

U THE IMPACT OF THE PERCEIVED VALUE OF CHILDREN;
AVAILABILITY AND QUALITY OF FAMILY PLANNING SERVICES
ON CONTRACEPTIVE USE IN RURAL KENYA 4

BY

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the degree of Master of Arts (Population Studies) in the
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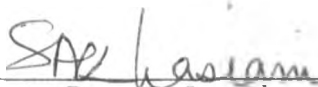
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DECLARATION

This Thesis is my own work and has not been presented for a degree in any other university.

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This Thesis has been submitted for examination with our approval as the university supervisors.

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DEDICATION

To the dead: Magdalen Ajuma, Manuel Anyara my parents.

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ABSTRACT

This study focuses on the interaction between use of family planning methods and old age parental expectation of social and economic benefits from their children on one hand and availability and quality of family planning factors on the other. The study has four objectives. It first examines the effect of old age parental expectation of social and economic benefits from their children on approval and use of contraceptives. Secondly, the study also examines the relationship between approval and use of contraceptive methods and the background socio-economic (level of educational attainment), socio-cultural (opinion of the respondents' husbands on their wives practising family planning) and demographic (desire for more children, parity and age) factors. The last two objectives attempt to examine the effect of availability and quality of family planning services on contraceptive use.

The study utilised the 1992 Kenya Fertility Decline Survey data collected from a sample of 720 rural women married to male heads of households under 55 years of age. Crosstabulation, chi-square statistic and log-linear logistic regression methods have been used to analyze data.

The crosstabulation results show that the respondents' approval of spouses to use family planning to delay pregnancy was very high. However, the chi-square test showed that parental expectation to live with one of their children was significant in explaining approval of spouses to use family planning to delay pregnancy. The majority of non-current users of contraceptive

methods expected regular financial or farm work assistance from their children and also to live with one of their children in old age. The chi-square test showed that the relationship between old age parental expectation of financial assistance from their children and farm work assistance from their sons and current contraceptive use, was significant at .05. The chi-square test further showed that the relationship between approval of spouses to use family planning methods to delay pregnancy and the background variables namely: level of educational attainment, opinion of the respondents' husbands on their wives practising family planning, and desire for another child was significant.

Assessment of total travel time as an indicator of availability of family planning services was found to be significant in explaining current contraceptive use in terms of the chi-square test.

In logistic regression analysis, parental uncertainty in expecting farm work assistance as compared to definite expectation of regular farm work assistance from their sons in old age, favourable opinion of the respondents' husbands on their wives practising family planning relative to when the husbands are against family planning, disapproval as compared to approval of spouses to use family planning to delay pregnancy, Primary and secondary education as compared to no level of educational attainment and desire for no more children relative to desire for more children were among the most significant determinants of the use of family planning methods. All the above except disapproval

of spouses to use family planning to delay pregnancy, increased the odds of current use.

The results point to the fact that the background factors: husbands opinion, level of educational attainment and desire for no more children are the significant determinants of the odds of current contraceptive use in rural Kenya. However, the value of children in terms of social and economic old age security does not currently appear as a significant determinant of current contraceptive use in rural Kenya. Higher levels of contraceptive use can be achieved by increased socio-economic development aimed at alleviation of poverty and ignorance. However, further follow-up study needs to be carried out first to establish other factors responsible for non-current use of contraceptives among respondents who would always approve family planning but are not current users and secondly to determine whether the respondents who indicated that they did not want another child had attained their desired family size or had excess number of children.

TABLE OF CONTENTS

DEDICATION	i
ACKNOWLEDGEMENTS	ii
ABSTRACT	iii
CHAPTER 1	1
INTRODUCTION	1
1.1 BACKGROUND INFORMATION	1
1.2 STATEMENT OF THE PROBLEM	7
1.3 OBJECTIVES	9
1.4 STUDY JUSTIFICATION	9
1.5 SCOPE AND LIMITATION OF THIS STUDY	10
CHAPTER 2	12
LITERATURE REVIEW, THEORETICAL FRAMEWORK AND OPERATIONAL	12
2.1 AVAILABILITY OF FAMILY PLANNING SERVICES	12
2.2 QUALITY OF FAMILY PLANNING SERVICES	14
2.3 SOCIAL AND ECONOMIC VALUE OF CHILDREN	17
2.4 THEORETICAL AND OPERATIONAL FRAMEWORKS	22
2.5 THEORETICAL STATEMENT	27
2.6 Models Adopted and Modified	28
2.7 CONCEPTUAL MODEL	30
2.8 CONCEPTUAL HYPOTHESES	31
2.9 OPERATIONAL MODEL	32
2.10 OPERATIONAL HYPOTHESES	33
2.11 OPERATIONAL DEFINITIONS	34
CHAPTER 3	37
METHODOLOGY	37

3.1	DATA COLLECTION	37
3.2	Technique of Data Collection	39
3.3	Quality of Data	39
3.4	Field problems during data collection	41
3.5	Methods of analysis	43
	CHAPTER 4	54
	APPROVAL AND USE OF CONTRACEPTIVES	54
4.0	Introduction	54
4.1	The characteristics of the study population	55
4.2	Approval of spouses to use family planning methods by type of old age parental expectation	58
4.3	Socio-economic, socio-cultural and demographic differentials by approval of spouses to use family planning methods to delay pregnancy	64
4.4	Use of family planning methods by type of old age parental expectation	70
4.5	Socio-economic, socio-cultural and demographic differentials in current use	74
4.6	Contraceptive use and availability and quality of family planning services	81
	SUMMARY	86
	CHAPTER 5	88
	CURRENT CONTRACEPTIVE USE	88
5.0	Introduction	88
5.1	Variable description	89
5.2	Mean values for the selected variables	92
5.3	Effect of parental expectation of social and economic benefits from their children on contraceptive use	95

5.4	Effect of parental expectation of social and economic benefits from their children; socio-economic and socio-cultural factors on contraceptive use	97
5.5	Effect of parental expectation of social and economic benefits from their children and demographic factors contraceptive use	103
5.6	Effect of parental expectation of social and economic benefits from their children; socio-economic, socio-cultural and demographic factors on contraceptive use	102
5.7	Significant determinants of current contraceptive use	105
5.8	Effect of availability and quality of family planning services on current contraceptive use	108
5.9	Variable description	109
5.10	Mean values of the selected variables	111
5.11	The correlation coefficients	113
5.12	Effect of availability and quality of family planning services on current contraceptive use	114
5.13	SUMMARY	121
	CHAPTER 6	123
	SUMMARY, CONCLUSION AND RECOMMENDATIONS	123
6.1	Policy recommendations	129
6.2	Recommendations for further research	131
	BIBLIOGRAPHY	133

Table 3	Summary of the sample design	38
Table 4. 0	Age characteristic of the study population .	56
Table 4. 1	Level of educational attainment of the study population	57
Table 4. 2	Percent distribution of respondents by old age expectations from their children	57
Table 4. 3	Percent distribution of women by approval of spouses using Family Planning methods and old age parental expectation of financial assistance from children.	59
Table 4. 4	Percent distribution of women by approval of spouses using Family Planning Methods and old age Parental expectation of farm work assistance from sons.	61
Table 4. 5	Percent distribution of women by approval of spouses using Family Planning Methods and old age parental expectation to live with children. .	63
Table 4. 6	Distribution of women approving spouses to use Family Planning methods by the level of educational attainment.	65
Table 4. 7	Distribution of women approving spouses to use Family Planning methods by the opinion of their husbands on family planning.	66
Table 4. 8	Distribution of Respondents by approval of spouses using Family Planning methods by desire for another child.	68
Table 4. 9	Distribution of women approving spouses using Family Planning by children ever born.	69
Table 4.10	Distribution of respondents' approval of spouses to use Family Planning by age.	70
Table 4.11	Percent distribution of women by current use of Family Planning Methods and old age parental expectation of financial assistance from children.	71
Table 4.12	Percent distribution of women by current use of Family Planning methods and Old age parental expectation of farm work assistance from sons.	72

Table 4.13	Percent distribution of women by current use of Family Planning methods and Old age parental expectation to live with children.	74
Table 4.14	Distribution of women by current use of family planning methods and level of educational attainment.	75
Table 4.15	Distribution of Respondents by Current use of Family Planning methods and the husbands' opinion on Family planning.	76
Table 4.16	Distribution of women by current use Family Planning methods and desire for another child..	78
Table 4.17	Distribution of Respondents by current use of family planning methods and number of children ever born	79
Table 4.18	Distribution of Respondents by current use of family planning methods and age	80
Table 4.19	Percent distribution of Respondents by current use of Family Planning methods and total travel time to and from the service delivery unit. . .	82
Table 4.20	Percent distribution of Respondents by current use of Family Planning methods and assessment of waiting time at the service delivery unit. . .	83
Table 4.21	Percent distribution of Respondents by current use of Family Planning methods and method information satisfaction at the service delivery unit.	84
Table 4.22	Percent distribution of current use of Family Planning method by methods availability at the service delivery point.	85
Table 4.23	Percent distribution of Respondents by current use of Family Planning methods and visits by a Family Planning field worker.	86
Table 5. 1	Mean values for the selected variables	92
Table 5. 2	The correlation matrix	94
Table 5. 3	Logistic regression coefficient estimates for contraceptive use with parental expectation of social and economic benefits from their children	96

Table 5. 4	Logistic regression coefficient estimates for contraceptive use with parental expectation variables and socio-economic and socio-cultural variables	98
Table 5. 5	Logistic regression coefficient estimates for contraceptive use with social and economic expectation, age, parity and desire for other child variables	101
Table 5. 6	logistic regression coefficient estimates for current contraceptive use with social and economic expectation variables; socio-economic, socio-cultural and demographic variables	103
Table 5. 7	Stepwise logistic regression coefficient estimates for the significant determinants of current use of family planning methods.	106
Table 5. 8	Mean values of the selected variables	112
Table 5. 9	The correlation matrix	113
Table 5.10	Logistic regression coefficient estimates for current contraceptive use with availability and quality of family planning service variables .	115
Table 5.11:	Logistic regression coefficient estimates for current contraceptive use with availability and quality of family planning service variables and socio-economic and socio-cultural variables .	116
Table 5.12	Logistic regression coefficient estimates, for current use with availability and quality of family planning service variables and demographic variables	118
Table 5.13	Logistic regression coefficient estimates for current use with availability and quality of family planning service variables and demographic, socio-economic and socio-cultural variables	120
Table 5.14	Stepwise logistic regression coefficients for the significant determinants of current use of family planning	121

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND INFORMATION

The 1950s were marked by remarkable rises in annual population growth rates in most of the developing countries. In the same period, the developed countries were experiencing declining population growth rates. Such Countries in the developed world included Austria (U.S. Bureau of the Census 1980), and Japan (Freedman and Blanc 1992) both of which experienced zero population growth rate during this period.

The high population growth rates in the developing countries were explained by declining mortality and rising fertility rates. The mortality decline has been as a result of improvements in the medical technology and availability of public health services both of which have helped contain the prevalence of diseases that caused death and infertility (UN. 1973, Som 1972, Jean 1981). The improvements in nutritional statuses which have been realised during the last two decades have been responsible for the high fertility which has been recorded among married women and adolescents.

Although some scholars have argued that rapid population growth rate accelerates socio-economic development (Amin 1972, Boserup 1965), this argument has been counteracted by another opinion which strongly asserts that rapid population growth has depressing effect on the rate of socio-economic development. The

latter assumption has been exemplified by the increasing level of dependency and land fragmentation which have had depressing effect on development. Furthermore, the high level of dependency has eroded the capacity to save and invest among nations and individuals as surplus earnings have been continuously diverted to the consumption needs of the non productive population. The recognition of such effects among the less developed countries has led to the adoption of national policies and programmes aimed at either reducing or controlling population growth rate through the provision of information, supplies and services of modern contraceptive methods. These policies are implemented through the Family Planning Programmes (FPP).

In 1952, India became the first developing country to launch a National Family Planning Programme (NFPP) which was aimed at reducing India's population growth rate by providing Family Planning Services which in turn enhanced the health and the welfare of the Indian people (Nortman 1978, Berelson, et. al.1970, Mauldin 1975).

The establishment of family planning programmes in some of the developing countries in 1965- 1975 bore fruits in some parts of Asia namely East Asia whose total fertility by 1985 had declined to 2.3, and Latin America whose total fertility rate was 3.1 by 1985 (Freedman and Blanc 1992). The World Fertility survey results showed fertility decline in some countries like Singapore, Taiwan, South Korea, Trinidad and Tobago, Mauritius, Fiji among others in the above mentioned continents (Mauldin et. al.1978, Cornelius, et.

al. 1983). Past studies in family planning have attributed such fertility declines to the effort of the Family planning programmes which have accelerated the use of contraceptive methods which in turn have accelerated fertility decline (Hammerslough 1991).

Kenya has also experienced rapid population growth since 1948. In 1948, Kenya had a population of 5.4 million, a growth rate of 2.5 % , and a total fertility rate of 5.2. In 1962, she had a population of 8.6 million , a population growth rate of 3.0% and a total fertility rate of 6.8 children. The 1969 census results showed that Kenya had a population of 10.9 million which was growing at the rate of 3.3%. The total fertility rate had reached 6.8 children (Frank and McNicoll 1987, Ocholla-Ayayo 1991). The 1979 census results showed that the Kenyan population had risen to 15.3 million, and had a total fertility of 8.1. Kenya's Population was by then growing at a rate of 3.8%, and was among the fastest growing population in the world (World Bank, paper NO. 3409 KE, 1983).

The above scenario of population trend in Kenya, raised concern among the country's economists, policy makers and planners. This concern was caused by the rapid rate of population growth which was exerting pressure on the available national resources and had a negative effect on socio-economic development (Republic Of kenya 1965). In an attempt to create an equilibrium between population growth and socio-economic development, the government of Kenya saw a need to control the population growth rate.

In 1967, Kenya was among the first countries in Sub-Saharan

Africa to launch a national family planning programme. This programme aimed at sensitising people on Family Planning issues. The goal of introducing people to modern contraceptive methods was with a view to bringing about a reduction in the rate of population growth rate. The family planning programme was integrated with Maternal and Child Health (MCH) programmes under the Ministry of Health.

On the implementation of family planning programme, acceptance by clients was to be on voluntary basis and respect was to be maintained for individual customs and values (Ocholla-Ayayo 1991). In the first phase of the programme, the government of Kenya embarked on the expansion of family planning programme in the form of contraceptive distribution, establishment of family planning clinics, education through radio, seminars and workshops. Family Planning Programme was extended to almost all districts and provinces in Kenya.

The first phase of the programme 1968-79 was aimed at reducing the annual population growth rate from 3.3 % to 3.0 %. Despite the colossal efforts put into controlling population growth rate in the late 1960s and early 1970s, a report produced by the Ministry of Health in 1975 indicated that only 2 % of married women of reproductive age were using contraceptive methods (World Bank 1980, Ocholla-Ayayo, 1991). This level of use was a clear indication that there was a negative attitude and a slow acceptance of family planning in Kenya (Ocholla-Ayayo 1991). The causes of this negative response were identified as: inadequate trained paramedical

personnel, poor programme implementation and management, and inadequate coverage and distribution of rural health facilities. In response to these barriers, the government of Kenya in its 1975-1979 plan increased the number of community enroled nurses and gave management support in an enlarged programme of activities. Although the government had achieved some of its objectives given the conditions of the time, the rate of use did not improve in the subsequent years. There were 9% of married women in 1977 (KFS, 1977/78), 17% of married women in 1984 (1984 KCPS) and 27% of married women in 1989 (1989 KDHS) who were using contraceptives in Kenya.

In an attempt to understand the peoples' perception of family planning as a determinant of contraceptive use, it was found that perception of Family Planning as supporting spacing of childbirths and moderate reduction of fertility did not in that respect encourage low fertility. This contention was based on the fact that the women who supported family Planning and those who did not, had almost the same level of desired total fertility, i.e 7.65 and 7.73 and an actual fertility of 6.13 and 6.33 children per woman respectively (Dow, et. al, 1983). Approval of Family Planning did not also appear to encourage lower levels of fertility because those who approved had a desired total fertility of 7.13 and an actual total fertility of 6.27 and those who did not approve had a desired total fertility of 9.21 and an actual total fertility of 6.2 children per woman (Dow, et.al, 1983). It would appear as if availability of contraceptive methods does not mean automatic

contraceptive use and/or lowering of fertility (Frank and McNicoll 1987, Dow, et. al, 1983).

Although the 3.6% population growth rate and 6.7 total fertility rate (TFR) recently advanced by the Kenya Demographic and Health Survey (KDHS 1989) results have tended to ignite a sense of relief among policy makers, programme planners and implementors, such relief appears to be deceptive because there are 73% of women who are non-users of modern contraceptive methods in Kenya. These women are married and sexually active and thus are at risk of child bearing. The Kenya Demographic and Health Survey results can not compromise the usefulness of the present study which examines the association between contraceptive approval and use in the context of old age parental expectation of social and economic benefits from their children on one hand and availability, quality of the family planning services on the other hand. In the former case, the contribution of the background socio-economic, socio-cultural and demographic factors in the respondents' answers has been taken into consideration.

1.2 STATEMENT OF THE PROBLEM

The percent of women using contraceptive methods and general family planning services is low as compared to the percent who indicate knowledge about contraceptive methods and purpose of family planning in Kenya. The recorded levels of knowledge of contraceptive methods in Kenya has been 92 % (KDHS 1989) among married women. The corresponding recorded rate of contraceptive use being only 27 % (KDHS 1989). This shows that there has been a slow acceptance of family planning in Kenya. Previous attempts to understand the slow acceptance of family planning among married women have not in that respect yielded significant levels of current use.

However, it has been observed that the Family planning Programme is a system with interrelated parts which have a complex relationship with the social and economic environment. Past attempts to examine availability and the quality of family planning services in relation to current use appear to have been inadequate as evidenced by the presence of 73% of married women not using contraceptive methods. More importantly, the relationship between the value of children and contraceptive use has not been examined. The current study examines the effect of availability (assessment of total travel time to and from the family planning service delivery point and the number of family planning methods available at the family planning service delivery point) and quality (satisfactory information about the family planning method obtained, assessment of waiting time for service and follow-up of

the clients) of family planning services on contraceptive use. Moreover, the paramount aspect of the study is to determine the impact of the value of children measured in old age parental expectation of economic (financial and farm work assistance) and social (to live with one of their children) benefits from their children on approval and use of family planning methods. The direction of effect of parental expectation and availability and quality of family planning factors on contraceptive use is assumed to be influenced by the background socio-economic (educational attainment), socio-cultural (husbands' opinion on their wives practising family planning and approval of family planning) and demographic (age, parity and desire for more children) factors. The contribution of the background factors in predicting contraceptive use is also determined.

1.3 OBJECTIVES

In the broader perspective, the study attempts to determine the effect of old age social and economic parental expectations from their children on the approval and ultimate use of contraceptive methods. In part, it also aims to find out the effect of availability and quality of family planning services on contraceptive use. Specifically, the study aims to:

1. Determine the effect of old age parental social and economic expectations from their children on the approval and use of contraceptive methods.
2. Establish socio-economic, socio-cultural and demographic differentials in the approval and use of Family Planning methods.
3. Find out as to whether Family Planning supply factors such as availability have an effect on contraceptive use; and
4. To examine the quality of Family planning services with a view to ascertaining their effect on contraceptive use.

1.4 STUDY JUSTIFICATION

In view of the fact that the Family Planning Programme was officially launched in 1967, and considering the fact that use of contraceptive methods has been low relative to the high knowledge of the same, this study attempts to investigate the effect of child

to parent wealth flow and social security on approval and use of contraceptive methods. The findings from this study should bridge the gap in knowledge concerning the impact of the economic and social benefits expected from children on parents' approval and use of family planning methods.

The study of factors influencing contraceptive use can help identify factors favouring high fertility and non-use of contraceptive methods. Identification of such factors means that family planning efforts will have to be directed toward combating them so as to reach desired goals. This study thus provides valuable data to family planning programme implementors.

The findings regarding availability and quality of family planning services considered in detail in this study should be able to assist Family Planning Programme implementors in the promotion and improvement of such services in areas where they are either lacking or are of poor quality.

1.5 SCOPE AND LIMITATION OF THIS STUDY

This study is confined to data secured from women married to men aged below 55 years interviewed in a survey carried out in August 1992. Geographically, this study covers the whole of rural districts in Kenya except: Isiolo, Marsabit, Samburu, Turkana and the whole of North Eastern Province. These districts have physical, climatic, cultural and security problems that have so far inhibited the detailed collection of data.

There are a number of limitations to this study, namely that this study is limited to women married to men below the age of 55

years. This means that it excludes the opinions of women not married but have attained the reproductive age, those married to men aged 55 years and over and those who are married but are also heads of households. These groups of women were not interviewed.

