

**FACTORS INFLUENCING EVER USE OF MODERN METHODS OF
CONTRACEPTION AMONG WOMEN IN UNION IN KENYA:**

EVIDENCE FROM 2008-09 KDHS



BY

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Q/50/7665/2003

**A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS DEGREE IN
POPULATION STUDIES AT THE POPULATION STUDIES RESEARCH
INSTITUTE, UNIVERSITY OF NAIROBI**

2011.

DECLARATION

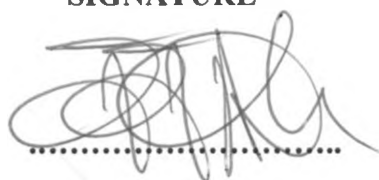
This project is my original work and has not been presented for graduate degree work at any other university.

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DEDICATION

This work is posthumously dedicated to my late parents Mr. Samson Navede Amoi Chasia, Mrs. Etsina Ajema Vulimu Amoi, Mrs. Esther Lodenyi Amoi who sacrificed all to ensure my education and that of my siblings was not interrupted; my immediate family; brothers Cosmas Ligaka Amoi, Teddy Isavwa Amoi together with all relatives and friends who have been with me every step of the way to this achievement.

TABLE OF CONTENTS

DECLARATION	II
DEDICATION	III
TABLE OF CONTENTS	IV
LIST OF TABLES	V
LIST OF FIGURES	VI
ABBREVIATIONS	VII
ABSTRACT	VIII
CHAPTER ONE	1
INTRODUCTION AND PROBLEM STATEMENT	1
1.1 INTRODUCTION	1
1.2 PROBLEM STATEMENT	2
1.3 OBJECTIVES OF THE STUDY	3
1.4 STUDY JUSTIFICATION	3
1.5 SCOPE AND LIMITATIONS OF THE STUDY	4
CHAPTER TWO	6
LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK	6
2.1 INTRODUCTION	6
2.2 SOCIO-ECONOMIC VARIABLES.....	6
2.4 DEMOGRAPHIC VARIABLES.....	10
2.5 INTERVENING VARIABLES.....	11
2.6 SUMMARY OF LITERATURE REVIEW	13
2.7 CONCEPTUAL FRAMEWORK MODEL.....	15
2.8 DEFINITION OF CONCEPTS.....	16
2.9 OPERATIONAL HYPOTHESES	17
CHAPTER THREE	22
DATA AND METHODOLOGY	22
INTRODUCTION	22
3.2 SOURCE OF DATA	22
3.3 METHODS OF DATA ANALYSIS	23
CHAPTER FOUR	26
4.1 INTRODUCTION	26
4.2 DESCRIPTION OF VARIABLES	26
4.3 ASSOCIATION BETWEEN EVER USE OF MODERN METHODS OF CONTRACEPTION AND THE STUDY VARIABLES	30
CHAPTER FIVE	38
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	38
5.1 INTRODUCTION	38
5.2 SUMMARY OF THE STUDY.....	38
5.3 CONCLUSION OF THE STUDY FINDINGS	39
5.4 STUDY RECOMMENDATIONS	39
REFERENCES	41

LIST OF TABLES

Table 2.1: Definition of Variables	18
Table 4.1: Distribution of Women in Union aged 15-49 in Kenya	28
Table 4.2: Differentials in Ever Use of Modern Methods of Contraception Among Women in Union in Kenya by Background Characteristics, KDHS 2008-09	32
Table 4.3 The Logistic Regression of the Independent Variables on Ever Use of Modern Methods of Contraception Among Women in Union in Kenya, KDHS 2008-09	36

LIST OF FIGURES

Figure 1: The Bongaarts, J. Conceptual Framework Model25

Figure 2: Theoretical/Operational Framework Model.....26

ABBREVIATIONS

APHRC	African Population and Health Research Council
CBO	Community Based Organization
CBS	Central Bureau of Statistics
EA(s)	Enumeration Area (s)
GOK	Government of Kenya
HIV	Human Immunodeficiency Virus
KDHS	Kenya Demographic and Health Survey
KFS	Kenya Fertility Survey
KNBS	Kenya National Bureau of Statistics
KPHC	Kenya Population and Housing Census
NASSEP	National Sample Survey and Evaluation Program
NCPD	National Council for Population and Development
PSRI	Population Studies Research Institute
SPSS	Statistical Package for Social Sciences
TFR	Total Fertility Rate
UN	United Nations
UNFPA	United Nations Population Fund
UNECA	United Nations Economic Commission for Africa

ABSTRACT

The main aim of the study was to examine the influence of socio-economic, socio-cultural and demographic factors on ever use of modern methods of contraception among women of reproductive age (15-49) in union in Kenya. The source of data for this study was Kenya Demographic and Health Survey (KDHS), 2008/09 data set collected by Kenya National Bureau of Statistics (KNBS) in 400 sampled clusters countrywide (133 urban and 267 rural). The unit of analysis was a woman in union aged 15-49. Bongaart's framework for analyzing fertility was used. Univariate, bivariate and multivariate analysis were used to examine factors influencing ever use of modern methods of contraception.

The general findings of the study show that there were positive relationships between all the selected socio-economic factors (region of residence, level of education, type of place of residence and work status), socio-cultural factors (religion, ethnicity and type of marriage and demographic factors (age and child survival) and ever use of modern methods of contraception among women in union in Kenya. Women with secondary and above levels of education are 6.210 times more likely to have ever used modern methods of contraception compared with respondents with no education at all. Furthermore, women in the urban parts of Kenya are 73.1 percent more likely to have ever used modern methods of contraception compared with the respondents in rural Kenya.

The study concludes that improving the status of women through education remains a key strategy of increasing utilization of modern contraceptive methods in Kenya. Finally the study makes recommendations for policy makers, donors, civil society and researchers.

CHAPTER ONE

INTRODUCTION AND PROBLEM STATEMENT

1.1 Introduction

The conscious effort by couples and people of reproductive age (15-49) to delay, space or limit the probability of pregnancy or birth, is one of the proximate (direct) determinants of fertility in most developed and many developing countries including Kenya (Mamlouk, 1982; Gule, 1994).

In the recent past, however, as a result of growing modernization, customs and norms that used to underpin the use of traditional methods have weakened, resulting in the decreased duration and frequency of breastfeeding, post-partum sexual abstinence, periodic sexual abstinence (rhythm), etc. Although the use of these traditional methods of family planning had weakened, their use for spacing purposes rather than for limitation of births tended to minimize their effect on overall fertility decline through the effective modern contraception. Unfortunately however, the tremendous reductions in the use of traditional methods of family planning in Kenya, since independence from British colonial rule in 1963, had not been replaced with substantial increases in levels of modern contraceptive use (Gule, 1994).

While the HIV/Aids pandemic has had a dramatic impact on the health, growth and composition of seriously affected populations, fertility remains the most significant factor that continues to dictate the future size, growth and composition of populations in most developing nations, including Kenya. Family planning is therefore mainstreamed to be one of the major components of Kenya's national reproductive health strategy on the premise that there remains a substantial unmet need for family planning in the country and more needs to be done on this front. For instance, the 1998, 2003 and 2008/09 KDH surveys have shown that about a quarter of married women in Kenya had an unmet need for family planning, and that almost half (48 percent) of all births in the country were unintended (NCPD and CBS, 1999; KNBS, 2009).

Furthermore, the number of unmarried women of reproductive age wanting and in need of family planning is growing hence increasing the proportion of couples and individuals in need of these services. In order to meet this challenge, more effort needs to be directed at increasing availability of efficient modern contraceptive supplies and improving the quality of family planning services in Kenya in the decades ahead and beyond. That the Government of Kenya in its 1997 National Population Policy for Sustainable Development set specific targets to increase contraceptive prevalence to 43 percent by the year 2000, 53 percent by 2005 and 62 percent by the year 2010 had not been realized. Further evidence of the lag in the use of efficient modern methods of contraception for fertility limitation in Kenya by women in union becomes evident when TFR which was targeted to decrease from 5.0 in 1995 to 4.0 by the year 2005 and 2.5 by 2010 had not been met (Monica et al, 2001).

