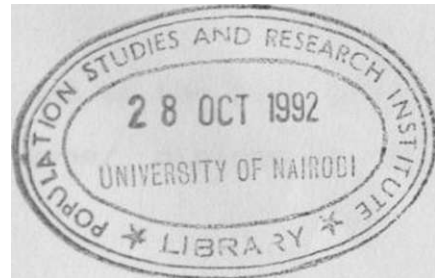# V DETERMINANTS OF (CONTRACEPTIVE USE
IN ENA, KMBU DISTRICT

BY

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This   project   is submitted   in   partial   fulfilment   for   a postgraduate   diploma   in   population   studies   of   the   University   of   Nairobi.

POPULATION STUDIES AND RESEARCH INSTITUTE

UNIVERSITY OF NAIROBI

OCTOBER, 1992

DECLARATION

This project is my own original work and to the best of my knowledge has not been submitted for a degree/ diploma in any other university.
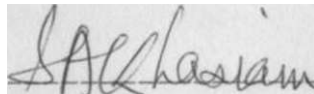
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MARGARET SAYO

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

Signature

DR. S. A. KHASIANI

Signature-

DR. Z. MUGANZI

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DEDICATION

This project is dedicated to my family.

ACKNOWLEDGEMENTS

TABLE OF CONTENT

LIST OF TABLES

ORGANIZATION OF STUDY

The project is presented in five chapters. Chapter one contains, the introduction, background information, statement of the problem, objectives of the study, scope and limitations.

Chapter two covers literature review, conceptual framework, analytical framework, definition of variables, and hypotheses of the study.

Chapter three covers sources of data, reliability and quality of data, and methods of data analysis.

Chapter four contains data analysis, findings and summary. Finally chapter five looks at conclusions and recommendations of the study.

ABSTRACT

The study examines how certain demographic, socio-cultural, socio-economic, and accessibility factors affect contraceptive use among a cohort of married women age 25-34 years in Ena, Embu district.

The objective of the study is based on the fact that the level of family planning in this area is relatively higher than in any rural area in the country. There is therefore need to examine what has contributed to this high contraceptive prevalence.

The study uses secondary data collected in a survey carried out by the GTZ family planning support unit, Division of family health between November, 1990 and March 1991. Samples of 338 women were covered in this survey.

From the analysis of this data, the following are the main findings:

a) Around 77.1% of women in Ena had discussed family planning with their husbands and 71.0% thought, their husbands approved of family planning.

b) At the time of the interview around 51.0% were users.

c) Knowledge of contraceptive methods was good with an average of over three methods cited but level of use was comparatively low.

d) Information about family planning and adoption of methods are predominantly the result of face to face

passing of information by Health personnel at clinics. No other source of information was significant.

e) Travelling time was found to be negatively related to contraceptive use. The closer a woman was to source of family planning services, the more likely she is to be a user.

f) Religion, age of woman, ethnicity and number of surviving children were found to have an influence on contraceptive use.

Finally husbands discussion on family planning, his approval and attitude toward family planning had a significant association with contraceptive use. In this study the following recommendations were made:

a) Changing aspects of family planning delivery must be looked into. For clinic services, family planning providers should be properly trained on client-worker relationship. The problem of barriers to access should be minimized by creation of more service delivery points and out reach.

b) Information, Education and Communication is very important to change men's attitudes towards family planning.

c) Population Education should be taught to both girls and < boys in schools and men less than 30 years.

d) Further research carried out to investigate reasons for non-use of service sources.

e)   Policy makers should link interventions with societal transformations, and should be implemented from parental involvement and understanding.

CHAPTER ONE

1.1 INTRODUCTION

For the two decades, Kenya has had the highest rate of population growth of any country in the world. According to the Kenya Contraceptive Prevalence Survey, (KCPS) of **1984,** kenya recorded a growth rate of 4.1% per annum, the highest rate of any country.

The government of Kenya, became concerned about the effects of rapid population growth rate even before that growth had reached the highest level. A population policy biased towards fertility reduction, evolved a few years before independence. In November 1955, the family planning committee of Mombasa was formed, and, in December **1956,** Family Planning Association (FPA) of Nairobi was formed. Both these agencies concentrated on non-African clientele. The first family planning clinic for African clientele was opened in May 1957, and all these efforts were made within Kenya without much foreign support.

Foreign support of family planning started in July **1959,** when the Pathfinder Fund gave grant to the Family Planning Association (FPA) of Nairobi to   recruit an organizing secretary.   Through the amalgamation of Nairobi and Mombasa Family Planning Associations, the Family Planning Association of Kenya (FPAK) was formed in July **1961** and became the first family planning association (FPA) in tropical Africa to be affiliated with the International

Planned Parenthood Federation (IPPF).

