FACTORS AFFECTING METHOD CHOICE AMONG THE CURRENT CONTRACEPTIVE USERS IN KENYA: EVIDENCE FROM THE KENYA DEMOGRAPHIC AND HEALTH SURVEY, 1998.

BY

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DECLARATION

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

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This thesis has been submitted for examination with our approval as University supervisors.

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DEDICATION

This thesis is dedicated to my two sons Brian and Josephat who have been a great source of encouragement to me.

ABSTRACT

The main objective of this study was to investigate the effects of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors in the current choice of modern over traditional methods of family planning among a sub-sample of 1795 currently married women aged 15-49 years. These were the women who were using contraceptive methods at the time of the 1998 Kenya Demographic and Health survey. Data from this survey was used because it provides nationally representative information on contraceptive use in Kenya.

The techniques of data presentation and analysis that were employed in this study included the cross-tabulation and the chi-square test together with the multiple logistic regression analyses.

The results of the cross-tabulations and the chi-square values indicate that, all the contraceptive goal factors namely, wives' age, whether or not additional children are wanted and the number of living children per woman were statistically significantly related to the current choice of modern and traditional methods of family planning among the currently married women of reproductive ages.

Similar results were also found for husbands' education level which is a (contraceptive competency factor), ethnicity and husbands' attitude towards family planning (contraceptive evaluations factors), and finally hubsband-wife discussion about family planning and region/province of residence (contraceptive access factors) in this study.

Wives' education level (contraceptive competency factor), religion (contraceptive evaluations factor) and finally, wives' work status and place of type of residence- whether rural or urban (contraceptive access factors) were found to have no statistically significant association with the current choice of modern and traditional methods of family planning among the currently married women of reproductive ages.

On the hand, results of the multiple regression analyses indicate that contraceptive goal (wives' desire not to have additional children and, having at least one living child compared with the desire to have additional children and having no living child respectively), contraceptive competency (husband's education to primary and above level compared with those with no education), contraceptive evaluations (belonging to Kikuyu, Kisii, Luhya, Meru/Embu and Mijikenda/Swahili ethnic communities, and husbands' approval of family planning compared with the Kalenjin ethnic community and husbands' disapproval of family planning respectively) together with the contraceptive access factors (residing in Nairobi, central, coast, Nyanza,

and rift valley provinces compared with those residing in western province) variables were statistically significantly related to more choice of modern over traditional methods of family planning among the currently married women of reproductive ages in Kenya.

The main conclusion that was derived from the results of this study, was that, Kenyan couples were making rational choices in terms of their ccontraceptive goals, competency, evaluations and access.

This was demonstrated by the fact that there was at least one variable in every category of these factors that was found to have a statistically significant effect on the current choice of modern over traditional methods of family planning among the currently married women of reproductive ages considered in this study.

The major policy implications of the findings of this study is that population and family planning programmes in Kenya should take into account Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors alongside family planning programme inputs factors to motivate couples to use modern instead of traditional methods of family planning. This will facilitate government's efforts to speed the pace of fertility decline in Kenya.

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TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION AND STATEMENT OF THE PROBLEM

1.1 Background to the study Problem

The twentieth century has been a time of unprecedented changes in global population dynamics, particularly in the less developed countries.

After several decades of declining death rates earlier in this century, in the late 1960's we began to see evidence of a significant downturn in fertility in a growing number of less developed countries.

However, despite the current declining of fertility rates in much of the world, the global population is still growing by 81 million persons per year (UNFPA, 1997).

Many countries are now aware of the relationship between rapid population growth and socio-economic development. This awareness has led these countries to adopt policies and programmes aimed at reducing the population growth rates. These policies are often implemented through family planning programmes.

Since 1952 when India became the first developing country to establish a national family planning programme, many countries have followed suit by establishing policies and programmes to lower fertility using this policy instrument. This has resulted into a gradual decline in fertility rates due to the rapid increase in contraceptive use that has been documented in many countries (Robey et al., 1992; Weinberger, 1991).

It is estimated that more than 50 per cent of couples in developing countries now use contraception (Weinberger, 1991) This striking increase in contraceptive use and the associated fertility decline have been referred to as a 'reproductive revolution' that is spreading throughout the less developed world (Robey et al., 1992).

Among the regions of the developing world, choice of traditional methods of family planning are relatively more prevalent in sub-Saharan Africa, while modern methods dominate in the other regions of the developing world (Curtis et al., 1996)

In Sub-Saharan Africa, some women choose traditional while others choose modern methods of family planning among countries. More currently married women choose traditional methods than modern

2

methods of family planning in Burundi, Ghana, Malawi, Mali, Rwanda, Senegal and Togo while the choice of modern methods of family planning is highest in Botswana, Kenya, Liberia and Zimbabwe (UNECA, 1992). However, there has been an increase in the use of modern methods of family planning among the current users of contraceptives hence making contraceptive use to increase consistently over time in every developing country for which trend data are available (Curtis et al., 1996).

Since 1967 when Kenya launched an official national family planning programme with a strong emphasis on cafeteria approach to contraceptive method choice, its population like many other developing countries has been increasing rapidly.

It increased from 5.4 million people in 1948 to estimated 28.8 million people in mid 1997 (Kenya Republic of, 1980;Population Reference Bureau, 1997).

However, this rate of population growth has been declining since 1979 from 3.8 per cent per year to estimated 2.5 per cent per year and, 53 live births per a thousand population and 7.9 children per woman in 1979 to 38 live births per a thousand population and 5.4 children per woman in mid 1997 respectively (CBS, 1996 ; Population Reference Bureau,

3

1997). This fertility decline that has been noted since 1989 is attributed to an increased contraceptive use among currently married women, which increased from 17 per cent in 1984 to, estimated 39 per cent in mid 1997 (CBS, 1984; NCPD, 1998).

In 1989, an estimated 27 per cent of the currently married women aged 15-49 years were using contraceptive method of which 18 per cent were using modern methods while 9 per cent were using traditional methods (NCPD, 1989). This increased to 33 and 39 per cent in 1993 and 1998 where 27 and 32 per cent and 6 and 8 per cent of currently married women of reproductive ages where using modern and traditional methods of family planning respectively.

Although contraceptive use has been increasing so rapidly in the recent years, the current contraceptive prevalence rate of 39 per cent is very low and the estimated total fertility rate of 4.7 children per woman is very high in Kenya (NCPD, 1998).

There is therefore a need for a better understanding of the factors that affect the current choice of traditional and modern methods of family planning among the currently married women in Kenya.

The understanding of these factors is important because it can be used by the policy makers and family planning program managers to formulate policies and programmes to increase acceptance and choice of modern methods of family planning which are the most effective in the prevention of unwanted births in Kenya.

This is essential if a substantial reduction in fertility and hence population growth rate has to be achieved through family planning programme in the country.

1.2 Statement of the Problem

Even though Kenya instituted the first national family planning programme in Sub-Saharan Africa in 1967, its modern contraceptive prevalence rate is still relatively low although it has increased considerably in the last decade.

Although understanding of several factors that affect contraceptive method choice behaviour among the current users is already helping policy makers and researchers, the challenge facing them today is to discover quickly which factors are more important than others in order to translate this understanding into effective policies and action.

Most of the studies (Ikamari,1985; Murugaru 1982)in Kenya have

tended to concentrate on the determinants of contraceptive use paying very little attention to the factors that motivate couples who are current users of contraceptives to choose traditional and modern methods of contraception.

This study therefore aims at bridging this gap by highlighting certain important factors, which influence currently married women of reproductive ages to choose traditional or modern methods of contraception.

Policy makers can use these findings together with family planning managers to institute policies and programmes to promote the adoption and acceptance of modern methods of contraception. These methods have been found to be more effective than traditional methods in the prevention of unwanted births and therefore able to facilitate further reduction of fertility rate currently being experienced in the country.

1.3 Objectives of the Study

The overall objective of this study was to examine the effects of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors in the current choice of modern over traditional methods of contraception among the currently

married women of reproductive ages in Kenya along the dimensions proposed by Bulatao (1989).

The specific objectives were:-

(i).   To determine whether contraceptive goal factors namely, women's age, whether more children are desired and the number of living children per woman affects their current choice of modern over traditional modern methods of family planning.

(ii).   To find out whether contraceptive competency factors namely, Women's education, and husbands' education levels affects their current choice of modern over traditional methods of contraception.

(iii). To investigate whether contraceptive evaluations factors namely, religion, ethnicity and, husbands' attitudes towards family planning affects women's current choice of modern over traditional methods of contraception.

(iv).   To determine whether contraceptive access factors namely, women's work status, husband-wife discussion about family planning, women's residence in rural and urban areas together with their province of residence affects their current choice of modern over traditional methods of contraception.

1.4   Justification of the Study

The broad goal of any family planning programme is to help couples prevent unwanted births through the use of modern methods of family planning that are more reliable than traditional methods.

Since the ability of family planning programmes to contribute to fertility decline depends on Women's acceptance and continued use of more effective modern methods of birth control, an understanding of the factors that affect the current choice of traditional and modern methods is therefore very important to policy makers and family planning programme managers.

The primary objective of this study is therefore to examine the effects of Contraceptive goals, Contraceptive competency, Contraceptive evaluations and Contraceptive access factors in the current choice of modern over traditional methods of family planning among the currently married women of reproductive ages.

This is very important because it will provide the much needed information to policy makers and family planning programme managers concerning the factors associated with the current choice of modern over traditional methods of family planning among the currently married women of reproductive ages in Kenya.

The understanding of such information could be used to design

appropriate policies and programmes to increase the use of modern methods of family planning, which are more effective than traditional methods in the prevention of unwanted births, by the policy makers and family planning programme managers.

The fact that too little is known in Kenya about the factors affecting the current choice of traditional and modern methods of family planning justifies the undertaking of this study.

The findings of the study will increase this knowledge and form a basis for the promotion of the use modern methods of family planning that are more effective than traditional methods in the prevention of unwanted births in Kenya.

1.5 Scope and Limitation of the Study

This study will focus mainly on Contraceptive goals, socio-economic, contraceptive evaluations and contraceptive access factors which affect current contraceptive method choice independent of family planning program inputs among a sample of 1795 currently married women aged 15-49 years who are not pregnant and who considered themselves still fecund and sterilised.

The inclusion of the sterilised women as fertile and current users of contraceptive methods may pose a limitation in the validity of data as some of them could have become sterile in the absence of sterilisation method and hence could not have counted themselves as fertile.

The problem of under-reporting of pregnancy and difficulties in deciding whether or not one is physiologically capable of having another child may affect the quality of the results in this study.

Omission of questions on abortion on the KDHS questionnaire from which the data for this study is drawn may affect the conclusions that are drawn from this study. This is so because induced abortion has been one of the methods of birth control that has been in existence in Kenya for a long time although it has not been legalised.

Although the 1998 KDHS sample was national in scope, it excluded all three districts of North Eastern province and four other northern districts, namely, Samburu, Turkana in Rift valley province and Isiolo and Marsabit in Eastern province with only about five per cent of the population.

Finally, another major limitation of this study is that data on current use

apply to current use at the time of the survey and can yield no direct statements concerning continuity of contraceptive efficacy with which user dependent methods are used.

Despite these limitations, the study is expected to arrive at valid conclusions through the use of the available data already mentioned.

CHAPTER TWO

LITERATURE REVIEW

2.0.1   1ntroduction

The literature reviewed in this chapter focuses on various studies that have been undertaken in Kenya and the world at large on the factors affecting the current contraceptive method choice among the currently married women of reproductive ages.

The selected Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables examined in this study are reviewed taking into account their effects on current choice of traditional and modern methods of contraception among the currently married women of reproductive ages.

Kenya is on record as being the first country in Sub-Saharan Africa to launch an official family planning programme in 1967.

Yet according to 1998 Kenya demographic and health survey from which this study is based, three decades later, total fertility rate stands at 4.7 children per woman while only approximately 8 and 32 per cent of the currently married women of reproductive ages are current users of traditional and modern methods of family planning respectively.

The use of traditional methods of family planning considered less effective in the prevention of unwanted births has persistent despite the continued rise in the use of modern methods of family since the early 1980's. This continued rise in the use of modern methods, which are more effective than traditional methods in the prevention of unwanted births, is probably the major cause of fertility decline being experienced in Kenya today.

To successfully counter the persistent reliance on less effective traditional methods and promote more effective modern methods of family planning there is a need to understand the factors which influences currently married women of reproductive ages to use traditional and modern methods of contraception in Kenya.

The literature reviewed here focuses on the various studies that have been concerned with the effects of contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors on the current choice of traditional and modern methods of contraception among the currently married women of reproductive ages.

2.0.2 Contraceptive goals factors and method choice

Wives' age

Wives' age is an important determinant of contraceptive method choice. Abdulah (1990), applying both the descriptive and cross-tabulation methods of data analysis to DHS data for Trinidad and Tobago, noted three distinct phases in the reproductive cycle of exposed women, 15-24, 25-34 and 35 and above years, each of which was associated with the choice of a particular method or group of methods of contraception. He further found that those women in the 15-24 age group preferred traditional methods particularly withdrawal, 25-34 age group preferred condom and the pill, while among 35 years and over preferred female sterilisation and the condom.

Hubacher et al (1996) using cross-tabulation and logistic regression methods of data analysis for

Honduras epidemiology and family health survey carried out in 1987 and 1991-1992 found that choice of traditional methods particularly the withdrawal instead of modern methods was significantly more likely among 15-19 year olds and 20-24 year olds than among women aged 25-39 years. Moreover, women aged 40-44 years old were significantly

more likely to use traditional methods particularly the rhythm than were 25-39 year olds.

Goldberg et al (1994) using bivariate method of data analysis for the 1988 Turkish Population and Health Survey (TPHS, 1988) found that there was an existence of a U-shaped relationship between the proportion of users employing traditional methods by age with about two-thirds of users younger than 20 or older than 40 years choosing traditional methods and slightly fewer than half of the users in their twenties and thirties employing traditional methods. They also found that among the users of modern methods, their choice of these methods increased by age from 32.2 per cent among those aged 15-19 years old peaking at 53.9 per cent among those aged 20-29 years and falling to 37.9 per cent for those aged 40-49 years.

Rahman et al (1996) using bivariate and logistic regression methods of data analysis for Bangladesh Contraceptive prevalence reports of 1981-1991, found that age patterns of current contraceptive users among the currently married women resembled an inverted j-shaped curve that rose from a minimum at less than 20 year olds to a plateau in the age group 30-34 for modern methods, and age group 35-39 for traditional methods.

Freedman et al (1981) using bivariate method of data analysis for Indonesian fertility Survey data which was conducted in 1976 (IFS 1976) found that choice of modern methods of contraception increases from a low of about 13 per cent for women under age 20 years to highs of 36 to 38 per cent at ages 30-34 through 40-44 years and then drops to 29 per cent among women aged 45-49 years.

Dang (1995) using both bivariate and stepwise logistic regression methods of data analysis for 1988 Vietnam DHS found that, after controlling for the fertility and contextual factors women's age had no significant effect on the choice between modern and traditional methods of family planning.

According to CBS (1984), younger women were found to be more likely to rely more often on traditional methods than older women.

Mburugu et al., (1998) using bivariate and multiple logistic regression methods of data analysis for 1989 and 1993 KDHS data found that, current use of both traditional and modern methods of family planning was positively associated with the age of the women in 1989. But in 1993, this situation changed and the current use of traditional and

modern methods increased by the age of currently married women of reproductive ages from a low of 5.1 and 15.6 per cent respectively for those aged 15-19, peaking at 6.1 and 32.3 per cent for 25-34 year old and then falling to 4.9 and 30.2 per cent respectively for those aged 35-49 years.

