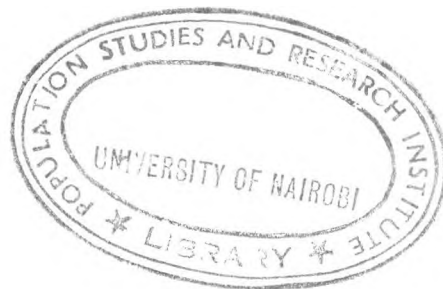ACCESSIBILITY AND CONTRACEPTIVE USE IN KENYA.

BY

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SUBMITTED IN PART FULFILMENT FOR
POST GRADUATE DIPLOMA IN POPULATION STUDIES

AT

THE POPULATION STUDIES AND RESEARCH INSTITUTE,

UNIVERSITY OF NAIROBI

OCTOBER 1990.

DECLARATION

This Research Project is my own work and has not been presented
for a degree in any other University.

ROSE MALECHE

This Research Project has been submitted for examination with our
approval as the University Supervisors.

Signed

MR. M. KIMANI

Ms A. KHASAKHALA

DEDICATION

This work is dedicated to my family, my husband,
Zachary Maleche and our children
David, Agnes and Sarah.

ACKNOWLEDGEMENTS

ABSTRACT

The purpose of this study is to examine how availability and accessibility of contraceptive services relate to contraceptive use in Kenya; and also how this use is determined by socio economic and demographic factors.
This objective is based on the observation that although Family Planning Programme has been operational in Kenya for more than two decades, the level of contraceptive use is still very low. In an effort to determine the factors responsible for this situation, the study has attempted to analyse the problem by looking at the relationship between contraceptive use and availability and accessibility of contraceptive services and supplies, socio economic and demographic characteristics of the women covered in the survey.
From the analysis of the above relationship, the study found out that education was the major indicator of the socio economic characteristics, while age of the mother was the major indicator among the demographic characteristics. The study also found out that contraceptive use is more in urban areas compared to rural areas. It also observed that Central Province leads, in contraceptive use, while Coast Province has the least use of modern contraceptives. Finally the study found out that contraceptive use decreases with increase in travel time to the sources of modern contraceptives.
Thus in an effort to raise the level of contraceptive use in Kenya, this study has made the following recommendations
(i)   Population education should be more focussed in the rural areas, especially towards the rigid traditional practices that tend to discourage the use of modern contraceptives.
(ii)   The government should raise the educational standards of the women in general, but in particular the areas with low contraceptive use in Kenya.
(iii)   Contraceptive use should be encouraged especially among the exposed group aged 15-19 years. This is simply because this age group has a longer reproductive period compared to other age groups mentioned in this study.

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Chapter One

1.0 Introduction

1.1 Background Information

In 1968, the Kenya Government adopted a policy of providing family planning to all people of reproductive age and in 1982, it established the National Council for Population and Development which coordinates activities relating to population. Free family planning services are provided through the Maternal and Child Health/Family Planning (MCH/FP) programme of the Ministry of Health. By the end of 1984, there were 651 family planning clinics, including service delivery points. In addition to this, family planning services and supplies can be obtained from the Family Planning Association of Kenya, private doctors, churches and pharmacies or shops.

Although contraceptive services and supplies have increased, use of contraception has not increased as required. The results of the Kenya Demographic and Health Survey of 1989 indicate that although 90 percent of Kenyan married women know at least one contraceptive method, only 27 percent are currently using a contraceptive method. The Kenya Demographic and Health Survey 1989, provide evidence that Kenya's fertility rate has declined from 7.7 (1984) to 6.7, and that a major cause of the decline in fertility is increased use of family planning. Kenya has cause to worry about her fertility and population growth

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rate, she has one of the highest population growth rates in the world, currently estimated at about 3.8% per annum. If this rate continues, Kenya's population of 24,600,000 (Population estimate, mid 1990) will double within 18 years. The effects of all these will be increasing pressure on land, high dependency burden, rapid unemployment growth and rising demand for basic services.

1.2 Problem Statement

Brackett (1982) stated that availability of family planning services may alert couples who have previously considered limiting family size to the possibility of contraceptive use.

In Kenya family planning services have been made available on the assumption that this would lead to increase in contraceptive use. But although contraceptive use has increased where services have expanded, some studies suggest that increase in the services may not be the major cause. However, although there are other factors that influence contraceptive use, this study focusses on availability, accessibility and contraceptive use.

1.3 Objectives of the Study

The broad objective of this study is to examine how availability and accessibility of contraceptive services relate to contraceptive use.

Specifically, the study intends to

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(a) determine whether there are differentials in accessibility and family planning services in Kenya;

(b) determine how contraceptive use varies by accessibility for each of the variables it is associated with;

(c) to examine policy implications of the findings for improving family planning programmes in Kenya.

1.4 Scope and Limitation of the Study

This study has used Kenya´s most recent demographic survey, namely the Kenya Demographic and Health Survey (KDHS) which was conducted between December 1988 and May 1989. The KDHS covered fertility, family planning and maternal and child health. The survey was national in coverage but excluded the North-Eastern Province and four northern districts of the country.

This data is limited in that it was collected with different objectives in mind and not those of the present study. As a result, certain manipulations had to be done to make the data as reliable as possible. This is shown and explained in the operational definitions in chapter two. Thus because of relying on secondary data one can only get a general picture of the real situation.

1.5 Significance of the Study

In 1982 the National Council for Population and Development
(NCPD) was created in order to coordinate all matters of
family planning and other population activities in the
country.

Given the high rate of population growth but low levels of
contraceptive use in the country, the council had to
formulate several population policy goals in order to
achieve its objectives. Some of the guidelines and
strategies that were taken to improve contraceptive use
were:- to ensure availability of contraceptive services for
those women and men who are ready for and need them; and to
conduct research on factors and problems related to the use
and non-use of all forms of contraceptives (Sessional Paper
No.4 of 1984 pp. 13-18).

