EAST AFRICANA COLLECTION

FACTORS INFLUENCING THE PRACTICE OF FAMILY PLANNING AMONG MEN IN CENTRAL AND WESTERN PROVINCES OF KENYA.

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BY

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2000

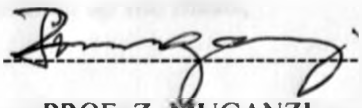
A Thesis submitted in partial fulfilment of the requirements for the degree of Master of Arts in Population Studies.

DECLARATION

This thesis is my own original work and has not been presented for the award of the degree in any other university.

DAVID OCHIENG' OMUODO

This thesis has been submitted for examination with our knowledge as supervisors:



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ABSTRACT

The decline in Kenyan fertility is a reflection of the rise in contraceptive use. Central and Western provinces provide contrasting stages in the fertility transition which is influenced by various demographic, socio-economic, and cultural factors. The problem of this study concerns how these factors influence men's use of family planning. The general objective is to contribute to the knowledge of the significance of male involvement in family planning to population growth. The specific objectives are to examine the demographic, socio-economic, and cultural factors related to men's family planning practice. Quantitative data was obtained from the 1993 KDHS. The methods of analysis used were cross tabulation and multiple logistic regression. The findings generally confirmed that family planning knowledge was extremely high, but knowledge was not necessarily commensurate with contraceptive use. Cross tabulation analyses showed expected relationships between current contraceptive use (dependent variable) and most of the independent variables [age, education, residence, income, ideal and actual numbers of children]; all determined whether family planning was adopted or not. The logistic regression analyses showed that, in Western Province, the respondents' numbers of living children, ideal numbers of children, and income status were the most significant determinants of contraceptive use. In Central Province only respondents' ages and level of education were significant. The study concludes that the great differences between family planning knowledge and practice levels may not be as mysterious as is often supposed. It is significant that the best-known methods are also the most used. Therefore, in a sense, this gap is superficial.

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LIST OF ACRONYMS

AIDS	Acquired Immune-Deficiency Syndrome
AVSC	Association for Voluntary Surgical Contraception
CAFS	Centre for African Family Studies
CPR	Contraceptive Prevalence Rate
FP	Family Planning
FPAK	Family Planning Association of Kenya
GDP	Gross Domestic product
GNP	Gross National Product
HIV	Human Immuno-deficiency Virus
IEC	Information Education and Communication
IPPF	International Planned Parenthood Federation
IPPFAR	International Planned Parenthood Federation Africa Region
IUD	Intra-Uterine Device
KCPS	Kenya Contraceptive Prevalence Survey
KDHS	Kenya Demographic and Health Survey
Kshs	Kenya Shillings
MMFPAK	Male Motivation in Family Planning Acceptance in Kenya
NASSEP	National Sample Survey Evaluation Programme
NCPD	National Council for Population and Development
OR/TA	Operations Research/ Technical Assistance
PRB	Population Reference Bureau

STD	Sexually Transmitted Disease
TFR	Total Fertility Rate
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USD	United States Dollar

CHAPTER 1: BACKGROUND INFORMATION

1.1. GENERAL INTRODUCTION

In any country there are multiple demographic, socioeconomic, and cultural factors that operate at societal and individual levels to determine family size. Kenya has entered another phase in her demographic transition. It is expected that, relative to the past, future mortality rate declines will be modest and therefore, not affect population growth significantly. Fertility is now the principal process governing growth (Brass and Jolly, 1993).

Fertility began to decline in the 1980s. The 1984 Kenya Contraceptive Prevalence Survey (KCPS) indicated this with a reported Total Fertility Rate (TFR) of 7.7 children compared with 8.1 children in the 1978/1979 period. The KCPS also showed that contraceptive knowledge, attitudes, and practice were undergoing change. While the 1989 and 1993 KDHS showed an acceleration of these changes. Astonishing increases in fertility observed in earlier data led to the prediction that fertility in Kenya would remain very high into the next century (Frank and McNicoll, 1987).

The most significant proximate determinant of the fertility decline was the rise in contraceptive prevalence (NCPD, 1995). This is usually defined as the percentage of couples in the reproductive ages using contraceptives at a point in time. Yet contraception is usually associated with women. This may be primarily because contraceptive choices for women are more varied than those

available to men. In sum, this is symptomatic of the family planning programme in Kenya. Deliberate and official involvement of men in family planning policy is a relatively new idea. The concept of family planning itself has been presented in the past with a restrictive meaning. That is, family planning as a means to child spacing and ensuring the health of the mother and the child. This has reinforced the belief that family planning is "women's business" (Diallo, 1984). The inevitable consequence of this is that men are viewed as the major obstacle to family planning.

It is now obvious that the bias of the national family planning programme toward women was a mistake. The de facto role of men as heads, protectors and providers of families is nearly universal at the international level. As such, men make most of the decisions that affect family life (Carlos, 1984), and specifically, reproductive matters. Men's support or opposition to their wives' practice of family planning has a strong effect on contraceptive use. Indeed, new demands are being placed on men as a result of the changing environment that is characterised by serious economic, social, cultural, and political problems.

Men are, in fact, concerned about the health and welfare of their families. It is, of course, true that in Kenya the traditionally high valuation of children is still a widespread motivational factor for high fertility. However, even those men among whom there is knowledge and approval of contraceptives, there is little access to family planning by way of motivation because the programme is designed with women in mind. In other words, the assumptions that the wife's motives are equivalent to those of the couple are misguided, not just in Kenya, but in most developing nations. If men are ignorant of, or misinformed about contraception, they will oppose family planning. Implicitly, lack of inter-spousal communication on these matters are more likely

to be a greater obstacle than male opposition (Omondi-Odhiambo, 1992)

Evidently, awareness of family planning among Kenyan men is very high and approval of family planning is significant in principle. This is apparent in Central and Western provinces where two of Kenya's largest ethnic groups are located. The Gikuyu primarily inhabit Central Province while the Luhya are located in Western Province. The demographic implications of the concentration of these groups in two small provinces are obvious. These areas exhibit some of the highest population densities in Kenya. Western Province is part of a series of plateaux that along with those in Nyanza Province form the Lake Victoria basin. The region is also characterised by relatively good soils and sufficient rainfall for agriculture. Central Province is in the Kenya highlands region and is characterised by high altitudes, rich soil, low temperatures, and good rainfall. It is intensively cultivated, growing many of Kenya's export crops. It is therefore, not surprising that Central and Western provinces are among Kenya's most densely populated areas. They differ greatly in demographic terms because Central Province is at the forefront of the fertility transition while Western Province has the highest fertility levels in the country. In both cases, as in the rest of the country, men are the principal decision-makers on family issues. Their participation in family planning would enhance efforts to promote it and ultimately, bring population growth down to manageable levels for development planning purposes. There is an unmet need for accessible, high quality services for men, or services which would encourage men to support their wives' use of family planning (FPAK,1994). Men are in fact knowledgeable about family planning. The link between knowledge and practice is generally hypothesised to be direct although contraceptive use is not always commensurate with awareness.

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1.2. STATEMENT OF THE PROBLEM

The levels of contraceptive use among Kenyan men do not reflect their knowledge levels. The attitudes men have towards family planning largely determine the success or failure of efforts to get them to make use of its services. Attitudes are, in turn, shaped by environmental factors which are socio-economic and cultural in nature, as well as demographic. These factors need to be examined. Their interrelationships and the mechanisms through which they operate to influence men's family planning knowledge, attitudes, and practice need to be investigated further.

Recent studies indicate that men are important to the success of family planning programmes. Men influence the acceptance and effective use of contraception. In general, family planning programmes in Africa have tended to focus on women, a factor that has led to underestimations of the influence of men on family size decisions. It is sometimes assumed that men are not interested in family planning and actually oppose it. These assumptions are now being questioned. It is apparent that they arise from the fact that, relative to women, men's attitudes are obscure. An examination of their knowledge, attitudes, and practice of family planning and the factors influencing them will shed light on the reasons for male fertility behavior and, perhaps, engender a more appropriate interpretation of the facts.

Among these reasons socio-economic and cultural factors appear to be of particular significance in explanations as to why high fertility norms are viewed by users to be in men's interests. It can be argued broadly that the major proportion of the economic costs of children is effectively invisible to most fathers. At most, these costs are felt indirectly by men. Consequently, economic

constraints such as the scarcity of land are not necessarily viewed by men as legitimate reason to limit fertility.

The education of children and the perceived value of education in the labour market are superficial influences of male demographic interests; a father may not necessarily feel obligated to educate his children equally. Moreover, another factor may enter into the fertility equation at this point; the bride-price anticipated from daughters remains an explicit facet of economic calculation, thus supporting high fertility. In addition, parents commonly derive tangible support, in their old age, from adult offspring through an upward intergenerational wealth flow.

In essence, various factors of demographic, socio-economic, and cultural nature interrelate through various mechanisms that are not immediately discernible. It is these factors and how they affect fertility that form the central problem in this study.

1.3. JUSTIFICATION OF THE PROBLEM

The selection of Central and Western provinces was influenced by the fact that these are contrasting areas in terms of fertility levels. The extent of male involvement in family planning may partially explain these differences, or, at least, give an indication of men's role in Kenya's fertility decline. Murang'a (in Central Province) and Kakamega (in Western Province) districts have densities of over 700 and 1000 persons per square kilometer respectively, which are comparable to those of Nairobi, the capital city. Moreover, two of the country's largest ethnic groups (and, therefore, significant proportions of the total population of Kenya) the Kikuyu and

Luhya inhabit these provinces, which offers varying cultural variables for examination. The prevalence of traditional cultural values are likely to be higher in Western Province than in Central Province, which has the lowest regional fertility levels outside Nairobi. Socio-economic considerations also influenced the selection of the two provinces. It is expected that modernisation and urbanisation break down traditional attitudes with regard to family planning. Central Province, being in close proximity to Nairobi, and Western Province, being a great distance away from it, would exhibit diverse characteristics in this regard.

Surveys are increasingly examining these socio-economic and cultural variables in relation to men's attitudes towards family planning, their use of family planning (modern contraceptive methods), their family size desires, and whether they feel they should participate in family planning decisions. Information on male attitudes and preferences is now viewed as essential given that men exert a great influence on the acceptance and continued use of contraceptive methods to limit births or to space them (Carlos, 1984). With the prevailing economic situation, stagnation and the debt crisis, the role of inter-spousal collaboration in the acceptance and continued use of family planning cannot be overstated.

It has been variously shown in recent studies that men are critical to the success of family planning programmes, in increasing the acceptance and effective use of both male and female contraceptive methods (Hawkins ed., 1992; Gachango, 1993; Ezeh et al, 1996; and IPPF, 1996). However, the negative effects of misinformation and rumours continue to obstruct the development of family planning.

Some studies show that resistance to vasectomy is due to rumours and anticipated complications

such as impotence (AVSC, 1994; NCPD and DRS, 1989). Moreover, in spite of the fact that men may be positive about family planning in general, most are still not well informed. Some men believe that contraceptive use by women would threaten their fidelity in marriage. In order to motivate men to use contraception it is likely that family planning programmes must be tailored to their social, cultural, and economic environment. It may be true that currently households are more concerned with survival than the demographic goals of their Kenya, but the adoption of family planning can and does enhance such survival efforts. The improvement of maternal and child health in, addition to contraceptive use, will decrease mortality, enhance the chances of survival into adulthood, and, thereby, reduce the need for the traditional strategy of bringing forth many offspring in order to minimise the effects of mortality on the prospects for old-age support for parents by their children.

1.4.OBJECTIVES OF THE STUDY

The general objective of this study is to contribute to the knowledge about the significance of family planning in population growth control by assessing the effect that male involvement can have.

The specific objectives are:

1. To examine demographic factors related to men's knowledge, attitudes, and practice of family planning;
2. To examine socioeconomic determinants of men's family planning knowledge, attitudes, and practice;
3. To examine the influence of cultural values on attitudes towards contraception and how this

affects men's use and non-use of family planning.

These factors have an important bearing on how decisions are made to use or not use contraception and whether, in the course of decision-making, there is significant inter-spousal communication.

1.5.SCOPE AND LIMITATIONS OF THE STUDY

The study focused on Central and Western provinces due mainly to the contrasts in their fertility levels, Western Province's being considerably higher than that of Central. The reliance on secondary data from the 1993 KDHS restricted the potential flexibility of the study, as would the use of any secondary data in general. Specific problems encountered in the 1993 KDHS data are worth noting because of the dependence of this study on that survey. These mainly include errors in the eligible man response rates shown in the table below.

Response rates were very high in both provinces with Western, in fact, recording the highest response rates of all the provinces in the country.

Apart from the adverse effects of missing values, problems with the recoding of variables from the KDHS meant that a single variable for knowledge of family planning could not be constructed. Instead, knowledge is defined by individual and specific contraceptive methods known to respondents. The original coding in the KDHS did not allow for merging of the different methods into a single variable for "modern contraceptive methods". This was mainly a function of the

inconsistent response rates with some method-responses missing in considerable proportions. A scale was, therefore, constructed to measure respondents' knowledge of modern contraceptive methods. Those who knew most of the eight methods specified were classed as having "good" knowledge of modern contraception. The rest were categorised as having poor knowledge of modern contraception.

TABLE 1: 1993 KDHS Men's Sample Implementation, Central and Western Provinces

Eligible Men	Province	
	Central	Western
Completed	84.5	95.1
Not at home	12.7	3.5
Postponed	0.0	0.0
Refused	0.6	0.0
Partly completed	0.6	0.0
Incapacitated	1.1	0.7
Other	0.6	0.7
Eligible man response rate	84.5	95.1

Source: NCPD (1994).
Kenya Demographic and Health Survey 1993, Nairobi and Calverton: Central Bureau of Statistics, Office of the Vice President and Ministry for Planning and National Development and Macro International Inc.

Problems in recoding were also encountered with regard to the respondents' "usual place of residence" for which only 4 out of 578 cases were valid in the KDHS data. This necessitated the use of another variable, "childhood place of residence" which was checked against responses for total "time lived in [that] place". Residence is hypothesised as very influential in shaping attitudes towards family planning, even if indirectly. It is this socialisation effect which is sought in the childhood place of residence variable. Moreover, many respondents stated that they had always

lived in their childhood place of residence (especially rural respondents), so this helped to minimise the effects of the loss of the variable for usual place of residence. A more detailed account of missing variables is given in Appendix 1 (Case Processing Summaries).

Comparatively less research has been done, especially of a qualitative nature, on the male side of the family planning equation relative to women. Therefore, the reliance on secondary data here will not yield new information, but rather, highlight the areas for which further research may be required, or may result in alternative interpretations of male family planning responsibilities.

CHAPTER 2:

LITERATURE REVIEW AND THEORETCAL FRAMEWORK

2.1. INTRODUCTION.

This section begins with an overview of the role of men in family planning. The family planning methods available to men are then outlined. The rest of the literature review cites various researches in this area at international and regional levels, as well as within Kenya. The theoretical framework develops the themes examined in the literature review and examines the relevant aspects of those to the study problem. The major concern in this area was how men influenced and were affected by family planning decisions, and what importance has been attached by various studies, if any, to the role of male family planning knowledge and attitudes in influencing its use.

2.2. LITERATURE REVIEW

2.2.1.Overview of male involvement in family planning.

In most cultures, men are the decision-makers within and outside the home. The man determines when and how often the couple will have sex and whether or not any form of contraceptive is used.

The oldest traditional methods, withdrawal and periodic abstinence, rely on male involvement (PRB, 1995). Currently, women's methods predominate, mainly because of rapid improvements in female contraceptive methods since 1965. Nevertheless, UN figures show that a third of all couples practicing family planning rely on methods that require male cooperation including modern methods like condoms and vasectomy. A closer examination of the modern methods reveals that only 5 percent of married couples rely on male sterilisation, making it the least used method. Contrastingly, female sterilisation is the most used contraceptive method in the world (Gallen, 1986). Hatcher et al (1990) note that a global study of male attitudes of family planning carried out by the Rockefeller Foundation in 1985 showed that, in general, men in developing countries do not want more children than their female counterparts, even in traditional societies. Whereas men tended to prefer sons to daughters, their desires in terms of overall family size were usually quite similar to women's. The study concluded that men are not the major barrier to women's right to choose a method of contraception (PRB 1995). Programmes in some countries of Africa, Asia, and Latin America are putting these theories to test through a number of initiatives, for example, "Daddy's Clubs" and "Men Only" family planning clinics in Ghana and Kenya, respectively (Johns Hopkins,1997; and IPPF South-East Asia and OceaniRegion,1996).

The situation in Sub-Saharan Africa is fairly uniform. There is a strong link between knowledge and use of contraceptives on one hand, and the level of educational attainment and economic status on the other. In particular, the condom is the most known male method. Media, both print and electronic, are vital sources of information on reproductive health for many. Men are more willing to support their wives in using contraceptives than they themselves are willing to use them. With the exception of periodic abstinence and withdrawal methods, both of which record high

failure rates, condoms and vasectomy are the only effective alternatives for men. Moreover, condoms may be used more for AIDS and STD prevention than birth control purposes. Vasectomy is a very controversial method, particularly owing to the misconceptions and rumours surrounding it. It is largely viewed as being tantamount to castration in Africa, and Kenya is no exception.

Although Kenya was a pioneering SSA country in initiating a national family planning programme, the effort concentrated on women. Male opposition to family planning does indeed exist. Whether that attitude can be generalised is contentious. Recent studies demonstrate this latter point. According to the 1993 KDHS, 99 percent of all married men aged 20-54 years knew of at least one family planning method (NCPD, 1994) with the condom being the most recognised. Sterilisation and withdrawal were among the least known concerning the use of family planning. 72 percent of married men had used a method at some time, with a little less than 50 percent having used a modern method. Those currently using family planning were 54 percent.

As Kenya faces increasing economic hardship, male interest in family planning has increased considerably. Men in urban areas are more likely to use family planning than their rural counterparts. As for non-use of contraception, men cite their wives' infertility, desire for more children, lack of knowledge, religious objection, or just plain opposition as reasons. Significantly, contraceptive use increases with education. The 1993 KDHS indicated that 32 percent of married men with no education, 47 percent with some primary education, 54 with completed primary education, and 66 with secondary education practice family planning.

Attitudes are not as easily measured as knowledge of family planning and contraceptive prevalence, but are important explanations for use levels. Misconceptions about family planning resulting from rumours about contraception have hindered the family planning programme in Kenya. For example, one of the oldest rumours is that the condom is made to fit European and not African men, or that a man cannot perform sexually after a vasectomy (Muigana, 1995). Traditional valuations of women as merely producers of children also hinder men's acceptance of family planning. Another reason found in less populated areas is the belief that since certain groups are few the population needs to grow to be at par with other provinces. Some politicians have gone on record for asking their people to ignore family planning, and multiply (Muigana, 1995). Along with those attitudes go the more conventional valuations of children as a mark of social status, potential labour, and as good investments for old age security by parents. There are also the more easily rectified problems of family planning logistics as regards service availability, acceptability and cost. Lastly, inter-spousal communication is acutely lacking. The 1993 KDHS found that some women use contraception without the knowledge of their husbands.

2.2.2. Contraceptive Methods for Men.

Contraceptive methods for men are limited as compared to those available to women. Family planning relies mostly on women's methods, not just in Kenya and Sub-Saharan Africa, but also worldwide (Hatcher et al, 1994). Indeed, the low contraceptive prevalence rate (CPR) among men could be related to the limited choice of male methods. The most effective male methods, as mentioned earlier, are the condom and vasectomy. Withdrawal methods and periodic abstinence have been shown to be relatively unreliable and record high failure rates (Hatcher et al, 1994).

However, the objective of this section is not to discuss the biological mechanisms through which contraceptives operate, but rather to highlight the specific points relevant to male family planning issues.

Gallen et al (1986) suggest that of all couples worldwide who practice any method of family planning (398 million in total), at least a third (138.8 million) use a method that requires active male participation: condoms (46 million couples), vasectomy (41 million), periodic abstinence (17 million), and withdrawal (35 million) are other significantly used methods (Hatcher et al, 1990). The biggest advantage of condoms is that they prevent not only pregnancy but also STDs and AIDS. However, it is mainly for the latter two preventive reasons that condoms are likely to be used in Sub-Saharan Africa especially. In Kenya condoms are the preferred method for single men who are sexually active (Wambui, 1995). Vasectomy is among the least known and used methods. About 45 million men worldwide have had a vasectomy, which is a stark contrast to the 140 million women who have had a tubectomy, a more complicated procedure (Gallen et al, 1986; and Wambui, 1995).