In conclusion therefore we can say that literature reviewed on the effect of age of a woman on the current choice of traditional and modern methods of family planning shows that generally young women, that is those aged 15-24 years and those older women, those aged 40-49 years prefer traditional over modern methods of family planning compared with those aged 25-39 years who tend to prefer modern methods of family planning.

This may be explained by the fact that some of the older women are approaching sub-fecundity and may have lower frequencies of intercourse while the younger women, those aged 15-24 years, may be trying to give birth and prove their fertility after having got married recently hence more preference for traditional as opposed to modern methods of contraception.

Desire for more children

Women who wanted more children were found to be more likely than

those who did not want more children to use traditional than modern methods of family planning.

Freedman et al (1981) using bivariate method of data analysis for Indonesian fertility Survey data which was conducted in 1976 (IFS 1976) found that the use of traditional methods of contraception was higher (26 per cent) than modern methods (22 per cent) among the currently married women who wanted more children and vice versa.

Hubacher et al (1996) using cross-tabulation and logistic regression methods of data analysis for Honduras epidemiology and family health survey carried out in 1987 and 1991-1992 found that women who wanted more children were nearly 30 per cent more likely than those who did not want more children to use traditional method particularly rhythm than modern methods.

Goldberg et al (1994) using bivariate method of data analysis for the 1988 Turkish Population and Health Survey (TPHS, 1988) found that the use of traditional methods was higher (52.7 per cent) than modern methods (47.3 per cent) among the currently married women who wanted more children while among those who did not want more children the difference between the users of traditional methods (50.5

per cent) and modern methods (49.5 per cent) was very small.

They concluded in this study that for couples taking measures to avoid pregnancy, their desire to have more children in the future did not seem to have a substantial impact on their choice of contraceptive methods.

Bhende et al (1991) using both descriptive and multinomial logit regression methods of data analysis for data from TISCO programme in India, found that currently married women who wanted no more children were using modern methods of contraception particularly female sterilisation while those who wanted more children relied more on traditional methods especially the rhythm and withdrawal.

Mburugu et al , (1998) observe that currently married women of reproductive ages who wanted less than three or no child were more likely to use modern than traditional methods of family planning compared with those who wanted more than three children.

Literature reviewed on the effect of Women's desire for more children on the current choice of traditional and modern methods of contraception indicate that desire to have more children is associated with current choice of traditional methods while desire not to have more children is associated with the current choice of modern methods.

This may be explained by the fact that women who desire to have more children may be using traditional methods of family planning for fear of side effects associated with the use modern methods which may adversely affect their fertility. For the women who do not desire to have more children they prepared to terminate birth at any cost even at the expense of their future fertility hence more preference for the modern methods of family planning which are more effective in the prevention of unwanted birth than traditional methods.

Number of living children

Hubacher et al (1996) using both cross-tabulation and logistic regression analysis for the Honduras Epidemiology and family health surveys carried out in 1987 and 1991-1992 found that choice of traditional family planning methods particularly the withdrawal instead of modern methods was significantly more likely among women with eight or more living children than those with 3-7 children.

A study carried out in Philippines by Zablan et al (1989) using descriptive and multinomial logit regression methods of data analysis found that higher numbers of living children was related with the less choice of traditional methods of contraception particularly the rhythm and more choice of modern methods especially the pill and female sterilisation.

Goldberg et al (1994) using bivariate method of data analysis for 1988 Turkish population and Health Survey found that among the currently married women who are users of contraceptive methods the range of choice of modern and traditional methods was 53 and 47 per cent for those with two live births to 54 and 46 per cent of those with four or five births respectively.

Freedman et al (1981) using bivariate method of data analysis for 1976 Indonesian fertility survey (IFS, 1976) found that the number of living children is a very important determinant of modern method choice among the current users of contraceptives and that current choice of modern methods increased from a low of about 23 per cent among women with 0-2 living children to 37-41 per cent for those with three or four and then to 44 per cent for those with five or more children.

Mburugu et al , (1998) found that current use of modern methods increased with the number of living children in 1989 and 1993, however, use of traditional methods was higher for women with 0-1 living children while in 1993, use of traditional methods was higher for women who had no living child.

The finding from the literature reviewed here indicate that higher numbers of living children is associated with the more choice of modern and less choice of traditional methods of family planning among the currently married women of reproductive ages.

This finding may be explained by the fact that higher parity women have a great need to terminate child birth

rather than spacing hence more preference for modern than traditional methods of family planning for these women.

2.0.3 Contraceptive competency factors and method Choice

Wives' education

In a study carried out by Sathar et al., (1984) using both descriptive and regression methods of data analysis for WFS data for 19 countries, choice of traditional methods of contraception accounted for a higher proportion of current users among educated women than among those with no schooling in Jamaica ,Korea, Guyana and Sri Lanka.

Goldberg et al (1994) using bivariate method of data analysis for the 1988 Turkish Population and Health Survey (TFHS, 1988) percentage of users choosing modern and traditional family planning methods varied

Ntozi et al (1991) using bivariate methods of data analysis for Ankole survey data in Uganda collected in 1984 found that better educated women were higher users of modern than traditional methods of contraception among the currently married Ankole women.

Rahman et al., (1996) using bivariate and logistic regression methods of data analysis for Bangladesh Contraceptive prevalence reports, 1981-1991 found that there was a positive association between women's educational level and the current use for modern versus traditional methods and that the higher the level of education, the higher is the user rate for both modern and traditional methods.

In this study, the rate of the use of modern methods was found to have increased from about 9 per cent among women who did not attend school to over 27 per cent among women who had about 10 or more years of schooling while that of traditional methods increased from about 6 per cent among those with no education to over 26 per cent among those who had completed 10 or more years of schooling.

The Kenya contraceptive prevalence survey (CBS) 1984 data indicate that, the level of education was positively related to the use of modern

methods among the currently married women of reproductive age with educated (literate) women being more likely to use modern methods of contraception than women with no education (illiterate women) and vice versa.

Mburugu et al., (1998) found that Current use of both traditional and modern methods of family planning among the currently married women of reproductive ages was higher among women who had primary level of education than those who had more than secondary and those who had no education.

Moreover, according to their study, the choice of modern methods of family planning was higher among women with the primary level of education than modern methods compared with women with no education and also those with secondary above level of education.

In conclusion, literature reviewed here indicate that, in some cases more educated women prefer traditional methods over modern methods while in some other cases these women prefer modern over traditional methods of family planning. This finding also applies to women with no education together with those with primary level of education.

This finding shows that there are other factors other than education, which motivate currently married women to choose either modern or traditional methods of family planning.

Husbands' education

Bhende et al (1991) using both descriptive and multinomial logit regression methods of data analysis for data from TISCO programme in India, found a strong positive relationship between the husbands' education and the current use of traditional (natural) methods of contraception among the currently married women.

Molyneaux et al (1990) using bivariate and multinomial logit regression methods of data analysis for the Indonesia's CPS, 1987 (INCPS,1987) and monthly service statistics from the Indonesia's National family planning co-ordinating board (BKKBN) found that husband' education had a positive impact on the their wife's choice of the more effective (modern) methods of contraception and that women whose husbands were highly educated were current users of modern methods such as injections, the pills and the IUDs, than those who used traditional or no methods of contraception.

Rahman et al (1996) using bivariate and logistic regression methods of data analysis for Bangladesh Contraceptive prevalence reports, 1981-1991 found that there was a strong positive association between husband's educational level and the current use of modern methods of contraception and that the higher the level of husband's education, the higher the current use of modern methods of contraception and vice versa.

According to a study carried out in Vietnam by Dang (1995) using both descriptive and stepwise logistic regression analysis for DHS data for Vietnam 1988,the percentages of exposed women using contraceptive methods and those relying on modern methods tend to increase with the educational levels of the husband and the wife.

Moreover, she also found that husbands with a primary education were significantly more likely to choose a modern method than are those with a secondary or higher education and that once all individual fertility (Parity and sex of children) variables are accounted for, the husband's education was a strong predictor of method choice than is the education of the wife.

Mburugu et al (1998) found that currently married women of reproductive ages whose husbands had primary level education were more likely to use both traditional and modern methods of contraception

than those whose husbands had more than secondary and no education.

Literature reviewed here shows that, in some cases women whose husbands have no education together with those with primary level of education are more likely to choose modern over traditional methods of family planning compared with women whose husbands have secondary and above level of education.

In some other cases the reverse is true with women whose husbands have secondary and above level of education being more likely to choose modern over traditional methods of family planning compared with those whose husbands have no education together with those with secondary and above level of education.

This finding may be explained by the fact that some men with secondary and above level of education marry women with no education and primary level of education in addition to marrying those with similar education level. This may encourage the use of modern methods as opposed to traditional methods of family planning by these categories of women in their attempt to become more 'modern' like their husbands since educated men are associated with modernity.

Some women with secondary and above level of education may also marry men with no education together with those of primary level of

education. This may encourage these categories of women to rely more on traditional over modern methods of family planning for fear of being accused of infidelity by their husbands.

Wives' work status

A study carried out by Sathar et al (1984) using both descriptive and regression analysis for WFS data for 19 countries found that, although working women had a higher current contraceptive use than non working women, there was no clear pattern in the relative use of modern and traditional methods among working and non-working women.

Rahman et al (1996) using bivariate and logistic regression methods of data analysis for Bangladesh Contraceptive prevalence reports, 1981-1991 found that female employment had a pronounced and negligible effect on the use both modern and traditional methods of contraception respectively.

In Kenya, most of the studies have focused on the effect of women's work status on contraceptive behaviour in terms of women working at home and those working away from home hence literature review is lacking for Kenya in this study.

The finding in the literature reviewed here shows that the use of both

modern and traditional methods of family planning is determined by factors other than employment status of women.

2.0.4 Contraceptive evaluations factors and Method Choice

Religion

Abdulah (1990) using both descriptive and cross-tabulation methods of data analysis for DHS data for Trinidad and Tobago found that traditional methods of family planning were more common among Catholics couples than among couples of other religious groups who tended to practice modern methods along side traditional methods of contraception.

Fosu (1994) using discriminant method of data analysis for a sample of 1000 currently married women of reproductive ages in urban centres of Ghana, found that catholic women tended to have a higher rate of modern contraceptive use than other religious groups.

According to him, this may be due to the fact that while encouraging catholic mothers to use the acceptable rhythm (traditional) method the family centre of the Catholic church may be indirectly making catholic aware of and hence use of other modern contraceptive methods.

Hubacher et al (1996) using both cross-tabulation and logistic regression

analysis for the Honduras Epidemiology and family health surveys carried out in 1987 and 1991-1992, found that the current use of traditional methods among the catholic women especially withdrawal and rhythm was higher (66.8 and 66.2 per cent respectively) than modern methods (62.9 per cent). Women belonging to other religious groups were found to be using modern methods more (37.1 per cent) than traditional methods such as withdrawal (32.3 per cent) and the rhythm (33.8 per cent).

Rahman et al (1996) using bivariate and logistic regression methods of data analysis for Bangladesh Contraceptive prevalence reports, 1981-1991 found that non-Muslim women were less likely to use modern contraceptives than Muslim women.

Mburugu et al (1998) found that Protestant Women were more likely than the Catholics and women belonging to other religions to use modern than traditional methods of family planning. In this study, Catholic Women were found to be more likely than protestant women and those belonging to other religions to use traditional than modern methods of family planning.

Literature reviewed here indicate that women's affiliated to Catholic religion are more likely to choose traditional than modern methods of family planning compared with those belonging to protestant/other Christians, Muslim and other religious groups.

This may be explained by the fact that Catholic religious teachings are against the use of modern methods of family planning while other religious groups do approve the use of these methods of family planning.

Ethnicity

According to descriptive data analysis by National Council for Population and Development using the Kenya Contraceptive prevalence Survey data of 1984, current contraceptive method choice by ethnic groups among current users indicate that, majority of Kamba, Mijikenda, Kalenjin and women relied on traditional methods unlike other ethnic groups in Kenya.

Mburugu et al (1998) found that Kikuyu followed by the Kisii Women were the majority users of modern methods than the Kamba Women and Women belonging to 'other' ethnic communities who were more likely to rely on traditional methods of family planning.

According to this study, these ethnic variations in current contraceptive

method choice may be a reflection of cultural differences in attitudes towards modern contraception.

Husbands' attitudes towards family planning

Men's attitudes towards family planning are very critical for contraceptive use and subsequent contraceptive method choice especially in a predominantly patriarchal society like Kenya (Omondi-Odhiambo, 1997;Dadoo, 1998).

Goldberg et al (1994) found that disapproval of modern methods among Turkish husbands contributed to the continued widespread use of traditional methods.

Jato et al (1999) found that women whose husbands approves family planning were significantly more likely (odds ratio of 3.7) to use modern than traditional methods compared to women whose husbands disapprove family planning.

Mburugu et al (1998) using bivariate and multivariate logistic regression methods of data analysis for KDHS 1989 and 1993 found that women whose husbands approve of family planning were more likely to use modern in 1989 and 1993 (27.7 and 38.8 per cent respectively) than

traditional methods (10.6 and 6 per cent respectively); while women whose husbands disapprove family planning were more likely to use traditional methods in 1989 (7.4 per cent) than modern methods (7.0 per cent) although this difference was very small. In 1993, women whose husbands disapprove of family planning were more likely to use modern (9.2 per cent) than traditional methods (4.8 per cent). Moreover, women who did not know their husbands attitudes towards family planning in 1989 were more likely to use traditional methods (6.3 per cent) of family planning than modern methods (1.9 per cent) while in 1993, the percentage using modern methods was higher (4.2 per cent) than traditional methods (4.1 per cent) although the difference was very small.

The literature reviewed here indicate that women whose husbands approve the use of family planning methods are more likely to use modern over traditional methods of family planning compared with those whose husbands do not approve the use of family planning methods.

This finding indicates the important role played by men in the promotion of the use of modern methods of family planning. It also indicate that effective birth control is a joint activity between husband and wife.

Husband-wife discussion about family planning

Rahman et al (1996) using bivariate and logistic regression methods of data analysis for Bangladesh Contraceptive prevalence reports, 1981-1991 found that women who consult with their husbands about family planning are significantly more likely use modern than traditional methods compared with those who do not consult with their husbands.

Jato et al (1999) found that women who discuss family planning with their husbands were significantly more likely to use traditional than modern methods of family planning compared with those who never discuss these issues with their husbands.

Mburugu et al (1998) using bivariate and multivariate

logistic regression methods of data analysis for KDHS 1989 and 1993 found that women who discuss family planing with their husbands were more likely to use modern methods in 1989 and 1993 (33.2 and 47.7 per cent) than traditional methods. Women who never discussed family planning their husbands in 1989 were less likely to use modern methods of family planning while in 1993, the percentage of modern method use was higher for women who never discuss family planning with their husbands than traditional methods.

The literature reviewed here indicates that use of modern over traditional methods of family planning is enhanced by the husband- wife discussion of family planning.

2.0.5 Contraceptive access factors and method choice

Type of place of residence

A study carried out by Sathar et al (1984) using WFS data for 19 countries the levels of choice of traditional methods do not appear to be influenced by residence status in most countries but, the relative contribution of traditional methods to the overall level of use is higher in rural areas than in urban areas except in Colombia, Guyana, Pakistan, Trinidad and Tobago and in Indonesia. In Haiti, Kenya, Lesotho, Peru and Senegal more users of traditional (inefficient) methods than modern methodswere reported in the villages (rural) areas than in urban areas while in Senegal use of modern (efficient) methods among the currently married women in the rural areas was practically non-existent.

