

**FACTORS INFLUENCING CONTRACEPTIVE USE AMONG
MARRIED WOMEN IN RURAL KENYA**

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**A RESEARCH PROJECT SUBMITTED TO POPULATION
STUDIES AND RESEARCH INSTITUTE IN PARTIAL
FULFILMENT FOR THE DEGREE OF MASTER OF ARTS IN
POPULATION STUDIES OF UNIVERSITY OF NAIROBI.**

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DECLARATION

This research project is my original work and has not been presented for a degree award in any other institution.

Faith Gichanga

Signed: 

Date: 29 November 2011

This project has been submitted with our approval and authority as the University's appointed Supervisors for this study.

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Date: 07/12/11

DEDICATION

This work is dedicated to:

My Mentor: *Owen*,
great encouragement, support, and guidance; an incredible influence in my life.

Great Friends: *Byron, Naomi and Jaqi*,
like a wall, sometimes I lean on you and sometimes it is just enough to know you are there.

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Above all, I am most grateful to God who has seen me through it all.

ABSTRACT

Although knowledge of contraceptive methods is near universal, only 43 percent of women are currently using any modern method. This study analysed the factors influencing use of modern contraceptive methods among 3,620 married women of reproductive age 15-49 years in rural Kenya. It examined socio-economic, socio-cultural, demographic and other intervening factors. The dependent variable in the study is current use of modern methods of contraceptives. The data used was from 2008/2009 KDHS, a nationally representative survey.

Results showed that respondents level of highest education attained, number of children alive, fertility preference and exposure to mass media were highly significant factors influencing use of contraceptives by women in rural Kenya. Logistic regression result did not support the hypothesis that age of the respondent will likely impact the use of modern contraceptive methods in the study area. A policy recommendation was made with a call to the government to focus more effort on improving the education sector specifically to ensure that the effect of subsidized secondary education has a significant effect in improving secondary school enrolment, considering that among the study population only about 20 percent have atleast some secondary education.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Kenya has experienced a phenomenal demographic transition over the last few decades. The census figures show that the total national population grew from 5.4 million in 1948 to 38.6 million according to the 2009 population and housing census. It is currently estimated to be 41 million with an increase of approximately 1 million people per year. Kenya's population growth rate increased from 2.5 percent in 1948 to a peak of 3.8 percent in 1979, before decreasing to 2.8 percent by 1999 and then increasing again to 3.0 per cent in 2009. Total fertility rate (TFR) declined from 8.1 children per woman in 1979 to 4.7 children per woman in 1998 before stalling. According to 2003 KDHS TFR rose to 4.9 children per woman but has since decreased to 4.6 children per woman according to 2008 KDHS. Some explanations for this stall have been proposed (Askew et al, 2009; Westoff and Cross. 2006). The first is the reproductive behaviour model, which focuses on changes in fertility preferences or behavior for example, in use of contraception. Secondly, changes in institutional factors defined primarily by shifts in local or national policy or service delivery environments and specifically, decreases in the level of support for the family planning programme, at the local and national levels and/ or through reduced international donor support. Third, are changes in socio-economic and demographic characteristics. Contraceptive Prevalence also exhibited a similar trend as did fertility having increased significantly from 17 percent in 1984 to 39 percent in 1998 before a plateau with no change 5 years later. There is however more positive news according to 2008 KDHS whereby the CPR is reported to have increased to 46 percent, albeit it still remains low at less than half of all women only using contraceptives.

Kenya has long been a regional leader in developing strong population-related policies, as well as norms, standards and guidelines for service delivery. The period preceding the World Population Conference held in Bucharest in 1974 saw few African countries having explicit population policies. At this point in time only Mauritius (1958), Kenya (1967) and Ghana (1969) had formulated national policies primarily to reduce fertility and ultimately the rate of population growth which was perceived to be too high to permit the attainment of national development goals. This is not surprising given that the World Population Conferences held in Rome in 1954 and Belgrade in 1965 were scientific meetings convened by international Union of Scientific Study of Population (IUSSP) primarily for population scientists (Oucho et al, 1995) with Margaret Sanger as the only one advocating for the need for family planning. There was no government representation at these two conferences and governments which perceived population growth as a problem ended up calling upon governments of developed countries to help in articulating

these problems and prescribe appropriate policies and/ or programmes in developing countries to resolve them. It is in this context that the government of Kenya in 1965 invited a mission of the Population Council of New York which among other things recommended family planning as the most appropriate policy measure which the government embraced, inducing it to pronounce a national policy in 1966, for implementation a year later (Oucho, 1998).

The National Council for Population and Development (NCPD) was established in 1982 as the governmental agency to formulate population policies/strategies, and co-ordinate the diverse and growing range of public and private sector efforts in family planning promotion and provision. The combined family planning program efforts in Kenya have produced significant achievements in contraceptive knowledge and practice in the country.

Although the government adopted a national family planning program in 1967, it was not until 1984 that the country issued the Sessional Paper No. 4 of 1984, Population Policy Guidelines, and later the Sessional Paper No. 1 of 2000, National Population Policy for Sustainable Development to guide the implementation of the population program. The overall aim was to attain a balance between Kenya's population growth rate and sustainable development. More specifically, the policy recognizes regional variations with regard to population issues, respects fundamental human rights and freedoms, recognizes the family as the basic unit of the society, seeks to advance gender equity and equality, and encourages the empowerment of women and the elimination of all forms of violence against women. With regard to the specific objectives of the population policy, the Sessional Paper No. 1 of 2000 seeks to address the several emerging issues on population and the environment which are: unmet need for family planning; quality of family planning services; regional and rural-urban disparities in fertility and mortality levels; family planning knowledge and use; high prevalence of STDs including HIV/AIDS; and high levels of adolescent fertility.

There is an established, near-universal linear relationship between the level of contraceptive prevalence in a population and its current fertility. An increase of 15 percent in contraceptive prevalence is expected to yield a decline of about one child in the total fertility rate (Ross and Frankenberg 1993). Use of contraceptives is among the proximate determinants of fertility as identified by (Bongaarts, 1978).

This paper identified factors associated with use of contraceptive, for currently married women in their reproductive age residing in rural Kenya.

1.2 STATEMENT OF THE PROBLEM

General awareness of family planning is almost universal, at 95 percent of women of reproductive age (KNBS and ICF Macro, 2010), yet the level of contraception remains low at less than half of all currently married women using any method. A substantial proportion of married women still have an unmet need for family planning, which was at 25.6 per cent in 2008.

According to the national survey carried out in 2008/2009, 17 percent of births in Kenya are unwanted, and 26 percent are mistimed (wanted later). The total wanted fertility rate for Kenya is 3.4, while the actual total fertility rate of 4.6. In terms of place of residence, the total wanted fertility in urban areas is 2.5 while the TFR is 2.9, a variance of less than one child. However in rural areas, the situation is adverse with the total wanted fertility at 3.7 compared to the actual TFR which is 5.2, a variance of almost two children per woman.

Further, less than half (46 %) of currently married women in Kenya are currently using a method of contraception. Rapid urbanization in Kenya has led to an increasing focus of attention on family planning trends among urban dwellers who have a more favorable contraceptive prevalence rate at 53 percent, while rural women have a CPR rate of 43 percent. The same studies show that the current total fertility rate (TFR) is 4.6 children per woman in Kenya and whereas TFR in rural areas is 5.9 children per woman, the urban rate is 2.9 children per woman showing a considerable disparity between the urban and rural residents. Better understanding of factors associated with use of family planning in rural areas is vital for realizing a considerable potential for further increases in contraceptive use.