1.2 Problem statement

With an average TFR of 4.6 children per woman and a national average annual population growth rate of 3.0 percent, Kenya's population is projected to reach 65 million people by 2030, the majority being youthful with the momentum to reproduce (KPHC, 2009; KDHS, 2008-09; PRB, 2011). Previous demographic studies carried out in Kenya have attempted to identify a number of socio-economic, socio-cultural and demographic factors that influence fertility among married women of reproductive age (15-49) through contraceptive use), (Kiragu and Zabin, 1995; Kyalo, 1996; Tuoane, 1999; Magadi, 2001; UNECA, 1992; Gule, 1994; Ikamari, 1985; Mwangi, 1990; Wamucii, 1991).

These studies looked at contraception in Kenya and linked it to use patterns, use determinants and fertility. While some of these studies indicated that time taken to reach supply points, duration of breast feeding, husband's and wife's employment status, staff motivation, increase in better educated women and proportion of women who wanted to cease child bearing influenced contraceptive use in Kenya, they had not specifically investigated determinants of ever use of modern contraception in Kenya. Currently very little is known about ever use of modern contraceptive methods as the only effective and

efficient fertility control tool among women in union in Kenya. This study attempts to fill this gap in knowledge.

Key research question

What are the socio-economic, socio-cultural and demographic factors that determine ever use of modern methods of contraception among women in union in Kenya?

Specific questions

- What are the socio-economic factors influencing ever use of modern methods of contraception among women in union in Kenya?
- What are the socio-cultural factors that determine ever use of modern contraceptives among women in union in Kenya?
- What are the demographic factors that affect ever use of modern methods of contraception among women in union in Kenya?

1.3 Objectives of the Study

The general objective of the study is to identify socio-economic, socio-cultural and demographic factors influencing ever use of modern methods of contraception among women in union in Kenya.

The specific objectives are:

- To determine the socio-economic factors affecting ever use of modern contraceptives among women in union in Kenya.
- To identify the socio-cultural factors affecting ever use of modern contraceptives among women in union in Kenya
- To establish the demographic factors affecting ever use of modern contraceptives among women in union in Kenya.

1.4 Study Justification

The study contributes to the existing body of knowledge on determinants of contraception. The information obtained will help planners and policy makers in population and other sectors of development to underscore the importance of efficient modern contraceptive use in family planning as a core area in population growth control

and management for enhanced economic development of the Kenyan economy and its people.

Kenya's population is growing rapidly according to the 2009 Population and Housing Census and has more than tripled from 10.9 million people in 1969 to 38.6 million in 2009. Even if the total fertility rate (TFR) declines from an average of 4.6 children per woman in 2009 to the projected 3.7 by 2030, the population of Kenya will still by then grow to an unmanageable 65.9 million people.

This study therefore seeks to establish that the challenge of reversing uncontrollable high fertility in Kenya is synonymous with the challenge of having more couples but more specifically women in union of reproductive age (15-49) to consciously regulate their fertility and avoid unwanted and mistimed births i.e. too soon, too early, too late or too many, through the adoption and consistent use of the more effective modern contraceptive methods.

1.5 Scope and Limitations of the Study

KDH Surveys are household-based and therefore this sample was drawn from the population that resided in households throughout the country. A representative sample of 10,000 households was drawn for the 2008-09 KDHS. This sample was constructed to allow for separate estimates for key indicators for each of the eight Kenyan provinces, as well as for urban and rural areas separately. Compared with the other populated provinces in Kenya, fewer households and clusters were surveyed in North Eastern Province because of its sparse population. A deliberate attempt was therefore made to over sample urban areas to get enough cases for analysis. As a result of these differing sample proportions, the KDHS sample is not self-weighting at the national level.

This study covers 5,041 women aged between 15– 49 who were in union during the 2008/09 KDH Survey; who reported they were using or not using a modern method of contraception. The first stage involved the selection of 400 sample points or clusters (133 urban and 267 rural) from the master frame throughout Kenya. The second selection stage involved the systematic sampling of households from an updated list of households.

Kenya National Bureau of Statistics (The Bureau) developed the NASSEP IV frame in 2002 from a list of enumeration areas (EAs) covered in the 1999 Population and Housing Census. A number of clusters were updated for various surveys including those for the 2008-09 KDHS to provide a more accurate selection of households. Any other possible sample of selected households could have been suitable for the 2008-09 KDHS since all households in the Kenya National Bureau of Statistics' National Sample Survey and Evaluation Program (NASSEP IV) frame had an equal chance of being sampled.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

This section reviews literature on studies which have been undertaken in the area of determinants of contraceptive use as a basis for this study. Studies done on this subject and which relate to socio-economic, socio-cultural and demographic determinants of use of modern methods of contraception as key determinants of fertility are examined.

2.2 Socio-economic Variables

2.2.1 Region and Ever Use of Modern Methods of Contraception

Rural-urban differences in contraceptive use have been observed over time and it has come to be accepted that rural areas in Kenya like other developing areas of the world are associated with lower rates of contraception compared with urban areas. This imbalance is attributable to unavailability of and inaccessibility to education, healthcare and family planning services, as well as higher fertility demand resulting from the rural traditional and agrarian set up. It therefore follows that levels of ever use of modern contraception are comparatively lower in the rural set ups. Rural-urban differentials in contraceptive use generally favor urban areas. Fertility transitions have occurred simultaneously across the rural-urban divide in Kenya, but fertility remains higher in rural than urban areas of the country, (Ndung'u, 2004; Weeks, 1994; APHRC, 1998).

2.2.2 Education and Ever Use of Modern Methods of Contraception

Education has emerged as an important determinant of contraceptive use in Kenya (Ikamari 1985, Njogu and Karaka 1991). Using the 1977/8 Kenya Fertility Survey (KFS) data, Njogu (1991) found that education had statistical significance effect on contraceptive use even after controlling for other co-factors. Women with more than nine years of schooling were almost nine times as likely to use contraception as were women with no education.

As expected, contraceptive use increased with the level of education. Use of modern methods was highest among the highly educated women at 52 percent among women with at least some secondary education and at a very low 8 percent among women with no education at all. Also the proportion of educated married women using modern methods increased with the number of children they had, reaching a peak at four children and then dropping among those women with five or more children due probably to little or no education (KDHS 2003, 2008 - 09).

When women in union have little or no education, they end up lacking accurate knowledge about ever use of modern contraceptives. Abdullar et al, (1984) in a comparative study of contraceptive use in the Commonwealth Caribbean countries, found a positive relationship between a woman's level of education and her contraceptive use. Women's educational attainment influenced their attitudes and knowledge and hence contraceptive behavior (Bixon – Mueller, 1993).

A study by World Bank (1995) in 15 sub-Saharan African countries, observed that increase in female education was associated with increased contraceptive use and that female education had an even stronger relationship with a woman's use of contraceptives.

Mazur (1993) in a study in Poland found that contraceptive use increased with a woman's level of education. Castro and Wamucii (1994) in their study established that female education exerted a more powerful influence on contraceptive behavior than any other factor. This was because women's educational influence on contraception was found to be quasi-linear and that the likelihood of ever using contraceptives increased with rising educational attainment.

Amin Ruhul et al. (1993) in their study found that although both primary and secondary or higher levels of education led to increased contraceptive use, this pattern was much higher among post primary school leavers. However, studies by Sifulios and Mburungu (1986) established that a woman's level of education was not an important factor that determined whether or not she used contraceptives. Rather, to them, the important issue

was whether or not a woman was literate as none of the illiterate women was found to be using modern contraceptives.