Curtis et al (1996) using both descriptive and cross-tabulation methods of data analysis for DHS data found that generally, urban women were more likely than rural women to be current users of traditional methods

especially periodic abstinence and withdrawal although this differential was often smaller than that for modern methods especially in Sub-Saharan Africa.

Hubacher et al (1996) using both cross-tabulation and logistic regression analysis for the Honduras Epidemiology and family health surveys carried out in 1987 and 1991-1992 found that women living in rural areas were significantly more likely to use traditional methods such as the rhythm and the withdrawal than modern methods compared to those living in the urban areas.

Goldberg et al (1994) found that in Turkey, currently married Women living in the urban areas were more likely to use modern methods of family planning than those living in the rural areas who tended to rely more on traditional than modern methods.

According to a study carried out in Vietnam by Dang (1995) using both descriptive and stepwise logistic regression analysis for DHS data for Vietnam 1988, the pattern of current contraceptive method choice appeared to be similar despite the significant difference between urban and rural populations in the likelihood of using contraceptives in Vietnam.

According to her, this may reflect the emphasis the Vietnamese family planning program placed on the IUD (modern method) especially in the rural areas.

According to the NCPD, (1993) current use of both traditional and modern methods of family planning was higher in urban than rural areas. However, the difference between the current use of traditional methods in urban and rural areas was very small.

The findings from the literature reviewed here indicate that women living in the rural areas are more likely to use traditional over modern methods compared with the women living in the urban areas.

This finding may be explained by the fact that rural women are less exposed to modern ideas such as the safety and efficacy of the use of various modern methods of family planning that tend to discourage them from using these methods compared with women living in urban areas who are highly exposed to these ideas.

Region/province of residence

There exist regional/provincial differentials in current contraceptive method choice within countries. Freedman et al (1981) using bivariate

methods of data analysis for Indonesian fertility survey which was conducted in 1976, found that region/province was the most important predictor of the current use of modern and traditional methods of family planning because in Indonesia.

The current use of modern methods of contraception was found to be higher in Bali, East Java, and Central Java Yogyakarta, Jakarta and finally west Java provinces while the use of traditional methods was highest in the provinces of Yogyakarta, Jakarta, Central Java, East Java, West Java, and finally Bali.

Goldberg et al (1994) using bivariate methods of data analysis for 1988 Turkish demographic and health survey (TDHS, 1988) found that current use of modern methods of contraception was highest in the Southern and Eastern provinces while the use of traditional methods was highest in Northern and Central Provinces with western province having the same user rates for both modern methods and traditional methods.

Dang (1995) using both bivariate and logistic regression methods of data analysis for 1988 Vietnam DHS data found that, region/province of residence was a highly significant predictor of current contraceptive method choice in Vietnam with couples living in the North being more

than twice likely to use a modern method as are those in the South.

According NCPD. 1993, the current use of modern methods was highest in Central province followed by Nairobi, Eastern, Western, Nyanza, Rift valley and finally Coast provinces. On the other hand the current use of traditional methods was highest in eastern province followed by Nairobi, Rift Valley, Central, Coast, Western and finally Nyanza provinces.

Mburugu et al (1998), found that in Kenya, current use of modern of family planning was highest in all the provinces in 1989 except eastern province where the current use of traditional methods was higher than the use of modern methods. According to this study, these regional differentials in cultural idiosyncrasies and other aspects of socio-economic development as observed in Kenya may account for the regional variations in current contraceptive method choice.

The regions all over the world bears unique characteristics from each other hence no wonder women living in different regions tends to embody values and beliefs which are different from other regions and this also affect their family planning methods choice.

2.1.0   Theoretical Framework

2.1.1 Background Theoretical Perspective

The contraceptive method choice behaviour among the current users is a two-stage process involving first, the decision on whether or not to use contraception and, second, choice of a particular method whether traditional or modern.

This study adopted with a slight modification Bulatao (1989) framework for understanding contraceptive method choice. The framework is relevant to this study because of its recognition that contraceptive method choice behaviour is a two-stage process which involves first, a decision on whether or not to use contraception and, second, the choice of a particular method of family planning.

In his conceptual scheme, Bulatao (1989) suggested four factors/dimensions that determine contraceptive method among the current contraceptive users namely:-

i. Contraceptive goals (Spacing or Limitation)

ii. Contraceptive competency (The capacity to use methods effectively)

iii. Contraceptive evaluations (Assessment of the moral and practical aspects of using a specific method, including side effects

iv. Contraceptive access (including not only geographical but also economic and other aspects of accessibility)

These four factors/dimensions for understanding contraceptive method choice as suggested by Bulatao (1989) were modified in this study and assigned variables as follows:-

1) Contraceptive goals

i)   Wive's age

ii)   Number of living children

iii)   Whether more children are wanted

2) Contraceptive competency

iv)   Wive's education

v)   Husband's education

3) Contraceptive evaluations

vi.   Religion

vii.   Ethnicity

viii.   Husband's attitude towards family planning

4) Contraceptive access

ix.   Wives' work status

x.   Husband-Wife discussion about family planning

xi.   Type of place of residence

xii.   Region/province of residence

The exact categorisation of each variable in the four factors/dimensions as a determinant of contraceptive method choice among the currently married women of reproductive ages in this study is not conclusive.

This is because of the fact that some variables such as educational attainment for Wife and husband could be categorised under evaluations and access as well as competency among others.

However, the hypotheses associated with each variable are quite clear and relevant to the objectives of this study.

2.1.2   Conceptual Statement

Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors affect the current choice of traditional and modern methods of contraception among the currently married women of reproductive ages in Kenya.

43

2.1.3 Conceptual hypotheses

From the above conceptual statement, a number of conceptual hypotheses are derived;-

1) That Contraceptive goal factors affect the current choice of modern over traditional methods of contraception among the currently married women of reproductive ages.

2) That contraceptive competency factors affect the current choice of modern over traditional methods of contraception among the currently married women of reproductive ages.

3) That contraceptive evaluation factors affect the current choice of modern over traditional methods of contraception among the currently married women of reproductive ages.

4) That the contraceptive access factors affect the current choice of modern over traditional methods of contraception among the currently married women of reproductive ages.

2.1.3   Conceptual Model

Figure 1.   Conceptual model for studying factors affecting the current
contraceptive methods choice among women of reproductive
ages.
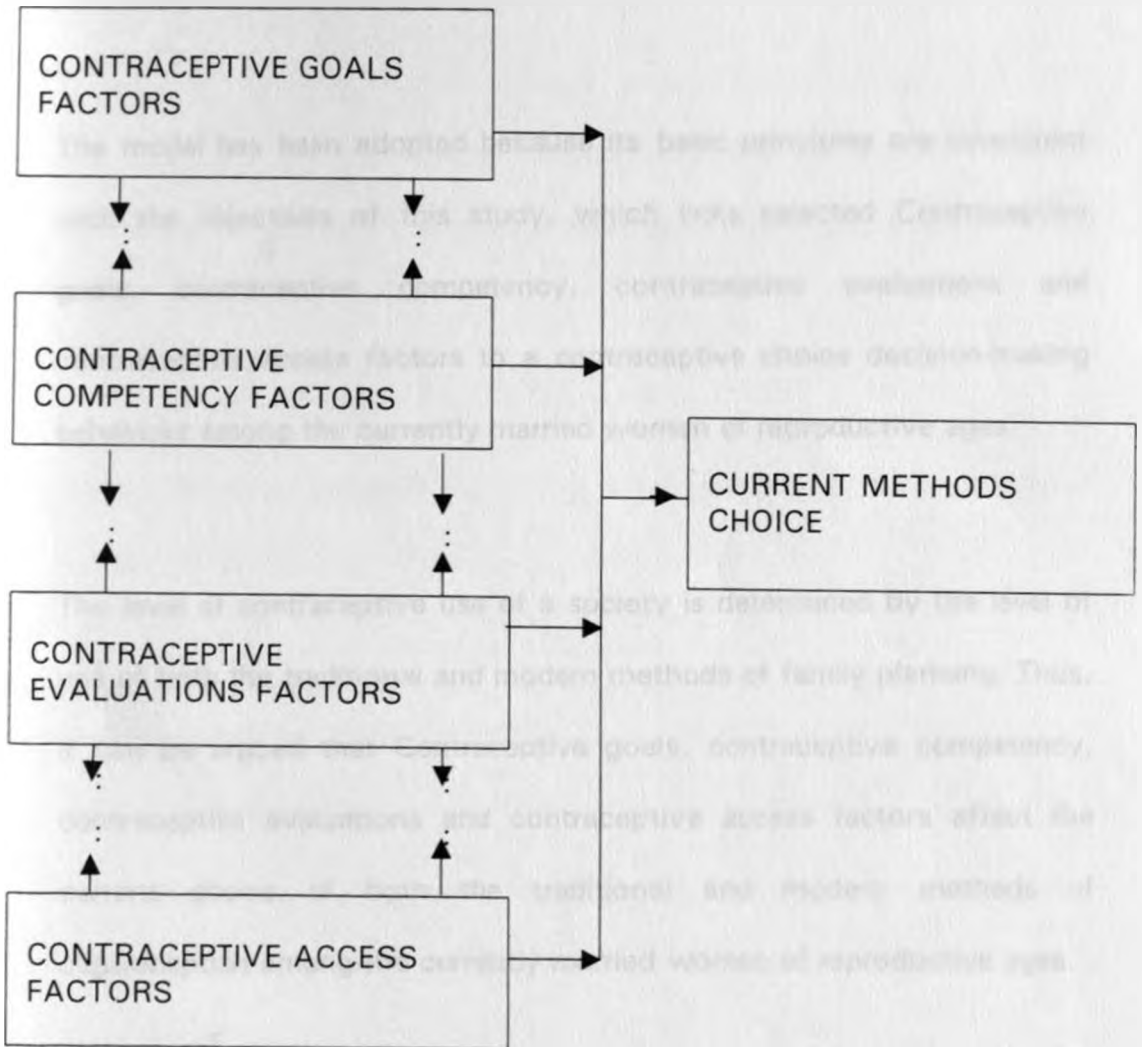
Source: Adapted (with slight modifications) from Bulatao's ' model,
(1989)

This conceptual model is borrowed with slight modifications from Bulatao (1989), which was used to study the factors affecting contraceptive method choice among the currently married women of reproductive ages. It is simply a diagrammatic presentation of the complex interrelationships of dependent and independent variables.

The model has been adopted because its basic principles are consistent with the objectives of this study, which links selected Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors to a contraceptive choice decision-making behaviour among the currently married women of reproductive ages.

The level of contraceptive use of a society is determined by the level of use of both the traditional and modern methods of family planning. Thus, it can be argued that Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors affect the current choice of both the traditional and modern methods of contraception among the currently married women of reproductive ages.

The terms Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access in the boxes on the left column are

the key concepts. Each of these key concepts has been operationalised into a set of variables as shown in the operational model (see figure 2)

The direction of the arrows illustrates how the variables are assumed to inter relate for the purpose of this study.

Then finally, the single large box placed second from the right represents the dependent variable current contraceptive methods choice, which in the case of this study, is whether traditional or modern methods.

2.1.4 Operationalization of Study Variables

The conceptual variables have been broken down into measurable variables in order to facilitate their Operationalization.

These have been operationalized as follows:-

The Contraceptive goals variables include the respondent's age, whether another child is wanted and the number of living children.

The contraceptive competency variables include the level of education attained by the respondent and the level of education attained by the respondent's husband.

The contraceptive evaluations variables include religion, ethnicity, and husbands' attitude towards family planning.

Finally, the contraceptive access variables include Wives' work status, Husband-Wife discussion about family planning, types of place of residence and region/province of residence.

The current contraceptive methods choice variables are traditional and modern method use.

Traditional family planning methods (rhythm, withdraw and folk or others) are considered less reliable in preventing unwanted births hence family planning programmes tend to virtually ignore their promotion.

Modern family planning methods (Pill, injectables, IUD, Sterilisation, vasectomy etc.) are considered more reliable in preventing unwanted births hence family planning programmes encourage and promote their use.

The comparison between the use of traditional and modern methods of family planning is an indication of how widely women or couples are consciously attempting to effectively control their fertility.

This information particularly when available for different sub-groups of the population as is the case in this study is useful to family planning programme managers concerned with satisfying the needs of their potential clientele.

Wives' Age

This variable is defined in this study as the number of years a woman may have lived since birth to the time of the interview. Four categories are considered namely, 15-19, 20-29, 30-39, and 40-49.

Whether more children wanted.

This variable refers to whether or not the woman wants more children in addition to the ones she already has or not. Two categories are considered namely, another child wanted and another child not wanted.

Number of living children

This variable refers to the number of living children per the married women at the time of the survey. Four categories are considered namely, 0, 1, 2, 3 and 4 + .

Education

In this study, this variable is measured by level of education attained for both the wife and the husband. Three categories are considered that is None, Primary and Secondary and over.

Wives' work status

This variable refers to whether a woman was not working or working at the time of the interview. Two categories are considered namely, not working and Working.

Religion

This refers to the religious faith a woman belongs to. The major categories considered in this study are Catholics, Protestant/other Christians, Muslims and other. 'Other' includes no religion, Hinduism etc).

Ethnicity

This variable refers to the ethnic affiliation of the currently married women. Nine categories are considered namely, Kalenjin, Kamba, Kikuyu, Kisii, Luhya, Luo, Meru, Embu Mijikenda/Swahili, Taita/Taveta and others (Maasai, Somali, etc).

Husband's attitude towards family planning.

This variable refers to what the women perceive to be their husbands' attitudes towards family planning.

Three categories are considered namely approves, disapprove and don't know (whether he approve or not).

Husband-wife discussion of family planning.

This variable refers to discussion between husband and wife about family planning. Two categories are considered namely, husband-wife never discusses family planning and husband-wife discusses family planning

Type of place residence.

This variable refers to women's current residence whether rural or urban. Two categories are considered, rural and urban.

Province of residence.

This variable refers to the women's region/province of residence.

This is a seven-category classification that has been adopted in this study in conformity with the seven provinces covered by the 1998 KDHS Sample Survey with the exclusion of North Eastern province.