To put Kenya's population problems in perspective a national census was held in 1962 in which a population of 8.6 million was recorded with a growth rate of 3% per annum. These demographic facts, as well as efforts already made in family planning through urban based associations induced the government to take two steps in handling the population problem. The first indication of the government's concern and official commitment to developing a sound population policy is found in Sessional Paper No.10 entitled "African Socialism and its Application in Kenya" published by the Ministry of Finance and Planning in 1965.

The second and more important for Kenya's population policy was the government's request, through the Ministry of Finance and Planning to the population council of New York to send an advisory mission whose terms of reference was to study the population programme and make recommendations.

The chief recommendations were that Kenya declare as a policy an objective of reducing the rate of growth and to this end establish a National family planning programme with the goal of making every pregnancy the result of voluntary choice.

In 1966 Kenya became the first sub-Saharan African country to adopt an official population policy favouring reduced fertility. The policy stated that the government would "pursue vigorously policies designed to reduce the

rate of population growth through the voluntary means"[1]. In 1967 the government launched a National Family Planning programme (NFPP) and integrated contraceptives and family planning services into the maternal and child health (MCH/FP) under the Ministry of Health.

The 1969 census results which indicated that Kenya was one of the countries with the highest population growth rate in the world fuelled the quest for a more intensified family planning programme. To this effect a national family welfare centre was established, initiated by the World Bank, IBRD, 1974, (which later became the Division of Family Health in the Ministry of Health), and the Population Studies and Research Institute (PSRI) at the University of Nairobi conceived through bilateral agreement between the Kenya government and the United States Agency for International Development (USAID) with population council, New York as the contractor. The involvement of these two donor agencies was a further commitment to make the National Family Planning Programme (NFPP) succeed.

Although the goal of the 1975-1979 phase of the programme was to reduce the annual rate of natural increase (NI) from 3.3% in 1975 to 3.0% in 1979, the 1979 census results showed that the rate of population growth had actually increased to 3.8 per cent per annum. In response to this increase the government established the National Council for Population and Development (NCPD) in 1982 to

formulate government policies and strategies and to co-ordinate all population related activities. The NCPD has also been a channel for donor funds for population related activities which have increased considerably over the past decade.

The government thus expected its policies to result in fertility decline. According to the 1977/78 Kenya fertility survey (KFS) and 1984 Kenya Contraceptive Prevalence Survey (KCPS) the use of contraceptive methods among currently married women had more than doubled from 7% in 1977/78 to 17% in 1984 (Kenya CBS 1980, 1984). The increase in the level of contraceptive use recorded in 1984 only reduced fertility from 8.1 to 7.7 births per woman, thus indicating that family planning was adopted for spacing births and not limiting/stopping child bearing.

The proliferation of service delivery points (SDPs) for Family Planning and a more intensive effort on Information and Education provide the opportunity to practise family planning more easily while socio-economic conditions provide the main motivating factor. However, the family planning rhetoric by the country's political leadership following a national leaders seminar on population in July 1984 which called on Kenyans to adopt the small family norm and stronger implementation of the government's population policy during the 1980s has also contributed to this practise.

In 1989 the National Council for Population and Development (NCPD) conducted the Kenya Demographic and Health Survey (KDHS) and a contraceptive prevalence rate of 27% was obtained compared to 17% in the Kenya Contraceptive Prevalence Survey (KCPS) of 1984 and 7% in the 1977/78 Kenya Fertility Survey (KFS). The Kenya Demographic and Health Survey indicated large differentials in the level of contraceptive use by province and by district. Generally prevalence was highest (52%) in districts in the country's central region, namely Kirinyaga, Nyeri, Machakos, Meru, Muranga and Embu and lowest in districts in the western and coast regions.

This information indicates that there are pockets of contraceptive practise that reach levels as high as those found in more developed countries (Cross et al., 1989). This study therefore investigates what factors have determined the high contraceptive rates in some areas specifically Ena Market Centre and its catchment area in Runyenjes division, Embu district which had a contraceptive prevalence rate of 51% by December 1990 (Ferguson, 1991). This rate was among married women age 25-34 years using modern methods of contraception.

1.2 BACKGROUND OF THE STUDY AREA

Embu district is one of the six districts of Eastern province and occupies an area of 2,714 km^2 out of the

province's total area of 154,540 km^2. It is bordered to the north by Meru district, to the East by Kitui, to the south by Machakos and to the west by Kirinyaga district (see figure 1-Appendix). Out of the districts total area of 2,714km^2, 2,442 km^2 are available for agriculture and livestock. There are two rainy seasons per year, the long rains from March to May and the short rains from October to December.