2.2.3. Men's Family Planning Knowledge Attitudes and Practice in Sub-Saharan Africa.

Most studies of men in Sub-Saharan Africa in recent times report generally positive attitudes towards family planning. Changing attitudes may indicate that men are concerned about the effects on household finance and family health of lack of family planning. More significantly, they show that men are more open to learning (or can be motivated to learn) about using modern

contraceptives (Greene, 1991). Indeed, on a broad level the situation is fairly uniform. There is a strong link between knowledge and use of contraceptives on the one hand, and the level of education attained and economic status on the other (Greene, 1991). In particular, the condom is the most known method. Mass media are vital sources of family planning information. African societies and large families have been synonymous with one another, although this is not unique to the continent. In recent years, programmes aimed at increasing contraceptive use have gradually considered men's family planning knowledge, attitudes and practice. The rationale for this is the realisation that the ultimate decision-maker in any patriarchal set-up would, naturally, be the man. It seems an obvious point but has been largely ignored by family planning programmes generally. At any rate, the Demographic and Health Surveys in the Sub-Saharan African region indicate that fertility decisions, like all other major family decisions, are heavily influenced by men.

Men have been known to view contraceptive use as a vice through which their wives will undermine the husband's authority at home and be promiscuous outside it (Greene,1991). Nevertheless, it is now evident in studies such as the Demographic and Health Surveys that there is an increase in knowledge of, favourable attitudes towards, and use of contraception among men (and women). The conceptualisation of knowledge of contraception has been difficult. Knowledge either of "any" or "a specific" method as reported by a respondent in a survey is not open to evaluation by the researcher, but rather accepted as such. This points to the gap between knowledge and use which is often inexplicable (IPPFAR, 1996). For example, the Demographic and Health Surveys often report higher levels of knowledge of contraception among men than women do.

Increases in knowledge of and changes in attitudes towards family planning are attributable to a variety of factors which may be grouped into two major areas: the severe economic deterioration that has hit Africa in the 1980s and, more recently, the 1990s; and public policies which have had dramatic results with regard to fertility and contraceptive use (Greene, 1991). Explicit population policies that have targeted fertility reduction and developed large service delivery systems and public information programmes designed to increase contraceptive use are beginning to produce results. Where male attitudes towards family planning are concerned, economic pressures are influential, as indeed they are for women. The linkages between economic development and fertility behaviour are primarily manifested in per capita income, child mortality, educational attainment, and the general costs of having children. Although the associations between these factors are not always strong in Africa, they indicate receptivity to smaller family sizes among particular groups (Betrand et al, 1993). For example, some multi-level socio-economic experiences of Botswana, Kenya, and Zimbabwe have contributed to their substantial increases in contraceptive use. These experiences include factors such as income and education. In the long-term, income is negatively associated with fertility primarily due to the relationship of changes in income with changes in other factors that reduce demand for children (Betrand et al, 1993). Measured at national level, income is represented by per capita GNP. Per capita GNP in developing countries is positively related to contraceptive prevalence. Compared to other sub-Saharan African countries, Kenya, Botswana, and Zimbabwe have higher incomes, a factor that sits well with their higher contraceptive prevalence rates. At the individual level, the direct costs of children's education to parents are influential in the case of Kenya (Kelly and Nobbe, 1990). It is estimated that household income, 10 – 15 percent is spent on each child (Betrand et al, 1993). How these experiences can translate into economic considerations is demonstrated by the use of

female sterilisation in Kenya. Kenyan men and women regard the potential economic burden of large families as and important consideration. As such, the motivations of acceptors of tubal ligation are generally economic; factors such as land shortages, financial constraints, and the expenditures necessary for educating children, as well as daily necessities, are frequently stated as motivations by acceptors (Betrand et al, 1993). Significantly, there is a widespread perception among acceptors of tubal ligation that this is a private matter between husband and wife (Betrand et al, 1993). Therefore, long-standing forms of African social organisation inhibiting family planning acceptance are not immutable.

2.2.4. Men's Family Planning Knowledge, Attitudes, and Practice in Kenya.

A husband's support or active disapproval significantly impacts on the adoption, non-adoption, and continued use of contraception by his wife. There is also evidence that there is an unmet need for easily accessible, high quality services for men, or services which would encourage men to support their wives' use of family planning (FPAK, 1994). Significantly, much of what is happening by means of men's support for family planning is in the absence of any major effort directed specifically at men. A pertinent question that arises is what will happen when a programme is specifically targeted at men? It has been argued that family planning programmes' tendency to focus on women over the years has inhibited their success, as indicated by the very low utilisation of services, high fertility, and prevailing preferences for large family sizes (Ndeti, 1986).

This section examines the socio-economic and cultural environments within which of family planning knowledge, attitudes, and practice among men are shaped in Kenya with specific

reference to Central and Western provinces. Initially, specific questions are answered in order to determine the status quo: To what extent are men aware of family planning? Do they know of specific methods? What are their sources of information on family planning? What are men's attitudes towards contraception? Do they discuss family planning with their wives? Who, according to men, should bear the responsibility for contraceptive use?

It is clear that men's knowledge of family planning is nearly universal. The concept of family planning is generally understood to include the reproductive health of mothers and child health, rather than just contraception. However, there exists a substantial gap between contraceptive knowledge and use. A study by the Centre for African Studies estimated the current contraceptive use to be at 29 percent and knowledge at over 80 percent (CAFS, 1995). The pill and the condom are the most commonly known contraceptive methods, recognised by 94 and 93 percent, respectively, of married men. Injections and female sterilisation are known to 88 percent of married men, the calendar rhythm method to 85 percent, and the IUD to 70 percent . Notably, only 50 percent of married men say they know of vasectomy (NCPD, 1994). However, the youngest cohorts (below 30 years), men with secondary education, Catholics, Protestants, Professionals, and farmers portray higher knowledge of male sterilisation in Central and Western provinces (NCPD and DRS, 1989).

This knowledge of FP and specific contraceptive methods stems primarily from radio (CAFS, 1995). In the CAFS survey, the majority of men who had heard of family planning had done so for the first time on the radio. An interesting insight into why men may have a higher awareness of family planning than women in some cases may be provided by the fact that men have better

access to media than women. 59 percent of men report that they read a newspaper once a week (compared to 31 percent of women), 31 percent of men watch television once a week (women, 15 percent), and 87 percent listen to radio weekly (women, 65 percent) (NCPD, 1994). Moreover, younger men are more likely to use these media than older men, while urban men are more likely than rural men to do the same (NCPD, 1994).

The level of male contraceptive use in Kenya is very low, as has already been noted. In most studies contraceptive use is defined by ever use, current use, use of any method, use of specific methods, use of traditional methods, and use of modern methods. Questions posed to male respondents about contraceptive use usually result in assessments of their wives' use. Not all women, however, use contraceptives with their husbands' approval. The previously mentioned CAFS study reports a 29 percent current use level of contraception among men. The 1993 KDHS reports that almost three-quarters (72 percent) of married men have used a contraceptive at some time. Less than half of these, however, have used a modern method. The rhythm method is the most commonly used (50 percent of married men), followed by the condom (27 percent), and the pill (about 24 percent). The general usefulness of data on ever use of contraception notwithstanding, a study of knowledge, attitudes, and practice with a view to predicting possible future trends will be better served by the examination, not just of "ever use", but specifically of "current use" of modern methods (Fischer et al, 1991; and Betrand et al, 1993 [A]).

Family planning is generally shrouded in misconceptions. Although this is not unique to male methods, vasectomy is probably the most significant example of this. Typical attitudes include beliefs like, a man is no longer a man after a vasectomy, vasectomy is like castration, a man

cannot have sex or ejaculate after a vasectomy, and even that a man becomes fat after the operation (AVSC, 1994). Yet, among men in Central and Western provinces, up to 30 percent recommend vasectomy for men other than themselves. This attitude arises out of the view that some men have more children than they can take care of (NCPD, 1989). Many men have misgivings about female contraceptives too, fearing that contraception encourages their wives to be promiscuous. The socio-cultural and economic rationales for these attitudes are examined presently. Suffice it to state at this point that attitudes towards family planning, and indeed fertility behaviour, are shaped by cultural values that are institutionalised in tradition; fertile women are highly respected while infertile women are viewed as having been promiscuous in their youth as a result of indiscriminate contraceptive use (NCPD, 1989). Nevertheless, men are aware of the general economic trends in Kenya, which are posing increasing difficulties for large families. They realise that some traditional beliefs have been overtaken by events, a fact more apparent in Central than in Western province.

There is very little substantive communication between spouses on family planning matters. Perhaps the best indicator of that lack of communication is the fact that women think men want more children than their wives. Certainly, more women than men currently want to stop having children. However, the average ideal number of children for men is 3.8 which is little different from that of women (3.7) (NCPD, 1994). Possible explanations for this are suggested in the 1993 KDHS for the relationship between ideal and actual numbers of children:

- to the extent that they are able to implement their preference, men who want large families will tend to have them;

- men who have large families may tend to rationalise their family size by reporting their actual number of living children as the ideal number;
- older men desire large families, presumably because they belong to a generation with stronger traditional values than younger men.

Societies have traditionally assigned men a privileged position within the family. The accomplishments by and on behalf of women in changing gender-based roles in society have not been accompanied by parallel accomplishments in changing the roles of men (UN, 1995). It is, therefore, still largely the case that Kenyan families, and especially men, attach great cultural, economic, and social value to children. Children ensure old age security; they are the link between the dead, living, and unborn (through naming systems, inheritance, and other attributes of traditional African culture); and they provide labour in food production. Consequently, any decisions made regarding any aspect of family life including family size must consider the contextual socio-cultural, economic, political, psychological and biological values (patriarchal values) held by men (Ndeti, 1986). In Kenya, the older men view reproductive decision-making as their prerogative whereas younger men favour joint decision-making with their spouses (CAFS, 1995). Implicit in this is that an attitudinal change is underway, influenced by changing societal values and circumstances.

Women's attitudes are more clearly defined. They are generally more receptive to family planning even when their partners are mot. Inter-spousal communication is minimal in the sense that individuals appear not to know the fertility preferences of their partners. An indicator of this is the fact that an unknown number of women are using family planning without their husbands'

knowledge. 70 percent of women indicate that it is men that want larger families than their wives (NCPD, 1989). The fact that men do not want larger families than their wives is not reflected in the level of family planning use among men. Furthermore, men prefer that women bear the responsibility for contraceptive use given that childbearing is the women's responsibility in the first place. Yet, the perceptions of men on where the responsibility for family planning lies, once they approve of it, is the most ambivalent aspect of men's attitudes towards family planning. It may be that men in Kenya still view family planning as "women's business". More research is needed in this area, particularly because male involvement in family planning has been shown to result in their practice of contraception (FPAK, 1994).

2.2.5. Cultural Factors Influencing Kenyan Men's Family Planning Knowledge, Attitudes, and Practice.

High fertility in Sub-Saharan African countries has been supported by cultural factors. The essence of the traditional belief system is the importance attributed to the succession of generations (Caldwell and Caldwell, 1987) or the perpetuation of the family lineage. Psycho-social variables such as the fear of being labeled "barren" encourage high fertility. A related argument is that religious values embodied naming customs also ensure high fertility. For example, the Kikuyu name their children after their parents, thereby ensuring at least four children; each named after the spouses' parents (Herzog, 1969). Therefore, fertility preferences, in terms of Kenyan cultural and socio-structural realities (Frank and McNicoll, 1987), and individual fertility decisions are made within a particular cultural (and socio-economic) context (Anker and Anker, 1982; Billsborrow, 1985; and Casterline, 1985). By implication, attitudes towards, and use

of family planning will also be determined in this way, particularly if knowledge of the same is predicated on a belief that family planning is not in one's interest.

More specifically, cultural values about children influence Luhya and Kikuyu men's approval or disapproval of family planning. In accordance with traditional beliefs held by Kenyan ethnic groups, children are means given by a creator to immortalize individuals and minimize the effects of death (NCPD, 1989). The predominance of the importance of children among both ethnic groups is explicable by the desire to perpetuate the family name; the fear that extinction of a family name signals the extinction of kinship groups and thereby cutting off the ancestral spirits visiting the Earth because there will be no one left to communicate with them.

It is important to stress the fact that cultural beliefs tend not to distinguish between inability to bear children and decisions not to bear children. Use of family planning methods may easily be interpreted as being at par with barrenness. The underlying cause of such perceptions is the importance attached to children. Indeed, Luhya and Kikuyu men consider the perpetuation of immortality one of the functions of children irrespective of the levels of education those men have attained (NCPD, 1989). Moreover, children are valued highly for emotional reasons; as sources of happiness, and as a reflection of a man's wealth. Consequently, infertility is frowned upon. A note of caution is necessary here, however. Although infertility is often attributed to family curses or witchcraft, it is apparent that this is the view of a minority, albeit a sizable one. For example, 68.3 percent of Luhya and Kikuyu men do not believe infertility is caused by curses or witchcraft whereas 31.7 percent of them believe it is (NCPD, 1989).

Polygamy can be viewed as a family institution that guarantees the perpetuation of lineage, though scholars are not agreed on this. Men marry more than one wife for both fertility and non-fertility reasons. When Kikuyu and Luhya men are compared this point can be illustrated. A Kikuyu polygamist is more likely to marry because of the first wife's infertility than a Luhya man (NCPD, 1989). By implication, although the desire to have children would be a major motivational factor for polygamy among both tribes, it would seem that cultural considerations in this example work indirectly for the Kikuyu and more directly for the Luhya. That is, the need to have children can lead to polygamy only when a Kikuyu man's first wife cannot bear children, whereas among the Luhya, the taking of a second or more wives are less likely to be determined by the bareness of one's wife. The result of all the cultural considerations discussed thus far is that men will determine whether family planning is appropriate or not. The high level of support men claim to give their wives is not consistent with the relatively low utilisation of family planning services and methods. Men with many children (5 or more) in Kenya believe that it is a man's prerogative to decide on family planning matters (NCPD, 1989). Such a discrepancy suggests that traditional values are still deeply rooted and it requires investigation, and that statements made by men in support of family planning do not necessarily translate into its use.

Religion and its effects on male fertility is an area that is even less investigated. The conventional classifications in Kenya researches are: Muslim, Catholic, Protestant, Other Christian, None (no religion), and Other (other religion) (NCPD, 1989). It would seem that difficulties arise in attempts to separate the effects of religion from the effects of traditional values on fertility. Generally, however, people with no religion tend to want more children (CAFS, 1995). It is also noteworthy that Catholics and Protestants portray higher knowledge levels of family planning

(NCPD, 1989). While this may be a positive development, it is also checked by the belief among the same religious groups that men are responsible for making fertility decisions (CAFS, 1995), which suggests the influence of traditional values even in these religions.

It is evident that even in the face of modernisation, traditional cultural factors are still primary fertility decisions. Nevertheless, culture is not a static phenomenon, and values are changing, spurred by the prevailing socio-economic environment which is not conducive to high fertility. It is to these aspects of development that the review now turns.

2.2.6. Socio-economic Factors Influencing Kenyan Men's Family Planning Knowledge, Attitudes, and Practice.

Income, child mortality, place of residence, educational attainment, and the costs and benefits of having children are all-important factors that may influence fertility behaviour (Onyango-Ndege, 1991; Betrand et al, 1993; Muhuri et al, 1994, and Kyalo, 1996). Although associations between these factors are not always strong in sub-Saharan Africa, they indicate a receptivity to smaller family sizes among particular groups (Betrand et al, 1993). Kenya's socio-economic experience may have influenced substantial increases in contraceptive use. As has been variously noted, however, features of the traditional African social structures remain important determinants of the demand for children. Forms of organisation such as the high value attached to the perpetuation of the lineage, the importance of children as a means to access to resources (especially land), the use of kinship networks to share the costs and benefits of children (primarily through child fostering), and the weak nature of conjugal bonds obviously offer resistance to contraceptive use. The latter

point refers to the weakness of polygamous unions relative to monogamous ones in terms of emotional closeness of couples.

Increased conjugal closeness, demonstrated by inter-spousal communication in family planning matters, has come about against a background of escalating costs of raising children, deflation incomes, and higher educational aspirations of individuals. This change in marital relations is pronounced in urban areas and among well-educated people. An additional factor responsible for change is the clear link between programme implementation and contraceptive use. In Kenya, political commitment to population policy has enabled the implementation of population programmes by various organisations. Consequently, contraceptive use levels are continually rising. Education of women is viewed as the most significant variable influencing the use of modern contraceptive methods. Contrastingly, a cultural factor, polygamy is perceived to be generally accompanied by low CPRs because it is a proxy for aspects of the high fertility rationale (Betrand et al, 1993).

A pertinent issue that arises out of the preceding discussion is whether the same socio-economic variables (income, place of residence, child mortality, educational attainment, and the costs and benefits of having children) hold in the case of men in Kenya. Much has been said about the importance of female education as a determinant of demographic behaviour in general, and of family planning behaviour. Yet, here too there are problems. Although improvements in female education are associated with increased contraceptive use, there is often a lack of controls for the effect of income, which may distort the relationship (Betrand et al, 1993). In essence, increases in female education are hypothesised to result in higher incomes. Both education and income are

directly associated with contraceptive use. Yet, to establish which of these variables is primary in bringing about lower fertility is difficult. Consequently, income has seldom been included in many studies.

In reality, all the variables under discussion are interrelated. Only for measurement purposes are they taken as independent variables. A case in point is the association between education and income discussed above. This appears to apply to Kenyan men and not just the women. Older men are not as likely to be as highly educated as younger men, and urban men are more educated than rural men (NCPD, 1994). The higher the men's education, the more receptive they are to family planning. Similarly, child mortality and the costs and benefits of having children are interrelated variables. High levels of child mortality tend to sustain the demand for a large number of children among parents seeking to insure themselves against possible future loss or as compensation for deaths that have already occurred (Betrand et al, 1993). An illustration of this is Nyanza Province where infant mortality (127.9 deaths per thousand children under the age of one year) and child mortality (67.5 deaths per thousand children aged 1 to 5 years) is the highest in Kenya, and the TFR (5.8 children per woman) is second only to Western Province (NCPD, 1994).

Examination of the socio-economic context of fertility would be incomplete without a discussion of the effects of the prevailing economic conditions on family planning in Kenya. Two contending hypotheses are relevant here. Firstly, it is argued that low levels of socio-economic development sustain the demand for a large number of children. Features that characterise this regime are low levels of female education, high infant mortality, and large percentages of the population living in rural areas (World Bank, 1986). Secondly, it is hypothesised that the current economic crises in

Africa are causing many Africans to change their attitudes regarding family sizes and increasing their receptivity to FP (Caldwell and Caldwell, 1987).

In Kenya, the economic downturn of the last decade and a half has, in fact, been accompanied by rapid fertility decline, a fact that strongly identifies with the second argument above. Yet one cannot rule out the effect of economic hardships helping to sustain large family desires. In the face of significant GDP growth in the 1960s, 1970s, and, to a lesser extent, the 1980s, real incomes have not improved, and actually fell in the last decade. Therefore, though Kenya may be better off in Sub-Saharan African terms, it still ranks among low-income countries at the international level (UNDP, 1995). These factors, combined with escalating costs of child rearing would, presumably, create an environment that functions as a deterrent to large families, and create a greater demand for family planning among the population. The situations in Western and Central provinces reflect this fact. Generally, Luhya and Kikuyu men regard children as a source of family income, though this is more pronounced among the former group. Of old age security, the vast majority of Luhya men believe this is provided by children. Even though this attitude is less pronounced among Kikuyu men, those who have it still form the majority within the group (NCPD, 1989). The effect of education on the belief that children are a source of old age security is not significant. This implies deeply rooted traditional values. Yet men countrywide share the belief that smaller family sizes are associated with positive qualities (such as better education for children, improved family health, and more equitable use of family resources). For the Luhya particularly, this view is common, which may reflect the extent to which population pressure on land is felt (NCPD, 1989). Certainly, the Kikuyu experienced such pressure, but the higher fertility among the Luhya has built a greater momentum into their population growth. As a result, the long-term consequences

will be felt, especially in terms of the ratio of population to land. Implicit in all this, therefore, is the higher prevalence of family planning practice among the Kikuyu. This would explain the fact that the TFR in Central Province is the fastest declining one in Kenya. Table 2 shows these trends in relation to the rest of the country at the times of the 1989 KDHS and the 1993 KDHS.

TABLE 2: Trends in fertility by province (TFRs by percentage change 1984-88 and 1990- 92)

PROVINCE	1989 KDHS 1984-1988	1993 KDHS 1990-1992	PERCENT CHANGE
Nairobi	4.6	3.4	- 26
Central	**6.0**	**3.9**	**- 35**
Coast	5.5	5.3	- 4
Eastern	7.0	5.9	- 16
Nyanza	7.1	5.8	- 18
Rift Valley	7.0	5.7	- 19
Western	**8.1**	**6.4**	**- 21**
Total	6.7	5.4	- 19

Source: NCPD (1994).
Kenya Demographic and Health Survey 1993. Nairobi and Calverton: Central Bureau of Statistics, Office of the Vice President and Ministry for Planning and National Development and Macro International Inc.