2.1.5 Operational Model

Figure 2. Operational model for studying factors affecting current contraceptive method choice among the currently married women of reproductive ages.
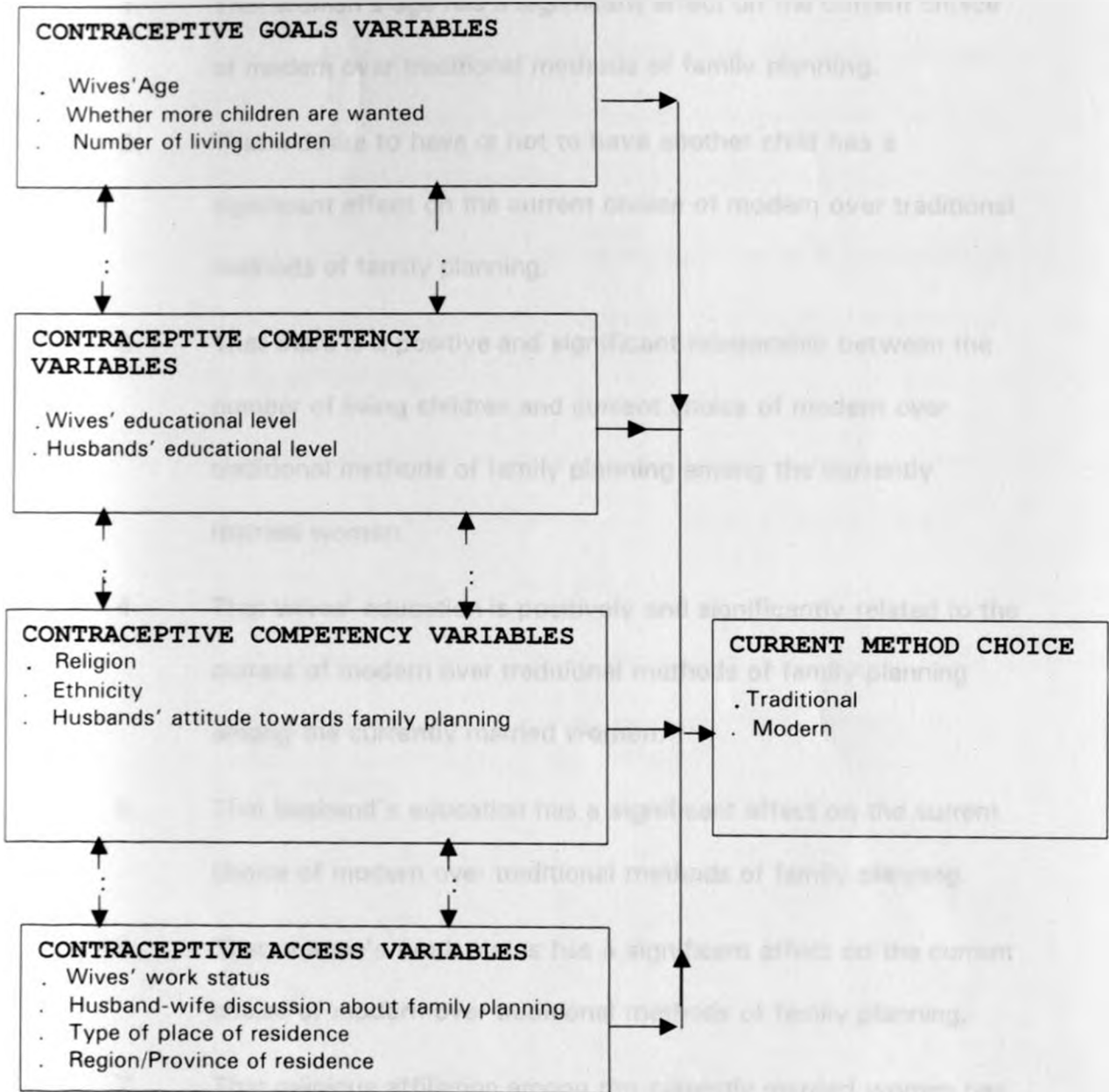
SOURCE: Derived from the Conceptual Model.

2.2.0 Operational hypotheses

1. That woman's age has a significant affect on the current choice of modern over traditional methods of family planning.

2. That a desire to have or not to have another child has a significant effect on the current choice of modern over traditional methods of family planning.

3. That there is a positive and significant relationship between the number of living children and current choice of modern over traditional methods of family planning among the currently married women.

4. That wives' education is positively and significantly related to the current of modern over traditional methods of family planning among the currently married women.

5. That husband's education has a significant affect on the current choice of modern over traditional methods of family planning.

6. That women's work status has a significant affect on the current choice of modern over traditional methods of family planning.

7. That religious affiliation among the currently married women has a significant affect on their choice of modern over traditional methods of family planning.

8.   That ethnic affiliation of the currently married women has a
      significant affect on their current choice of modern over
      traditional methods of family planning.

9.   That husband' attitude towards family planning has a significant
      affect on the current choice of modern over traditional methods
      of family planning among the currently married women.

10.   That husband-wife discussion of family planning has a significant
      affect on the current choice of modern over traditional methods
      of family planning.

11.   That women type of place of residence whether rural or urban
      has significant affect on the current choice of modern over
      traditional methods of family planning.

12.   That women region/province of residence has significant affect
      on the current choice of modern over traditional methods of
      family planning.

2.2 1 Definition of Variables

Dependent Variable

Current contraceptive method choice

This is a dependent variable indicating whether a woman is using modern or traditional method of family planning (coded 1 if using modern and 0 if using traditional methods).

Independent Variables

Contraceptive goals Variables

Wives' Age

A categorical explanatory variable indicating the age of currently married women who were using modern and traditional family planning methods at the time of the survey. The reference category is age group 15-19 taking the value of zero.

2.2 1   Definition of Variables

Dependent Variable

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Independent Variables

Contraceptive goals Variables

Wives' Age

A categorical explanatory variable indicating the age of currently married women who were using modern and traditional family planning methods at the time of the survey. The reference category is age group 15-19 taking the value of zero.

15-19:

Women aged 15-19 years. This formed the

reference category

20-29:

Women aged 20-29 years (Coded 1 if the

case, 0 otherwise)

30-39:

Women aged 30-39 years (Coded 1 if the

case, 0 otherwise)

40-49:

Women aged 40-49 years (Coded 1 if the

case, 0 otherwise)

Whether or not more children are wanted

This is a categorical explanatory variable. The reference category is more

children are wanted taking value zero.

Another child is wanted:

This is the reference category taking the value of zero.

Another child is not wanted:

Refers to currently married women who are current users of contraception

and who wanted no more children

(coded 1 if the case, 0 otherwise).

Number of living children

A categorical explanatory variable indicating the number of living children

for the currently married women who were users of contraceptive methods

of the time of the survey.

0:     **The woman had no living child.**

       This was a reference category taking the

       value of zero.

1:     **The woman had one living child**

       (coded 1 if the case 0 otherwise).

2:     **The woman had two living children**

       (coded 1 if the case 0 otherwise).

3:   **The woman had three living children**

(coded 1 if the case 0 otherwise).

4 + :   **The woman had more than four living**

children(coded 1 if the case 0 otherwise).

Contraceptive competency variables

Wives' education level

A categorical explanatory variable indicating the level of attained by a married woman.

No education: **A Woman had no education.** This is the

reference category taking the value zero.

Primary   :

The woman had primary education

(coded 1 if the case 0 otherwise).

Secondary + :

The woman had more than secondary education (coded 1 if the case 0 otherwise).

Husbands' education

A categorical explanatory variable indicating the level of attained by a married woman's husband.

No education:

A Husband had no education.

This is the reference category taking the value zero.

Primary :

The husband had primary education.

(coded 1 if the case 0 otherwise).

Secondary + :

The husband had more than secondary education (coded 1 if the case 0 otherwise).

Contraceptive evaluations variables

Religion

A categorical explanatory variable indicating the religious' affiliation of the currently married women who were current users of contraceptive methods of the time of the survey.

Catholic   :

The woman was a Catholic.

This was the reference category taking the value zero.

Protestant/other Christian:

The woman was a Protestant/ other Christian (coded 1 if the case 0 otherwise)

Muslim :

The woman was a Muslim (Coded 1 if the case 0 otherwise).

Other:

The woman was a `other' religious group

(coded 1 if the case 0 otherwise).

Ethnicity

A categorical explanatory variable indicating the ethnic affiliation of currently married women who were users of contraceptive methods of the time of survey.

Kalenjin:

The woman was a Kalenjin.

This was the reference category taking the value zero.

Kamba:

The woman was a Kamba

(coded 1 if the case 0 otherwise).

Kikuyu:

The woman was a Kikuyu

(coded 1 if the case 0 otherwise).

Kisii:

The woman was a Kisii

(coded 1 if the case 0 otherwise).

Luhya:

The woman was a Luhya

(coded 1 if the case 0 otherwise)

Luo   :

The woman was a Luo

(coded 1 if the case 0 otherwise)

Meru/Embu:

The woman was a Meru/Embu

(coded 1 if the case 0 otherwise)

Mijikenda/Swahili:

The woman was a Mijikenda/Swahili

(coded 1 if the case 0 otherwise)

Taita/Taveta :

The woman was a Taita/Taveta

(coded 1 if the case 0 otherwise)

Other   :

The woman belonged to `other' ethnic group

(coded 1 if the case 0 otherwise).

Husbands' attitudes towards of family planning

A categorical explanatory variable indicating the currently married women who are current users of family planning methods. Husband's attitude towards family planning.

Disapproves:

Husband disapproves family planning.

This was the reference category taking the value zero.

Approves :

Husband approves family planning

(coded 1 if the case 0 otherwise).

Don't know:

Don't know whether husband approves

family planning (coded 1 if the case 0 otherwise).

Contraceptive access variables

Wives' work status

A categorical explanatory variable indicating whether a Woman is working

or not working

Not working 0:

A Woman is not working.

This is the reference category taking the value of zero

Working   :

A Woman is working

(coded 1 if the case 0 otherwise).

Husband-wife discussion of family planning

A categorical explanatory variable indicating whether Women discuss family planning with their husbands.

No :

Woman does not discuss family planning with her husband. This is the reference category taking the value of zero.

Yes :

Woman discusses family planning with her

husband.(coded 1 if the case 0 otherwise)

Type of place of residence

Categorical variable, indicating a woman's type of place of residence.

Rural:

A woman place of residence is rural.

This is the reference category

Urban:

A Woman place of residence is urban

(Coded 1 if the case 0 otherwise).

Region/ Province of Residence

A categorical variable, indicating a woman's province of residence.

Western:

Woman's province of residence was Western.

This was the reference category taking the value zero.

Nairobi:

Woman's province of residence was Nairobi

(coded 1 if the case 0 otherwise)

Central:

Woman's province of residence was Central

(coded 1 if the case 0 otherwise).

Coast:

Woman's province of residence was Coast

(coded 1 if the case 0 otherwise).

Eastern:

Woman's province of residence was Eastern

(coded 1 if the case 0 otherwise).

Nyanza :

Woman's province of residence was Nyanza

(Coded 1 if the case 0 otherwise).

Rift Rift valley:

Woman's province of residence was Rift Valley   (Coded 1 if the case 0

otherwise).

CHAPTER THREE

SOURCES OF DATA AND METHODS OF DATA ANALYSIS

3.1   Sources of Data

The data on the differentials in current contraceptive methods choice among the currently married women of reproductive ages used in this study was obtained from the 1998 Kenya Demographic and Health Survey (KDHS 1998) that provide a nationally representative data on contraceptive use in Kenya. The KDHS was based on a national sample of 7,881 women aged 15-49 years and 3,407 men aged 15-54 years. It was designed to provide independent estimates of demographic and other data in seven provinces in the country (excluding North Eastern province). The KDHS, data are intended for use by programme managers and policy makers to evaluate and improve health and family planning programmes in Kenya.

Survey Organisation.

The KDHS, 1998 was a National survey carried out by the National Council for Population and Development (NCPD) in collaboration with the Central Bureau of Statistics (CBS) Macro international Inc (USA) provided technical and financial assistance through its contract with US Agency for

International Development (USAID). Funding for the KDHS 1998 was provided by USAID and the British Department for International Development (DFID). The United Nations Population Fund (UNFPA), The Division of Primary Health Care (DPHC), and the National AIDS Control Programme (NASCOP) provided logistical assistance.

Sample Design.

The 1998 Kenya Demographic Health Survey (KDHS, 1998) was National in scope, with the exclusion of all three districts in North Eastern province and four other northern districts (Samburu and Turkana in Rift Valley province and Isiolo and Marsabit in Eastern province).

Together, the excluded areas account for less than 4 per cent of Kenya's population. It utilised a two-stage stratified sample consisting of 536 selected sample units (clusters) of which six of them (1 per cent) were not surveyed due to inaccessibility (Clusters).

To obtain reliable estimates, 15 districts namely, Bungoma, Kakamega, Kericho, Kilifi, Kisii, Machakos, Meru, Murang'a, Nakuru, Nandi, Nyeri, Siaya, South Nyanza, Taita/Taveta and Uasin Gishu together with Nairobi and Mombasa were over-sampled hence making KDHS sample not self-weighting at the national level. However, sample weights were used to

compensate for the unequal probability of selection between geographically defined strata.

Questionnaire.

The 1998 Kenya Demographic and Health Survey used three types of questionnaires namely, the household questionnaire, the women's questionnaire and the men's questionnaire. The women's questionnaire collected information among other issues on knowledge and use of family planning methods, which is the focus of this study.

The unit of analysis for this study was a 1998 KDHS sample of 1795 women exposed to the risk of conception- those who were married and who considered themselves fecund and not pregnant at the time of the survey.

3.2 Methods of data Analysis

This study employed cross-tabulation analysis and the chi-square test to examine the hypothesised association between the dependent variables that is, the current choice of modern over traditional methods of family planning and a set of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables.

69

Multiple logistic regression techniques was also used to identify and quantify the specific effects of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors on the current choice of modern over traditional methods of family planning among the currently married women of reproductive ages. These techniques of data analysis are discussed in detail in this section.

3.3 Cross-Tabulations

Cross-tabulations are a way of displaying data so that we can fairly readily detect association between the dependent and independent variables. It was carried out in this study to establish the distribution of current contraceptive method choice, whether traditional or modern according to each selected characteristics of current users among the currently married women aged 15-49 years in Kenya.

The results of the cross-tabulations were used to describe the data in this study in order to shed more light on the characteristics of current users in relation to current choice of modern over traditional methods of family planning among the currently married women of reproductive ages.

The same results were used in the analytical interpretation of the findings of the chi-square analysis.

The dependent variable is current choice of traditional and modern of family planning among the currently married women of reproductive ages. This dependent variable was cross-tabulated against various Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables to identify their patterns.

A Chi-square test of independence (with a statistical alpha significance level of 0.05 (95%) was performed in this study to compare current users of modern and traditional methods of family planning (dependent variable) on numerous Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables (independent variables).

3.5 Logistic Regression Analysis

Logistic regression is a suitable multivariate technique for estimating a probability of an event occurring (in the case of this study, current contraceptive method choice) whether modern or traditional from a set of independent variables, for example age of the respondent, number of living children of the respondent and the province of residence of the respondent among others.

The study, which examines the odds of choosing a modern method over a

traditional method of family planning, is limited to the 1795 women who were current users of any contraceptive methods.

In the model women who were practising modern methods of contraception at the time of the survey is be coded 1 and those who were practising traditional methods is be coded 0.

Contraceptive methods defined as modern include, the IUD, the pill, the condom, female sterilisation and vasectomy and vaginal methods category is composed of rhythm, withdrawal and others.

The dependent variable, current contraceptive method choice is coded 1 if the woman was using a modern method and 0 if she was using a traditional method at the time of the survey. The independent variables include Contraceptive goals, contraceptive evaluations and contraceptive access predictors of current contraceptive method choice. Since the dependent variable, that is current contraceptive method choice is dichotomous taking the value of 1 if a woman was using modern methods and 0 if she was using traditional methods of family planning, Logistic regression model was found to be an appropriate statistical model for use in data analysis in this study.

The logistic regression model is similar to any model building technique such as linear or multiple regression, the idea being to find the best fitting

model to describe the relationship between an outcome or response variable which in the case of this study is the current contraceptive method choice and a set of independent predictor or explanatory variables.

The formula for a multivariate logistic regression model can be written as:

$$\text{Probability (event)} = \frac{1}{1 + x^{-z}}$$

Where Z is the linear combination, $Z = B_0 + B_1X_1 + B_2X_2....B_pX_p$.

The probability of the event not occurring is estimated as, Probability (no event) = 1-probability (event).

The relationship between the independent variable and the probability in logistic regression is non-linear and the estimates will always be between 0 and 1 regardless of the value of Z.

In logistic regression the parameters of the model are estimated using the maximum likelihood method, that is, the coefficients that make out observed results most likely are selected.

Since the logistic regression model is non-linear, an iterative algorithm is necessary for parameter estimation.