The district is divided into four divisions, Runyenjes, Gachoka, Siakago and Embu Municipality (see figure 2-Appendix). Runyenjes has the high potential land, while the medium potential land falls in some sections of Runyenjes and upper parts of Gachoka division. Siakago and parts of Gachoka divisions contain the marginal land. Runyenjes division, the high agricultural potential area covers only 16.4% of the districts total area.

According to the 1979 population census Embu district had a total population of 263,173 with an annual growth rate of 4.18%. Runyenjes had a population of 148,131 projected to be 219,456 in 1988, higher than any division, and it is inhabited by 56.35% of the district's total population. Increasing population pressures on the available land has brought the inevitable fragmentation of land holdings into very small and uneconomical sizes. The bulk of the population in the division is comprised of Embu, Mbere, Kamba and Kikuyu with some other minority tribes, the Embu

ethnic group comprising about 62% of the total population.

The area of study Ena, a small market centre and its catchment area lies within Runyenjes division. This are of study is comprised of several small sub-locations and three locations that lie within a radius of approximately 10 km. This area was covered intensively with the exception of the eastern sector which is dry and has relatively low population density. Most households in Ena catchment area have small cash crops and zero-grazed grade cattle, which provide local employment opportunities.

The dispensary at Ena was upgraded in 1988 by the Karurumo sub-district health management team, using GTZ Family Planning support unit, in the division of family health, Ministry of Health finance, to a fully functioning service delivery point offering maternal and child health/family planning services on daily basis. This added to the already good network of government, mission and private health facilities which offered family planning services.

With a dynamic and productive local economy, Ena is relatively socio-economically advanced. Early competition between catholic and protestant missions provided the basis for many of the social and educational facilities which exist. Roman catholics are in the majority. Ena typifies the most advanced parts, of rural Kenya where family planning adoption has a relatively long history with high

contraceptive prevalence. The GTZ survey was carried out in 1991 and 51% of women were users and 76% had used at some time during the period covered in the survey.

1.3 THE STATEMENT OF THE PROBLEM

This study attempts to examine the demographic, socio-economic and socio-cultural factors that affect contraceptive use. In Kenya, contraceptive prevalence nationwide remains quite low. According to the Kenya Contraceptive Prevalence Survey (1984), contraceptive prevalence rate was 17% and 27% as per the Kenya Demographic Health Survey, 1989. Although this prevalence is much higher than in most sub-Saharan Africa, fertility has yet to fall substantially.

According to the Kenya Demographic and Health Survey, 1989, and Kenya Contraceptive Prevalence Survey, 1984, contraceptive practice was found to be affected by socio-economic, demographic, environmental and socio-cultural factors. This study focuses on demographic, socio-economic and socio-cultural determinants of contraceptive use. The level of contraceptive use is relatively high in Embu district specifically Ena (50.9%), compared to other parts of the country. This study therefore attempts to investigate the factors that have contributed to this high use by answering the following questions:

(a) What are the major determinants of contraceptive

use?.

(b)   What is the age pattern of current users?

(c)   Is there any relationship between contraceptive use and the level of economic development?

(d)   What does the future hold for the adoption?

1.4 THE JUSTIFICATION OF THE STUDY

Contraceptive use and its determinants have been important for research in recent decades with the rapid expansion in world population. Attempts to control population growth have focused on reducing fertility with some significant effect. The peak rate of growth in the world's population has now been passed but growth is still at a high level in almost all developing countries particularly Kenya which registered a growth rate of 4.1% in 1984, the highest growth rate in the world. In 1984 Kenya adopted a national population policy with the explicit goal of reducing population growth rate to 3.3% by the year 1988. Thus in recent years population and family planning have been much discussed. Fertility limitation is strongly supported by the government and contraceptive services are available from a variety of providers in public and private sectors (Escharia, 1984).

According to the Kenya Demographic and Health Survey (1989), contraceptive use among current users was 27%. In a recent World Health Organization (WHO) report the total

number of contraceptive users has risen tenfold in the developing world in the past 25 years to over 380 million users (Standard Newspaper, July 29th 1992)/ In Embu district, specifically Ena area, contraceptive prevalence was found to be 50.9% by December 1990. The study of the determinants of contraceptive use in this area, may therefore be important. Most researchers have not come out with the factors behind the high prevalence rate found in some areas and not others. Thus causes for this high prevalence rate will be investigated in this study so that policy makers can emulate the study findings and extend to other parts of the country in particular and other developing countries in general to improve contraceptive use levels. The findings from this study may also be used to develop educational and communication strategies on the appropriate target groups.