The TFR for Central Province has declined by 35 percent compared to 21 percent for Western Province. Of the socio-economic factors mentioned in this review as indicators of the downward fertility trend, education poses a problem. Apparently, Western Province has a greater proportion of men with secondary or higher education (47.4 percent) than Central Province (40.7 percent). In the case of women the pattern conforms to the trend that higher levels of education are associated with lower fertility. The proportions of women with secondary or higher education in Western and Central provinces are 25.8 and 31.3 percent respectively (NCPD, 1994). This reaffirms the earlier observation that associations between socio-economic factors and fertility are not always

strong in Sub-Saharan Africa. Nevertheless, it has been shown that men are increasingly drawing links between fertility and the prevailing socioeconomic environment.

Generally, knowledge of modern contraceptive methods is very high. Moreover, the vast majority of men know of a source of modern methods. The level of knowledge of a modern contraceptive method among married men is higher in Western Province (99.4 percent) than in Central Province (95.6 percent), whereas the percentage of men who currently use a modern method is considerably higher in Central (44.5 percent) than in Western (32.4), confirming the point that knowledge is not always commensurate with use (NCPD, 1994). These differences may be indicators of the fertility attitudes in those provinces, but they can only be considered cautiously given the small samples used in the 1993 KDHS; 226 men in Central Province and 212 in Western (NCPD, 1994).

The correlates of men's FP knowledge, attitudes, and practice are even less researched than education. Income is widely perceived interchangeably with occupational status. Occupation is, in effect, a proxy indicator of a set of related variables that affect contraceptive use. An individual's occupation reflects his education, income, type of place of residence, and his family's social standing (Omondi-Odhiambo, 1992). A man's occupation exerts a positive direct influence on a couple's current contraceptive use, suggesting that husbands employed in higher status occupations are more likely to use contraceptives.

The effects of infant and child mortality are not well established, except for the fact that a child's death truncates breastfeeding leaving a woman exposed to the risk of conception (Betrand et al,

1993). This is based on the assumption that no contraceptives are being used. In addition, behavioural linkages between mortality and fertility consist of insurance and replacement effects. That is, the former having to do with the influence of perceived or anticipated mortality risks on decisions regarding fertility; the latter having to do with the household response to an actual child death. A high negative correlation between infant mortality and contraceptive use has been reported in Kenya by Kelley and Nobbe in 1990 (Betrand et al, 1993).

Central and Western provinces alone account for about 27 percent of Kenya's population. The consequences of population growth are keenly felt. In 1989 51 percent of Luhya men earned less than Kshs 10,000 compared to 30 percent of Kikuyu men (NCPD, 1989). Considering that per capita GNP has been falling since then, and is currently about USD 330 --- about Kshs 18,000 at the exchange rate of 54 shillings to the dollar --- (UNDP, 1995), it is obvious that the economic environment is not conducive to large family sizes. The poverty in Western Province is largely due to lack of adequate land, poor farming techniques and lack of non-farm employment opportunities among others (NCPD, 1989). Population growth may have aggravated the situation. It is, therefore, evident that socioeconomic factors influence fertility attitudes and behavior, and, ultimately, contraceptive prevalence. However, this transition takes time and is not an automatic consequence of external pressure. Attitudes are shaped by perceived benefits of and interest in family planning (Sai, 1994). Essentially, family planning should address the fears men have, such as that contraception allows women excessive freedom that promotes promiscuity while undermining the husband's control over his wife's sexuality (Onyango-Omuodo, 1996). Family planning has often been viewed as a change that threatens men's security and in such a context it can be resisted even in socioeconomic conditions that may favour a high level of contraceptive

use.

2.2.7. Summary of Literature Review

Often men are cited as the main obstacles to family planning when in fact they participate in family planning decisions. Kenyan men take an interest in planning their families and use contraceptives to achieve their goals. The recent fertility decline was probably due in part to changes in men's attitudes. Men's participation in family planning can mean using male methods, but more often it means relying on women's use of their contraceptive methods, hence the focus on women by family planning programmes.

In most cultures, men are the decision-makers both within and outside the home. Their involvement in family planning is in itself an age-old fact. The oldest traditional methods (withdrawal and abstinence) rely on the involvement of men. Up to a third of married couples worldwide rely on the methods that require men's participation.

In general, men do not want more children than women even in traditional societies. In Africa, there is a strong link between knowledge and use of contraception on one hand, and the level of education attained and economic status on the other.

Men are more willing to support their wives' use of contraceptives than to actually use any themselves. The only reliable methods men have available to them are the condom and vasectomy. The latter method is shrouded in rumours and misconceptions, while the former one

may generally be viewed by men as protection against STDs and HIV/AIDS than as a contraceptive.

In Kenya 99 percent of men aged 20-54 years know of at least one family planning method. Contraceptive use is higher in urban areas and increases with educational attainment. Men's attitudes towards family planning are shaped by the traditional cultural high valuations of children. Inter-spousal communication about family planning is very limited. In many cases women do not use contraception because their husbands object to it, or because they think the husbands object. Men are wary of contraception and feel it gives their wives too much freedom, undermines their control of their wives' sexuality, and encourages the women to be promiscuous. Yet, in many cases men portray higher levels of contraceptive knowledge than women. However, knowledge is not always commensurate with practice.

The most important medium for knowledge about family planning in Kenya is radio. There are still misconceptions surrounding family planning, particularly concerning vasectomy, which is commonly equated to castration. Kenyan men attach great cultural, economic, and social value to children and many view reproductive decision-making as their prerogative. However, these tend to be men aged over 40 years. Younger men indicate that it is more prudent to discuss family planning with their wives. Therefore, culture is not static, as the changes in fertility preferences have proved. Both Luhya and Kikuyu men acknowledge the changing circumstances and adjust accordingly. Changes in the cost of rearing children and educational aspirations, as well as deteriorating economic conditions, may be resulting in increased conjugal closeness and communication about family matters. The consequences of population growth and adverse

economic factors are keenly felt in Central and Western provinces as in the rest of the country. Evidently, socioeconomic factors influence fertility attitudes and behaviour, and, ultimately, contraceptive prevalence. Contraception in Kenya is used not only for birth limitation but also for birth spacing. The latter may be a very important motive for contraceptive practice.

2.3. THEORETICAL FRAMEWORK.

It was evident from the literature review that the various studies or findings discussed had a variety of foci. Historically, these foci have been economic and sociological, though purely cultural factors are increasingly important in demographic studies. Consequently, fertility theories are diverse. No single framework is agreed upon. The theories discussed here are useful if an eclectic approach is used. Various social disciplines have contributed to fertility transition theory, and rather than try to prove the suitability of any one approach, it would be more relevant to examine them together because they are interrelated.

Demographic transition theories are macro-level analyses of long- term population trends which are loosely applicable to most populations, but based on the historical experience of Western Europe. Blacker's (1947) stages of demographic evolution are perhaps the most sensitive and, therefore, suitable:

1. The high stationary stage characterised by high birth and death rates;
2. The early expanding stage, with high birth rates and high but decreasing mortality,
3. The late expanding stage, with falling birth rates but more rapidly declining mortality;
4. The low stationary stage, with low birth rates balanced by equally low death rates;

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5 The declining stage, with low mortality, lower natality, and deaths exceeding births.

It is immediately evident that this model would pose difficulties if applied to the Kenyan experience. The declining fertility in Kenya is not accompanied by rapidly declining mortality as would be in stage III, but rather, by a slowing in mortality decline. Contradictions such as these, in the experience of many other nations, led to criticisms of demographic transition theory, from which other more micro-level theories flowed.

Economic theories of fertility generally discuss fertility as a rational phenomenon. Families are assumed to choose a specific family size conducive to the maximisation of their well-being. Becker (1960) is one of the foremost proponents of this theory. Often, factors like the time required of the mother and the cost of raising quality children are included in economic analyses. The major assumption of this framework is that increased costs of child rearing will push the demand for children down.

Caldwell's wealth flow theory (1976) is more closely associated with fertility experiences in developing societies. He argues that fertility remains high as along as wealth flows from children to parents for reasons which are economically rational. In other words, parents have an incentive to have many children. Moreover, "economic rationality" is culture specific. On the other hand, when the family is nucleated, there will be a reversal in the direction of wealth flow.

Other theoretical approaches combine these economic and sociological explanations for fertility behaviour. They imply that individual fertility decisions occur within a particular socio-economic

and cultural context. Anker and Anker (1982), Billsborrow (1985), and Casterline (1985) view community- level factors including communication and educational facilities determine the way in which individual factors influence fertility. This proposition is related to the common assumption that family planning will be adopted once knowledge regarding its existence is widespread. The Kenyan experience suggests otherwise given the high levels of knowledge and low levels of use evident among men.

The Easterlin and Crimmins framework is relatively easier to apply (Mhlogi, 1996). Generally, fertility is seen as a function of proximate determinants, which are, in turn, affected by socio-economic variables. Brass and Jolly (1993) apply this framework using Bongaarts' proximate determinants in their study of the population dynamics of Kenya. The shift from natural fertility (where modern family planning is absent) to a controlling regime (where contraceptive use is the primary determinant of fertility) is essentially a result of the adoption of contraception. The adoption of contraception is determined by the balance between motivation to regulate fertility and fertility regulation costs which are both subjective and economic.

The theories discussed above can be categorised into three levels (Betrand et al, 1993):

- At the national level the social policy environment of a country has direct implications for reproductive practices, particularly policies regarding education. The prevailing economic situation in a country is significantly related to fertility. It is generally argued that there will be little or no fertility decline without improvements in the standard of living. At the same time it is also argued that deteriorating economic conditions could diminish demand for children. Government and donor support for FP is crucial in changing attitudes toward contraception, a

factor that has been recognised in Kenya.

- At the regional level, differences in economic activity, standards of living, transportation and communications infrastructure, and ethnic composition can have direct implications for fertility behaviour. In this respect, influential factors like urbanisation will affect family planning adoption in that high levels of urbanisation, in much the same way as factors like education, are conducive to contraceptive use and indicate high levels of modernisation. Also, social and political forms of organisation are significant factors for authorities like chiefs tend to have greater influence than government officials.

- At the community and individual level, household and kinship structures determine how decisions are made and who makes them. Traditional patriarchal structures are always accompanied by pro-natalist pressures characterised by weak conjugal bonds and polygamy. Ultimately, it is the individual who must decide whether or not to use a contraceptive. At this point, inter-spousal communication is a useful indicator. If there is a high level of this, it can be assumed that contraceptive prevalence will be high and vice-versa.

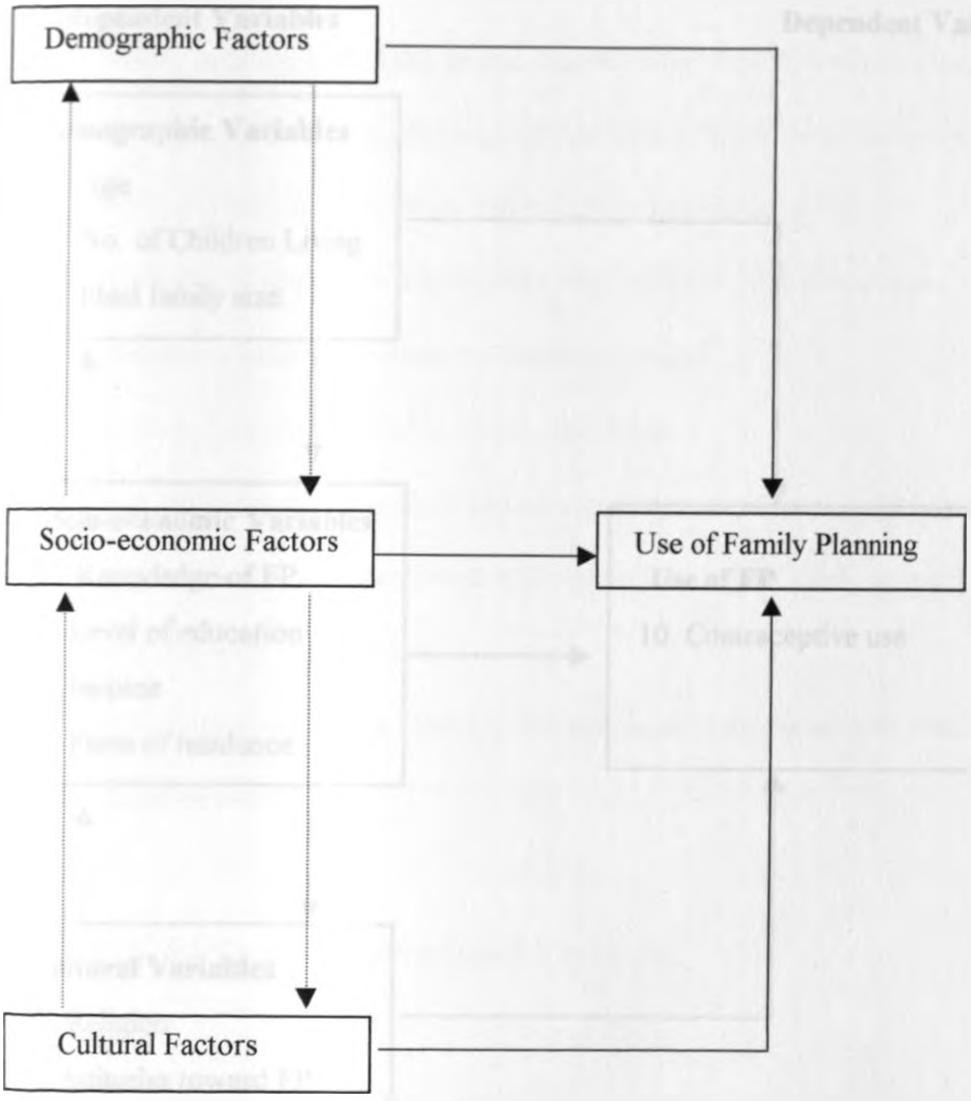
The point needs to be made that the factors enumerated above may not necessarily be confined to any one of the three categories. For example, the focus of this study is on demographic, socio-economic, and cultural influences of fertility, all of which obtain at all levels. This calls for an approach that combines elements of the theoretical approaches discussed above that are relevant to this study. That is, fertility is seen as a function of proximate determinants which, in turn, are affected by socio-economic factors (as earlier stated), as well as demographic and cultural factors.

Using the framework formulated by Bongaarts et al (1984), nine proximate determinants are defined: percentage of women in sexual union, frequency of sexual intercourse, postpartum abstinence, lactational amenorrhoea, contraceptive use, induced abortion, spontaneous intrauterine mortality, natural sterility, and pathological sterility. Our main interest lies with contraception. Therefore, this framework can be adapted in a more focused form to assess the relationship between various background variables and contraceptive use and family planning in general, as is exemplified and illustrated in the conceptual statement and model below.

2.3.1. Conceptual Statement.

Family Planning is a central component of population policy and development planning because of its direct influence on fertility. The decision to adopt family planning hinges on knowledge of, attitudes toward, and availability of its services. Therefore, knowledge and attitudes of family planning are influenced by demographic, socio-economic, and cultural factors, which determine the level of use of family planning.

2.3.2. Conceptual Model.



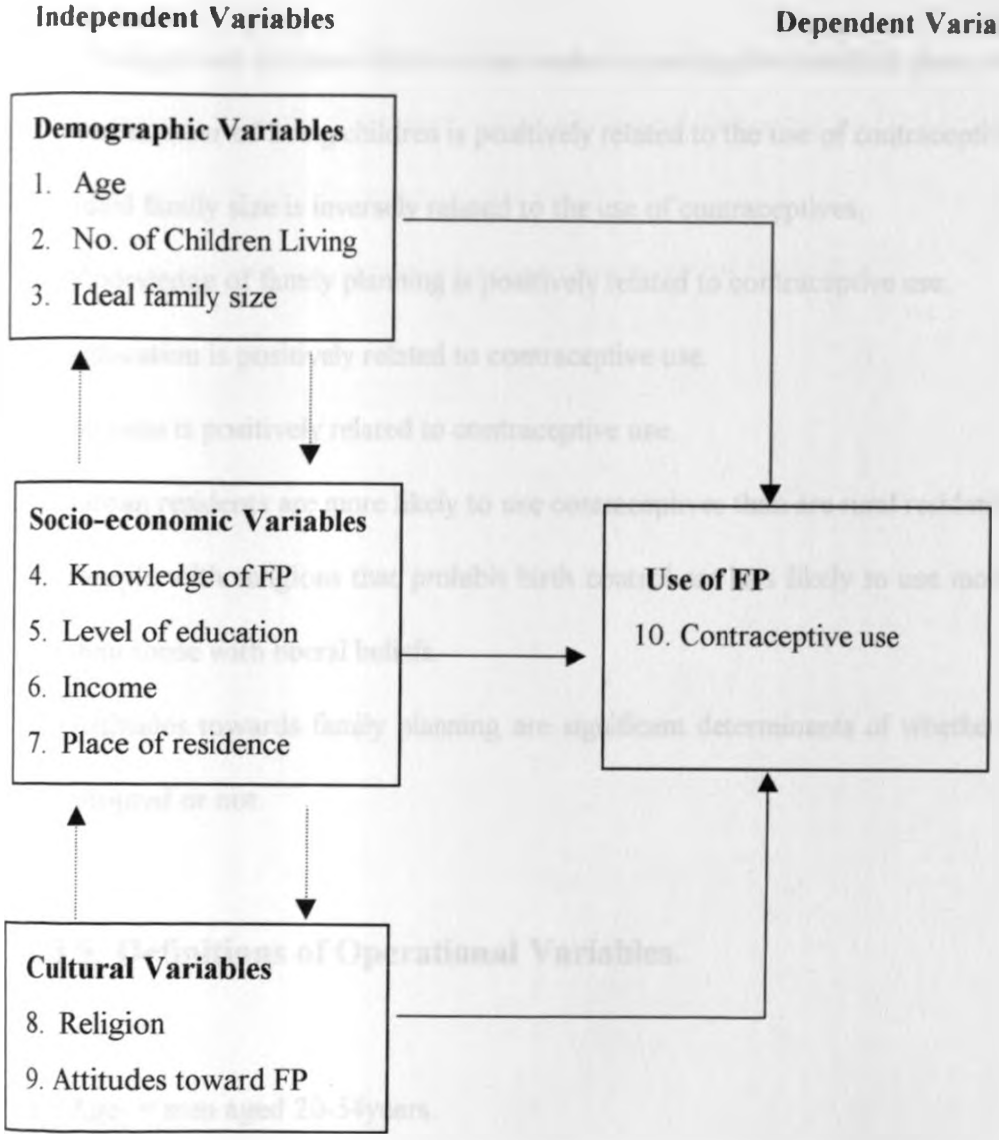
Key

Shows interaction between environmental factors.

Shows influence of environmental factors on family planning.

Source: Adapted from Bongaarts et al (1984) 'The Proximate Determinants of Fertility in Sub-Saharan Africa' in Population and Development Review 10 (3): 511-537., and Brass and Jolly eds. (1993) Population Dynamics of Kenya. Washington DC: National Academy Press.

2.3.3. Operational Model



Key

Shows interaction between independent variables.

Shows influence of independent variables on dependent variable.

Source: Adapted from Bongaarts et al (1984) 'The Proximate Determinants of Fertility in Sub-Saharan Africa' in Population and Development Review 10 (3): 511-537., and Brass and Jolly eds. (1993) Population Dynamics of Kenya. Washington DC: National Academy Press.

2.3.4.Operational Hypotheses

1. Younger men are more likely to use modern contraceptive methods than are older men.
2. The number of living children is positively related to the use of contraceptives.
3. Ideal family size is inversely related to the use of contraceptives.
4. Knowledge of family planning is positively related to contraceptive use.
5. Education is positively related to contraceptive use.
6. Income is positively related to contraceptive use.
7. Urban residents are more likely to use contraceptives than are rural residents.
8. People with religions that prohibit birth control are less likely to use modern contraceptives than those with liberal beliefs.
9. Attitudes towards family planning are significant determinants of whether family planning is adopted or not.

2.3.5. Definitions of Operational Variables.

1. Age = men aged 20-54years.
2. No. of living children = respondents' own sons and daughters.
3. Ideal family size = no. of children a man would like to have. For those who have children this refers to the number they would choose if they could go back in time to before the birth of their first child.
4. Knowledge of FP = knowledge of any contraceptive method, knowledge of modern contraceptive methods, and knowledge of a source for modern contraceptives.

5. Level of education = primary, secondary, university.
6. Income = regular wage or salary.
7. Place of residence = urban, rural.
8. Religion = Catholic, Protestant/ Other Christian, Islam, none, and Other (religion).
9. Attitudes toward FP = approval, disapproval.
10. Current use/non-use of any and modern contraceptive method(s).

CHAPTER 3: METHODOLOGY.

3.1. INTRODUCTION.

Quantitative data for this study was obtained from the 1993 KDHS. The data provided the basis for analysis. This chapter discusses the collection and the quality of the data followed by the methods of analysis used in the study.