Another limitation is the geographical and administrative scope. Its coverage is limited only to districts where the Central Bureau of Statistics (CBS) rural field work infrastructure is developed and operational. Thus a sample within an estimated 5% of the total national population will not be reflected in this study. The study does not also include urban areas which have an important contribution to the demographic profile of the country.

CHAPTER 2

LITERATURE REVIEW, THEORETICAL FRAMEWORK AND OPERATIONAL MODEL

2.1 AVAILABILITY OF FAMILY PLANNING SERVICES

The concept of availability used in reference to Family Planning services, denotes the supply side of the Family Planning Programme. In the past, researchers in the field of Family Planning have used a number of indices to measure the availability of Family planning services, among these are: availability of Family Planning methods in the service delivery points, accessibility of the service delivery point in terms of distance, time, terrain and means of transport to the place of service.

The results of availability of family planning services studies have shown that availability is positively related to the use of contraceptive methods. Greater use of family planning services has been related to the availability of quality of family planning services through effective community based outreach especially in Zimbabwe and Botswana (McNamara 1991). In view of the fact that the ultimate goal of family planning is to reduce fertility, past studies have shown that availability accelerates use of contraceptive methods and thereby bringing desired decline in fertility (Hammerslough, 1991; Rodrigues, 1978).

In their studies in Taiwan, Freedman and Takeshita (1969) indicated that availability of multiple methods improved continued contraceptive use. This was underscored by Philip et al. (1988), in reference to Matlab in Bangladesh and Gireen (1985) in the

Dominican Republic.

In the analysis of WFS data of Korea, Bangladesh, South Mexico, Tsui et al. (1981), found that the probability of contraception in high, median and low density areas of availability was 71%, 54% and 83% respectively (Cornelius et al. 1983: Tsui et al. 1981: Tsui 1982). Although this may look unusual especially in low density areas, this may be explained by the presence of conducive conditions for the practise of Family Planning but constrained by the scarcity of contraceptive methods.

Cornelius et al. (1983), posit that inadequate availability of family planning services, rugged terrain, and low levels of education explain low levels of contraception in Nepals.

In Africa, improvements in availability of family planning services have resulted in fertility declines in Zimbabwe, Botswana and Kenya, (McNamara R.S. 1991).

In Kenya, lack of family planning services in some parts of the country explain non-use of contraceptive methods (KDHS 1989). Dow and Werner (1983) state that availability of family planning facilities, personnel and methods is likely to promote contraceptive use in Kenya. In the early 1980's only 26% of the rural population in Kenya could reach a source of Family Planning within 3 hours. By 1989 this percentage had risen to 87 %. Such increase in access to services coincided with the beginning of the rise in contraceptive prevalence in Kenya (Hammerslough, 1992). It is likely that women who would have to travel 3 hours to the source of Family Planning are less likely to use clinical methods. Thus

those near sources of supply are more likely to use efficient methods than those far away. There is therefore latent demand for clinical services in rural Kenya to be satisfied by service access (Hammerslough, op. cit).

In explaining the apparent fertility decline in Kenya from a total fertility rate of 7.7 children per woman in 1984, to 6.7 in 1989, Frank and McNicoll (1987) describe such a phenomena as being caused by availability of family planning services. Availability of such services has increased the use of contraceptive methods and accelerated the fertility transition in Kenya by increasing the proportion of users who rely on highly effective clinical methods (Hammerslough, 1990,1992:540; Njogu et, al. 1991; Cross, et, al. 1991).

2.2 QUALITY OF FAMILY PLANNING SERVICES

The quality of Family Planning Services from previous researches has been examined by considering the way individuals or clients are treated by the system providing the Family Planning service. The indices that have so far been devised to measure quality of Family Planning services are: choice of methods, information given to clients, interpersonal relations, technical competence, follow-up visits, and appropriate constellation of services (Bruce J 1990).

The provision of efficient methods of contraception is likely to accelerate fertility decline (Frank and McNicoll, 1987). Hammerslough (1991) contends that clinical methods e.g (IUD,

Sterilization) avert more pregnancies than supply methods (Condom, Pill). In East Java and Indonesia, lack of choice of method retards contraceptive use. Those whose requested choice of method was not supplied had high rate of discontinuation (Pariani 1987 Townsend, 1990). The high contraceptive prevalence rates in Hongkong, India, Korea and Thailand is explained by reliable supply of multiple Family Planning methods (Freedman and Berelson (1976). The fact that available methods do not adequately meet the needs of women of reproductive age or currently married women of reproductive age explains widespread desire for next child as a cause for non-use or discontinuation of contraceptive use in Costa Rica, Thailand and Bangladesh. The intention to use family planning services may be to achieve short term spacing, long term spacing, termination of births or limiting births. Bruce, et al. (1990) argue that increased number of long active but reversible contraceptive methods provide a healthy alternative to women who undergo caesarean section to obtain sterilization in political environment where sterilization is frowned. High quality of family planning services in Costa Rica, Thailand and Colombia have contributed greatly to fertility decline in these countries (Cornelius R. et al., 1983).

In studies carried out in Korea, Mexico and Bangladesh, it was found that community based distribution system is positively correlated with use and continued use of contraceptive methods (Tsui, O.A 1982 & Tsui , et al.1981). Knowledgeable clients on issues of family planning methods are able to choose a method they

need. They are thus able to use it successfully and the derived satisfaction from such successful use promotes continued use and ability to recommend such methods to friends (Townsend, 1990).

Bruce et al., (1990), contend that better information on family planning services and contraceptive methods backed by written material had beneficial effects on individuals' knowledge, behaviour and satisfaction of family planning services.

The providers of family planning services have also been found to affect use of contraceptive methods. Improved quality of client-provider interaction promotes use of contraceptive methods (Townsend J.W., 1990). Trained staff in family planning and in the handling of side effects associated with some contraceptive methods, positively affects use (Bruce et al., 1990). Townsend (1990), argues that a provider who helps users understand and manage use-related side effects is likely to positively affect use, continued use and satisfaction of the user. He further contends that complete and accurate counselling is associated with high use and client retention (Bruce et al., 1990). Such complete and accurate counselling in the use of contraceptive methods brings about satisfaction for the user. This explains accelerated continuation rates in India, Sri-Lanka, Bangladesh (Prabhavarathi et al., 1988).

The Provision of quality family planning services through effective community-based outreach, availability of highly trained, highly motivated staff, and provision of counselling and services that fit clients' needs have effected fertility decline in Zimbabwe

(with total fertility rate of 5.0 in 1988), Botswana (with total fertility rate of 5.0 1988), and Mauritius (with total fertility rate of 2.2 in 1986). Kenya is trailing behind with total fertility rate of 6.7 (McNamara 1991, Tsui 1982 & Tsui et al., 1981).

2.3 SOCIAL AND ECONOMIC VALUE OF CHILDREN

At a conceptual level, value of children in this study is denoted by some of the social and economic benefits parents expect to obtain from their children in old age. Expectations here are taken as expectation by parents that their children will fulfil their social and economic obligations towards their aged parents. It is more likely that parents with such expectations see their children in terms of future social and economic security. This category of parents is more likely not to use contraceptive methods than those without such expectations. Past studies in family planning services have shown that use of contraceptives is closely related to the economic and socio-cultural environment of the larger population (Ocholla-Ayayo, 1991).

Demographers elsewhere have contended that the advent of the European fertility transition in the 19th century was marked by the use of inefficient birth control methods such as the early versions of the condom, douches, diaphragm, and induced abortion (Hammerslough 1992). This means that fertility transition in Europe was advanced before the introduction of highly efficient contraceptive methods in most of the European countries. This

prior advance in fertility transition was well explained by the then prevailing social and economic conditions in Europe at the time of the transition. The sociological and economic theorists (Coale 1973) have argued that the social and economic conditions in Europe in the 19th century made the European peoples view fertility reduction as within the calculus of conscious choice and as advantageous. Apart from the availability and knowledge of effective techniques of fertility control, fertility transition in the Third World, can also be realised when the people of the Third World countries view the reduction of fertility as achievable and advantageous (Hammerslough 1992). In this respect therefore, the success of a Family Planning Programme may be seen as determined by the need for the family planning services by the people at the area of operation.

The fears entertained about use of certain contraceptive methods in the area of operation determine contraceptive use. Among users and ever users, experience of side-effects related to contraceptive methods like the pill and IUD have explained use discontinuation in Bangladesh, Korea, Thailand, Barbados, Colombia, and Costa Rica (Kar Kair et al. (1984). Studies in family planning have indicated that perceived risks of side effects are so extensive that they often outweigh a woman's desire to control child bearing. This is so because of the fear for long time infecundity among a people who value children and large family sizes. This situation is further aggravated by the fact that going out for help from the village reveals the problem to the whole

village. Such revelation may cause ridicule among the male members of the family for having allowed such a situation to occur (Simmons et al. 1988:33; Abdullah and Zeidenstein 1982, Schurer 1983).

The notion of birth spacing to protect the health of the mother and child is broadly accepted as a basis for good medical practice in most cultures and is not in conflict with Christian and Islamic religious practices and principles (Caldwell et al. 1988). However, both the christian and Muslim religious teachings strongly discourage the use of modern contraceptive methods. They argue that the use of modern contraceptive methods interferes with natural reproductivity as biblically defined.

The practice of contraception through its association with sexuality violates fundamental moral taboos. To some communities in the third world, family planning appears to lower the status of women (Simmon et al., 1988; Ocholla-Ayayo, 1991). This attitude in itself is a social barrier to contraceptive use.

In many parts of Africa and Asia, family planning programmes have unsuccessfully tried to meet the needs of potential users. The needs of the potential users are usually dictated by the characteristics of the potential user which include; age, level of educational attainment among others. In Colombia, Barbados, and Korea there was lack of systematic pattern between age and use of contraceptives (Kar Kair et. al,1984). Dow et. al,(1983) point out that low levels of educational attainment is a possible cause for low levels of approval, knowledge and use of contraceptive methods in rural Kenya.

Fears of permanent sterility explain cases of non-use among secondary level educated females in Costa Rica and Bangladesh. In Bangladesh and Korea, fears of temporary infecundity and permanent sterility hinder use of contraception. Such fears increase with age and high levels of parity (5+ children) (Kar Kair et al., 1984).

In the African traditional religion, fecundity and high fertility is taken as very important. The Supreme God is considered as the begetter of children (Caldwell et al., 1988). In their description of the situation of family planning programmes in Africa, Caldwell et al. (1988), have argued that the fundamental problem of family planning programmes in Africa is caused by a worry considered not wholly of this world among African peoples. This worry is associated with infertility, low fertility, miscarriage, premature births i.e early infecundity whether natural, pathological or contrived by surgical sterilization. No African person would view lack of a child or children as good omen. Thus abortion, miscarriage and sterilization, all are viewed as abhorrent (Caldwell et al., 1988). The contraceptive methods (abortion, sterilization) abhorred in Africa account for 85% and 65% of fertility control in China and India respectively.

African peoples view large number of children as guarantors of old age social and economic security (Caldwell J.C 1976, Frank and McNicolli 1987). As long as parental resources fall short of self-sufficiency, to support and sustain parental economic independence after the economic divide, the older generation still

have to count on the younger generation to fill in the security gap (Caldwell J.C, 1976, Van de Walle et. al, 1990). Ocholla-Ayayo (1991) and Radcliffe Brown (1950), have both agreed that an African marries because he wants children. The woman's capacity to bear children is highly valued (Ocholla-Ayayo 1991, 1983,& Mayer, 1973). It can be argued that attempts by women of reproductive age to resist contraceptive use is an expression aimed at safeguarding the distinct features of their womanhood.

In Kenya the fear of side effects explains high proportions of non-use of contraceptive methods: 39%, 29%, 26% responses for the pill, IUD and injectables respectively (KDHS, 1989, Dow et. al, 1983). Ocholla-Ayayo (1991), asserts that side effects (headaches, nausea, bleeding etc.) connected to contraceptive methods are considered to be signs of future permanent effects which lead to barrenness. This explains high rates of discontinuation. The husbands' opinion was also cited by the KDHS 1989 as a determinant of contraceptive use. Women whose husbands disapproved family planning were less likely to use contraceptives. However, high levels of use have been recorded among women of age 30-39 years, those with secondary level and above education and those with high parity (KDHS 1989).

From the literature review, it is noted that knowledge on the interaction between use of contraceptive methods and the economic and social value of children variables in Kenya is lacking. Moreover, elaborate information pertaining to the relationship between pertinent availability and quality of family planning

service variables considered in detail in this study and contraceptive use in rural Kenya is also unavailable. Apart from filling the research gaps identified above, the current study would also determine whether it is the intermediate (value of children variables) or the background (socio-economic, socio-cultural and demographic) variables that are determinants of current contraceptive use in rural Kenya.

2.4 THEORETICAL AND OPERATIONAL FRAMEWORKS

The proponents of the demographic transition theory, held that the 19th century European demographic transition was a function of economic and social development. The same advocates of this theory posited that socio-economic development was a necessary prerequisite to the onset of a similar demographic transition in the less developed countries (LDC). However, recent evidence has shown that some less developed countries in various stages of socio-economic development have already experienced declines in fertility. It has also been noted that strength and even the direction of relationship between fertility and certain socio-economic variables is not clear. It was found logical to suggest therefore that the European demographic transition may have been tied more to social and cultural factors rather than to changing economic conditions (Cornelius, R. M, et. al, 1983)

Early writers on the subject of fertility decline discounted the possibility of any significant impact of family planning on fertility. This was based on the fact that women of traditional

society only seek family planning services after bearing large numbers of children. However, later writers on the same subject found that changes in fertility in the less developed countries indeed tended to be related to the strength of organized family planning programmes (Cornelius R.M. et. al, 1983).

The theoretical framework in this study is drawn from the feeling among policy makers and family planning directors that important problems still exist in the supply of family planning services in the LDCs. Various arguments expounded by a number of scholars have been advanced in this section in an attempt to explain the possible factors that act as constraints to the use of contraceptive methods in Kenya. The assumption advanced in this study is that the success of Family Planning Programmes is dependent on the availability and quality of family Planning services and the need for such services in a given social and economic setting of the society. The social and economic environment's support of fertility control is very critical to the success of family planning objectives. The behaviour and satisfaction of clients is viewed to spring from specific input of the family planning programme, and that the output of the family planning programme is determined by a supportive environment.

The model used in this study is a modification of models propounded by various scholars of fertility control. Specifically, the arguments used here are those advanced by John Townsend (1990), figure 1, in his analytical framework of " Effective Family Planning service components"; Bruce Judith (1989, 1990) in her

"Fundamental Elements of the Quality of Care" framework; and, proponents of the theory of fertility control like Easterline's 1978 model, and J.C Caldwell's 1976 Wealth Flow model. Recent research has shown that Kenya is approaching a demographic transition (KDHS 1989 , Dow et, al. 1983). This transition is apparently being attributed to the efforts of family planning programmes in the country (Anne Cross et, al. 1991, KDHS 1989). When considering the demand and supply of children, it is notable to assert that both socio- economic development and family planning programme exert a synergetic influence on fertility through their influence on tastes, socio-economic status, and women's education. Family Planning Programmes supply the information, methods and services that individuals and couples need to control their fertility. However, the Family Planning Programmes have been characterised as a system with many interrelated parts and complex relationships with the social, economic and political environment as well as with the individual users (Simmon and Lapham 1986).

The components of supply influence contraceptive use. By increasing the availability of contraceptive methods, and improving the quantity and the quality of provider -client inter-actions, overall quality of care is enhanced and contraceptive use is increased. The environment, including the available contraceptive technology also affect contraceptive use (Townsend J. W ,1990).

There is no clear cut difference between availability and quality of Family Planning services. Both aspects of Family Planning Programme are geared at generating efficiency to meet the

demand. Improved quality of family planning services result in large number of more committed clientele of satisfied contraceptive users. The choice of methods is not possible without sufficient supply points. The interpersonal dimension of care is strongly influenced by the quantity of care-the amount and nature of contact between the client and the provider system (Bruce J 1990).

The quality aspects of the model used in this study are borrowed from the technical and interpersonal model of care developed by Donabedian (1980, 1988) and Modified by Bruce Judith (1990). Figure 2, illustrates Judith's (1990) Fundamental Elements of the Quality of Care Framework. The framework demonstrates that programme effort (policy/political support, resource allocation and management) have an influence on the elements of quality of care. These elements are ; choice of methods , information given to clients, technical competence, interpersonal relations, follow-up mechanism, and appropriate constellation of services. These elements are likely to affect clients' satisfaction and hence contraceptive use (Bruce, J. 1990).

The Family Planning Programmes have a complex relationship with the social and economic environment. The success of any family planning programme objectives partly depends on the degree of support accorded to it by the social and economic environment. If the social and economic environment is in a state that inhibits the members of a given society from controlling their fertility, then the objectives can not be fully realised.

This social and economic environment is defined by J.C

Caldwell (1976) in his Wealth Flow theory model. Caldwell's model is also supported by scholars like Easterline (1978) and Frank and McNicoll (1987). In general, fertility behaviour is rational, and fertility level is low or high as a result of economic benefits to individuals, couples or families in its being so. High or low fertility is dictated by the direction of intergenerational wealth flow (Caldwell J.C 1976:355).

The direction of argument in this study is that the success of family planning services in a society is determined by old age parental expectations from their children. These expectations are socially sanctioned obligations of children towards their parents and are considered as religious tributes. More specifically, when net wealth flow is toward parents, economic rationality dictates unlimited fertility. However after the economic divide, i.e when economic self-sufficiency has been attained, zero fertility is not realised. In fact, fertility often falls slowly and irregularly due to social and psychological reasons (Caldwell J.C 1976:345-46). In general, parents who expect old age social and economic benefits from their children would want to maximise such benefits by practising unlimited fertility (Easterline, 1978, Frank and McNicolli 1987).

In the operational model, old age parental expectations of: financial, farm work assistance and their expectation to live with one of their children, are likely to affect contraceptive approval and use. Furthermore, the availability and quality of family planning indices such as; visits from family planning workers,

number of contraceptive methods available and the respondent's assessment of waiting time and total travel time are likely to have an effect on contraceptive use. The socio-economic (educational attainment), socio-cultural (the opinion of the respondents' husbands on their wives practising family planning) and the demographic (age, parity and children ever born) variables are also viewed as factors influencing contraceptive approval and use. These variables are used as control variables in the logistic regression models.

2.5 THEORETICAL STATEMENT

Social and economic expectations, as well as availability and quality of family planning services are likely to affect contraceptive approval and use.