1.5 OBJECTIVES OF THE STUDY

The general objective is to examine factors which determine contraceptive use in Ena, Embu district.

Specific objectives

The specific objectives of this study are:

a) To investigate the demographic, socio-economic and socio-cultural, availability and accessibility factors that affect contraceptive use.

b) To explain the adoption of family planning methods

(contraceptives) among a group of married women who are subject to traditional pressures to have

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large families, and the modern pressures on income shortages.

c)   Make recommendations to policy makers and planners on how to improve the contraceptive use rate level.

1.6 SCOPE AND LIMITATIONS OF THE STUDY

The study uses data obtained from a survey done by GTZ-family planning support unit. The survey examined married women aged 25-34 and excluded those aged 15-24 and 35-49 who were at the risk of conception hence use contraceptives and ultimately affect the prevalence rate. Data of woman's parity, education, marital status, religion, ethnicity, family planning knowledge and attitude and husband's education, occupation, place of work and attitude to family planning (FP) were included. An examination is made on how the above factors influence contraceptive use.

There are certain limitations in this study. The first limitation is the small sample size. The targeted sample size was 350 cases but only 338 cases were collected because of the easter holiday that had not been foreseen and the interviewers had to be dismissed. With an assumption of a contraceptive prevalence rate of 40% and 80% for ever-use of contraceptives, a sample of 350 was expected to yield

reasonably accurate estimates of these parameters in the population with sufficient numbers of family planning use episodes. The 338 cases sampled thus is not representative enough of the women of reproductive age in the area.

The other limitation is that the survey data was collected with other objectives in mind other than contraceptive use. Thus can only give a general picture of the real situation.

The chosen cohort of 25-34 years of only married women assumes that its only married women who are at the risk of conception, therefore are contracepting. This assumption disregards un-married women in this group who are using contraceptives. Thus in the real sense the use rate may be higher if they are taken into account.

There were three refusals and several married women within the chosen cohort (25-34) could not be interviewed as they had been married a short time before the survey.

Inspite of the above limitations, the response rate was generally good and once the interviewing conditions were achieved by the interviewers the women were very open and frank in answering questions posed. The age cohort (25-34) chosen was assumed to contain a good mixture of never users, (at age 25 years), first time adopters, and women who want to space and those who want to limit births (at age 34). In addition to this, increasing large proportions of women younger than 25 years were never married, yet beyond 34

years the recall capacity may be poor since they are less educated and older.

CHAPTER TWO

2.1 LITERATURE REVIEW

From the World Fertility Survey (WFS), 1985 the highest level of contraceptive use in the developing world are found in Asia, Latin America and the Caribbean where 50% of married women of reproductive age used some family planning method. In contrast less than 5% used family planning in Cameroon, Ivory Coast, Mauritania, Senegal, Somalia and Yemen republic; where use was highest in Zimbabwe -40%, Bot3wana-29%, Benin-20% and Kenya-12% (1984).

Contraceptive use is influenced by many demographic, socio-economic and socio-cultural factors which include wife's age, parity, education, ethnicity, religion, etc. Programme effort is another factor that influences acceptors (Freedman and Berelson, 1976). Acceptance rates are highest in countries of high economic setting and strong programme effort but lower in countries with opposite conditions. Below is the literature showing how contraceptive use is affected by the above factors.

2.1.1 DIFFERENTIALS IN CONTRACEPTIVE USE BY HUSBAND'S OCCUPATIONAL STATUS/EMPLOYMENT STATUS

In the Caribbeans there are differentials in contraception levels by different types of husband's employment status. Contraceptive use was found to be high among exposed women whose husbands were professionals,

administrators, clerks, etc. (Abdular et al., 1984). In Kenya women with husbands of higher occupational status have shorter duration of breastfeeding and lactational amenorrhea. This decline in lactational amenorrhea is compensated for by higher level of contraceptive practice. This was observed by Mosley et al.,(1982).

A husband's employment status determines the family income. In Thailand (Cleland et al., 1979) reported that family income was positively associated with current use. In Malaysia only 18% of women with family income less than $100 were using contraception compared to 61% among women in the income group $500 and above (Tay Nai Peng 1981).

In Sri Lanka women with husbands who had non-agricultural occupation are more likely to be urban and therefore had the highest use than those whose husbands were agricultural labourers and farmers. This was reported by Immerwahr (1981). The same findings were reported by (Freedman et al., 1981) in Taiwan.

