planning. Women in the lowest wealth quintile report the greatest need for spacing and limiting their births. Still, even among women in the wealthiest quintile, nearly one out of five married women has an unmet need for family planning Kenya population data set, (2011).

A study conducted in Kibra slum in Kenya to determine contraceptive use among women of reproductive age in Kenyan slums found out that income levels majorly affected the uses of contraceptives. Among the 115 unemployed respondents interviewed, only 23% of them were using any contraception as opposed to the 240 employed respondents interviewed and among them, 48% were on contraception. This clearly shows that income influences the method of contraception and hence there is demand for family planning services in Kenyan Slum area, (Oketch, 2011).

In the UNFPA state of World Population Report of (2004), it was reported that poorer women have children at younger ages, while wealth based health inequalities are greater for safe motherhood, adolescent fertility and contraceptive use. The report observed that poorer women also have more children throughout their lives than wealthy women while poorer countries have a heightened risk of maternal, infant and child death and illnesses. Poorer women in all countries face higher risks than others and use of family planning methods especially modern family planning methods is higher in richer segments than poorer segments of society (UNFPA, 2004).

2.2.2 Cultural expectations and demand for modern family planning services among women of reproductive age.

According to Monjok et al, (2011), this is the most important factor influencing the choice of modern family planning service among women of reproductive age. It includes community norms, religious beliefs and gender roles and what is expected of the women. Community norms also prescribe how much autonomy an individual has in making modern family planning decisions. The larger the differences in reproductive intentions within a community, the more likely the community norms support individual choices, (Bongaarts and Johansson, 2000).

Household and community influence can be so powerful that they can obscure the line between individual desires and community norms (Olaitan, 2007). For instance, in some cultures, many women reject contraception because bearing and raising children is the path to respect and dignity in the society. People are often unaware that such community norms influence their choices. In other cases, they are particularly aware. Olaitan (2007) further adds that young people often decide not to seek for family planning because they do not want

their parents or other adults to know that they are sexually active. Married women also may not want their partners to know that they are using family planning methods for various cultural norms and religious beliefs.

Another aspect of cultural factor is based on sex selection. In a patrilineal society like Nigeria, preference of male children is widely accepted, (Ewhrudjakpor, 2008) .This implies that without a male child, continuous child bearing is accepted until one arrives; otherwise, the man is forced to accept another wife. Regarding doctrinal prejudice, some religions are in favour of family planning, others have their rules, guidelines and principles. Some religions encourage polygamy which implies that unrestrained reproduction is encouraged.

A study conducted by,(Kaburu, 1994) to find out the quality of care in a case study of Chogoria in the current TharakaNithi County and Maua in Meru county showed a unilateral example of a woman who travelled from Kyengu to Maua a distance of approximately 40 kilometers for family planning services even though there was a mobile clinic to conceal her use for family planning from her husband. The decision made by this lady is attested further by the fact that majority of the participants from Maua in this study agreed that family planning decision is taken by either by the woman or by her spouse or partner unlike in Chogoria where the decision is taken by both the woman and her spouse or partner. Some religions, such as Catholicism have restriction on contraception based on the belief that it is “God’s will to bring children” into the world. It may be Islam or Christianity that calls for raising and bearing of more children in the society without necessarily adopting modern Family Planning services, (Oyedekun, 2007).In societies that are patriarchal and deeply rooted to retrogressive cultures, preference of children of certain sex might influence the choice of family planning a woman chooses. Some couples or even unmarried women may prefer male

children and in cases when the child born to then is female, they are unhappy and may wish to have another child so as to have the preferred choice of child.

A study conducted by Clement and Nyovani, (2004) revealed that religion was associated with the use of modern family planning methods. In particular, they noted that those from traditional religions used modern contraception the least, especially in Ghana and Tanzania. The study also revealed that Christians in Zimbabwe were significantly using modern contraceptive methods more than those from other religions. Although from the foregoing discussion religion was found to affect contraceptive use, it is not clear how the inference was arrived at. Religion was considered in the current study as a variable. The aim was to examine how different religious background affected the use of family planning services among households in Kenya's city slums.

A study conducted by Oketch, (2010) in Kibra slum of Kenya to determine the use of contraceptives among women of reproductive age in Kenyan urban slums clearly found out that religion influences demand for family planning services. Among the 65 catholic respondents interviewed, only 13% of them were using a contraceptive as opposed to the 260 protestant respondents interviewed and 52% of them were on a modern family planning method. This is a justification that some religions influence demand for modern family planning methods.

2.2.3 Level of education and demand for modern family planning services among women of reproductive age.

Several studies have shown that low education status of women is negatively associated with fertility. Educational attainment and fertility are closely related. Women with higher levels of

education tend to have fewer children. Women with no education have an average of more than twice as many children as women who attended secondary school or higher education. Data presented in the Kenya population data sheet (2011) shows that total fertility rate in Kenya is high among women who have no education and least on women who are of secondary school level and above.

According to KDHS, (2008) the TFR decreased from a high of 6.7 for women with no education to 3.1 for women with at least some secondary education. The data show that women who have completed primary education have almost 2 fewer children per woman when compared with women who have no education. Fertility is also very closely associated with wealth. The disparity in fertility between the poorest, who have the most children, and the richest women, who have the fewest, is 4 children per woman (KDHS, 2014.) Basic education has a direct impact on demand for health and other public services. Education, which is often measured by level or duration of schooling, has been shown to be the most important correlate of good health, (Grossman and Kaestner, 1997).

A study in Pakistan, for example, found that maternal schooling was the most important factor in determining child survival, (Agha, 2000). A study conducted in Bogura district of Bangladesh by, (Ferdousi, 2010) to determine factors affecting family planning among women of reproductive age group revealed that out of the 104 respondents, 43.3% are of primary school level, 4.5% of them had higher secondary education while 28% were illiterate. Bangladesh total population is represented by 43% women populates of below 14 years while 46% of the total women population is of those in the reproductive age of 15-49 years making it one of the most populated countries in the world with a population growth of 1.29% annually, (MOHFW, 2003).

A client exit survey conducted in Malawi by to evaluate barriers to family planning use showed that 60% of the women interviewed were illiterate or had no basic education (FHI,2012).A total of 598 female clients exiting the 30 selected facilities were interviewed. The mean age of respondents was27.5 years (SD=7.6). About 90 percent of the respondents were less than 35 years old. Majority of them had heard about family planning but had never used any method of contraceptive. Those who used family planning methods were those aged above 20 years. Malawi is in a group of countries that are considered to be late adopters of family planning, (AHME, 2013).

A study conducted by PSI Kenya and FHI (2012) to evaluate elements that influence uptake of modern family planning methods among youths found out that family planning tends to drastically increase with the level of education. 60% of women with a secondary education and above reported to be more likely to use family planning compared to women with a primary school education (40%) or those that do not have any formal schooling (14%).

In South West Nigeria, a study was conducted byOlaitan, (2010) to determine factors that influence the choice of family planning among 600 couples in the year 2010 Result of hypotheses revealed thatthere was no significant influence on the educational status of the couples toward the choice of family planning in Southwest Nigeria. This is supported by Olaitan,(2009) who opined that the level of educational status of the couples determines their attitudes toward the choice of family planning. For instance, ignorance and illiteracy will make some persons not to be aware of the benefit of family planning method. Even though the family planning service provider comes to visit the person and educate him on the importance of family planning method, he/she will be confused and will not listen to the

service provider, especially those couples in the Northern part of Nigeria. Most of them said that family planning service providers want them to be barren for life; as such, they tend to withdraw from the services.

2.2.4 Level of awareness and demand for modern family planning services among women of reproductive age.

Knowledge or awareness is the ability to assimilate health messages in this particular study. The impact of information on treatment options and desirable health seeking behaviour is also important in determining demand. There is also a substantial literature indicating that demand for family planning services is impeded by a lack of correct knowledge of contraceptive choices and side-effects, (Donati et al, 2000).