2.6 Models Adopted and Modified

Figure 1: Supply-side elements of family planning effectiveness (Townsend J.W 1990)

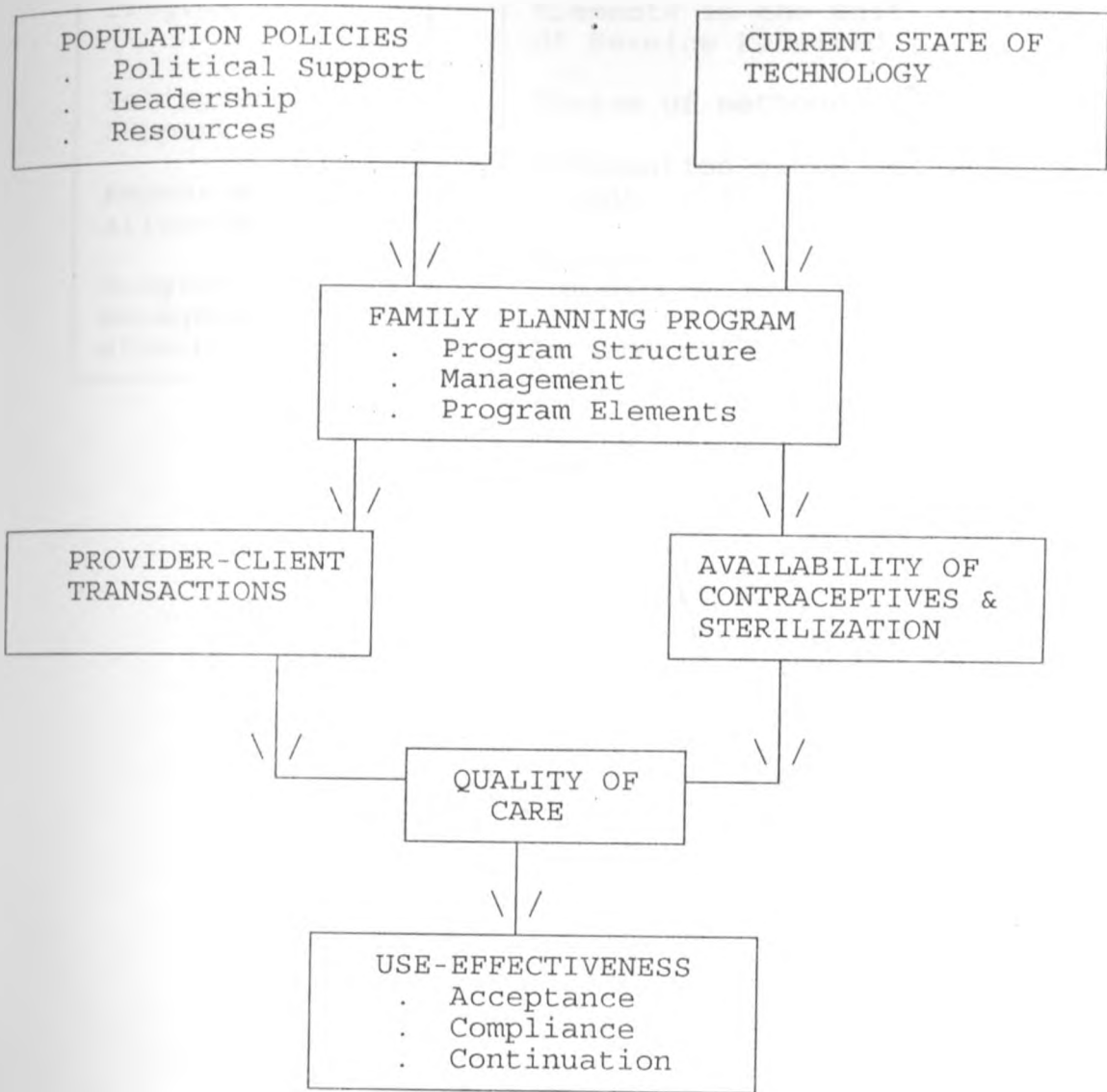
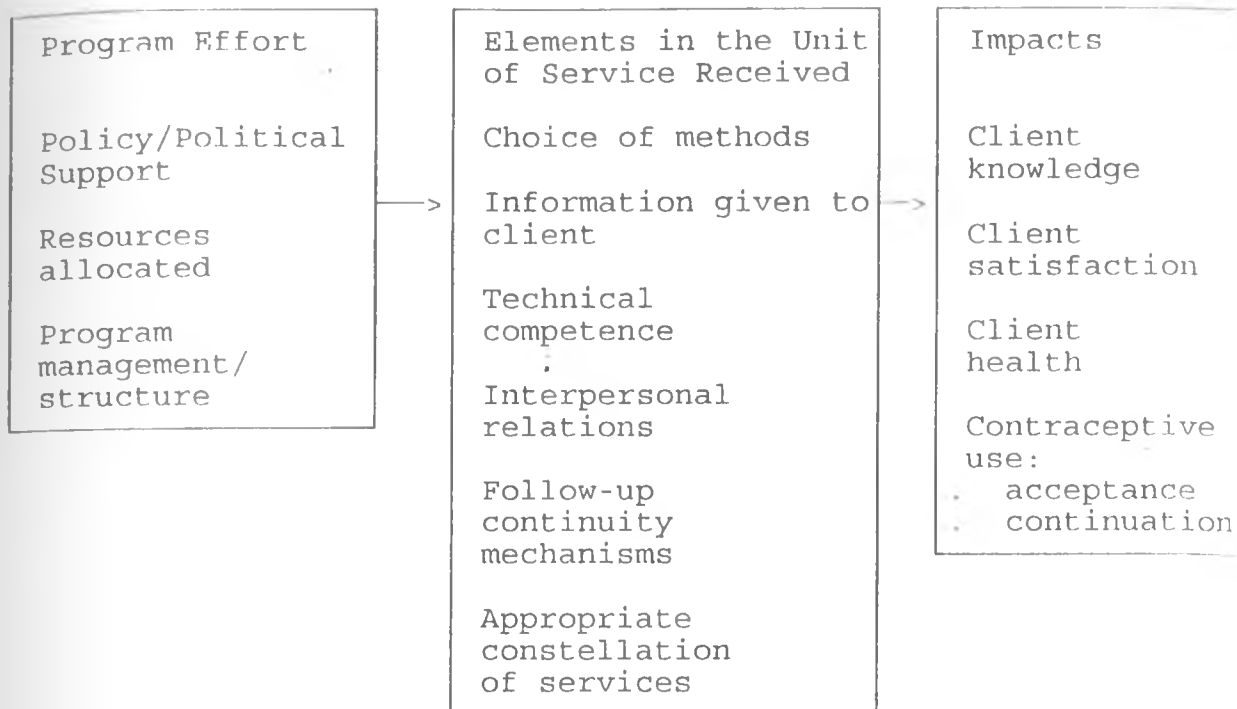
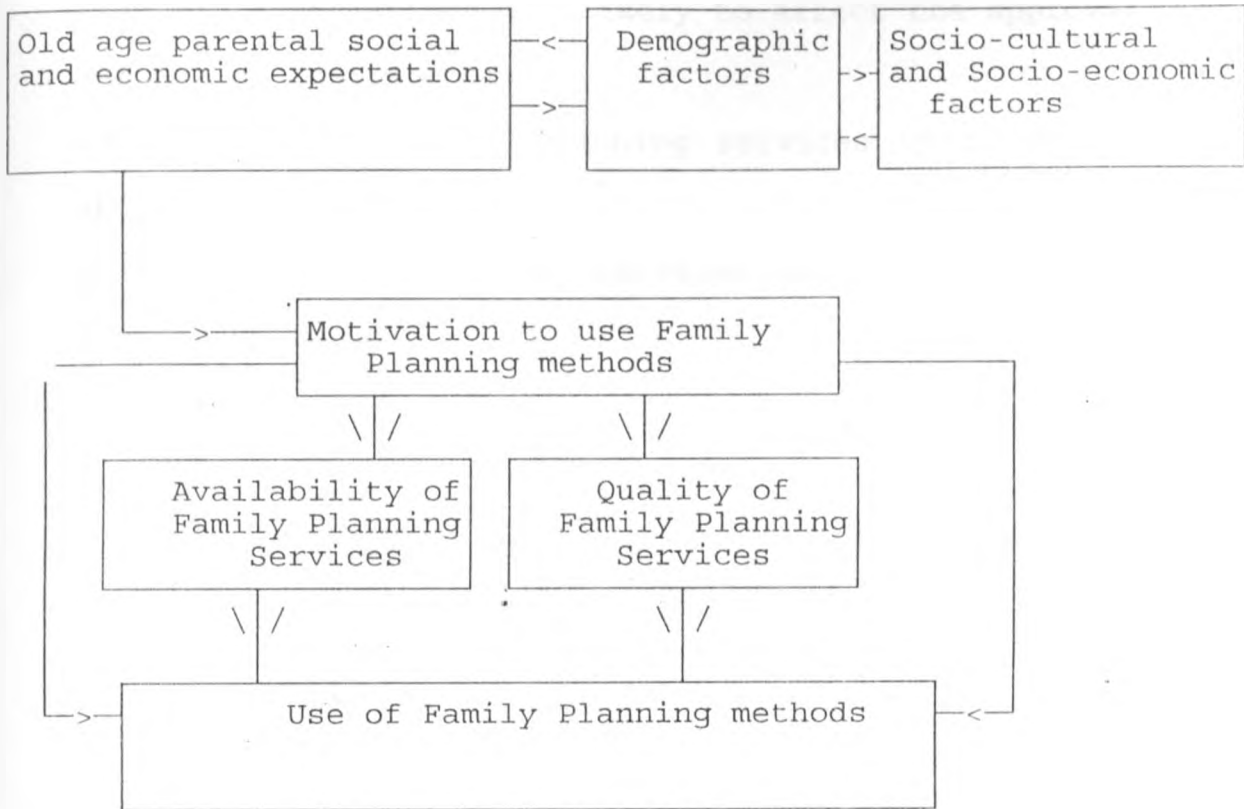


Figure 2 The quality of the service experience - its origins and impacts (Bruce Judith 1990) a modification of Donabedian's (1980,1988) model.



2.7 CONCEPTUAL MODEL

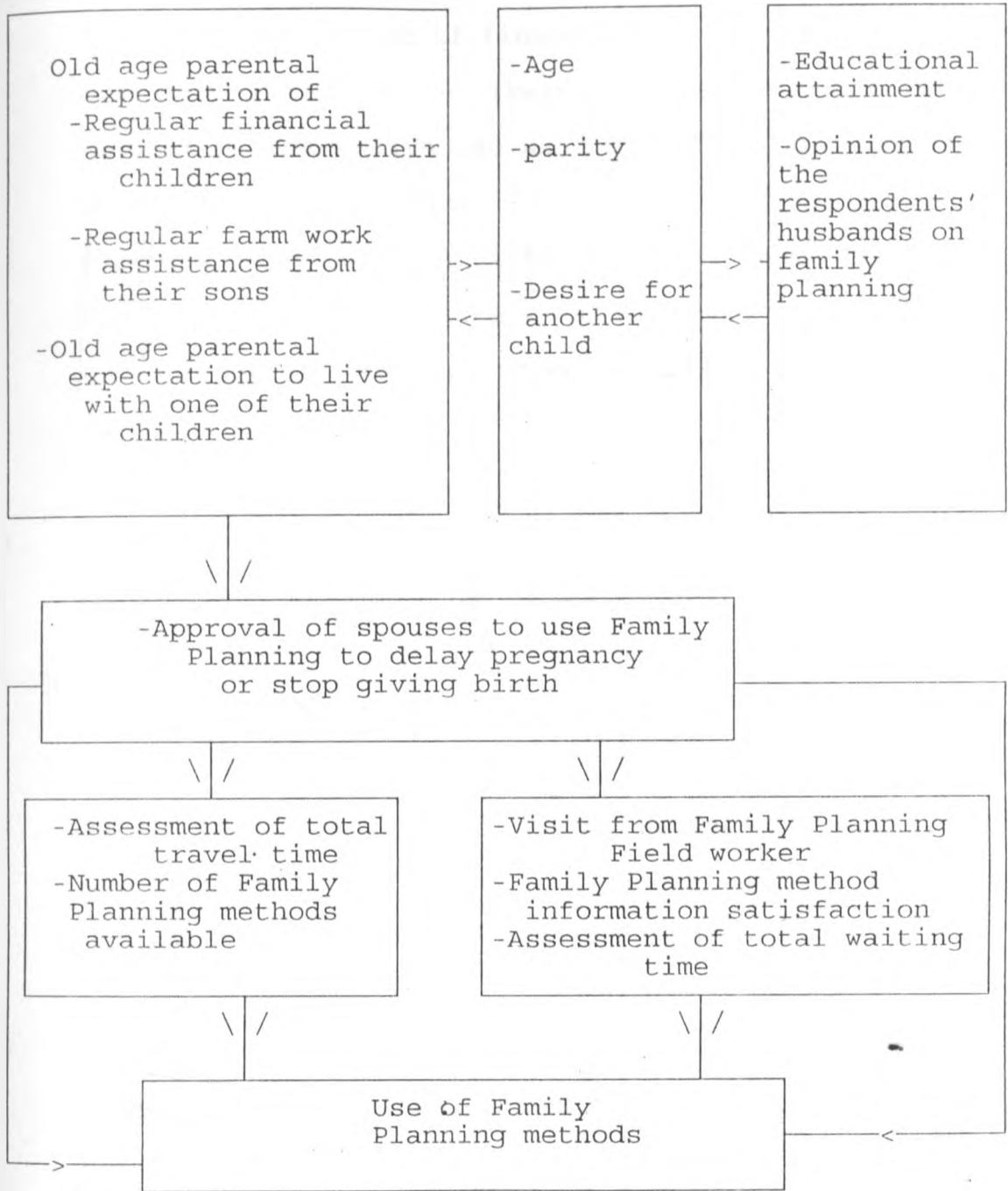
Figure 3: A modification of Townsend, J.W. 1990, Bruce Judith, 1990 and Caldwell, J.C., 1976 models.



2.8 CONCEPTUAL HYPOTHESES

1. Social expectations are likely to affect the approval and use of contraceptives.
2. Economic expectations are likely to affect the approval and use of contraceptives.
3. Availability of family planning services is likely to affect contraceptive use.
4. Quality of family planning services is likely to affect contraceptive use.

2.9 OPERATIONAL MODEL



2.10 OPERATIONAL HYPOTHESES

1. Parental expectation of financial assistance from their children in old age is likely to decrease their odds of current contraceptive use as compared to no expectation of financial assistance.
2. Parental expectation of farm work assistance from their sons in old age is likely to decrease their odds of current use of family planning methods as compared to no expectation of farm work assistance.
3. Parental expectation to live with one of their children in old age is likely to decrease their odds of current use of family planning methods as compared to no expectation to live with one of their children.
4. Visits from family planning field workers are more likely to increase the womens' odds of current use of contraceptives as compared to no visits.
5. Long travel time to and from the family planning service delivery point is likely to decrease the womens' odds of current contraceptive use as compared to short travel time.
6. Availability of at least three family planning methods at the service delivery points is more likely to increase

the womens' odds of current use of contraceptives as compared to availability of no method, one or two methods.

7. Womens' possession of inadequate information about the family planning methods is likely to decrease their odds of current contraceptives use as compared to their possession of adequate information.

2.11 OPERATIONAL DEFINITIONS

Old age Parental Expectation of Financial Assistance from their Children

This variable is defined as a belief by a parent that her children will support her in terms of money in her old age.

Old age Parental Expectation of Farm work assistance from their Children

This refers to the parent's belief that her children will help her in farm work when she is old.

Old age Parental Expectation to live with one of their Children

This variable is a measure of social expectation. It is defined as the belief by a parent that she will live with one of her children when she is old. The living refers to staying in a homestead.

Husbands' opinion on the practise of Family Planning by their wives

This variable makes reference to the husbands' feelings on the idea of their wives' attempt to control reproduction.

Level of educational attainment

This refers to the respondents' formal educational achievement. It is categorised into three groups namely: no education, primary education and secondary and above level of education.

Age

This refers to the respondents' age in completed years. Grouping of the ages is undertaken to facilitate generalizations as well as achieve adequate sample sizes in various cells.

Desire for more children

This variable refers to the respondents feelings whether to have another child.

Children ever born

This is the total number of children the respondent has ever given birth to alive. It refers both to children dead and those surviving.

Approval of Family Planning

This refers to the consent by the respondent to support family planning programme objective to delay childbearing.

Assessment of Total Travel Time

This variable measures availability of family planning services. It refers to the feelings of the respondents about the summation of time she uses to travel from home to the family planning and /or health delivery point and back home.

Number of Contraceptive Methods Available

This variable defines the number of family planning methods present at the family planning service delivery point the last time the respondent went for service. This variable only applies to users and ever users of contraceptive methods. It is assumed that at least 3 methods provide a better choice to clients and prospective clients of family planning.

Visits from Family Planning Field workers

This is a measure of quality of family planning services. It refers to follow-up visits carried out by family planning field personnel to family planning clients and potential users.

Assessment of Waiting Time

This is also a measure of quality. It captures the respondent's feelings about the length of time taken to wait for service and the effect of such length of time on the respondent's satisfaction. Non-users are asked about their feelings on waiting time at the health care delivery point.

Family Planning method information satisfaction

This variable refers to the respondents' acquaintance with the method she obtained from the family planning delivery point. It thus addresses the issue as to whether the respondent felt she had enough information about that particular method or not.

CHAPTER 3

METHODOLOGY

3.1 DATA COLLECTION

The Kenya Fertility Decline Survey was a follow-up study of the "Prospects for Fertility Decline Project " held in 1981. In designing the Kenya Fertility Decline Sample Frame, an attempt was made to maintain a similar sample design to that of 1981. The Kenya Fertility Decline Survey (KFDS) derived its sample from the Central Bureau of Statistics' National Sample Survey Evaluation Programme (NASSEP III) Masterframe for 1991-1995.

The current NASSEP III Master Sample frame has been expanded to include all rural districts. Although the current Master Sample frame has varied the number of clusters per district, however, the number of clusters in each district is selected in proportion to the estimated population of the district. In designing NASSEP (1991-1995) Sample, the Central Bureau of Statistics (CBS) utilised population data at the Enumeration Area (E.A) level collected from the 1989 census as a master frame. Enumeration areas were assigned Measures of Size (MOS) of about 100 households each. The Enumeration Areas were subsequently selected at random using Probability

proportional to Size (PPS).

The 1992 Kenya Fertility Decline Survey used 200 clusters to obtain 2000 households as shown in Table 3 which were to yield interviews with 2000 male heads of households aged below 55 years and 1200 wives of the male heads. However, at the end of the survey, 871 male interviews and 720 female interviews had been obtained. The clusters of the seven new districts included in the current NASSEP III, were not included in the 1992 Kenya Fertility Decline Survey. This was because of comparability with areas covered in the 1981 survey as well as operational inability to cover the arid and semi-arid districts.

Table 3 Summary of the sample design

No. of districts covered	No. of clusters sampled	No. of HHs sub-sampled	Total no. of HHs visited	No. of male interviews obtained	No. of female interviews obtained
32	200	2000	1989	871	720

In the Kenya Fertility Decline Survey (KFDS), systematic sampling was used in sub-sampling households for interview. Ten households were selected from each selected cluster.

The eligibility of the respondent was determined by the age of the male head of the household. A male head of the household was eligible only if he was below 55 years of age. A female was eligible for interview only if she was married to a male head of household aged below 55 years of age. Out of the 10 selected households it was anticipated that at least

six would be headed by a male aged below 55 years. In the prospects for Fertility Decline Survey of 1981, 62% of such households were headed by males aged below 55 years.

The National Sample Survey Evaluation Programme is not a self weighting sample. Sample weights are calculated based on the probabilities of household selection for each cluster, non operational clusters, and non response.

3.2 Technique of Data Collection

The Kenya Fertility Decline Survey of 1992 utilised the interview questionnaire as a tool for data collection. Permanent Central Bureau of Statistics' field staff of approximately 220 interviewers was deployed to collect the data. The enumerators and supervisors were trained by the investigators on the questionnaire, the process of interviewing, supervision, field editing and returning of the completed questionnaires.

3.3 Quality of Data

In general, the Kenya Fertility Decline Survey Data was of high quality and reliable. This was depicted partly in the method of sampling. The systematic random sampling method used was an attempt to ensure the selection of an unbiased and representative sample size. In the selection of the clusters, the sample design ensured that the clusters were chosen with an aim of creating a balance between resources available and

acceptable data accuracy. As explained above, care was taken to ensure that the selection of households was not subjective. Thus the chosen sample size of 2000 male Heads of Households and the targeted 1200 wives of the male heads of households was viewed to be manageable in most of the aspects of research that included finance, time and personnel.

The quality of the Kenya Fertility Decline Survey was further enhanced by the employment of a well experienced and permanent field staff from the Central Bureau of Statistics (CBS). The CBS staff is experienced in data collection and they are well acquainted with their clusters of operation and administration of the questionnaire. Moreover, the CBS enumerators were under close supervision by District Statistical Officers, CBS officials from CBS headquarters, the author and the project coordinator.

Although a lot of checks had been taken to ensure the success of the exercise, the final returns of the survey showed that the completed interviews in some clusters fell much below the anticipated numbers. This was explained by the fact that out of the 2000 households sub-sampled the following shortcomings were experienced:

- 174 households were found vacant, demolished or the family was away.
- 551 households were headed by females, thus making them ineligible for interview.
- 329 Households were headed by males aged over 55

years. This meant that they were not eligible for interview.

-10 Households in one cluster had been abandoned due to insecurity in the area.

A number of interviews were not completed resulting in only 871 male completed interviews. Apparently, 151 male heads of households did not have their wives at home or had not married at the time of the interview. The issue of vacant and demolished households is explained by the fact that the Central Bureau of Statistics NASSEP III Master frame was formulated in 1990. This meant that a lot of changes had occurred since then. The problem of non-response was further aggravated by the emergence of tribal clashes and feuds which witnessed the massive flight of the possible respondents from the affected areas which were also some of the sampled areas under study.

Due to the inadequate finance and time allocated to the survey, the investigators were unable to revisit the affected areas to obtain responses. However, the response rate for the completed interviews was encouraging in that the males had 93% response rate and the females had 95% response rate. -

3.4 Field problems during data collection

The problems experienced in the field included; transport and communication, inter ethnic insurgence, and farming and culture related problems.

Transportation was a widespread problem experienced by all the field staff involved in the survey. Given that each district had only one vehicle for research purposes, it was very difficult to maintain close supervision of the enumerators at constant close intervals during the survey period. Most of the district statistical officers had no motor bikes. This meant that the enumerators in such districts had to walk long distances to the selected clusters and the sub-sampled households. This problem was also notably experienced by the researchers. It was not possible to check field work process in all the districts and clusters selected. This was due to inadequate vehicles allocated for field work monitoring and a limited number of field staff from the Population Studies and Research Institute and the Central Bureau of Statistics Headquarters. Nevertheless, the pre-field work training given to the field staff took care of all possible shortcomings during fieldwork period. The district statistical officers had got a lot of research experience thus they were knowledgeable in possible field problems and their solutions as demonstrated during the training period. These factors contributed to the successful completion of field work.