2.1.2   DIFFERENTIALS IN CONTRACEPTIVE USE BY WOMAN'S AGE

Contraceptive use in developing countries tends to increase with age upto around 30-34 years and then drops off. This was indicated in World Fertility Survey by W. Brackett et al.,(1978). Research in the contraceptive prevalence survey for Guatemala, El Salvador, Sao Paulo and Brazil showed that contraceptive use was higher among women

aged 25-34 or 39 years (J.T. Bertrand et al., 1982). Older women aged 40-44 are less likely to use family planning than younger women.

In the Java-Bali region older women were more likely to use contraceptive methods than younger women. Contraceptive use increased with increase in age and decreased gradually with age (Soeradji, 1982). Norma Abdulla et al., (1984) reported a similar trend in the Caribbeans where contraceptive use declined for the 40-49 age group to the same level as for 20-29 age group.

In Thailand experience of contraception was relatively low among the young and older age groups and 25-34 women had the highest proportion of ever users (Cleland et al., 1979).

Ronald Freedman et al., (1981) observed that use of modern methods in Taiwan increased from a low of a bout 13% for women under 20 years to a high of 36-38% at age 30-34 upto 40-44 and dropped to 29% among women aged 45-49. The proportions of women who were currently using an efficient method in Korea increased sharply until age 40 and declined slightly thereafter and the youngest age group of women had the highest use rate (Nam il Kim et al., 1981).

Among married couples in South India, of the total women under 50 years, one third were using some method of family planning (Caldwell et al., 1984). In the study of rural Kenya, women who were contracepting were on average older than those who had never done so (Caldwell, 1968).

According to the Kenya Demographic and Health Survey (1989)
prevalence was highest i.e. 30% among those aged 30-44 and
lowest i.e,13% among the 15-19 year olds.

Although characteristics of acceptors vary from country
to country, acceptors tend to be older. In a country with
high fertility and little birth control, family planning
begins to arise when the couples are under demographic
pressure.

2.1.3   DIFFERENTIALS   IN CONTRACEPTIVE   USE   BY   WOMAN'S
         EDUCATION

In most countries the better educated a woman is, the
more likely she is to use contraceptives. Part of the
relationship between education and contraceptive use may be
due to the greater availability of family planning services
in urban areas where well-educated women tend to live (Kathy
A. London et al., 1985). Below is literature reported in
various   countries by various scholars on how women's
education affect contraceptive use.

Numerous references including contraceptive prevalence
survey for Guatemala, El Salvador and Panama have documented
contraceptive use to increase with increase in women's
education (Leo Moris et al., 1978). In Thailand, Cleland
(1979) found out that more educated women use contraceptives
than non-educated, but the educational differentials are
more pronounced among older than younger women.   Mazur

(1981) on the other hand reported that 75% of the married women who were contracepting had secondary and post-secondary education while 42% and 50% had pre-primary and primary levels of education respectively.

Increases in education should improve patterns of contraceptive practice. In Peninsular Malaysia, compared with uneducated women, those with some education had higher acceptance rates and lower discontinuation rates and were more likely to switch to more effective methods (Julie Da Vanzo et al., 1987). Studies done in Mexico 1976, reveal that there is a strong relationship between wife's education and contraceptive use. Contraceptive use was 14% among those with no formal education, 26.5% among those with 1 to 3 years of primary education and 64% with at least a secondary level of education.

Norma Abdular et al., (1984) after a study in the common wealth Caribbeans reported a relationship between wife's education and contraceptive use. Among the exposed women there was no variation in level of current use between the three primary education groups. The level was somewhat lower among women who had an incomplete secondary education, and much higher among the most educated groups than among less educated. Immerwahr George (1981) in his study in Sri Lanka, observed a direct relationship between years of wife's schooling and contraceptive use, among women aged 15-50 years exposed to the risk of pregnancy.

In Java and Bali, education is positively related to the use of contraception. Soeradji et al (1982) found the use rate of exposed women with no education, senior education, and academic to be 31%, 38% and 46% respectively.

In Taiwan, current use of modern contraceptive increases moderately with wife's education, from a low of 28% for those with no education, to about 34% for those with primary and 41% for those with more than primary. In 1968, women in Taiwan with no education had a higher rate of contraceptive practice, than the upper educational stratum in the Philippines, because the family planning program in the former was in full swing, while in the latter had not began. Thus the intensity of family planning programme narrows the educational gap over the years (Freedman et al, 1976;1981).