Other studies have shown strong correlations between women's education levels attained and couples' fertility, while the educational level of the man correlated less with the couple's fertility (Cleland and Rodriguez, 1988; Cochrane, 1979). This correlation agrees with the World Fertility Survey results, which showed a strong association between women's educational status, age of the respondent, desired family size and contraception in developing countries (UN, 1987).

2.2.3 Residence and Ever Use of Modern Methods of Contraception

Contraceptive use has been found to substantially vary with place of residence. Njogu (1991) found that contraceptive use was higher among urban residents and lower among rural residents in Kenya. This could be due to the desire for large families in rural areas and a higher concentration of medical facilities and services in urban areas. Other reasons why urban women could have lower fertility are because of their superior educational attainment levels, work status in a modern environment and exposure to current ideas and values through the mass media and accessibility to family planning services (Oheneba-Sakyi and Tuky, 1997; Diamond, et al, 1999; Montgomery and Lloyd, 1999). In addition, according to the United Nations (1993), higher education was associated with urban residence while lower level or absence of education was associated with rural residence.

2.2.4 Work Status and Ever Use of Modern Methods of Contraception

Studies on the relationship between employment status and contraceptive use have been inconsistent. Most studies however, showed a weak positive effect of employment on contraceptive use. Mungai (1986) found that work status as a variable on its own had a negative correlation for both those women who were working as well as those women who were not working. This is an issue that is debatable since it may be that the respondents or the interviewers misunderstood the questions pertaining to this variable.

Ikamari (1985) and Njogu (1991) in their respective studies found the employment status variable to be insignificantly correlated with contraceptive use.

2.3 Socio-cultural Variables

2.3.1 Religion and Ever Use of Modern Methods of Contraception

Although many studies have indicated minimum opposition to contraceptive use on religious grounds, religious affiliation remains a very critical aspect in understanding fertility regulation worldwide (Osiro, 2001). Religious affiliation affects fertility behavior through its teachings and practices, which in turn shape a woman's beliefs, norms and value orientation, including her attitude towards reproduction and family size (Benefo, 1995; Gregson et al., 1991). In some societies, religious schooling provides messages and teachings about traditional values that are inconsistent with the widespread adoption of family planning practice, for instance the Catholic's opposition to contraceptive use in Kenya and other regions of the world has been noted.

Several demographic studies on Africa have observed that sub-Saharan Africa offers great resistance to fertility decline than any other region of the world. The reasons for this are cultural and have a lot to do with religious belief systems that operate directly to sustain higher fertility, but which also mold a society in such away as to bring rewards for high fertility (Caldwell, 1987). Catholics had higher contraceptive use prevalence than Protestants, although the differences were small. Muslims had distinctly lower contraceptive use prevalence rates than the two Christian groups. In some countries, legislation banning any form of contraception and family planning on grounds of violating the biblical law of "go yee and multiply..." for continued birth, have been enacted (Okoth-Ogendo, 1987).

The 1993 KDH Survey cited religion as an obstacle to contraceptive use among both the female and male respondents, with 8 percent and 5 percent respectively, reporting religion as a barrier to contraceptive use (NCPD et al., 1994).

2.3.2 Ethnicity and Ever Use of Modern Methods of Contraception

Some studies had shown that culture acted through ethnicity such that there were values, beliefs and customs within certain communities that made it difficult for couples to regulate their fertility. Variations in contraceptive use by different communities could indicate the extent to which program planning effort would be expanded in meeting the demands for contraception depending on ethnic background (APHRC, 1998). According to Caldwell (1987), high fertility is valued in Africa. Children are seen as an economic resource since African economies are predominantly agricultural and unmechanized, necessitating the need for a large labor force. In Nigeria for instance, couples give birth to many children with the hope that in future some of the children would grow up to become successful enough to support the family and also to promote the family name in society. This largely contributes to low contraceptive adoption in such societies.

2.3.3 Type of Marriage and Ever Use of Modern Methods of Contraception

It is argued that polygyny is negatively associated with contraception (Caldwell and Caldwell, 1981) and women married to the same man can compete to bear children, particularly in societies where the status of a woman depends on the number of surviving children.

2.4 Demographic Variables

2.4.1 Age and Ever Use of Modern Methods of Contraception

Age of the respondent is an important determinant of contraceptive use in Kenya. Ayiamba and Oucho (1989) argued that centrality of age in contraceptive use analysis was in the fact that it determined the entry into and exit out of reproductive risk. It also determined the degree of exposure to contraception. In this study it was found that contraceptive use was least among older women. The following reasons were given:

- (a) Women of parity four or more were relatively older, hence belonged to the generation within which the level of illiteracy was high and resentment towards contraceptive use was widespread.

- (b) These older women, by virtue of their generation, subscribed to fertility regulation dictated by socio-cultural norms of reproduction.

Other demographic studies by Mungai (1986), Njogu (1991) and Keraka (1991) found age to be closely associated with contraceptive use, with the peak of contraceptive use within the age group of 30–34 years, while use among women in the age groups 15–19 and 45 and above was lowest.

2.4.2 Living Children and Ever Use of Modern Methods of Contraception

In Kenya, like other countries in sub-Saharan Africa and other parts of the developing world, the number of living children is positively correlated with contraceptive use. Jolly and Brass (1998), found that contraceptive use rose from 4.6 percent among women of zero parity to 16.8 percent among women with one living child, to 24.2 percent among those with two children, to 28.0 percent and to 31.0 percent respectively among women with three and four living children.

2.5. Intervening Variables

2.5.1 Exposure to Mass Media and Ever Use of Modern Methods of Contraception

Mass media interventions could play a major role in promoting ever use of modern methods of contraception. Large increases in the number of family planning clients at clinics followed different forms of communication campaigns. Mass media included: radio, television, newspapers, posters and certain forms of popular entertainment, where properly coordinated development of communication programs was especially crucial in promoting family planning adoption (Gathiti, 1997). In Jamaica for instance, radio was found to be a primary medium in two family planning communication projects: one conducted by the government's National Family Planning Board (NFPB) and the other by the Jamaican Family Planning Association (JFPA). In the government's project developed by the office of the International Advertising Agency (IAA), songs, radio, television, newspaper and cinema adverts were used to promote family planning aspects (Gillery and Moore, 1986).

A study carried out in the Gambia by Valente (1994) to determine the effect of a radio drama about family planning issues showed that program exposure was associated with an increase in knowledge, positive attitude and contraceptive use. The radio medium was found to be an extremely efficient means of reaching a large audience and could with ease persuade people to visit family planning sites, clinics and other outlets.

A strong statistical association was demonstrated between reports of having heard of or having seen messages about family planning on radio, in newspapers, magazines, on posters or on television and various measures of reproductive behavior in general and contraceptive use in particular. These associations were seen to persist even when a variety of life cycles; i.e. residential and socio-economic controls were imposed (Gathiti, 1997).

2.5.2 Knowledge of Modern Methods of Contraception and Ever Use of Modern Methods of Contraception

Knowledge of modern contraceptive methods acts as an important intervening variable in the determination of contraceptive use or non-use and women's attitudes towards contraception. Where knowledge of a source or method was low, then ever use of modern methods of contraception was also low. For instance in Nepal in 1981, about 48 percent of married women had never heard of any modern method of contraception and an additional 17.4 percent did not know of any family planning outlet. Of the remaining 36.6 percent, only one in every five married women was currently using modern contraceptives (Cornelius and Novak, 1983). However, one of the major problems associated with this variable is how it can be measured. The average measure of knowledge of a contraceptive method could range from simple awareness of the name of the method to a rough estimate of functional knowledge such as a woman's report that she knew how to use a method (Mungai, 1986; UN, 1979), which was seen to be a prerequisite to knowledge of a family planning outlet.