3.2. DATA COLLECTION.

The 1993 KDHS was undertaken to evaluate population, health, and the national family planning status. The sample for the 1993 KDHS excluded Isiolo, Samburu, and Turkana districts, as well as North Eastern province. Together, these areas account for less than 4 percent of Kenya's population. The sample points were selected from a national master sample maintained by the Central Bureau of Statistics (CBS), the third National Sample Survey Education Programme (NASSEP) which was an improvement on the NASSEP 2 used in the 1989 KDHS. This master sample follows a two-stage design, stratified by urban-rural residence, and within the rural stratum, by individual district. In the first stage, 1989 census enumeration areas were selected with probability proportional to size. The selected enumeration areas were segmented into the expected number of standard-sized clusters to form NASSEP clusters.

Fifteen districts were targeted in the 1993 KDHS: Bungoma, Kakamega, Kericho, Kilifi, Kisii, Machakos, Meru, Murang'a, Nakuru, Nandi, Nyeri, Siaya, South Nyanza, Taita-Taveta, and Uasin Gishu; in addition, Nairobi and Mombasa were also targeted. Although six of these districts were sub-divided shortly before the sample design was completed, the previous boundaries of these districts were used for the KDHS in order to maintain comparability with the 1989 survey. Due to this over-sampling, the KDHS sample is not self- weighting at national level.

After the selection of the KDHS sample points, a household listing operation was conducted prior to the launching of fieldwork, A systematic sample of households was selected from these lists. Out of the 8805 households selected, 7,950 were successfully surveyed, a completion rate of 90 percent. A completion rate of 85 percent was reported for men, 2,336 of whom were interviewed. Western province had a higher completion rate than Central province.

3.3. DATA QUALITY

It has already been noted that the completion rates for interviews were high in Central (84.5 percent of eligible men) and Western (95.1 percent) provinces. However, like all surveys two types of errors, non-sampling and sampling errors, affected the KDHS. The former results from mistakes made in the implementation of data collection and processing. The completion rates mentioned above are and example of such errors. Non-sampling errors may be minimised but are impossible to avoid and difficult to evaluate statistically.

In contrast, sampling errors can be statistically evaluated. The sampling error is a measure of the

variability between all possible samples from the same population. The statistic that gives the sampling error is the standard error (SE). The standard error helps in testing whether the difference between observed and expected frequencies could arise due to chance. It gives an idea about the reliability and precision of a sample and enables us to specify the limits within which the parameters of a population are expected to lie with a specified degree of confidence (the confidence interval). The criterion usually employed is that if a difference is less than three times the standard error, the difference exists as a result of chance. If the difference is equal to or greater than three times the standard error (3SE), chance does not account for it and we conclude that the difference is significant. This criterion is based on the fact that at the mean plus or minus three times the standard error the normal curve covers an area of 99.73 percent (Kothari, 1992). Sometimes the criterion of two times the standard error (2SE) is used. This is the case with the 1993 KDHS. In the case of 2SE the normal curve area is 95.45 percent. The area is what we refer to as the confidence level of any assertion pertaining to the results of analysis.

Due to the fact that the KDHS sample was not a simple random one, sampling errors were calculated using complex formulae. For the purposes of this study, it is sufficient to note that because of the 2SE criterion used in the KDHS, there is a 95 percent probability that each statistic obtained for each variable used in analysis is the true one. Therefore, the errors that may result are minimal and are due to chance as opposed to bias.

3.4. METHODS OF DATA ANALYSIS.

3.4.1. Cross Tabulation analysis.

Cross tabulation enables the combination of two or more variables to describe a problem or arrive at explanations for it. In cross tabulation each variable is classified into two or more categories and then the variables in the sub-categories are cross-classified. Interactions between them are then sought. These interactions may be symmetrical, reciprocal, or asymmetrical. A symmetrical relationship is one in which the variables vary together, but assume that neither is due to the other. A reciprocal relationship exists when the two variables mutually influence each other. An asymmetrical relationship exists if one variable (the independent variable) is responsible for another variable (dependent variable).

The cross-classification procedure begins with a two-way table, which indicates whether or not there is a relationship between the variables. This sort of analysis can be further elaborated in which case a third factor is introduced into the conditional relationships in which factor X appears to affect factor Y only when factor Z is held constant. This latter approach is, however, beyond the scope of this study. Two levels of cross tabulation were used in this study. At the first level relationships between various variables were analysed. For example, age by education, ideal number of children by number of living children, and residence by approval of family planning. The need for this arose out of the fact that many of these factors were interrelated. These interrelationships needed to be examined before their influence on family planning was sought. The second level of cross tabulation analysed the effect of selected variables (as defined in the

section on operationalisation) on current use of modern contraceptive methods, the proxy variable for family planning in this study. This way, there was a specific focus that could be measured with a greater degree of confidence. The advantage of cross tabulation analysis is that it shows whether relationships exist between phenomena, which may not be measurable in absolute terms such as attitudes. The main disadvantage of this method is that, statistically, correlations observed in cross tabulation are not considered to be adequately analytical. Notwithstanding that limitation, this method enables the creation of logical categories that form the foundations for regression analysis.

3.4.2. Multiple regression analysis.

Multiple regression analysis can be regarded as a descriptive, as well as an inferential method. It describes the linear dependence of a variable(s) on others and evaluates the relationships between them. Regression analysis is ordinarily performed on metric variables like income, measured in tens, hundreds, thousands... of currency units. To characterise what is the typical income for our case we may calculate the mean income by summing the values for all units and dividing by the number of units in the conventional manner.

A regression coefficient expresses the expected difference in mean value of the dependent variable for units that are one unit of measurement apart on an independent variable. For example, the expected difference in mean income for persons who are one year apart in school attendance (Hellevik, 1984).

For non-metric variables, we cannot calculate a mean value an the dependent variable, nor measure distance along the independent variable. By assigning the values 0 and 1 to a dichotomous variable, however, if is possible to get around this problem. In binary regression analysis, the coefficient expresses the expected difference in the probability for a high value on the dependent variable (instead of distance along this variable), for units with a high value, compared to those with a low value on the independent variable.

Considering the dependent variable in this study, current use of modern contraception, can make an illustration. This is defined by whether the respondent is currently using any method, the possible responses being "Yes" (coded 1) and "No" (coded 0). One would, naturally expect a numerical proportion to be using contraceptives. Since the variable, current use of modern contraceptive methods does not take on values other than 0 and 1, it may seem odd to call the in-between figure (that is the numerical proportion mentioned above) a mean. Instead it is referred to as a probability, the long-run proportion of randomly selected respondents using contraceptives.

When a 0,1 independent variable is introduced, for example, approval of family planning, with values Yes (approve) = 1, and No (disapprove) = 0, the effect of approval on contraceptive use is defined as the difference in the probability for contraceptive use for approving respondents as compared to disapproving ones. The difference in the proportions for urban and rural respondents is the regression coefficient. The bivariate regression coefficient for binary variables is thus the same as the difference in proportions, and can be given the same interpretation.

The regression equation is defined as follows

$X_2 (= P) = b_0 + b_1X_1$

b_0 = constant;

X_2 or P = the probability of the event occurring;

b_1 = the estimated coefficient;

X_1 = the independent variable.

Even polychotomous non-metric variables may be analysed in this way, by creating a set of binary variables (dummy variables) to represent their values.

3.4.3. The Multiple Logistic Regression Model.

This is simply the logistic regression for the multivariate study (Dwyer, 1983). Logistic regression is useful for situations in which you want to be able to predict the presence or absence of a characteristic or outcome based on values of a set of predictor variables. The multiple regression model, is given by the equation,

$g(X) = B_0 + B_1X_1 + B_2X_2 + ... B_nX_n$

where,

g(X) is the probability of the event occurring,

B_1, B_2, ... B_n are the estimated coefficients,

B_0 is the constant,

and X_1, X_2, ... X_n are the independent variables.

3.4.4. Interpretation of the Coefficients for the Logistic Regression Model.

The estimated coefficients for the independent variables represent the rate of change of a function of the dependent variable per unit change in the independent variable(s) (Akwara, 1994). The contribution of individual variables is difficult to determine because the effect of each depends on other variables in the model. This difficulty may be compounded where independent variables are highly correlated. The problem of multicollinearity was not encountered in this study even with the similar variables, number of living children and ideal number of children. The statistics that are crucial to the interpretation of the results are:

The **regression coefficient (b)** is the measure of the slope of a line. The actual interpretation of the regression coefficients is made in relation to the reference (omitted) category. A positive sign of B indicates that the variable category has a positive effect on the dependent variable relative to the reference category, and vice versa. Theoretically, the value of b can be zero, in which case there is no effect on the independent variable.

The **exponential B statistic [Exp (B)]** is the natural logarithm, e (2.718), raised to the value of the regression coefficient, b. This is the value by which the odds of the event change when the i^{th} independent variable increases by one unit. If the value is less than 1, the odds are decreased. If the value is greater than 1, the odds are increased. A value of 1 leaves the odds unchanged. The Exponential B statistic displays a definite behavioral pattern; it tends to zero as b becomes increasingly negative, and increases if X is increasingly positive.

The **observed significance level (Sig)**, often called the p value, is the basis for deciding whether to reject the null hypothesis. It is the probability that a statistical result as extreme as the one observed will occur if the null hypothesis were true. The null hypothesis is that there is no significant relationship between the independent and dependent variables. If the observed significance level is small enough (less than 0.05 in this study), the null hypothesis is rejected.

The **constant term (b_0)** represents the average response. It may be interpreted as the constant effect of the variables not included in the equation.

The **–2 Log Likelihood (-2LL)** statistic is a measure of how will the model fits the data, also called the deviance. The smaller the value, the better the fit.

CHAPTER 4: BIVARIATE ANALYSIS.

4.1. INTRODUCTION

In this chapter the background characteristics of the respondents are discussed briefly. This is followed by a presentation of the cross tabulation analyses in which interrelationships between various factors and their effect on family planning are examined. The operational variables defined in chapter 2 are then tested for relationships with current contraceptive use.

4.2. BACKGROUND CHARACTERISTICS OF RESPONDENTS

The sample of 625 men (weighted) aged 20-54 years consisted of 333 men in Central Province and 292 from Western Province. The relatively larger cohorts of respondents below 35 years of age in both provinces reflect the high fertility trends in Kenya over the last three decades. These trends have produced a higher proportion of younger men relative to older men.

Marriage was found to be common in both provinces whether the unions were formal or not; 66.7 and 73.0 percent of all respondents in Central and Western respectively.

Over 96 percent of the men in both provinces had a primary education. In Western Province only 3.1 percent had no education while in Central the corresponding value was 3.3 percent. These are treated here as missing values in the same way as they were in the 1993 KDHS.

TABLE 3. Percent distribution of all men by selected background characteristics

BACKGROUND CHARACTERISTICS	CENTRAL PROVINCE		WESTERN PROVINCE	
	percent	Number	percent	number
age				
20-24	22.2	74	21.6	63
25-29	17.1	57	18.5	54
30-34	18.3	61	14.0	41
35-39	11.1	37	14.7	43
40-44	13.5	45	13.7	40
45-49	10.8	36	12.3	36
50-54	6.9	23	5 1	15
Residence				
urban	6.0	20	17.8	52
rural	94.0	313	82.2	240
Education				
primary	56.5	188	50.0	146
secondary	37.8	126	43.8	128
university	2.4	8	3.1	9
Marital status				
married	56.8	189	9.3	27
living together	9.9	33	63.7	186
not living together	2.1	7	1.4	4
widowed	1.2	4	0.0	0
divorced	2.4	8	0.0	0
Religion				
catholic	41.1	137	23.3	68
protestant/other christian	53.8	179	73.6	215
muslim	0.6	2	3.1	9
none	3.3	11	0.0	0
other	1.2	4	0.0	0
Total	100.0	333	100.0	292

Source: Compiled from 1993 KDHS data.

It was apparent that men's education did not necessarily relate strongly to fertility, given the coexistence of higher levels of both fertility and education in Western Province relative to the lower levels of both variables in Central. High levels of education are usually a catalyst for lower fertility rates. This relationship is yet to emerge fully in Western Province.

Christianity was the predominant religion with the Protestant/other Christian sub-religions comprising the majority of respondents in each province, although in Central Catholics formed a significant minority of the respondents.

TABLE 4: Percent distribution of all men by highest level of education attained according to age

AGE	PRIMARY	SECONDARY	UNIVERSITY	TOTAL	NUMBER
CENTRAL					
20-24	53.8	41.9	4.3	100.0	73
25-29	51.7	46.0	2.3	100.0	57
30-34	62.9	35.2	1.9	100.0	59
35-39	62.0	35.4	2.6	100.0	37
40-44	54.6	43.7	1.7	100.0	40
45-49	64.2	35.8	0.0	100.0	34
50-54	72.8	27.2	0.0	100.0	21
20-34	**56.1**	**41.0**	**2.9**	**100.0**	**189**
35-54	**63.2**	**35.5**	**1.1**	**100.0**	**132**
Total	58.5	39.1	2.4	100.0	321
WESTERN					
20-24	45.6	52.6	1.8	100.0	61
25-29	49.5	47.5	3.0	100.0	54
30-34	31.3	62.6	6.1	100.0	41
35-39	43.9	49.4	6.7	100.0	39
40-44	56.2	40.1	3.7	100.0	40
45-49	81.8	18.9	0.0	100.0	34
50-54	78.4	21.4	0.0	100.0	15
20-34	**42.1**	**54.2**	**3.7**	**100.0**	**156**
35-54	**65.1**	**32.5**	**2.4**	**100.0**	**128**
Total	51.8	45.4	2.8	100.0	284

Source: Compiled from 1993 KDHS data.

Whereas the majority of respondents are recorded as having had primary education, this includes all those who have some amount of primary education, but did not necessarily complete the full course. Fewer men had attained secondary level education. Table 4 shows that older men (35-54) in both provinces had lower levels of education than younger men (20-34). Taken in 5-year

cohorts, the respondents in both provinces did not consistently show lower levels of university education as age increased. It is, nevertheless, a pertinent point that the lowest proportions of men with university education were found in the older age groups. In the cases of men over 44 years old there were none with a university education in both provinces.

Table 5 shows the percentage of men with or without regular wages or salaries. In spite of the missing cases (114 men) in Central Province, it can be said that the 53.0 percent of 218 men comprises a significant proportion of the total in the sample (333 men). In Western Province, however, there were 146 missing cases compared to 146 valid cases. Nevertheless, the values tabulated are significant considering that the majority of the respondents were rural and, therefore the permeation of a modern economy is implied.

TABLE 5: Percent distribution of all men who earn a regular wage or salary

EARNS A REGULAR WAGE OR SALARY	CENTRAL	WESTERN
Yes	53.0	64.7
No	47.0	35.3
TOTAL	100.0	100.0
NUMBER OF MEN	218	146

Source: Compiled from 1993 KDHS data.

4.3. NUMBER OF LIVING CHILDREN AND IDEAL FAMILY SIZE

Explanations for high levels of fertility in sub-Saharan Africa (SSA) have tended to hinge on the high value placed on children as an extension of the familial line, and also as economic or

instrumental support to parents. The importance of, or preference for, sons also has a positive impact on fertility. Related to fertility levels is the ideal family size (ideal number of children). This marks the boundaries of socially acceptable reproductive behaviour. Changes in ideal family size may indicate shifts in attitudes that are believed to precede changes in behaviour. This ideal may also represent the respondents' actual reproductive behaviour. As such, the number of living children can and does affect the reported ideal number.

Table 6. Shows the ideal number of children by number of living children. This was done to test relationships between family size preferences and the actual number of living children. Three categories were created for both variables to enable classification into "few children", "medium number of children", and "many children". It was found that even men with many children reported ideal numbers of children that were smaller than the number of living children, a fact that may suggest a latent desire for family planning. To a great extent it is evident that very few men wanted more than 4 children in either Central or Western provinces. Moreover, few respondents gave non-numerical responses, thereby lending credibility to the mean ideal numbers of children which, in turn, were calculated excluding these non-numerical responses. Obviously, responses like "it's up to God" or " any number" in reference to ideal number of children are not easily quantifiable.

The most significant point is that the mean ideal numbers of children were not simply reflections of the respondents' actual numbers of living children. It was reported in the KDHS of 1993 that at the national level, Kenyan men tended to report ideal family sizes identical to their actual family sizes because they did not wish to be viewed as not appreciating their children. This pattern was

not evident in Central or Western. It was found that men with 6 or more children actually preferred to have 2.4 and 3.2 children in Central and Western respectively. Implicit in this is the potential demand for family planning which may be the result of the continually changing environmental circumstances in Kenya, particularly those which are socio-economic in nature that influence the cost of children. The respondents were not asked questions relating to infant and child mortality, which may be very influential in reducing demand for children considering that those mortality rates have been declining. Declines in infant and child mortality may be a precursor of fertility decline in itself given that children then have high survival probabilities, thereby, guaranteeing support to parents in their old age.

TABLE 6: Percent distribution of all men by number of living children according to ideal number of children.

IDEAL NUMBER OF CHILDREN	NUMBER OF LIVING CHILDREN			TOTAL	NUMBER
	0-3	4-5	6+		
CENTRAL					
0-2	90.1	6.7	3.2	100.0	106
3-4	85.9	11.7	2.4	100.0	192
5+	83.2	16.8	0.0	100.0	21
Non-num answer	92.4	7.6	0.0	100.0	13
TOTAL	87.3	10.2	2.5	100.0	332
Mean ideal number	3.0	3.2	2.4	3.0	332
WESTERN					
0-2	73.7	19.5	7.8	100.0	66
3-4	85.4	10.0	4.6	100.0	166
5+	77.3	16.6	6.1	100.0	45
Non-num answer	71.3	17.8	10.9	100.0	15
TOTAL	80.8	13.4	5.8	100.0	292
Mean ideal number	3.4	3.4	3.2	3.0	292

Source: Compiled from 1993 KDHS data.

4.4. KNOWLEDGE OF FAMILY PLANNING.

Table 7 shows the extent to which the respondents had access to mass media. This is important because the level of knowledge of the sources for information and services of family planning is an essential method of determining whether the reported knowledge levels are genuinely high. Radio was the most commonly utilised medium followed by the newspaper. Television was confined to a minority of men as would be expected. On the whole, older men tended to have less access to these media than younger men, with the exception of radio in Western Province, where the access was fairly uniform among the age cohorts. Urban men and more educated men consistently had better access to mass media than their rural counterparts.

Though these findings were anticipated, they serve to emphasise the gap between knowledge and practice of family planning. The assumption of a direct link between knowledge and practice has been continuously questioned in this study. Although information, education, and communication (IEC) activities have raised levels of knowledge and awareness through mass media, these campaigns tend to employ the premise that increased knowledge will lead directly to increased practice. Knowledge needs to be viewed in a holistic manner that transcends awareness of contraceptive methods. Therefore, a more interactive approach to information may be useful; men's perception of what more should be done by family planning programmes could be incorporated into IEC activities so as to create a more inclusive environment.

TABLE 7: Percent distribution of all men who read a newspaper, watch television, and listen to radio weekly according to selected background characteristics.

BACKGROUND CHARACTERISTIC	READ NEWSPAPER WEEKLY	WATCH TV WEEKLY	LISTEN TO RADIO WEEKLY
CENTRAL			
Age			
20-34	66.0	31.6	88.9
35-54	57.1	24.5	85.7
Residence			
Urban	85.7	57.1	89.3
Rural	57.7	23.0	83.9
Education			
Primary	54.3	20.6	84.2
Secondary	74.2	37.2	88.6
University	100.0	50.8	78.9
Total	61.3	27.4	84.6
WESTERN			
Age			
20-34	60.4	21.9	97.2
35-54	42.2	15.8	92.4
Residence			
Urban	96.2	76.9	100.0
Rural	46.8	12.6	96.3
Education			
Primary	28.3	2.3	96.5
Secondary	82.0	38 6	97.5
University	100.0	93.7	100.0
Total	53.5	21.4	96.8

Source: Compiled from 1993 KDHS data

Table 8 shows the levels of knowledge of specific modern contraceptive methods. Interestingly, in Western Province the respondents reported very high levels of knowledge, higher than those of Central Province. The 1993 KDHS showed that contraceptive prevalence and TFR were, respectively, higher and lower in Central Province than in Western Province. One would have expected that high knowledge levels result in high levels of use. This is the premise of which the national population policy was based originally in 1967. However, as has been noted above,

knowledge is not always commensurate with use when the assumption of a direct link is made.

Not surprisingly, the condom was the most well known method in both provinces. The problem with the condom is the question of whether it is used primarily as a contraceptive or as a preventive measure against STD/HIV infection. The pill was the second most known method, reflecting the fact that the responsibility for contraceptive use rests primarily with women. Note that male sterilisation (vasectomy) is not as well known as most methods. The least known were the diaphragm, foam, jelly, and Norplant methods.

TABLE 8: Percent distribution of all men who know specific contraceptives and their sources.