Richard S. Monteith et al (1987) indicated that in Paraguay women with more than primary school education were more than twice as likely to practice contraception, than women with no formal education and incomplete primary school education. Similar findings were obtained in Korea by Nam il Kim et al (1981). In Malaysia, 58% of the women who had seven (7) or more years of education were using contraceptives compared to 44% of those who had (1-6) years of education and 31% of those who had no schooling (Tay Nai Peng et al, 1981).

Caldwell (1968a) found out that in Nigeria,

contraceptive practise rose steeply with the level of women's education. He noted that in 1964, women with post secondary and university education had contraceptive prevalence rate (CPR) of 71% while those with no education had 5% contraceptive prevalence rate. Oyedrian et al (1976) on the other had observed that the majority of the clients in the family health clinic in Lagos, Nigeria, in 1969 and 1970 had either no formal education or only primary education. Judith E. Brown et al (1985) indicated that 55% of the contraceptive acceptors in 1984 had some secondary education while 44% had some primary education and 4% had no schooling in Lusaka, Zambia.

Women with some schooling abandon breastfeeding especially those with 5-8 years of education, hence more fecund. More educated women compensate this by the higher level of contraceptive practice. Among older educated women in Kenya, declines in breastfeeding and amenorrhea are increasingly compensated for by higher levels contraceptive practise (Mosley et al., 1982). From the Kenya Demographic and Health Survey, educational differentials in contraceptive use were 18% of women with no education, 26% with some primary education, 30% with complete primary education and 40% of those with a secondary education (KDHS, 1989).

Education is thought to influence contraceptive use through its negative influence on family size. This is

because education increases the couples aspiration for upward social mobility and wealth accumulation and decreases the lifestyle and consumption patterns, which reduce the desire for large families. It also influences use rates through its negative, effects on breastfeeding. Educated and working women tend to substitute contraception for breastfeeding as a mean3 of fertility regulation (Millman, 1985; Suryak, 1981). Nevertheless, according to a UN analysis of World Fertility Survey data, education made the least difference to contraceptive use where family planning programmes were strong and where levels of socio-economic development were high. Strong programmes can facilitate contraceptive use among the less educated and make possible for higher overall levels of use.

2.1.4   DIFFERENTIALS IN CONTRACEPTIVE USE BY NUMBER OF SURVIVING CHILDREN/PARITY

As many other developing countries,parents in Kenya typically value children a great deal as economic assets and old age insurance (Schuler and Goldstein, 198; Ahmed, 1991; Caldwell, 1977). Therefore they tend to have large families and a strong preference for sons over daughters. Such preference for sons, and high fertility intention, is expected to have serious implications for effective contraceptive use and the success of family planning programme in Kenya. It is expected that couples who have

only daughters are less receptive to the idea of family planning and contraceptive use than their counterparts who have at least one son in addition to daughters.

In World Fertility Survey, couples who desire no more children are in a position to actively avoid unwanted births by seeking out information to help limit their child-bearing (Amy O. Tsui, 1978). Prevalence rates were found to increase with parity, but were relatively high for low parity women in some countries with more vigorous programmes than others. The rates for zero parity women ranged from 31% for Panama to 4% for Sri Lanka.

World wide, family planning is more often used to prevent births when family size is complete than to space births. In Asia only about one quarter of contraceptive users were spacing births and one third in Latin America and Middle East (Kathy A. London et al., 1985). When birth control first appears among the married, fertility is usually reduced initially among women of high parity (Ansley Coale, 1969). Bogota (1967-74) reported that contraceptive use increased among women with at least one child, and also women who use family planning tended to have more children than non-users.

However in other studies in the contraceptive prevalence surveys of Guatemala and El Salvador (Alan Sear 1975) reported that contraceptive use increased with the number of surviving children to a certain point, after which

it decreased. In Taiwan, current use of a modern method was found to increase from a low of about 23% for 0-2 living children to 37-41% for 3 or 4 and then to 44% for 5 or more children (Freedman et al., 1981). Nam il Kim et al (1981) reported that the number of living children, seems to be an important determinant in the use of contraception, although the sex composition of living children influences the use of contraception even more strongly than the number of living children does.   The proportion   found to   be using contraception in Korea increased greatly from 15% to 43% after 4 living children.

In Paraguay, contraceptive was relatively low among married women with no living children but increased rapidly after women had their first and second child. It was only after the fifth living child that limiting family size became the motive for practising contraception (Richard S. Monteith et al, 1987).