To interpret the logistic regression coefficients the logistic model is rewritten

in terms of the odds of an event occurring (The odds of an event occurring

are defined as the ratio of the probability that an event will occur to the

probability that it will not).

Odds ratios are calculated by using the following formula:

$$\text{probability (event)} = e^{B_0 + B_1 X_1 + \ldots B_P X_P}$$

Odds = ————————————————————————————————

$$\text{probability (no event)} = e^{B_0} . e^{B_1 X_1} + \ldots e^{B_P X_P}$$

Then e raised to the power β_i is the factor by which the odds change when

the ith independent variable increases by one unit. If β_i is positive this factor

will be greater than 1, which means that the odds are increased; if β_i is

negative the factor will be less than 1, which means that the odds are

decreased.

When β_i is 0 the factor equals 1, which leaves the odds unchanged. Logistic

regression model assumes that the dependent variable, that is current

contraceptive method choice, is not normally distributed and therefore does not

satisfy the assumption for the ordinary least squares, as is the case with the

linear regression model. It also assumes that an event has either occurred or not.

For example, in the case of this study the model assumes that current users

of contraceptives among the currently married women of reproductive ages are currently using either modern or traditional methods. The assumption here is that the dependent variable that is, current contraceptive method choice has a binomial distribution.

Multivariate Logistic regression model was therefore employed to estimate the odds of choosing modern over traditional method of family planning among the currently married women of reproductive ages.

To assess the significance of the variables in the model, the likelihood ratio test for the overall significance of the ρ Coefficients for the independent variables were performed.

The test was based on the statistic G given in the equation below :

$$G = -2\ln \left(\frac{\left|\dfrac{n_1}{n}\right|^{n_1} \left[\dfrac{n_0}{n}\right]^{n_0}}{\prod\limits_{i=1}^{n} \hat{\pi}_i^{\ y_i}\left[1-\hat{\pi}_i\right]^{\left[1-y_i\right]}} \right)$$

Where, $\left|\dfrac{n_1}{n}\right|^{n_1} \left[\dfrac{n_0}{n}\right]^{n_0}$ = Likelihood without the variables.

And $\prod\limits_{i=1}^{n} \hat{\pi}_i^{\ y_i}\left[1-\hat{\pi}_i\right]^{\left[1-y_i\right]}$ = Likelihood with the variables.

All the above are multiplied by $-2\ln$ as shown in this equation.

Under the hypothesis that β is equal to zero, the statistic G will follow a chi-square distribution with 1 degree of freedom.

Note that fitting values $\hat{\pi}_i$ under this model are based on the vector containing $p + 1$ parameters, β. Under the Null hypothesis that p 'slope' coefficients for the covariates in the model are equal to zero, the distribution G will be chi-square

with ρ degrees of freedom and will follow a standard normal distribution. Hence the value of these statistics may give us an indication of which of the variables in the model may or may not be significant.

In this study therefore we use critical value of 2, which lead to an approximate level of significance of 0.05 hence we conclude that any variable whose value is less than 0.05 level of significance is a significant predictor of the choice of modern over traditional methods of family planning among the currently married women of reproductive ages. And the reverse is true for the variables whose values is less than 0.05 alpha level of significance. The estimation of the overall significance of the model was not done due to fact that this study adopted forced entry method (enter) in entering variables in the logistic model.

The model fitting process involves four stages of estimation. The first model includes only the Contraceptive goals variables. In the second and third models, contraceptive competency and contraceptive evaluations variables were introduced into regression equation respectively. The fourth model incorporates the contraceptive access variables so that the additive effects of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables are estimated simultaneously.

In the analysis, groups (categories) least likely to use modern methods of family planning were used as reference categories.

The odds ratios generated from the analysis in this study show the likelihood that women in a given category would be using modern over traditional methods of family planning relative to the women in the reference category.

These odds ratios permit direct observation of the relative importance of each independent variable in predicting the likelihood of the choice of modern methods over traditional methods of family planning among the currently married women who are the current users of traditional and modern methods of contraception.

This can help policy makers and family planning managers in the identification of the variables which are more important than others in predicting the choice of modern over traditional methods of family planning among the currently married women of reproductive ages that can be translated into effective policies and actions so as to promote the current use modern methods of family planning. Consequently, this will help to reduce further the current fertility rate being experienced in the country.

Data for this study was analysed using the statistical package for social science (SPSS) computer package.

CHAPTER FOUR: ANALYSIS AND RESULTS

4.1   Introduction

The study examines the effects of various independent variables on current choice of traditional and modern methods of family planning among the currently married women of reproductive ages in Kenya.

This chapter deals with the analysis of the relationship between various independent variables and current choice of traditional and modern contraceptive methods among the currently married women of reproductive ages using both bivariate and multivariate methods of data analysis.

4.2 Cross-Tabulation and the chi-square Results

This section contains the findings of the study based on the quantitative data.

Descriptive statistics such as percentages and chi-square are the basic analytical methods that have been used in the interpretation of the data.

These are important because they give quick look at some of the significant factors influencing current choice of traditional and modern methods of family planning among the currently married women in Kenya aged 15-49 years. These

factors were not controlled for in this section but looked at independently.

Percentages were used to show the distribution of current contraceptive users among the currently married women in relation to various Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors.

Generally majority of the currently married women were current users of modern methods of family planning (81.8 Percent) and (18.2 percent) were users of traditional methods of family planning as shown in table 4.1a. This shows that majority of the currently married women in Kenya are relying on more effective methods of contraception.

Results of cross-tabulations and chi-square values are presented in this section. Cross-tabulations have been used to assess the association between the dependent and the independent variables.

Whereas the chi-square techniques has been used to test both the null and the alternative hypothesis for existence of association between dependent and the independent variables in a contingency table.

It test the null hypothesis is that there is no association or relationship between the dependent and the independent variables at 0.05 (95%) level of significance for all the cross-tabulations in this study. In the case where the significance level

is greater than 0.05 we accept the null hypothesis, otherwise we reject the null hypothesis when it is less than 0.05 and accept the alternative hypothesis that there is an association between the dependent and the independent variables.

4.3.1 Contraceptive goals and Current Method Choice.

Wives' Age

Table 4.1a shows that the current choice of traditional methods of family planning increase by Wife's age from 5.5 per cent for those aged 15-19 peaking at 41.1 per cent among 20- 29 year olds and then falling to 15.0 per cent for those aged 40-49 years. Similarly, the current choice of modern methods of contraception increases by Wife's age from 2.0 per cent for those aged 15-19 years peaking at 40.9 per cent among 30-39 year olds and then falling to 19.3 per cent for those aged 40-49 years.

A Chi-square test was conducted to test the association between the respondent's age and current contraceptive method choice whether traditional or modern method of family planning.

It was hypothesised that age of a woman is strongly associated with the current choice of traditional and modern methods of family planning among the currently married women aged 15-49 years.

The results indicated that there significant association between wives' age and the current choice of traditional and modern methods of family planning at 5 per cent level of significance.

Therefore the age of a woman affects her current choice of traditional and modern methods of family planning.

Other studies have confirmed an existence of similar association between Women's age and the current choice of traditional and modern methods of family planning (Abdulah, 1990;Hubacher et al., 1996; Goldberg et al., 1994;Freedman et al., 1981).

Whether more children are desired

Table 4.1a shows that, women who wanted more children preferred traditional methods of family planning (51.4 per cent) than those who did not want more children (48.6 per cent) while the reverse is true for the current choice of modern methods where 30.8 per cent of the users wanted more children and 69.2 per cent did not want more children.

A chi-square test was conducted to test the association between women 's desire for women wanted more children and their current choice of traditional and modern methods of family planning. It was hypothesised that women's desire to

have additional children is highly associated with their current choice of traditional and modern methods of family planning. The results indicated that there was a significant association between the women's desire to have or not to have additional children and their current choice of traditional and modern methods of family planning at 5 per cent level of significance.

Therefore whether women's desire to have or to have additional children affects their current choice of traditional and modern methods of family planning.

Other researchers have also shown that a significant association exit between whether women desired more children or not and the current choice of traditional and modern methods of family planning (Freedman et al., 1981;Hubacher et al., 1996;Goldberg et al., 1994;Bhende et al., 1991).

Table 4.1a. Percentage distribution of currently married women aged 15-49 who are current contraceptive users by Contraceptive goals factors, according to type of contraceptive method used, KDHS, 1998.

CHARACTERISTICS	ANY METHOD		TRADITIONAL METHODS		MODERN METHODS	
CONTRACEPTIVE GOAL FACTORS	N = 1795	%	N = 326 (18.2%)	%	N = 1469 (81.8%)	%
Wives'age **						
15-19	47	2.6	18	5.5	29	2.0
20-29	690	38.4	134	41.1	556	37.8
30-39	726	40.4	125	38.3	601	40.9
40-49	332	18.5	49	15.0	283	19.3
Whether another child is wanted **						
Another child is Wanted	617	34.6	166	51.4	451	30.8
Another child is not Wanted	1168	65.4	157	48.6	1011	69.2
Number of living children **						
0	33	1.8	18	5.5	15	1.1
1	209	11.6	45	13.6	164	11.2
2	359	20.0	73	22.4	286	19.5
3	279	15.5	50	15.3	229	15.6
4 +	915	51.0	140	42.9	775	52.8
Total	1795	100.0	326	100.0	1469	100.0

SOURCE: DERIVED FROM KDHS, 1998.

N = Number of cases.

** Difference between users of traditional and modern methods significant at p < 0.05 (95%) level of confidence.

Note: Some distributions are based on fewer women because of missing data.

Number of living children

Table 4.1a shows that the current choice of both traditional and modern methods of family planning among the currently married women increases with the number of living children from 5.5 and 1.1 per cent for those Women with no living child to 22.4 and 19.5 respectively for those having two living children. This percentage falls to 15.3 and 15.6 per cent for traditional and modern methods respectively among women who have three living children and thereafter increases to 42.9 and 52.8 per cent for those having more than four living children.

Current use of the modern methods of family planning was therefore higher (52.8 per cent) than the use of traditional methods (42.9 per cent) for women having more than four living children.

A chi-square test was conducted to test the association between the number of living children per woman and current choice of traditional and modern methods of contraception among the currently married women of reproductive ages.

It was hypothesised that the number of living children per woman is significantly associated with the current choice of traditional and modern methods of family planning among the currently married women of reproductive ages. The results shows that is a significant association between the number of living children per woman and the current choice of traditional and modern methods of family planning among the currently married women of reproductive ages at 5 per cent level of significance.

85

Therefore the number of living children per woman affects her current choice of traditional and modern methods of family planning.

These findings agree with those of Goldberg et al (1994) who found that in Turkey, there was a significant association between the current choice of traditional and modern methods of family planning and the number of living children.

4.3.2   Contraceptive competency and Current Method Choice.

Wives' education

Table 4.1b shows that the current choice of both traditional and modern methods of family planning among the currently married women of reproductive ages increases from 9.5 and 7.8 per cent respectively for those with no education to 51.8 and 54.5 per cent for those with primary education. This percentage falls to 38.7 and 37.8 for current choice of traditional and modern methods of family planning among women who have more than secondary level of education.

This finding shows that the more education a woman has, the more likely she is to use traditional methods of family planning. This may be explained by the fact that the more competent and knowledgeable women learn about possible side effects and problems with user satisfaction for the modern methods and so choose traditional methods of family planning.

A chi-square test was conducted to test the association between the Wives' education level and current choice of traditional and modern methods of family planning.

It was hypothesised that wives' level of education is strongly associated with the current choice of traditional and modern methods of family planning. The results show that there was no statistically significant association between wives' education level and the current choice of traditional and modern methods of family planning at 5 per cent level of significance. Therefore, other factors act through wives' level of education to affect their current choice of traditional and modern methods of family planning.

This finding however differs with those of (Sathar et al., 1984;Goldberg et al., 1994;Rahman et al., 1996;Mburugu et al., 1998) who found an existence of a significant association between wives' education level and the current choice of traditional and modern methods of family planning.

Table **4.1b.** Percentage distribution of currently married women aged 15-49 years who are current contraceptive users by contraceptive competency factors, according to type of contraceptive method used, KDHS, 1998.

CHARACTERISTICS	ANY METHOD		TRADITIONAL METHODS		MODERN METHODS	
CONTRACEPTIVE COMPETENCY FACTORS	N = 1795	%	N = 326	%	N = 1469	%
Women's education level						
None	145	8.1	31	9.5	114	7.8
Primary	969	54.0	169	51.8	800	54.5
Secondary	681	37.9	126	38.7	555	37.7
Husband's education level **						
None	82	4.6	23	7.1	59	4.0
Primary	725	40.7	133	41.3	592	40.6
Secondary +	974	54.7	166	51.6	808	55.4
TOTAL	1795	100.0	326	100.0	1469	100.0

SOURCE: DERIVED FROM KDHS, 1998.

N = Number of cases.

** Difference between users of traditional and modern methods significant at $p < 0.05$ (95%) level of confidence.

Note: Some distributions are based on fewer women because of missing data.

Husband education

Table 4.1b shows that the current choice of both traditional and modern methods of family planning is positively associated with their husbands' level of education.

The choice of traditional and modern methods therefore increases from 7.1 and 4.0 per cent respectively for Women whose husbands have no education to 51.6 and 55.4 per cent for both traditional and modern methods among Women whose husbands have more than secondary education.

The choice of modern methods of family planning is therefore higher among the currently married women whose husbands had more than secondary level of education (55.4 per cent) than traditional methods (51.6 per cent) as shown in table 4.1b.

A chi-square test was conducted to test the association between the husbands' level of education and their current choice of traditional and modern of family planning among the currently married Women of reproductive ages. It was hypothesised that the husbands' level of education is strongly associated with the current choice of traditional and modern methods of family planning among the currently married Women aged 15-49 years.

The results indicated that there was a significant association between the husbands' level of education and the current choice of traditional and modern

methods of family planning among the currently married women aged 15-49 years at 5 per cent level of significance.

Therefore the level of husbands' education has a significant effect on their Wives' current choice of traditional and modern methods of family planning.

This finding is consistent with the finding of other studies (Bhende et al., 1991;Molyneaux et al 1990;Dang 1995).

4.3.3 Contraceptive evaluations and Current Method Choice

Religion

Table 4.1c shows that Catholics and the Protestants Women have a higher percentage choice of modern (28.3 and 66.3 per cent respectively) than traditional methods of family planning.

Muslim women have a higher percentage choice of traditional compared with modern methods of contraception (5.6 and 4.8 per cent respectively) whereas, Women belonging to 'other' religions have a higher percentage choice of modern methods (0.7 and 0.3 per cent respectively) compared with modern methods family planning.

A chi-square test was conducted to test the association between the Women's religious affiliation and the current choice of traditional and modern methods of family planning. It was hypothesised that women's religious affiliation is strongly associated with their current choice of traditional and modern methods of family planning.

The results showed that there was no significant association between the women's religious affiliation and the current choice of traditional and modern methods of family planning at 5 per cent level of significance.

Therefore women's religious affiliation has no significant effect on their current choice of traditional and modern methods of family planning.

This finding however differs with those of (Fosu 1994;Hubacher et al 1995;Molyneaux et al 1990) who found a significant relationship between women's religious affiliations and their current choice of traditional and modern methods of family planning.

Ethnicity

Table 4.2c shows that the percentage choice of traditional methods of family planning by ethnic groups among the currently married women was higher than modern methods among the Kalenjin (26.6 per cent) followed by the Kamba (16.1 per cent), Luhya (15.8 per cent), the Luo (8.5 per cent) and 'other' (2.8 per cent).