Transportation problem was worsened by poor communication. The physical geography of some areas made some clusters inaccessible by vehicles. Districts like Nandi, Kericho, some parts of Bungoma, Meru, and Kisii, have poor

road conditions. The climatic conditions in these districts were not suitable for fieldwork. The occurrence of rains in these districts during the survey period hampered quick movement in the field. A number of enumerators, District Statistical Officers complained of muddy roads and difficult communication.

The transhumant and pastoralist farming practices of a cross-section of the people of Narok and Kajiado districts, coupled with the emergence of severe drought and East Coast Fever in these districts caused mass out migration of the people in the sub-sampled households. This condition created a problem in tracing the out-migrants and contributed in the high rate of non-response in these areas. Other minor problems included a threat posed to the enumerators by wild animals in the expansive savanna land of Laikipia district.

In general most of Western province and Nyanza (Busia, Kisumu, Bungoma and Siaya) districts were dry. Overall fieldwork was quite effective and successful. Most of the respondents were cooperative.

3.5 METHODS OF ANALYSIS

Logistic regression analytical techniques, cross-tabulation and chi-square techniques have been used in data analysis.

Cross Tabulation

The cross-tabulation analysis has been used to interpret the relationship of two variables. Its usefulness is due to its simplicity in the computation procedure and its appropriateness for comparative purposes. It establishes the distribution of dependent variables examined according to each category of the selected independent variables.

Chi-square

A chi-square statistic is used for examining the relationship between existing categories of nominally scaled data. This statistic determines whether the figures computed by crosstabulation are statistically significant. It is calculated using the actual cases in the cells of the contingency table.

The chi-square statistic is computed using expression:

$$X^2 = \sum \left(\frac{(f_o - f_e)^2}{f_e} \right)$$

where; f_o is the observed frequency; f_e is the expected frequency.

$$f_e = \frac{CT \times RT}{GT}$$

where; CT is the column total,

RT is the row total

GT is the grand total

The degrees of freedom (df) are used for making reference to the table on chi-square.

$DF = (R - 1) (C-1)$ where, R is the number of rows and C is the number of columns in the table.

The chi-square does not show the magnitude or the direction of the relationship. It only indicates whether a relationship exists between the distributions under consideration. The computed level of significance of the variable in question is compared to the preselected level of significance, where in our case the pre-selected level of significance is 0.05 that is 95%.

Regression Analysis

This method has been chosen for analytical purposes because, it is reliable and has been widely used in data analysis in family planning studies. It establishes the relationship existing between the dependent variable and the independent variable(s). The Ordinary Least Squares Method has been found inappropriate as the method of analysis in this study because the dependent variable (use of family planning method) is binary. Due to this fact, logistic regression analytical technique has been applied. Stepwise logistic regression technique is used to establish the significant determinants of the use of family planning methods.

stepwise logistic regression

This form of regression analysis is a method used to select the best regression equation for describing the relationship existing between the independent variables and the dependent variable. In stepwise regression, the computer selects the independent variables to enter or be deleted from the regression model in the order of their ability to explain the variation in the dependent variable which has not been explained by the independent variables already entered in the model (Kleinbaum and Kupper 1978). This algorithm selects the first variable to enter the model to be that independent variable having the highest correlation with the dependent variable. For multiple regression, this is also the variable with the highest value of F test. This sequential addition of the variables in the model is a procedure used to determine the best model. This selection procedure is repeated until a step is reached at which the addition of more independent variables will not significantly improve the prediction of the dependent variable. The significance of the variables entered is assessed by the Students' T for which its level of significance (Sig T) is computed (Kleinbaum and Kupper 1978:227).

Multiple logistic regression

Logistic regression model is a form of log-linear models in which the response is the logarithm of the measure of interest. It is thus a multiplicative model where the resulting estimated effect from it is expressed in terms of Odds ratios . This form of regression examines the relationship between the independent variable and a dichotomous outcome variable. Logistic regression model is quite similar to the linear regression model except that the outcome variable for the logistic regression is binary. For instance, use of family planning methods which is the outcome variable in this study would take a value of one if the respondent is a user or zero if not.

The strength of logistic regression model from a mathematical perspective lies in its flexibility and easy use. Furthermore, it lends itself to both a statistical and biological meaningful interpretation. For any regression problem, the quantity is the mean value of the outcome variable, given the value of the independent variable. That is: $E(y/x)$ (the expected value of y given x is the conditional mean). With the dichotomous data, the conditional mean must be greater than or equal to zero and less than or equal to one

$$\text{i.e. } [0 \leq E(y/x) \leq 1] .$$

The restriction of $E(y/x)$ or $\pi(x)$ to between 0 and 1

fulfils the logit regression assumption that the individual explanatory variables are independent, therefore avoiding possibilities of multicollinearity, which affects the regression coefficients by raising the standard error of the estimates (Blalock, 1963; Gujarat, 1978). Note that the above assumption of bounding the conditional mean between 0 and 1 is fulfilled by the equation below.

In a single variable, the logistic model used is expressed:

$$\frac{1}{1 + e^{-(\beta_0 + \beta_i X_i)}}$$

Where:

β_0 and β_i are coefficients estimated from the data.

X = independent variable

e = base of the natural log = 2.718 (natural logarithm)

The multiplicity of independent variables involved in this study calls for a multivariate analytical technique. Multivariate analysis will find out which variable is most strongly related to the dependent variable. Multiple logistic regression is found to be most appropriate because of the presence of a number of confounding variables considered in this study. When more than one variable is included in the model, the result gives us the estimated effect of each explanatory variable, adjusted for the effect of all other explanatory variables in the model. In this study, the decision to use contraceptive methods is dependent on various factors such as the quality of care, availability of Family

planning Services, and old age parental expectation factors. That is to say, that there are various intervening factors to the use of contraceptive methods.

Thus given a collection of independent variable P, as:

$x' = (x_1, x_2 \dots x_p)$ the probability that the outcome is present may be denoted as $P(y = 1/x) = \pi(x)$.

The logistic equation in the multiple regression model can be written in terms of odds ratio as:

$$\text{Odds ratio} = \frac{\text{Prob(event)}}{\text{Prob(no event)}}$$

$$\text{prob(event)} = \frac{e^z}{1 + e^z} \quad \text{or} \quad ; \quad \frac{1}{1 + e^{-z}}$$

where z is the linear combination :

$$Z = B_0 + B_1X_1 + B_2X_2 + \dots + B_pX_p$$

The probability of the event not occurring is estimated as:

$$\text{prob(no event)} = 1 - \text{prob(event)}.$$

It is worthy noting that the major aim of the logistic regression analysis is to estimate the constant and the regression coefficients i.e $\beta_1, \beta_2, \dots \beta_i$. Where the constant is also the intercept and represents the log odds when all the explanatory variables are zero. The expression for the log odds is provided below. A logit transformation of $\pi(x)$ may be necessary, when the variance of the observations is greater than the variance expected of a binomial distribution. When $\pi(x)$ is transformed, the expression becomes:

$$g(x) = \beta_0 + \beta_1X_1 + \dots + \beta_iX_i$$

In interpreting the logistic coefficients, the logistic model can be written in terms of the Odds of an event occurring. The odds of an event occurring is defined by the ratio of the probability that it will occur to the probability that it will not occur. Thus the logistic coefficients are interpreted as the change in the log odds associated with a one-unit change in the independent variable. In the above equation, e raised to power β_i is the factor by which the odds change when the i th independent variable increases by one unit. If β_i is positive, this factor will be greater than one which means that the odds are increased. If β_i is negative, the factor will be less than one, this means that the odds are decreased. When β_i is zero the factor equals one this leaves the odds unchanged (Hauck and Donner 1977).

Assumptions of Logistic regression

For any statistical model, the regression coefficients' confidence intervals and p-values are only correct if the model assumptions are correct.

Logistic regression is performed on the assumption that:

- the observations are independent with a binomial distribution. This assumption may be violated if for instance the variance of the observations is greater than the variance expected of a binomial distribution. If this occurs, a transformation of $\pi(x)$ into $g(x)$ becomes necessary.

- logistic regression analysis assumes that for continuous variables like age group, the effect is

assumed to be linear.

- logistic regression analysis assumes that the effect of each explanatory variable is the same regardless of the effect of any other variable unless interaction terms are introduced, i.e this assumption is violated when interaction terms are introduced in the analysis. This was not done in this study, thus this assumption is not violated (Kleinbaum and Kupper 1978, Armitage 1971, Drapper and Smith 1966).

- logistic regression model further assumes that the outcome is dichotomous. This was effected in this analysis. This assumption was not therefore violated.

That the conditional distribution of the outcome variable follows a binomial distribution.

Note that the binomial, not the normal distribution describes the distribution of the error and will be the statistical distribution upon which the analysis is based. In general, the principles guiding linear regression analysis will also apply in logistic regression analysis.

Fitting the logistic regression model

To fit the logistic regression model, the first step is to estimate the values of β_0 and β_i , i.e the unknown parameters. In least squares method β_0 and β_i values are chosen in terms of there ability to minimize the sum of squared deviations of the observed values of y from the predicted values based upon the model. The inefficiency of this method

is shown by its possibility of bringing about heteroscedasticity i.e non-constant error term or variance. Due to this shortcoming, the logistic regression model uses the maximum likelihood method to estimate β_0 and β_1 (the unknown parameters) in a dichotomous outcome.

The maximum likelihood method of estimation yields values for the unknown parameters which maximize the probability of obtaining the observed set of data, i.e the coefficients that make our observed results most 'likely' are selected.

The maximum likelihood estimators of β_0 and β_1 are those values which maximize the likelihood function. Thus the resulting estimators are those which agree most closely with the observed data. Parameter estimation is done by an iterative algorithm method using the software package designed for this purpose.

Testing for the significance of the coefficients

An assessment of the significance of the variables in the fitted model is necessary after estimating the coefficients. The testing of the significance of the coefficients is done by the computation of the Wald statistic which has a chi-square distribution.

Dummy Variables in Regression

The above equation works only for intervally scaled variables. For discrete /nominally scaled variables like race or sex, the use of a collection of design variables/dummy

variables is necessary in categorical data. A dummy or indicator variable is any variable in a regression equation that takes on a finite number of values for the purpose of identifying different categories of a nominal variable. "Dummy" as a term relates to the property that the actual values taken on by such variable e.g 0, 1, 2, describe no meaningful measurement level of the variable but rather act only to indicate the categories of interest. In a nominally scaled variable with K values then $k-1$ design variables will be needed e.g. Race = (1) black, (2) white, (3) Other. Design variables = $3-1 = 2$ design variables.

Interpretation of the coefficients generated by dummy variables

For a variable with k categories, one category is selected to be a reference category. For example if education has three categories (EDUC1, EDUC2 and EDUC3) thus having two dummy variables, Educ1 will be taken as a reference category. In this case, the intercept B_0 becomes the fitted mean for the reference category and the regression coefficients generated for each dummy variable become the slope B_i . The regression coefficient for each dummy variable is interpreted with regards to the reference category.

CHAPTER 4

APPROVAL AND USE OF FAMILY PLANNING METHODS

4.0. INTRODUCTION

Approval of spouses to use family planning is assumed to be a possible prerequisite for the actual use of the Family Planning methods by the target population. The socio-economic and the cultural environment would appear to influence the direction of the respondent's decision to control her fertility. A number of scholars (Ochola-Ayayo 1991, Radcliff Brown 1950) have argued that in most of the African societies marriage is largely for the purpose of bearing children. The need for children was due to a heavy flow of wealth towards the parents. Now that parents are experiencing hardships in bearing and rearing of children (Hammerslough 1990), there is a need to establish the impact of the value of children in terms of parental expectation of social and economic benefits on parents' use of family planning methods. This chapter first attempts to examine the approval and use of family planning methods among a sample of married Kenyan rural women according to old age parental expectation of social and economic benefits from their children. Secondly, this chapter also examines use of family planning methods according to availability and quality of family planning services. To

account for the variation in responses to approval and use of family planning methods, this chapter further gives the demographic, socio-economic and socio-cultural differentials in the respondents' approval and use of family planning methods.

A total of 720 women are examined in the section of approval while 701 respondents have been examined in the section of current use of family planning methods by old age parental expectation of social and economic benefits from their children. In the section of availability and quality of the family planning services, only respondents who ever used the family planning methods, 288 in number, are examined. In general, the respondents reporting themselves as pregnant were 19 (2.6 %) (. these were excluded in the analysis of respondents by current use of family planning methods), current users were 237 (32.9%) and the never users were 413 (57.4 %).

4.1 THE CHARACTERISTICS OF THE STUDY POPULATION

Age profile

Table 4.0 shows that the dominant age group studied was (25 - 29) with 23%. About 21% and 19% belonged to the (20-24) and (30 - 34) age groups respectively. This distribution shows that a large number of the women under study were in the prime reproductive ages. Their opinions, therefore, were of paramount importance to this study due to their apparent active participation in the current social, economic and

cultural environment which has considerable effect on their daily decision making and especially as regards their fertility control. This is to underscore the fact that the responses obtained from the respondents are assumed to be plausible reflections of the nature of their environment.

Table 4.0 Age characteristic of the study population

Age Group	No.	Percent
15 - 19	27	3.8
20 - 24	149	20.7
25 - 29	166	23.1
30 - 34	139	19.3
35 - 39	110	15.3
40 - 44	76	10.6
45 - 49	39	5.4
50+	14	2.2
Total	720	100.0

Educational Attainment

A majority of the women interviewed had attained predominantly primary level education (57%), 25% of the women had never been to school and about 17% and 1% had attained secondary and higher level education respectively. This distribution is

reflective of rural poverty given the low educational attainment which is the hallmark of low social and economic status among rural women. The low social and economic standing is implicit of weak participation in decision making on reproductivity among women.

Table 4.1 Level of educational attainment of the study population

Level attained	No.	Percent
NONE	182	25.3
PRIMARY	415	57.6
SECONDARY	119	16.5
HIGHER	4	0.6
TOTAL	720	100

Social and Economic old age expectations of the respondents

As shown in table 4.2 the majority of the respondents, over 55% expected either financial and farm work assistance from their offspring or to live with one of their offspring in old age.

Table 4.2 Percent distribution of respondents by old age parental expectations from their children

	Always expecting		Uncertain of expecting		Never expecting		Total	
	NO.	%	NO.	%	NO.	%	No.	%
EFA	427	59.3	256	35.6	37	5.1	720	100
EFWA	535	74.3	131	18.2	54	7.5	720	100
EL	409	56.0	137	19.0	174	24.2	720	100

EFA = Old age parental expectation of financial assistance from their children.

EFWA= Old age parental expectation of farm work assistance from their sons.

EL = Old age parental expectation to live with one of their children.

Old age parental expectation of farm work assistance is the highest with 74% among respondents answering the question on approval of spouses to use family planning to delay pregnancy. A minority of the respondents do not expect a regular benefit from their children. However, the majority of these group are those who do not expect to live with one of their children. A considerable number of the respondents are in the transitional stage. They range from 18% of respondents expecting farm work assistance, to 36% of those expecting financial assistance. Generally, the respondents interviewed range from a minority of those in the modern stage(expecting no regular assistance or to live with one of their children) to a majority of those in the traditional stage (expecting regular assistance or to live with one of their children in old age.

4.2 RESPONDENTS' APPROVAL OF SPOUSES TO USE FAMILY PLANNING METHODS BY TYPE OF OLD AGE PARENTAL EXPECTATION

Approval of spouses to use Family Planning methods to delay pregnancy according to old age parental expectation of regular financial assistance from their children

The pattern of responses as presented in table 4.3 shows that the majority of the respondents expected regular financial assistance from their children. About 59% of those expecting regular financial assistance would always approve spouses to use family planning methods to delay pregnancy

Table 4.3 Percent distribution of women by approval of spouses using Family Planning methods and old age parental expectation of financial assistance from children.

Approval of spouses using Family Planning to delay pregnancy	Old age parental expectation of regular financial assistance from their children							
	Those expecting		Those uncertain of expecting		Those not expecting		Total	
	NO.	%	No.	%	NO.	%	No.	%
Those who will always approve	247	57.8	157	61.3	24	64.9	428	59.4
Those who will sometimes approve	125	29.3	74	28.9	8	21.6	207	28.8
Those who will never approve	55	12.9	25	9.8	5	13.5	85	11.8
TOTAL	427	100	256	100	37	100	720	100

(chi-square = 2.62, D.F = 4, Sig. = .622)

Out of those not expecting regular financial assistance from their children, a significant number 64.9 % indicated that they would always approve spouses to use Family Planning methods to delay pregnancy. Contrary to the expectation,

only 12.9% of the respondents who expect regular financial assistance from their children indicated that they would never approve of spouses to use Family Planning methods to delay pregnancy. The majority (61 %) of those not sure of expecting regular financial assistance said they would always approve. A chi-square test showed that expectation of regular financial assistance from children was not a significant predictor of approval of spouses to use Family Planning methods to delay pregnancy. Thus expected wealth flow from children to parents, does not currently appear to have a significant influence on the parents' decision to control their fertility.

Approval of spouses to use family planning to delay pregnancy by old age parental expectation of regular farm work assistance from their sons

A number of scholars in the subject of fertility control have argued that high fertility in Africa is partly sustained by parental expectation of farm work assistance from their children, especially sons (Frank and McNicoll 1987; Caldwell J.C. et al. 1982).

Table 4.4 Percent distribution of women by approval of spouses using Family Planning Methods and old age Parental expectation of farm work assistance from sons.

Approval of spouses using Family Planning methods to delay pregnancy	Old age parental expectation of regular farm work assistance from their sons							
	Those expecting		Those uncertain of expecting		Those not expecting		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
Those who will always approve	320	58.8	79	60.3	29	53.7	428	59.4
Those who will sometimes approve	151	28.2	41	31.3	15	27.8	207	28.8
Those who will never approve	64	12.0	11	8.4	10	18.5	85	11.8
TOTAL	535	100	131	100	54	100	720	100

(chi-square = 4.055, D.F = 4, Sig. 0.399

Table 4.4 shows the distribution of respondents by approval of spouses using Family Planning to delay pregnancy according to old age parental expectation of regular farm work assistance from their sons. The findings show that a significant percentage (59 %) of the sample size qualify to be defined as traditional. Only a small number 7.5 % can be described as being in the modern stage. Contrary to the expectation, table 4.4 depicts a majority (59%) of those expecting assistance would always approve, while only 12% would not. The largest number (53.7 %) of those not expecting indicated that they would always approve, while a small number (18.5 %) reported that they would never approve. A significant percentage (60 %) of those not certain of

expecting assistance also said they would always approve. The chi-square test showed that Old age parental expectation of regular farm work assistance from their sons was not significant in predicting Approval of spouses to use Family Planning to delay pregnancy. As the Involvement of the children in formal education increases, the time for them to offer farm work assistance will experience a continuous decrease. The general diminishing of land acreage could be a possible explanation to the majority of respondents not expecting future assistance reporting that they would always approve spouses to use Family Planning methods to delay pregnancy.

Approval of spouses to use Family Planning methods to delay pregnancy by old age parental expectation to live with one of their children

Among the components of traditionalism in Africa is the element of old age parental expectation to live with one of their children. Non approval of the practise of Family Planning by spouses may appear to explain the desire for more children so as to maximise old age social security. Table 4.5 gives the percentage distribution of approval of spouses to use family planning to delay pregnancy according to Old age parental expectation to live with one of their children. Apparently, the desire for quality children appears to offer an explanation for a majority (64 %) of those expecting to live with one of their children reporting that they would always approve, while only 12 % would not approve.

Table 4.5 Percent distribution of women by approval of spouses using Family Planning Methods and old age parental expectation to live with children.

Approval of spouses using Family Planning to delay pregnancy	Old age parental expectation to live with one of their children							
	Those expecting		Those uncertain of expecting		Those not expecting		Total	
	NO.	%	NO.	%	No.	%	No.	%
Those who will always approve	262	64.1	90	65.7	76	43.7	428	59.4
Those who will sometimes approve	99	24.2	34	24.8	74	42.5	207	28.8
Those who will never approve	48	11.7	13	9.5	24	13.8	85	11.8
Total	409	100	137	100	174	100	720	100

(chi-square = 26.01, D.F = 4, Sig. = 0.000)

Furthermore, the majority, 43.7% and 65.7% of those not expecting and those not sure of expecting to live with one of their children respectively, said they would always approve. These results could be accounted for by increasing deterioration in the corporateness of the extended family relationships caused by increasing rural-urban migration of the young generation in search for jobs. The aftermath of which marks long periods of separation between the parents and their children. Only a minority (11.7 %) of the respondents

expecting to live with one of their children would never approve. The chi-square test found that old age parental expectation to live with one of their children had a high significance of .000 at $P < 0.05$ in predicting approval of spouses to use Family Planning to delay pregnancy.

4.3 SOCIO-ECONOMIC, SOCIO-CULTURAL AND DEMOGRAPHIC DIFFERENTIALS BY APPROVAL OF SPOUSES TO USE FAMILY PLANNING METHODS TO DELAY PREGNANCY

The variation in the responses to approval of spouses to use family Planning methods to delay pregnancy discussed in the foregoing section, in the context of old age parental social and economic expectations, has not taken into account other factors (socio-economic, socio-cultural and demographic) which seem to influence the opinion of the respondents. The section below examines the effect of these background variables on the approval of spouses to use family planning to delay pregnancy.