Lack of knowledge about contraceptive methods and concerns about health side effects and effectiveness are also major barriers to adoption of family planning services, (DFID, 2012). The Government of Kenya, NGOs and donors are dedicated to promoting and improving easily accessible, affordable, acceptable, and effective family planning methods (Population council, 2013). These efforts have apparently paid off as recent demographic, health, and fertility surveys show that knowledge of contraceptive use is nearly universal, and that over 90% of men and women are aware of at least one family planning method. However, the unmet need for contraception remains at approximately 26% in Kenya, suggesting that the right of Kenyan couples to access sufficient information concerning their preferred birth control method and the actual use of such methods have not been fully realized (PS Kenya, 2012).

A study conducted by, Nangendo(2012) in West Yimbo Division of Bondo in Western Kenya to determine the knowledge and use of Family planning methods found that adequate information about family planning methods exists. This information is routinely disseminated through radio, newspapers, magazines, churches, youth groups, women's groups, merry go-round groups, the chief's Barraza(locally convened community meeting), and other public forums. In particular, the information focuses on the role of birth control methods to limit, postpone, and space children, preventing conception, and preventing the acquisition and transmission of STIs including HIV/AIDS. Therefore, many women in that sample had knowledge about various fertility regulatory methods. The informants knew about different natural contraceptive methods, and the majority added that these methods did not cause major secondary complications such as interfering adversely with the future abilities and capabilities of fecund men and women. Moreover, the women in that sample had some knowledge concerning clinics and sources of fertility regulatory methods .Many of them stated that the sources of these methods included government hospitals.

A study conducted Kaburu, (1994) in 60 households in Chogoria area and in 30 households of Maua area in Meru County showed that the most popular source of family information was the hospital. A few mentioned volunteer health workers, the church, the chiefs' Barraza or seminars were mentioned by women respondents of Chogoria area. However a majority of the participants did not know how the family planning methods work .Knowledge and awareness of that kind can be said to be shallow and inadequate hence there is need to provide more awareness about family planning services to women of reproductive age.

A study conducted by, (Kaba, 2009) in South Central Ethiopia to show the determinants of low family planning use and high unmet need among 5746 married women confirmed that about 99% of women in Butajira district knew at least one method of contraception though

some family planning methods were better known than others among resident women of a densely populated Butajira district in Ethiopia. However despite the women being aware of the family planning methods, prevalence was at 25.4% while the unmet need remained at 52.4%. Disaggregation of knowledge by type of residential area showed that every woman in urban areas knew about contraceptives while more than 97% of them knew at least one method in lowland or highland Butajira. The level of ever and current use of family planning methods among married women by residential ecology was dissimilar. Ever use of family planning methods among married women was more than 77% in urban areas followed by about 45% and 40% of lowlanders and highlanders, respectively, (UDHS,2009).

2.3 Theoretical Framework

This study will adopt the Socio-Ecological Model. It was introduced as a conceptual model in the 1970s by Urie Bronfenbrenner, (Robinson,2008). The social ecological perspective on health emphasizes the contextualized of health and health behaviors in terms of how individuals, their health and their surrounding physical and social environments interact at multiple levels of health problem and are interdependent. The ecological perspective has essentially two key propositions being 1. Behaviour both shapes and is shaped by multiple levels of influence and 2. Individual behavior affects and is affected by the surrounding social environment. Community is the context in which health behaviors take place and one of the primary settings for health promotion sources, making it a strategic entry point for collaboration and intervention. Research supports the notion that health promotion interventions should also be multi-domain, multidisciplinary and grounded in a social ecological framework in order to have the maximum reach, impact and potential for sustainability, (Gottlieb, 2009).

This model overcomes the limitations on other health behavior models by incorporating a focus on individual-level health behavior change with an understanding of the reciprocal relationship between personal choices, biology and determinants of health and health behaviors at the level of social networks, communities and policies that impact health. Those multiple levels of influence which impact health related behaviors are as outlined: 1. Intrapersonal processes such as individual attitudes, behaviours, knowledge and skills; 2. Interpersonal processes such as social networks made of family, friends or colleagues that provide support; 3. Institutional factors such as formal or informal organizations which may have rules or expectations which impact health behaviours; 4. Community factors such as formal and informal networks and norms among individuals, families, groups or organizations; 5. Public policy such as local or state, and federal laws or regulations which promote or inhibit certain health practices which influence disease prevention, control or management. Applying these ecological levels of influence to an analysis of Kenyan women's utilization of modern family planning services can provoke further inquiry into why and where these disparities occur and which levels of influence should be targeted for intervention. These factors are illustrated in table 2.1.

Table2.1 Social Ecological Theoretical Framework: Levels of Influence

Levels of Influence	Description
Community	Formal and informal systems with corresponding social norms among people, groups and organizations.
Interpersonal	Relationships with family, friends, colleagues and others which contribute social support and help to define identity
Intrapersonal	Personal attributes such as attitudes, beliefs and knowledge that shape health behaviors
Organizational	Groups to which one belongs and or informal institutions and processes which influence health behavior
Public policy	Laws and practices at the local, state and national levels that influence or regulate health behavior

(Source: Robinson, 2008, p.389)

2.4 Conceptual Framework

This study was centered on a conceptual framework that showed the relationship between the independent and the dependent variables and how they determine demand for modern family planning services among women of reproductive age in Kenya.