Access to family planning service outlets was expected to influence contraceptive use. This was through information on contraceptives that was available to the couple. Time and monetary costs of fertility regulation were expected also to have some impact

(Daranzo et al, 1996). Studies by Guilkey and Susan, (1997) in Zimbabwe, however, came up with contradictory findings. Access to all types of fixed health facilities with family planning services had no significant impact on the use of modern contraceptives. The presence of a Community Based Distribution point (CBD), however, significantly increased use of modern contraceptives especially the pill relative to other methods.

2.5.3 Child Death and Ever Use of Modern Methods of Contraception

Several studies have shown a negative association between child mortality and contraceptive use. Mothers who had experienced at least one child loss had contraceptive use levels that were less than half the levels among those women who had not had such a loss (Njogu, 1991). In a similar study Kareka (1991), indicated that a negative correlation existed between child death experience and contraceptive use. These findings were consistent with a desire for more children to replace the deceased ones as well as an insurance cover against future losses of more children.

2.5.4 Fertility Preference and Ever Use of Modern Methods of Contraception

Women who desire to have additional children have lower tendency to use contraceptives compared to those who desire no additional children. Njogu (1991) established that even after controlling for other factors, desire for no more children still had a significant effect on decision of whether to adopt contraception or not. The odds of contraception among women who wanted no more children were triple those of women who wanted to have additional children.

2.6 Summary of Literature Review

Evidence from most of the literature reviewed reveal that most common predictors linked to ever use of modern methods of contraception include: region of residence, educational level, type of place of residence, work status, religious affiliation, ethnicity, type of marriage, age of respondent, number of living children, exposure to mass media, knowledge of modern methods of contraception, child death and fertility preferences. The review showed that region of residence is among determinant factors of contraceptive use. The review also showed that contraceptive use increased with educational level of

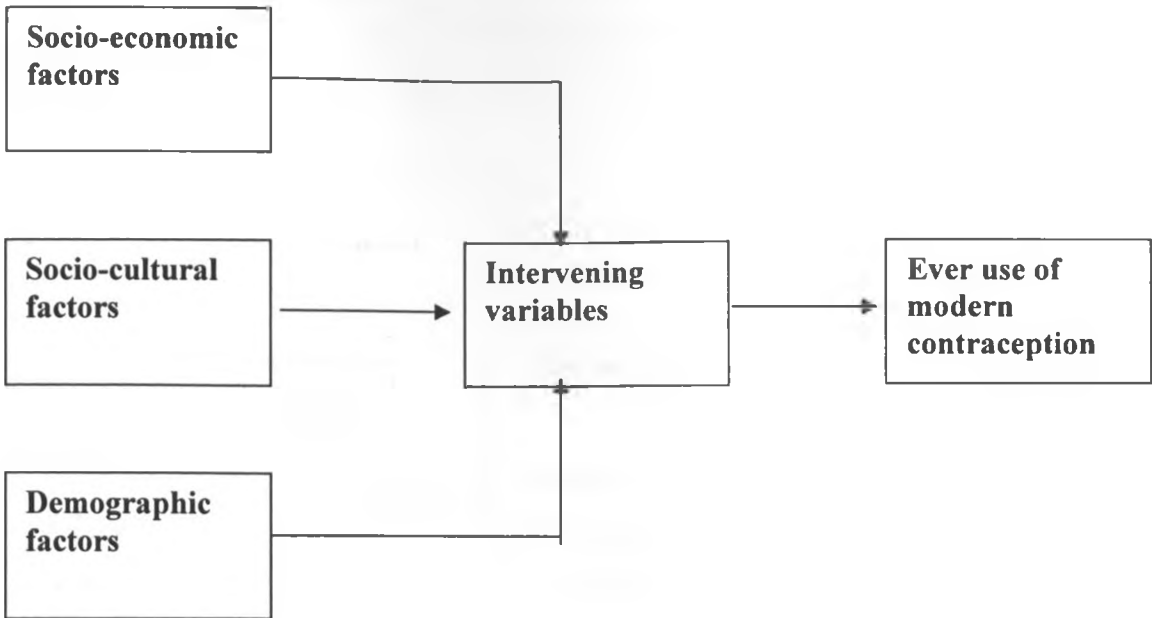
the respondent. Use of contraception is higher in urban than rural Kenya. Although evidence from several studies carried out in Kenya with regard to the effect of respondent's work status on contraceptive use provided inconsistent results, it was deemed necessary to include this variable in this study. Religion affected fertility behavior through teachings and practices; which in turn shaped respondents' beliefs, norms, values and attitudes towards their reproduction and family size determination. Culture acted through ethnicity such that there were customs, norms, beliefs and value systems within certain communities that made it difficult for couples to regulate their fertility. Age of the respondent was also an important determinant of ever use of modern methods of contraception. Contraceptive use increased with the number of living children. Access to mass media plays an important role in promoting ever use of modern methods of contraception. Knowledge of modern methods of contraception acts as an important intervening variable in influencing ever use of modern methods of contraception. Finally the review showed that child mortality has negative effect on contraceptive use.

Conceptual framework

The study employs an adaptation of Bongaarts' J. (1978 and 1982) framework used for analyzing fertility. The adapted framework is shown below.