Respondents' approval of spouses to use family planning methods to delay pregnancy by the level of educational attainment

Table 4.6 shows the distribution of respondents by approval of spouses using Family Planning to delay pregnancy and the respondents' level of educational attainment. The findings show that the level of approval increases with the increase in the level of educational attainment.

Table 4.6 Distribution of women approving spouses to use Family Planning by level of educational attainment.

Approval of spouses using Family Planning to delay pregnancy	Level of educational attainment							
	None		Primary		Secondary and higher		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
Will always approve	81	40.7	70	65.7	77	70.0	428	59.4
Will sometimes approve	72	36.2	107	26	28	25.5	207	28.8
Will never approve	46	27.6	34	8.3	5	4.5	85	11.8
Total	199	100	411	100	110	100	720	100

(Chi-square = 52.63, D.F = 4, Sig. = .0000)

The percentage of those reporting that they would always approve their spouses to use family planning to delay pregnancy ranged from a low of 40.7% among those with no education to a high of 70 % among those with secondary and higher level of education. A considerable percent (26%) of those with Primary level of education reported that they would sometimes approve spouses using Family Planning methods to delay pregnancy. The chi-square test showed that the level of

educational attainment was highly significant at $\alpha = .05$ significance level in predicting respondents' approval of spouses to use Family Planning to delay pregnancy.

Respondents' approval of spouses to use family planning to delay pregnancy by the opinion of their husbands

Table 4.7 Distribution of the respondents' approval of spouses to use family planning methods and husbands' opinion on family planning

Approval of spouses to use family planning to delay pregnancy	Husbands' opinion on their wives practising family planning									
	Husbands who are against		Husbands don't care		Husbands are favourable		Does not know husbands' opinion		Total	
	NO.	%	NO.	%	No.	%	NO.	%	NO.	%
Will always approve	33	36.3	12	30.0	313	73.0	70	43.8	428	59.4
Will sometimes approve	30	33.0	21	52.5	102	23.8	54	33.8	207	28.8
Will never approve	28	30.8	7	17.5	14	3.3	36	22.5	85	11.8
Total	91	100	40	100	429	100	160	100	720	100

(chi-square 118.202 , df 6, sig. 0.000)

Table 4.7 gives the percent distribution of women approving the use of family planning to delay pregnancy according to the opinion of their husbands. The majority (73%) of the respondents whose husbands supported family planning indicated that they would always approve . A

considerable percent (52%) of the respondents whose husbands did not care about family planning reported that they would sometimes approve. The respondents who would never approve ranged from 3.3% among those whose husbands supported family planning to 31% among respondents whose husbands were against family planning. The chi-square test found that the husbands' opinion was highly significant at $\alpha = 0.05$ significance level in predicting the respondents' approval of spouses to use family planning to delay pregnancy.

Respondents' approval of spouses to use family planning to delay pregnancy according to the desire for another child

The association between the respondents' approval of spouses to use Family Planning to delay pregnancy with respect to their desire for another child is shown in table 4.8. About 73% of those who said they did not want another child would always approve, only 6.3% would never approve. The majority (53.8%) of those who wanted another child indicated that they would always approve with only 15.1% reporting that they would never approve. A fairly large number (41.7%) of the respondents who were not sure of whether they wanted another child reported that they would sometimes approve. A chi-square test showed that desire for another child was highly significant at $\alpha = 0.05$ significance level in predicting approval of spouses using Family Planning to delay pregnancy.

Table 4.8 Distribution of Respondents by approval of spouses using Family Planning and desire for another child.

Approval of spouses using Family Planning method to delay pregnancy	Desire for another child							
	Those who want another child		Those who are uncertain whether they want another child		Those who do not want another child		Total	
	NO.	%	NO.	%	NO.	%	No.	%
Who will always approve	185	53.8	47	43.5	196	73.1	28	59.4
Who will sometimes approve	107	31.1	45	41.7	55	20.5	205	28.8
Who will never approve	52	5.1	16	14.8	17	6.3	85	11.8
Total	344	100	108	100	268	100	720	100

(Chi-square = 38.95, D.F = 4, Sig. = .000)

Respondents' approval of spouses to use family planning to delay pregnancy according to children ever born

Table 4.9 presents the distribution of respondents by approval of spouses to use Family Planning methods to delay pregnancy according to the number of children ever born. The majority (58.8 %) of those with five children and above would always approve, only 10.4 % in this category would never approve. Similarly, 63.6 % of those with 3 -4 children and 56 % of those with 0-2 children reported that they would always approve. However, 18.2 % of the latter and only 9.1 % of the former reported that they would never approve. The chi-square test indicated that the number of children ever born was not a significant predictor of approval of spouses using Family

planning to delay pregnancy at $\alpha = 0.05$ level of significance.

Table 4.9 Distribution of women approving spouses using Family Planning and children ever born.

Approval of spouses using Family Planning to delay pregnancy	Children ever born							
	0 - 2		3 - 4		5+		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
Those who will always approve	89	56.0	119	63.6	220	58.8	428	59.4
Those who will sometimes approve	41	25.8	51	27.3	115	30.7	207	28.8
Those who will never approve	29	18.2	17	9.1	39	10.4	85	11.8
Total	159	100	187	100	374	100	720	100

(chi-square = 9.389, D.F = 4, Sig. = .052)

Approval of spouses to use family planning to delay pregnancy by age

Table 4.10 shows the percent distribution of respondents by their approval of spouses using family planning to delay pregnancy according to their age. Most of the respondents ranging from 49% for those in age group 45+ to 66% for those in age group 35-39 reported that they would always approve spouses to use family planning to delay pregnancy. However, a significant proportion (ranging from 22% for those in age group 15-19 to 53% for those in age group 25-29) indicated that they would sometimes approve of spouses to use family planning methods to delay pregnancy.

Table 4.10

Distribution of respondents' by approval of spouses to use Family Planning and age.

Approval of spouses using Family Planning to delay pregnancy	Age group							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45+	
	NO. %	NO. %	NO. %	NO. %	NO. %	NO. %	NO. %	
Those who will always approve	14 51.9	81 59.1	97 58.1	100 63.3	67 65.7	42 56.8	27 49.1	427 59.4
Those who will sometimes approve	6 22.2	41 29.9	31.7 53.0	27.2 43.0	23 22.5	21 28.4	20 36.4	207 28.8
Those who will never approve	7 25.9	15 10.9	17 10.2	15 9.5	12 11.8	11 14.9	8 14.5	85 11.8
Total	27 100	137 100	167 100	158 100	102 100	74 100	55 100	720 100

(chi-square = 12.72, D.F = 12, Sig. = .389)

The chi-square test indicated that the respondent's age was not significant at $\alpha = 0.05$ in predicting respondents' approval of spouses to use family planning to delay pregnancy.

4.4 USE OF FAMILY PLANNING METHODS BY TYPE OF OLD AGE PARENTAL EXPECTATION

Use of Family Planning methods according to old age parental expectation of regular financial assistance from their children

Table 4.11 gives the percent distribution of women currently using family planning Methods according to Old age parental expectation of regular financial assistance from their children.

Table 4.11 Percent distribution of women by current use of Family Planning Methods and old age parental expectation of financial assistance from children.

Current use of Family Planning method	Old age parental expectation of regular financial assistance from their children							
	Those expecting		Those uncertain of expecting		Those not expecting		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
Current users	127	53.6	100	42.2	10	4.2	237	100
Non-current users	287	61.9	150	32.3	27	5.8	464	100
Total	414	59.0	250	35.7	37	5.3	701	100

(Chi-square =6.85, D.F = 2, Sig. = .032)

Approximately 62% of non-current users and 54% of current users expected financial assistance. Only 5.8% of non-current users and 4.2% of current users did not expect regular financial assistance. A large percent (42.2%) of current users were uncertain of expecting regular financial assistance from their children. A chi-square test demonstrated that Old age parental expectation of regular financial assistance from their children was significant at $\alpha = 0.05$ in predicting current use of Family Planning Methods.

Use of Family Planning methods according to old age parental expectation of regular farm work assistance from their sons

Table 4.12 gives the percent distribution of women currently using Family Planning methods according to old age parental expectation of regular farm work assistance from their sons.

Table 4.12 Percent distribution of women by current use of Family Planning methods and Old age parental expectation of farm work assistance from sons.

Current use of Family Planning method	Old age parental expectation of regular farm work assistance from their sons							
	Those expecting		Those uncertain of expecting		Those not expecting		Total	
	NO.	%	NO.	%	No.	%	NO.	%
Current users	172	72.6	54	22.8	11	4.6	237	100
Non-current users	349	75.2	72	15.5	43	9.3	464	100
Total	521	74.3	126	18.0	54	7.7	701	100

(chi-square = 9.11, D.F = 2, sig. = .0101)

The majority (75.2%) of non-current users and 73% of current users expected regular assistance. An insignificant percentage (9.3%) of non-current users and 4.6% of current users did not expect regular farm work assistance from their sons. Old age parental expectation of regular farm work assistance was found to be significant in predicting the use of family planning methods with a chi-square value of .0101 ($\alpha = .05$). The results show that the belief in child to parent wealth flow still dominates a large number of the rural married women.

Use of Family Planning methods according to old age parental expectation to live with one of their children

Table 4.13 shows the percent distribution of respondents by current use of Family Planning methods according to Old age parental expectation to live with one of their children. About 60% of current users and 56% of non-current users expected to live with one of their children in old age.

Table 4.13 Percent distribution of women by current use of Family Planning methods and Old age parental expectation to live with children.

Current use of Family Planning method	Old age parental expectation to live with one of their children							
	Those expecting		Those uncertain of expecting		Those not expecting		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
Currently using	141	59.5	47	19.8	49	20.7	237	100
Not currently using	260	56.0	87	18.8	117	25.2	464	100
Total	401	57.2	134	19.1	166	23.7	701	100

(chi-square = 1.79, D.F = 2, Sig. = .409)

Although the old age parental expectation to live with one of their children was high, about 25% of non current users and 21% of current users indicated that they do not expect to live with one of their children in old age. The chi-square test showed that old age parental expectation to live with one of their children was not a significant predictor of the use of Family Planning methods.

4.5 SOCIO-ECONOMIC, SOCIO-CULTURAL AND DEMOGRAPHIC DIFFERENTIALS IN CONTRACEPTIVE USE

Use of family planning methods according to the level of educational attainment

Table 4.14 gives the distribution of current use of family planning method according to the respondents' level of educational attainment.

Table 4.14

Distribution of women by current use of family planning methods and level of educational attainment.

Current use of family planning methods	Level of educational attainment							
	None		Primary		Secondary and higher		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
Current users	30	15.5	146	36.3	61	57.5	237	33.8
Non-current users	163	84.5	256	63.3	45	42.5	464	66.2
Total	193	100	402	100	106	100	701	100

(chi-square = 56.594, D.F = 2, Sig. = .000)

Whereas only 15.5% of the respondents with no education were current users, the majority of about 85% were not currently using a family planning method. A high percentage (64%) of those with primary education were non-current users of family planning methods. The majority (58%) of those with secondary and higher level of educational attainment were found to be current users of family planning methods. The chi-square test showed that the level of educational attainment was significant in predicting use of family planning methods.

Use of Family Planning methods according to the opinion of the respondents' husbands on family planning

Table 4.15 shows distribution of women by current use of Family Planning methods according to the opinion of the respondents' husbands on their wives practising Family Planning. The majority (88.6 %) of the respondents whose husbands were against them practising family planning were

non-current users while only 11.4% were current users of family planning methods. About 65% of the respondents whose husbands did not care whether they used family planning methods and 91% of those who did not know their husbands' opinion on their use of family planning methods were not currently using contraceptive methods. Although 52% of the respondents whose husbands favoured their use of contraceptive methods were non-current users, however, a considerable percentage (48%) of these respondents were currently using family planning methods. The chi-square test showed that the husbands' opinion was significant in predicting use of Family Planning methods at $\alpha = 0.05$.

Table 4.15 Distribution of Respondents by Current use of Family Planning methods and husbands' opinion on family planning.

Current use of Family Planning method	Husbands' opinion on their wives using Family Planning									
	Against		Doesn't care		Favourable	Doesn't know husbands' opinion		Total		
	NO.	%	NO.	%	NO.	%	NO.	%	No.	%
Current users	10	11.4	14	35.0	199	47.8	14	8.9	237	33.2
Non-current users	78	88.6	26	65.0	217	52.2	143	91.1	464	66.2
Total	88	100	40	100	416	100	157	100	701	100

(chi-square = 99.88, D.F = 3, Sig. = .000)

Use of family planning methods according to desire for another children

Table 4.16 shows distribution of current users of Family Planning methods according to desire for another child. The majority (76.4%) and 65.1% of the respondents who wanted another child and those who were not certain whether they wanted another child respectively were not current users of family planning methods. Out of the respondents who did not want another child, 46% were current users while 53.8% were non-current users. The chi-square test found that the desire for another child was found to be significant at $\alpha = 0.05$ in predicting current use of Family Planning.

Table 4.16 Distribution of women by current use Family Planning methods and desire for another child.

Current use of Family Planning methods	Desire for another child							
	Those who want another child		Those uncertain whether they want another child		Those who do not want another child		Total	
	NO.	%	No.	%	NO.	%	NO.	%
Current users	78	23.6	37	34.9	122	46.2	237	33.8
Non-current users	253	76.4	69	65.1	142	53.8	464	66.2
Total	331	100	106	100	264	100	701	100

(chi-square = 33.727, D.F = 2, Sig. = .000)

Use of family planning methods according to children ever born

Table 4.17 shows distribution of Current use of family planning methods according to the number of children ever born by the respondents. The majority (73.7%) of the respondents with 0-2 children and 62.6% of those with 3-4 children were non-current users of family planning methods. The opposite of the expectation that respondents with 5+ number of children would be the majority of current users was found to be true. About 65% and 35% of the respondents with 5+ number of children were non-current users and current users of family planning methods respectively. The chi-square test showed that the number of children ever born was insignificant as far as predicting of current use of family planning method is concerned.

Table 4.17 Distribution of Respondents by current use of family planning methods and number of children ever born

Current use of Family Planning methods	Number of children ever born							
	0-2		3-4		5+		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
Current users	40	26.3	67	37.4	130	35.1	237	33.8
Non-current users	112	73.3	112	62.6	240	64.1	464	66.2
Total	152	100	179	100	370	100	701	100

(chi-square = 5.15, D.F = 2, Sig. = .076)

Use of family planning methods according to age

The percent distribution of current users of family planning methods according to age is provided in table 4.18. The lowest rate of current use was recorded among respondents in the 15-19 (14.8%) and in the 45+ (16.6%) age groups. This may be due to a possible low rate of coital frequency among respondents of these age groups. Furthermore, non-current use ranged from a high of 85% among respondents in the 15-19 age group to a low of 58% among respondents in the 35-39 age group. The chi-square test showed that age was significant at $\alpha = 0.05$ in predicting the use of family planning methods.

Table 4.18 Distribution of Respondents by current use of family planning methods and age

Current use of Family Method	Age group							
	15-19	20-24	25-29	30-34	35-39	40-44	45+	Total
	NO. %	NO. %	NO. %	NO. %	NO. %	NO. %	NO. %	No. %
Current users	4 14.8	42 31.6	55 35.0	57 36.8	42 42.0	28 37.8	9 16.6	237 33.8
Non-current users	23 85.2	91 68.4	102 65.0	98 63.2	58 58.0	46 62.2	46 83.6	464 66.2
Total	27 100	133 100	157 100	155 100	100 14.3	74 100	55 100	701 100

(chi-square = 16.377, D.F = 6, Sig. = .0119)

4.6 CONTRACEPTIVE USE AND AVAILABILITY AND QUALITY OF FAMILY PLANNING SERVICES

Use of Family Planning methods according to the assessment of total travel time to and from the service delivery unit

Table 4.19 gives the percent distribution of current users of Family Planning methods according to their assessment of total travel time to and from the Family Planning service delivery point. In general, the total travel time was found to be satisfactory. About 79% of current users and 61% of non-current users were happy with the travel time. A considerable percent (39%) of non users indicated that the total travel time was too long as compared with 21.1% of the current users. The chi-square test showed that assessment of total travel time as a predictor of current use of Family Planning method was highly significant at $\alpha = 0.05$. From the results, it can be deduced that Family Planning service units are accessible to a majority of the target population.

Table 4.19 Percent distribution of Respondents by current use of Family Planning methods and total travel time to and from the service delivery unit.

Current use of Family Planning method	Assessment of total travel time					
	Those saying time was Okay		Those saying time was too long		Total	
	NO.	%	No.	%	NO.	%
Current users	187	78.9	50	21.1	237	100
Non-current users	31	60.8	20	39.2	51	100
Total	218	75.7	70	24.3	288	100

(chi-square = 7.49, D.F = 1, Sig. = .006)

Use of Family Planning methods according to the assessment of waiting time for service at service delivery point

Table 4.20 shows percent distribution of current users of Family Planning methods according to their assessment of total waiting time at the Family Planning service delivery point. The quality of Family Planning services in rural Kenya appears to be satisfactory. The majority of current users (69%) and non-current users (61%) indicated that the waiting time was okay. Nevertheless, a considerable percentage (39%) of non current users and 31% of current users reported that the waiting time was too long. The chi-square test found that assessment of waiting time was not significant in predicting use of Family Planning methods.

Table 4.20 Percent distribution of Respondents by current use of Family Planning methods and waiting time at the service delivery unit.

Current use of Family Planning method	Assessment of waiting time at the Family Planning service delivery point					
	Those saying time was okay		Those saying time was too long		Total	
	NO.	%	No.	%	NO.	%
Current users	164	69.2	73	30.8	237	100
Non-current users	31	60.8	20	39.0	51	100
Total	195	67.7	93	32.3	288	100

(chi-square =1.359, D.F = 1, Sig. = .243)

Use of Family Planning methods according to family Planning method information satisfaction

The responses in table 4.21 relate to the question of current use of Family Planning methods by ever users according to whether Family Planning method information was satisfactory. Out of those currently using Family Planning methods, the majority (79.7%) of current users and 71% of non-current users expressed satisfaction with the type of information given. Only 12.7% of current users compared to 22% of non-current users reported that the information they received about the Family Planning method was not enough. The chi-square test found that Family Planning method information satisfaction was not a significant predictor of current use of Family Planning methods.

Table 4.21 Percent distribution of Respondents by current use of Family Planning methods and method information satisfaction .

Current use of Family Planning method	Family Planning method information satisfaction							
	Those saying information given was enough		Those saying they were not sure whether information given was enough		Those saying the information given was not enough		Total	
	No.	%	NO.	%	No.	%	No.	%
Current users	189	79.7	18	7.6	30	12.7	237	100
Non-current users	36	70.6	4	7.8	11	21.6	51	100
Total	225	78.1	22	7.6	41	14.2	228	100

(Chi-square = 2.79, D.F = 2, sig. = .247)

Use of Family Planning methods according to the number of Family Planning methods available at the service delivery point

Table 4.22 shows results obtained by asking ever users of contraceptives how many methods were available at the Family Planning service delivery unit the last time they went to obtain a method. The results show that the majority (55%) of current users and 57% of non-current users had access to Family Planning service delivery points which had at least 3 Family Planning methods.

Table 4.22 Percent distribution of current use of Family Planning methods by methods availability.

Current use of Family Planning method	Number of methods available at the Family Planning Service delivery point					
	Those saying their were 0-2 methods available		Those saying their were 3+ methods available		Total	
	NO.	%	No.	%	NO.	%
Current users	106	44.7	131	55.3	237	82.3
Non-current users	22	43.1	29	56.9	51	17.7
Total	128	44.4	160	55.6	288	100

(chi-square = .0428, D.F = 1, Sig. = .836)

However, about 45% of current users and 43% of non-current users had access to Family Planning service delivery points with a limited choice of only 0-2 methods. A chi-square test showed that the number of methods available at the Family Planning service delivery point was not significant in predicting use of Family Planning methods.

Use of Family Planning methods according to visits from the Family Planning field worker

Table 4.23 presents the distribution of current users of Family Planning methods according to whether they had been visited by a Family Planning field worker. A majority (67%) of non current users had not been visited, only 33.3 % had been visited. Furthermore, only 44.7% of current users had been visited, while the majority (55%) had not. This reflects the ineffectiveness of the Information, Education and

Communication programs which are currently in place. A chi-square test showed that visits from Family Planning field worker were not significant in predicting use of Family Planning methods.

Table 4.23 Percent distribution of Respondents by current use of Family Planning methods and visits by Family Planning field worker.