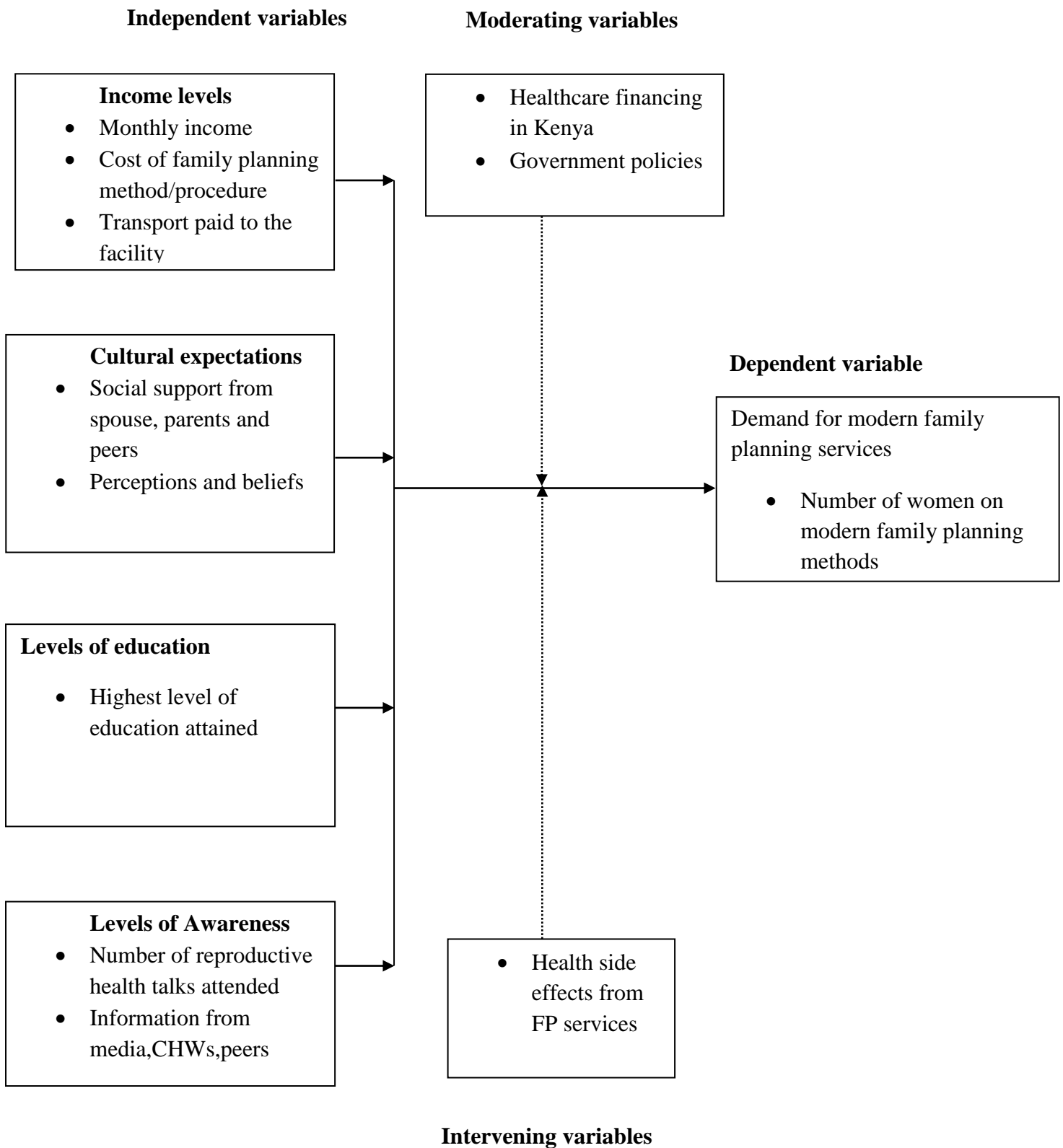


Fig 1: Conceptual Framework

Figure 2: Conceptual framework demonstrating factors determining demand for modern family planning services among women of reproductive age.

The perceived conceptual framework covered the factors influencing demand for modern family planning services among women of reproductive age and encompasses variables and their patterns of influence on each other and eventually how they affect women's demand for these services from health facilities.

Income levels and demand for modern family planning services among women of reproductive age. Household income could have possible different effects on family planning services uptake. It is predicted to have a positive impact on contraceptive uptake, because higher income leads to an increase in demand for resources involved in acquiring the service. Employment status has been shown to be correlated with the uptake of family planning services and employed women have a higher uptake of family planning services.

Cultural expectations and its determinance on demand for modern family planning services among women of reproductive age. Resistance of modern family planning services due to cultural expectation has contributed greatly to the unmet need for modern family planning. In cultures especially in the sub-Saharan region where women are viewed as child bearing objects, uptake of modern family planning services is lowest.

Education level as determinant of demand for modern family planning services among women of reproductive age. Education increases demand for uptake of family planning services as better educated individuals have a higher efficiency in the production of health. There are possible further transmission channels for effect of education on uptake such as increased self- efficacy, confidence, motivation, patience and social inclusion. Low education levels, particularly in rural areas, may influence the ability of individuals to judge when care should be sought.

Awareness level as determinant of demand for modern family planning services among women of reproductive age. While knowledge of what care is available and its potential benefits greatly influence demand for health care, knowledge of demand for family planning services among women of reproductive age is related to health literacy; which is the ability to obtain, process, and understand basic health information and services to make appropriate health decisions. Health literacy is lowest among the more vulnerable members of our communities— racial/ethnic minorities, living in rural areas, and the elderly. People impacted by low health literacy may struggle to understand services available to them and where to get them and their impact.

These determinants for modern family planning services among women of reproductive age are interrelated on their influence on health seeking behavior. Therefore, this perceived conceptual framework for the factors that influence modern family planning services is based on a human capital approach. It is also supported by previous studies which has investigated determinants which are not only affected by direct and indirect costs of the family planning service, but also by a wide range of individual, family characteristics and other conditions such as attitudes, beliefs, barriers and facilitating conditions.

2.5 Knowledge gaps

These and other studies provide evidence that the correlates of modern family planning services are a multi-domain. More research is needed to show the barriers and facilitators of unmet need for modern family planning services among women of reproductive age especially in rural Kenya. This study intends to address the gaps in the literature which do not account for how modern family planning related health behaviors such as income levels, cultural expectation, education levels and awareness levels are determined by factors in the social environment.

Table 2.2 Knowledge Gaps

Variable	Literature source	Findings	Knowledge gap
Income levels	Nelson Wawire et al, (2012) Contraceptive Use among Women of Reproductive Age in Kenya’s City Slums 2011. Centre for Promoting Ideas, USA.	Study was conducted among women in Kenyan urban slums to determine factors that influence contraceptive use among women of reproductive age. Study showed that there was low uptake of family planning services among the low income earning women.	The study did not focus on women living in the rural areas. This study will focus on women of reproductive age in Igembe South Sub-County and factors that influence their demand for modern family planning services.
Cultural expectations	Oyedokun A. O., (2007), Determinants of Contraceptive Usage: Lessons from Women in Osun State, Nigeria, Journal of Humanities and Social Science, Volume 1, Issue 2.	The study was conducted among women married of Osun state, Western Nigeria. Study showed their partners cultural beliefs influenced their choice of family planning services.	Study did not focus on provision of family planning services despite cultural ties. This study will seek to provide solutions for such cultural ties and cultural expectations among women of reproductive age in Igembe South Sub-County.

Levels of education	Susan B.K, (2013), Uptake of modern contraceptive among youths at community level in Busia district, Uganda.	Study was carried out among youths 15-24 and despite education levels being high; the contraceptive uptake was still low.	The study focused on all women in the reproductive age category who are both illiterate and educated.
Awareness levels	S.MNangendo(2012)Knowledge And Use Of Family Planning Methods and Services in West YimboDivision,Bondo District,Western Kenya.African Study Monographs, 33 (4): 233-251,December 2012.	The study was conducted to determine the knowledge and use of family planning services.	The study showed thatwomen knew at least one method of family planning and they got information mostly from the hospitals. This study will therefore seek to recommend that there be other sources of information among women of reproductive age in Igembebe South Sub-County.

2.6 Summary

The issues surrounding modern family planning services are extremely complex and touch on most aspects of our societies. Reviewed literature however supports respective connections between many health behaviors and stimuli in the social environment. In light of this increasing body of knowledge on how social and ecological conditions affect health and health behaviors, more studies are needed to understand how such interactions operate for medically and socially underserved populations like rural Kenyan women. This study is

hoped to be significant to both health-related social work and public health research and practice as it has the potential to advance the understanding of how social contextual factors in the daily lives of rural women and facilitate their ability to take actions known to access modern family planning services.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology as the mode of achieving the purpose of the study. It specifically highlights the research methods to be used in carrying out the study in an attempt to answer the research questions. In addition, various methodological issues in this chapter will include: Research design, target population, sample size, sampling procedure, Research instruments, Piloting the instruments, Data collection procedure, Data Analysis techniques, Ethical issues, Operationalization of variables, and Summary.

3.2 Research Design

Descriptive survey design was used in this study as it enables a researcher to gather data from a relatively large number of subjects at a particular time. According to Lovell and Lawson, (1971) descriptive research design is concerned with conditions that already exist, practices that are held, processes that are ongoing and trends that are developing. Descriptive survey research design is most appropriate when the purpose of study is to create a detailed description of an issue, (Mugenda&Mugenda, 1999). The study aimed at collecting information from respondents on factors that influence demand for modern family planning among women of reproductive age in Igembe south sub-county.

3.3 Target Population

According to Mugenda&Mugenda (2003) a target population is that population which the researcher wants to generalize results. Kombo&Tromp (2006) describes population as a group of individuals, objects or items from which samples are taken for measurement or it is an

entire group of persons, or elements that have at least one thing in common. This study was a household study targeting 289 women aged between 15-49 years since this is the reproductive age group according to World Health Organization (2010). Igembe south sub-county was selected because it represents a case that has a very high population in Meru county and low uptake of modern family planning methods among women of reproductive age according to 2009 census data.

3.4 Sample size and Sampling Techniques

3.4.1 Sample Size

Sampling is a means of selecting a part of a group from a population to represent the characteristics of the entire group or the population of interest. An advantage of sampling is that it reduces the length of time needed to complete the study and cuts costs. The use of samples enables a higher overall accuracy than a census. In addition, collecting data from fewer cases means that one can collect more detailed information (Saunders, Lewis and Thornhill, 2008). The sample size was obtained using Krejcie and Morgan Table (Appendix, IV) which is a table for determining sample size and it is flexible and easy to manipulate. The sample size for this study will be 289 respondents. A Kish grid (Appendix, IV) was used at the households to ensure that all respondents from among the household residents have an equal chance of selection during the interview process.