2.7 Conceptual Framework Model

Figure 1: Conceptual Framework

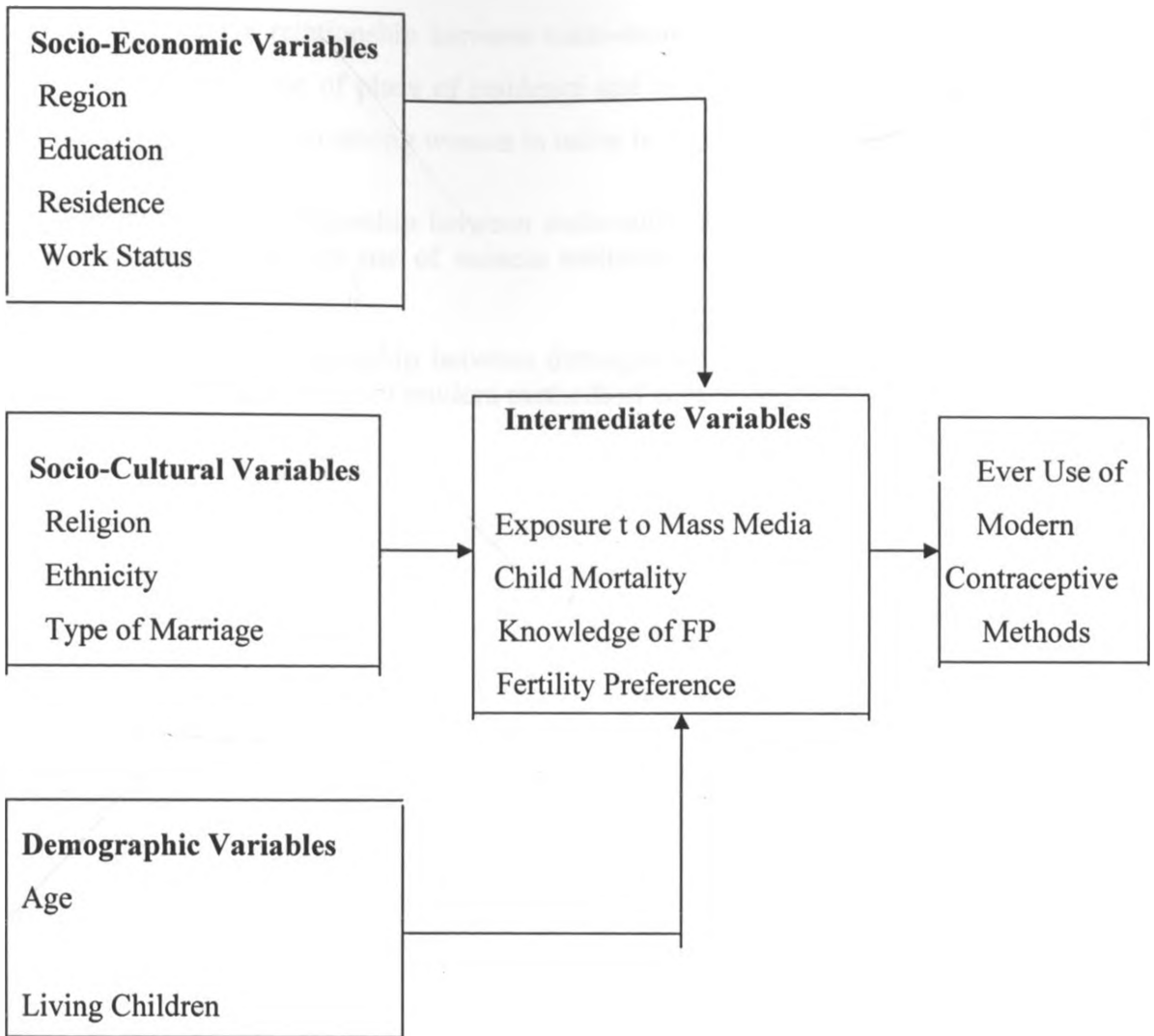


Source: Adapted from Bongaarts, J. framework for analyzing fertility

Conceptual statement/hypothesis

The operational framework derived from the above conceptual framework is shown below

Figure 2: Operational Framework Model



Source: Adapted from Bongaarts, J. framework for analyzing fertility

2.8 Definition of Concepts

The definition of the variables used in the study are presented in the table below

2. 9 Operational Hypotheses

1. There is positive relationship between socio-economic factors (Region of residence, level of education, type of place of residence and work status) and ever use of modern methods of contraception among women in union in Kenya.
2. There is positive relationship between socio-cultural factors (Religion, ethnicity and type of marriage) and ever use of modern methods of contraception among women in union in Kenya.
3. There is positive relationship between demographic factors (Age of respondent and living children) and ever use of modern methods of contraception among women in union in Kenya.

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3. There is positive relationship between demographic factors (Age of respondent and living children) and ever use of modern methods of contraception among women in union in Kenya.

Table 2.1: Definition of Variables

<u>Variable</u>	<u>Variable Type</u>	<u>Measurement</u>
Ever Use of Modern Methods of Contraception	Dependent Variable	1=Yes 2=No
1) Region	Independent Variable	1=Nairobi Province 2=Central Province 3=Coast Province 4=Eastern Province 5=Nyanza Province 6=Rift Valley Province 7=Western Province 8=North Eastern Province
2) Education	Independent Variable	1=No Educatn/Pre-school 2 = Primary 3= Secondary and higher
3) Residence	Independent Variable	1 = urban 2 = rural
4) Work status	Independent Variable	1=Yes 2= No
5) Religion	Independent Variable	1=Catholic 2=Protestant/other Christian 3=Muslim 4=Others
6) Ethnicity	Independent Variable	1=Kikuyu 2=Kalenjin 3=Luhya 4=Luo 5=Others
7) Type of Marriage	Independent Variable	1= Yes

		2=No
8)Age	Independent Variable	1 = 15-24 Years 2 = 25-34 Years 3 = 35-49 Years
9)Living children	Independent Variable	1=0-2 children 2=3-5 children 3=6+ children
10)Access to Mass Media	Intervening Variable	1=Yes 2=No
11) Child Mortality	Intervening Variable	1=Yes 2=No
12) Knowledge of FP- Modern Methods of Contraception	Intervening variable	1=Yes 2=No
13) Fertility Preference	Intervening Variable	1=Yes 2=No

Dependent Variable

Ever Use of Modern Methods of Contraception: This refers to conscious effort exhibited by women in union of reproductive age (15-49) to regulate their fertility by ever use of modern methods of contraception. In this study it is categorized as: 1=yes for ever use 2=no for non-use

Independent Variables

Region: This variable refers to the province where the respondent usually resided. There were eight provinces in Kenya at the time of the 2008-09 KDH survey. This variable is categorized as: 1= Nairobi, 2= Central, 3=Coast, 4=Eastern, 5=Nyanza, 6=Rift Valley, 7=Western and 8=North Eastern

Education: This refers to the level of formal education attained by the respondent women. In this study it is categorized as: 1=No education/pre-primary level, 2=Primary level and 3=Secondary and higher level.

Residence: This refers to the residence of the respondent. This variable is categorized as 1=urban and 2=rural for this study.

Work Status: This variable refers to gainful employment of the respondent. In this study it is categorized as: 1=yes and 2=no respectively.

Religion: This refers to the religious faiths that respondents belonged to. In this study, religion has been categorized as: 1=Catholic, 2= Protestant /Other Christian, 3=Muslim and 4=Others

Ethnicity: An ethnic group of people, tribe or community refers to a distinct category of the population with different cultural norms and patterns of fertility behavior and regulation. Ethnicity in this study has been categorized as: 1=.Kikuyu, 2=Kalenjin, 3=Luhya, 4=Luo and 5=Others

Type of Marriage: This refers to whether women in union were in either polygamous or monogamous types of marriage at the time of the 2008/9 KDH Survey. In this study Polygyny is coded 1 and Monogamy 2.

Age: This refers to the age of the respondent in completed years on the date of the interview. In this study age has been classified as: 1=15-24, 2=25-34 and 3=35-49.

Living Children: This variable in the study has been divided into three categories: 1=0-2 children, 2=3-5 children and 3=6 children or more.

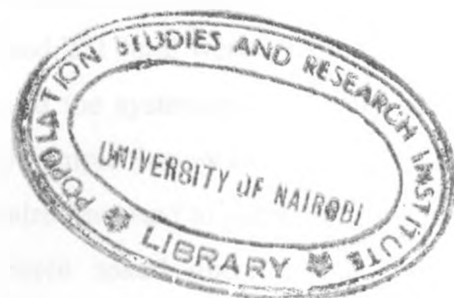
Intervening Variables

Exposure to Mass Media: In this study this refers to whether or not the respondent listened to radio. Respondents who had had access to radio media programs were expected to have been exposed to messages in respect of ever use of modern methods of contraception and other family planning messages and therefore to have been capable of making informed fertility decisions accordingly. In this study the variable is categorized as: 1=yes and 2=no.

Knowledge of Modern Contraception: This refers to whether or not modern methods of contraception were known by a respondent during or shortly prior to the period of the 2008/09 KDH survey. In this study, this variable is classified by the respondent's response of 1=yes or 2.=no.

Child Death: This variable refers to whether or not the respondent experienced child death. In this study this variable is categorized as: 1=yes and 2=no for child death.

Fertility Preference: The variable refers to whether or not the respondent desired to have another child in future. As expected, those women who had the desire to have another child in future were least likely to have been motivated to ever use modern methods of contraception than those who did not have the desire for another child in future. In this study this variable is categorized as: 1=yes and 2=no for desire.



CHAPTER THREE

DATA AND METHODOLOGY

3.1 Introduction

This chapter discusses the source of data used for this study and methods that were employed to analyze the data.

3.2 Source of data

The data is drawn from the 2008-09 Kenya Demographic and Health Survey (KDHS). The 2008=09 KDHS data collection took place over a three-month period, between 13th November, 2008 until late February, 2009. Like its predecessors conducted in 1989, 1993, 1998 and 2003 respectively, it was a nationally representative household-based sample survey of 8,444 women aged between 15 and 49 and 3,465 men aged between 15 and 54 which specifically collected information on fertility levels, marriage, sexual activity, fertility preferences, awareness and use of family planning methods, breast feeding practices, nutritional status of women and young children, childhood and maternal mortality, maternal and child health, awareness and behavior regarding HIV/AIDS and other sexually transmitted infections (STIs). In addition information on malaria and use of mosquito nets, domestic violence and HIV prevalence among adults was collected.