Studies have been done on determinants of contraceptive use and it has been noted that the rural populations have low rates of contraceptive use (CBS, 1977/78; Lightbourne, 1980; Ikamari 1985; Tuladhar, 1985; Wamucii, 1991). Fewer studies (Ndung'u 2004) have studied Women in rural Kenya independently. While most of the previous researches carried out have been carried out for the entire country, this study disaggregates and studies women in rural Kenya independently since they make a larger proportion of all women in the country, yet they have a lower contraceptive prevalence compared to those women in urban areas. This study focused only on currently married women residing in rural Kenya aged between 15-49. Additionally, this study used more recent data collected during the 2008/ 2009 KDHS which shows a change in trend in contraceptive use since the last similar survey 5 years prior.

This study therefore addressed the following research question:

- What factors influence contraceptive use among married women in rural Kenya?

1.3 OBJECTIVES OF THE STUDY

The general objective of this study was to determine the factors that influence contraceptive use among married women in rural Kenya. The specific objectives were:

- i) To determine the effect of socio-economic on contraceptive use among married women in rural Kenya.
- ii) To determine the effect of socio-cultural on contraceptive use among married women in rural Kenya.
- iii) To determine the effect of demographic factors on contraceptive use among married women in rural Kenya.

1.4 JUSTIFICATION OF THE STUDY

This study came in the backdrop of a historic demographic moment as the world celebrated the day of 7 billion in October 2011. It has taken only twelve years for the world population to grow by 1 billion, since the day of 6 billion in October 1999. The increase has its consequences on the ever shrinking natural resources. This has come with an increased call by population and health experts for making available, as well as, effective use of family planning both in the world and in Kenya as a country in order to control fertility and consequently the population growth.

In Kenya, women are yet to realize their fertility goals as seen in the disparity between the much smaller desired family sizes compared to the current TFR with rural areas having a much larger variance compared to urban folk. There is also an observed low contraceptive prevalence rate amongst rural population with less than half the women using any kind of contraception. The low prevalence of contraceptive use in rural areas can be explained by the differentials in socio-economic, socio-cultural and demographic factors. It is important to understand the factors influencing use of contraceptives.

Thus, as the rates of contraceptive use even among women who want to avoid pregnancy remain low, this contraceptive prevalence study, along with future research in this area, can help Kenya policymakers and program managers track family planning progress and refocus efforts to meet the goal of reproductive health for rural women in Kenya to help them realize their fertility goals by effectively addressing and developing effective strategies for meeting future demand of family planning through the provision of appropriate method mix to meet the need of current and future users.

1.5 SCOPE AND LIMITATIONS OF THE STUDY

The study was based on data collected in the 2008/ 2009 KDHS survey. It included a sample of all women in rural Kenya aged between 15-49 who are currently married or living together with a partner.

The use of secondary data sometimes posed a limitation in choice of variables. For this study, there was need to determine whether a respondent's partner had any influence on her use of contraceptives. However data on how often a couple discussed issues regarding family planning, and attitudes of a partner regarding use of family planning methods was only collected for those women who were currently using contraceptives at the time of the survey. This study therefore used age difference between a respondent and her partner as a proxy to determine whether a woman's partner has influence on whether or not a woman uses contraceptives. Despite this limitation DHS data on contraceptive use has been found to be of fairly good quality and hence that is why it was used for this research.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This section reviews literature of similar or related studies conducted. It outlines the other similar studies reviewed and the Conceptual Frameworks and the Operational Framework.

2.2 EMPIRICAL LITERATURE REVIEW

In a study conducted (Bradley, 2009) in eight countries, two from each region with available DHS data: sub-Saharan Africa (Kenya and Zimbabwe), North Africa/West Asia/Europe (Armenia and Egypt), South and Southeast Asia (Bangladesh and Indonesia), and Latin America and the Caribbean (Colombia and the Dominican Republic), awareness of a contraceptive method was found to be nearly universal among women in the sample, ranging from 95percent in Kenya (2003) to 100percent in Egypt and Bangladesh. Contraceptive pill and injectable awareness were both over 90 percent in every country except Armenia, where four-fifths of women knew about the pill and less than half knew about the injectable at both time points. Also of note were the low levels of awareness about female sterilization in Armenia—lower than in any other country—and male sterilization in Egypt where only 8 to 16percent of women had heard of the method. Knowledge about the IUD was highest in Egypt, Colombia, Armenia, and the Dominican Republic, while knowledge about implants was highest in Egypt, Indonesia, and the Dominican Republic. Awareness about male condoms was over 90percent in every country except Egypt and Indonesia. Overall, awareness of female sterilization has decreased or remained stable over time in every country. At the same time, awareness of injectables increased or remained stable in all countries except Armenia. Awareness of implants, though lower at both time points than awareness of the injectable, also increased in all countries except Armenia and Colombia. Periodic abstinence awareness decreased over time in every country except Indonesia and Bangladesh.

Analysis of dynamics surrounding change in use and use status among contraceptive users is important for understanding how well family planning programs address contraceptive users' expectations, needs and concerns (Kost 1993; Ali and Cleland 1995; Datey et al. 1995; Petta et al. 1994). It has been demonstrated that as the level of current use of contraception increases, continuity of contraceptive use becomes an important measure of overall program effectiveness in meeting the needs of contraceptive users (Jain 1989; Bertrand et al, 1994).

Feyisetan and Casterline (2000) provide direct empirical evidence of the decisive contribution to contemporary fertility declines of satisfaction of unmet need by examining changes in contraceptive prevalence in 26 countries in Asia, Africa, and Latin America between the late 1970s and the late 1990s. Using individual-level survey data on fertility preferences and contraceptive use, the authors determine what fraction of the observed change in contraceptive prevalence can be accounted for by changes in fertility preferences (i.e., demand-driven change) and what fraction is accounted for by increasing rates of use within preference categories (i.e., change due to satisfying unmet need, or, equivalently, due to increased implementation of fertility preferences). In all 26 countries, increasing rates of contraceptive use within preference categories account for a majority of the increase in prevalence (ranging from 61 percent in Ghana to 96 percent in Colombia). Changes in fertility preferences, by contrast, account for only about 20 percent of the increase in prevalence on average, and in none of the 26 countries do they explain more than 40 percent of the increase. The clear conclusion is that substantial increases in contraceptive prevalence (and, by this means, substantial declines in fertility) can be achieved in the absence of changes in the demand for children, through the satisfaction of already-existing demand for fertility regulation.

Marilou and Casterline (2002) discuss future prospects, and in particular the likelihood of fertility falling to replacement level (i.e. roughly two births per woman on average) in the Philippines. They discuss likely trends in desired fertility. This is followed by consideration of two factors that might act against the realization of desired levels of fertility: unwanted fertility, which will act to raise fertility above desired levels; and nuptiality changes, which could act to depress or elevate fertility but which seem most likely to depress fertility.