3.4.2 Sampling Techniques

The sampling procedure of this study adopted purposive sampling technique to select women aged between 15-49 years as they possess similar characteristics to help focus on the questions of significance to this study and generalization of the findings. Purposive sampling selects individuals also known as judgmental sampling and it selects individuals based on the particular

purpose of the experiment,(Palys, 2008). Purposive sampling technique was employed in this study as the population was widely dispersed and a sampling frame was not available, (Patton, 1990).

3.5 Research Instruments

This study employed primary data collection. Questionnaire was a useful instrument of collecting primary data in this study since the respondents could read and then give responses to each item, and also because it could reach a large number of subjects, (Orodho, 2004). The questionnaire contained three major sections; Section one contained questions on the respondents socio-demographic characteristics; Section two contained questions based on the four themes derived from the study objectives namely: 1) Women's level of income, 2) Influence of cultural expectations, 3) Influence of education, 4) Levels of awareness. Section three dealt with factors influencing demand for modern family planning services among women of reproductive age in Kenya and particularly Igembe South Sub-County and finally Section four will deal with challenges and solutions.

For the closed-ended questions, a Five-Point Likert scale was used. Likert (1932) developed the principle by asking people to respond to a series of statements about a topic, in terms of the extent to which they agree with them, and so tapping into the cognitive and affective components of attitudes. They included: (1) Strongly agree, (2) Agree, (3) Uncertain, (4) Disagree, (5) Strongly disagree. The strongly agreed responses were scored at 5 for direct positive high scores while the strongly disagree were scored at 1 for directly low responses. The questionnaires facilitated an evaluation of Determinants of demand for modern family planning services among women aged 15-49 in Igembe South sub-county.

3.5.1 Piloting of the Research Instruments

Piloting ensured that the questionnaire was free from ambiguity and the data generated was meaningfully analyzed in relation to the stated research questions. This was done by administering (10% of the sample size) similar age category as the actual respondents in Igembe south west division, one of the most remote areas in Igembe and which contained similar characteristics as the study area. After piloting, adjustments were made accordingly to address areas of concern. Orodho, (2004) states that piloting helps to establish whether questions measure what they are supposed to measure, the respondents interpret all questions in the same manner, the wording is clear and also to eliminate potential research bias.

3.5.2 Validity of the Research Instruments

According to Kothari (2004), validity is the degree to which an instrument measures what it is supposed to measure. Therefore, the term refers to the extent to which an instrument asks the right questions in terms of accuracy. Content validity of the instrument was used to measure the degree to which the items would represent specific areas covered by the study. Validity was ascertained by checking that the questions measured what they were supposed to measure such as: the clarity of the wording to make sure that the respondents interpreted all questions in a similar way; eliminating probable causes of ambiguity and confusion. To enhance the questionnaire's validity, it was appraised by the supervisor for evaluation of its applicability and appropriateness of the content and adequacy of the instrument from a research perspective.

Corrections on the identified questions were incorporated in the instrument and a field test was conducted with pilot randomly selected households that were not part of the study to ensure content of research instrument. Then the questionnaires were dispatched to the field

and administered by the selected research assistants. In the field, the following measures were followed to ensure validity: Where appropriate, interviewers spoke local language to enhance communication with the respondents, checking for one informant's description of a thing against another's description of the same thing, in addition to the answers received from some questions, answers were written down and looked at later to help in reducing distortions, recording personal thoughts while conducting observations and interviews. Responses that seemed unusual or incorrect were noted and checked on later against remarks and observations.

3.5.3 Reliability of the Research Instruments

Reliability refers to the extent to which instruments yield measurements that are consistent each time it is repeated to same people. According to Gay et al (2006), internal consistency reliability is the extent to which items in a single test are consistent among themselves and the test as a whole. The reliability of the questionnaires was tested using split-half method which is commonly used in survey research to experimentally determine the difference between two variations of survey recruitment protocol characteristics such as research instruments and collection data collection mode. Cronbach's Alpha of 0.81 was in line with Mugenda & Mugenda (1999) who recommend a threshold level of 0.70 for an acceptable reliability coefficient.

3.6 Data Collection Procedures

To generate data for this research study, the researcher obtained a letter of introduction from the University of Nairobi which was used to obtain a research permit from National Commission for Science, Technology and Innovation (NACOSTI). Copies of these two documents were presented at the Igembe South sub-county offices as a requirement before

the commencement of the field work. The researcher, with the help of trained research assistants then visited the local administration offices to make appointments then later visit the sampled households to establish rapport.

Data was collected from the respondents on the dates agreed upon obtaining informed consent. Instructions were carefully explained to the respondents prior to the interviews after assuring them the information given would be confidential and be used only for the purposes of the study. Adequate time was accorded to each respondent to obtain appropriate answers to the questions after which the accorded completed questionnaires were checked for completeness and accuracy. The data collection exercise took approximately 5 days after which the data will be entered in Microsoft Excel database and cleaned to verify for errors.

3.7 Data Analysis Techniques

Descriptive data collected from this study was entered in a Microsoft Excel database and cleaned to ensure accuracy and completeness. Statistical Package for Social Sciences (SPSS) version 17.0 was used to analyze the data and was presented using descriptive statistics such as frequency distributions, percentages and averages. Martin & Acuna (2002) observes that SPSS is able to handle large amounts of data; it is time saving and also quite efficient. Frequency tables, were used to analyze the background data on age, marital status, women's level of education and demand for modern family planning services. Percentages and correlations were also calculated for the various indicators. Chi-square statistic (χ^2) was calculated for the specified cross-tabulations, where appropriate with significance declared at a P-value = 0.05.

3.8 Ethical Issues in Research

Obtaining a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) to carry out this research made it authentic. Letter of transmittal was given to the respondents seeking to explain what the study was all about; assuring the respondents that the study was purely for academic purposes. Consent was sought before the exercise began and the study observed a high level of confidentiality on the information shared by the respondents i.e. No names were written on the questionnaires and the information gathered was only to be used for the purposes of the study. The personal right of choice to participate in this study was ensured by informing the respondents of their voluntary participation and withdrawal from the study any time they wished. Trained research assistants were used to conduct this study, ensuring high levels of professionalism and humility especially on respondents of lower educational levels and low income level respondents, and those that wished to discontinue as participants of this study. The findings were to be shared to any respondent who wished to see the outcome of the research.

3.9 Operationalization of Variables

This is a table that showed explicitly of the variables and their operational indicators. Operationalization of the study variables was done according to the objectives of the study: To assess how the level of income determine demand for modern family planning services, to examine extent to which cultural expectations determine demand for modern family planning services, to establish extent to which the level of education determines demand for modern family planning services and to assess the determinance of awareness on demand for modern family planning services. These study variables were as shown in Table 3 of this study.

Table 3.1:Operationalization of variables

Objectives	Variables	Indicators	Measurement	Scale	Data collection method	Data Analysis
Determinance of income levels on demand for modern family planning services	Independent variable	Amount spent on reproductive healthcare <ul style="list-style-type: none"> • Monthly income • Cost of procedures • Travel costs 	Cost of Healthcare	Ordinal	Questionnaire	Logistic regression, frequencies and percentage
Cultural expectations on demand for modern family planning services	Independent variable	<ul style="list-style-type: none"> • Social support from spouse/parents and peers. • • Health side effects from modern FP methods 		Ordinal	Questionnaire	Logistic regression, frequencies and percentage
Women’s education level and demand for modern family planning services	Independent variable	<ul style="list-style-type: none"> • Highest academic qualification 	Academic qualification	Ordinal	Questionnaire	Logistic regression, frequencies and percentage

Determinance of awareness on demand for modern family planning services	Independent variable	<ul style="list-style-type: none"> • Number of health talks attended • Information from community health workers and media 	Health talks, community Mobilization, media campaigns	Nominal	Questionnaire	Logistic regression, frequencies and percentage
Demand for modern family planning services	Dependent variable	<ul style="list-style-type: none"> • Number of women using various modern family planning methods 	Number of women on long and short term methods of family planning and taken trough importance of the services	Ratio	Questionnaire	Logistic regression, frequencies and percentage

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter consists of data analysis, presentation and analysis. In research data, data analysis refers to categorizing, ordering. Manipulating and summarizing of data to obtain answers to research questions based on these themes: demographic characteristics and; income levels, cultural expectations, level of education, level of awareness and demand for modern family planning services among women of reproductive age in Igembe South Sub-County.