Thus given the above situation, Kenya would greatly benefit
from a research study that focusses on improvements of
contraceptive use. This study therefore aims at shading
more light on contraceptive use in Kenya. This is with a
hope that the knowledge can be used in formulating
appropriate policies and strategies to raise the level of
contraceptive use.

1.6.0   Literature Review and Theoretical Framework

1.6.1   Literature Review

Many studies have dealt with the relationship between availability and accessibility of contraceptives and contraceptive acceptance and use in developing countries. Although results of the studies differ in the strength of the relationship from country to country, contraceptive use has been consistently affected by contraceptive availability and accessibility.

Rodriguez (1977) using World Fertility Survey data to analyse the relationship between perceived availability and contraceptive use in five countries namely Columbia, Costa Rica, Korea, Malaysia and Nepal, found that among women knowing of a source, the percent using a method is higher the closer they are to the source, but differences by travel time are rather small.

Dow et al (1980, 1981) observed that proximity to a source of contraceptive service may have critical effect on the probability that a potential client will or will not actually become a contraceptor. In their study among Kenyan rural women, they found that women who had said that they were near a source of contraceptive services were significantly more likely to have visited the facility than the women who lacked access with 31.7 percent of the former group and 18.2 percent of the latter group indicating that they had been to a facility. But whatever the case, it

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should be noted that visiting a facility does not necessarily mean that the visitor will eventually become a contraceptor.

Tsui et al (1981) using data from World Fertility Survey of six countries namely Bangladesh, India, Korea, Mexico, Malaysia and Thailand on contraceptive use among exposed women aged 20-44 years found high levels of contraceptive use in communities with high levels of contraceptive availability.

Pebley and Brackett (1983) used World Fertility Survey to analyse the relation of availability to contraceptive use in seven countries namely Kenya, Mexico, Panama and the Phillipines, Korea, Costa Rica and Columbia. Their findings showed that there are substantial differences in use of contraception by women who know of an outlet compared to women not knowing an outlet in all countries. Women knowing of an outlet are more than twice as likely to be using contraceptives as women who do not know of an outlet in all countries except Costa Rica and Panama.

Chen et al (1983) carried out their study among a sample of 1915 married women aged 15-44 interviewed in the Guatemala National Survey of 1978 and found that contraceptive use decreased with increase in travel time. They argued that other things being constant, accessibility to contraceptives has a strong positive effect on contraceptive use in two ways. First by improving the knowledge of the available

contraceptives and second by removing a distance barrier to acceptance of contraception and continued use. They employed multiple classification analysis (MCA) to determine how accessibility affects the use of modern reversible methods of contraception.

Novak et al (1983) in a comparative study involving five developing countries namely Costa Rica, Thailand, Colombia, Honduras and Nepal found that (except for Thailand) travel time to source of contraceptive services was a very important determinant of contraceptive use. Use of contraception was highest among the exposed women whose travel time was less than 15 minutes, decreased slightly for those whose travel time was between 15 minutes and one hour and then declined at an increasing rate for those furthest away.

Multiple classification analysis was used to compare the availability of contraceptive methods among the above selected groups of users and non-users to determine if prevalence levels are higher among individuals who can more easily obtain contraceptives.

Elise (1984) argues that the impact of accessibility on contraceptive use is rather small once the source is known. According to him knowledge of a source is more important than the actual accessibility.

Ocholla-Ayayo 1984, Ocholla-Ayayo and Z. Muganzi 1986,
1987-88 have cited lack of accessibility in rural areas as
one of the reasons why family planning has not succeeded
well in Kenya. According to their findings, services have
not been properly coordinated to penetrate and reach the
population. The clinics available are few and cannot cater
for the whole population. Even where the clinics are
sometimes available, they lack contraceptives as well as
information.

Also, owing to lack of means of transport and distances to
these clinics, women who would like to continue taking the
children for treatment with consulting the family planning
officials once told to come back some other day, never
bother to come back since they are not sick.

The Kenya Contraceptive Prevalence Survey (1984) found that
the urban women have higher contraceptive knowledge and use
than rural women. The cost of rearing children in urban
areas, minimum traditional influence of other family members
and ready access to information on family planning from
posters, the mass media and personal contacts contribute to
these differentials between urban and rural areas.

The Kenya Demographic and Health Survey (1989) reveal that
the urban women are more likely to be closer to a source of
contraceptive methods than rural women. Consequently, the
percentage of women using contraceptives is somewhat higher
among urban women (31 percent) than rural women (26

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percent). Use of modern methods is higher for urban women (26 percent) than for rural women (16 percent) while the percentage using traditional methods among rural women (10 percent) is twice that of urban women (5 percent).

In summary, many studies indicate that travel time has for a long time been used as a measure of accessibility to contraceptive services. Therefore in this study, accessibility of contraceptives will also be measured by travel time.

The literature review above also indicates a positive relationship between accessibility to family planning services and contraceptive use. In this study, a similar relationship between accessibility and contraceptive use is assumed to exist.

1.6.2   Theoretical and Conceptual Framework

A number of theoretical formulations have been proposed to show how various socio-economic, demographic variables and family planning programme efforts may relate to contraceptive use at the macro level.

Rodriguez (1977) using World Fertility Survey data to analyse the relationship between perceived availability and contraceptive use on five countries, showed that among women knowing of a source, the percentage using a method is higher the closer they are to source. The socio-economic and demographic variables used were parity, marriage, duration, location of residence, education and desire for additional

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children.   These variables were found to have a strong
relationship to contraceptive use.

Entwistle et al (1982) used data   from 1981 Thailand
Contraceptive   Prevalence   Survey   to   investigate   actual
availability and contraceptive use.   Holding constant
education, desire for additional children, and age of women,
they found that proximity to a source of supply increases
contraceptive use.   Among women aged 25-44 years, there is
no   interaction   between availability   and education on
contraceptive use. For women aged 15-24 years, availability
enhances the positive effects of education on contraceptive
use.   The authors suggested that availability may encourage
spacing among young women with four or more years of
schooling.

Chen et al (1983) in their study on impact of accessibility
of contraceptives on contraceptive prevalence in Guatemala,
controlled socio-economic, demographic and cultural factors
associated with accessibility and contraceptive use.