Current use of Family Planning method	Visits by Family Planning field worker					
	Those visited		Those not visited		Total	
	NO.	%	NO.	%	NO.	%
Current users	17	33.3	34	66.7	51	100
Non-current use	106	44.7	131	55.3	237	100
Total	123	42.7	165	57.3	288	100

(chi-square = 2.226, D.F = 1, Sig. = .1357)

SUMMARY

The findings show that the majority of the respondents expected financial and farm work assistance and to live with one of their children in old age for both approval and use of family planning methods. In both expectation of financial and farm work assistance, significant proportions of the

respondents indicated that they would always approve spouses using family planning methods to delay pregnancy. Among all the three variables measuring old age parental expectation of social and economic benefits from their children, the number of respondents reporting that they would never approve spouses to use family planning methods to delay pregnancy was minimal. In both respondents' approval of spouses to use family planning methods and their use of contraceptive methods, the largest number of respondents expected farm work assistance from their sons. Only expectation to live with one of the children in old age emerged significant in explaining the respondents' approval of spouses to use family planning methods to delay pregnancy. However, this variable was the only insignificant one in explaining current use of family planning methods. The background variables namely: level of educational attainment, the opinion of the respondents' husbands on their wives practising family planning and desire for another child were significant in explaining the respondents' approval and use of the family planning methods.

An examination of availability and quality of the family planning services showed that these services were generally satisfactory. It was also found that among variables measuring availability and quality of family planning services, only assessment of total travel time was significant in describing current use of family planning methods.

CHAPTER 5

CURRENT CONTRACEPTIVE USE

5.0 INTRODUCTION

This chapter uses multiple logistic regression analysis to determine the effect of the selected independent variables on current use of family planning methods. The first stage of this chapter attempts to determine the effect of old age parental expectation variables (expectation of regular financial assistance from their children, farm work assistance from their sons and old age parental expectation to live with one of their children) on current contraceptive use. The second section of this chapter tries to determine the effect of availability and quality of family planning variables on current contraceptive use.

In an attempt to determine the direct and controlled effect of the proximate factors on current use of family planning methods, different models have been run separately. The socio-economic, socio-cultural and demographic background variables are introduced into the model separately and simultaneously as control variables. The introduction of the control variables of the same concept into the model helps in determining which variables are significant and became redundant when the variables belonging to a different concept

are introduced into the model. Multiple stepwise logistic regression analysis is employed at a later stage in order to establish which variables are the most significant determinants of contraceptive use.

5.1 Variable description

Old age parental expectation variables

(1). Old age parental expectation of regular financial assistance from their children (EFC). This variable is divided into three categories, namely;

EFC1 - Parents expecting regular financial assistance from their children when they are old.

EFC2 - Parents uncertain of expecting regular financial assistance from their children when they are old.

EFC3 - Parents who do not expect regular financial assistance from their children when they are old.

2). Old age parental expectation of regular farm work assistance from their sons (ESW). This variable has been divided into three categories, these are;

ESW1 - Parents expecting regular farm work assistance from their sons when they are old.

ESW2 - Parents who are uncertain of expecting regular farm work assistance from their sons when they are old.

ESW3 - Parents who do not expect regular farm assistance from their children when they are old.

(3). Old age parental expectation to live with one of their

children when they are old (ELC). Three categories were also created for this variable, they were abbreviated and described as:

- ELC1 - Parents expecting to live with one of their children when they are old.
- ELC2 - Parents who are uncertain of expecting to live with one of their children when they are old.
- EFC3 - Parents who do not expect to live with one of their children when they are old.

Socio-economic control variables

(4). Levels of educational attainment (EDUC). Three categories were created for this variable, namely;

- EDUC1 - No level of educational attainment
- EDUC2 - Primary level of educational attainment
- EDUC3 - Secondary and higher levels of educational attainment.

Demographic control variables

(5). Age (AGE), is divided into three;

- AGE1 - Respondents in age group 15-24
- AGE2 - Respondents in age group 25-39
- AGE3 - Respondents in age group 40 and above

(6). Children ever born (CEB). Three categories were created for this variable, they were;

- CEB1 - 0-2 number of children ever born
- CEB2 - 3-4 number of children ever born
- CEB3 - 5+ number of children ever born

(7). Desire for more children (DMC). Three categories represented this variable, namely;

DMC1 - Respondents who definitely want more children

DMC2 - Respondents who are uncertain whether they want more children

DMC3 - Respondent who definitely do not want more children

Socio-cultural control variables

(1) Approval of spouse to use Family planning methods to delay pregnancy (AFD). This variable has been divided into two, namely:

AFD1 - Respondents who will always approve of spouses to use family planning methods to delay pregnancy and

AFD3 - Respondents who will never approve spouses to use family planning methods to delay pregnancy.

HB1 - husbands' opinion is against the use of Family Planning methods by their wives.

HB2 - husbands do not care whether their wives use Family Planning methods.

HB3 - husbands favour their wives using Family Planning methods.

HB4 - the respondents (wives) do not know their husbands' opinion.

From all categories of variables the following variables have been used as reference categories in the interpretation of the respective regression coefficients.

EFC1 EDUC1 DMC1 ELC1 CEB1 AFD1

Table 5.1 Mean values for the selected variables

Variable	Mean	Standard Deviation
UFM	0.338	0.473
EFC2	0.357	0.479
EFC3	0.031	0.174
ELC2	0.191	0.393
ELC3	0.213	0.409
ESW2	0.180	0.384
ESW3	0.043	0.203
EDUC2	0.573	0.495
EDUC3	0.151	0.359
AGE2	0.588	0.493
AGE3	0.184	0.388
CEB2	0.255	0.436
CEB3	0.528	0.500
DMC2	0.151	0.359
DMC3	0.377	0.485
HB2	0.057	0.232
HB3	0.593	0.492
HB4	0.224	0.417
AFD3	0.118	0.323

5.2 Mean values for the selected variables

Table 5.1 presents the mean values of the selected variables. The respondents who did not expect financial assistance from their children, farm work assistance from their sons and those who did not expect to live with one of their children in old age were about 3%, 4%, and 21% respectively. This implies a very slow transition into modern society where it is expected that parents live independently without heavily relying on their children especially for economic support. The majority (57%, 53%) of the respondents had primary education and at least given birth to five children respectively. About 59% of the respondents indicated that their husbands supported family planning while 12% did not approve of spouses to use family planning to delay pregnancy.

Table 5.2 The correlation matrix

	UFM	EFC2	EFC3	ELC2	ELC3	ESW2	ESW3	HB2	HB3
UFM	1.000								
EFC2	-.803	1.000							
EFC3	-.381	.204	1.000						
ELC2	-.027	-.227	-.041	1.000					
ELC3	-.086	.117	-.023	.256	1.000				
ESW2	-.097	-.326	-.045	-.275	-.028	1.000			
ESW3	-.038	-.109	-.267	.027	-.045	.114	1.000		
HB2	-.509	.006	.049	.039	-.006	-.014	.001	1.000	
HB3	-.696	-.001	.025	-.008	.027	.020	.002	.662	1.000
HB4	-.558	-.011	-.002	.037	.006	-.063	.031	.539	.740
AFD3	-.568	.041	.032	.005	-.025	.026	.000	.008	.057
EDUC2	-.451	.048	.005	-.319	-.112	.103	.060	.0297	-.051
EDUC3	-.384	-.045	-.100	-.030	-.042	.0916	.066	.004	-.061
CEB2	-.262	.031	-.014	.025	.006	.007	.039	-.006	.012
CEB3	-.274	.076	.047	-.009	-.032	-.012	.040	-.006	0.059
DMC2	-.044	-.004	0.013	-.050	-.017	-.046	-.039	.007	.055
DMC3	-.004	-.022	-.223	-.056	.038	.093	-.035	-.009	-.093
AGE2	-.176	-.118	-.060	-.017	.035	.042	-.031	-.022	0.015
AGE3	-.154	-.126	-.081	0.007	.035	-.014	-.040	-.004	.020

Table 5.2 Contd.

	HB4	EDUC2	EDUC3	CEB2	CEB3	DMC2	DMC3	AGE2	AGE3	AFD3
HB4	1.00									
EDUC2	-.019	1.00								
EDUC3	-.036	.633	1.00							
CEB2	.013	-.001	.144	1.00						
CEB3	.060	.061	.222	.707	1.00					
DMC2	.019	-.051	-.006	-.136	-.198	1.00				
DMC3	-.069	.034	.096	-.148	-.338	.448	1.00			
AGE2	-.003	.068	-.093	-.357	-.471	-.117	-.131	1.00		
AGE3	-.014	.102	.003	-.232	-.402	-.101	-.261	.709	1.00	
AFD3	.017	.037	.029	-.018	.009	-.064	.005	.007	-.003	1.00

Table 5.2 shows the correlation among the selected variables. Multicollinearity is not a problem as depicted by the computed correlation coefficient (r). Only variables which are orders of the same variable were found to be highly correlated but below a perfect correlation of one.

5.3 EFFECT OF PARENTAL EXPECTATION OF SOCIAL AND ECONOMIC BENEFITS FROM THEIR CHILDREN ON CONTRACEPTIVE USE

Table 5.3 shows logistic regression coefficient estimates for the effect of old age parental expectation of financial assistance from their children, farm work assistance from their sons and to live with one of their children in old age on current use of contraceptives. Parental uncertainty in expecting regular financial assistance from their children as compared to their definite expectation of assistance was the only variable that was found to be significant in explaining current use. Respondents who were uncertain whether to expect regular financial assistance from their children had a

positive effect on contraceptive use. They were 1.5389 times more likely to use family planning methods than those who expected regular financial assistance as shown in table 5.3.

Table 5.3 Logistic regression coefficient estimates for contraceptive use with parental expectation of variables

VARIABLE	B	S.E B	Sig	Exp B
EFC2	0.4310*	0.1938	0.0261	1.5389
EFC3	0.7627	0.4558	0.0943	2.1438
ELC2	-0.3028	0.2384	0.2046	0.7384
ELC3	-0.1416	0.2091	0.4985	0.8680
ESW3	-0.2683	0.4292	0.5319	0.7647
ESW2	0.3572	0.2372	0.1321	1.4294
CONST	-0.8263	0.1170	0.0000	0.4377
Initial -2LL	896.94269			
	chi-square		df	Sig.
-2LL	884.101		694	0.000
Goodness of fit	700.226		694	0.4268
* Significant at 0.05.				

Although respondents who did not expect regular financial assistance from their children were not significant in determining current use of contraceptives as compared to those who definitely expected, they had a positive effect on the dependent variable. Women belonging to this category were 2.1439 times more likely to use family planning methods than those who expected financial assistance. This finding confirms the predicted hypothesis.

Respondents who did not expect regular farm work assistance from their sons were 0.7647 times more less likely

to use family planning methods, while those who were uncertain of expecting assistance were 1.4294 times more likely to use family planning methods as compared to those who expected regular farm work assistance from their sons. Both respondents who did not expect and those who were uncertain of expecting to live with one of their children in old age respectively, were 0.8680 and 0.7384 times more less likely to use family planning methods as compared to those who expected to live with one of their children.

5.4 EFFECT OF PARENTAL EXPECTATION OF SOCIAL AND ECONOMIC BENEFITS FROM THEIR CHILDREN; SOCIO-ECONOMIC AND SOCIO-CULTURAL FACTORS ON CONTRACEPTIVE USE

Levels of educational attainment as socio-economic variables, opinion of the respondents' husbands on their wives practising family planning and the respondents' approval of spouses to use family planning methods to delay pregnancy as socio-cultural variables were introduced into the second model as control variables. The logistic regression coefficient estimates resulting from this analysis are shown in table 5.4.

Table 5.4

Logistic regression coefficient estimates for contraceptive use with parental expectation, socio-economic and socio-cultural variables

VARIABLE	B	S.E	Sig	ExpB
HB3	1.4263*	0.3718	0.0001	4.1640
EDUC3	1.5228*	0.3064	0.0000	4.5850
EDUC2	0.8698*	0.2478	0.0004	2.3865
HB2	1.2295*	0.5079	0.0155	3.4198
AFD3	-2.2663*	0.7372	0.0021	0.1037
ESW2	0.6456*	0.2728	0.0180	1.9072
ESW3	-0.1680	0.4853	0.7292	0.8454
EFC2	0.3339	0.2190	0.1273	1.3964
EFC3	0.5048	0.5218	0.3333	1.6567
HB4	-0.5843	0.4594	0.2034	0.5575
ELC2	-0.3107	0.2651	0.2412	0.7329
ELC3	-0.0923	0.2388	0.6991	0.9118
CONST	-2.4735	0.4125	0.0000	0.0843
Initial	-2LL	896.9426		
	chi-square		df	sig
-2LL	719.169		688	0.1988
Goodness of fit	754.509		688	0.0395
* Significant at 0.05.				

When the socio-economic and socio-cultural variables were introduced into the model, old age parental uncertainty in expecting regular financial assistance from their children relative to parental definite expectation of such assistance was no longer significant but remained with a positive effect on current use of family planning methods. On the other hand, respondents who were uncertain of expecting regular farm work assistance from their sons in old age became significant

predictors of contraceptive use and were 1.9072 times more likely to be current users of contraceptives as compared to those who expected to get regular farm work assistance from their sons.

More important is the fact that the socio-economic and the socio-cultural variables were found to be the most significant variables in explaining the odds in current contraceptive use. Both primary and secondary levels of education as compared to no education, were found to have a positive and significant effect on current use of family planning methods. Respondents with primary education and those with secondary and above education were 2.3865 times and 4.5850 times respectively more likely to be current users of contraceptives than those with no education.

With regard to the background socio-cultural variables, respondents whose husbands supported family planning and those whose husbands did not care about family planning were 3.4198 times and 4.1640 times respectively more likely to use contraceptives as compared to those whose husbands were against. Disapproval of spouses to use family planning to delay pregnancy was found to have a significant and negative effect on current contraceptive use as compared to approval. Respondents who indicated that they will never approve of spouses to use family planning to delay pregnancy were 0.1037 times less likely to use contraceptives as compared to those who reported that they would always approve.

5.5 EFFECT OF PARENTAL EXPECTATION OF SOCIAL AND ECONOMIC BENEFITS FROM THEIR CHILDREN, DEMOGRAPHIC FACTORS ON CONTRACEPTIVE USE

In an attempt to find whether the demographic factors on their own have a significant influence on the effect of old age parental expectations from their children on current contraceptive use, the socio-economic and socio-cultural variables were omitted from the model as the demographic (age, parity and desire for another child) variables were introduced into the model.

The logistic regression coefficient estimates presented in table 5.5 show that parental uncertainty in expecting regular farm work assistance from their sons in old age as compared to their definite expectation of the same assistance was still positive and significant in its effect on the dependent variable. Other parental expectation variables in the model remained insignificant.

Like in the previous model, a number of background demographic variables namely: desire for no additional child and uncertainty in the desire for another child relative to the definite desire for another child had a positive and significant effect on current use. Respondents who reported that they did not want another child and those who indicated uncertainty in expecting another child were 4.3618 and 1.9899 times respectively more likely to use contraceptives as compared to those who expected another child. Respondents in age group 40+ as compared to those in the 15-24 age group

were significant in explaining current use of contraceptives and were 0.3726 times more less likely to use family planning methods as compared to those in the 15-24 age group.

Table 5.5 Logistic regression coefficient estimates for current contraceptive use with social and economic expectation and demographic variables

VARIABLE	B	S.E	sig	ExpB
DMC3	1.4729*	0.2306	0.000	4.3618
DMC2	0.6881*	0.2632	0.0089	1.9899
AGE3	-0.9874*	0.3434	0.0040	0.3726
ESW2	0.5308*	0.2480	0.0324	1.7003
EFC2	0.3776	0.2030	0.0628	1.4588
EFC3	0.7516	0.4740	0.1128	2.1240
ELC2	-0.3607	0.2479	0.1457	0.6972
ELC3	-0.0783	0.2183	0.7198	0.9247
ESW3	-0.2902	0.4504	0.5193	0.7481
CEB2	0.1935	0.2710	0.4751	1.2135
CEB3	-0.1680	0.2916	0.5644	0.8453
AGE2	-0.0711	0.2571	0.0764	0.9314
CONST	-1.2884	0.2230	0.0000	0.2757
Initial -2 LL 896.94269				
Chi-square df sig				
-2LL 830.444 688 0.0001				
Goodness of fit 694.569 688 0.4229				
* Significant at 0.05.				

5.6 EFFECT OF PARENTAL EXPECTATION OF SOCIAL AND ECONOMIC BENEFITS FROM THEIR CHILDREN, SOCIO-ECONOMIC, SOCIO-CULTURAL AND DEMOGRAPHIC FACTORS ON CONTRACEPTIVE USE

To discern the combined influence of all the control variables and the effect of old age parental expectations on current contraceptive use, a model was run where all of the

control variables were introduced.

Table 5.6 logistic regression coefficient estimates for current contraceptive use with social and economic expectation, socio-economic, socio-cultural and demographic variables

VARIABLE	B	S.E	Sig	ExpB
DMC3	1.2178*	0.2599	0.0000	3.3798
EDUC3	1.8732*	0.3385	0.0000	6.5093
EDUC2	0.9961*	0.2624	0.0001	2.7078
HB3	1.2950*	0.3880	0.0008	3.6512
HB2	1.1271*	0.5250	0.0318	3.0867
ESW2	0.7703*	0.2828	0.0065	2.1604
DMC2	0.7569*	0.3047	0.0130	2.1317
AFD3	-2.1848*	0.7484	0.0035	0.1125
AGE3	-0.5641	0.3935	0.1517	0.5689
EFC2	0.2788	0.2265	0.2184	1.3216
HB4	-0.6268	0.4739	0.1859	0.5343
CEB2	0.3730	0.3133	0.2339	1.4520
EFC3	0.4267	0.5197	0.4116	1.5322
CEB3	0.2742	0.3516	0.4355	1.3154
ESW3	-0.2356	0.5008	0.6381	0.7901
AGE2	-0.1243	0.2932	0.6716	0.8831
ELC2	-0.4224	0.2732	0.1221	0.6555
ELC3	-0.0480	0.2457	0.8450	0.9531
CONST	-3.2003	0.5116	0.0000	0.0407
Initial -2 LL 896.9426				
	Chi-square	df	significance	
-2LL	684.620	682	0.4646	
Goodness of fit	812.785	682	0.0004	
* Significant at 0.05.				

Among the old age parental expectation of social and economic benefit variables, old age parental uncertainty in

expecting regular farm work assistance from their sons as compared to definite parental expectation of the same assistance was the only one that retained its significance in predicting current use of contraceptives. Most of the background socio-economic, socio-cultural and demographic variables which were significant in the previous models retained their significance when $\alpha = 0.05$ in predicting the dependent variable. The significant socio-cultural variables were: favourable opinion of the husbands on their wives practising family planning methods, when the husbands do not care whether their wives practised family planning methods (both variables compared to when the husbands are against family planning) and the respondents' disapproval relative to approval of spouses to use family planning to delay pregnancy. As socio-economic variables, both primary and secondary and above levels of education as compared to no education remained significant predictors of current use of contraceptives. Desire for no additional child and uncertainty in the desire for another child relative to desire for another child were the only demographic variables that remained significant in predicting current contraceptive use .

Among all the significant variables, only disapproval of spouses to use family planning methods to delay pregnancy decreased the odds of current use of family planning methods when each variable is compared its reference category.

5.7 SIGNIFICANT DETERMINANTS OF CURRENT CONTRACEPTIVE USE

Table 5.7 shows the stepwise logistic regression coefficient estimates for the most significant determinants of current use of contraceptives in a model with old age parental expectation variables controlled for the socio-economic, socio-cultural and demographic variables.

Table 5.7 Stepwise logistic regression coefficient estimates for the significant determinants of current contraceptive use.

VARIABLE	1	2	3	4	5	6	7	
HB3 ExpB Sig	1.7882 5.9608 0.0000	1.5404 4.6620 0.0000	1.4776 4.3824 0.0000	1.3696 3.9338 0.0000	1.2590 3.5218 0.0000	1.6044 4.9749 0.0000	1.6664 5.2931 0.0000	1.7010 5.4794 0.0000
AFD3 ExpB Sig		-2.5633 0.0771 0.0004	-2.5103 0.0812 0.0006	-2.3819 0.0924 0.0011	-2.2466 0.1058 0.0023	-2.2169 0.1089 0.0027	-2.1049 0.1219 0.0044	-2.2021 0.1106 0.0031
EDUC3 ExpB Sig			0.9445 2.5716 0.0000	1.1014 3.0084 0.0000	1.8358 6.2703 0.0000	1.8424 6.3139 0.0000	1.8900 6.6193 0.0000	1.9323 6.9053 0.0000
DMC3 ExpB Sig				0.7441 2.1046 0.0001	0.8643 2.3733 0.0000	0.8617 2.3672 0.0000	0.9069 2.4766 0.0000	1.1028 3.0125 0.0000
EDUC2 ExpB Sig					0.9279 2.5293 0.0002	0.9563 2.6021 0.0001	1.0364 2.8190 0.0000	1.0393 2.8271 0.0000
HB2 ExpB Sig						1.5874 4.8910 0.0002	1.6104 5.0050 0.0002	1.5703 4.8081 0.0003
ESW2 ExpB Sig							0.7682 2.1558 0.0013	0.6991 2.0120 0.0038
DMC2 ExpB Sig								0.7747 2.1699 0.0065
CONSTANT	-1.8718	-1.5741	-1.6932	-1.9628	-2.6405	-3.0049	-3.2781	-3.4944

Among the socio-cultural variables, favourable opinion of the respondents' husbands emerged as the most significant and positive determinant of the use of family planning methods. The respondents whose husbands favoured their practise of family planning were 5.9608 times more likely to use contraceptives as compared to those whose husbands were against. The don't care opinion of the husbands, entered sixth in the model, was also positive in its effect on current use of family planning methods. Respondents whose husbands did not care whether they practised family planning were 4.8910 times more likely to use family planning methods as compared to those whose husbands were against. The other socio-cultural

variable, namely; disapproval of spouses to use family planning to delay pregnancy was the second most significant variable in predicting current use. These variable had a negative effect on current use of contraceptive methods. Respondents who indicated that they would never approve of spouses to use family planning to delay pregnancy decreased the odds of current use by 0.0771 units as compared to those who reported that they would always approve.