4.2 Questionnaire return rate

The number of questionnaires issued during the study was 289; where each of the 289 respondents was issued with one questionnaire as shown in Table 4.1.

Table 4.1: Questionnaire Response Rate

Category	Frequency	Percentage
Returned	286	98
Not Returned	3	2
Total	289	100

This table shows a total of 289 (98%) of the respondents who responded to the questionnaire while only 3 (2%) did not respond. According to Mugenda&Mugenda (1999), a response rate of 70% is scientifically acceptable. Since this study was a health survey involving questions of a personal nature, the 3 questionnaires not returned were those from respondents who

opted not to participate in the study. This means that the questionnaires filled and returned were sufficient enough to provide the required data.

4.3 Demographic Characteristics

The study of the determinants of demand for modern family planning services among women of reproductive age looked at the female respondent's characteristics of age group, marital status, income and education levels to assess whether these determined demand for modern family planning services among women of reproductive age. These themes were discussed in the following sections.

4.3.1 Distribution of women by age

The study was interested in finding out whether age has deteminance of demand for modern family planning services among women of reproductive age. The respondents were asked their age and categorized as shown in Table 4.2.

Table 4.2: Distribution of women by age

Category	Frequency	Percentage
15-19 Years	17	5
20-24 Years	32	11
25-30 Years	75	26
31-34 Years	71	24
35-39 Years	50	17
40-44 Years	29	10
45-49 Years	12	4
Total	286	100

The results show that that 26% of the respondents belonged to the 25-30 years category, followed by 24% from 31-34 years, 17% from 35-39 years, 11% from 20-24 years, 10% from 40-44 years, 5% from 15-19 years and lastly 4% from 45-49% years category. The high response from 75 (26%) and 71 (24%) was attributed to the use of Kish grid (Appendix 111) which gave them a higher chance of being interviewed since this is the prime age and women who fall in this category are likely to be using modern family planning services hence the grid was effective by giving them higher chance of being interviewed. Clearly from the findings, majority of the respondents were women between 25-34 years and this can be attributed to the fact that at this age most women are already through with at least secondary education and began family planning either as married or single parents.

4.3.2 Distribution of women by marital status

Marital status of women was sought as it was important form of cultural expectation and to compare who among the subsets was involved in seeking family planning services as shown in table 4.3.

Table 4.3: Distribution of Women by marital status

Category	Frequency	Percentage
Married	189	66
Divorced	35	12
Widowed	18	6
Never married	42	15
Separated	4	1
Total	286	100

Majority of women were married at 189 (66%) followed by those who were never married at 42 (15%), divorced at 35 (12%), widowed at 18 (6%) and lastly those who were separated 4 (1%). From the findings, it was deduced that most respondents who participated in this study were married.

4.4 Distribution of women by level of Income

Income is said to have possible effects on uptake of modern family planning services. It is predicted to have a positive impact on uptake of modern family planning services because higher income leads to an increase in demand for time in health. Employment status has been shown to be correlated with demand for modern for services and employed women have a greater uptake of the services. Table 4.4 shows these details.

Table 4.4: Distribution of women by level of income (employment)

Category	Frequency	Percentage
Employed full-time	31	10
Employed part-time	32	11
Self-employed	115	39
Still studying	13	4
Retired	16	5
Unemployed	111	38
Total	286	100

The study sought to find out if the employment status of the respondents determined demand for modern family planning services. Table 4.4 shows that self-employed respondents were the majority 115(39%), followed closely by unemployed 111 (38%), employed part-time 32 (11%), employed full time 31 (10%), retired 16 (5%) and in conclusion those who are still

studying were the least at 13 (4%).4.5: Use of modern family planning and level of income was directly related as those with an income seemed to use modern family planning services as opposed to those without a direct source of income and that income can be said to be very key to access these services.

Table 4.5: Use of modern family planning by level of income

Category	Frequency	Percentage
Below 5000	56	24
Between 5000-20000	160	57
Above 21000	70	19
Total	286	100

Table 4.5 shows that 160 (57%) of women earning between 5000-2000 were on modern family planning services while 70 (24%) of women earning above 21000 followed. The least were those earning below 5000 were 56 (19%).From the findings of this study, it was deduced that the level of income affects choice and use of family planning services with those with a very low of income not seeking modern family planning services as much as those with a relatively reasonable source of income.This means that modern family planning services are expensive and only those with steady income can afford.

4.5 Cultural expectations and demand for modern family planning services

Questions on whether cultural expectations determine demand for modern family planning services were essential to this study.

Table 4.6: Cultural expectation and demand for modern family planning services

Category	Frequency	Percentage
Yes	161	57
No	125	43
Total	286	100

Of the respondents interviewed, 161 (57%) said that cultural expectations determines demand for modern family planning services while only 125 (43%) indicated their culture not to affect demand for modern family planning services. The findings from this study clearly speak out that culture expectations are key determinants for demand of modern family planning services among women of reproductive age.

4.6 Cultural expectations and choice of family planning methods

This table indicates that majority of the respondents are influenced by their cultural values on the choice of method of family planning service.

Table 4.7: Cultural expectations and women's choice of family planning methods

Category	Frequency	Percentage
Agree	144	50
Strongly disagree	78	27
Uncertain	35	12
Disagree	16	5
Strongly disagree	13	4
Total	286	100

Majority of the respondents were those who agreed 144 (50%), followed by those who strongly agreed 78 (27%), those who were uncertain were 35 (12%), those who disagreed

were 16 (5%) and finally those who disagreed strongly were 13 (4%).It was deduced that majority of the respondents agreed that cultural expectations determine the demand for modern family planning services among women of reproductive age in Igembe South-Sub County.

4.7 Distribution of women by level of education

The respondents were asked about the highest level of education attained. It was an important variable in this study as education determines if information sharing can be done with ease. Table 4.5 shows the results.

Table 4.8: Distribution of women by level of education

Category	Frequency	Percentage
None	69	24
Primary	99	36
Secondary	62	21
College/University	56	19
Total	286	100

The study findings of the level of education showed that the majority of the respondents had attained primary school education 99 (36%), those with no education were 69(24%), secondary school were 62 and those in colleges and universities were the least 56.From the finding of this study, it was clear that majority of the respondents using modern family planning services had at least attained primary level education and had acquired proper and adequate cognitive, psychomotor and social skills.

Table 4.8.1: Education by age categories

Category	Frequency	Percentage
15-19 Years	15	5
20-24 Years	32	11
25-30 Years	77	31
31-34 Years	71	22
35-39 Years	50	17
40-44 Years	29	10
45-49 Years	12	4
Total	286	100

Results of the study showed that women of between 25-30(31%) years had attained education, followed by 31-34 (22%) year category,35-39 (17%) year category while 20-24 (11%) was fourth. Women of between 40-44 years were at 10% in terms of level of education attained, 15-19 year category was at 5%, an expected result since those who have not attained a consenting age were left behind in the cases where their parents did not consent on their behalf. The last on this age category in terms of highest education attained were those between 45-49 (4%).Clearly from the findings of this study, the most educated women were in the age category of 25-30 years. This is an indication that most women between 25-30 years went through formal systems of education hence age determines ones level of education.