Survey data on unwanted fertility show that the fraction of births that were unwanted increased during the 1990s, from 16percent in 1993 to 18percent in 1998. According to the 1998 NDHS, a further 27 percent of births in the three years prior to the survey were mistimed (wanted later), resulting in a total of 45 percent of births unplanned.

If these were eliminated and other aspects of reproduction were held constant, the TFR would have been about one birth less in the mid 1990s—yet still well above replacement—at 2.7 births per woman. Unless this substantial amount of unwanted fertility is largely eliminated, it is difficult to imagine how fertility in Philippines could fall to replacement-level during the next few decades.

Induced abortion is both illegal and relatively unavailable in the Philippines, therefore, the principal determinants of unwanted fertility are, first, the contraceptive prevalence among those who wish to avoid pregnancy and, second, the efficacy of that contraceptive use.

Contraceptive prevalence increased from 40 percent in 1993 to 47 percent in 1998, and during the same period unmet need declined from 26 percent to 20 percent. The increase in prevalence occurred in both urban and rural areas, although the increase was larger in urban areas. These figures indicate important progress towards contraceptive protection for those couples who do not want to conceive. Nevertheless, there are significant programmatic, social, cultural, and economic barriers to contraceptive use. In the first place, problems of inaccessible services continue to plague the Philippine population program. The shift in the management of the family planning program from the national Department of Health to the local government, as mandated by the Local Government Code of 1991, has created discontinuities in political commitment and localized weaknesses in the financial and technical support for the program. Compounding the management problems created by devolution is the already noted Catholic Church opposition to contraceptive practice. One consequence of this opposition is a shortfall in the allocation of funds by some local government officials to family planning, compounded by declines in external donor support. For this and other reasons, problems of sustainability and logistics continue to plague the program. There are reports of absence of contraceptive supplies, for example in remote areas of Mindanao. Due to the bias of service providers, contraceptive services are largely unavailable to the young and unmarried.

If desired fertility were indeed to fall to replacement level (or even further), then couples in the Philippines would be subjected to even longer periods of risk of unwanted pregnancies than is the case at present (provided that sexual exposure does not decline). While some unwanted pregnancies in the Philippines are intentionally aborted, this remains an inconvenient and health-threatening option for most women. We believe that it is highly unlikely that induced abortion will become a common means of avoiding unwanted births in the near future. Hence, the prevention of unwanted births depends on the use of effective means of family planning by couples who wish to avoid pregnancies. As briefly reviewed here, there are a variety of barriers – programmatic, social, cultural, economic – to effective contraceptive practice. Most of these barriers, moreover, have been widely-known features of the contraceptive decision-making environment in the Philippines for decades.

Multi-factorial analyses of data from representative British and German national contraception surveys were used to examine the principal demographic determinants of contraceptive use by women (Oddens

and Lebert 1997). Contraceptive use appeared to be determined mainly by reference to 'reproductive status' (the combined impact of age, marital status, parity and future child wish). Women who were postponing pregnancies were using oral contraceptives, whereas those who wanted no more children relied more on intrauterine devices or sterilization. Differences between the countries suggested that the choice of contraceptive method was influenced by health care policy, the organisation of the relevant services and differential provider preferences. The contraceptive method used was also related to having occasional rather than steady sexual partners (more condom use), lower educational level (less oral contraceptive use) and frequent church attendance (greater use of condoms and periodic abstinence). Contraception decisions appeared to follow a fixed pattern based more on a couple's demographic situation (reproductive status, country, educational level and religious beliefs) than on the characteristics of the contraceptive methods. This resulted in an unnecessarily restricted choice of methods.

Access and service quality are important factors for contraceptive acceptance and continuation (Bertrand, 1994). Service quality also affects contraceptive prevalence (Bongaarts and Eloff 2002) and, ultimately, fertility (Jain, 1998; Blanc et al, 2002). The distinction between access and quality in evaluating the planning supply environment is analytically useful in identifying problems that demand different program management responses. The concept of access is linked to "getting clients to the clinic"; quality is linked to "keeping them wanting to come back" (Bertrand, 1994; Bertrand, 1995) Access to services includes physical access, such as distance to health posts, travel time, and the quantity and density of existing facilities (Chayovan et al, 1984; Tsui, Ochoa, 1992). It also includes other dimensions of accessibility, such as economic, administrative, cognitive (Foreit et al, 1978) and psycho-social (Bertrand, 1994). Several authors have pointed to a lack of consideration for the client's perspective (Bertrand, 1995; Bruce, 1990; Veney et al, 1993). The client is the one who ultimately makes the choice about contraceptive use; therefore, identifying the factors clients perceive as problems or deficiencies in service is an essential component for measuring service quality. Studies focused on the client's perspective can help researchers understand the motives that lead clients to choose one method over another, contributing to studies on acceptability – "a complex interplay between a woman, a technology and a service delivery environment" (Heise, 1997). Acceptability varies according to personal choices, local factors, and to women's perceptions concerning safety, effectiveness and convenience (WHO, 1980).

The range of methods available plays a particularly important role in women's acceptance of contraception and their continuation of use. The ability to choose from among a variety of contraceptive methods is essential for increasing the prevalence of use, and should be a part of family planning programs (Ross et al, 2002). A diversity of contraceptive methods increases the chance that users will find

the method that best fits their needs (Freedman and Berelson, 1976). Data for developing countries show that contraceptive prevalence is greater in countries where women have access to a greater variety of methods (Ross et al, 2002) ,While contraceptive prevalence in the world was estimated to be at 63 percent in 2003 (UN, 2007) it was particularly high in some Latin American countries such as Brazil (80.6% in 2006) 21. The method mix can reflect provider bias, supply problems, client preferences, beliefs, and convictions, all of which help us understand what is lacking in the service (Bertrand, 1994).

According to Oyedokun and Obafemi (2007), although knowledge of contraceptive methods is high among women in Nigeria, reported level of current use of contraceptives was low. This suggests that knowledge about methods does not translate to practice in the study area. Majority of the women interviewed felt that they needed more babies and that since they needed more babies, using any family planning method is unnecessary. Also, the result of the analyses and the extract from the focus group discussions shows that majority of the women had fear about side effects, although their fears were based on rumours which they cannot prove. Second, those women who discussed with their partners about contraception and those women who approved of some methods of contraception were found to be less likely to ever use any modern contraceptive methods. This suggests that women's approving a method of contraception does not necessarily means that they will ever use any of the approved methods. The result indicates that men are the primary decision-makers on issues relating to fertility and fertility control. If men are not open to using modern contraceptive methods, then the women are greatly limited in their own discussions and approval of contraceptive use. Third, an appropriate strategy to stimulate increased use of modern contraception is educating potential users on the benefits of family planning, the various methods available, the relative effectiveness and side effects of the various methods. Different strategies may have to be adopted to reach potential users in different circumstances and settings, including the health facilities. In fact, in the study area, health facilities were important sources of information about contraception. Fourth, results from the logistic regression models did not significantly support the hypotheses that women who know of at least one method are more likely to use modern contraceptives than their counterparts who know no method. Also, that those women with more children ever born are more likely to use modern contraceptive methods than their counterparts with fewer children ever born. *The likely reason for this may be because the women under study are young with the average age of thirty-five years and as a result, some of them still want more children. For the majority of women in the study, modern contraceptive usage was deemed necessary for those who have either reached their reproductive goal or reached menopause.*

In a study to determine the relationship between age difference between spouses and use of contraceptives, Magali et al (2002) compared 18 countries, including Kenya. The study showed that after controlling for level of education, modern contraceptive is mostly used by couples with small age difference between spouses. Conversely, women married to older men always have a lower level of contraceptive use. Despite a downward trend Sub Saharan Africa is still the continent where the mean age differences between spouses are the largest.