Malaysian women   are   more   likely   to   practice contraception, when they do not want to have more children. The sharpest differential in use is noted between those with no children and those with one child reflecting the absence of any desire to delay the first child. Couples were less likely to practise contraception following a child's death in an attempt to replace the dead child (Tay Nai Peng et al., 1981, Julie Da Vanzo et al., 1987). In Java and Bali soeradji (1982) indicated that contraceptive use increases

with increasing number of children upto 3 children and then remains moderately high.   Similar findings were observed by Norma Abdulah et al (1984) in the Caribbeans.

Immerwahr (1981) observed, that in Sri Lanka women who had given 4 or more children as the desired number had used modern contraception in a higher proportion of cases than those who had stated less than 4 as the desired number.   In Nepal, Enrique Carrasco found out that women with large families were more likely to use contraception, common in countries with weak or only recently established family planning programmes.   Kathy A. London et al (1987), on the other hand found contraceptive use to be common even among women with few children because women use contraception to space births as well as end child-bearing.

In Nigeria, (Oyeka 1981) the proportion of women who ever used modern contraceptives increases as the number of living children increases from 4.8% with no children to 34.4% among women with 3 living children and dropped to 21.4% for those with 4 or more living children. Women with no sons were less likely to use contraceptives.   In rural Egypt use rate was 4.5% among married women with one child regardless of sex to 29.2% among those with 5 living children. However, with each category of number of living children women with no sons are least likely to be using modern contraception (Saad Gadalla et al, 1985).

Heinsel (1968) reported that women who were using

contraceptive method in KAP survey in rural Kenya were somewhat older than the others. In the Kenya Demographic and Health Survey, higher parity women were more likely to use contraception than those with one or no child (KDHS,1989). In a society where, contraception is infrequent and unfamiliar, its practice is likely to be adopted only after a family has reached or surpassed the number of children felt to be appropriate or manageable.

2.1.5 DIFFERENTIALS IN CONTRACEPTIVE USE BY ACCESSIBILITY AND AVAILABILITY

Many programmes throughout the world are based on the premise that, increasing the availability of contraceptives will have the effect of increasing use net. On the other hand, lack of access to contraceptive supplies is a major obstacle to use. Travel time to source is the measure of availability most often.

In a study of seven World Fertility Survey countries Chindambaram and Mastropoalo (1980) found that the relationship between availability and use depended a great deal on contraceptive method (John E. Anderson and John Cleland, 1984). The availability and accessibility of effective means of fertility regulation, mediated through provider transactions with clients, lead in turn to use. However, cultural influences may strongly affect use even when they are readily available (Robert, Lapham et al.,

1985).

Survey results from World Fertility Survey (1985) indicated that making family planning supplies and services more available increases their use. Women who obtain services close by are more likely to use family planning. In some countries including Bangladesh, Indonesia, Nepal, Barbados etc., at least 25% of women did not know source of family planning supplies and services (Kathy et al 1985).

The further a woman lives from a source of family planning, the less likely she is to know where to go for family planning, and the less likely she is to be a user. The exposure to family planning communications, played a key role in use even when controlling for education and other correlates in Panama, Guatemala and El Salvador (Jane Bertrand eta al., 1982).

In Korea 45% of women who had ever contacted one of the programme outlets, were using contraceptives compared with 40% of those who had never contacted any programme outlets. Of women living within 20 minutes of a programme outlets, 45% were users compared to 40% for other women (Nam il Kim et al, 1981). Caldwell and Caldwell (1987) argue that, when services are made available and accessible to those individuals, and provided in a manner responsible to the clients* need, the demand for use will increase. However, Mary Taylor Hassouna (1980) argues that, although contraceptive availability is obviously a critical necessity

for family planning service, dissemination of the supplies
is only one aspect of a delivery system.

In rural Kenya women who were near a family planning
clinic were more likely to have visited it (31.7%) than
women who lacked access (18.2%) (Thomas Dow et al., 1983).
In the Kenya Contraceptive Prevalence Survey (1984) only 26%
of the women in the survey reported travel time of less than
30 minutes, 22% took 30-50 minutes and 48% reported more
than one hour.

The availability of family planning through nearby
clinics,   narrows   the   educational   difference   in
contraceptive use, (Julie Da Vanzo, et al., 1987).   Lack of
access to services is an important reason for rural/urban
imbalance in use. Frank, (1987) argues that low use rates
are not due to lack of accessibility but demand for
contraceptives.   However contraceptive use increases with
decrease in travel time to source. Accessibility removes
the distance barrier hence promotes use.