The demographic characteristics included in their study were
age of women, number of living children and desire for more
children.

The socio-economic   characteristics   included education,
rural-urban residence and employment status. Their findings
revealed that demographic and socio-economic factors were
strongly related to the percentage using contraception.

The Kenya Contraceptive Prevalence Survey (1984) found the age of the mother, education and place of residence to be the major factors determining differentials in both the level of fertility, contraceptive knowledge and use and desired family size.

The present study summarizes the theoretical formulations discussed above, into a theoretical model given below.

A Framework for understanding the effect of programme effort on contraceptive use
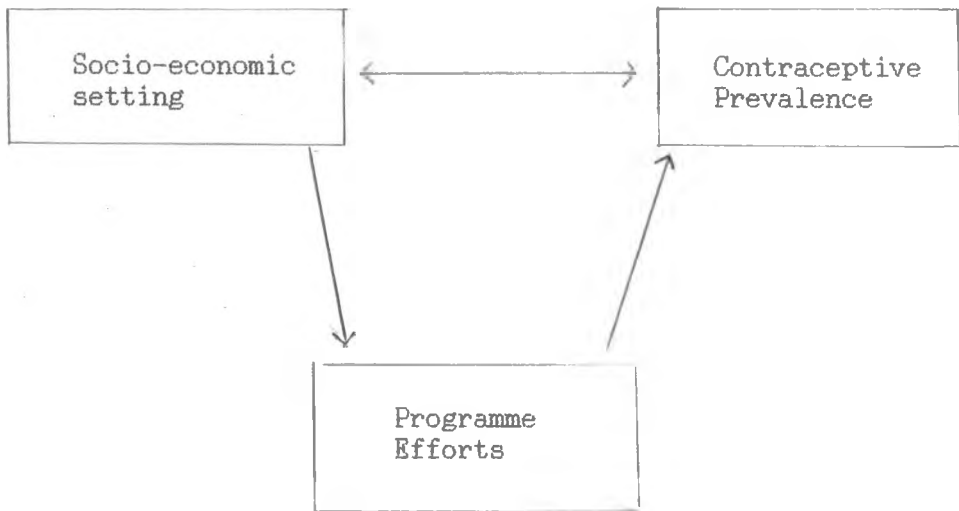
Source: R.J. Lapham and W.P. Mauldin 1985 pp.120.

Because this framework is adopted from previous authors and other approaches in the literature, a few explanations are necessary as applied to the present study.

The socio-economic setting in the framework will also include the demographic characteristics. The variables in this category that will be used to measure contraceptive accessibility and use are: age of the mother, number of living children, education, place of residence, desire for additional children and region or province.

In programme effort, Lapham and Mauldin had a wide range of activities, but the present study has adopted only availability and accessibility of fertility regulation methods. Availability will be measured by knowledge of the source of contraceptive supplies and services while accessibility will be measured by travel time to the source. Contraceptive prevalence and use refers to the percentage of women of reproductive age using modern methods of contraception.

However, what follows below is a brief explanation as to how the functions or components stated in the theoretical model above are related.

In the first case, it is assumed that women of childbearing ages who have certain socio-economic and demographic characteristics will be more likely to appreciate the advantages of family planning efforts than others.

Therefore a woman's socio-economic and demographic characteristics have a direct link with this component of a programme effort. Secondly, if the family planning services are far and wide or are distributed in such a way that women view them as unavailable and inconvenient, it is only women who are highly motivated mainly because of their socio-economic and demographic status who will utilise the services.

Finally, it is concluded that contraceptive use is a function of family planning programme effort and socio-economic and demographic setting. Thus from the above theoretical framework, the theoretical assumption that this study makes is that:- a woman's socio-economic and demographic characteristics are likely to have an effect on her perception of contraceptive availability and accessibility, and consequently on her use of modern contraceptive methods.

1.7 Hypothesis of the Study

From the theoretical formulations discussed above and the review of relevant literature presented earlier in this chapter, an assumption was derived and it is upon this assumption that this study is centred. This study assumes that contraceptive accessibility and use is determined and varies with socio-economic and demographic factors.

Out of this general assumption, the following hypotheses were derived and will be tested in this study.

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(a) contraceptive accessibility and use varies with place of residence.

(b) A woman's education is likely to have a positive effect on her perceptions of contraceptive availability and accessibility.

(c) Travel time to the source of contraceptive services is universely related to contraceptive use.

1.8 Definition of Principle Terms of Study

In this study, the question of perceived family planning availability and accessibility is looked at in terms of three components:

(a) knowledge of an outlet that provides family planning services.

(b) perceived accessibility of the services as measured by travel time to the nearest or preferred outlet.

(c) actual use of family planning services or use of modern contraceptives.

Perceived contraceptive availability is defined in terms of knowledge of a family planning source or outlet. In order to maintain an equitable distribution of women across levels of availability, this scale is categorized into high (4 or more sources) medium (2.3) and low (0.1).

Perceived contraceptive accessibility is defined in terms of travel time to the nearest source of contraceptive supplies and services. Women whose travel time to family planning services is less than 20 minutes are classified as having

easy access to contraceptives, those between 20 and 40 minutes have moderate access; those with more than 40 minutes have difficult access, and women with no knowledge about the location of contraceptive sources are categorized as having no access.

The strategy in producing these measures of availability was to develop variables that differentiated persons with each location in terms of ease of access of contraceptive services.

Organization of the Study

The presentation of this study is given in four chapters.

Chapter one covers the presentation of the background information, problem statement, the objectives of the study, scope and limitation of the study, significance of the study, literature review and theoretical framework, hypotheses of the study, definition of principle terms of study and organization of the study. Chapter two covers the sources of data, definition of variables employed in the study, method used to analyse data and its application.

Chapter three covers the presentation of the results.

Chapter four covers the implications and conclusions of the study.

Chapter Two

2.0   Research Methodology

2.1   Sources of Data

This study draws primarily on data gathered in the Kenya
Demographic and Health Survey (KDHS) which was conducted
between December 1988 and May 1989. The KDHS was a national
survey that was carried out by the National Council for
Population and Development (NCPD) in collaboration with the
Central Bureau of Statistics (CBS) and the Institute for
Resource Development (IRD).