2.2.1 SUMMARY OF LITERATURE REVIEW

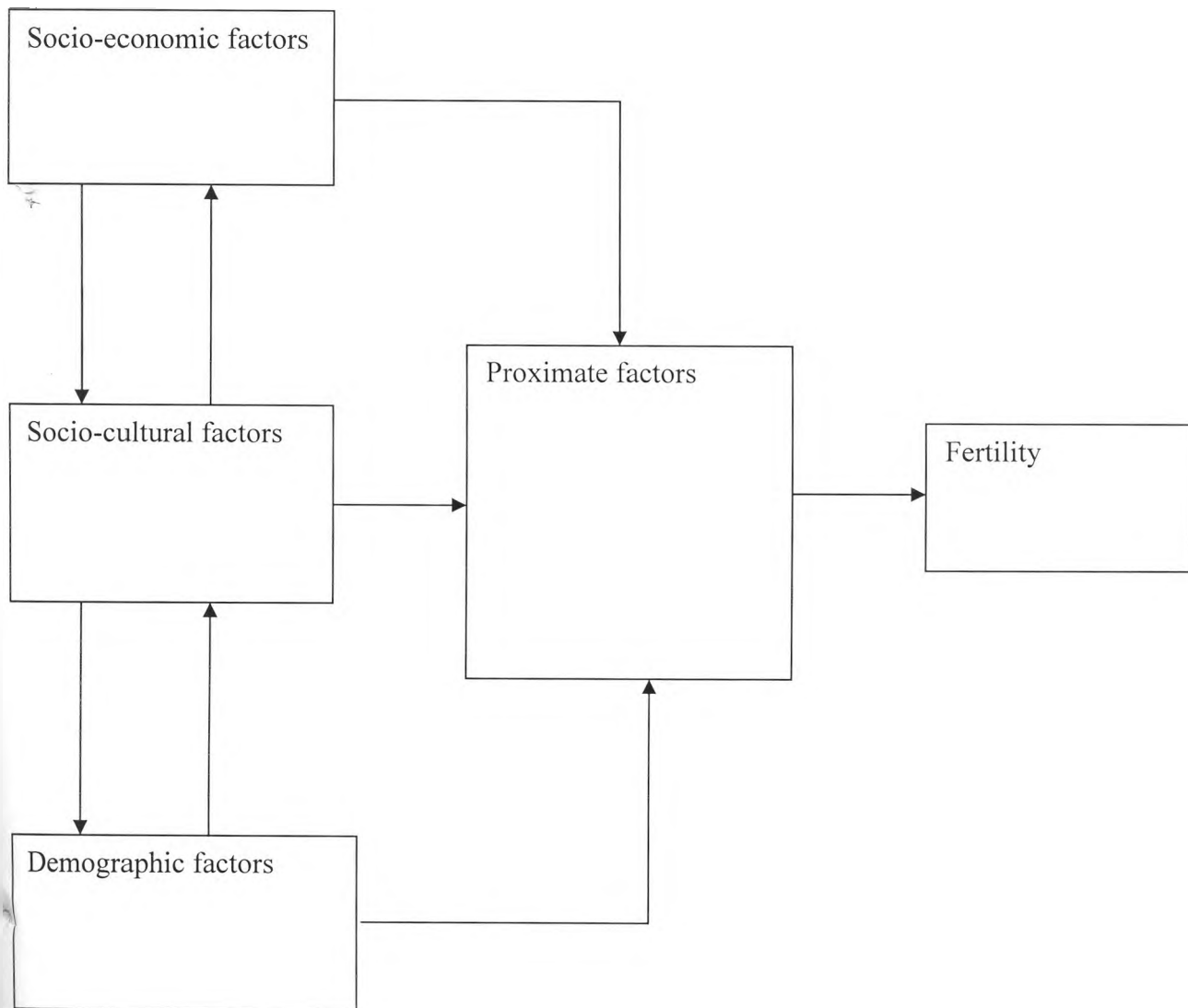
From the literature reviewed, it is evident that there is a relationship between fertility and contraceptive use. In rural Kenya the TFR is 5.9 children per woman which is almost 4 children above the replacement level while the contraceptive prevalence is below half at 43 percent whereas the knowledge of contraceptives is near universal. The aforementioned studies point out several factors which may be associated with use of contraceptive among women. These can be broadly categorised as socio-economic, socio-cultural and demographic factors and they act through intervening factors to influence use of contraceptives. Some of the factors identifies include but not limited to educational attainment, socio-economic status, place and region of residence, age, religion, marital status, and availability/accessibility of services. Age difference between spouses also influence use of contraceptive by women illustrating the disadvantage of ability of women married to older men to *make individual decisions* and in elaboration of shared conjugal projects. This study seeks to determine the main factors influencing contraceptive use among married women in rural Kenya.

2.3 CONCEPTUAL FRAMEWORK

This study will utilize a framework adapted from Bongaarts proximate determinants of fertility (1978). According to this framework, fertility is directly influenced by a set of factors such as contraceptive use among others, which are referred to as the proximate determinants. These are in turn influenced by social, economic, cultural, psychological, health and environmental factors, referred to as background factors.

The fact that the framework encompasses independent variables that were examined in this work, makes it far more suitable compared with others. Further, Bongaarts framework has been modified by other authors (Osiro, 2001; Kimani and K'Oyugi, 2004) to study the effects of socio-economic, socio-cultural and demographic factors on contraceptive use.

Below is a graphic representation of how the various factors interact to influence the outcome variable, fertility.



Bongaarts (1978) 'A framework for analyzing the proximate determinants of fertility' working papers, New York

2.3.1 CONCEPTUAL HYPOTHESIS

From the literature reviewed and Bongaarts model, conceptual hypothesis was made that socio-economic, socio-cultural and demographic factors influence use of modern contraceptives among married women in rural Kenya.

2.4 OPERATIONAL FRAMEWORK



Modified from Bongaarts (1978) 'A framework for analyzing the proximate determinants of fertility' working papers, New York

2.4.1 OPERATIONAL HYPOTHESES

The following hypotheses were developed based on the above conceptualization:

1. Respondents with secondary school and above are more likely to use contraceptive than those with less or no education.
2. Religion of the respondent is likely to influence use of contraceptives.

3. Married women with five and above living children are more likely to use contraceptives than those with fewer or no children.
4. The use of contraception is higher among those whose age difference with their Partners is less than among those who have large age difference.
5. Married women who wish to have another child are less likely to use contraception than those who do not want anymore children.
6. There is a positive relationship between exposure to mass media and use of contraceptives.

2.4.2 DEFINITION OF OPERATIONAL VARIABLES

Region of residence – This variable refers to the province in which the respondent lives. It includes all the provinces in Kenya except Nairobi which is totally urban. These provinces include: Central, Eastern, Coast, Nyanza, Riftvalley, Western and North Eastern.

Level of education – This variable is defined as the number of years spent by the woman in educational institutions acquiring formal education and is classified into: no education, primary incomplete, primary complete and secondary + education.