Among the ethnic groups with a higher percentage choice of modern than traditional methods of family planning, majority are the Kikuyu, (27.2 per cent); followed by the Kisii (10.4 per cent), Meru/Embu (10.4 per cent), Mijikenda/Swahili (4.8 per cent) and Taita/Taveta (3.1 per cent) currently married women of reproductive ages.

A chi-square test was conducted to test the association between the Women's ethnic affiliation and the current choice of traditional and modern methods of family planning. It was hypothesised that Women's ethnic affiliation is strongly associated with the current choice of traditional and modern methods of family planning.

The results showed that there was a significant association between women's ethnic affiliation and the current choice of modern and traditional methods of family planning at 5 per cent level of significance.

Therefore, Women's ethnic affiliations affect their current choice of modern and traditional Methods of family planning. Other studies have confirmed similar relationships exist between ethnicity and the current choice of traditional and modern methods of family planning among the currently married of reproductive ages (CBS, 1984;Mburugu et al., 1998).

Table 4.1c. Percentage distributions of currently married women aged 15-49 who are current contraceptive users by contraceptive evaluations factors, according to type of contraceptive method used, KDHS, 1998.

CHARACTERISTICS	ANY METHOD		TRADITIOAL METHODS		MODERN METHODS	
CONTRACEPTIVE EVALUATIONS VARIABLES	N = 1795	%	N = 326	%	N = 1469	%
Religion						
Catholic	500	28.2	90	28.1	410	28.3
Protestant/ Other Christian	1168	66.0	206	64.4	962	66.3
Muslim	87	4.9	18	5.6	69	4.8
Others	16	0.9	6	0.3	10	0.7
Ethnicity **						
Kalenjin	263	15.1	84	26.6	179	12.6
Kamba	196	11.3	51	16.1	145	10.2
Kikuyu	443	25.4	55	17.4	388	27.2
Kisii	159	9.1	10	3.2	149	10.4
Luhya	233	13.4	50	15.8	183	12.8
Luo	128	7.3	27	8.5	101	7.1
Meru/Embu	170	9.5	17	5.4	153	10.7
Mijikenda/ Swahili	74	4.1	5	1.6	69	4.8
Taita/Taveta	52	3.0	8	2.5	44	3.1
Others	24	1.4	9	2.8	15	1.1
Husbands'attitude towards family planning **						
Disapproves	204	11.4	85	26.2	119	8.1
Approves	1515	84.5	209	64.3	1306	89.0
Don't Know	74	4.1	31	9.5	43	2.9
Total	1795	100.0	326	100.0	1469	100.0

SOURCE: DERIVED FROM KDHS, 1998.

N = Number of cases.

** Difference between users of traditional and modern methods significant at p < 0.05 (95%) level of confidence.

Note: Some distributions are based on fewer women because of missing data.

Husband's attitudes towards family planning

Table 4.1c shows that the percentage choice of traditional methods of family planning among the currently married women was higher than modern methods among women whose husbands disapprove (26.2 per cent) and those who did not know their husbands stand on family planning (19.5 per cent).

The percentage choice of modern methods of family planning was higher than traditional methods among the currently married women whose husbands approve family planning (89.0 per cent).

Generally the choice of both traditional and modern methods of family planning is higher among the current married women whose husbands approve family planning (76.3 and 88.1 per cent respectively).

A chi-square test was conducted to test the association between the husbands' attitudes towards family planning and the current choice of traditional and modern methods of family planning among the currently married women of reproductive ages. It was hypothesised that husbands' attitude towards family planning is associated with their wives' current choice of traditional and modern methods of family planning. The results indicated that there was a significant association between the husbands' attitudes towards family planning and the current choice of traditional and modern methods of family planning among the currently married women of reproductive ages at 5 per cent level of significance.

Therefore husbands' attitudes towards family planning affects their Wives' current choice of traditional and modern methods of family planning.

Other researchers have also shown that there exist an association between husbands' attitudes towards family planning and their Wives' current choice of traditional and modern methods (Omondi-Odhiambo, 1997;Dadoo, 1998;Goldberg et al., 1994;Jato et al., 1999;Mburugu et al., 1998).

4.3.4. Contraceptive access and Current Method Choice

Women's work status.

Table 4.1d shows that the current choice of traditional methods of family planning is lower (38.5 per cent) than modern methods (39.3 per cent) among the currently married women who were not working. And among those who were working, the choice of traditional methods of family planning is higher (61.5 per cent) than modern methods (60.7 per cent).

A chi-square test was conducted to test the association between Women's work status, whether working or not working and their current choice of traditional and modern methods of family planning. It was hypothesised that work status of women, whether working or not working is strongly associated with their current choice of traditional and modern methods of family planning. The results shows that there was no statistically significant association between the women's work

status, whether working or not working and their current choice of traditional and modern methods of family planning at 5 per cent level of significance.

Therefore women's work status, whether working or not working does not affect their current choice of traditional and modern methods of family planning.

Other studies have also confirmed similar relationship (Sathar et al., 1984) whose study found that there was no clear pattern in the relative use of modern and traditional methods of family planning among the working and non working women.

Husband-Wife discussion about family planning.

Table 4.1d shows that the percentage of the current choice of traditional methods of family planning among the currently married women was highest for the women who never discuss family planning with their husbands (23.7 per cent) than modern methods (11.9 per cent).

Currently married women who discuss family planning with their husbands have the highest percentage of the current choice of modern (88.1 per cent) than traditional methods (76.3 per cent) of family planning.

Generally the choice of both traditional and modern methods of family planning is higher among the currently married women who discuss family planning with

their husbands (76.3 and 88.1 per cent respectively) than those who never discuss these issues.

A chi-square test was conducted to test the association between the husband-wife discussion of family planning and current choice of traditional and modern methods of family planning among the currently married women aged 15-49 years. It was hypothesised that husband-Wife discussion of family planning is strongly associated with the current choice of traditional and modern methods of family planning among the currently married women aged 15-49 years.

The results showed that there was a significant association between husband-wife discussion about family planning and the current choice of traditional and modern methods of family planning among the currently married women aged 15-49 years at 5 per cent level of significance.
Therefore husband-wife discussion about family planning affects women's current choice of traditional and modern methods of family planning.

Other studies have also found an existence of a significant association between current choice of traditional and modern methods of family planning and husband-wife discussion about family planning (Mburugu et al., 1998;Rahman et al., 1996; Jato et al., 1999).

Type of Place of Residence

Table 4.1d shows that the percentage choice of both traditional and modern methods of family planning is higher in rural (81.3 and 78.4 per cent respectively) than urban (18.7 and 27.6 per cent respectively) areas among the currently married women aged 15-49 years.

The choice of traditional methods of family planning is higher among the currently married women who live in rural areas (81.3 per cent) than modern methods (78.4 per cent) while in urban areas, the choice of modern methods is higher (21.6 per cent) than traditional methods (18.7 per cent).

A chi-square test was conducted to test the association between the women's type of place of residence and their current choice of traditional and modern methods of family planning. It was hypothesised that women's type of place of residence is strongly associated with their current choice of traditional and modern methods of family planning.

Table 4.1d Percentage distributions of currently married women aged 15-49 who are current contraceptive users by contraceptive access factors, according to type of contraceptive method used, KDHS, 1998.

CHARACTERISTICS	ANY METHOD		TRADITIONAL METHODS		MODERN METHODS	
CONTRACEPTIVE ACCESS FACTORS	N=1795	%	N=326	%	N=1469	%
WOMEN'S WORK STATUS						
Not Working	701	39.1	125	38.5	576	39.3
Working	1091	60.9	200	61.5	891	60.7
HUSBAND-WIFE DISCUSION ABOUT FAMILY PPLANNING**						
No Discussion	51	14.0	77	23.7	174	11.9
Discusses	540	86.0	248	76.3	1292	88.1
Place of Residence						
Rural	1416	78.9	265	81.3	1151	78.4
Urban	379	21.1	61	18.7	318	21.6
Province of Residence**						
Western	175	9.7	48	14.7	127	8.6
Nairobi	125	7.0	21	6.4	104	7.1
Central	303	16.9	33	10.4	270	18.4
Coast	194	10.8	22	6.7	172	11.7
Eastern	329	18.3	62	19.0	267	15.2
Nyanza	233	13.0	27	8.3	206	14.0
Rift Valley	436	24.3	113	34.7	323	22.0
TOTAL	1795	100.0	326	100.0	1469	100.0

SOURCE: DERIVED FROM KDHS, 1998.

N = Number of cases.

** Difference between users of traditional and modern methods significant at p < 0.05 (95%) level of confidence.

Note: Some distributions are based on fewer women because of missing data.

The results showed that there was no significant association between the women's type of place of residence and their current choice of traditional and modern methods of family planning at 5 per cent level of significance.

Therefore women's type of place of residence does not affect their current choice of traditional and modern methods of family planning.

This finding, however, differs slightly with those of Sathar et al., (1984) and Hubacher et al (1996), which show a significant relationship between Women's type of place of residence and their current choice of traditional and modern methods of family planning.

Province/Region

Table 4.1d shows that the percentage choice of traditional than modern methods of family planning among the currently married women was highest in Rift valley (34.7 per cent); followed by Eastern (19.0 per cent) and Western (14.7 per cent), while the choice of modern methods was highest than traditional methods in central (18.4 per cent); followed by Coast (11.7 per cent), Nyanza (14.0 per cent) and Nairobi (7.1 per cent) provinces.

A chi-square test was conducted to test the association between the Women's province of residence and the current choice of traditional and modern methods of family planning among the currently married women aged 15-49 years.

The results showed that there was a significant association between women's province of residence and their current choice of modern and traditional methods of family planning at 5 per cent level of significance.

Therefore, women's province of residence affects their current choice of traditional and modern methods of family planning.

This finding agree with those of Freedman et al.,(1981) and Mburugu et al., (1998) who found out that Women's province of residence was strongly associated with their current choice of traditional and modern methods of family planning.

Summary.

In this section, results of the cross-tabulation analysis and the chi-square test have been presented. These results showed that majority of the currently married women were current users of modern methods of family planning (81.8 Percent) compared to traditional methods (18.2 per cent) as shown in table 4.1a.

This shows that majority of the currently married women in Kenya are relying on more effective methods of contraception.

Results of the cross-tabulations and the chi-square values presented in this section shows that, wives' age, whether additional children are wanted and number of living children per woman, are all significantly associated with the current choice of traditional and modern methods of family planning at 5 per cent level of significance can therefore be considered measures of contraceptive goal factors in this study. The same applies to husbands' level of education that can be considered a measure contraceptive competency factor compared with women's education level which is not statistically significant at 5 per cent level of significance among the currently married women of reproductive ages who are current users of contraceptive methods in Kenya.

Ethnic affiliation, husbands' attitude towards family planning, variables which are all statistically significant at 5 per cent level of significance compared with the women's religious affiliations which is not statistically significant at 5 per cent level of significance can be considered indicators of contraceptive evaluations among the currently married women of reproductive ages who are current users of contraceptive methods in Kenya.

Husband-wife discussion about family planning and province of residence variables are all statistically significant at 5 per cent level of significance compared, with women's work status and women's residence in rural and urban areas variables, which are not statistically significant at 5 per cent level of significance. These variables namely, Husband-wife discussion about family planning and province of residence can therefore be considered measures of contraceptive access factors among the currently married women of reproductive ages who are current users of contraceptive methods in this study.

4.3.5 Multivariate Logistic Regression Results

This section gives results obtained from multivariate logistic regression. Enter (forced entry) method that is, where all variables were entered in a single step was used to analyse data in this study using statistical computer package for social scientists (SPSS).

Four models were fitted to estimate the affect of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables on the current choice of modern over traditional methods of family planning among the currently married women aged 15 - 49 years.

The first model included only the Contraceptive goals variables namely, wives' age, whether more children are wanted and the number of living children. The second model added to the first model contraceptive competency variables such

as Wives' education, and Husbands' education. The third model added to the second model contraceptive evaluations variables such as religion, ethnicity, and husbands' attitudes towards family planning. In the fourth model contraceptive access variables such as wives' work status, husband-wife discussion about family planning, Wife's type of place of residence and region/province of residence were incorporated in the third model so that the additive effects of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables are estimated simultaneously.

Thus the logistic regression model was based on whether the individual, currently married woman (the unit of analysis) was using modern over traditional methods of family planning at the time of the survey given the independent variables in the model.

4.4.0 MODEL ONE

Logistic Regression estimates on the effects of Contraceptive goals variables on the current choice of modern over traditional methods of family planning.

This model included only the Contraceptive goals variables namely, wives' age, whether more children are wanted and the number of living children. The logistic results are shown in table 4.2a.

Results in the model shows that wives' age has no significant effect on the

choice of modern over traditional methods of family planning. Women who did not want to have another child were significantly more likely to choose modern over traditional methods of family planning (odds ratio of 2.7487) than those who wanted to have another child.

The currently married women who had one to more than four living children were significantly more likely to choose modern over traditional methods of family planning than those who had no living children. The odds of choosing modern over traditional methods of family planning decrease as the number of living children increase. Thus, the odds of choosing modern over traditional methods of family planning was highest among women who had one living child ((odds ratio of 5.2667) and decrease as the number of living children increase to more than four (odds ratio of 4.1210).

Therefore two measures can be considered indicators of contraceptive goals, namely desire not to have additional children and having at least one living child among the currently married women of reproductive ages considered in this study. Desire not to have additional children and having at least one living child are significantly related to more choice of modern over traditional methods of family planning compared with the desire to have additional children and having no living child among the currently married women of reproductive ages in Kenya.

This result is compatible with a greater need for terminating childbirth rather than spacing among the currently married women of reproductive ages considered in this study.

Table 4.2a. Logistic regression coefficients and odds ratios showing the effects of Contraceptive goals factors on the choice of modern over traditional methods of family planning.

CHARACTERISTICS	β	S.E	EXP(β)	Significance
CONTRACEPTIVE GOALS VARIABLES				
Women's Age (in Years)				
15-19	(Ref)	na	1.0000	na
20-29	0.3631	0.3654	1.4378	0.3203
30-39	0.1126	0.3982	1.1192	0.7773
40-49	0.0980	0.4331	1.1030	0.8209
Whether more Children are wanted				
Yes	(Ref)	na	1.0000	na
No	1.0111	0.1770	2.7487	0.0000**
Number of living children				
0	(Ref)	na	1.0000	na
1	1.6614	0.4518	5.2664	0.0002**
2	1.4915	0.4517	4.4440	0.0010**
3	1.4655	0.4727	4.3168	0.0020**
4 +	1.4161	0.4768	4.1207	0.0030**
Constant	-0.7141			0.1221
-2 x Log likelihood	1535.902			
X^2	66.955			0.0000**
DF	8			

** Significance at 0.05 (95%) Confidence level.

na = not applicable.

4.4.1 MODEL TWO

Logistic Regression Estimates on the effects of Contraceptive goals and contraceptive competency variables on the current choice of modern over traditional methods of family planning.

This model introduced the contraceptive competency variables (independent variables) into the first model. The contraceptive competency variables included were, Wives' education and Husbands' education. The idea was to see whether earlier estimates using Contraceptive goals variables only would change when contraceptive competency variables were included in the model. The regression results are shown in table 4.2b.

Results in this model shows that the effect of wives' age on the current choice of modern over traditional methods of family planning is still statistically non-significant even after contraceptive competency variables were added to the regression equation.

Wives' desire not to have another child and having more than one living child remained highly significant predictors of the choice of modern over traditional methods of family planning even after contraceptive competency factors were taken into account.

In this second model, women's education level showed no statistically significant effect on the choice of modern over traditional methods of family planning.