The KDHS was intended to serve as a source of population and
health data for policy makers and for the research
community.

The KDHS sample was national in coverage, with the exclusion
of North Eastern Province and four northern districts which
together account for only about five percent (5%) of Kenya's
population. The sample for the KDHS was based on the
National Sample Survey and Evaluation Programme (NASSEP)
master sample maintained by the CBS. The NASSEP master
sample is a two-stage design, stratified by urban-rural
residence and within the rural stratum by individual
district

About 34 districts of Kenya were included in the KDHS
sample. About 450 rural households were selected in each of
13 districts, just over 1000 rural households in other
districts and about 3000 households in urban areas.

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The survey covered 7150 women aged 15-49 and a sub-sample of 1,116 husbands of these women, selected from a sample covering 95 percent of the population.

The KDHS utilised three questionnaires to collect data. These were the household questionnaire, woman's questionnaire and husband's questionnaire. However, this study focusses on data collected from the woman's questionnaire, which consisted of seven sections.

The first section collected information on the respondent's background. This included age, residence, educational level, household amenities, religion, tribe and social status.

The second section collected information on the respondent's reproductive behaviour. This included the number of live births, those that are still living and those that have died, sex composition last birth and current pregnancy status.

The third section collected information on the respondent's knowledge and use of family planning, method preference, attitude towards family planning, where the current users obtained their method and the proximity of these sources.

The fourth section collected information on the respondent's breastfeeding habits and the general child health care.

The fifth section collected information on the respondent's reproductive intentions and family size.

The last section collected information from currently married women and the intention was to get information about the respondents and her husband´s socio-economic characteristics.

Apart from KDHS from which most of the statistical data was derived, the present study also sought data from other secondary sources in the library, government publications, population reports, magazines e.t.c.

2.2 Reliability and Quality of Data

Due to the short period within which the current study was required to be completed, it was found unfeasible to go out in the field and carry out practical empirical data survey for the study. The KDHS survey which had comprehensively addressed the factors and parameters of the current study, was found to be an even more convenient source of empirical data for the purpose. The KDHS data had only been collected between December 1988 and May 1989. The data was therefore still most up to date and most reliable for the present study.

2.3 Variable Definition

In this section, an attempt is made to define the variables that will be used in this study.

Independent Variables

Age, education, number of living children, desire for more children, residential status and region or province, will be treated in this study as the independent variables.

Dependent Variables

Knowledge of family planning outlet, travel time to source and contraceptive use are the dependent variables in this study.

Age

This variable is defined in this study as the number of years lived by the respondent since birth, taken at the time of the interview.

In KDHS due to the difficulty of remembering the exact age at the time of interview, both questions on age and the date of birth were posed to the respondents and age corrections were done to get rid of any inconsistencies in the responses from the two questions. Later the age at interview was grouped into five year categories.

Education

This variable is defined as the number of years spent in educational institutions acquiring formal education. This is classified into four categories

(i)   No Education

(ii) Some Primary (1-6 years)

(iii)Primary complete (7-8 years)

(iv) Secondary or higher (Form 1 and above)

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The information on this variable was solicited from respondents by asking them whether or not they ever attended school. And if so the highest level of school and highest standard, form and year completed at that level.

Place of Residence

This variable refers to whether the respondent is residing in the rural or urban area at the time of the interview. It is categorical variable – rural, other urban areas and Mombasa – Nairobi. For the purpose of analysis these categories have been reduced to two: urban or rural residence.

Number of Living Children

This variable refers to the number of living children a respondent had at the time of interview. It is categorized into three groups 0-2, 3-4 and 5+.

0-2 children is being considered to be a small number of children, 3-4 as moderate and 5+ as large.

Desire for additional children

This variable refers to a respondent´s future reproduction intentions. The information on this variable was solicited by asking the respondent whether she wanted another child some time and if so how many more children. The variable will be measured in terms of the total number of additional children desired by the respondent. It is classified into two categories: Want more and Want no more children.

Region or Province

This refers to the current provinces of Kenya that were included in the KDHS sample. They are Nairobi, Central, Coast, Eastern, Nyanza, Rift Valley and Western.

Knowledge of a Family Planning Outlet

This variable was derived under the assumption that women who are currently using a method knew of a family planning source or outlet. Each woman who said that she was using a method was asked where she had obtained the method from and it is from this response that the variable was derived. For non-users, they were asked if they knew where they could go for family planning service and supplies and those whose response was positive were asked to state the outlet.

This variable is a measure of availability in this study.

Travel Time to Source of Contraceptive Supplies and Services

This variable refers to the time a respondent estimated to take to reach the nearest source of contraceptive supplies and related services.

The variable is put into three categories:

Under 20 minutes

20 to 39 minutes

40+ minutes.

This variable is a measure of accessibility in this study.

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Contraceptive Use

This variable refers to those women aged 15-49 years who reported that they were currently using a modern contraceptive method to delay or prevent conception.

Because it is not easy to measure accessibility of traditional methods, this study focusses only on modern contraceptive methods. These include the Pill, IUD, Injections, Condoms, Diaphragm/Foam/Jelly, Female Sterilization and Male Sterilization.

This variable will be measured according to the percentage of current users.

The data on contraceptive use was obtained by asking exposed women if they or their husbands were currently doing anything to prevent pregnancy. Those who said they were using any method were further asked to indicate the method they were using.

2.4 Method of Data Analysis

The main objective of this study is to examine how availability and accessibility of contraceptive services relate to contraceptive use. Previous studies that have attempted to examine the relationship between contraceptive use and each of the selected independent variables have used various methods of analysis. Some of these methods are multiple classification analysis, multiple regression analysis, analysis of covariance, analysis of variance e.t.c. Although these methods appear appropriate, they

cannot be employed in this study due to time constraint. However, the study will utilise cross tabulation method to analyse the relationship between the selected variables and contraceptive use.