Religion – This refers to the particular system of faith that the woman belongs to. This research has categorized them as Roman Catholic, Protestant/ Other Christian, Muslim, and Other Religion/ No Religion.

Ethnicity – This refers to a particular ethnic community that the woman belongs to and in this study is categorized as Kalenjin, Kamba, Kikuyu, Kisii, Luhya, Luo, Mijikenda/ Swahili/ Taita/ Taveta, and others.

Age of the woman - This refers to the complete number of years lived by the respondent and is grouped into three age groups <20, 20-34, and 35+. This study concentrates in women of reproductive ages 15-49 years.

Number of living children – This variable has been categorized into four for the purpose of this study. These groups are: none, 1-2, 3-4, and 5+ children.

Age difference with the partner - This refers to the difference in years between the ages of the respondent and her partner and is grouped into three <10 years, 10+ years, and older, don't know how much.

Fertility preference – This refers to whether or not a woman wants another child and also if she is capable of having another is categorized in four as: wants another, undecided, wants no more/ sterilized, infecund.

Exposure to mass media – This variable refers to exposure to radio, newspaper and television among other sources of media used to impart information to the society. This research will concentrate on the radio only, as it is the major source of information to people in the rural areas since it is most affordable to most of them. It will be classified as heard of family planning on radio in the last months or had not heard.

Contraceptive use – This refers to all currently married women residing in rural Kenya who were using a modern method of family planning at the time of the interview. It is categorized into 2 main categories as use and non-use.

CHAPTER 3

DATA SOURCE AND METHODS

3.1 INTRODUCTION

This chapter gives a brief of the data source and outlines the methods of analysis that will be used to analyze data.

3.2 DATA SOURCE

The data used in this analysis come primarily from the 2008/ 2009 KDHS. The survey provides a nationally representative sample of women age 15-49. The survey questionnaires collected individual information from all eligible women on their socioeconomic and demographic background characteristics and on health issues, such as use of primary health care services, including family planning behavior. This study focuses on married women in rural Kenya, and their use of modern family planning methods. The independent variables considered include such socio-economic, socio-cultural and demographic variables as educational attainment, woman's age, region of residence among others. The dependent variable is the use of modern contraceptives to space or limit births. This is because the use of modern contraceptives mirrors the overall use of contraceptives as evidenced by studies and surveys conducted (Bradley, 2009; KNBS and ICF Macro, 2010) which show that in most countries the percentage of women who have used a modern method is very close to the percentage of women that have ever used any method and also that traditional methods are less effective in preventing pregnancy.

This study utilized data from all currently married women aged 15-49 residing in the rural areas. For the purpose of this study, women living together with their partner were also considered as married since they face similar risk of high exposure to sex. The sample size of all women in the rural Kenya currently married or cohabiting with a partner was 3620.

3.3 METHODS OF ANALYSIS

This study utilised the following methods:

- i) Descriptive Statistics and Cross Tabulations
- ii) Logistic Regression

3.3.1 DESCRIPTIVE STATISTICS AND CROSS TABULATIONS

Frequencies were used to describe the variables in order to understand the level of distribution of respondents by background characteristics.

Cross tabulation were used at the bivariate level to show differentials in contraceptive use. Chi square test were used to test significance of the associations between each of the independent variables and the dependent variable.

The Hypotheses to be tested were:

H₀: There is no significance association between X₁ and X₂

H₁: There is significance association between X₁ and X₂

Chi square statistic was computed as
$$X^2 = \frac{\sum (O-E)^2}{E}$$

Where E – Expected frequency for a cell

O – Observed frequency for a cell

Σ – means sum

Bivariate methods of analysis are used to show presence of association and the significance of this association only. They do not give the direct effect of a relationship between the various variables being tested. This study utilized Logistic Regression to identify the best fitting model to describe the relationship between the dependent variable (contraceptive use) and a set of independent variables.

3.3.2 LOGISTIC REGRESSION

Logistic regression is used to analyze dichotomous data, where the dependent variable takes a value of either 0 or 1. As such observations are concentrated in zero, that is, probability of not observing the event, or one, that is, the probability of observing the event. In this study this method was used to study the effect of each explanatory variable on contraceptive use.

The odds ratio generated allow for observation of the relative importance of each independent variable in predicting the likelihood of contraceptive behavior, compared to the reference category. Logistic regression is also preferred because it allows for statistical controls, which is not possible with chi square test. The general logistics regression equation is in the form of:

$$Y = \frac{e^{B_0+B_1X}}{1+e^{B_0+B_1X}}$$

Where:

Y = Dependent Variable

B_0 = Intercept of the logistics regression model

B_1 = Logistics regression coefficient

X = Independent variable

To make the distribution linear, a logit transformation was carried out, thus:

$$\text{logit}(p) = \ln(p/1-p) = B_0 + B_1X$$

Where:

logit (p) = the Log of Odds

$$p = \frac{1}{1 + e^{-\text{logit}(p)}}$$

Logistic regression uses the concept of maximum likelihood and the results are analysed using iteration method. The method tries to maximize the possibilities of observing the data provided by the logistic distribution. It uses the iteration process, which involves various steps of trying to determine the best way of mapping the distribution on actual data.

Table 3.1 below shows a summary of the study variables and their measurements.

Table 3.1 Summary of Variables and their Measurements:

Variable name	Measurement
Region of residence	0- Central* 1- Coast 2- Eastern 3- Nyanza 4- Riftvalley 5- Western 6- North Eastern
Level of education	0- no education* 1- primary incomplete 2- primary complete 3- secondary
Religion	0- Roman Catholic* 1- Protestant/ Other Christians 2- Muslim 3- Other Religion/ No religion
Ethnicity	0- Kikuyu* 1- Kalenjin 2- Kamba 3- Kisii 4- Luhya 5- Luo 6- Mijikenda/ Swahili/ Taita/ Taveta 7- Others
Age	0- <20* 1- 20-34 2- 35+
Number of living children	0- none* 1- 1-2 2- 3-4 3- 5+
Age difference with partner	1- 10+ years* 2- <10 years 3- older, unsure how much
Fertility preference	0- wants no more/ sterilized* 1- wants another 2- undecided 3- infecund
Exposure to mass media	0- not heard of family planning on radio in the last months* 1- heard of family planning on radio in the last months
Contraceptive use	0- non use 1- use

Table Legend

* - Reference category

CHAPTER 4

FACTORS INFLUENCING USE OF CONTRACEPTIVES AMONG MARRIED WOMEN IN RURAL KENYA

4.1 INTRODUCTION

This chapter presents the preliminary findings and discussion of the multivariate analysis on factors that influence contraceptive use among married women in rural Kenya. Section 4.2 describes the background characteristics of the study sample while section 4.3 presents the results of the differentials of contraceptive use by the various background characteristics. The results of the multivariate analysis are presented in section 4.4.

4.2 BACKGROUND CHARACTERISTICS OF STUDY SAMPLE

This section presents the results of the distribution of currently married women in rural by various background characteristics. The results are shown in table 4.1 below.