The survey utilized a two-stage sample design. The first stage involved selecting sample points (clusters) from a national master sample maintained by Kenyan National Bureau of Statistics. A total of 400 clusters, 129 urban and 271 rural were selected from the master frame countrywide. The second stage involved the systematic sampling of households that had been prepared for the fourth National Sample Survey and Evaluation Programme (NASSEP IV) in 2002. The female questionnaire was used to gather information from the female respondents. Female respondents were asked questions on various issues including awareness and use of family planning methods and such background characteristics as region of residence, level of education, residence, work status, religion, ethnicity, type of marriage, age, number of surviving children, exposure to mass media,

knowledge of modern contraceptive methods, child death experience and fertility preference, etc.

Specifically, data drawn from the female questionnaire is used in this study. Unlike their predecessors, the 2003 KDHS and 2008-09 KDHS covered the Northern Eastern Province.

3.3 Methods of data analysis

Descriptive statistics cross tabulation and logistic regression methods of data analysis were applied.

3.3.1 Descriptive Statistics

Frequencies were used at the univariate level to describe the variables in order to understand the distribution of the study population.

3.3.2 Cross Tabulation

Cross tabulations were used at the bivariate level of analysis to show relationships between the independent and dependent variables.

Chi-square test is used to test the significance of associations between each of the independent variables and the dependent variable. Chi-Square is calculated using the formula below

$$X^2 = \sum \frac{(O - E)^2}{E}$$

Where: **E** is the expected frequency for a given cell.

O is the observed frequency for a given cell.

\sum (Sigma) is the summation of.

The major draw back of the chi-square statistic is that it doesn't give the direct effect of the relationship between two variables of interest. It only indicates the existence of a relationship and its significance.

3.3.3 Logistic Regression

Logistic regression is used to determine the association between the independent variables and the dependent variable. It is also used to analyze dichotomous data; this means that the dependent variable takes the value of either one or zero. Such data are generated by yes/no responses. In this study logistic regression is used to study the effect of each of the explanatory variables on ever use of modern methods of contraception among women in union in Kenya. The purpose of logistic regression is to identify the best fitting model to describe the relationship between the dependent variable, which in this study is ever use of modern methods of contraception and a set of independent variables (region of residence, level of education, ethnicity, type of marriage, age of respondent, child survival, exposure to mass media, knowledge of modern methods of contraception, child mortality and fertility preference) inter alia.

The mathematical form on which the logistic regression model is based has estimates that must range between one and zero. This enables us to describe the probability of an event taking place. If it is close to one (1), the probability of an event taking place is certain; if it is close to zero (0), the probability of an event taking place is uncertain. This is not always true for other possible models, hence the reason why the logistic regression model is ideal for this study, when probability is to be estimated, (Ndungu, 2004). The odds ratios generated permit direct observation of the importance of each independent variable in predicting the likelihood of ever use of modern methods of contraception behavior, compared with the reference categories.

The general logistic regression model is represented as follows:

$$Y = \frac{e^{B_0 + \sum B_i X_i}}{1 + e^{B_0 + \sum B_i X_i}}$$

Where: Y is the dependent variable in probability

e is the exponent of the \sum of the constant and X_n variables in the study

B_0 is the constant or intercept of the logistic regression model

B_i is the i^{th} Coefficient.

3.3.3 Logistic Regression

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Where: Y is the dependent variable in probability

e is the exponent of the \sum of the constant and X_n variables in the study

B_0 is the constant or intercept of the logistic regression model

B_i is the i^{th} Coefficient.

This model is made linear by carrying out a logit transformation that transforms the distribution into linear function as follows:

$$g(x) = \ln[y/I-y] = B_0 + B_1 X_1 + \dots + B_n X_n$$

Where: **I** refers to the logit or the log odds.

ln refers to the natural log

B₀ refers to the intercept of the logistic regression model.

B_i refers to the *i*th logistic regression coefficient.

X_i refers to the independent variable.

Logistic regression was fitted using maximum likelihood approach

CHAPTER FOUR

EVER USE OF MODERN METHODS OF CONTRACEPTION AMONG WOMEN IN UNION IN KENYA

4.1 Introduction

This chapter presents the study variables and their association with the dependent variable. The presentation is based on 5,041 women in union out of the total 2008-09 KDHS sample of 8,444. The chapter is organized into two sections. Section 4.2 describes the variables while section 4.3 presents the associations.

4.2 Description of Variables

The characteristics presented in this section are: socio-economic - (region, level of education, type of place of residence and current work status), socio-cultural - (religion, ethnicity and type of marriage), demographic - (current age and number of surviving children) and intermediate - (exposure to mass media (radio), child death, knowledge of modern methods of contraception and fertility preference) according to the theoretical framework presented earlier. These characteristics are summarized in Table 4.1.

Results in the table show that overall 61.6 percent of the women had ever used modern contraceptives. The table also shows that Nyanza province had the highest proportion of respondents, comprising 16.0 percent followed by Rift Valley, Coast and Eastern provinces with 15.0 percent, 14.2 percent and 13.9 percent respectively. Nairobi and North Eastern provinces had less than 10.0 percent women respondents, comprising 9.3 percent and 8.4 percent respectively. Nearly fifty three percent of the respondents had primary level of education, while 19 percent had no education. Those with secondary level of education and above constituted 28 percent. Most of the respondents resided in the rural parts of Kenya, representing 72 percent while the remaining 28 percent resided in urban areas. Nearly forty one percent of the respondents did not work, while 59 percent worked. The majority of the respondents belonged to the protestant and other Christian faiths, representing 60 percent, while 18 percent each belonged to the Roman Catholic and Muslim faiths. Only about 4 percent of the women belonged to other

religious faiths. Most women of the study population hailed from all other Kenyan tribes, comprising 61 percent, while 16 percent, 14 percent and 9 percent hailed from the Kikuyu, Luhya and Kalenjin communities respectively. The majority of the respondents were in monogamous unions, representing 82 percent, while only 18 percent were in polygamous unions.

Slightly less than 40 percent of the women were in the 25 - 34 age bracket, while 35 percent and 25 percent were in the 35 - 49 and 15 - 24 age brackets respectively. Nearly 43 percent of the respondents had 0 - 2 surviving children, while 40 percent had 3 - 5 surviving children. Only 17 percent of the women had six and above surviving children. Eighty (80) percent of the respondents listened to radio, while 20 percent did not. The majority of the respondents, (78) percent, had not experienced child death, while 22 percent had experienced. Ninety two (92) percent of the respondents had knowledge about modern methods of contraception. Only about 8 percent of the respondents had no knowledge at all about modern methods of contraception. Forty nine (49) percent of the respondents did not want another child in future, while 48 percent wanted.

Table 4.1: Distribution of Women in Union aged 15-49 in Kenya

Variables	Number of cases	Percent
Dependent Variable		
Ever Use of Modern Methods of Contraception		
Never use	1938	38.4
Ever use	3103	61.6
Independent Variables		
<i>Socio-economic Variables</i>		
Region		
Nairobi	470	9.3
Central	565	11.2
Coast	718	14.2
Eastern	699	13.9
Nyanza	805	16.0
Rift Valley	757	15.0
Western	603	12.0
Northeastern	424	8.4
Education		
No Education	953	18.9
Primary	2662	52.8
Secondary+	1426	28.3
Residence		
Urban	1421	28.2
Rural	3620	71.8
Work Status*		
Not currently working	2054	40.7
Currently working	2971	58.9
<i>Socio-cultural Variables</i>		
Religion		
Roman catholic	910	18.1
Protestants	3009	59.7
Muslim	924	18.3
Others	198	3.9

Table 4.1 Continued.