Among the socio-economic variables, secondary and above level of education was the third most positive and significant variable in explaining the dependent variable. While primary level of education emerged as the fifth significant variable in predicting the odds of current use of the family planning methods. Respondents with secondary and above level of education (in the third stage of variable selection) and those with primary level of education (in the fifth stage of variable selection) were 2.5716 times and 2.5293 times respectively more likely to be current contraceptive users as compared to those with no level of education.

In the category of the demographic variables, desire for no additional child was the fourth most significant and positive variable in the model. While uncertainty in the desire for another child was selected as the eight most significant and positive predictor of current use of family planning methods. Respondents who desired no additional child (in the fourth stage of variable selection) and those who were

uncertain whether they desired another child (in the eight stage of variable selection), were 2.1046 and 2.1699 times respectively more likely to use family planning methods as compared to those who desired another child.

Old age parental uncertainty in expecting regular farm work assistance from their sons as an indicator of old age parental expectation of economic benefit was the seventh most significant and positive variable in the model. A one unit change in the value of this variable will justify 2.3170 times increase in the odds of using family planning methods as compared to those who definitely expected regular farm work assistance from their sons.

5.8 EFFECT OF AVAILABILITY AND QUALITY OF FAMILY PLANNING SERVICES ON CURRENT CONTRACEPTIVE USE

A conducive socio-economic environment is needed for easy decision to use family planning methods by the potential users. However, for the actual use to take place, the family planning services have to be available to the target population. Good quality of the family planning services is important for keeping the family planning clients. The objective in this section is to show the effect of availability and quality of the family planning services on the use of family planning methods. The results shown in this section are based on an examination of 288 wives of heads of households who had ever used family planning methods and who were present for interview at the time of the survey.

Variable description

Abbreviation of the variables used in this section are defined below.

Availability OF family planning service variables

1. Assessment of total travel time to and from the family planning service delivery point (TTT). Two categories were created for this variable, these were;

TTT1 - Time was okay

TTT2 - time was too long

2. Number of family planning methods available at the family planning service delivery point (MFA). Two categories were also created for this variable namely;

MFA1 - 0-2 number of methods available

MFA2 - 3+ number of methods available

Quality of family planning variables

3. Visit from Family Planning field worker (VFW). Two categories were created for this variable, these were:

VFW1 - have been visited by family planning field worker from clinic, Community based distribution CBD or from both.

VFW4 - have not been visited by a family planning field worker.

4. Total waiting time at the family planning service delivery point (WT). The categories of this variable were;

WT1 - The waiting time was okay

WT2 - The waiting time was too long

5. Family planning method information satisfaction (EM1). Three categories were created for this variable, these included:

EM1 - The information obtained about the method given at service delivery point was enough.

EM2 - Not certain as to whether the information given about the method obtained from the Family Planning service delivery point was enough.

EM3 - The information obtained about the method given at family planning service delivery point was not enough.

The nature and the description of the control socio-economic, socio-cultural and demographic variables used are the same as those used in the previous section of this chapter. These variables include levels of educational attainment (EDUC - EDUC1, EDUC2, EDUC3).

Opinion of the respondents' husbands on their wives practising family planning (HB) as HB1, HB2, HB3, HB4.

Age (AGE - AGE1, AGE2, AGE3), Number of children ever born (CEB- CEB1, CEB2, CEB3), and desire for another child (DMC - DMC1, DMC2, DMC3).

The reference category variables used are: TTT1, VFW1, EM1, WT1, AGE1, DMC1, CEB1, EDUC1 and HB1.

5.10 Mean values of the selected variables

The mean values for the variables included in the family planning service variable model are presented in table 5.8. The results show that 82% of the respondents were current users. About 21% and 56% of the respondents reported that the travel time to and from the family planning service delivery point was too long, and that they had access to service delivery points with at least three family planning methods respectively.

Table 5.8 Mean values of the selected variables

	<u>Mean</u>	<u>Standard deviation</u>
W26	0.823	0.382
TTT2	0.212	0.409
WT2	0.295	0.457
EM2	0.076	0.266
EM3	0.142	0.350
MFA2	0.556	0.498
VFW4	0.573	0.498
EDUC2	0.604	0.490
EDUC3	0.250	0.434
AGE2	0.642	0.480
AGE3	0.167	0.373
CEB2	0.278	0.449
CEB3	0.556	0.498
DMC2	0.156	0.364
DMC3	0.486	0.501
HB2	0.059	0.236
HB3	0.806	0.396
HB4	0.073	0.260

Approximately 30%, 14% and 57% of the respondents were not satisfied with the waiting time for service, were not satisfied with the information given to them about the family planning method they had obtained, and that they had not been visited by a family planning field worker respectively.

5.11 The correlation coefficients

The correlation of the variables in the model are presented in table 5.9. The results show that multicollinearity is absent among the variables examined. This shows that the values of the coefficients are not exaggerated.

Table 5.9: The correlation matrix

	UFM	TTT2	WT2	EM2	EM3	MFA2	VFW4	EDUC2	EDUC3
UFM	1.000								
TTT2	-.206	1.00							
WT2	-.065	-.334	1.00						
EM2	-.013	-.019	-.165	1.00					
EM3	-.097	-.097	-.168	-.153	1.00				
MFA2	-.144	.042	.059	.054	.044	1.00			
VFW4	-.323	-.042	-.031	.057	.087	-.056	1.00		
EDUC2	.574	.260	.046	.139	-.075	-.197	-.007	1.00	
EDUC3	-.552	-.240	.009	.040	-.033	.196	.015	.687	1.00
AGE2	-.307	-.039	-.058	.011	.083	.022	.085	.048	-.095
AGE3	-.324	-.027	.004	.069	.157	.167	.032	.095	.017
CEB2	-.314	-.029	-.057	-.043	-.047	-.054	-.018	-.043	.097
CEB3	-.308	-.092	0.006	-.076	0.027	-.108	.031	.032	.227
DMC2	-.083	.103	-.074	.017	.081	-.042	-.004	.128	.106
DMC3	.045	.159	-.028	.016	-.079	-.043	-.128	.023	.030
HB2	-.363	-.084	.053	-.133	-.077	.132	.027	-.074	-.075
HB3	.494	-.189	.166	-.087	-.089	-.001	-.058	-.229	-.178
HB4	-.392	-.135	.024	-.105	.014	.103	.037	-.255	-.184

Cont. Table 5.9

	AGE2	AGE3	CEB2	CEB3	DMC2	DMC3	HB2	HB3	HB4
AGE2	1.000								
AGE3	.711	1.000							
CEB2	-.265	-.148	1.000						
CEB3	-.414	-.339	.719	1.000					
DMC2	-.092	-.162	-.114	-.192	1.000				
DMC3	-.169	-.375	-.158	-.273	.453	1.000			
HB2	-.032	.031	-.004	.037	-.044	-.051	1.00		
HB3	.010	.032	.031	.148	-.049	-.237	.548	1.0	
HB4	.105	.076	-.061	-.017	0.007	-.060	.451	.67	1.00

5.12 EFFECT OF AVAILABILITY AND QUALITY OF FAMILY PLANNING SERVICES ON CURRENT CONTRACEPTIVE USE

The regression coefficients resulting from an examination of the direct effect of availability and quality of family planning services on the use of family planning methods are shown in table 5.10.

At a preselected significance level of $\alpha = 0.05$, no variable measuring either availability or quality of family planning services was found to be significant in predicting the odds of current use of family planning methods.

The socio-economic and socio-cultural variables were introduced into the model in an attempt to find whether these variables have a significant influence on the effect of availability and quality of family planning service variables on current contraceptive use.

Table 5.10 Logistic regression coefficient estimates for current contraceptive use with availability and quality of family planning service variables

VARIABLE	B	S.E B	Sig	ExpB
TTT2	-0.6152	0.3924	0.1169	0.5405
VFW4	-0.5005	0.3294	0.1257	0.6062
EM3	-0.5754	0.4196	0.1703	0.5625
MFA2	-0.1009	0.3188	0.7517	0.9041
WT2	0.1075	0.3812	0.7780	1.1135
EM2	-0.0896	0.6046	0.8822	0.9143
CONST	2.1218	0.3524	8.3461	

Initial -2LL	268.959		
	chi-square	df	sig
-2LL	261.283	281	0.7949
Goodness of fit	288.210	281	0.3708

The regression coefficients presented in table 5.11 show that the introduction of the socio-economic and socio-cultural variables into the model did not cause any significant change in the prediction of the odds of current use by the availability and quality of family planning variables.

Favourable opinion of the respondents' husbands on their wives practising family planning as a socio-cultural control variable, was the only significant variable in the model. Respondents whose husbands supported their practise of family planning were 4.9697 times more likely to use family planning methods as compared to those whose husbands were against.

Table 5.11 logistic regression coefficient estimates for current contraceptive use with availability and quality of family planning service, socio-economic and socio-cultural variables

VARIABLE	B	S.E B	Sig	ExpB
HB3	1.6034*	0.5595	0.0042	4.9697
HB2	1.2368	0.8434	0.1425	3.445
HB4	0.2638	0.7170	0.7129	1.3019
EDUC2	0.4913	0.4919	0.3179	1.6345
EDUC3	0.4594	0.5503	0.4038	1.5832
EM3	-0.7710	0.4404	0.0800	0.4625
VFW4	-0.6011	0.3450	0.0815	0.5482
TTT2	-0.5231	0.4314	0.2253	0.5927
MFA2	-0.2818	0.3466	0.4161	0.7544
WT2	0.3354	0.4059	0.4086	1.3985
EM2	0.0096	0.6486	0.9882	1.0096
CONST	0.5098	0.6408	0.4263	1.6649

Initial -2LL 268.9585

	chi-square	df	Sig
-2LL	246.569	276	0.8982
Goodness of fit	292.359	276	0.1425

* Significant at 0.05.

In an attempt to find whether the demographic factors have a significant influence on the effect of availability and quality of family planning variables on current contraceptive use, the socio-economic and the socio-cultural variables were omitted from the model. Table 5.12 shows the logistic regression coefficient estimates for this analysis. None of the availability and quality of family planning variables became significant in the model.

However, desire for no additional child was the only

demographic variable that was found to have a significant effect on current contraceptive use. Respondents who did not expect another child were 4.1113 times more likely to use family planning methods as compared to those who desired to have another child.

Table 5.12

Logistic regression coefficient estimates, for current use with availability and quality of family planning service and demographic variables

VARIABLE	B	S.E B	Sig	ExpB
VFW4	-0.5990	0.3425	0.0803	0.5494
EM3	-0.7042	0.4402	0.1097	0.4945
EM2	-0.0722	0.6183	0.9070	0.9303
TTT2	-0.3957	0.4118	0.3366	0.6732
MFA2	-0.2250	0.3383	0.5061	0.4945
WT2	0.0404	0.3984	0.9193	1.0412
DMC2	0.7400	0.5038	0.1419	2.0959
DMC3	1.4137*	0.4463	0.0015	4.1113
AGE2	-0.2778	0.5000	0.5785	0.7574
AGE3	-1.2343	0.6864	0.6996	0.8112
CEB2	-0.2092	0.5424	0.6996	0.8112
CEB3	-0.4821	0.5658	0.3942	0.6175
CONST	2.2446	0.5553	0.0001	9.4366

Initial -2LL 268.958

chi-square

df

sig

-2LL 249.229 275 0.8658

Goodness of fit 301.244 275 0.1327

* Significant at 0.05.

All the control variables were introduced into the model in order to discern any significant change in the effect of availability and quality of family planning variables on current use of family planning methods. The logistic regression coefficient estimates for this analysis are presented in table 5.13. When all the socio-economic, socio-cultural and the demographic variables were introduced into the model, it was the socio-cultural (favourable opinion of the respondents' husbands on their wives practising family

planning relative to when the husband is against) and the demographic (desire for no additional child as compared to desire for another child) variables that were found to be positive and significant in predicting the odds of current use of family planning methods.

The level of educational attainment was found not to be an important predictor of current use in a model containing availability and quality of family planning variables.

Table 5.13 Logistic regression coefficient estimates for current use with availability and quality of family planning service, demographic, socio-economic and socio-cultural variables

VARIABLE	B	S.E	B	Sig	ExpB
HB3	1.2880*	0.6022		0.0231	3.6254
DMC3	1.0621*	0.4676		0.0325	3.6254
VFW4	-0.6486	0.3537		0.0667	0.5228
EM3	-0.8470	0.4605		0.0659	0.4287
EM2	-0.0348	0.6538		0.9576	0.9658
AGE3	-1.1270	0.7224		0.1187	0.3240
AGE2	-0.3541	0.5269		0.5015	0.7018
DMC2	0.6957	0.5269		0.1868	2.0050
EDUC2	0.5136	0.5154		0.3190	1.6712
EDUC3	0.5242	0.5969		0.3798	1.6891
HB2	1.0632	0.8631		0.2180	2.8956
HB4	0.1570	0.7430		0.8326	1.1700
MFA2	-0.3929	0.3648		0.2815	0.6751
CEB2	-0.0980	0.5709		0.8638	0.9067
CEB3	-0.0871	0.5709		0.8638	0.9166
TTT2	-0.3830	0.4458		0.3902	0.6818
WT2	0.2588	0.4187		0.5365	0.2954
CONSTANT	0.7678	0.8475		0.3650	2.1550

Initial -2LL 268.958
 chi-square df sig
 -2LL 240.151 270 0.9043
 Goodness of fit 291.531 270 0.1758
 * Significant at 0.05.

When stepwise logistic regression was run, the results as presented in table 5.14 show that only favourable opinion of the respondents' husbands on family planning as compared to when the husband is against as a control variable was found to

be the most significant predictor of the odds of current contraceptive use.

Table 5.14 Stepwise logistic regression coefficients for the significant determinants of current use of family planning

	VARIABLE	B	S.E B	Sig	ExpB
	HB3	0.1.0496	0.3423	0.0022	2.8565
	CONST	0.7472	0.2861	0.009	2.1111

5.13 SUMMARY

The results show that old age parental expectation variables are not the major determinants of current use of family planning methods. Old age parental uncertainty in expecting regular farm work assistance from sons as compared to definite parental expectation of farm work assistance was the only significant variable among old age parental expectation variables. Respondents who were uncertain of expecting regular farm work assistance were more likely to use family planning methods as compared to those who expected assistance. Old age parental expectation to live with one of their children and old age parental uncertainty in expecting to live with one of their children both decreased the odds of current use of contraceptive methods.

The socio-economic variables namely: primary and secondary levels of education had a positive and significant effect on current use. Favourable opinion of the husbands on their wives practising family planning and when the husbands do not care whether their wives practised family planning (both variables compared to when the husbands are against

family planning) were both positive and significant predictors of current use of contraceptives. Disapproval of spouses to use family planning methods was found to have a negative and significant effect on current use. The respondents who did not want more children, and those who were uncertain whether they wanted more children, were significantly more likely to use family planning methods than those who wanted more children.

In the analysis of the effect of availability and quality of family planning service variables on contraceptive use, the findings show that it is the socio-cultural and the demographic variables and not availability and quality of family planning service variables that are the most important variables explaining the odds of current contraceptive use. Among the measures of availability and quality of the family planning services, long total travel time as compared to when the travel time is okay, client follow-up visits relative to no visits by the family planning field worker, decreased the odds of current use of family planning methods.

CHAPTER 6

SUMMARY AND CONCLUSION

This chapter provides a summary of the study findings in relation to the overall objectives and hypotheses. In broad terms, the study set out to determine the effect of old age parental social and economic expectations from their children on approval and use of family planning methods. It also aimed to find out the effect of availability and quality of family planning services on contraceptive use. Crosstabulation, chi-square statistic and log-linear logistic regression methods have been used to analyze data.

The first specific objective aimed at determining the effect of old age parental social and economic expectations from their children on the approval and use of family planning methods. The concept of social expectation was measured by old age parental expectation to live with one of their children. The concept of economic expectation was measured by old age parental expectation of regular financial and farm work assistance from their children and sons respectively. With regard to this objective, it was found that approval of spouses to use family planning methods to delay pregnancy was high for both parents who expected and those who did not expect social and economic benefits from their children. From the findings it is concluded that parental expectation to live with one of their children in old age and their expectation of

regular financial and farm work assistance from their children and sons respectively does not lead to disapproval of spouses to use family planning methods to delay pregnancy.

On the same objective, it was hypothesized that Parental expectation to live with one of their children in old age is likely to decrease their odds of current use of family planning methods as compared to no expectation to live with one of their children. From the findings it is concluded that neither the parents' expectation not to live with one of their children in old age, nor their expectation to live with one of their children in old age increases their odds of current contraceptive use. Another hypothesis advanced on the above objective was that parental expectation of regular financial assistance from their children in old age is likely to decrease their odds of current contraceptive use as compared to expectation of no financial assistance. On the basis of the findings, it is concluded that parental expectation of regular financial assistance from their children in old age decreases their odds of current contraceptive use. On the same objective, the hypothesis stating that parental expectation of regular farm work assistance from their sons in old age would likely decrease their odds of current contraceptive use was not confirmed. From the findings it can be concluded that parents' expectation of no farm work assistance does not necessarily increase their likelihood of current contraceptive use.

The second objective of the study was to establish socio-economic, socio-cultural and demographic differentials in the approval and use of contraceptives. The concept of socio-economic was measured by the womens' level of educational attainment, the concept of socio-cultural was measured by the opinion of the respondents' husbands on their wives practising family planning and approval of spouses to use family planning to delay pregnancy. The demographic concept was measured by age, desire for another child and parity. From the findings it is noted that approval of spouses to use family planning methods to delay pregnancy increases with increase in the level of education. With regard to the relationship between the opinion of the respondents husband on family planning and the respondents' approval of family planning the findings show that approval of spouses to use family planning methods to delay pregnancy varies according to the opinion of their husbands on their wives practising family planning. However, favourable opinion of the husbands on their wives practising family planning is important and leads to a majority of respondents approving spouses to use family planning methods to delay pregnancy.

Still under the second objective, the relationship between approval of spouses to use family planning methods to delay pregnancy and the respondents' desire for more children was examined. The findings show that the majority of the women who do not desire another child would always approve spouses

to use family planning methods to delay pregnancy.

The second part of the fore mentioned hypotheses linked to the second objective was advanced with an aim of determining whether the effect of old age parental social and economic expectation variables on current contraceptive use would still be significant when the socio-economic, socio-cultural and demographic variables are introduced in the model separately and simultaneously as control variables. On the basis of the findings, this study concludes that it is the socio-economic, socio-cultural and demographic and not old age parental social and economic expectation variables that are significant determinants of current contraceptive use. More especially, when the husbands' opinion is favourable to family planning relative to when they are against, desire for no more children as compared to desire for more children, secondary and above level of education as compared to no education were found to increase the odds of current contraceptive use.

The third objective of the study was to find out whether family planning supply factors such as availability have an effect on contraceptive use. The concept of availability is measured by total travel time to and from the family planning service delivery point and the number of family planning methods available at the service delivery point the last time the respondent went for service. Under this objective, it was hypothesised that long travel time to and from the family planning service delivery point is likely to decrease the

womens' odds of current contraceptive use as compared to when the respondent is satisfied with the travel time. It was also hypothesised that availability of at least three family planning methods at the service delivery point is more likely to increase the womens' odds of current contraceptive use as compared to availability of no method, one or two methods. From the findings it can be concluded that long travel time to and from the family planning service delivery point decreases the odds of contraceptive use among women as compared to when the travel time is okay. Availability of multiple family planning methods at the service delivery point does not necessarily increase women's odds of contraceptive use as compared to availability of no method, one or two methods.