CONTRACEPTIVE METHOD	KNOWS METHOD				KNOWS SOURCE FOR METHOD			
	Yes	No	Total	Number	Yes	No	Total	Number
CENTRAL								
Pill	90.1	9.9	100.0	333	88.3	11.7	100.0	300
IUD	84.7	15.3	100.0	333	85.5	12.4	100.0	282
Injections	78.7	21.3	100.0	333	89.3	10.3	100.0	262
Diaph/foam/jelly	23.4	76.6	100.0	333	85.9	14.1	100.0	78
Condom	93.1	6.9	100.0	333	---	---	100.0	310
Fem. sterilisation	86.8	13.2	100.0	333	86.5	12.8	100.0	289
Male sterilisation	59.5	40.5	100.0	333	85.9	13.1	100.0	198
Norplant	6.6	93.4	100.0	333	100.0	0.0	100.0	22
WESTERN								
Pill	93.2	6.8	100.0	292	99.6	0.4	100.0	272
IUD	82.5	17.5	100.0	292	99.2	0.4	100.0	241
Injections	91.1	8.9	100.0	292	99.3	0.7	100.0	266
Diaph/foam/jelly	29.8	70.2	100.0	292	98.9	1.1	100.0	87
Condom	95.9	4.1	100.0	292	---	---	100.0	280
Fem. sterilisation	86.0	14.0	100.0	292	99.6	0.4	100.0	251
Male sterilisation	64.7	35.3	100.0	292	99.5	0.5	100.0	189
Norplant	5.8	94.2	100.0	292	100.0	0.0	100.0	17

Source: Compiled from 1993 KDHS data.

It is not adequate in itself to inquire into whether men have heard of contraceptive methods. Therefore, they were asked to state whether they knew where to obtain them, a factor that measures knowledge more intimately. Knowledge of sources for contraceptive methods was generally lower than knowledge of the methods themselves. Respondents who reported having heard of Norplant all knew where it could be obtained. Again, Western Province respondents reported higher knowledge levels than Central Province ones. Nevertheless, it is clear that the problem does not lie in the area of family planning knowledge. This knowledge is nearly universal whether it is defined as "having heard of", or "knowing sources for" family planning services and methods.

4.5. FAMILY PLANNING ATTITUDES

Attitudes towards family planning are a significant factor in determining whether it is adopted. Table 9 shows how attitudes are affected by some primary characteristics of the respondents. The most important point here is the consistency in the relationships between the variables, younger, urban, and highly educated men were more likely than older, rural, and less educated men to approve of family planning. Favourable attitudes towards family planning are seen as a bridge between knowledge and use. Men or couples who oppose the idea of family planning are less likely to use contraception than those who approve. Much has been made of the persistence of pro-natalist values as determined by long-standing forms of African social organisation in various researches. Consequently, family planning attitudes are viewed primarily as a function of cultural influences. The evidence in Table 9 shows that attitudes are affected also by non-cultural factors.

TABLE 9: Percent distribution of all men by approval of FP according to selected background characteristics.

BACKGROUND CHARACTERISTIC	APPROVES	DISAPPROVES	TOTAL	NUMBER
CENTRAL				
Age				
20-34	97.8	2.2	100.0	192
35-54	92.2	7.8	100.0	141
Residence				
urban	100.0	0.0	100.0	20
rural	95.2	4.8	100.0	313
Education				
primary	92.9	7.1	100.0	188
secondary	98.8	1.2	100.0	126
university	100.0	0.0	100.0	8
Total	95.5	4.5	100.0	333
WESTERN				
Age				
20-34	92.0	8.0	100.0	157
35-54	89.4	10.6	100.0	134
Residence				
urban	92.6	7.4	100.0	52
rural	90.4	9.6	100.0	239
Education				
primary	88.7	11.3	100.0	146
secondary	96.1	3.9	100.0	128
university	100.0	0.0	100.0	9
Total	90.9	9.2	100.0	291

Source: Compiled from 1993 KDHS data.

In Central Province approval of family planning was universal among urban men and men with a university education, while a similar pattern, albeit with lower approval levels, is evident in Western Province.

The point was made above about the consistency of relationships between the variables because the forces of modernisation are manifested in succeeding generations (younger men), urbanity,

and educational attainment, all of which are also interrelated. Therefore, socio-economic factors exercise a decisive influence on attitudes. In addition, demographic factors such as age, probably closely linked to socio-economic factors, show variations in attitudes. Influences on attitudes are more likely to be a combination of demographic, socio-economic, and cultural factors. In Kenya, the changing economic circumstances and gradual westernisation of certain aspects of the family may be disrupting the past high fertility regime. These changes are evident in Central and Western provinces. Possibly, cultural beliefs persist as ideals or values, which are becoming more divorced from actual behaviour. The fact that traditional Kenyan cultures and customs were supportive of high fertility does not establish how strongly held these practices are today, or how quickly they may change as the socio-economic basis of the real day-to-day society changes. Thus culture and values are adaptive. Given the lower fertility level in Central Province, therefore, it is there that the link between socio-economic factors and family planning attitudes were expected to be more pronounced.

Notably, approval of family planning was higher in Central than in Western, a reversal of the case with knowledge of family planning observed earlier. This implies that knowledge does not necessarily result in approval.

4.6. PRACTICE OF FAMILY PLANNING.

Contraceptive use is the expression of individual desires to space or limit births. Individual demands for birth spacing and limitation are themselves determined by social, demographic, economic, and cultural environment. Therefore, there are bound to be differences in the family

planning practices of men in different regions. Such differences, as well as the similarities between Central and Western provinces are discussed in this section. The contraceptive use levels for Central and Western provinces were 54.7 and 38.0 percent respectively. Table 10 deals with only the valid responses.

TABLE 10: Percent distribution of all men by use of FP according to selected background characteristics.

BACKGROUND CHARACTERISTIC	USING A METHOD	NOT USING A METHOD	TOTAL	NUMBER
		CENTRAL		
Age				
20-34	63.4	36.6	100.0	155
35-54	80.8	19.2	100.0	104
Residence				
Urban	68.2	31.8	100.0	16
Rural	70.8	29.2	100.0	242
Education				
Primary	67.6	32.4	100.0	134
Secondary	71.8	28.2	100.0	114
University	100.0	0.0	100.0	7
Total	70.4	29.6	100.0	259
		WESTERN		
Age				
20-34	4.3	25.7	100.0	72
35-54	86.2	13.8	100.0	67
Residence				
Urban	73.8	26.2	100.0	29
Rural	81.7	18.3	100.0	110
Education				
Primary	75.8	24.2	100.0	48
Secondary	82.5	17.5	100.0	83
University	100.0	0.0	100.0	6
Total	85.6	14.4	100.0	130

Source: Compiled from 1993 KDHS data.

Evidently the proportion of responses that were missing comprised the majority (52.4 percent) in Western, whereas the corresponding value for Central was much smaller (22.2 percent). The results for Western Province may therefore be adversely affected by the size of the missing proportion. However, there were no obvious distortions that set Western Province apart from Central Province.

As expected, contraceptive use increased with the level of education in both provinces. Education serves as a vessel for the adoption of western ideas regarding the family. It may encourage a more child-centred view of one's parental responsibilities. It may alter the definition of what constitutes acceptable child-care. Age and place of residence did not affect contraceptive use in the expected manner. That is, if succeeding generations are more receptive to family planning messages and exhibit less opposition to its actual implementation, then this was not in evidence. It cannot be assumed that marriage promotes contraceptive use due to exposure to sexual intercourse because, as has been noted, the latter begins well before the former.

In the case of residence it is evident also that the modernity which is normally associated with urbanisation has not affected the respondents' contraceptive behaviour. On the other hand, given the aforementioned size of the proportion of missing values, it may be that the data has been severely distorted. Some more reliable measures of contraceptive use are shown in Table 11. Here, the effect of missing values is eliminated because those who reported currently using a contraceptive method were asked which one they were using. Those responses were then run against the three variables that are generally expected to be primary manifestations of modernisation.

TABLE 11: Percent distribution of all men by current contraceptive method according to selected background characteristics

Background characteristic	Pill	IUD	Injections	Condom	Female ster.	Rhythm	Natural FP	Other
CENTRAL								
Age								
20-34	20.1	7.8	5.6	43.5	2.2	20.8	0.0	0.0
35-54	22.1	7.8	6.5	16.9	15.6	20.8	1.3	9.0
Residence								
urban	19.9	0.0	0.0	49.6	19.9	10.6	0.0	0.0
rural	21.7	9.6	6.4	30.0	7.7	21.7	0.6	2.3
Education								
primary	16.8	7.2	4.8	31.2	9.6	24.0	1.2	5.2
secondary	26.6	9.3	6.7	29.3	8.0	20.1	0.0	0.0
university	0.0	31.2	15.6	53.2	0.0	0.0	0.0	0.0
Total	21.6	9.0	6.0	31.2	8.4	21.0	0.6	2.2
WESTERN								
Age								
20-34	21.4	0.0	3.9	62.2	0.0	3.9	8.6	0.0
35-54	22.9	5.7	22.9	11.5	17.2	11.4	4.2	4.2
Residence								
urban	30.6	5.1	10.2	45.8	5.1	0.0	3.2	0.0
rural	20.2	2.4	14.3	34.5	9.5	9.5	8.3	1.3
Education								
primary	29.7	0.0	5.9	32.7	11.8	11.8	5.9	2.2
secondary	18.6	4.7	15.5	38.8	7.8	6.2	8.4	0.0
university	16.7	0.0	33.3	33.3	0.0	0.0	16.7	0.0
Total	22.2	3.0	13.5	36.6	8.7	7.7	7.7	0.6

Source: Compiled from 1993 KDHS data.

In all categories exempting "older men" (35-54) the condom was the most commonly used contraceptive method. The pill was the second most common method overall. The use of traditional methods of contraception was more pronounced in Central Province with 23.8 percent relying on rhythm/counting days, natural family planning, and other traditional methods. That figure is comparatively lower (16.0 percent) in Western Province. With regard to these traditional

ethods, it is significant that their use was most pronounced among older men, rural men, and en with only a primary education in both provinces, as one would expect. The influence of ducation in particular is likely to have been responsible for the diminished use of traditional ethods. Notably, the overall use of traditional methods may have been higher in Central, but was wer among men with secondary and university education compared to Western. The relatively gher use of traditional methods in both provinces may reflect the prevalence of cultural factors, though the effect of inaccessibility of the sources of contraceptive supply cannot be ruled out. Modern contraceptive methods may be desirable, but difficulty in obtaining them may result in eliance on traditional methods.

t is important to note the significance of the fact that these were mainly female contraceptive nethods. Due to the fact that men's use of family planning is defined here by their partners' (women's) use of contraception, accurate measurement may not be possible. For example, a man may have had more than one wife and not all of them may have been using contraceptives. This can easily complicate or distort the assessment of current contraceptive use. It may lead to over- or under- estimation of the CPRs in the provinces. Moreover, many women use contraception without the knowledge of their spouses. This may mean that the levels of contraceptive use here are actually underestimations because a man may believe he and his partner are not using contraceptives. Discrepancies such as these need to be addressed. The importance of current contraceptive use cannot be overstated. It is strongly related to fertility levels as is evidenced in both provinces; Central, with a higher contraceptive prevalence rate, has a lower total fertility rate than Western.

ABLE 12: Percent distribution of all current male users of modern contraceptive methods by ost recent source of supply according to specific methods, Central Province

SOURCE OF SUPPLY	Pill	IUD	Injections	Condom	Female Ster.	All Methods
Public sector	66.8	68.1	68.7	29.7	74.1	52.4
Medical private sector	17.4	21.1	31.2	22.9	25.9	22.0
Other private sector	12.7	0.0	0.0	47.3	0.0	23.6
DON'T KNOW	3.0	10.8	0.0	0.0	0.0	2.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER	40	14	9	55	13	131

ource: Compiled from 1993 KDHS data

ll the men who were current users of modern contraceptive methods were asked to report the ource from which they most recently obtained their supplies. Table 12 shows that the public ector was by far the most common source, constituting the majority of men in Central Province.

he largest single source was the government hospital (which was a public sector institution) at 29.9 percent of the men. In fact, the public sector was the most common source of all methods except the condom for which the most common were "other" private sources (47.3 percent). This as probably because condoms are most easily obtained in shops which are convenient for many. Notably, as sources for supplies of contraceptives, the private and public sectors were almost equally important in accounting for 52.4 and 45.6 percent, respectively of all men in Central Province.

n Western Province (Table13), however, the public sector was an even greater source of modern contraceptive methods (60.7 percent). It was the main source of all methods including condoms. The most common facility for contraceptives was the government health centre and not the

government hospital (both in the public sector) as was the case in Central. Notably, there was much more reliance on the FPAK health centre (medical private sector) in Western Province (13.6 percent) than in Central Province (2.4 percent). This suggests that the FPAK was the single most pervasive private source in Western Province. The predominance of the public sector in family planning is not accidental. Family planning services in Kenya have been delivered under the Ministry of Health and this system has grown along with the health system. This programme is an important part of why contraceptive prevalence is rising. However, it's reach and influence are uneven across the country. As such, potential clients are not always reached and an unmet need for family planning arises. This, in turn, has a negative influence on contraceptive use.

TABLE 13: Percent distribution of all current male users of modern contraceptive methods by most recent source of supply according to specific methods, Western Province.

SOURCE OF SUPPLY	Pill	IUD	Injections	Condom	Female Ster.	All Methods
Public sector	51.4	60.2	95.5	53.3	69.1	60.7
Medical private sector	39.4	39.8	4.5	26.8	30.8	27.8
Other private sector	9.3	0.0	0.0	20.0	0.0	11.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER	27	3	14	41	8	93

Source: Compiled from 1993 KDHS data.

4.7. NUPTIALITY AND FAMILY PLANNING.

Nuptial fertility is strongly related to the duration of marriage. The predominant factors of fertility are the ages at first marriage and the proportions that enter into unions. Increases or decreases in fertility can, therefore, be partially explained by these variables. For example, when early

pescence is accompanied by early marriage high birth rates usually prevail. due to the olongation of the child-bearing period. Thus, from a demographic point of view, the levels of e present and future course of marriage and age at first marriage are most important in relation their influence of fertility. In essence, when it is men rather than women under examination. it is ely that the earlier men get married, the younger their partners are.

arriage was almost universal in both provinces. As is the case in many researches, marriage here cludes the two categories of "married" and "living together". They were separated in this study ly for descriptive purposes. Again, the proportion of missing values was high, although they did ot constitute the majority of responses. In the case of Western there were no values for widowed divorced respondents. Most notably, formal marriage characterised Central Province, whereas nsensual unions were more typical in Western Province. As would be expected, the number of en who were single (not living with a woman) in Central Province decreased with age. nexplicably, the reverse is apparent in Western Province. In the absence of data on the roportions of men that were widowed or divorced it is hard to arrive at explanations for these esults.

Polygamy is expected to diminish as the modernistic nucleated family becomes the norm. Western Province had a significantly higher prevalence (14.0 percent of married men) than Central (3.6 ercent), though this was lower than Nyanza and the Rift Valley at national level. It is often ypothesised that polygamy is a cultural facet that inhibits modern contraceptive use. Therefore, a igher level of polygamy in a society is accompanied by lower contraceptive prevalence. This was eflected in Western Province, while in Central the lower level of polygamy accompanied a higher

ntraceptive prevalence.

TABLE 14: Percent distribution of all men by marital status according to age.

AGE	Married	Living together	Widowed	Divorced	Not living together	Total	Number
			CENTRAL				
20-24	69.5	9.9	0.0	9.9	10.7	100.0	11
25-29	66.7	18.2	0.0	6.1	9.0	100.0	36
30-34	77.4	15.9	2.0	2.0	2.7	100.0	55
35-39	81.1	12.5	0.0	3.1	3.3	100.0	35
40-44	84.9	9.7	4.9	0.0	0.5	100.0	45
45-49	75.8	21.2	0.0	3.0	0.0	100.0	36
50-54	90.2	0.0	4.9	4.9	0.0	100.0	23
TOTAL	78.7	13.6	1.8	3.2	2.7	100.0	241
			WESTERN				
20-24	11.9	83.2	---	---	4.9	100.0	9
25-29	16.3	83.8	---	---	0.0	100.0	37
30-34	5.8	94.2	---	---	0.0	100.1	37
35-39	12.4	84.6	---	---	3.0	100.0	43
40-44	10.7	89.3	---	---	0.0	100.0	40
45-49	14.9	80.2	---	---	4.9	100.0	36
50-54	14.3	78.4	---	---	7.3	100.0	15
TOTAL	12.3	85.7	---	---	2.0	100.0	217

Source: Compiled from 1993 KDHS data.

The conjugal bonds of polygamous unions are weak in the sense that men are likely to directly influence the family size relatively independently of the partners' desires. Within marriage the wife and the husband shoulder different economic responsibilities and may therefore view the overall level of child costs differently. The task of child-rearing is borne directly by women, particularly with regard to time spent, and indirectly by men. In contrast, in a monogamous union, the man is more likely to interact with the family and be involved more directly in day-to-day matters, the need to spend time with multiple wives having been eliminated.

Men in Central Province tended to get married by the age of 24 years. Western men had a lower mean age at first marriage (22.4 years). There did not seem to be any pattern across age cohorts, but rather, fluctuations in the mean age at first marriage. There is no indication that for men, the mean age at first marriage was changing with time. This was unexpected because delayed marriage often results from prolonged education among women. Given that men will tend to marry women younger than themselves, it would be expected that they too would be marrying later as education becomes essential. This sort of relationship is evident when the proportions marrying by the age of 18 years are considered. That is, among those men who were married by the age of 18 years, the older they were, the more likely they were to have been married this early. These proportions increased continually with age. In Western Province the significance of tradition appears to be relatively pervasive.

4.7.1. Knowledge of Family Planning Among Married Men.

Table 15 shows family planning knowledge levels of married men according to age. Knowledge levels were found to be relatively low among the peripheral cohorts (20-24, 45-49, and 50-54) in Central Province. Contrastingly, in Western Province, knowledge levels were highest among 20-29 year-olds, and lowest among 40-49 year-olds. An obvious pattern emerged in both provinces. Men aged 45+ in Central and 40+ in Western had the lowest knowledge levels. These men were more likely than younger men to have been dependent on traditional methods, or simply had traditional pro-natalist values that were not conducive to inquiry into modern family planning methods. It is less clear why in Central Province, men aged 20-24 had a low level of knowledge. Perhaps at such an early age when marriage is only beginning, the need for contraceptive

knowledge is perceived as diminished because the couple's priority is to build a family.

TABLE 15: Percent distribution of married men who know at least one modern contraceptive method and its source by age.

AGE	CENTRAL		WESTERN	
	Percent	Total no. of married men	Percent	Total no. of married men
20-24	85.7	14	100.0	10
25-29	91.2	34	100.0	35
30-34	95.8	48	95.0	40
35-39	91.4	35	93.3	45
40-44	95.7	46	84.2	38
45-49	82.1	28	86.1	36
50-54	80.0	20	90.9	11
TOTAL	90.7	225	92.6	215

Source: Compiled from 1993 KDHS data.

4.7.2. Family Planning Attitudes of Married Men.

Whereas knowledge levels were higher in Western Province, approval levels were higher in Central Province. This pattern was observed earlier when all men were being examined. Table 16 shows that married men in Central were more approving of family planning than single men, while in Western the reverse was true. The significance of these observations is not certain because of the few numbers of valid responses from single men, particularly in Western Province. The missing values were mainly from the singles groups given that the total numbers of married men in the provinces were 226 in Central and 216 in Western.

In both provinces those intending to use contraception in the future outnumbered those not intending to, particularly in Western. In Central married men with 4 or more children all intended to use contraception in the future. Given that Western Province represented Kenya's highest fertility group, it would be understandable that men who had more than 6 children would feel the pressure not to have any more. Yet, although most intended to use contraception, this did not amount to an overwhelming majority. Perhaps more surprising was that 50 percent of the married men in Central had no intention of using contraception in future. This may all reflect the fact that little is known about what shapes male fertility attitudes in modern Kenya, and that research is required in this field. On the other hand the high number of missing cases may have had a distorting effect on the data.

TABLE 16: Percent distribution of all men by approval of FP according to marital status.

MARITAL STATUS	APPROVE	DISAPPROVE	TOTAL	NUMBER
CENTRAL				
Married	94.4	5.6	100.0	222
Single	86.2	13.8	100.0	19
TOTAL	93.8	6.2	100.0	241
WESTERN				
Married	89.4	10.6	100.0	213
Single	100.0	0.0	100.0	4
TOTAL	89.7	10.3	100.0	217

Source: Compiled from 1993 KDHS data.