Ethnicity		
Kikuyu	826	16.4
Kalenjin	434	8.6
Luhya	702	13.9
Others	3079	61.1
Type of Marriage		
Polygyny	885	17.6
Monogamy	4156	82.4
<i>Demographic Variables</i>		
Age		
15-24 years	1265	25.1
25-34 years	2009	39.9
35-49 years	1767	35.1
Living Children		
0-2 children	2162	42.9
3-5 children	2016	40.0
6+ children	863	17.1
<i>Intermediate Variables</i>		
Listening to Radio*		
Yes	4032	80.0
No	1005	19.9
Child Death		
No	3912	77.6
Yes	1129	22.4
Knowledge of Modern Contraceptive Methods		
Yes	4657	92.4
No	384	7.6
Fertility Preference*		
Want another child	2431	48.2
Does not want another child	2445	48.5

4.3 Association Between Ever Use of Modern Methods of Contraception and the Study Variables

This section describes the association between ever use of modern contraceptives and the selected independent variables. Cross tabulation and chi-square test are used. These associations are presented in Table 4.2. The association between region of residence and ever use of modern methods of contraception was significant. In Central province ever use of modern contraceptives was 88.7 percent compared with North Eastern province with only 4.2 percent. Ever use of modern contraception for other provinces lies in between as shown in the table. The above relationship was found to be significant at 95 percent significance level (0.000), chi - square value of 875.0 and 7 degrees of freedom. Ever use of modern methods of contraception increases with the level of education as shown in the table. Over eighty two 82 percent of the respondents with secondary and above levels of education ever used modern methods of contraception. Over sixty seven 67 percent with primary level of education ever used modern methods of contraception. Only about fifteen 14.7 percent respondents with no education at all ever used modern methods of contraception. This relationship was found to be significant at 95 percent (0.000) level, chi - square value of 1181.7 and 2 degrees of freedom. Fifty seven 57 percent of the respondents who resided in the rural parts of Kenya ever used modern methods of contraception, while 73.1 percent ever use was in urban areas of the country. There was a significant association between ever use of modern methods of contraception and type of place of residence at 95 percent (0.000) level, chi - square value of 111.8 and degree of freedom of 1. Nearly forty eight percent of the respondents who did not work ever used modern methods of contraception. Seventy one 71 percent who worked ever used modern methods of contraception. This relationship was found to be significant at 95 percent (0.000) level, chi - square value of 288.0 and degree of freedom of 1. Nearly seventy three 72.5 percent Protestant, sixty seven 66.9 percent Roman Catholic and twenty seven 26.7 percent Muslim respondents ever used modern methods of contraception. The remaining 32.3 percent who belonged to other faiths also ever used modern methods of contraception. This result was found to be statistically significant at 95 (0.000) percent level, chi - square value of 709.8 and degrees of freedom of 3. Nearly 90 percent of Kikuyu, 74 percent of Luhya, 57 percent of Kalenjin and 52 percent of

other tribes' respondents respectively ever used modern methods of contraception. This association was found to be significant at 95 level. Slightly over forty six 46.4 percent respondents in polygynous unions ever used modern methods of contraception, while 64.8 percent in monogamous unions ever used modern methods of contraception. This relationship had statistical significance level of 95 (0.000) percent, chi - square value of 103.6 and degree of freedom of 1.

The results in Table 4.2 indicate that 67.2 percent of the respondents in the 25 - 34 age bracket, 62.4 percent in the 35 - 49 age bracket and 51.4 percent in the 15 - 24 age bracket ever used modern methods of contraception. This association was significant at 95 (0.000) percent level. Slightly over sixty six 66.4 percent of the respondents with 3 - 5 surviving children, 61.5 percent with 0-2 surviving children and 50.5 percent with six and above surviving children ever used modern methods of contraception respectively. This association was found to be significant at 95 (0.000) percent level, chi - square value of 64.1 and degree of freedom of 2. Nearly 70 percent respondents who listened to radio broadcast programs and 29.2 percent women who did not listen to radio programs ever used modern methods of contraception respectively. Nearly 63 percent of the respondents who had no child death experience and 57 percent of the respondents who had child death experience ever used modern methods of contraception, respectively. Seventy four percent of the respondents who did not want to have another child in future and forty nine percent of those who wanted ever used modern methods of contraception respectively.

Table 4.2: Differentials in Ever Use of Modern Methods Contraception Among Women in Union in Kenya by Background Characteristics, KDHS 2008-09

Variable	Never use	Ever use	N	Significance
<i>Socio-economic Variables</i>	%	%	Total	P-Value
Region				
Nairobi	18.9	81.1	470	0.000
Central	11.3	88.7	565	
Coast	42.1	57.9	718	
Eastern	39.1	60.9	699	
Nyanza	35.9	64.2	805	
Rift Valley	44.3	55.7	757	
Western	30.0	70.0	603	
Northeastern	95.8	4.2	424	
Education				0.000
No Education	85.3	14.7	953	0.000
Primary	32.8	67.2	2662	
Secondary+	17.6	82.4	1426	
Residence				0.000
Urban	26.9	73.1	1421	0.000
Rural	43.0	57.0	3620	
Work Status				
Not currently working	52.4	47.6	2054	0.000
Currently working	28.7	71.3	2971	
<i>Socio-cultural Variables</i>				
Religion				0.000
Roman catholic	33.1	66.9	910	0.000
Protestant/Other christian	27.5	72.5	3009	
Muslim	73.3	26.7	924	
Others	67.7	32.3	198	
Ethnicity				0.000
Kikuyu	10.2	89.8	826	0.000
Kalenjin	42.9	57.1	434	
Luhya	26.4	73.6	702	
Others	48.2	51.8	3079	
Type of Marriage				0.000
Polygyny	53.6	46.4	885	0.000
Monogamy	35.2	64.8	4156	

Table 4.2 Continued

Variable	Never use	Ever use		Significance
<i>Demographic Variables</i>	%	(%)	Total	P-Value
Age				0.000
15-24 years	48.6	51.4	1265	
25-34 years	32.8	67.2	2009	
35-49 years	37.6	62.4	1767	
Living Children				0.000
0-2 children	38.5	61.5	2162	
3-5 children	33.6	66.4	2016	
6+ children	49.5	50.5	863	
<i>Intermediate Variables</i>				
Listening to Radio				0.000
Yes	30.4	69.6	4032	
No	70.8	29.2	1005	
Child Death				0.000
No	37.1	62.9	3912	0.000
Yes	43.0	57.0	1129	
Fertility Preference				0.000
Want another child	51.0	49.0	2431	0.000
Does not want	26.0	74.0	2445	

Source: Computed from the analysis of 2008/09 KDH Survey data set

Factors Influencing Ever Use of Modern Methods of Contraception Among Women in Union in Kenya

The principal objective of the study is to investigate ever use of modern methods of contraception among women in union in Kenya. In this study, logistic regression is used to achieve this goal to establish the effect of each of the independent/background variables on ever use of modern methods of contraception through intermediate variables. In table 4.3 the regression coefficients represent the likelihood of ever use of modern methods of contraception as reflected by the effect of the respective independent variables on the dependent variable. For example region of residence shows that a woman from Central province is 1.006 times more likely to have ever used modern methods of contraception than her counterpart in Nairobi. Also a woman from Coast province is 1.050 times more likely to have ever used modern methods of contraception than a woman from Nairobi. Conversely, a respondent from North Eastern province is only 85.8 percent as less likely to have ever used modern methods of contraception compared to her counterpart from Nairobi. Women with secondary and above levels of education are 6.210 times more likely to have ever used modern methods of contraception compared with respondents with no education at all. Similarly, women with primary levels of education are 3.303 times more likely to have ever used modern methods of contraception than women with no education at all. As expected, place of residence shows that respondents who reside in the urban parts of Kenya are 73.1 percent more likely to have ever used modern methods of contraception compared with the respondents in rural Kenya. This corroborates the fact that urban women have access to employment opportunities, media, and etc. which enhances contraceptive access. The odds of ever use

of modern methods of contraception for women in gainful employment are 1.406 times higher than those without work. This is expected as working women are motivated by income to access modern methods of contraception and other services of their choice. Women who belong to Protestant and other Christian faiths are 1.179 times more likely to have ever used modern methods of contraception than their Catholic counterparts due most probably to the Catholics' hard stand on contraceptive use. The Muslim women are 29 percent less likely to have ever used modern methods of contraception than Catholics. The main ethnic communities are depicted with the Kalenjin women being 70 percent less likely to have ever used modern methods of contraception compared with Kikuyu women. The Luo women are 23 percent less likely to have ever used modern methods of contraception than the Kikuyu women. Women in monogamous unions are 1.213 times more likely to have ever used modern methods of contraception than those in polygynous unions.