The cross tabulation analysis has been chosen because of its simplicity in comparing the distribution of contraceptors according to each of the selected variables. Also, because this study intends to analyse the independent variables separately, the cross tabulation method is preferred compared to other methods mentioned above which tend to analyse variables simultaneously.

2.5 Application of the Cross Tabulation Method

The analysis of this study is restricted to women in the prime bearing ages 15-49 who are exposed to the risks of pregnancy and contraceptive use. The socio-economic and demographic indicators selected in this study are the respondent's current urban or rural residence her educational attainment, age, number of living children, desire for more children and her region or province in which she lives.

These characteristics have been selected because of their association with variations in fertility regulation and child bearing behaviours. These characteristics are also treated as the independent variables in this study.

The dependent variables to be examined in this study are knowledge of family planning services, travel time to family

planning source and use of modern contraceptives.

To start with, 30 tables will be used to analyse the relationship between the dependent and independent variables in the study.

The above tables will be further summarized and tabulated to give the following analysis:

(i) Contraceptive use by each of the selected socio-economic and demographic variables.

(ii) Availability by socio-economic and demographic variables.

(iii) Accessibility by socio-economic and demographic variables.

(iv) Contraceptive use by availability, socio-economic and demographic variables.

(v) Contraceptive use by accessibility, socio-economic and demographic variables.

It is from these five major tables indicated above that the findings of the study will be based.

Chapter Three

3.0 Data Analysis and Findings

3.1 Introduction

This chapter deals with the presentation and analytical interpretation of how availability and accessibility of contraceptive services relate to contraceptive use.

The socio-economic and demographic variables used in examining the patterns of availability and accessibility of a family planning outlet are: residence, educational levels, number of living children, desire for more children, age and region or province.

Availability was measured in terms of knowledge to the source of modern contraceptive method while accessibility was measured in terms of travel time to the source.

Contraceptive use was measured in terms of the percentage of users of modern contraceptives. The definitions of the variables are given in chapter two, section 2.3 pp.

Using cross tabulation or simple percentage, the socio economic and demographic factors and contraceptive availability, accessibility and use will be examined.

3.2 Analysis and Interpretation of Data

Five tables have been used to analyse the relationship between contraceptive use and each of the selected variables in this study. Table 3.2.1 below illustrates the relationship between contraceptive use and each of the

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selected socio economic and demographic variables.

The table shows that the greatest users of modern contraception 27.0 percent (column D) were exposed women who did not want any more children. Only 24.2 percent of the total users wanted children. A large number of 2185 or 48 percent of the exposed women who indicated that they did not want any more children were not contracepting.

The table also indicates that the least current users of modern contraceptives are those women aged 15-19 (2.5 percent) followed by the older women aged 45-49 (7.0 percent). In terms of age, the greatest users are between 35-39 (25.1 percent). Contraceptive use is lower among younger women 15-19 (2.5 percent) because many of them are interested in starting their families and among older women aged 45-49 (7.0 percent) because some of them are no longer fecund. The table also depicts that the majority of current users (42.3 percent) had above five living children. The least number (25.6 percent) of contraceptive users were exposed women with 0-2 children. This trend shows that contraceptive use increased with the number of living children. According to the table this increase is from 25.6 percent among women with 0-2 children to 42.3 percent among those with at least five living children.

The table shows that the proportion using contraception is higher in urban areas (21.5 percent) than in the rural areas 13.3 percent (column D). The existence of such

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differentials has been attributed to the cost of rearing children in urban areas, minimum traditional influence of other family members and ready access to information on family planning from posters, the mass media and personal contacts.

The table also shows that the majority of current users have secondary or higher education (24.2 percent) while the least users are women with no education. It is evident from the table that the level of contraceptive use increased with increase in educational levels. From the table, this increase is from 9.9 percent among women with no education to 24.2 percent among women with secondary or higher education, (column D).

The table also shows that Central Province has the highest proportion (26.1 percent) of contraceptive users, while Nyanza Province has the least (7.5 percent). These differentials in use could be due to high levels of education, low attachment to traditional practices and low infant mortality in Central Province.

Nyanza Province, on the contrary has low levels of education, strong attachment to traditional practices and high infant mortality.

The findings presented in the table above are not unique. Similar results have been found by a number of studies. For instance, studies have shown that the number of living children and current age have a strong influence on

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contraceptive use (Soeradji 1982). Studies have also concluded that desire for more children is an important component of demand for contraception (Cornelius and Nevak 1983). The Kenya Contraceptive Prevalence Survey 1984 found the age of the mother, education and place of residence to be the major factors determining differentials in both the level of fertility, contraceptive knowledge and use and desired family size.

Table 3.2.1
Percent distribution of all women aged 15-49 using contraceptives by socio-economic and demographic factors, Kenya, 1989.

A	B	C	D	E
Socio economic and demographic characteristics	Number of cases	Number of users	Current users as % of number of cases	Current users as % of total users
Place of residence	6856	1061	15.5	
Rural	5028	668	13.3	63.0
Urban	1828	393	21.5	37.0
Wife's education	6856	1061	15.5	
No education	1950	163	9.9	15.4
Some Primary	1815	275	15.2	25.9
Primary Complete	1842	248	13.5	23.4
Secondary or higher	1539	373	24.2	35.2
Number of living children	6856	1061	15.5	
0-2	3335	272	8.2	25.6
3-4	1455	340	23.4	32.0
5+	2066	449	21.7	42.3
Desire for more children	4555	855	18.8	
Want more	1973	207	10.5	24.2
Want no more	2185	590	27.0	69.0

A	B	C	D	E
Socio economic and demographic characteristics	Number of cases	Number of users	Current users as % of number of cases	Current users as % of total users
Age	6856	1061	15.5	
15-19	1406	27	1.9	2.5
20-24	1327	153	11.5	14.4
25-29	1294	248	19.2	23.46
30-34	977	323	23.7	21.9
35-39	806	202	25.1	19.0
40-44	925	125	20.0	11.8
45-49	421	74	17.6	7.0
Region	6856	1061	15.5	
Nairobi	813	183	22.5	17.2
Central	1223	319	26.1	30.1
Coast	698	89	12.8	8.4
Eastern	871	140	16.1	13.2
Nyanza	1220	91	7.5	8.6
Rift Valley	1046	152	14.5	14.3
Western	985	87	8.8	8.2

Table 3.2.2 shows the relationship between contraceptive availability by socio economic and demographic factors.