This study is based on a sample of 3620 married women in rural Kenya. Out of these, only 33 percent of them were currently using a modern method of contraceptive. The result show that minority of women in rural areas have attained at least secondary education (19) while majority of the respondents have some primary education. However, those women who have incomplete primary education represent approximately a third of the entire sample. Majority of the women (18 %) were found in Eastern, Nyanza and Riftvalley provinces while North Eastern province had the lowest representation at 10%. Nairobi is considered totally urban and therefore was not included in the analysis.

Of the sampled respondents women professing Protestants and Other Christians faith accounted for over 59 percent of the total respondents while women professing Roman Catholic and Muslim faith were 19 percent and 18 percent respectively. In terms of ethnicity, majority of women were from Kikuyu and Luo ethnic groups (14%), while women from Luhya ethnic group accountef for 13% of the total sample. The proportion of women from Kisii ethnic was slightly below 6 percent.

Majority of the women (58%) were between the ages of 20 and 34 years while respondents below 20 years were about 5 percent. The findings further show that, majority of the women (over 65%) had at least 3 or more children alive at the time of the survey and only 5 percent had no children alive. A third of the respondents had partners who were more than 10 years older than them but majority of the women (595) had partners whose age difference was less than 10 years.

Table 4.1 Distribution of Study Population by Background Characteristics

Characteristics	Frequency	Percent
Use of Modern Contraceptive		
Use (<i>Ref</i>)	1191	32.9
Non Use	2429	67.1
Socio-Economic Factors		
Highest Education Attained		
No Education (<i>Ref</i>)	829	22.9
Incomplete Primary	1166	32.2
Complete Primary	921	25.4
Secondary +	704	19.4
Region of Residence		
Central (<i>Ref</i>)	471	13.0
Coast	392	10.8
Eastern	653	18.0
Nyanza	644	17.8
Riftvalley	645	17.8
Western	466	12.9
Northeastern	349	9.6
Socio-Cultural Factors		
Religion		
Roman Catholic (<i>Ref</i>)	692	19.1
Protestant/ Other Christian	2138	59.1
Muslim	653	18.0
Other	137	3.8
Ethnicity		
Kikuyu (<i>Ref</i>)	513	14.2
Kalenjin	394	10.9
Kamba	260	7.2
Kisii	206	5.7
Luhya	491	13.6
Luo	456	12.6
Mijikenda/ Swahili/ Taita/ Taveta	333	9.2
Other	967	26.7
Demographic Factors		
Age Group		
< 20 years (<i>Ref</i>)	174	4.8
20 - 34 years	2098	58.0
35+	1348	37.2
No. of living children		
None (<i>Ref</i>)	179	4.9
1-2 children	1075	29.7
3-4 children	1203	33.2
5+	1163	32.1
Partner 10+ years older		
Ten or more years older (<i>Ref</i>)	1008	27.8
Less than 10 years older	2120	58.6
Older, unsure how much	66	1.8
Missing	426	11.8
Total	3620	100.0

Legend –

(Ref) – Reference Category

4.3 DIFFERENTIALS OF CONTRACEPTIVE USE BY BACKGROUND CHARACTERISTICS

An analysis was carried out to test association between the background and intervening characteristics with use of contraception. The results of the findings are presented in table 4.2. The results show that, there is a significant association between highest education level attained and use of modern contraception. Only 7 percent of the respondents with no education had used modern contraception and this proportion increases with level of education. The proportion of women using modern contraception was highest (52%) for women with secondary and above level of educational attainment.

The study established that region of residence was significantly associated with use of modern contraception. Currently married women in central province had the highest proportion of users (62%) of modern contraception. The proportion of women using modern contraception in Eastern, Western, Nyanza and Rift valley provinces were 39 percent, 37 percent, 32 percent and 27 percent respectively. Currently married women in Northeastern province had the lowest proportion (0.9%) of modern users of contraception.

As far as religion is concerned, it was evident that womens' religious beliefs significantly influenced use of modern contraception. Women professing Protestants and Other Christian faiths had the highest proportion (41%) of users of modern contraception while the proportion women professing Catholic faith was 35 percent. The proportion of women professing Muslim faith was only 9 percent. Ethnicity was also found to be significantly associated with use of modern contraception. Women from Kikuyu ethnic group constituted the highest proportion of users of modern contraception (62%) followed closely by women from Luhya and Luo ethnic groups (41% and 28% respectively). Age of the woman was also significantly associated with use of modern contraception. . Women who were 35 years old and above had the highest proportion (36%) of users of modern contraception. compared to women aged below 20 years who only had 10 percent of them using a modern method of family planning.

The findings further show that, number of living children was significantly associated with use of modern contraception. The highest proportion of users of modern contraception was for women who had 3-4 children while the lowest proportion (10%) was for women who had no children at the time of the survey. The age difference between the women and their partners also significantly influence use of modern contraception. Currently married women who had partners with an age difference of less than 10 years had the highest proportion (37%) of users of modern contraception compared to those with partners who were 10 or more years older than them with only a quarter of them using modern methods of

contraception. Fertility preference was found to be significantly related to use of modern contraception. Over 44 percent of currently married women didn't want any more children were using modern methods of contraception compared to 22 percent who wanted another child and 26 percent who were undecided at the time of the survey. Moreover, exposure to mass media had a significant effect on the use of modern contraception. Over 43 percent of currently married women who had ever heard of family planning messages on radio were using modern methods of contraception.

Table 4.2 Distribution of Study Covariates by Use of Contraceptives

Variables	Use of Modern Contraceptive				Total
	Use		Non Use		
	Count	Percent	Count	Percent	Count
No Education (<i>Ref</i>)	55	6.6	774	93.4	829
Incomplete Primary	397	34.0	769	66.0	1166
Complete Primary	373	40.5	548	59.5	921
Secondary +	366	52.0	338	48.0	704
Total	1191	32.9	2429	67.1	3620
Chi-value= 400.050 df=3 P= 0.000					
Region of Residence					
Central (<i>Ref</i>)	295	62.6	176	37.4	471
Coast	91	23.2	301	76.8	392
Eastern	253	38.7	400	61.3	653
Nyanza	203	31.5	441	68.5	644
Riftvalley	173	26.8	472	73.2	645
Western	173	37.1	293	62.9	466
Northeastern	3	0.9	346	99.1	349
Total	1191	32.9	2429	67.1	3620
Chi-value= 392.781 df=6 P= 0.000					
Religion					
Roman Catholic (<i>Ref</i>)	244	35.3	448	64.7	692
Protestant/ Other Christian	884	41.3	1254	58.7	2138
Muslim	58	8.9	595	91.1	653
Other	5	3.6	132	96.4	137
Total	1191	32.9	2429	67.1	3620
Chi-value= 294.577 df=3 P= 0.000					
Ethnicity					
Kikuyu (<i>Ref</i>)	318	62.0	195	38.0	513
Kalenjin	109	27.7	285	72.3	394
Kamba	94	36.2	166	63.8	260
Kisii	76	36.9	130	63.1	206
Luhya	199	40.5	292	59.5	491
Luo	126	27.6	330	72.4	456
Mijikenda/ Swahili/ Taita/ Taveta	75	22.5	258	77.5	333
Other	194	20.1	773	79.9	967
Total	1191	32.9	2429	67.1	3620
Chi-value= 311.365 df=7 P= 0.000					
Age Group					
< 20 years (<i>Ref</i>)	18	10.3	156	89.7	174
20 - 34 years	688	32.8	1410	67.2	2098
35+	485	36.0	863	64.0	1348
Total	1191	32.9	2429	67.1	3620
Chi-value= 45.898 df=2 P= 0.000					
No. of living children					
None (<i>Ref</i>)	17	9.5	162	90.5	179
1-2 children	326	30.3	749	69.7	1075
3-4 children	511	42.5	692	57.5	1203
5+	337	29.0	826	71.0	1163
Total	1191	32.9	2429	67.1	3620
Chi-value= 105.727 df=3 P= 0.000					