4.8 Awareness level and demand for modern family planning services

Knowledge of what services are available and the benefits greatly influences demand for modern family planning services among women of reproductive age. Awareness of modern family planning services is key to utilization of these services by women of reproductive age. Table 4.6 shows the details.

Table 4.9: Awareness and demand for modern family planning services

Category	Herd of FP (N=286)		On FP (N=108)
	Frequency	Frequency	Percentage
Yes	75	24	42
No	166	79	47
Unsure	45	5	11
Total	286	108	100

Table 4.9 shows that 166 respondents had never heard of family planning services while 79 were on FP methods indicating that only 47% of those who had never heard of FP services sought the service. Further, 75 had heard about modern FP services and only 24 were on FP methods indicating 42% of those who had heard of FP services and sought the services. Lastly, those unsure were 45 respondents and of them were on FP methods indicating only 11% who were unsure had sought for FP services. It is likely that the channels are limited and reach a few of the clients seeking the modern family planning services.

Table 4.9.1: Demand for modern family planning service by source of information

Being a local setting in society, it was clearly expected that media would not be an effective source of communication.

Category	Frequency	Percentage
Doctor	116	44
Nurse	29	10
Community Health Worker	106	37
Media	13	2
Friend/Family member	21	7
Total	286	100

Table 4.9.1 shows that doctors were the highest source of information and the most influential source at 116, (44%) followed by community health workers 106 (27%), nurses at 29 (10%), friends and family members at 21 (7%) and lastly the media at 13(2%).The doctors provide the highest source of information because of their experience in their profession and the amount of knowledge they have in modern family planning services.

4.9 Cost of family planning services

The cost of family planning services and other health services is concluded to be very key to the success of modern family planning services and Table 4.10 indicates the results as per this study.

Table 4.10: Cost of Family planning services

	On FP (N=108)	(Interviewed N=286)	
Category	Frequency	Frequency	Percentage
Very Expensive	34	150	22
Expensive	20	70	23
Fair	39	45	30
Very Cheap	15	21	25
Total	108	286	100

Table 4.10 indicates that majority of the respondents reported that family planning services were very high 150 (22%) and among them only 34 were on modern family planning services. Those who reported family planning services as expensive were 70(23%) and among them only 20 were using modern family planning services.45 (30%) reported family planning services as fair and among them 39 were using modern family planning services.

Lastly, those that reported family planning services as very cheap were 21 (15%) and 15 among them were on modern family planning services. From the findings of this study, it was clear that respondents who reported family planning services to be very expensive were the majority that were not on modern family planning services. This means that most of the women who are in need of modern family planning services are poor and cannot afford the modern family planning services.

Table 4.10.1 Distance to the nearest health facility.

Category	Frequency	Percentage
Less than 1 Km	26	9
5 Km	50	17
5 Km to 10 Km	91	32
More than 10 Km	119	42
Total	286	100

Table 4.10.1 shows that most women travelled for more than 10 kilometres to seek for family planning services 119 (42%) while those who travelled for between 5 and 10 kilometres to access family planning services were 91 (32%). Those who travelled for five kilometres were 50 (17%) and in conclusion those who travelled for less than one kilometre were only 26 (9%). This clearly indicates that these services were not easily accessible in terms of the vastness of the area and the proximity of the health facilities. Geographic factors play an important role in access to use of health facilities with the major limitation in describing physical access to health services is the assumption that people use the nearest health services.

4.10 Long term versus short term methods of family planning

The questionnaire also included the question of whether the respondents were on short term or long term methods of family planning and the results are as indicated in table 4.11

Table 4.11: Long term versus short term Family planning methods

Category	Frequency	Percentage
Long term method	33	31
Short term method	75	69
Total	108	100

The results of the study showed that of the 108 respondents on modern family planning methods, 75 (69%) of them were on short term methods while only 33 (31%) were on long term family planning methods. From the study findings, short term method was commonly used by the respondents that were already on family planning services and the assumption lies behind the awareness and the logistical factors that come along with long term family planning methods.

Table 4.12 Demand for family planning services by source of service

Category	Frequency	Percentage
Government health facility	72	28
Private health facility	162	57
Pharmacy	52	15
Total	108	100

The results indicate that private health services were highest sought for services by women at 162 (57%), while government health facilities were second at 72 (28%) and the least sought for services were pharmacies at 52 (15%). Private providers are the first source of care for the majority of poor in sub-Saharan Africa, (HANSHEP, 2015). This also means the private health facilities may be less congested compared to the Government health facilities.

4.13 Challenges and Solutions

Table 4.13.1 Challenges experienced when seeking for modern family planning services

Category	Frequency	Percentage
Transport issues	70	24
Partner support	47	16
Poor services at the health services	75	27
Lack of money to pay for services	84	30
None of the above	10	3
Total	286	100

Of the respondents who responded to this question, 84 (30%) of them said that lack of money barred them from seeking family planning services, followed by 75 (27%) who attested poor services at the health facilities as a challenge, 70 (24%) of the respondents said transport issues were their main challenge while seeking for family planning services while 47 (16%) of the respondents said partner support was a challenge and lastly 10 (3%) of the respondents said that none of the mentioned challenges barred them from seeking for modern family planning services. From the findings of the study, it was clear that financial constraint was the main challenge while seeking for modern family planning services among women of reproductive age in Igembe South Sub-County. This is an indication of the level of poverty among women of reproductive age in Igembe South Sub-County.

Table 4.13.2 Solutions that can solve challenges experienced when seeking for family planning services

Category	Frequency	Percentage
Free provision of modern family planning by the Government.	82	28
Subsidized family planning services at the health facilities	100	37
More awareness and education on issues of modern family planning	50	17
Increased number of health facilities in Igembe South Sub -County	48	16
None of the above	6	2
Total	286	100

When asked about the solutions likely to solve the challenges experienced while seeking for modern family planning services, 100 (37%) of the respondents wished for subsidised modern family planning services while 82 (28%) of the respondents wished there would be provision of free services by the Government, 50 (17%) more awareness should be created, 48 (16%) said there should be an increase in number of health facilities and lastly 6 (2%) attested the challenges they face to none of the solutions given in this study. From the findings in this study, subsidized family planning services were most recommended by the respondents.

Table 4 .14 Bivariate analysis of determinants associated with demand for modern family planning services in Kenya

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	0.929	0.112		8.305	0.000
	Level of income	0.141	0.026	0.307	5.43	0.000
2	(Constant)	1.156	0.204		5.664	0.000
	Cultural support	0.338	0.126	0.157	2.687	0.008
3	(Constant)	1.339	0.124		10.752	0.000
	Highest education level	0.108	0.086	0.074	1.254	0.211
4	(Constant)	1.272	0.167		7.625	0.000
	Heard of FP	0.202	0.153	0.078	1.32	0.188

Table 4.14 above indicates that at 95% confidence interval there is a highly strong relationship (p value =0.001<0.000).between level of income and family planning use. There was a highly significant relationship (p value =0.001<0.008) between the level of education and the use of family planning services which means that the level of education attained by

women affects their choice of modern family planning services. The results of this study clearly indicate that the more a woman has attained in education, the more she is likely to seek for modern family planning services. The study further reveals that there is a positive relationship ($p \text{ value}=0.001<0.188$) awareness and demand for modern family planning services. Those who reported to have attended health talks were more likely to seek for modern family planning services as opposed to those who had never attended health talks.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND
RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings of the research, discusses the results, draws conclusions and makes recommendations for determinants of demand of modern family planning services among women of reproductive age in Kenya.

5.2 Summary of Findings

Significant findings that arose from the study were on determinants of demand for modern family planning services among women of reproductive age in Kenya were on; respondents demographic factors and women aged between (25-30 years) 31% are those that had sought for family planning services while those who had attained primary education were 36% and had sought for family planning services were those in the age category of 31-34 years.52% of the women who had sought for family planning services were married and belonged to the age category of 25-30 years. The findings could be explained by the fact that women aged between 20 - 39 years are likely to be married and at a high risk of getting pregnant. As result, they may resort to the use of birth control methods. Additionally, some of these respondents may also be using the services to protect themselves against sexually transmitted diseases.