According to this table, the majority of exposed women with secondary or higher education 98.4 percent have knowledge of source of modern contraceptives. The decrease in knowledge also decreases with decrease in educational level, i.e from 98.4 percent for those women with secondary or higher education to 88.2 percent among women with no education.

The table depicts that those exposed women who desire no more children have a higher knowledge of contraceptive source (94.7 percent) compared to women who want more children (92.8 percent). The table also shows that Central

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Province has the highest contraceptive knowledge (96 percent) while Rift Valley has the lowest knowledge (85 percent). Table 3.2.2 also shows that the source of modern contraceptive method is higher among urban women (94 percent) compared to their rural counterparts (92 percent). Number of living children also determines availability of contraceptives. The table shows that knowledge is low among women with fewer children 0-2 (91.3 percent) and increases with a higher number of living children, i.e. above three children (94.1 percent).

The table also shows contraceptive availability is not the same for all age groups. According to this table knowledge of modern contraceptive method is lowest among the younger women 15-19 (90.3 percent). This increases progressively up to age 35-39 (94.8 percent) and then starts to decline with age again, hence age 45-49 has 86.9 percent of women knowing sources of contraceptive services.

The above findings are similar to what other studies have previously found. Research by Chidambaram and Mastropoalo (1981) found that women who want no more children are most likely to know of a family planning outlet. The Kenya Contraceptive Prevalence Survey 1984 found that the urban women have a higher contraceptive knowledge than the rural women. The Kenya Demographic and Health Survey 1989 found that contraceptive knowledge goes up with increase in education.

Table 3.2.2
Percent distribution of all women aged 15-49 years knowing a source of modern contraceptive method by socio economic and demographic factors. Kenya.

A	B	C
Socio economic and demographic	Knows source for modern method	Number of women
Place of residence		
Rural	92.4	793
Urban	93.9	214
Wife's education		
No education	88.2	344
Some Primary	93.5	315
Primary Complete	95.5	168
Secondary or higher	98.4	180
Number of living children		
0-2	91.3	272
3-4	94.1	289
5+	92.7	446
Desire of more children		
Want more	92.8	449
Want no more	94.7	468
Age		
15-19	90.3	28
20-24	94.0	157
25-29	94.7	248
30-34	92.4	183
35-39	94.8	181
40-44	91	119
45-49	86.9	91
Region/Province		
Nairobi	94.8	91
Central	96	203
Coast	92	85
Eastern	93	169
Nyanza	93	178
Rift Valley	84.2	176
Western	91	132
Total	92.7	1007

Table 3.2.3
Percent distribution of all women aged 15-49 years travelling to a source of modern contraceptive method by socio economic and demographic factors, Kenya

Socio economic demographic characteristics	Number of women	levels of family planning Accessibility		
		<20 mins.	20-39 mins.	40+mins.
Place of residence				
Rural	4467	17%	15.2%	15.3%
Urban	1677	23%	24.8%	24.7%
Wife's education				
No education	1400	23.4	21.5	22.0
Some Primary	1638	28.9	24.4	21.3
Primary Complete	1643	26.7	26.2	28.9
Secondary or higher	1456	21.5	28.0	28.
Number of living children				
0-2	2894	35.6	26.3	37.7
3-4	1358	24.7	42.5	26.4
5+	1892	34.9	31.2	26
Desire for more children				
Want more	1813	25.1	24.8	25.4
Want no more	2043	30.9	27	30.6
Age				
15-19	1114	17.6	17.9	17.3
20-24	1235	19.7	21.3	20.6
25-29	1228	20.9	18.8	20.6
30-34	914	14.8	14.9	17.3
35-39	742	25.6	11.6	13.7
40-44	548	8.8	9.5	5.4
45-49	363	6.0	5.9	5.1
Region/Province				
Nairobi	739	9.1	15.7	22.4
Central	1147	17.2	22	19.1
Coast	607	9.3	11.1	9.4
Eastern	770	13.8	9.2	14.4
Nyanza	1115	20.5	14.9	11.9
Rift Valley	913	15.4	14.2	11.9
Western	853	14.5	13	10.5

N.B: The percentages don't add up to 100% because of ommission of some women who could not estimate the distance.

Table 3.2.3 shows how contraceptive accessibility varies with socio economic and demographic factors. The results in the table show that fewer women in the rural areas travel to sources of family planning for their services (15.2%) of the urban women are much more (24.8%). The results in the table also indicate that the percentage of exposed women who don´t want any more children is greater (30.9%) compared to those who still desire more children (24.8%). The results in the table reveal that contraceptive accessibility varies with age. Those women aged 20-29 years, utilise contraceptives services at the sources more than other age groups. This is because they probably want more contraceptives for child spacing. This factor is revealed on the table by the fact that this age group 20.6 percent, can travel for longer distances looking for contraceptives compared to the older age group, say 45-49, who are only 5.1 percent.

The above table also shows that contraceptive accessibility varies with educational level. The educated women have a higher perception of contraceptive accessibility compared to those women with no education. From the table, this variation is from 22.0 percent for women with no education to 28 percent for women with secondary and higher education.

In this case, more educated women can still afford to travel for longer distances over 40 minutes looking for contraceptive services.

However, these findings are similar to other studies done elsewhere. For instance Cornelius and Nevak (1983) argued that women who are highly motivated to restrict fertility are more likely to search for and thus to know a source for family planning services compared to women who are less highly motivated. For example in the table, the motivation of women who travel for more than 40 minutes to the source of family planning services is higher in Nairobi and Central Provinces compared to other provinces. A mentioned earlier, Nairobi and Central Provinces have already adopted a more positive attitude towards small families, and so contraceptive knowledge and use is bound to be higher than other provinces.