Only husbands' education level shows a significant effect on the choice of modern over traditional methods of family planning among the currently married women of reproductive ages. Women whose husbands had primary and more than secondary education level were more than twice likely (odds ratio of 2.1583 and 2.5225 respectively) to choose modern over traditional methods of family planning compared with those whose husbands had no education.

Thus only husbands' educational attainment serves as likely index of contraceptive competency among the currently married women of reproductive ages in Kenya. Greater competency is related to more choice of modern over traditional methods of family planning among women whose husbands have primary and secondary and above level of education. This may be explained by the fact that more competent and knowledgeable husbands in a patriarchal society like Kenya learn about possible failure rate and problems with user satisfaction for traditional methods and so influence their wives to choose the more efficient modern methods of family planning.

Table 4.2b. Logistic regression coefficients and odds ratios (and 95% confidence intervals) showing the effects of Contraceptive goals and contraceptive competency factors on the current choice of modern over traditional methods of family planning.

CHARACTERISTICS	β	S.E	EXP(β)	Significance
CONTRACEPTIVE GOALS VARIABLES				
Women's Age (in Years)				
15-19	(Ref)	na	1.0000	na
20-29	0.4089	0.3708	1.5052	0.2701
30-39	0.1696	0.4086	1.1849	0.6780
40-49	0.2437	0.4432	1.2759	0.5825
Whether more children are wanted				
Yes	(Ref)	na	1.0000	na
No	0.9744	0.1779	2.6497	0.0000**
Number of living children				
0	(Ref)	na	1.0000	na
1	1.6537	0.4522	5.2262	0.0003**
2	1.5020	0.4530	4.4908	0.0009**
3	1.4961	0.4746	4.4644	0.0016**
4 +	1.4994	0.4829	4.4788	0.0019**
CONTRACEPTIVE COMPETENCY VARIABLES				
Women's education level				
No education	(Ref)	na	1.0000	na
Primary	0.1388	0.2556	1.1489	0.5872
Secondary +	0.0879	0.2866	1.0891	0.7591

Table 4.2b (Continued)

CHARACTERISTICS	β	S.E	EXP(β)	Significance
Husband's education level				
No education	(Ref)	na	1.0000	na
Primary	0.7693	0.2916	2.1583	0.0083**
Secondary+	0.9252	0.3069	2.5225	0.0026**
Constant	-1.6316	0.5544		0.0033**
-2 x Log likelihood	1523.851			
x^2	12.051			0.0341**
DF	5			

** Significance at 0.05 (95%) Confidence level.

na = Not applicable.

4.4.2 MODEL THREE

Logistic Regression Estimates on the effects of Contraceptive goals, contraceptive competency and contraceptive evaluations variables on the current choice of modern over traditional methods of family planning.

This model introduced the contraceptive evaluations variables into the second model. The contraceptive evaluations variables included were, religion, ethnicity and husbands' attitude towards family planning.

The regression results are shown in table 4.2c. Results in this model shows that the effects of wives' age on the current choice of modern over traditional methods of family planning is not statistically significant even after contraceptive evaluations variables were added to the regression equation.

The effect of women's desire not to have another child and the number living children remained statistically significant although, the odds for the former decreased while those of the latter increased after the introduction of contraceptive evaluations variables in the regression equation.

Moreover, the effect of husbands' education level in the current choice of modern over traditional methods of family planning changed after the introduction of contraceptive evaluations variables in the regression equation. Consequently, only women whose husbands had secondary and above level of education compared with those whose husbands had no education remained statistically significantly

more likely (odds ratio of 2.0825) to choose modern over traditional methods of family planning.

These findings indicate that contraceptive evaluations factors on current method choice among the currently married women unlike the contraceptive goal factors are affected by the contraceptive competency factors.

Results in this model shows that the effects of Women's religious affiliation and belonging to Kamba,Taita/Taveta and 'other' ethnic communities on the current choice of modern over traditional methods of family planning among the currently married women aged 15-49 years is not significant at 95 per cent confidence level. This is so despite the fact that Kamba and Taita/Taveta women are more likely to use modern over traditional methods of family planning whereas the reverse is true for 'other' women.

Mijikenda/Swahili, Kisii and Meru/Embu currently married women were significantly more than eight, six and three times more likely (odds ratio of 8.8720, 6.5083 and 3.9735 respectively) compared with the Kalenjin women to choose modern over traditional methods of family planning.

Moreover, the odds of choosing modern over traditional methods of family planning among the Kikuyu, the Luo and the Luhya women were more than two and 81 per cent significantly more likely (odds ratio of 2.8711, 2.3483 and 1.8130 respectively) compared with the Kalenjin women. The odds of choosing modern over traditional methods of family planning was not statistically

significant among the Kamba, Taita/Taveta and Women belonging to 'other' ethnic groups.

Husbands' approval of family planning is a significant predictor of the current choice of modern over traditional methods of family planning among the currently married women aged 15-49 years. Women whose husbands approve family planning were significantly more than three times likely (odds ratio of 3.8143) to choose modern over traditional methods of family planning compared with those whose husbands disapprove family planning. Moreover, the effect of Women who did not know their husbands' stand on family planning and the current choice of modern over traditional methods of family planning are not statistically significant at 0.05 confidence level.

These findings indicate that being a Kikuyu, Kisii, the Luhya, Luo, Meru/Embu and Mijikenda/Swahili women is statistically significantly related to more choice of modern over traditional methods of family planning compared with the Kalenjin women.

These findings indicate that after evaluating the moral implications related to the use of modern methods of family planning, Kikuyu, Kisii, the Luhya, Luo, Meru/Embu and Mijikenda/Swahili women prefer modern over traditional methods of family planning compared with the Kalenjin women. The same applies to Kamba and Taita/Taveta ethnic communities although the result is not statistically significant.

Whereas, women belonging to 'other' ethnic communities are less likely to choose modern over traditional methods of family planning although the result is not statistically significant.

These findings suggest that the contraceptive evaluations factors are operating among the currently married women of reproductive ages using contraception in Kenya through their ethnic affiliations and husbands' attitudes towards family.

Table 4.2c. Logistic regression coefficients and odds ratios (and 95% confidence intervals) showing the effects of Contraceptive goals, contraceptive competency and contraceptive evaluations factors on the current choice of modern over traditional methods of family planning.

CHARACTERISTICS	β	S.E	EXP(β)	Significance
CONTRACEPTIVE GOALS VARIABLES				
Women's age (in years)				
15-19	(Ref)	na	1.0000	na
20-29	0.2069	0.3999	1.2298	0.6049
30-39.	-0.1080	0.4440	0.8976	0.8077
40-49	0.0036	0.4810	1.0036	0.9941
Whether more children are wanted				
Yes	(Ref)	na	1.0000	na
No	0.8286	0.1931	2.2901	0.0000 * *
Number of living children				
0	(Ref)	na	1.0000	na
1	1.8762	0.4852	6.5289	0.0001 * *
2	1.7419	0.4883	5.7083	0.0004 * *
3	1.8192	0.5127	6.1671	0.0004 * *
4 +	1.9022	0.5246	6.7006	0.0003 * *
CONTRACEPTIVE COMPETENCY VARIABLES.				
Women's education level				
No education	(Ref)	na	1.0000	na
Primary	0.0614	0.2942	1.0633	0.8347
Secondary +	-0.1512	0.3260	0.8596	0.6426
Husband's education level				
No education	(Ref)	na	1.0000	na
Primary	0.6189	0.3384	1.8568	0.0674
Secondary +	0.7336	0.3546	2.0825	0.0386 * *
CONTRACEPTIVE EVALUATIONS VARIABLES				
Religion				
Catholic	(Ref)	na	1.0000	na
Protestant/other Christian	-0.0537	0.1562	0.9477	0.7310
Muslim	-0.5419	0.4346	0.5816	0.2124
Others	-0.4906	0.6877	0.6122	0.4756

Table 4.2c (Continued)

CHARACTERISTICS	β	S.E	EXP(β)	Significance
Ethnicity				
Kalenjin	(Ref)	na	1.0000	na
Kamba	0.2148	0.2333	1.2396	0.3574
Kikuyu	1.0547	0.2173	2.8711	0.0000**
Kisii	1.8731	0.3813	6.5083	0.0000**
Luhya	0.5950	0.2295	1.8130	0.0095**
Luo	0.8537	0.2937	2.3483	0.0037**
Meru/Embu	1.3796	0.3119	3.9735	0.0000**
Mijikenda/Swahili	2.1829	0.5606	8.8720	0.0001**
Taita/Taveta	0.7227	0.4305	2.0599	0.0932
Others	-0.0110	0.5281	0.9890	0.9833
Husband's attitude				
towards family planning				
Disapproves	(Ref)	na	1.0000	na
Approves	1.3388	0.1866	3.8143	0.0000**
Don't Know	0.3198	0.3237	1.3769	0.3231
Constant	3.2664	0.6577		0.0000**
-2 x Log likelihood	1368.831			
X^2	155.031			0.0000**
DF	15			

SOURCE: DERIVED FROM KDHS, 1998.

** Significance at 0.05 (95%) Confidence level

na = not applicable.

116

4.4.3 MODEL FOUR

Logistic Regression Estimates on the effects of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access variables on the current choice of modern over traditional methods of family planning.

This model introduced the contraceptive access variables (independent variables) into the third model. The contraceptive access variables included are namely, Wives' work status, husband-wife discussion about family planning, wives' type of place of residence and region/province of residence.

The regression results are shown in table 4.2d.

Results in this model shows that the effects of wives' age, Wives' education level and Wives' work status together with husbands primary education level, religion, Kamba, Taita/Taveta and Women belonging to 'other' ethnic on the current choice of modern over traditional methods of family planning remained statistically non-significant even after the introduction of contraceptive access variables into the regression equation.

The effect of women's desire not to have additional children and the number of living children on the current choice of modern over traditional methods of family planning among the currently married women of reproductive ages was

found to be significant at 5 per cent level of significance. However, the odds for the former decreased while those of the latter increased after the introduction of contraceptive access variables into the regression equation. Moreover, the effect of husbands with more than secondary education level and husbands' approval of family planning in the current choice of modern over traditional methods of family planning did not have much change and remained statistically significant after the introduction of contraceptive access variables into the regression equation. But, the effects of ethnic affiliation to Luo and Mijikenda/Swahili communities became statistically non-significant after the introduction of contraceptive access variables into the regression equation.

These findings show that contraceptive access factors discourage the Luo and the Mijikenda/Swahili ethnic communities from adopting modern contraception. This may be explained by the fact that Luos and Mijikenda/Swahili ethnic communities inhabit areas that are highly undeveloped in-terms good communication and health facilities unlike the Kisii, Luhya and Meru/Embu women.

The results in this model shows that women's work status, husband-wife discussion about family planning and women's type of place of residence is not statistically a significant predictor of the choice of modern over traditional methods of family planning among the currently married women of reproductive ages.

Women's region/province of residence is a strong and significant predictor of

the choice of modern over traditional methods of family planning even when Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors are taken into account. Consequently, women whose residence was Coast, Nyanza, Nairobi and Central provinces were significantly more than six and three times more likely (odds ratio of 6.4126, 3.8817, 3.7593 and 3.5792 respectively) to choose modern over traditional methods of family planning compared with women whose residence was in western province.

However, women whose residence was eastern province showed no statistically significant effect on the choice of modern over traditional methods of family planning compared with the women whose residence was western province.

These findings indicate that women living in Nairobi, Central, Coast, Nyanza and Rift Valley provinces are statistically significantly more likely to choose modern over traditional methods of family planning compared with women living in western province in Kenya. However although women living in eastern province are more likely to choose modern over traditional methods of family planning, the result is not significant at 0.05 level of significance. This is an indication that there are other factors other than contraceptive access factors that affect the choice of modern over traditional methods of family planning among the currently married women of reproductive ages in this province.

These findings therefore suggest that the accessibility factors are operating in Kenyan provinces influencing women's choice of contraceptive methods.

Table 4.2d.Logistic regression coefficients and odds ratios (and 95% confidence intervals) showing the effects of Contraceptive goals contraceptive competency, contraceptive evaluations and contraceptive access factors on the current choice of modern over traditional methods of family planning.

CHARACTERISTICS	β	S.E	EXP (β)	Significance
CONTRACEPTIVE GOALS VARIABLES				
Women's age (in years)				
15-19	(Ref)	na	1.0000	na
20-29	0.2167	0.3997	1.2419	0.5877
30-39	-0.1280	0.4442	0.8799	0.7733
40-49	0.0015	0.4816	1.0015	0.9974
Whether more children are wanted				
Yes	(Ref)	na	1.0000	na
No	0.7952	0.1965	2.2150	0.0001**
Number of living children				
0	(Ref)	na	1.0000	na
1	1.9563	0.4922	7.0729	0.0001**
2	1.8251	0.4968	6.2033	0.0002**
3	1.9959	0.5233	7.3590	0.0001**
4 +	2.0851	0.5383	8.0455	0.0001**
CONTRACEPTIVE COMPETENCY VARIABLES.				
Women's education level				
No education	(Ref)	na	1.0000	na
Primary	0.0720	0.2945	1.0746	0.8068
Secondary +	-0.1352	0.3275	0.8735	0.6797

Table 4.2d (Continued)

CHARACTERISTICS	β	S.E	EXP(β)	Significance
Husband's education level				
No education	(Ref)	na	1.0000	na
Primary	0.5881	0.3398	1.8006	0.0835
Secondary +	0.7087	0.3558	1.0313	0.0464**
CONTRACEPTIVE EVALUATIONS				
VARIABLES				
Ethnicity				
Kalenjin	(Ref)	na	1.0000	na
Kamba	0.1337	0.4547	1.1431	0.7687
Kikuyu	0.8351	0.3126	2.3050	0.0076**
Kisii	1.5716	0.5177	4.8143	0.0024**
Luhya	1.3895	0.3725	3.4219	0.0010**
Luo	0.5754	0.4445	1.7779	0.1955
Meru/Embu	1.3895	0.5408	4.0128	0.0102**
Mijikenda/Swahili	1.3415	0.7892	3.8248	0.0892
Taita/Taveta	-0.1390	0.7115	0.8702	0.8451
Others	-0.0376	0.5308	0.9631	0.9435
Husban's attitude				
towards family planning				
Disapproves	(Ref)	na	1.0000	na
Approves	1.3739	0.1897	3.9505	0.0000**
Don't Know	0.2866	0.3292	1.3319	0.3840

Table 4.2d (Continued)

CHARACTERISTICS	β	S.E	EXP(β)	Significance
CONTRACEPTIVE ACCESS				
VARIABLES				
Women's work status				
No working	(Ref)	na	1.0000	na
Working	-0.1554	0.1496	0.8561	0.2990
Husband-Wife discussion				
of family planning				
No discussion	(Ref)	na	1.0000	na
Discusses	0.2369	0.2001	1.2673	0.2364
Place of residence				
Rural	(Ref)	na	1.0000	na
Urban	0.0530	0.2550	1.0544	0.3855
Province of residence				
Western	(Ref)	na	1.0000	na
Nairobi	1.3242	0.5050	3.7593	0.0087**
Central	1.2751	0.4542	3.5792	0.0050**
Coast	1.8583	0.6258	6.4126	0.0030**
Eastern	0.9671	0.5279	2.6302	0.0670
Nyanza	1.3563	0.4863	3.8817	0.0053**
Rift Valley	1.0046	0.3724	2.7308	0.0070**
Constant	-4.3997	0.7794		0.0000**
-2 x Log likelihood	1350.433			
X^2	18.397			0.0103**
DF	7			

** Significance at 0.05 (95%) Confidence level,

na = not applicable.