The distorting effect of missing values cannot be ruled out, particularly in situations where valid responses constitute a small minority in the sample. The most commonly stated reason for non-use of contraception in Central was the desire for children, while in Western health concerns were the most significant determinants. The evidence of health concerns suggests a possible effect of

misinformation in the sense that side effects of contraceptive use have been greatly reduced over the last 30 or so years to the point of near insignificance. This would mean that family planning information may not be getting through to some men an thereby leaving room for the circulation of rumours and misinformation. Even in the event that that information may be available, it was reported that obtaining modern contraceptive methods was not easy for some. These can only be tentative inferences because, as already emphasised, missing values may have adversely affected the results.

Another indicator of attitudes is inter-spousal communication about family planning. The frequency with which couples discuss family planning, or the fact that it is discussed at all, is a useful indicator of approval of family planning. Table 17 shows that, on the whole, the discussion of family planning among couples was common, with married men of all ages discussing family planning more than twice a year with their spouses. In contrast to the pattern observed at national level, younger men in Central and Western provinces were not necessarily likely to have discussed family planning with their spouses more often. However, the fact that women have often cited their husbands' opposition as the reason for not using contraception, while men generally were not opposed to family planning, suggests a significant lack of inter-spousal communication.

Inter-spousal communication can, of course, be measured by what men know about their partners' attitudes towards family planning. Table 18 shows overwhelming approval by married, non-sterilised men. Men's approval levels were higher than that of their spouses. The women's sample in the 1993 KDHS showed that husbands' approval of family planning was lower than 90 percent in both provinces. This suggested that inter-spousal communication was not as common as was

reported. The two socio-economic variables did not affect approval of family planning as expected. Urban men did not have higher approval levels than rural men, and approval did not increase with education. Western Province in particular was a questionable case. Approval levels have already been shown to be lower than in Central Province. It is probable that the missing responses belonged to men who disapproved or were not sure. Alternatively, the respondents were misleading the researchers for reasons that may be motivated by traditional cultural deterrents of discussion of such issues with their wives or in public.

TABLE 17: Percent distribution of married non-sterilised men who know a contraceptive method by number of times they discussed FP with their partners in the year leading up to the 1993 KDHS.

AGE	NEVER	ONCE OR TWICE	MORE OFTEN	TOTAL	NUMBER
CENTRAL					
20-24	0.0	33.3	66.7	100.0	6
25-29	15.0	20.0	65.0	100.0	21
30-34	7.7	15.4	76.9	100.0	26
35-39	12.5	25.0	62.5	100.0	24
40-44	7.1	21.4	71.4	100.0	28
45-449	22.2	22.2	55.6	100.0	9
50-54	0.0	25.0	75.0	100.0	8
TOTAL	9.9	21.5	68.6	100.0	122
WESTERN					
20-24	---	0.0	100.0	100.0	1
25-29	---	7.7	92.3	100.0	13
30-34	---	13.3	86.7	100.0	15
35-39	---	8.7	91.3	100.0	23
40-44	---	15.4	84.6	100.0	13
45-49	---	0.0	100.0	100.0	16
50-54	---	25.0	75.0	100.0	4
TOTAL	---	9.4	90.6	100.0	85

Source: Compiled from 1993 KDHS data

TABLE 18: Percent distribution of married non-sterilised men who know a contraceptive method by approval of FP and by their perception of their partners' attitudes, according to selected background characteristics.

Background characteristic	Respondent approves	Respondent disapproves	Partner approves	Partner disapproves	Don't know partner's attitude
CENTRAL					
Age					
20-24	100.0	0.0	66.7	0.0	33.3
25-29	100.0	0.0	82.6	8.7	8.7
30-34	100.0	0.0	89.3	0.0	10.7
35-39	92.3	7.7	84.6	0.0	15.4
40-44	100.0	0.0	77.4	3.2	19.4
45-49	100.0	0.0	80.0	0.0	20.0
50-54	100.0	0.0	66.7	33.3	0.0
Residence					
urban	91.3	8.7	73.9	13.0	13.0
rural	97.2	2.8	83.2	2.8	14.0
Education					
primary	94.0	6.0	77.6	6.0	16.4
secondary	100.0	0.0	82.8	3.5	13.7
university	100.0	0.0	100.0	0.0	0.0
Total	97.0	3.0	81.0	4.6	14.4
WESTERN					
Age					
20-24	100.0	0.0	100.0	0.0	0.0
25-29	100.0	0.0	100.0	0.0	0.0
30-34	100.0	0.0	100.0	0.0	0.0
35-39	100.0	0.0	95.5	4.5	0.0
40-44	100.0	0.0	100.0	0.0	0.0
45-49	100.0	0.0	100.0	0.0	0.0
50-54	100.0	0.0	80.0	0.0	20.0
Residence					
urban	100.0	0.0	100.0	0.0	0.0
rural	100.0	0.0	96.8	1.6	1.6
Education					
primary	100.0	0.0	96.6	0.0	3.4
secondary	100.0	0.0	98.0	2.0	0.0
university	100.0	0.0	100.0	0.0	0.0
Total	100.0	0.0	97.6	1.2	1.2

Source: Compiled from 1993 KDHS data.

Family planning attitudes can be changed from disapproval to approval if future intentions of men are known. Desire for more children is an important indicator of the future intentions, of married men, in terms of family planning (Table 24). In Central, the proportion of men who desire another child began to decline after the first child. This pattern was roughly true also of Western. The respondents in Central with 6 or more children and those in Western with 5 or more children still wanted more. The proportion of men who were undecided or did not know was relatively high in Western (23.0 percent) compared to Central (3.8 percent). It could be that men were beginning to re-evaluate traditional pro-natalist values which have been variously shown to conflict with modern socio-economic realities.

Children are a utility to parents insofar as they undertake household activities including child-care, fetching firewood, cooking, washing, cultivation land, herding livestock, and all those activities they can undertake. This situation is changing rapidly. With the increasing population land is increasingly getting scarce. Indeed, in Central and Western provinces it can be argued that land is simply not available. It has been observed in the literature review that Kenyan families have tended to explain their decision to reduce family size as a direct consequence of their inability to pass on land of economical use to their children (NCPD and DRC, 1989). With the national economy becoming highly monetised with a modernising labour market, education has become important. The need for education is, therefore, increased while the possibility of intergenerational land transfers is becoming less possible. Adaptation, through downward adjustment of family size is an inevitable response when all these factors are considered.

Desire for children may also vary with age. The older the men get, the less likely they are to want more children. Again, in Western Province, a higher proportion of men said they were still unsure as to their desire for children, suggesting that their attitudes were only just beginning to change One would assume such changes were likely to mean more favourable attitudes toward family planning given the predominance of primarily socio-economic factors affecting the cost of children, as has been observed in many of the previous results here.

4.7.3. Practice of Family Planning among Married Men.

Current contraceptive use was higher for married men than for all men. Overall, 58.9 percent of married men in Central were currently using a method compared to 40.8 percent in Western Province. However, Table 19 shows only those respondents who gave definitive answers (yes/no). As was expected, no significant difference was found in levels of current contraceptive use between respondents in formal marriages and those in informal unions. Those who answered "yes" were then asked what contraceptive method they were using (Table 20). The importance of the condom was significantly diminished among married men as compared to all men (examined earlier). Instead, the pill was the most important method. Also significant was the permanent method of female sterilisation in both provinces. This latter point indicates a decisive move in ensuring that fertility desires were achieved, and therefore, no further risk was permissible.

Evidently, the effect of marriage on family planning knowledge, attitudes, and practice was found to be inconclusive. As has been shown, in some cases levels of knowledge, approval, and use of contraception were higher for married men than when all men were considered, while sometimes

the reverse was true, particularly for Western Province. It needs to be underlined again that cautious interpretation was necessary owing to the effect of missing values, which sometimes constituted the majority of respondents.

TABLE 19: Percent distribution of married men by current use of contraception

CURRENT MARITAL STATUS	Currently using a contraceptive		TOTAL	NUMBER
	YES	NO		
CENTRAL				
Married	79.0	21.0	100.0	141
Living together	81.9	18.1	100.0	31
TOTAL	80.5	19.5	100.0	172
WESTERN				
Married	80.2	19.8	100.0	16
Living together	81.7	18.3	100.0	89
TOTAL	81.5	18.5	100.0	105

Source: Compiled from 1993 KDHS data.

TABLE 20: Percent distribution of married men who use a contraceptive by current method.

Marital status	Pill	IUD	Injections	Condom	Female ster	Rhythm/ counting days	Natural FP/ mucus	Other
CENTRAL								
Married	25.6	10.8	3.9	25.6	10.8	18.7	1.0	3.6
Liv tog	23.7	9.5	23.7	9.5	14.2	19.4	0.0	0.0
TOTAL	25.3	10.6	7.3	22.8	11.4	18.7	0.8	3.9
WESTERN								
Married	16.5	9.4	24.7	24.7	24.7	0.0	0.0	0.0
Liv tog	30.8	2.9	16.1	16.1	8.8	11.7	11.7	1.9
TOTAL	28.6	3.7	17.4	17.4	11.2	10.0	10.0	1.7

Source: Compiled from 1993 KDHS data.

4.8. CURRENT CONTRACEPTIVE USE AMONG ALL MEN.

In this section the operational variables are tested for relationships with current use of modern contraceptive methods. The aim of this was to obtain an indication of possible behavioural patterns of the independent variables and, therefore, establish logical categories for the logistic regression in the next chapter. The CPRs in absolute terms for modern contraceptive methods were 41.6 percent (Central Province) and 31.9 percent (Western Province). Evidently, there is a considerable gap of 10 percent between the provinces. This was expected given the already reported TFRs for the provinces (Table 2). In this section missing values are rejected for the obvious reason that they would otherwise render any subsequent inferences spurious.

TABLE 21: Percent distribution of respondents by age and current contraceptive use.

AGE	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
20-34	78.9	21.1	100.0	98
35-54	72.7	27.3	100.0	84
TOTAL	76.0	24.0	100.0	182
WESTERN				
20-34	90.0	10.0	100.0	54
35-54	77.8	22.2	1000	58
TOTAL	83.7	16.3	100.0	112

Source: Compiled from 1993 KDHS data.

Table 21 shows that younger men (20-34 years) were more likely to be using modern contraceptives than were their older counterparts (35-54). This result was expected. It was noted in the literature review that the influence of Western values linked with modernisation is

creasingly pervasive. Long-held cultural values are not strongly endorsed by younger men relative to the older ones. Younger men are, therefore, more inclined to approve of and use modern contraceptive methods.

TABLE 22: Percent distribution of respondents by number of living children and current contraceptive use.

NUMBER OF LIVING CHILDREN	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
0-3	77.8	22.2	100.0	108
4-5	75.0	25.0	100.0	35
6+	72.2	27.8	100.0	39
TOTAL	76.0	24.0	100.0	182
WESTERN				
0-3	89.4	10.6	100.0	50
4-5	85.7	14.3	100.0	23
6+	75.0	25.0	100.0	39
TOTAL	83.7	16.3	100.0	112

Source: Compiled from 1993 KDHS data.

The number of living children a man has exposes him to the experience of child-care. This may be through the actual costs of child rearing, or indirectly, through the time the mother devotes to the children. It was, therefore, expected that this variable would significantly influence the use of family planning. A clear trend is evident in Table 22. In both provinces the number of living children was negatively related to the use of modern contraceptives. That is, the more children the men had, the less likely they were to be using contraceptives. The desire for few children (0-3) was reflected in the higher contraceptive use rate relative to the lower levels of the same for men who had 6 or more children. Indeed, the numbers of living children, on the one hand, and the ideal

number of children, on the other, are closely related.

The number of living children can also influence the ideal number of children a man has. It was noted earlier that the 1993 KDHS reported that respondents tended to report their actual number of children's their ideal number. This was not found to be true at the provincial level where Central and Western are concerned (see Table 6). It is evident also that contraceptive use was not inversely related to the ideal number of children in Central Province. We can see (Table 23) that contraceptive use levels were not significantly varied by the categories of ideal numbers of children. It is likely that the ideal number of children is not sufficiently independent of the number of living children to be considered as an indicator of fertility behaviour on its own. Given that the mean ideal number children in Central Province was 3.0 (see Table 6) it can be inferred, at least tentatively, that the highest contraceptive use level observed at the 3-4 children level is logical. In Western Province, however, the relationship between ideal number of children and contraceptive use is negative in much the same way as earlier evident with the number of living children above. There was a sharp decline in contraceptive use among men with 5 or more children, as would be expected for people who desire many children.

Education is generally hypothesised to be positively related to contraceptive use; the higher the individual's educational attainment, the more likely he will be to use contraception. This relationship was found in both provinces (Table 24). University education was associated with the highest contraceptive use levels (100 percent). The number of cases in each province was small and, therefore, a secondary or higher variable was created to include respondents with university-level education.

TABLE 23: Percent distribution of respondents by ideal number of children and current contraceptive use.

Ideal number of children	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
0-2	73.2	26.8	100.0	61
3-4	79.0	21.0	100.0	109
5+	63.6	36.4	100.0	12
TOTAL	76.0	24.0	100.0	182
WESTERN				
0-2	93.8	6.3	100.0	34
3-4	87.7	12.3	100.0	61
5+	46.7	53.3	100.0	16
TOTAL	83.7	16.3	100.0	111

Source: Compiled from 1993 KDHS data.

The relationship between education and fertility is probably the most studied one. Although most of that study is based on women's educational attainment and their fertility, there is no apparent reason to assume that this relationship is different for men. Economic theories draw attention to the link between education and labour market earnings. The higher the level of education, the higher the potential wages for women. If time spent on work and child-care are mutually exclusive, then wage measures one of the principal opportunity costs of child-bearing. It follows that the higher the price of time, the lower the level of fertility. Yet it is far from clear how this chain of reasoning can be applied to African economies.

A woman's work does not necessarily interfere with child-care. Where a conflict exists, employment of low-cost substitutes for the mother's time in child-care is an available option. If this is the case for women, then the burden on men will be even lighter. Therefore, this economic

gument is weak on its own.

TABLE 24: Percent distribution of respondents by level of education and current contraceptive se.

Educational attainment	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
Primary	69.9	30.1	100.0	91
Secondary+	81.5	18.5	100.0	88
TOTAL	75.6	24.4	100.0	179
WESTERN				
Primary	79.4	20.6	100.0	36
Secondary+	85.7	14.3	100.0	75
TOTAL	83.7	16.3	100.0	111

Source: Compiled from 1993 KDHS data.

Viewed contextually, education serves as a vehicle for the adoption of modernistic (Westernised) ideas regarding the family. Education may encourage a more child-centred view of parental responsibilities that oscillate around the nuclear family model. There is little qualitative evidence of this, but at the very least, education is surely a precondition for a decline in the demand for children if the cost of raising them is perceived as being high.

Income is believed to be closely related to education in an ideal situation. That is, assuming that higher education results in higher, or comfortable incomes, the relationship between incomes and fertility will be negative. Table 25 shows a relationship whereby those respondents that earned a regular wage had higher levels of contraceptive use in both provinces. The apparent relationship between income and contraceptive use observed here lacked controls for the effect of actual

ncome levels. It would have been more useful if information on respondents who earn regular wages was available; actual income figures may have enabled an assessment of whether contraceptive use increases with income levels.

TABLE 25: Percent distribution of respondents by income status and current contraceptive use

Earns regular wage or salary	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
Yes	78.5	21.5	100.0	71
No	71.4	28.6	100.0	54
TOTAL	75.4	24.6	100.0	125
WESTERN				
Yes	92.3	7.7	100.0	56
No	84.2	15.8	100.0	20
TOTAL	90.1	9.9	100.0	76

Source: Compiled from 1993 KDHS data.

As was indicated earlier, residence was defined as childhood place of residence. The KDHS data for usual place of residence only had 4 valid responses for Central and Western provinces combined. This, however, was not a crippling flaw because what is more important is the duration of residence. Since childhood residence in a rural or urban setting has an important socialising effect on an individual, it was a practical alternative. Moreover, most respondents reported having stayed in their childhood places of residence for all of their lives if the case was rural, and for more than 12 years if the case was urban.

As was true elsewhere, in Kenya urban residence is associated with lower fertility with higher contraceptive use as a proxy. This relationship is evident in Table 26. Significantly, the gap

etween contraceptive use levels in rural and urban areas is similar in both provinces. It is ifficult, however, to conceptualise how urbanisation on its own promotes the use of modern ontraceptives. Factors such as education, employment in the modern sector, and income act to onfound the effect on contraceptive use of urbanisation. Although urbanity was significant, it is robable that it influenced the level of education, but had little or no direct influence on modern ontraceptive use. The obvious relationship between urbanity and contraceptive use is the exposure to Western ideas and greater access to family planning and health services.

The effect of religion on current contraceptive use appeared to be insignificant. Catholicism and Islam, which are ordinarily associated with conservative values, and hence opposition to modern family planning methods, did not hinder contraceptive use at all in relation to Protestantism (Table 27). The categories "Muslim", "Other", and "None" had few cases and were, therefore, combined.

TABLE 26: Percent distribution of respondents by place of residence and current contraceptive use.

Place of residence	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
Urban	90.0	10.0	100.0	11
Rural	75.2	24.8	100.0	171
TOTAL	76.0	24.0	100.0	182
WESTERN				
Urban	95.0	5.0	100.0	21
Rural	81.0	19.0	100.0	90
TOTAL	83.7	16.3	100.0	111

Source: Compiled from 1993 KDHS data.

TABLE 27: Percent distribution of respondents by religion and current contraceptive use

RELIGION	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
Catholic	68.6	31.4	100.0	76
Protestant/Other Christian	79.3	20.7	100.0	95
Muslim/None/Other	100.0	0.0	100.0	11
TOTAL	76.0	24.0	100.0	182
WESTERN				
Catholic	87.5	12.5	100.0	27
Protestant/Other Christian	73.6	17.9	100.0	83
Muslim/None/Other	100.0	0.0	100.0	2
TOTAL	80.0	20.0	100.0	112

Source: Compiled from 1993 KDHS data

It has been variously noted that knowledge of family planning is not necessarily commensurate with practice. The knowledge variable in Table 28 is defined by a scale of modern methods of contraception. "Good" refers to those respondents who reported having heard of four or more methods out of a collection of the following: pill; IUD; injections; diaphragm/foam/jelly; condom; tubectomy; vasectomy; and Norplant. The scale was necessitated by the lack of a composite "modern contraceptive methods" variable in the KDHS data as was noted earlier in the study. Respondents who had good knowledge of modern family planning methods were more likely to be using contraception than those who did not know in Central Province. In Western Province it is probable that either response or reporting errors distorted the results because poor knowledge of modern contraceptive methods is not logical motivation for their use. Very few respondents actually reported no knowledge of modern contraceptive methods.

TABLE 28: Percent distribution of respondents by knowledge of family planning and current contraceptive use.

Knowledge of modern contraceptives	Currently using contraceptive		TOTAL	NUMBER
	Good	Poor		
CENTRAL				
Yes	77.7	22.3	100.0	171
No	40.0	60.0	100.0	6
TOTAL	76.5	23.5	100.0	177
WESTERN				
Yes	83.1	16.9	100.0	95
No	100.0	0.0	100.0	6
TOTAL	84.2	15.8	100.0	101

Source: Compiled from 1993 KDHS data.

Approval of family planning in general is an ambiguous concept. Logically, if an individual approved of family planning he would not be averse to using contraception at some stage, or to his partner using it. The results in Table 29 show that only in Central Province were respondents who approved of family planning more likely to use contraception. In Western Province, no respondent said he disapproved.

The ambiguity in the approve/disapprove variable is thus; when respondents say they approve, they may mean they intend to use contraception in the future, but for various reasons are not currently using. Consequently, like knowledge, approval of family planning is not always commensurate with practice. This is worth noting although both knowledge and approval have been found to be influential in contraceptive use in Central and Western provinces.

TABLE 29: Percent distribution of respondents by family planning attitudes and current contraceptive use.

Approves of family planning	Currently using contraceptive		TOTAL	NUMBER
	Yes	No		
CENTRAL				
Yes	78.4	21.6	100.0	177
No	0.0	100.0	100.0	5
TOTAL	76.0	24.0	100.0	182
WESTERN				
Yes	83.7	16.3	100.0	111
No	0.0	0.0	100.0	0
TOTAL	83.7	16.3	100.0	111

Source: Compiled from 1993 KDHS data.

CHAPTER 5: MULTIVARIATE ANALYSIS.

5.1. INTRODUCTION

Two models were constructed after running backward selection stepwise logistic regression using the SPSS computer package (see Appendix 2). Each model begins with all the variables being entered into the model to form the first equation. They are then subtracted one at a time by the block beginning with the least significant variable, then the next least significant, and so on. Finally, when no more variables can be subtracted, the final equation is formed. This equation best describes the linear relationship between the independent and dependent variables. The results are presented after a classification of the variables used in the regression. A discussion of the results is then undertaken.

5.2. CLASSIFICATION OF VARIABLES

The dependent variable was current use of modern contraceptive methods (CCMETH). The categories were "Yes" if the respondent was currently using a method (coded 1), and "No" if he was not (coded 0).