Table 3.2.4

Percent distribution of all women aged 15-49 years using
modern contraceptives by Availability and socio economic and
demographic factors, Kenya.

A	B	C	D	E
Socio economic and demographic characteristics	Number of cases	Number of current users	Current users as % of number of cases	Current users as % of total users
Place of Residence	6856	1498	21.8	
Rural	5028	1002	19.9	66.9
Urban	1828	496	27.1	33.1
Wife´s education	6856	1498	21.8	
No education	1650	247	15.0	16.5
Some Primary	1815	386	21.3	25.8
Primary Complete	1842	356	19.3	23.8
Secondary or higher	1539	506	32.9	33.8
Number of living children	6856	1498	21.8	
0-2	3335	465	13.4	31.0
3-4	1455	439	30.2	29.3
5+	2066	594	28.8	39.7
Desire for more children	4555	1151	25.3	
Want more	1973	324	16.4	28.1
Want no more	2185	757	34.6	65.8
Age	6856	1498	21.8	
15-19	1406	85	6.0	5.7
20-24	1327	250	18.8	16.7
25-29	1294	343	26.5	22.9
30-34	977	304	31.1	20.3
35-39	806	262	32.5	17.5
40-44	625	164	26.2	10.9
45-49	421	90	21.4	6.0
Region/Province	6856	1498	21.8	
Nairobi	813	229	28.2	15.3
Central	1223	408	33.4	27.2
Coast	698	105	15.0	7.0
Eastern	871	263	30.2	17.6
Nyanza	1220	138	11.3	9.2
Rift Valley	1046	235	22.5	15.7
Western	985	120	12.2	8.0

Table 3.2.4 shows how contraceptive use varies with availability and socio economic and demographic factors. The results in the table show that availability and use of modern contraceptives is higher in urban areas (27.1 percent) than in the rural areas (19.9 percent) as shown in column D. The results in the table also depict that educational level has a strong relationship with contraceptive availability and subsequent use. Availability and use of modern contraceptives is lowest amongst women with no education 15.0 percent and highest amongst women with secondary and higher education 32.9 percent.

Number of living children has also a strong relationship with the availability and use of modern contraceptives. Those exposed women with 3-4 children know sources of contraceptives and hence their use, more (30.2 percent) than those women with 0-2 children (13.4 percent).

The variation is so because those women with few surviving children, normally wish to have more especially in cases where infant mortality is high. This factor will therefore explain why availability and use of contraceptives is low where the number of living children is also low. Those women who desire no more children will search for contraceptives and use them more than those women who still want to have more children. This can be seen in the table, with 34.6 percent among those women who desire no more

children and 16.4 percent for those women who still want more children.

Perception of contraceptive availability and subsequent use varies with age as seen in the table. As it was analysed earlier in the other tables discussed above, availability and use of modern contraceptives is lowest among the younger ages 15-19 (5.7 percent and older ages 45-49 (6.0 percent). Availability and use of contraceptives is highest among women aged 35-39 (32.5 percent) as seen from the table. the explanation for this variation could be that for the younger ages, the women are eager to start their family and so they don't see any need for limiting or controlling their fertility. Those women in the advanced ages 35-39, have mostly got, the number of children they desire, and so would be more motivated to contracept so that they don't get another child. Contraceptive use is lowest again in the older ages 45-49 simply because some of the women may have become unfecund.

The table also reveals that contraceptive availability and use in highest in Central Province (27.2 percent) but lowest in Coast Province (7.0 percent). Low levels of education, high infant mortality e.t.c and hence low motivation account for the low levels of contraceptive availability and use in Coast Province compared to Central Province, a case which has already been discussed above. Thus the above results

was shown in the literature review in chapter one section 1.6.

Table 3.2.5: Percent distribution of all women aged 15-49 using modern contraceptives by accessibility and socio-economic and demographic characteristics in Kenya, 1989

Socio economic demographic characteristics	Number of women	levels of family planning Accessibility		
		<20 mins.	20-39 mins.	40+mins.
Place of Residence				
Rural	2296	39.1	52.9	7.8
Urban	1329	44.4	48.8	7.4
Wife´s education				
No education	730	36.7	54.8	8.3
Some Primary	865	40.7	52.5	6.7
Primary Complete	951	40.2	51.4	8.4
Secondary or higher	1075	44.4	48.4	7.4
Number of living children				
0-2	1643	37.5	54.5	8.0
3-4	865	41.9	49.5	8.4
5+	1117	45.1	32.1	6.5
Desire for more children				
Want more	981	47.4	32.6	16.4
Want no more	1297	45.7	10.9	7.3
Age				
15-19	564	32.4	59.2	8.5
20-24	735	38.2	54	7.6
25-29	741	45.0	47	7.6
30-34	577	45.0	46.5	8.3
35-39	464	45.0	46.8	8.2
40-44	335	42.5	53.2	4.5
45-49	209	40.8	52.3	6.7
Region/Province				
Nairobi	602	41	48.8	10.4
Central	785	40	52.1	6.7
Coast	367	36.6	56.2	8.4
Eastern	430	50.7	40.0	9.3
Nyanza	497	37.5	55.8	6.6
Rift Valley	516	42.4	51.2	6.4
Western	428	36.6	56.5	6.8

Table 3.2.5 shows how contraceptive use varies with
accessibility and socio economic and demographic factors.
Results from the table show that contraceptive use decreases
with distance from source of supply and services.   In fact
several studies have shown similar associations between
travel time to source of contraceptive services and use of
contraceptives.   Examples are   found in the work of
researches like Tsui et al 1981, Chen et   al 1983 and Novak
et al 1983.

The proportion of women who travel to family planning
outlets for less than 20 minutes is higher in the urban
areas (44.4 percent) compared to the rural areas (39.1
percent).

As regard age, the proportion of   women who perceive
contraceptive services to be more accessible and hence a
greater tendency to use them is higher among age group 25-29
(741 women).   The proportion is lowest among the older women
aged 45-49, as seen with only 209 women.   These tendencies
have also been identified in other tables above and the
literature review cited in chapter one section 1.6.