In this section the results of the multivariate logistic estimates on the probability of choosing modern over traditional methods of family planning among the currently married women of reproductive ages have been presented. These results show that, among the contraceptive goal factors, wives' desire not to have additional children and, having at least one living child are statistically significantly related to more choice of modern over traditional methods compared with the women who desire to have additional children and those who have no living children. Women's age at survey has no statistically significant effect on the choice of modern over traditional methods of family planning.

Among the contraceptive competency factors, husband's education to primary and above level is statistically significantly related to more choice of modern over traditional methods compared with the women whose husbands have no education. Women who have primary and above level of education though, more likely to choose modern over traditional methods of family planning compared with those who have no education, the result is not statistically significant at 0.05 per cent level of significance.

On the contraceptive evaluations factors, women who belong to Kikuyu, Kisii, Luhya, Meru/Embu and Mijikenda/Swahili are statistically more likely to choose

123

modern over traditional methods of family planning compared with the Kalenjin woman. Women who belong to Kamba and Taita/Taveta ethnic communities though, more likely to choose modern over traditional methods of family planning compared with the Kalenjin women, the result is not statistically significant at 0.05 per cent level of significance.

Finally, among the contraceptive access factors women residing in Nairobi, central, coast, Nyanza, and rift valley are found to be statistically significantly more likely to choose modern over traditional methods of family planning compared with those residing in western province. Women residing in eastern province though, more likely to choose modern over traditional methods of family planning compared with those residing in western province the result is not statistically significant at 0.05 per cent level of significance in this study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Findings and Conclusions

This chapter gives the summary, conclusions and recommendations as derived from the study. The major aim of the study was to examine the effect of Contraceptive goals, contraceptive competency, contraceptive evaluations and contraceptive access factors on the current choice of modern over traditional methods of family planning among the currently married women of reproductive ages in Kenya along the dimensions proposed by Bulatao (1989).

Cross-tabulations technique and the chi-square tests were used to measure the association between the independent and the dependent variables. Multivariate logistic regression model was used to examine the effect of various independent variables on the choice of modern over traditional methods of family planning among the currently married women who were current users.

The findings of this study are summarised as per the respective objectives.

The first objective was to determine whether contraceptive goal factors namely, women's age, whether more children are desired and the number of living children per woman affects their current choice of modern over traditional

125

methods of family planning. The results show that, wives' desire not to have additional children and, having at least one living child are statistically significantly related to more choice of modern over traditional methods compared with the women who desire to have additional children and those who have no living children. Women's age at survey has no statistically significant effect on the choice of modern over traditional methods of family planning.

Other studies have also had similar findings (Freedman et al. 1981; Goldberg et al. 1994; Hubacher et al 1996; Bhende et al., 1991).

These results are compatible with a greater need for terminating childbirth rather than spacing among the currently married women of reproductive ages in Kenya.

The second objective was to find out whether contraceptive competency factors namely, Women's education, and husbands' education levels affect their current choice of modern over traditional methods of contraception. The results show that, husband's education to primary and above level is statistically significantly related to more choice of modern over traditional methods compared with the women whose husbands have no education. Women who have primary and above level of education though, more likely to choose modern over traditional methods of family planning compared with those who have no education, the result is not statistically significant at 0.05 per cent level of significance.

Other studies, Molyneaux et al. (1990) and Dang (1995) have also found similar results.

These findings clearly show the important role played by educated men in Kenya in promoting the use of modern over traditional methods of family planning among the currently married women of reproductive ages.

The third objective was to investigate whether contraceptive evaluations factors namely, religion, ethnicity and, husbands' attitudes towards family planning affects women's current choice of traditional and modern methods of contraception. Findings in this study show that, women who belong to Kikuyu, Kisii, Luhya, Meru/Embu and Mijikenda/Swahili are statistically more likely to choose modern over traditional methods of family planning compared with the Kalenjin woman. Women who belong to Kamba and Taita/Taveta ethnic communities though, more likely to choose modern over traditional methods of family planning compared with the Kalenjin women, the result is not statistically significant at 0.05 per cent level of significance. Women whose husbands approves family planning are statistically significantly more likely to choose modern over traditional methods of family planning compared with those whose husbands do not approve.

Other studies (CBS, 1984; Mburugu et al. (1998) have found similar results.

These findings demonstrate the importance of traditions, norms and taboos among different ethnic communities in influencing contraceptive method choice behaviour among the currently married women of reproductive ages in Kenya.

The final objective was to determine whether contraceptive access factors namely, women's work status, husband-wife discussion about family planning, women's residence in rural and urban areas together with their province of residence affects their current choice of traditional and modern methods of contraception. The results in this study show that, women residing in Nairobi, central, coast, Nyanza, and rift valley are statistically significantly more likely to choose modern over traditional methods of family planning compared with those residing in western province. Women residing in eastern province though, more likely to choose modern over traditional methods of family planning compared with those residing in western province, the result is not statistically significant at 0.05 per cent level of significance in this study.

These findings are consistent with the other studies (Freedman et al. (1981) Goldberg et al. (1994) Dang (1995), (CBS, 1984, NCPD, 1993) and Mburugu et al. (1998).

The findings suggests that, the preference of modern over traditional methods of family planning in Nairobi, Central, Coast, Eastern Nyanza and Rift Valley compared with Western province among the currently married women of reproductive ages is an indication of contraceptive accessibility factors operating

in Kenya.

This is so given the fact that provinces in Kenya are characterised by differences in cultural idiosyncrasies and levels of socio-economic development that plays an important role in determining the current contraceptive choice among the currently married women of reproductive ages in various provinces.

This study has examined the factors affecting the current choice of modern over traditional methods of family planning among the currently married women of reproductive ages in Kenya in-terms of whether or not the results are compatible with the dimensions proposed by Bulatao (1989).

The findings suggest that Kenyan women are making rational choices in terms of their contraceptive goals, contraceptive competence, contraceptive evaluations and finally contraceptive access characteristics.

5.2   Recommendation for Policy

This study has found that Kenyan women are making rational choices in terms of their contraceptive goals, contraceptive competence, contraceptive evaluations and finally contraceptive access characteristics.

As a result we therefore recommend that:

1. Population and family planning programmes in Kenya should take into account contraceptive goals (women's age, whether more children are

desired and the number of living children per woman), contraceptive competency (Women's education, and husbands' education levels), contraceptive evaluations (religion, ethnicity and, husbands' attitudes towards family planning), and finally, contraceptive access (women's work status, husband-wife discussion about family planning, women's residence in rural and urban areas together with their province of residence) factors in an attempt to promote the adoption of modern methods of family planning among the currently married women of reproductive ages in Kenya.

2. The fact that ethnicity husbands' approval of family planning and region/province of residence are statistically significantly major predictors of the current choice of modern over traditional methods of family planning in this study is an indication of the importance of considering the social and cultural implications of family planning service delivery in Kenya.

5.3 Research Recommendations

1. The is a need for further research to be undertaken incorporating the effects of both the family planning programme inputs factors such as accessibility and availability of family planning services, and quality of family planning services among others which were not considered in this study and the behavioural factors (Contraceptive goals, contraceptive competency contraceptive evaluations and contraceptive access) on the current choice of modern over traditional methods of family planning among the currently

married Women aged 15-49 years. This will provide the information on the effects of these factors on the current choice of modern over traditional methods of family planning among the currently married Women aged 15-49 years needed by the family planning programme managers to develop targets to accomplish government mandated family planning and social goals.

2. A further research should be undertaken to study the traditions, norms, customs and taboos of different ethnic groups in different provinces in Kenya in relation to their reproductive behaviour in order to avoid the cultural conflicts that have hindered family Planning programmes in many areas in the country.

BIBLIOGRAPHY

Abdulah, N. (1990)

Selection, Change and Discontinuation of contraceptive Methods in Trinidad and Tobago, St. Augustine, Trinidad, Institute of Social and Economic Research, University of the West Indies.

Ahmed, B. (1987)

Determinants of Contraceptive use in Rural Bangladesh: The Demand for children, supply of Children, and Costs of fertility Regulation, Demography, Volume 24 Number, 3:361-373.

Bhende, A. Asha, Choe, K. Minja, Rele, J.R. and Palmore, J.A. (1991)

Determinants of Contraceptive method choice in an industrial city of India, Reprints from Asia- Pacific population Journal, Volume 6 Number 3.East-West centre population Institute, Honolulu, Hawaii.

Bongaarts, J (1978)

'A framework for analysing the proximate determinants of fertility' Population and Development Review 4 (1): 105-132.

Bulatao, R.A. (1989)

Toward a framework for understanding contraceptive method choice .

In; Choosing a contraceptive method; Method choice in Asia and the United States Edited by R.A Bulatao, J.A Palmore and S.E Ward, Buolder.

C.B.S. (1984)

Kenyan Contraceptive Prevalence Survey, Nairobi, Central Bureau of Statistics, Ministry of Economic Planning and Development, Republic of Kenya.

C.B.S. (1996)

Kenya Population Census 1989, A Popular Report, Central Bureau of Statistics, Nairobi Kenya.

Cornelius, Richard M. and Navak, John. A. (1983)

Contraceptive Availability and Use in Five Developing Countries, "Studies in Family Planning Volume 14, Number 12:302-317.

Curtis, Sian. L. and Neitzel, Katherine (1996).

Contraceptive Knowledge, use and Sources, DHS comparative Studies Number 19 Calverton, Maryland: Macro International Inc.

Dang, Anh. (1995)

Differentials in Contraceptive use and method choice in Vietnam, "International Family Planning Perspectives, "21:2-5, 1995.

Davis, K and Blake, J (1956)

'Social structure and Fertility: An analytic framework', Economic Development and Cultural change 4:211-235

Dodoo F and Nii-Amoo (1998)

Men Matter: Additive and interactive gendered preferences and reproductive behaviour in Kenya: <u>Demography</u> No 2:229-42

Dow, T.E. and Werner, Linda.H. 1981.

A Note on Modern, Traditional and Traditional Demographic and Contraceptive Patterns among Kenyan Women: 177-1978, Population Studies and Research Institute, University of Nairobi, Nairobi, Kenya.

Fosu Gabriel, B. (1988)

Integrating Population Programmes into Health Services, Lessons from Urban Ghana, <u>African Urban Quarterly,</u> Vol.3 Nos.3 and 4 (August/November)

Freedman, R., Khoo, Siew-Ean and Supraptilar, B. (1981)

Use of Modern Contraceptives in Indonesia: 'A Challenge to the Conventional Wisdom', <u>In International Family Planning Perspectives</u>, Volume 7, Number 1 March 1981 pp.3-15

Goldberg, I.H and Toros, A. (1994)

'The use of traditional methods of Contraception among the Turkish Couples'. <u>Studies in Family Planning, 25,2:122-128.</u>

Hubacher, D., Suazo, M., Terrell, S and Pinel, M. (1996)

Examining the Increasing Prevalence of Traditional Contraceptive Methods in Honduras. In <u>International Family Planning Perspectives, Volume 22,Number 4,</u> <u>December, 1996.pp.163-168.</u>

Hosmer David, W and Lemeshow, Stanley (1989)

Applied Logistic Regression,

John Wiley & Sons,New York,USA.

Ikamari I.D.E (1985)

Determinants of Contraceptive Use in Kenya.
An unpublished Master of Arts Thesis,

University of Nairobi.

Jato M.N., Simbakalia C., Tarasevich J.M., Awasum D.N., Kihinga C.N.B and Ngirwamungu Edith (1999)

The Impact of 'Multimedia Family Planning Promotion on the contraceptive Behaviour of Women in Tanzanian' International Family Planning Perspectives, 25(2): 60-67 (June).

Johnson J.T and Macke A.B (1996)

'Estimating Contraceptive Needs from Trends in Method mix in Developing Countries'.**International Family Planning Perspectives, 22: 92-96.**

Kimani, Murungaru (1993)

'Fertility and Family planning in Kenya'.

An unpublished Master of Arts Thesis, University of Nairobi.

Lightbourne, Robert E. (1980)

Urban-Rural Differentials in Contraceptive use, WFS Comparative Studies Number, 10 Voorburg, Netherlands; International Statistical Institute.

Mamlouk, Maria. (1982)

Knowledge and use of contraception in twenty Developing Countries, WFS Reports, Population Reference Bureau Inc., Washington, DC. USA.

Mburugu, Edward and Zulu, Eliya. M. (1998)

Trends and Correlates of contraceptive use in Kenya, African Population Policy Research Centre Working Papers, Number 4. Nairobi; Population Council.

Molyneaux J.W., Lerman C., Pandi E.S and Wibisono S.T (1990)

'Correlates of Contraceptive Method choice in Indonesia' In DHS Further Analysis Series Number 2, (March).

NCPD, (1989)

Kenya Demographic and Health Survey 1989. Nairobi. National Council for Population and Development, Republic of Kenya.

NCPD. (1994)

Kenya Demographic and Health Survey 1993.Nairobi, National Council for Population and Development, Republic of Kenya.

NCPD (1999)

Kenya Demographic and Health Survey 1998.Nairobi, National Council for Population and Development, Republic of Kenya.

Omondi-Odhiambo, M (1997)

'Men's Participation in family planning decisions in Kenya', Population Studies 51,No 1:29-40.

Population Reference Bureau, (1997)

World Population Data Sheet, Population Reference Bureau, Washington DC, USA.

Rahman, M.M. Islam, M.N and Islam, M.M (1996)

Users of Traditional Methods of Contraception in Bangladesh:1981-1991;Journal of Biosocial Science, July, 28(3):257-264.

Robey, Brant, Shea O.Rutstein, Leo Morris, and Richard Blackburn. (1992).

The Reproductive Revolution: New Survey Findings, Population Reports, Series M, Special Topics number, 11 (December), Baltimore, Maryland: John Hopkins University,Centre For Communication program, Population Information Program.

Rodriguez, G. (1978)

Family Planning Availability and Contraceptive Practice, International Family planning Perspectives and Digest, 4:100-115.

Silva S., De Silva V and Abeykoon A.T.P.L (1990)

Traditional Contraceptive use in Sri Lanka, A Cross-Survey Analysis, In DHS Further Analysis Series Number 2, (March).

Weinberger, Mary Beth, (1989)

Trends in Contraceptive Prevalence: Are Prevalence Rates Stagnating? International Population Conference, New Delhi, and Volume 1 Liege, Belgium: International Union for Scientific Study of Population. 217-238.

Weinberger, Mary Beth (1991)

Recent Trends in Contraceptive Behaviour.

In Proceedings of the Demographic and Health Surveys World Conference, Vol.1. Columbia, Maryland: IRD/Macro International.Inc. 555-573.

Sathar, Zeba, A. And V.C. Chidambaram (1984)

Differentials in Contraceptive use, WFS Comparative Studies Number 36 Voorburg, Netherlands International Statistical Institute.

UN. (1979)

Factors affecting the use and non-use of Contraception: Findings from a comparative analysis of selected KAP surveys, Population studies number 69 UN. New York USA.

UNECA, (1992)

Strategies to improve contraceptive use to influence Demographic Trends in African Countries, Addis Ababa, Ethiopia.

UNFPA, (1997)

The state of World Population, The Right to choose:

Reproductive Rights and Reproductive Health, UNFPA, New York, USA.

Zablan, Z. Choe, K.M., Palmore, J.A., Ahmed, T., Alcantara, A. and Kost, K. (1989)

Contraceptive Method Choice in the Philippines 1973-1983; Reprint from the Journal of Biosocial Science, Supplement Volume 11 (1989) pp. 61-74.