Variables	Use of Modern Contraceptive				Total
	Use		Non Use		
Partner 10+ years older					
10 or more years older(<i>Ref</i>)	247	24.5	761	75.5	1008
Less than 10 years older	782	36.9	1338	63.1	2120
Older, unsure how much	2	3.0	64	97.0	66
Total	1031	32.3	2163	67.7	3194
Chi-value =	74.295	df=2	P= 0.000		
Fertility Preference of Respondent					
No More/ Sterilized (<i>Ref</i>)	798	44.4	998	55.6	1796
Wants Another	366	21.8	1311	78.2	1677
Undecided	26	26.3	73	73.7	99
Infecund	1	2.1	47	97.9	48
Total	1191	32.9	2429	67.1	3620
Chi-value=	223.997	df=3	P= 0.000		
Heard FP on radio last few months					
No (<i>Ref</i>)	225	16.7	1121	83.3	1346
Yes	966	42.5	1307	57.5	2273
Total	1191	32.9	2428	67.1	3619
Chi-value=	254.524	df=1	P= 0.000		

Table Legend

*** $p \leq 0.001$

(*Ref*) – Reference Category

4.4 FACTORS INFLUENCING USE OF CONTRACEPTIVES AMONG MARRIED WOMEN IN RURAL KENYA

A logistic regression model was fitted to identify factors influencing use of modern contraception among currently married women in Kenya at the time of the survey. The results are shown in table 4.3.

The findings indicate that the level of educational attainment was a significant predictor of ever use of modern contraception. Currently married women with secondary school and above level of educational attainment were 5 times more likely to use modern contraception compared to women with no education. On the other hand, women with women with incomplete primary and complete primary levels of educational attainment were 3 times more likely to use modern contraception compared to women with no education. These relationships were highly significant at 1 percent level. Indeed education is a determinant of contraceptive use both in the developed regions like Europe (Oddens and Lehert, 1997) as well as in sub-Saharan Africa (Ndung'u, 2004). The increase in contraceptive use among those with higher education can be attributable to the fact that women are likely to be more aware of their reproductive health the more they advance in their education both from schooling and are able to seek better health care. More educated women are also more empowered to making their own decisions regarding, among other things, their reproductive health.

Region of residence also influences the use of contraceptive, with most regions less likely to use contraceptives compared to central Kenya. However, 3 out of the 7 provinces under study did not exhibit significant relationship with contraceptive use. North Eastern Province was the region with the least likelihood to have women using contraceptives (0.14 times) compared to Central region. North Eastern Province is considered one of the poorest regions in Kenya and which lacks most basic infrastructure including proper healthcare facilities. It is a region that poses challenges for quality integrated health service delivery. Over 70 percent of the population is nomadic pastoralist and only about 40 percent of the population currently has access to any health services at all (USAID, 2008). It has got poor health indicators, actually the worst in the country. One of the major concerns is severe shortage of health workers in North Eastern Province. The numbers have dwindled over the years, for example, that of nurses: the Provincial referral General Hospital boasted of 280 nurses in 1996, while by 2008 it had only 92 nurses.

The Catholic Church has been opposed to contraception for as far back as one can historically trace (Catholic Answers, 1996). It only advocates for traditional methods of family planning. Protestants however do not regard contraception as a sin or a contravention of God's purpose and are more liberal to using. Interestingly, the odds of using contraceptives between these two groups is almost the same. Protestants and Other Christians have the highest likelihood of using modern methods of contraceptives. Protestants and other Christians are only 1.34 times more likely to use compared with Catholics. Other religion (including those who reported to have no religion) is least likely group to use contraceptives with 0.15 times likely to use compared to the Catholics.

Ethnicity among the study population was demonstrated to be a determinant of contraceptive use. Most ethnic communities had less odds of using contraceptive compared to the Kikuyu community. This may be explained by the fact that majority of this group who can be found in Central Province have a very close proximity to Nairobi compared to most other communities. Therefore there is a lot of interaction and consequently influence of the central rural women and the urban living in the City.

As far as demographic factors were concerned, age did not exhibit significance in determining whether a woman would use contraceptive or not. Similar studies conducted elsewhere (Oddens and Lehert, 1997; Oyedokum and Obafemi, 2007) showed however that age was a significant factor in use of contraceptives, whereby the older the woman the more likely she was to use contraceptives. This was not found the case with married women in rural Kenya.

The number of living children was a significant factor that was identified to have positive association with contraceptive prevalence among the married women in rural Kenya. Analysis showed that contraceptive prevalence increased with the number of children a woman had who are alive, upto 5 children and then the likelihood of using a modern method to control births reduces. Married women with 1 - 2 children alive were 3.35 times more likely to use than women with no children. Those with 3 - 4 children were 5.72 times likely to use contraceptives compared to those with no children alive. This relationship may be explained by the fact that a woman with no child alive would most likely avoid using contraceptive in order to get pregnant and as her parity progresses (where children born do not die) and her fertility goals are met, she is more likely to use contraceptive more regularly to prevent further births. However women with 5 children and over are less likely to use contraceptives compared to those with 3 - 4 living children. This group of 5+ children alive is 3.85 times likely to use contraception compared to those with no children alive. This may perhaps be explained by the fact that some women in this age group may have reached menopause and hence are not at risk to of getting pregnant hence no need for birth control.

The regression analysis show that contraceptive use is also influenced by the age difference between a woman and her partner with small age differences increasing the likelihood of using contraceptives compared to a woman with a way older partner. Women with partners less than 10 years older than them are 1.36 times more likely to use any modern method compared to women whose partners are 10 years or older. Age difference between spouses illustrates the disadvantage of ability of women married to older men to make individual decisions even regarding their reproductive health. The analysis shows that there is also a significant association between the fertility preferences of the women in rural Kenya, with use of contraceptive. Women who want another child are less likely to use contraception by nearly half, compared to those women who either do not want any more children or are sterilized. This means that the more women realize their fertility goals, the more they use contraceptives to control births.

Exposure to mass media was also significantly associated with use of contraceptives. Radios are the most common form of mass media utilized in the rural areas. In fact unlike most other sources of mass media, such as newspapers and television sets which have a huge differentials in usage between the urban dwellers and their rural counterparts (47 percentage points for TV, and 33.4 percentage points for newspaper), the proportion of women who listen to the radio at least once a week is 75 percent compared to the urban proportion of 83 percent according to 2008/2009 KDHS. Women who heard about family planning on radio in the last months preceding the interview were 1.69 times more likely to use a modern method of contraception compared to those who never heard about it on radio during the same period.