The last objective of the study aimed at examining the quality of family planning services with a view to ascertaining their effect on contraceptive use. The concept of quality was measured by: assessment of waiting time for family planning service, family planning method information satisfaction and follow-up visits by the family planning field worker. The hypotheses under this objective were that: womens' possession of inadequate information about the family planning methods is likely to decrease their odds of using contraceptives methods as compared to when they possess adequate information and that visits by the family planning field worker are more likely to increase the womens' odds of current use of contraceptives as compared to no visits. The

conclusion drawn from the findings is that possession of inadequate information about the family planning methods decreases the odds of current use as compared to possession of adequate information about the family planning methods. Furthermore, lack of family planning client follow-up visits by the family planning field worker, decrease the womens' odds of current contraceptive use as compared to when the client is visited by the family planning field worker. The waiting time is fairly satisfactory and that long waiting time does not apparently lead to a decrease in the odds of current use as compared to when the waiting time is okay.

This study leads to the general conclusion that the value of children in terms of social and economic benefits to their parents is not currently a significant determinant of the parents' current contraceptive use in rural Kenya. However, the background socio-economic, socio-cultural and demographic factors have shown to play a significant part in determining contraceptive use. More importantly, the husbands' opinion on family planning, level of educational attainment and desired fertility are the major background variables determining contraceptive use in rural Kenya. Approval of spouses to use family planning to delay pregnancy does not necessarily lead to use of contraceptives, however, disapproval has a significant decrement effect on contraceptive use as compared to approval. In a broad perspective, the results point to the fact that family planning services are fairly satisfactory in

rural Kenya but the quality need of services need to be developed.

6.1 Policy recommendations

1. Alleviation of poverty. The findings show large scale old age parental expectations of socio-economic benefits from their children. This reveals the state of economic poverty and fear of old age destitution among the respondents. Apparently, these factors appear to encourage high fertility as they inhibit the use of family planning methods. To reduce old age dependence on the children, employment opportunities should be created for women in addition to upgrading of agricultural systems in an attempt to create economic self-sufficiency. Furthermore, institutions for aged parents should be expanded to contain old age fears of destitution.
2. Both men and women should be targeted for family planning information and education. The male population needs to be informed much more about the benefits of family planning. Even more importantly is the encouragement of discussion particularly on matters of reproduction among spouses. This interaction is envisaged to initiate positive changes in the attitudes towards family planning, thereby increasing support of the Family Planning programme by both the female and male population.

3. Emphasis of formal education among women is necessary. The results clearly show that a majority of those with secondary and higher education were more likely to use contraceptives as compared to those with no education. This is because formal education at least up to secondary level improves the respondents' perception of family planning and gives more exposure to the relevant information about the family planning methods. Increased levels of educational attainment appear to herald greater use of contraceptives.
4. Availability and quality of the family planning services need to be reinvigorated. The respondents who were not satisfied with the information about the family planning method they last obtained can be motivated to continue using the family planning methods when such information is made adequately accessible to the target population.
5. Furthermore an increase of the family planning service delivery points with a view of reducing the distance covered by the potential and actual users of the family planning methods should be able to reduce the financial and opportunity costs of attending the family planning services. This will thus motivate potential users of the family planning methods to use.

6. Re-assurance of family planning clients and fresh visits of the potential family planning users by the family planning field staff should be in place. Apart from maintaining family planning clients, this will also ease the recruitment of potential contraceptive users.

6.2 Recommendations for further research

1 The results show that a majority of the respondents who indicated that they would always approve of spouses to use family planning methods to delay pregnancy were not currently using family planning methods. There is a need for a follow-up study to establish other factors responsible for non-current use among the a fore said respondents.

2 With regard to the fact that a considerable proportion of the respondents indicated that they did not want another child, a follow-up study needs to be carried out to establish whether these respondents had attained their desired family sizes or they had excess number of children.

3 A comparative study of the husbands and their wives on their views on approval and use of family planning methods as well as their views on fertility would be of paramount importance in further assessing the effort and the impact of the Family Planning Programme in rural Kenya.

BIBLIOGRAPHY

- Abdullah, T.H. et. al, (1982) Village Women of Bangladesh: Prospects for Change. Oxford, Pergamon press.
- Amin, S. (1972) " Underpopulated Africa," Manpower and Unemployment Research in Africa, No. 2, Quebec, Canada.
- Berelson, B. et. al, (1976) " The Record of Family Planning Programmes", Studies in Family Planning vol. 7, No. 1, The Population Council New York.
- Bracket, J.W. et. al, "An Approach to the Measurement of Availability of Family Planning Services" The Role of Survey in the Analysis of Family Planning Programme. Liege, IUSSP, 1986.
- _____ "The Role of Family Planning Availability and Accessibility in Family Planning Use in Developing Countries," WFS Conference: Record of Proceedings. vol.2, 1980.
- Bongaartz, J. " A framework for Analyzing the Proximate Determinants of Fertility" Population and Development Review, vol.4, No.1, march, 1978.
- Boserup, E. (1965) The conditions of Agricultural Growth.
- Bruce, J.A, "Improving The Quality of Care through Operations Research", a paper presented for: The International Operations Research to Help Family Planning Programmes Work Better, Columbia, Maryland, JUNE, 1990.
- _____ " Fundamental Elements of Quality of Care: A simple Framework", Studies in Family Planning, vol.21, no.2, 1990, pp. 61-91
- Caldwell, J.C. 1976, "Towards a Restatement of the Demographic Theory" Population and Development Review, vol.2. (pp.321-336)
- Caldwell and Caldwell, 1988, " Is the Family Planning Model Suited to Africa?" Studies in Family Planning, vol.19. (pp, 19-28)
- Central Bureau of Statistics (CBS) First Report: Kenya Contraceptive Prevalence Survey 1984. Ministry Of Planning and National Development, Nairobi, Kenya, 1981.

- First Report: The Kenya Fertility Survey 1977/78, Ministry of Planning and Economic Development, Nairobi, Kenya, 1980
- Cornelius, R.M. et. al, 1983 "Contraceptive Availability and Use in Five Developing countries", Studies in Family Planning, vol.14. no.12 part 1.
- Donabedian, A. 1980, The Definition of Quality and Approach to Its Management .vol.1 Exploration in Quality Assessment and Monitoring, Ann Arbor: Michigan, Health Administration Press.
- Dow, T.E. Werner, L.H "Perceptions of Family Planning Among Rural Kenyan Women", Studies in Family Planning vol.14, no.2, 1983 (pp.35-43)
- "Family Size and Family Planning in Kenya Continuity and Changes in Metropolitan and Rural Attitudes" Studies in Family Planning vol.12, no.6/7, 1981 (pp.272-277).
- "Prospects for Fertility Decline in Rural Kenya" Population and Development Review, vol.9, no.1, 1983, (pp. 77-78).
- Easterline, R.A. "The Economics and Sociology Of Fertility:A Synthesis, in, Tidy C. (ed), Historical Studies of Changing Fertility, Princetown, 1978.
- Freedman, R. et.al, 1976 "The Record of Family Planning Programme" Studies in Family Planning ,vol. 7, no.1. (pp 3-30)
- Family Planning In Taiwan, Princetown, Princetown University Press.
- Hammerslough, C.R. 1991, "Womens' Groups and Contraceptive use in Rural Kenya", Manuscript, 41 pp.
- Community Determinants of Demographic Behaviour in Kenya: First Report, Kenya, Population Studies and Research Institute, Nairobi, Kenya.
- Hermaline, A. et, al. 1985, " Future Directions In Analysis of Contraceptive Availability", In IUSSP Conf. papers, vol.3, Florence, Liege : IUSSP.
- Jean, Bourgeois Pichat, 1981, "The Recent Demographic Change in Western Europe; An Assessment", Population And Development Review. Vol. 7, no. 1. 1981.

- Kar Kair, N. et, al. " Reasons For Not Using Contraceptives: An International Comparison " Studies In Family Planning vol.15, no. 2, 1984.
- Lapham, R. J. et, al.1985," Contraceptive Prevalence The Influence of Organized Family Planning Programme" Studies In Family Planning vol. 16, no.3, pp, 117-137.
- Mauldin, W. P. (1975), "Assessment Of Family Planning Programmes in Countries" Studies In Family Planning, vol. 6 no. 2, The Population Council New York.
- Mcguire, E. S. 1984, " Family Planning Operations Research: A decade of Experience", Paper presented at the 11th Annual Conf. for The National Council For International Health.
- McNamara, R. S., Africa's Development Crisis: Agricultural stagnation, Population Explosion, and Environmental Degradation, Global Coalition For Africa, Washington DC April, 1991.
- National Council For Population and Development, 1989, Demographic and Health Survey 1989, Nairobi, Kenya: National Council For Population and Development.
- Njogu, W, 1992 , " Contraceptive Use In Kenya: Trends and Determinants " Demography vol. 28, no.1 pp.83-99.
- Nortman, Dorothy. L.(1978), Population And Family Planning Programmes, 9th edition, The Population Council, New York.
- Ocholla- Ayayo, A. B. C. 1991 , The Spirit Of A Nation, Shirikon publishers, Nairobi, Kenya.
- Pariani, S.D.M. H et al. 1987, " Continued Contraceptive Use In Five Family Planning Clinics In Surabaya Indonesia" Paper presented at the annual Meeting Of The American Public Health Association, New Orleans.
- Pebley, R.A. et, al. 1982, "The Relationship Of Contraceptive Availability To Contraceptive Use" International Family Planning Perspective vol.8, no. 3, pp, 84-92.

Philipps, J. F. et, al. " The Institutionalization Of Operations Research " Paper prepared for: The International Operations Research Conf. and Workshop on Using Operations Research To Help Family Planning To Work Better, Columbia, Maryland, 1990.

Prabhavathi, K. et al." Patterns Of IUD Use: On Follow-up Of Acceptors In Mysore", Journal Of Family Welfare, vol. 31. no. 1 , 1988.

PRB World Population Data Sheet, Population Reference Bureau, Washington D.C ,1989.

Radcliffe-Brown, et al. (1950), African Systems Of Kinship And Marriage, Oxford University Press.

Republic Of Kenya, (1965), African Socialism And Its Application to Family Planning In Kenya, Government Printer, Nairobi.

Rodriguez, G. 1978," Family Planning Availability and Contraceptive Use " International Family Planning Perspective" vol. 4, no. 4, pp, 100-115.

----- Assessing the Availability Of Fertility Regulation Methods: Report On A methodological Study" WFS Scientific Report, no.1, 1977.

Scrimshaw, S.C M.(1978) " Infant Mortality And Behaviour In The regulation Of Family Size" Population And Development Review, vol. 4, no. 3.

Simmons, R. et, al. " Beyond Supply: The Importance Of Female Family Planning Workers In Rural Bangladesh" Studies In Family Planning vol. 19.1, 1988.

Siralgeldin, I. D.W. et, al." Family Planning in Pakistani: An Analysis Of Some Factors Constraining Use " Studies In Family Planning. vol. 7, no. 5, 1976.

Snehendu, B. K. et, al. 1980, Attitudinal and Non-Attitudinal Determinants of Contraceptives : A Cross-Cultural Study" Studies In Family Planning, vol. 11, no. 2, 1980.

Som, R. R.(1972) "Population Prospects In Africa " , Ominde, H.S. and Ejiogu N. eds. Population Growth And Economic Development In Africa , Heinmann, 1972.

Townsend J. W. " Effective Family Planning Service Components: Global Reasons For Operations Research ", Paper presented for: International Operations Research Conf. and Workshop, On Using Operations Research To Help Family Planning Programmes Work Better, Columbia, Maryland, 1990.

Tsui, O. A. 1982, " Contraceptive Availability and Family Limitation In Mexico and Rural Korea", International Family Planning Perspective, vol. 8 no. 1, pp, 8-18.

Tsui, O. A. et al. (1981) "Contraceptive Availability, Differentials In use And Fertility", Studies In Family Planning, vol. 12, N o. 11. The Population Council New York.

U.S. Department of Commerce, Bureau of The Census, 1980, World Population: Recent Demographic Estimates For The Countries And Regions Of The World, 1980, Washington, D.C. U.S.A.

U.N. (1973) Determinants And Consequences Of Population Trends vol.1. New York.

Warwick ,B. P. et al. (1975) The Sample Survey: Theory And Practice, McGraw-Hill, New York.

Warwick, D. "Culture And Management Of Family Planning Programmes," Paper presented at the IUSSP Seminar, Jamaica, 1985.

World Bank (1983) Kenya: Population And Development, World Bank Country Report No. 3409 -KE. April, 1983, A restricted Circulation Document.

QUESTIONNAIRE FOR THE WIFE (OF MALE HEADS OF HOUSEHOLDS UNDER THE AGE OF 55)

WRITE THE CLUSTER NUMBER AND THE HOUSEHOLD NUMBER OF THE SELECTED HOUSEHOLD HERE:

(OBTAIN THIS INFORMATION FROM YOUR CLUSTER / HOUSEHOLD LISTING)

WRITE THE NAME OF THE WIFE _____

INTERVIEWER: ASK EACH QUESTION THAT FOLLOWS UNLESS THE ANSWER HAS BELOW IT AN INSTRUCTION FOR YOU TO SKIP SOME QUESTIONS AND GO TO A CERTAIN QUESTION NUMBER. AFTER SKIPPING, YOU THEN CONTINUE TO ASK ALL FOLLOWING QUESTIONS IN ORDER.

WRITE THE CODE FOR ALL QUESTIONS IN THE BOXES PROVIDED ON THE RIGHT MARGIN. IF THE RESPONDENT REFUSES TO ANSWER ANY QUESTIONS, WRITE A '9' IN EACH BOX.

ALL INSTRUCTIONS WRITTEN AFTER 'INTERVIEWER' ARE FOR YOUR INFORMATION ONLY AND SHOULD NOT BE READ TO THE RESPONDENT. THE INTERVIEW QUESTIONS START NOW.

1. What is your age? (INTERVIEWER: ASK TO SEE THE WOMAN'S IDENTITY CARD IF SHE DOES NOT KNOW HER AGE)

YEAR OF BIRTH:

--	--

OR

AGE:

--	--

2. In what district and division were you born?

_____ District

_____ Division

3. How long have you lived here? By here I mean in this division in this district.

YEARS:

--	--

MONTHS:

--	--

4. What was the highest level of schooling you attended?
1. NONE 2. PRIMARY 3. SECONDARY 4. HIGHER
(GOTO Q3)

--

Number of years completed at this level:

--	--

5. How many living sons do you have, including both sons living at home and sons living away from home?

--	--

6. How many living daughters do you have, including both daughters living at home and living away from home?

--	--

7. How many sons of yours have died?

--	--

8. How many daughters of yours have died?

--	--

9. What is the age of your last born (youngest) child that is still living?

YEARS:

--	--

AND

MONTHS:

--	--

10. Are you pregnant now?

1. YES

2. UNCERTAIN

3. NO

--

11. Do you want to have any more children?
(INTERVIEWER: IF PREGNANT ADD) after this pregnancy?
1. YES DEFINITELY 2. UNCERTAIN 3. NO DEFINITELY
12. If you could chose exactly the number of sons to have in your whole life, how many sons would that be?
(INTERVIEWER: TRY TO GET A NUMERIC RESPONSE, IF NOT POSSIBLE, ENTER 98 AND BRIEFLY WRITE THE RESPONSE HERE)
-
13. If you could chose exactly the number of daughters to have in your whole life, how many daughters would that be?
(INTERVIEWER: TRY TO GET A NUMERIC RESPONSE, IF NOT POSSIBLE ENTER 98 AND BRIEFLY WRITE THE RESPONSE HERE)
-
14. In general, how old would you want a last born child to be when the next one is born?
YEARS: AND MONTHS:
15. Do you think you will regularly obtain financial support (money) from your children when you are old?
1. YES 2. UNCERTAIN 3. NO 4. NO CHILDREN (GOTO Q16)
16. Do you expect to live with one of your children when you are old?
1. YES 2. UNCERTAIN 3. NO
17. Do you expect your sons to regularly help you with your work on your shamba when you are old?
1. YES 2. UNCERTAIN 3. NO
18. Are you an active member of a woman's group?
1. YES 2. NO
19. Did your family receive a bride's price for you?
1. YES COMPLETED 2. YES INCOMPLETED 3. NO
20. Family planning refers to all the things a husband and wife can do to delay having children or stop having children. Would you always, sometimes or never approve of husbands or wives using family planning to delay having another child?
1. ALWAYS 2. SOMETIMES 3. NEVER
21. Would you always, sometimes or never approve of husbands or wives using family planning to stop having another child?
1. ALWAYS 2. SOMETIMES 3. NEVER
22. Have you ever been visited by a family planning field worker from a clinic or by a community based distributor?,
1. YES CLINIC 2. YES CBD 3. BOTH 4. NEITHER

32. I will read you some of the main reasons why women stop using family planning. For each reason, tell me whether it was true for you or not true for you when you stopped using [method].
(INTERVIEWER: USE 1. TRUE 2, UNCERTAIN 3. NOT TRUE)

- a. The [METHOD] was not available at the clinic.
- b. The [METHOD] was causing you health problems.
- c. You did not like going to the clinic.
- d. You got pregnant.
- e. The [METHOD] did not suit you.

33. Think back to when you first accepted [METHOD]. How many methods of family planning were explained to you at that time?

34. How many methods of family planning were available for you at that time you accepted [METHOD]?

35. Thinking back, do you think that you had enough information about [METHOD] before you used it?

1. YES 2. UNCERTAIN 3. NO

36. Was [METHOD] the method you preferred to start using at that time?

1. YES 2. UNCERTAIN 3. NO

37. Did you know anyone (friend or relative) that had used [METHOD] before you did?

1. YES 2. UNCERTAIN 3. NO

38. (INTERVIEWER: ALL WOMEN SHOULD ANSWER THE FOLLOWING QUESTIONS)

FOR THOSE USING STERILIZATION ASK

Where did your (or your husband's) sterilization take place?

FOR THOSE USING THE NATURAL METHOD OF FAMILY PLANNING ASK

Where did you obtain instructions for the natural method?

FOR THOSE USING OTHER METHODS ASK

Where did you last obtain [METHOD]?

FOR THOSE NEVER USING ANY FAMILY PLANNING ASK

Where did you last go for child health care or antenatal care? (IF NO CHILDREN, THEN for curative health care?)

ENTER NAME OF THE PLACE HERE _____

(INTERVIEWER: WHENEVER [PLACE] IS WRITTEN BELOW USE THIS NAME)

39. What type of service centre is the [PLACE]?

- | | | |
|----------------|--------------------|-------------------|
| 0. HOSPITAL | 1. HEALTH CENTRE | 2. DISPENSARY |
| 3. MOBILE UNIT | 4. SHOP/PHARMACY | 5. PRIVATE DOCTOR |
| 6. TRADITIONAL | 7. COMMUNITY BASED | 8. OTHERS |

40. What agency or organization operates the [PLACE]?

- | | | |
|---------------|-------------------|-------------|
| 1. GOVERNMENT | 2. CHURCH/MISSION | 3. EMPLOYER |
| 4. PRIVATE | 5. FPAK | 6. OTHER |

41. Is the [PLACE] the closest place where you can get this service?
1. YES 2. UNCERTAIN 3. NO
42. Think back to the last time you visited the [PLACE] for service. How long did it take you to go from your home to [PLACE], and how long did it take you to travel home?
- TO [PLACE] HOURS: AND MINUTES:
- TO HOME HOURS: AND MINUTES:
43. Do you think that this total amount of time is too long for you, or is it okay?
1. OKAY 2. TOO LONG
44. How long did you wait for service at [PLACE] the last time you went?
- HOURS: AND MINUTES:
45. Do you think that this waiting time is too long for you, or is it okay?
1. OKAY 2. TOO LONG
46. Is there a market or a shopping centre near [PLACE]?
1. YES 2. UNCERTAIN 3. NO
(GOTO Q46) (GOTO Q46)
47. Do you always, sometimes or never do some shopping or marketing on the same day you go to [PLACE] for service?
1. ALWAYS 2. SOMETIMES 3. NEVER
48. Do you always, sometimes or never walk to [PLACE]?
1. ALWAYS 2. SOMETIMES 3. NEVER
(GOTO Q49)
49. How much was the total fare for transport the last time you went to [PLACE] by transport, including going and returning home?
- (INTERVIEWER: GET ANSWER IN SHILLINGS)
50. Have you never, sometimes or often missed going for services when you were supposed to go because you lacked the fare for transport?
1. ALWAYS 2. SOMETIMES 3. NEVER
51. Do you have a friend or relative that works at [PLACE]?
1. YES 2. NO
52. Are you now or will you ever use family planning to delay having another child?
1. YES 2. UNCERTAIN 3. NO

53. Are you now or will you ever use family planning to stop
having any more children?

1. YES 2. UNCERTAIN 3. NO

54. Do you think that your husband is against, doesn't care,
or is favourable towards you using family planning?

1. AGAINST 2. DOESN'T CARE 3. FAVOURABLE
4. DOESN'T KNOW HUSBAND'S FEELINGS

END OF INTERVIEW, REMEMBER TO THANK THE WOMAN