The independent variables are listed below showing the coding scheme and labels

VARIABLE	LABEL	VALUE
OLD	Current age	0 = 35-54 years (older men) 1 = 20-34 years (younger men)
PROGENY	Number of living children	0 = 6+ children 1 = 0-3 children 2 = 4-5 children
PREFER	Ideal number of children	0 = 5+ children 1 = 0-2 children 2 = 3-4 children
LEARN	Level of education	0 = secondary+ 1 = primary
BELIEF	Religion	0 = Muslim/other/none 1 = Protestant/other Christian 2 = Catholic
DIGS	Place of residence	0 = Urban 1 = Rural
MONEY	Earns regular salary/wage	0 = No 1 = Yes
KNO	Knowledge of contraception	0 = Poor 1 = Good
OPINION	Attitude towards FP	0 = Disapprove 1 = Approve

5.3. CENTRAL PROVINCE

Only two variables were found to be significant, respondents' ages (OLD) and their levels of education (LEARN), as shown in Table 30 below. The equation for Central Province shows the relationship between these variables and the probability of using modern contraceptives,

Probability of contraceptive use = 1.1471 + 1.0711 – 1.0253

TABLE 30: Summary of the logistic regression equation for Central Province.

VARABLE	B	SIGNIFICANCE	EXP(B)	-2LL
OLD1	1.0711	.0398	2.9185	–
LEARN1	-1.0253	.0418	.3587	–
CONSTANT	1.1471	.0000	–	26.394

Source: Compiled from 1993 KDHS data. All variables significant at .05 level.

OLD1 was found to be positively related to the use of modern contraceptives (CCMETH) as shown by the B value. This means that younger men were much more likely to be using modern contraceptives with their partners than were older ones (OLD0). The odds [EXP(B)] of contraceptive use were increased and the overall relationship was significant. We therefore reject the null hypothesis that no relationship exists, and uphold our hypothesis that that younger men are more likely to be using modern contraceptives than older men.

LEARN1 was positively related to CCMETH. This occurred because the variable is defined as respondents with a maximum of a primary education. It thus relates to LEARN0 (secondary+)

which is generally hypothesised to be positively related to contraceptive use. The number of valid cases in this category necessitated that it becomes the reference. Evidently, the odds of using modern contraceptives were reduced, as shown by an exponential coefficient of less than one. This is interpreted to mean that men with a primary level of education were less likely to be using modern contraceptives with their partners than those with a secondary education. Again, this supports our hypothesis that education is positively related to contraceptive use.

Notably, the –2LL value was high. As a measure of goodness of fit this is consistent with the fact that only two variables were significant in the Central Province model. These variables, therefore, do not account for much of the variability in contraceptive use.

5.4. WESTERN PROVINCE.

In Western Province three variables were found to be significant predictors of contraceptive use (Table 31); the number of living children (PROGENY), the ideal number of children (PREFER), and income (MONEY). The equation for Western was,

Probability of contraceptive use = 2.3547 + 2.2123 + 4.1041 + 4.7166 + 2.6309 + 2.5981

For the variable, number of living children the most significant category was PROGENY2 (4-5 children). Men with 4-5 children were more likely to use modern contraceptives relative to those with 6+ children. We can observe the positive relationship between having 4-5 children and contraceptive use as shown by the regression coefficient. The exponential coefficient is significantly large and this shows that the odds of contraceptive use were greatly increased among

men in this category. PROGENY1 (0-3children) was insignificant. It was included in the table because variables are entered into and dropped form the model as blocks rather than as categories. Our hypothesis stated that the number of living children is positively related to contraceptive use, which is what is shown here.

Two categories of PREFER were significant. The category for the ideal numbers of 0-2 children (PREFER1) was, however, more significant than PREFER2 (3-4). It is noteworthy that PREFER1 had a greater regression coefficient. This is reiterated by the exponential coefficient that is much greater than that of PREFER2. We observe that not only were men who had ideal numbers of 0-2 more likely to use modern contraceptives, but their use of the same was more significant than that of men who preferred 3-4 children. This confirms the hypothesis that the ideal family size is inversely related to the use of contraceptives.

TABLE 31: Summary of the logistic regression equation for Western Province.

VARIABLE	B	SIGNIFICANCE	EXP(B)	-2LL
PROGENY1	2.2123	.1064	9.1367	–
PROGENY2	4 .1041	.0282	55.3714	–
PREFER1	4.7166	.0068	111.7846	–
PREFER2	2.6309	.0308	13.4378	–
MONEY1	2.5981	.0437	13.4378	–
CONSTANT	2.3547	.0002	–	28.524

Source: Compiled from 1993 KDHS data. All variables significant at .05 level

A regular wage (MONEY1) is also significantly related to contraceptive use. The observed relationship was positive, as is indicated by the regression coefficient. The value of the exponential coefficient is comfortably greater than one, indicating that the odds of contraceptive use were significantly increased. This was expected as is evidenced by our hypothesis that income is positively related to contraceptive use.

5.5. DISCUSSION

Only a few of the relationships observed in the bivariate analysis were evident in the regression of current use of modern contraceptive methods on demographic, socio-economic, and cultural factors. There were no relationships common to both provinces. While age and education were significantly related to contraceptive use in Central Province, the ideal number and number of living children, as well as income were significant in Western Province.

It has been noted variously that the shift from a natural to a modern fertility regime is indicated by factors associated with modernisation or Westernisation. These may range from the most the most obvious indicators of modernisation like formal education to discrete ones such as the cost od children. It appears that contraceptive use behaviour In Central Province would be classified in the more obvious group, while for Western the indicators are less evident.

In specific terms, younger men in Central Province were shown to be more receptive to family planning (see Table 9). If one accepts the thesis that the forces of modernisation are manifested in formal education, urbanity, and formal employment, then it is easy to see that these are qualities

closely associated with younger men. In turn, these men are less likely than their older counterparts to hold on to traditional pro-natalist values that inhibit the adoption of modern family planning. The other significant factor (education) in Central Province is, therefore, related also to age. The relationship between education and the use of contraception has been will researched, at least in the case of women. Even for men it is evident that the higher the individual's educational level, the more likely he was to use modern contraception. Education may lead to delays in the onset of marriage and reproduction, with career goals taking precedence, or becoming the priority. At any rate, education would appear to be a precursor to the decline in the demand for children.

In Western Province, there was a very direct relationship between actual and preferred numbers of children, on the one hand, and contraceptive use, on the other. The demand for children was, therefore, a decisive influence on contraceptive use. Although this is a demographic factor, it is heavily influenced by socio-economic factors such as the cost of children. To this extent, the nucleation of the family unit is very important and occurs where parents take a more child-centred view of their responsibilities. The shift towards desire for "quality" children, rather than a certain "quantity" of them, is an indicator of family nucleation, and of the adoption of modernistic values vis the traditionally pro-natalist position. On a more basic level, lower child mortality levels negate the need for many because survivorship into adulthood is high. As such, parents who expect to be supported by adult children may achieve this objective without necessarily opting for big families. The use of modern family may achieve this objective without necessarily opting for big families. The use of modern family planning, therefore, does not necessarily conflict with traditional values. Essentially, then, the number of living children and ideal number of children, though proximate to

contraceptive use in Western Province, were likely also to have been indicators of other factors at work in determining that contraceptive use.

The fact that income was a significant determinant of contraceptive use may, in turn, be a reflection of the part that the costs of children play. A regular wage or salary facilitates better planning than if the case is the converse. Alternatively, a salary suggests a conscious prioritisation of one's career to reflect one's education, with which income is linked. That is, education may be sought with the aim of gaining formal-sector employment. A by-product of this may be a delay in marriage and reproduction. We know most that men in Western Province will have had sexual intercourse before marriage. Contraception is the only way to bridge the gap between the onset of sexual activity and marriage, or the commencement of reproduction.

It is worth noting that although the study showed variation in the factors that influence contraceptive use among men, it is evident that these factors are interrelated in some way or other. It has been noted, for instance, that education and income are closely linked, but then, so are factors such as the demand for children and education, or income. Perhaps this confounding relationship between various factors explains why the regression models only explain a minimal proportion of the variability in the use of modern contraceptives.

CHAPTER 6:

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The following is a summary of the major findings from the cross tabulation and logistic regression analyses because it is these that are discussed in the conclusions. The objectives of the study were grouped into demographic, socio-economic, and cultural aspects. The order of presentation of the summary and conclusions will, therefore, follow that format.

6.1. SUMMARY OF THE FINDINGS.

Demographic factors

Contraceptive use increased with age and then declined among men aged 45 years and above. Use of modern contraceptive was, however, higher among younger men (20-34 years) in both Central and Western Provinces. The age factor was more significant in Central Province showing a consistent influence on family planning in the bivariate and multivariate analyses.

The number of living children a man had greatly influenced contraceptive use, particularly in Western Province where this was true at all levels of analysis. In both provinces, the more living children a respondent had, the less likely he was to be using modern contraceptives. The number of living children has been found to be the same as an individual's ideal number of children at national level. This was not found in either of the study provinces. Indeed, even in the multivariate

analysis the problem of multicollinearity was not encountered. In Western Province, in fact, living and ideal numbers of children were found to be separately significant determinants of contraceptive use. In both provinces, the respondents' ideal numbers of children were identical to that reported by women in the 1993 KDHS.

Socio-economic factors

Knowledge levels among men were extremely high even where specific modern contraceptive methods were concerned. Knowledge of family planning was acquired from the mass media, particularly radio programmes. Knowledge was not necessarily commensurate with contraceptive use. However, the most widely known modern contraceptives were also the most widely used.

Education was found to be a significant factor in influencing contraceptive use. Men with secondary or higher education were even more likely to be using modern contraceptives, particularly in Central Province, where the multivariate analysis showed this to be a significant linear relationship. Among men with university education in both provinces the contraceptive use levels were at 100 percent, though the small number of cases in that category tempered this.

Men who earned a regular wage or salary were more likely to use contraceptives than those who did not. This is significant in Central Province with regards to "any contraceptive method". In Western Province, the use of modern methods, specifically, was significantly determined by whether the respondents earned an income or not.

Contraceptive use levels were higher among urban men than those observed for their rural counterparts. This was the case only when current use of modern methods was considered. Otherwise, the use of traditional methods in rural areas in combination with modern ones tended to push contraceptive use levels in those areas above urban levels.

Cultural factors

The effect of religion was insignificant. In Central Catholics, Protestants and other Christians were equally likely to use contraception, while in Western Catholics had higher contraceptive use levels than Protestants and other Christians. The cases of Muslims, people with no religions, and those in the 'other' category, were few, although contraceptive use levels were high even among these. These latter three categories were grouped together as a result. The results showed no relationship anyway. Catholicism and Islam, traditionally conservative forces, were not found to inhibit contraceptive use.

Family planning approval levels were much lower than those of knowledge, falling below 50 percent of the respondents in Western Province in real terms. In fact, the vast majority of those who approved of family planning were using contraception. Approval was therefore, more proximate to contraceptive use, as would be expected. The multivariate analysis did not show this relationship, however. In Western Province there were no respondents reporting disapproval of family planning.

6.2. CONCLUSIONS.

Returning to the theoretical framework, we will recall that fertility is seen as a function of proximate determinants, which are, in turn, affected by background variables. That is to say, the proximate determinant used in this study was current use of modern contraceptive methods, while the background variables were the various independent ones tested against current contraceptive use in the previous two chapters. In essence, the adoption of contraception is determined by the balance between motivation to regulate fertility, and fertility regulation costs which are both subjective and economic; a combination of sociological and economic factors.

To what extent this study has been successful in testing these arguments can be assessed by discussing the findings in relation to the study objectives, as will be done presently. The most important qualifying factor here is that male contraceptive use relies heavily on female contraceptive use as a proxy for the simple reason that most contraceptive methods are designed for female use, particularly modern methods. Of male methods vasectomy is still largely unacceptable. Even if it were not, controversial, it would primarily be a method of choice only after the individual had attained the desired family size because it is a permanent method. The condom is the only other modern male method available widely. We have seen that this method's credibility as a contraceptive is called into question by it's widespread use outside marriage to prevent STD/HIV infection, rather than to prevent births or limit family size. Notably, traditional methods were found to be still significantly in use, and some of these require direct male involvement, for example, withdrawal (natural family planning) and periodic abstinence (rhythm method). However, the shift away from natural fertility has been noted in various researches and

evident in Central and Western provinces.

To determine how much the findings explain the mechanisms through which family planning is adopted, and whether they are significant in explaining the differences between the provinces, the independent variables are now discussed in relation to the study objectives.

Demographic factors

Age.

Two Major arguments can be juxtaposed here. On the one hand, young men (20-34) are expected to represent a new generation that, in a modernising regime, is more aware of and more receptive to the need for family planning. Conversely, older men (35-54) are more likely, in proportional terms to be married and, if it is assumed that most sexual intercourse occurs within marriage, have more exposure to family planning methods.

The second argument is more convincing in explaining why older men were found to have higher contraceptive use levels in both provinces. Notwithstanding the fact that by the time they are 28 years old, most men (over 80 percent) in both provinces are likely to be married, young men are not likely to have completed their desired family size. Younger men were, however, more likely to use modern contraceptives and this implies a break with traditional pro-natalist values. In Central Province this relationship was strong and significant in the bivariate and multivariate analyses.

Number of living children and ideal number of children.

Immediately evident is that men were not simply reporting their living number of children as their ideal family size. They clearly wanted less children. The attitudes in Central were relatively less pro-natalist than in Western. The problem here concerns what has influenced these attitudes. Obviously, they reflect changing environmental circumstances that suggest a latent demand for family planning. It is likely that respondents had in mind the costs of children when determining their real numbers. These ideal numbers were virtually the same as those reported for women in the 1993 KDHS. To put this down to coincidence would be stretching the imagination. Instead, it reflects the fact that inter-spousal communication about family planning is on the increase and that fertility control is increasingly a 'rational' choice.

If a lowest common denominator were to be obtained for both provinces, it would be that the ideal numbers of children were roughly similar. The difference between the provinces was found in the fact that both numbers (living and ideal children) were significantly related to current use of modern contraceptives in the regression. Implicit here is that men in Western Province are beginning to consider birth limitation as a legitimate part of their planning.

The first objective of the study was to examine the demographic factors related to the practice of family planning. To operationalise this aim the three variables discussed above were selected and all proved significant. They were found to be determinants of the use of modern contraceptives in the bivariate and multivariate analyses. It is difficult to find concrete reasons for the fact that the age of men in Central Province was decisive in determining contraceptive use. It is probable that

young men were influenced by other non-demographic factors, such as education and urbanity, which are generally hypothesised to influence the practice of family planning.

The of living and ideal numbers of children, found to be significant in Western Province, are more straight-forward. Most men tend to have a clear picture of their preferred family size. Additionally, the experience of raising children causes them to determine what number they can support. However, fertility and fertility preferences are also influenced by environmental factors of socio-economic and cultural nature.

Socio-economic factors

Education and income.

Education and income are related factors; ideally, higher education would result in higher income for and individual. Moreover, education and income are each associated with lower fertility in most demographic theory, In such a close relationship these variables are always likely to distort each other's effect on contraceptive use, particularly income, for which there are few studies that include controls.

Notably, in both provinces those who had the highest levels of education (university) and those who earned a regular wage or salary had high levels of contraceptive use. Extended formal education is known to be one of the main reasons for the postponement of marriage among women. Notwithstanding the belief that men may prefer 'obedient' less educated women, men

with high education levels are likely to marry women with similar or comparable education. Consequently, the effect of education in delaying men's marriage may be indirect, Delayed marriage will likely delay reproduction and reduce fertility. The effect of education on contraceptive use was more pronounced in Central Province because it was significant at both levels of analysis. This suggests that the relationship between education and fertility in this province takes on a more conventional (Westernised) pattern; in the demographic experience of Western Europe education was found to be a direct determinant of fertility in the fertility transition.

As for income, it is possible to show a superficial influence on contraceptive use. Earning a regular salary implies a fixed income, which may require an individual to maintain certain limits of expenditure; among them, children, In this situation, the perceived costs of children must be the most important factor in determining the adoption of family planning. Whether or not this was definitely the case among men in Central Province is not clear. However, the high contraceptive use level among regular income earners is instructive. In Western Province income eas significant even at multivariate level. Employment in the modern sector, as a facet of modernity, was probably the decisive influence through the income that men earned.

Residence.

The use of contraception was higher among urban respondents. It was already noted that residence was defined as childhood place of residence because of the spoilt values of the 'usual place of residence' variable in the KDHS data, and because the childhood environment influences

perspectives and behaviour of individuals. At any rate, the evidence is such that men who grew up in urban areas, had the higher contraceptive use levels. Urban men in both provinces mostly relied on modern contraceptives relative to their rural counterparts.

As a cautionary note, the point needs to be made that, although urbanisation and modernisation are strongly related, urban residence alone cannot be considered a primary factor in promoting contraceptive use. Usually, when reference is made to urbanisation's influence on fertility, the general assumption is that higher educational attainment and higher income for individuals accompany this process.

The second objective was to examine the socio-economic determinants of family planning practice. Of the variables selected for this, two were significant at bivariate and multivariate level (as shown above) and two (knowledge of family planning and Residence) were not. Knowledge is discussed later with approval of family planning because it is impossible to discuss on without the other.

It can, at least, be stated with some certainty that established socio-economic factors are significant in Kenya, as shown by the influence on contraceptive use of education and income. In this respect, the fertility transition being observed in Kenya is driven by much the same factors as most others around the world.

Cultural factors

Religion.

In Kenya generally, religion has not been found to inhibit or promote family planning significantly. Catholicism and Islam have been known, at the international level, to advocate against modern family planning. The fact that fertility is declining all over the country, and that large declines were found among coastal residents (many of whom are Muslim), reflects the fact that religion does not necessarily inhibit contraceptive use.

In Central and Western provinces, men were generally either in the Catholic or Protestant / other Christian categories. Muslims, and men with no or other religions, were numerically insignificant. In Western Province, Catholics in fact had the highest contraceptive use levels. In Central, though Muslims and men with other religions constituted a small proportion of the sample, they had the highest use levels, while Catholics, Protestants and other Christians had virtually the same contraceptive use levels.

Regrettably religion and approval of family planning were the only cultural variables that were measurable. Others like sex preference and polygamy were distorted or had very few responses. The fact that religious affiliation did not determine whether or the respondents used contraception or not shows that religious values can change, as can other cultural values, to accommodate emergent necessities.

Family planning knowledge and attitudes.

It is essential to note here that knowledge of family planning socio-economic factor insofar as it was influenced by other variables such as access to media. Similarly, attitudes were defined as cultural values because they were shaped by values and norms that are tenets of the way societies develop.

Much has been made in research of the gap between knowledge of family planning and its actual adoption. This gap was evident in Central and Western provinces, but much more pronounced in the latter. Western Province respondents actually reported higher levels of knowledge than their Central counterparts. However, approval was higher in Central than Western.

A more constructive way to deal with these discrepancies is required for it is obvious that knowledge of specific contraceptive methods, for instance, does not lead to approval and use automatically. Instead knowledge should be viewed as a first step towards contraceptive adoption. Attitudes towards family planning are closely linked to the demand for children, Contraception is likely to be valued and sought after if and when pregnancy is not desirable to a couple. Once and individual approves of contraception resistance to its use is easier to breach, or gradually fades.

Knowledge and approval of family planning may also be influenced by the background variable discussed above, but in both provinces, sub-populations did not significantly differ in knowledge levels. It is an inevitable conclusion that knowledge of family planning is not enough to influence

contraceptive use. It is true that knowledge of contraceptive methods tends to be highest for those methods that are most widely used, (like pill and condom), but it is attitudes that are more likely to influence the adoption of family planning. Yet attitudes are difficult to measure except in the sense that either one approves or disapproves of family planning. That is a sweeping generalisation that undoubtedly disguises the fact that an individual may only disapprove of certain aspects of family planning, or may approve in principle, but prefer that other people adopt family planning.

Overall, the differences in knowledge and approval levels between the provinces were not pronounced, However, the differences in contraceptive use (higher in Central, lower in Western) were significant and, in turn, were explained by the variations by province of the variables that were selected for testing in the previous chapters.

The last objective, aimed at examining the influence of cultural factors on family planning, was not achieved. Indeed, the cultural aspects of fertility behaviour are primarily qualitative and, therefore, difficult to measure in a quantitative survey such as the KDHS, from which this study stems. Approval of family planning, shaped as it is by many factors, was linked to contraceptive use, particularly in Central Province. Beyond this, however, it is impossible to state what form this relationship took.

Although the overall response rate was higher for Western Province, Central Province respondents were more likely to give definitive answers to questions about family planning attitudes and contraceptive use. It is in Central Province where fertility is declining fastest. In

Western Province, in spite of a fertility decline, women were still having the country's highest number of children. In between the two extremes are all the other provinces of Kenya, except Nairobi, which had the lowest TFR. What Central and Western provinces have proved, primarily, is that associations between the conventional correlates of fertility decline are more complex, very few relationships are linear, and those that are tend to raise more questions than answers.