Table 4.3 Results of Logistic Regression Model on Factors Influencing Use of Modern Contraceptive among Women in Rural Kenya

		B	S.E.	Sig.	Exp(B)
Socio-Economic Factors					
Highest Education	No Education(<i>Ref</i>)	-	-	.000	1.000
	Incomplete Primary	1.058	.196	.000	2.882***
	Complete Primary	1.070	.202	.000	2.914***
	Secondary +	1.623	.211	.000	5.070***
Region of Residence	Central(<i>Ref</i>)	-	-	.000	1.000
	Coast	-.156	.367	.671	.856
	Eastern	.187	.256	.464	1.206
	Nyanza	-.148	.319	.642	.862
	Riftvalley	-.595	.246	.016	.552*
	Western	-.912	.316	.004	.402**
	Northeastern	-1.990	.672	.003	.137**
Socio-Cultural Factors					
Religion	Roman Catholic(<i>Ref</i>)	-	-	.000	1.000
	Protestant/ Other Christian	.294	.107	.006	1.342**
	Muslim	-.402	.235	.087	.669
	Other	-1.904	.541	.000	.149***
Ethnicity	Kikuyu(<i>Ref</i>)	-	-	.000	1.000
	Kalenjin	-.684	.265	.010	.504**
	Kamba	-1.004	.275	.000	.367***
	Kisii	-.874	.339	.010	.417**
	Luhya	.073	.299	.807	1.076
	Luo	-1.060	.322	.001	.346***
	Mijikenda/ Swahili/ Taita/ Taveta	-.487	.384	.205	.614
	Other	-.633	.246	.010	.531**
Demographic Factors					
Age	< 20 years(<i>Ref</i>)	-	-	.497	1.000
	20 - 34 years	.342	.289	.237	1.408
	35+	.338	.307	.271	1.403
Number of Living Children	None(<i>Ref</i>)	-	-	.000	1.000
	1-2 children	1.210	.306	.000	3.353***
	3-4 children	1.745	.316	.000	5.724***
	5+	1.349	.331	.000	3.852***
Age Difference with Partner	10 or more years older(<i>Ref</i>)	-	-	.003	1.000
	Less than 10 years older	.316	.100	.001	1.372***
	Older, unsure how much	-.676	.767	.378	.509
Intervening Factors					
Fertility Preference	Wants no more/ Sterilized(<i>Ref</i>)	-	-	.000	1.000
	Wants another	-.434	.115	.000	.648***
	Undecided	-.759	.282	.007	.468**
	Infecund	-2.678	1.044	.010	.069**
Exposure to Mass Media	Did not hear of fp on radio(<i>Ref</i>)	-	-	.000	1.000
	Heard of fp on radio	.526	.111	.000	1.691***
	Constant	-3.170	.461	.000	.042***

Table Legend

*** $p \leq 0.001$

** $p \leq 0.01$

* $p \leq 0.05$

(*Ref*) – Reference Category

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter outlines the summary, conclusions and recommendations of the study.

5.2 SUMMARY

This study set out to study the factors that influence current use of modern contraceptive methods among married women of reproductive age in rural Kenya. Specifically, it examined how socio-economic, socio-cultural, demographic and intervening factors influence contraceptive uptake. Association and effect of factors such as age of respondent, highest education attainment, ethnicity, number of living children, age difference with partner, among others was studied. The study used data from the 2008/ 2009 Kenya Demographic and Health Survey, a national representative survey. Out of a total sample of 5,829 women residing in the rural areas of Kenya, this study used the sample of women who were either currently married women or living together with a partner, who were 3,620. The methods used in analysis were frequency distribution to show distribution by background characteristics, cross tabulations and chi square test to show and test association between the independent variables and use of contraceptive, and logistic regression to show the effect of these independent variables to use of modern contraceptives.

Analysis showed significant associations between use of contraceptive and education level, religion, number of living children, fertility preference and exposure to mass media. More educated women were more likely to use modern methods of contraceptive compared to those with no or with less education. This may be attributed to greater autonomy to make decisions as the level of education increases. The number of living children a woman was also an important factor influencing use of contraceptives. The use of contraceptive increased with the number of children a woman has who were alive up to 4 children but then the use of contraceptive dipped after the 5th child. Protestants were found to be only 1.3 times more likely to use modern contraceptives compared to Catholics despite the latter's doctrine remaining firm against use of modern methods of contraceptive unlike the Protestants who are more liberal. Age of respondent did not have significant association with the use of modern methods of family planning for women in rural Kenya even though it is a key determinant in other areas where similar studies have been conducted, for example Nigeria and some countries in Europe.

5.3 CONCLUSIONS

In conclusion the findings of this study show that several factors influenced the use of contraceptives among married women residing in rural Kenya, which can be classified as socio-economic, socio-cultural, demographic and intervening factors. Level of education, number of living children, fertility preference

and exposure to mass media were highly significant factors influencing use of contraceptives by women in rural Kenya. Conversely age of the respondent was not a significant factor in use of modern family planning methods.

Results showed that the higher the respondent's level of education, the higher the level of contraceptive use. This is due to increased autonomy of the woman and hence independence in decision making. Religion of the respondent was found to be among factors that influenced use of contraceptives among women in rural areas. This is to show that some faiths are more receptive when it comes to use of contraceptives than others. Results also show that trends are changing with Catholic whose doctrine is averse to use of modern family planning methods having the same odds of using as protestants who are not opposed to these methods. Married women with five and above living children are more likely to use contraceptives than those with fewer or no children. This shows that women in rural Kenya have a high desired family size, since results show that they are more likely to use contraceptives after when they have atleast 5 children living. The use of contraception is higher among those whose age difference with their Partners is less than among those who have large age difference and this means that in rural Kenya men have an influence pertaining to matters of their spouses reproductive health and especially the if the man is above 10 years older than the woman.

Married women who wish to have another child are less likely to use contraception than those who do not want anymore children. There is a positive relationship between exposure to mass media and use of contraceptives. This study used listening to radio as it was the most common use of mass media in rural areas.

5.4 RECOMMENDATIONS

This study has identified a number of issues that are of direct relevance to the Kenyan family planning policies and programs. Recommendations are made in the areas of policy options, programme design and future research.

5.4.1 RECOMMENDATIONS FOR POLICY AND PROGRAMS

Education is one of the factors identified to significantly influence use of contraceptives among married women in rural Kenya. However, inspite of free primary education, most of the rural women do not complete that level of education, with a third of women having began primary school but never completed. The government should focus more effort on improving the education sector specifically to ensure that the effect of subsidized secondary education has a significant effect in improving secondary

school enrolment, considering that among the study population only about 20 percent have atleast some secondary education. The government should further formulate policies to offer incentives for higher learning such as subsidizing the cost of schooling at tertiary level.

Programs should use radio to target the rural women for information, communication and education focusing on increasing awareness of the benefits of and support for use of contraceptives to realize fertility goals, since radio is the form of mass media easily accessible to most in rural area and which listening to, is a determinant as whether a woman uses contraceptives or not.

Women should also be sensitized about benefits of smaller family sizes since fertility preference was identified as a significant factor as far as using modern method of contraceptive was concerned among the study population.

5.4.2 RECOMMENDATIONS FOR FURTHER RESEARCH

Due to the ethnic differentials in contraceptive use among women in rural Kenya, a research to find out the role of culture on use of contraceptives is recommended.

There is also need for further qualitative studies to explain the 'why' questions that are not captured in the DHS, in order to gather an in-depth understanding of contraceptive use behavior and the reasons that govern it.

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