On the income of determinants of demand for modern family planning services, the findings of the study showed that out of the 286 respondents, only 160 (57%) were earning between 5000-20000 Kenya shillings. Another significant finding is that the women who were self-

employed were 115 (39%) but of the women who were on family planning services, % of the full time employed women were on long-term methods. On the distance to health facilities, 42% of the women accessed health facilities that were 10 kilometres away compared to the 7% who accessed health facilities with 5 kilometres of travel.

On cultural expectations, 161 (57%) of the respondents said that their cultural affiliations do not support modern family planning services. Further, 144 (50%) respondents answered that cultural expectation determines their choice of modern family planning services.

The determinance of women's educational level on determinants of demand for modern family planning services had significant findings in that out of those who had no education, only 10 (9%) were on modern family planning methods compared to 52 (48%) who had attained primary education.

On awareness of determinants of demand for modern family planning services, the results of the study found that information about family planning is attained from doctors at 116 (44%) as compared to the media which was the lowest at 13 (2%). Among the 55 (42%) women who had heard of family planning services, only 24% were on modern family planning methods.

5.3 Discussion of the Findings

From the bivariate analysis of determinants associated demand of modern family planning services among women in Kenya, awareness family planning services affects the use of the family planning methods, hence the fourth research question is accepted. On investigating whether cultural expectation and whether it influences the uptake of modern family planning services, it was significant as respondents said that their cultures influence their choice of

family planning methods. On the level of income and education level, the findings were significant as the two variables as the relationship was highly hence it is acceptable that the two determinants determine the uptake of modern family planning services among women of reproductive age.

5.3.1 Income level and demand for modern family planning services

The study sought to find the determinants of demand for modern family planning services among women of reproductive age in Kenya and income was an important factor determining demand for modern family planning services. The findings show that majority of the women are self-employed (44%) earning very low wages as most of them reported to be earning between 5000-2000 Kenya shillings. Majority of the women reported the family planning service costs to be very expensive (22%) and out of the 150 who cited services to be very expensive, only 34 of them were on modern family planning methods. Further to this, 42% of the respondents said they travel for more than 10 kilometres to access health services where this family planning services received.

The findings were confirmed by previous studies on the role of financial support and geographical access to health facilities. Opportunistic costs for forfeiting work and income for a day prevents majority of them from going to health facilities for essential services (Goldie et al., 2001). In Nyarit, Mexico and Western Kenya, women reported that transportation costs and distance played a significant role in family planning use and loss of follow-up (PATH, 2002). Kenyan studies show that women travel from two to eight hours at an average cost of day's agricultural wage (Albwao et al., 2001) to seek for health services. Geographic factors also play an important role in access to and use of health services (Snow et al. 1994). The major limitation in describing physical access to health services are the

assumptions that people use the nearest health facilities and that they travel to it in a straight line. Women interviewed in Kenya reported that it is often problematic for a woman to go to a health clinic to seek service if she is 'feeling healthy' as she has must convince her partner to get money for transport when she is visibly okay. (Albwao et al., 2001).

5.3.2 Cultural expectation and demand for modern family planning services

According to Ismet (2000) from the reviewed literature, cultural background of a woman is likely to have an effect on the use of modern family planning services .The study reports findings on the relationship between cultural expectations and uptake of modern family planning services. From the study,57% of the respondents said that their cultural backgrounds determines their choice of modern family planning services while only 43% of the women said that their cultural backgrounds do not determine their uptake for modern family planning services. Women who are in a more liberal culture are more likely to use modern family planning services as opposed to those who are in conservative and exploitative cultures Oyedakun (2007).

5.3.3 Women's level of education and demand for modern family planning services

The study reports findings on the relationship between education and demand for modern family planning services as a form of preventative health -care activity. From the study population, 76% of the women using family planning methods had at least attained primary education and only 24% had no education at all. The results of this study, supports Ismet (2000) study that found that the use of modern method of family planning tended to increase with educational level of a woman. Moreover Clement and Nyovani (2004) also established that modern contraceptive use increased with the educational level of a woman in Tanzania.

This finding also compares with Oyedokun (2007) who found the use of family planning services to be high for women who had more years of schooling in Nigeria. Education can enhance the demand for preventive health services by raising awareness of the importance of being on modern family planning services and may also improve ways in which individuals understand information regarding medical costs, communication with health practitioners and interpreting results. It also enhances the inclusion of individuals in society, improving self-efficacy and confidence, and all these factors improve service uptake.

5.3.4 Women's awareness level and demand for modern family planning services

The study sought to find out the determinants of demand for modern family planning services among women of reproductive age in Kenya and awareness was an important factor in determining utilization of the services; but modern family planning uptake levels were quite low at 108 (37%), while 62% had heard of modern family planning services and the family planning uptake age debut was 25-30 years. Those who had attended health talks were 75 (26%) while those who said that the information they got from the awareness sources influences their choice for modern family planning uptake were 111 (39%) in the age bracket of 31-34 which matches Gichogo (2012) in his study to determine factors that influence family planning uptake at 28% among women aged 29-40, 229 women responded to questions of level of education, awareness on issues relating to demand for modern family planning services, support and accessibility of the services. The results showed that utilization or uptake was low at 37% despite that the study group consisted of women who had at least primary education and had autonomy in decision making regarding their utilization of family planning services. The study group was however a rural population which explains the low rate of family planning uptake.

5.4 Conclusion

Utilization of family planning services has been the concern of not only the government but also other stakeholders including researchers. In this study, it has been established that only a few women in Igembe South sub-county use family planning services. Various demographic, socio-economic and facility factors account for the low use of family planning services amongst women in slums. These include by order of their marginal effects income levels, cultural expectation, education levels and awareness.

It has been demonstrated that the vast majority of women in some countries had never heard of family planning services and even more know nothing about modern family planning services. This study had similar results whereby awareness was 37% among the respondents. The low awareness level of family planning services could be attributed to the study population being from a rural setting and therefore have little or no access to different forms of information through different avenues.

A person considered trustworthy by the population could have the possibility to effectively reach these people in their community. In this study the results show that doctors were the most information givers about family planning services and that majority of the women made decision regarding the uptake of family planning services based on the information they got from the sources or rather motivated them to proactively seek the services.

Even where health facilities existed in close proximity, there were different characteristics that determine whether a woman actually does access services. Women who use family planning are younger (aged 25-30), married and have a source of income and are better

educated. Having financial resources and support from health care givers are among the significant determinants of demand for uptake of family planning services.

5.5 Recommendations

The study suggested there be need for:

- i. Implementation of research to ensure that family planning services are widely accepted, cost-effective and achieve high coverage.
- ii. There is need for training, supervision and follow up of CHWs activities as the interface between the formal health care system and the community, bridge the gap between health needs and provision.
- iii. Increase the number of government health facilities and provide efficient services so as to reduce transport costs incurred by women as they go seeking for the services over vast distances.
- iv. Enhance donor partnership with private health facilities so as to provide subsidised family planning services as most women go for services in the private health facilities.
- v. Encourage and enhance Inter personal communication.

5.6 Suggestions for Further Research

There are other factors that influence demand for modern family planning services that need to be investigated. This study suggests the following research priorities:

- i. Understanding individual and community-level barriers to uptake of modern family planning services.
- ii. Improving healthcare worker performance by identifying effective methods for training, supporting and supervising community health care workers.

- iii. There is also need to seek answers as to why women irrespective of whether they are in rural or urban settings, their awareness, academic and income levels are not heavily involved in preventive healthcare despite the easy access to free and subsidised modern family planning services.

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APENDICES

APPENDIX I

LETTER OF TRANSMITTAL OF DATA COLLECTION INSTRUMENTS

MuneneWinnie Mwendu

P.O Box 72-60600

Maua, Kenya.