Another observation from the table is that the proportion of
women who perceive contraceptive services as more accessible
leading to high use is high among exposed women who want no
more children (1297) compared to those who want more
children.

Accessibility of contraceptive services and supplies and their subsequent use is much higher among women with secondary and higher education (1075) but lowest among women with no education (730). The number of women who perceive contraceptive services and supplies as being accessible and hence with a higher tendency to use them is found to be highest in Central Province (785) and lowest in Coast Province with (367 women). This low number of contraceptive use among the women in the Coast Province can be attributed to Muslim religion which allows easy divorce. This destablises marriages and lowers need for contraceptive use because of less coital frequency. Coast region also receives a larger number of foreigners and tourists. Because of this fact, there are more cases of sexually transmitted diseases which tend to lower the rate of fertility and subsequent use of modern contraceptives.

Thus the results presented in table 3.2.5 conform to the findings fo previous researchers cited in the literature review above.

In summary the following paragraphs attempt to present together the results of the cross tabulations cited above. The five tables given above indicate that educational level has a strong influence on contraceptive use. This information simply confirms the hypothesis that the wife's education is positively related to contraceptive use.

Secondly, the number of living children was also found to be positively related to contraceptive use. The level of contraceptive availability and use was found to be highest among women with 3-4 children. This was observed in all the five tables presented in this study.

Thirdly, urban women were found to be more likely to use contraceptives than their rural counterparts. Although the sample for women interviewed was highest in the rural areas, the proportion using contraceptives was found to be highest in the urban areas. This observation is seen in all the five tables presented in this study.

Fourthly, all the five tables presented above indicate that the desire for more children is inversely related to contraceptive use. In connection to this, another general observation from the results is that a large number of women who indicated that they did not want any more children were not contracepting.

Fifthly, Central Province has the highest perception of contraceptive availability, accessibility and their subsequent use, compared to other provinces. Coast Province has the lowest perception.

Lastly, travel time to source of contraceptive services and supplies was found to be inversely related to contraceptive use.

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Finally, of the selected socio economic characteristics, education was found to be the strongest indicator of contraceptive availability, accessibility and their subsequent use. Of the demographic characteristics, age of the mother was found to be the major indicator.

Chapter Four

4.0 Implications and Conclusions

4.1 Introduction

The broad objective of this study was to examine how availability and accessibility of contraceptive services relate to contraceptive use. Specifically, the study set out to determine whether there are differentials in accessibility and family planning services in Kenya; to determine how contraceptive use varies by accessibility for each of the variables it is associated with, and to examine policy implications of the findings for improving family planning programmes in Kenya.

4.2 Implications

In order to raise the level of contraceptive use in the country, the following measures have been suggested. In chapter three when analysing how contraception varies with socio economic and demographic factors it was observed that many women in the urban areas use modern contraceptives more than those in the rural areas. Some of the reasons cited for these differentials are ready access of contraceptive services and supplies, less attachment to traditional practices and high cost of rearing children in the urban area. Based on this argument, this study recommends that population education should be more focussed in the rural areas. The population education should be directed towards

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the rigid traditional practices that tend to discourage the use of modern contraceptives. Also as an incentive to raise the level of contraceptive use in the rural areas, contraceptive supplies and services should be made much more available and accessible. This suggestion is based on the assumption that once the non-users realise the need for limiting their fertility or family size, they should not be discouraged by the inavailability and inaccessibility of contraceptive supplies and services. Probably these aspects mentioned above would help to raise the level of contraceptive use in areas like Nyanza, Coast and Western Provinces.

This study has also observed that the least users of modern contraceptives are the exposed women aged 15-19 years. The main reason for this low contraceptive use among this age group is that most women are keen to start a family and so they don't see any urgent reason behind contraceptive use at this stage.

It is therefore suggested that this particular age group should be more encouraged to use contraceptives. This is because of various implications to the population policy of the country. In the first case the 15-19 age group has a longer reproductive period compared to the other remaining six age groups in this study.

Secondly this particular age group consists of the youth at various levels of adolescence. It may be noted that adolescent fertility is a growing concern in Kenya. Therefore, if particular attention is not focussed on this younger age group to control their fertility, the family planning programme would not be likely to achieve much in the near future.

Thirdly, the study has observed that, of the socio economic factors that are likely to influence contraceptive use, Education was noted to be the strongest indicator. In addition studies elsewhere have suggested that levels of education are low in Coast and Nyanza Provinces. From the observations of this study, these provinces apparently also have low levels of contraceptive use. Therefore, as a result of these observations, this study recommends that education especially among women should be strongly encouraged in Kenya in general and the low contraceptive areas in particular. This suggestion is based on the common saying that "if you educate one woman, you educate the whole nation or household". Studies elsewhere have also suggested that educated women are more likely to marry educated men. These together, will help to raise the perception and understanding of contraceptive use in Kenya.

Thus if the above suggestions can be in one way or another adopted by the relevant authorities, family planning programme efforts are likely to bear greater fruits. As a

result Kenya is likely to benefit more with likelihood of a decline in population growth resulting from increased contraceptive use.

4.3 Conclusions

Family planning seem to be affected by a wide range of different aspects of general community development process. It is therefore necessary that for the national family planning programme to succeed effectively, it must be designed and operated as an integral part of the comprehensive development policy programmes. Therefore the policy implications suggested above show that no single aspect of this programme can operate in isolation of others. The family planning programme must therefore be drawn out as a comprehensive and integrated programme of action coordinating all aspects discussed above as one package.In view of these aspects, family planning is strongly seen to depend on the people themselves, their perception of the value of the programme both in the long and short term perspective. Its success therefore very much depends on the attitude of the people, their readiness to accept and use contraceptives as a means of controlling the rate of population increase. It is therefore significant that the formulation of family planning programmes and its management must essentially involve the direct participation of members of the community at all levels and in all sectors.

As a priority therefore the education of members of the

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community on all aspects of the family planning programme specifically the use of contraceptives is necessary for its acceptance to be increased. This will be more critically important for the areas which have low levels of contraceptive use like the Coast and Nyanza provinces.

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