As expected, older women are more likely to use contraception as shown in the table. Women in the 25 – 34 age groups are 1.368 times more likely to have ever used modern methods of contraception than those in the 15 – 24 age cohort; while women in the 35 – 49 age group are 5.2 percent less likely to have ever used modern methods of contraception than those in the 15 – 24 age group. Child survival significantly affects ever use of modern contraception as shown in table. Women with 3 – 5 surviving children are 1.377 times more likely to have ever used modern methods of contraception than those with 0 – 2 surviving children. Women with six and more surviving children are 1.157 times more likely to have ever used modern methods of contraception than those women who have 0 – 2 surviving children. Listening to radio significantly affects

ever use of modern contraception in Kenya as shown in the table. Women who do not listen to radio broadcast programs are 35 percent less likely to have ever used modern methods of contraception than those who do listen to radio programs. Child death experience significantly affects ever use of modern methods of contraception in that women who had child death experience were 12 percent less likely to have ever used modern methods of contraception than those who had no child death experience.

Table 4.3 Logistic Regression of Independent Variables on Ever Use of Modern Methods of Contraception Among Women in Union in Kenya, KDHS 2008-09

	B	S.E.	Sig.	Exp(B)
Region				
Nairobi®			.000	
Central	.006	.256	.981	1.006
Coast	.049	.188	.795	1.050
Eastern	-.100	.199	.616	.905
Nyanza	-.410	.191	.031	.663
Rift Valley	-.455	.208	.029	.635
Western	-.509	.232	.028	.601
Northeastern	-1.949	.357	.000	.142
Education				
No Education®			.000	
Primary	1.195	.130	.000	3.303
Secondary+	1.826	.152	.000	6.210
Residence				
Urban®			.000	
Rural	-.327	.106	.002	.721
Work Status				
Not currently working®			.000	
Currently working	.340	.079	.000	1.406
Religion				
Roman catholic®			.000	
Protestant/Other christian	.164	.097	.089	1.179
Muslim	-.208	.157	.185	.812
Others	-.918	.216	.000	.399
Ethnicity				
Kikuyu®			.000	
Kalenjin	-1.204	.234	.000	.300
Luhya	-.491	.235	.037	.612
Luo	-.567	.254	.000	.785
Others	-1.061	.194	.000	.346

Table 4.3 Continued

	B	S.E.	Sig.	Exp(B)
Type of Marriage				
Polygyny®			.000	
Monogamy	.193	.101	.056	1.213
Age				
15-24 years®			.000	
25-34 years	.313	.103	.002	1.368
35-49 years	-.053	.128	.679	.948
Living Children				
0-2 children®			.004	
3-5 children	.320	.101	.002	1.377
6+ children	.146	.143	.307	1.157
Listening to Radio				
Yes®				
No	-.438	.106	.000	.645
Child Death				
No®				
Yes	-.124	.092	.175	.883
Fertility Preference				
Want another child®				
Does not want	.132	.501	.991	1.345
Knowledge of Modern Methods of Contraception				
Yes®				
No	-.717	.095	.000	2.049
Constant	-.031	.291	.916	.970

®-Reference Category

Source: Computed from the analysis of 2008/09 KDH Survey data set

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary, conclusion and recommendations of the study based on the objectives as outlined in chapter one.

5.2 Summary of the Study

The main aim of this study was to establish factors associated with ever use of modern methods of contraception among women in union in Kenya. Data for this study was obtained from the 2008-09 KDHS results. The findings presented in the chapter show association with most variables and ever use of modern methods of contraception are as expected.

The results show that all the socio-economic factors (region of residence, level of education, place of residence and work status) were significant determinants of ever use of modern methods of contraception. More educated women were more likely to have ever used modern methods of contraception compared to less educated women. It was also established that ever use of modern methods of contraception increases with the level of education. The study also found that women in rural Kenya were less likely to have ever used modern methods of contraception than women who resided in urban parts of the country. These findings are consistent with previous studies of Ikamari (1985), Njogu and Keraka (1991). In their studies using the 1977/8 KFS data, they found that education had statistical significance effect on contraceptive use and that women with more than nine years of schooling were almost nine times more likely to use contraception than were women with no education. Furthermore, all socio-cultural factors examined (religion, ethnicity and polygyny) were also found to be significant determinants of ever use of modern methods of contraception. For instance, Muslim

women were less likely to have ever used modern methods of contraception compared to Catholic women. Age and number of surviving children were also found to be significant determinants of ever use of modern methods of contraception. Women in the 25 – 34 age group were found to be 1.368 more likely to have ever used modern methods of contraception than women in the 15 – 24 age group. Women in the 35 – 49 age group were found to be 5.2 percent less likely to have ever used modern methods of contraception. These findings corroborate those of Oucho and Ayiemba (1989) in which they argued that centrality of age in contraceptive use analysis was in the fact that it determined the entry into and exit out of reproductive risk.

5.3 Conclusion of the Study Findings

The study examined factors associated with ever use of modern methods of contraception among married women in Kenya. Socio-economic, socio-cultural and demographic factors play a significant role in influencing ever-use of modern methods of contraception among married women in Kenya. These results imply that improving the status of women through education remains a key strategy of increasing utilization of modern contraceptive methods in Kenya. Rural women should be considered a priority group since there is evidence of low ever use of modern contraceptives among them.

5.4 Study Recommendations

The primary objective of the study was to investigate ever use of modern methods of contraception in Kenya and make recommendations based on how it could be used to achieve lower fertility levels. For this reason, recommendations are made as follows:

Policy makers, donors, civil society and researchers

- i. Deliberate efforts among policy makers, donors and civil society are needed to launch information, education and communication campaigns through mass media (radio) geared towards increasing use of modern contraceptive use in

Kenya since radio was found to be one of the factors associated with ever use of contraception.

- ii. The process of job creation should be speeded up to improve the economic status of women in union and women in general. The study showed that a sizeable percentage of respondents were not working. Therefore, the Government's economic recovery strategy for wealth and employment creation and vision 2030 strategy need support from policy makers, donors and civil society. This is a worthy venture since the working class women in union are more likely to afford to access information on contraceptives. It also means they are more likely to afford the effective modern contraceptives.
- iii. Population education should be launched and boosted; it is necessary to infuse knowledge on modern contraceptive use in the school curriculum so that women learn its significance from an earlier age. Since the results show that ever use of modern contraception increases with the level of education, female primary and secondary school enrolment and completion rates need support at all levels of GOK, civil society and donors since the main target of contraception is the woman. Sustainable poverty alleviation and school feeding programs by GOK, donors and civil society targeting North Eastern and other arid and semi-arid areas of Kenya are recommended.
- iv. Maternal and child health programs to curb child and infant mortality need support from all stakeholders to boost child survivorship which increases levels of ever use of modern methods of contraception.
- v. Further research needs to be done employing alternative variables to establish other determinants of modern contraceptive use in Kenya.

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