It can only be concluded, therefore, that Central and Western provinces represent two ends of the fertility spectrum in Kenya. In Central Province, there are no longer strong social supports for high fertility. While in Western Province, although fertility was declining, men are still not certain of the benefits of family planning, and do not perceive these benefits as much as their Central Province counterparts. The signs are that future fertility declines are inevitable, and can certainly be accelerated by addressing the unmet need for family planning information and services among men.

6.3. RECOMMENDATIONS FOR FURTHER RESEARCH.

Attention needs to be given to adolescent fertility rather than concentrating research on married men. Sexual intercourse begins up to 8 years before marriage whereas contraceptive use peaks up to 10 years after marriage. This gap undoubtedly holds down contraceptive use levels.

Further research into inter-spousal communication is required because it is doubtful that as much discussion as was reported by the respondents occurred. It is a fair assumption that couples are not likely to discuss family planning occasionally or frequently if they so not intend to use it.

Due to the fact that economic considerations heavily influence fertility decisions in modernising societies, research needs to determine how income levels and fertility decisions relate.

Further research is required to accumulate qualitative data on traditional cultural influences on fertility behaviour in today's Kenya. To what extent do men really have cultural considerations in mind where fertility preferences are concerned? Is polygamy necessarily a pro-natalist practice? Questions like these can only effectively be answered by qualitative research.

Although contraceptive awareness is almost always high, including of vasectomy, something appears to be amiss where family planning information is concerned. Otherwise misconceptions and rumours would not be a barrier against achieving higher family planning goals. It is necessary to inquire into how family planning information can be made available in more specific and detailed forms as compared to the way it is currently disseminated to the public. To achieve this the full utilisation of existing male-only family planning clinics is necessary

An important consideration with consequences for future fertility is the HIV/AIDS scourge. What is likely to be the effect of this on adolescents and their fertility or reproductive health in general? Sexual activity begins early among the youth whereas no specific reproductive health messages are designed for or targeted at them. The implications for early mortality are clear. By extension, having fewer children surviving into adulthood is bound to effect a review of family planning goals among couples. This is a grey area that may need thorough investigation.

With regard to contraceptive use, it is necessary to ascertain what factors determine which particular method is most used among different communities. The choices of contraceptive methods were varied, not just in Central and Western provinces, but countrywide.

These recommendations are by no means exhaustive and suggest that other more qualitative methods of analysis may be more suited to this type of research.

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EAST AFRICANA COLLECTION

APPENDIX 1: CASE PROCESSING SUMMARIES

KEY VARIABLES USED IN BIVARIATE AND MULTIVARIATE ANALYSES.

VARIABLES	CASES					
	VALID		MISSING		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
			Central			
Age	333	100.0	0	0.0	333	100.0
No. of living children	333	100.0	0	0.0	333	100.0
Ideal number of children	333	100.0	0	0.0	333	100.0
FP knowledge	260	78.1	73	21.9	333	100.0
Education	321	96.4	12	3.6	333	100.0
Income	218	65.5	115	34.5	333	100.0
Residence	333	100.0	0	0.0	333	100.0
Religion	333	100.0	0	0.0	333	100.0
FP attitudes	333	100.0	0	0.0	333	100.0
			Western			
Age	292	100.0	0	0.0	292	100.0
No. of living children	292	100.0	0	0.0	292	100.0
Ideal number of children	292	100.0	0	0.0	292	100.0
FP knowledge	231	79.1	61	20.1	292	100.0
Education	292	100.0	0	0.0	292	100.0
Income	146	50.0	146	50.0	292	100.0
Residence	292	100.0	0	0.0	292	100.0
Religion	292	100.0	0	0.0	292	100.0
FP attitudes	291	99.7	0	0.0	292	100.0

APPENDIX 2: LOGISTIC REGRESSION MODELS

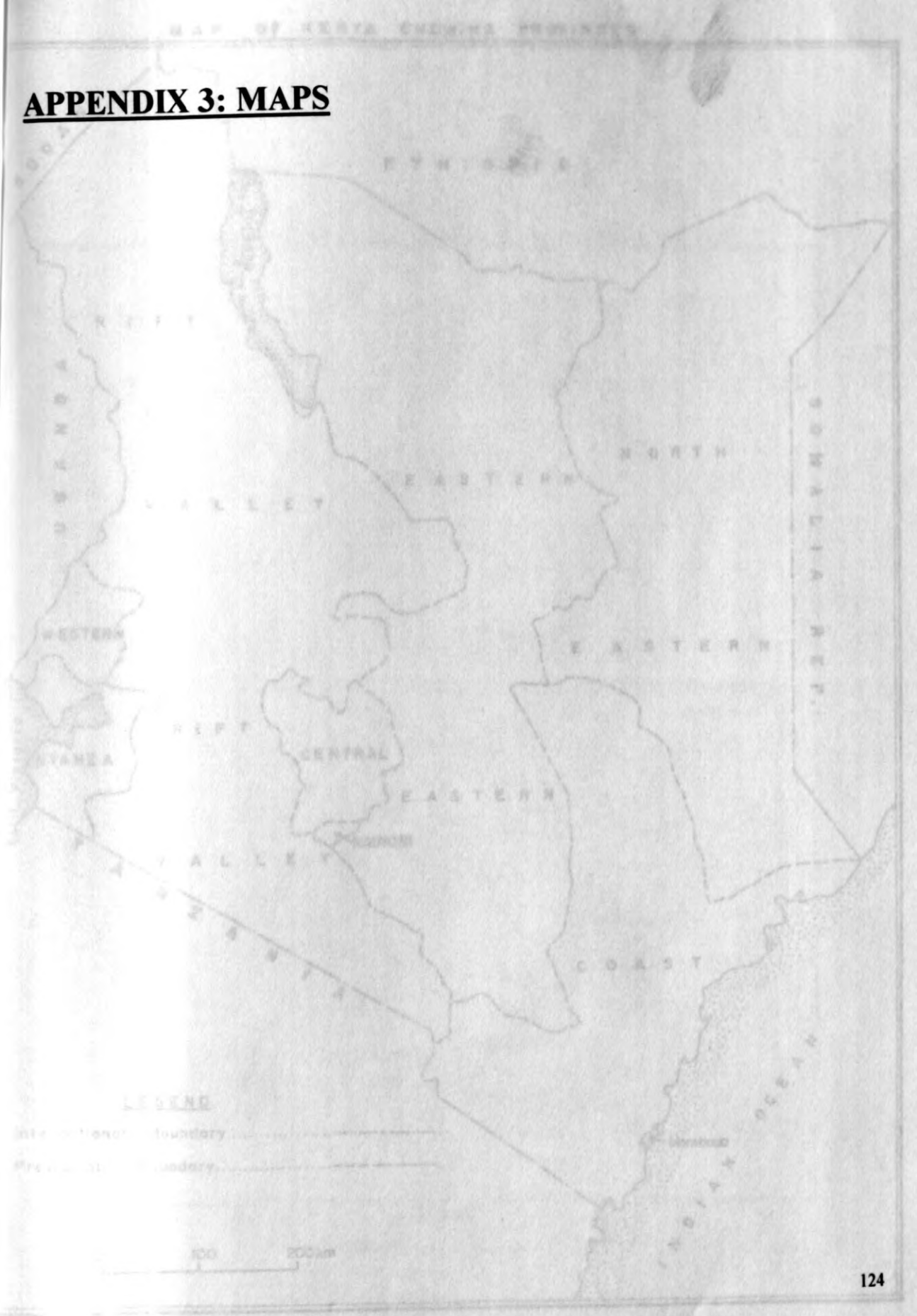
LOGISTIC REGRESSION MODEL FOR CENTRAL PROVINCE.

	EQUATION							
VARIABLE	1	2	3	4	5	6	7	8
OLD1								
B	1.0410	1.1049	1.1555	1.0652	1.0655	.9855	1.0087	1.0711
SIG	.1664	.1365	.1006	.1206	.0514	.0615	.0546	0398
EXP(B)	2.8321	3.0190	3.1756	2.9014	2.9023	2.6793	2.7422	2.9185
LEARN1								
B	-.7106	-.7071	-.7408	-.7469	-.6795	-.7958	-.9049	-1.0253
SIG	.2971	.2887	.2230	.2136	.2457	.1500	.0935	.0418
EXP(B)	.4914	.4931	.4767	.4738	.5069	.4512	.4046	.3587
KNO1								
B	1.0769	.9140	.6749	.7135	.6819	.6426	.6148	
SIG	.1170	.1670	.2910	.2504	.2684	.2918	.3102	
EXP(B)	2.9357	2.4943	1.9639	2.4012	1.9776	1.9015	1.8492	
DIGS1								
B	-.5888	-.7010	-.8576	-.7894	-.7727	-.7948		
SIG	.6202	.5491	.4616	.4918	.4923	.4798		
EXP(B)	.5550	.4961	.4242	.4541	.4618	.4517		
MONEY1								
B	.6253	.5546	.3267	.2657	.3469			
SIG	.3528	.3806	.5845	.6526	.5500			
EXP(B)	1.8688	1.7412	1.3864	1.3043	1.4146			
PROGENY1								
B	-1.0852	-1.0265	-.2669	-.1799				
SIG	.2734	.2900	.7452	.8231				
EXP(B)	.3378	.3582	.7658	.8354				
PROGENY2								
B	-1.1910	-1.2909	-.6238	-.6474				
SIG	.2546	.2095	.4623	.4387				
EXP(B)	.3039	.2750	.5359	.5234				
PREFER1								
B	-.6441	-.8277	.1554					
SIG	.6901	.5954	.8979					
EXP(B)	.5251	.4370	1.1681					
PREFER2								
B	.1381	-.1307	.4679					
SIG	.9311	.9324	.6972					
EXP(B)	1.1481	.8775	1.5966					
OPINION1								
B	10.8994	9.9688						
SIG	.8173	.7279						
EXP(B)	54146.457	21350.389						
BELIEF1								
B	-7.8467							
SIG	.8552							
EXP(B)	.0004							
BELIEF2								
B	-8.1404							
SIG	.8499							
EXP(B)	.0003							
CONSTANT								
B	-1.4725	-3.4558	1.1482	1.2062	1.2573	1.2968	.9750	1.1471
SIG	.9575	.8095	.0776	.0549	.0284	.0226	.0014	.0000
-2LL	77.026	79.591	90.156	90.536	91.198	91.558	92.139	93.138

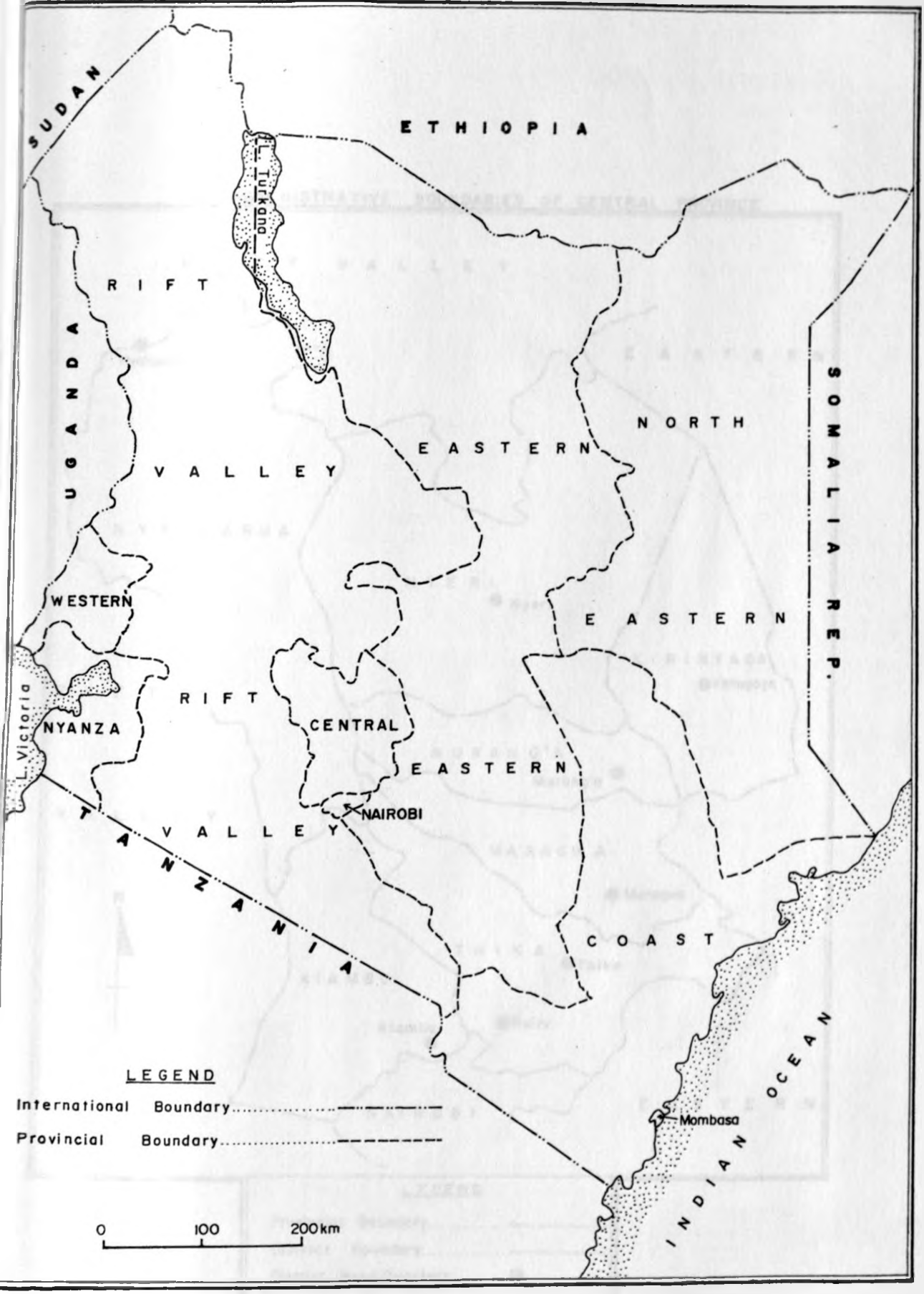
LOGISTIC REGRESSION MODEL FOR WESTERN PROVINCE.

VARIABLE	EQUATION					
	1	2	3	4	5	6
PROGENY1						
B	6.1134	6.0569	6.1015	5.4681	4.7135	2.2123
SIG	.0600	.0550	.0544	.0494	.0664	.1064
EXP(B)	451.8906	427.0673	446.5204	236.9984	111.4365	9.1367
PROGENY2						
B	6.3399	6.2902	6.3480	6.4177	5.3596	4.0141
SIG	.0332	.0290	.0288	.0327	.0398	.0282
EXP(B)	566.3320	539.2455	571.3753	612.5637	212.6483	55.3714
PREFER1						
B	5.8848	5.8414	5.9176	5.9108	4.9558	4.7166
SIG	.0135	.0113	.0100	.0099	.0054	.0068
EXP(B)	459.5201	344.2756	371.5366	369.0010	142.0006	111.7846
PREFER2						
B	3.3891	3.3715	3.3833	3.4803	2.6953	2.6309
SIG	.0383	.0376	.0376	.0327	.0264	.0308
EXP(B)	29.6402	29.1230	29.4668	32.4686	14.8096	13.8866
MONEY1						
B	2.7274	2.7207	2.7603	2.7602	2.5453	2.5981
SIG	.0717	.0708	.0675	.0712	.0773	.0437
EXP(B)	15.2928	15.1916	15.8045	15.8025	12.7472	13.4378
OLD1						
B	-2.9904	-2.9260	-2.9545	-2.6382	-2.6135	
SIG	.2043	.1801	.1786	.2035	.2056	
EXP(B)	.0503	.0536	.0521	.0715	.0733	
LEARN1						
B	2.5787	2.5858	2.5844	2.2667		
SIG	.2155	.2150	.2149	.2478		
EXP(B)	13.1800	13.2737	13.2549	9.6476		
BELIEF1						
B	-4.2358	-4.1262	-4.0964			
SIG	.9449	.9458	.9462			
EXP(B)	.0145	.0161	.0166			
BELIEF2						
B	-3.5031	-3.4126	-3.4030			
SIG	.9544	.9552	.9553			
EXP(B)	.0301	.0330	.0333			
KNO1						
B	-4.4044	-4.4017				
SIG	.9264	.9282				
EXP(B)	.0122	.0123				
DIGS1						
B	.1071					
SIG	.9413					
EXP(B)	1.1131					
CONSTANT						
B	7.0692	7.0551	4.8672	3.4188	2.4286	2.3457
SIG	.8218	.8240	.8100	.0088	.0011	.0002
-2LL	24.680	24.685	24.749	25.013	26.897	28.524

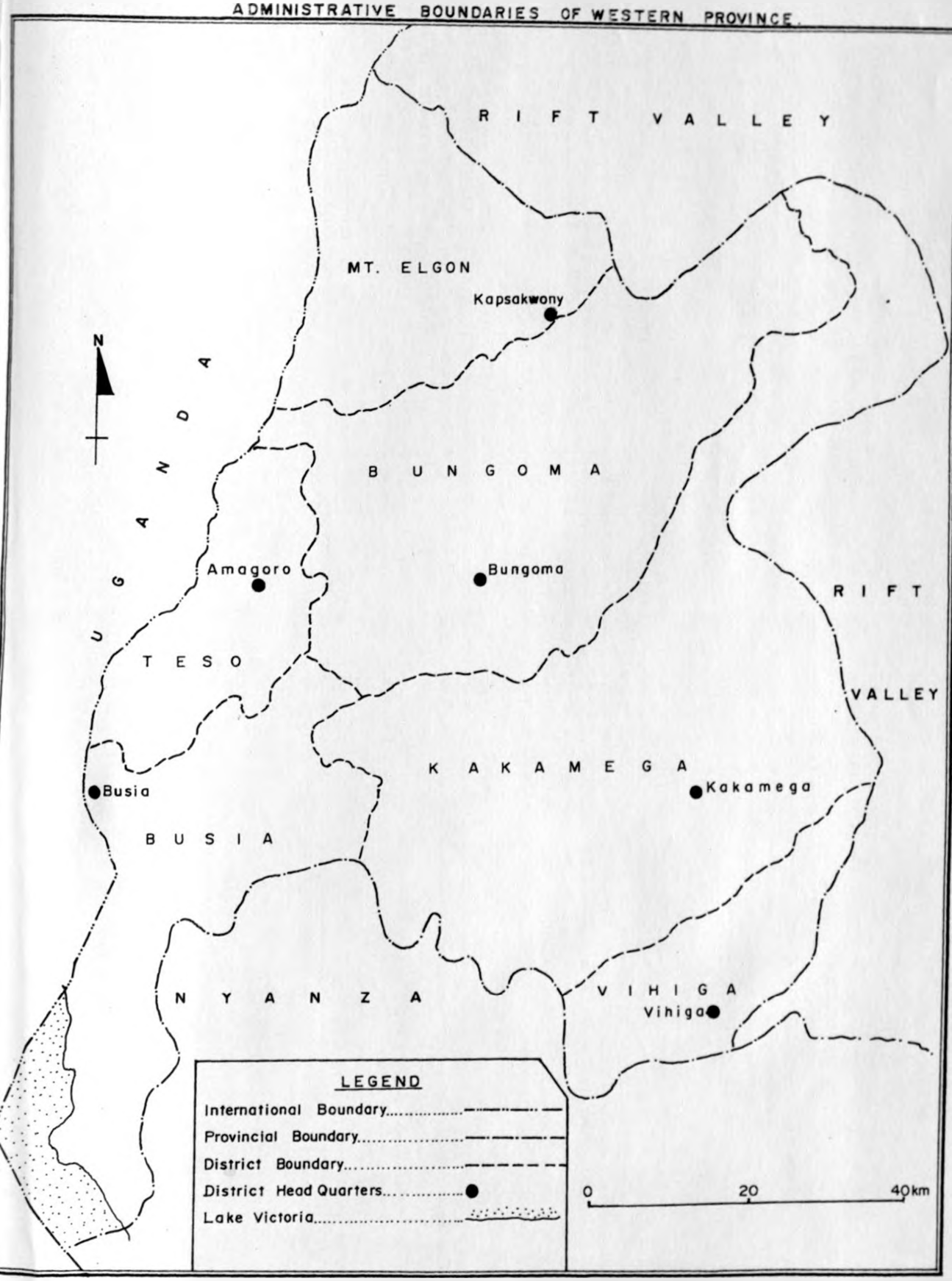
APPENDIX 3: MAPS



MAP OF KENYA SHOWING PROVINCES



ADMINISTRATIVE BOUNDARIES OF WESTERN PROVINCE.



EAST AFRICANA COLLECTION