10/07/2015.

Dear Respondent,

**RE: DETERMINANTS OF DEMAND FOR MODERN FAMILY PLANNING
SERVICES AMONG WOMEN OF REPRODUCTIVE AGE IN KENYA.A CASE
OFIGEMBE SOUTH SUB-COUNTY.**

I am a postgraduate student undertaking a Master of Science degree in Project Planning and Management from the University of Nairobi in the School of Continuing and Distance Education (S.C.D.E).It is a requirement by the University that all students undertaking this course to carry out a research project of which in my case I will carry out my research as per the above mentioned topic.

I will be grateful if you spare some time from your ordinary schedule and participate in this questionnaire. All information shared by you will be purely used for academic purposes and your identity will be treated with paramount confidentiality. You will not be required to write your name on this questionnaire.

Thank you for your cooperation.

Yours faithfully,

Winnie MwenduMunene.

APPENDIX II

QUESTIONNAIRE FOR WOMEN OF REPRODUCTIVE AGE

Read to respondent: "I would like to ask you some questions about yourself" Do not read out answers unless stated. Allow for unprompted responses and circle the corresponding to the answer.

SECTION 1: DEMOGRAPHIC CHARACTERISTICS

1. What is your age? (In years)

15-19 20-24 25-30 31-34 35-39 40-44 45-49

2. What is your marital status?

Married Divorced Widowed Never-Married

SECTION 2(A): LEVEL OF INCOME

3. Are you currently?

Employed full-time Employed part-time Self-employed
 Still studying Retired Unemployed

4. How much is your monthly level of income? (In Kenya shillings)

Below 5,000 Between 5,000 and 20,000 Above 21,000

5. What is the main occupation of the family head/spouse?

Self-employed No male head/spouse Does not work

6. How much did the family planning service cost you? (In Kenya shillings)

Don't Know

7. What would you say about cost of modern family planning services in health facilities?

Very Expensive Expensive Fair Cheap Very Cheap

8. How far is the nearest health facility from your home? Kilometers?

9. How much did you pay for transport as you went to seek for modern family planning services?

10. What would you say about the cost of transport to the health facility?

Very Expensive Expensive Fair Cheap Very Cheap

SECTION 2(B): CULTURAL EXPECTATIONS

11. Do you think that Cultural misconceptions influence demand for modern family planning services?

Strongly agree Agree Uncertain
 Disagree Strongly disagree

12. Have you ever talked with your spouse, mother, daughter, or friend about modern family planning services?

Yes No

13. Does your culture support the use of modern family planning services?

Yes No

14. Does your spouse or guardian(s), cultural beliefs influence your choice and use of modern family planning methods?

Yes No

SECTION 2(C): LEVEL OF EDUCATION

15. What is the highest level of education you have completed?

None Primary Secondary College/University

16. Do you think your level of education influence your choice of modern family planning service?

Yes No Unsure/Don't Know

SECTION 2(D): LEVEL OF AWARENESS

17. Have you ever heard of modern family planning services? (May be referred to as contraceptives)

Yes No Unsure

18. Have you ever attended a health talk on modern family planning services?

Yes No Unsure

19. Who talked to you about modern family planning services?

Doctor Nurse Community health worker Media

Friend/Family Member Other (Specify):

20. Do you think that the women's level of awareness on modern family planning services influences demand for these services?

Strongly agree Agree Uncertain

Disagree Strongly disagree

21. Did you feel you had the opportunity to ask questions to clear your doubts?

Yes No

22. Did the health worker answer your questions in a manner you understood?

Yes No

23. Do you feel you got enough information to make your decision?

Yes No

SECTION 3: DETERMINANTS OF DEMAND FOR MODERN FAMILY PLANNING SERVICES IN IGEMBE SOUTH SUB-COUNTY.

24. To what extent do you think the following are key factors that influence the demand for modern family planning services in health facilities? Please rank between 1-5 (5 being the highest priority)

Variable	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Level of income					
Cultural misconception					
Level of education					
Level of awareness					

25. Have you ever sought modern family planning services before, even if you did not receive them?

Yes No Unsure/Don't Know

26. If yes, did you receive any of the below services?

Sexual education Prevention and management of sexually transmitted illnesses[
 Preconception counseling Fertility management

27. What contraceptives are you using currently?

Pill (COC) Injection(CIC) Inatuterine device(IUD) Emergency pills (EC)
 Traditional birth control None

28. Where did you get the contraceptive?

Government health facility Private health facility Pharmacy

29. Which of the following is the most preferred channel of getting modern family planning services information?

Media Community health workers Medical personnel Peers

SECTION 4: CHALLENGES AND SOLUTIONS

30. What challenges do you normally face when seeking for modern family planning services?

Transport issues

Partner support

Poor services at the health services

Lack of money to pay for services

None of the above

31. What solutions do you think would solve the above challenges?

Free provision of modern family planning by the Government

Subsidized family planning services at the health facilities

More awareness and education on issues of modern family planning

Increased number of health facilities in Igembe South Sub-County

None of the above

*****Thank you for participating in this study*****

APPENDIX III

THE KISH GRID

Instructions for using Kish Grid

1. Find out how many people living in the household are eligible to be interviewed. Include people who sleep there, but are not there when you visit.
2. The youngest is number 1; the second youngest is number 2, and so on.
3. The first household where you do an interview is household 1; the second is household 2, and so on, up to household 8 - the last in the cluster.
4. Look up the column for the household number and the row for the number of eligible people. The number in the cell where the column and row meet is the person to interview. For example, if household 2 has 3 adults, interview the 2nd youngest (shown in bold type).

Eligible people	Household							
	1	2	3	4	5	6	7	8
1	1	1	1	1	1	1	1	1
2	1	2	1	2	1	2	1	2
3	1	2	3	1	2	3	1	2
4	1	2	3	4	1	2	3	4
5	1	2	3	4	5	3	4	5
6	1	2	3	4	5	6	3	6
7	1	2	3	4	5	6	7	4
8	1	2	3	4	5	6	7	8
9	1	2	3	4	5	6	7	8
10 or more	1	2	3	4	5	6	7	8

The reason for numbering the household members from the youngest upwards (instead of the seemingly more obvious oldest downwards) is that younger people are more difficult to find at home, so the above grid gives young people a slightly higher chance of being interviewed.

APPENDIX IV

KREJCIE AND MORGAN'S TABLE

Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
 "S" is sample size.

Source: Krejcie & Morgan, 1970

APPENDIX V

INTRODUCTORY LETTER



UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF EXTRA-MURAL STUDIES
NAIROBI EXTRA-MURAL CENTRE

Your Ref:

Our Ref:

Telephone: 318262 Ext. 120

Main Campus
Gandhi Wing, Ground Floor
P.O. Box 30197
N A I R O B I

14th July, 2015

REF: UON/CEES//NEMC/22/114

TO WHOM IT MAY CONCERN

RE: MUNENE WINNIE MWENDE- REG NO L50/69905/2013

The above named is a student at the University of Nairobi, College of Education and External Studies, School of Continuing and Distance Education, Department of Extra-Mural Studies pursuing Masters in Project Planning and Management.

She is proceeding for research entitled "**determinants of demand for modern family planning services among women of reproductive age in Kenya**". A case of Igembe South sub-county.

Any assistance given to her will be appreciated.




CAREN AWILLY
CENTRE ORGANIZER
NAIROBI EXTRA MURAL CENTRE

APPENDIX VI

RESEARCH PERMIT



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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When replying please quote

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

Ref: No.

Date:

2nd October, 2015

NACOSTI/P/15/26354/8120

Winnie Mwendu Munene
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Determinants of demand for modern family planning among Women of reproductive age in Kenya. A case of Igembe South Sub County,*" I am pleased to inform you that you have been authorized to undertake research in **Meru County** for a period ending **2nd October, 2016**.

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

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


SAID HUSSEIN
FOR: DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner
Meru County.

The County Director of Education
Meru County.