2.1.6   DIFFERENTIALS IN CONTRACEPTIVE USE BY HUSBAND'S
         APPROVAL AND ATTITUDE

Husbands play a   crucial role in decisions about
contraceptives, yet they are rarely reached by family
planning services. When women wanted to use contraceptives,
they discussed it with their husbands and obtained their
approval.   Women who were undecided did not broach the

t

subject.   Except for a few independent minded women in the study wives felt obliged, to consult their husbands before accepting any method and there were difficulties when husbands, did not agree.   Although the family planning programmes seem to be female oriented, it appears that the decision to adopt artificial contraception is a joint affair the husbands opinion dominant (Julie Da Vanzo et al., 1987) in Peninsular Malaysia.

In Jordan survey, generally husbands with high social status and urban residence were most likely to believe in practising contraception, and decision was made jointly (Charles W. Warren et al., 1985).

Approval of family planning was found to be related to the wife's perception of her husband's attitude towards it in rural Kenya (Thomas E. Dow, 1983).   Thus contraceptive use will remain low as long as husbands still hold a negative attitude towards family planning.

2.1.7   DIFFERENTIALS IN CONTRACEPTIVE USE BY RELIGION

Religion is believed to have an effect on contraceptive use. In Malaysia over the years, in catholic thought, it was commonly assumed that artificial contraception would have negative effects both on individuals and in society. It was suggested that immoral means of fertility control lead to increased marital infidelity.   Priests in Columbia and U.S. believe that use of contraceptives leads to a

general lowering of moral standards a danger to the youth (Thomas Burch and Gail Shea, 1971).

The Christians had three times the proportion of contraceptors than those of muslims but there were greater differentials between the protestant-catholic in Nigeria (Caldwell, 1968).

Kathy A. London et al., (1985) reported that in Thailand, Budhists were more likely to use contraception than Muslims because the latter wanted more children.

Despite the prevalence of pronatalist values and norms, all Arab states approve contraceptive use in addition to abortion when the life of the mother is in danger. M. Faour,(1989); Sharabasy, (1969); and Shaltul (1963) also indicated that Islam supports contraceptive practice when spouse is afflicted with a contagious disease that could be transmitted to the offspring.

On the other hand, a Muslim scholar al Ghazzal, approved of contraception for the purpose of safeguarding the wife's beauty, her good shape and physical fitness (IPPF, 1974).

W. D. Mosher et al., (1984) found that between 1955 and mid 1970's in U.S., the percentage sterilized among catholics increased over three fold while it doubled among protestant and Jewish couples. According to the Kenya Demographic and Health Survey (1989) use of family planning was 29% among protestants, 26% catholics and 17% Muslims.

Protestant women were more likely than catholics to use modern methods (KDHS, 1989).

From the above literature, religion is not expected to give large differentials in contraceptive use.

2.1.8   DIFFERENTIALS IN USE BY MARITAL STATUS

Marital status refers to whether the woman is unmarried, married, separated, divorced, widowed and union types.

Forrest and Fordyce (1988) found that the net increase in use of the most effective methods in U.S. occurred among married women. In the Caribbeans of the three current union types prevalence of use was highest among married women and at least among women in a common law union and intermediate among visiting women (Abdullah et al., 1984).

2.1.9   DIFFERENTIALS IN USE BY HUSBAND'S EDUCATION

Husband's education has a significant role in determining contraceptive use levels. Educated husbands have high occupational status/employment status, thus limit their family sizes to enhance upward social mobility.

In Java and Bali, Soeradji (1982) indicated that husband's education is more influential in deciding whether or not to use contraception because husband's attitude towards contraceptive use has an influence on couples decision to use.

Tay Nai Peng et al (1981) reported that in Malaysia contraceptive use increases with husbands education. Use among women whose husbands had no education, seven or more years of education was 26% and 51% respectively.

2.1.10   DIFFERENTIALS IN USE BY ETHNICITY

Levels of contraceptive use depend on ethnicity. In Peninsular Malaysia the Chinese women have the highest average contraceptive prevalence rates and the highest acceptance rates. They are also the most likely to upgrade to more effective methods among the 3 main ethnic groups, i.e. Malays and Indians (Da Vanzo et al., 1987).

2.1.11   DIFFERENTIALS   IN   CONTRACEPTIVE   USE   BY
           CONTRACEPTIVE KNOWLEDGE

Knowledge and use of contraceptives are intrinsically associated with each other. (Tsui A.O. 1978) in World Fertility Survey found out that the abandonment of contraception was associated with minimal contraceptive knowledge since the less informed a woman was the less likely she was to practice contraception.

However, in the Thailand survey 96% of the women interviewed had heard of at least one efficient contraceptive but only 45% had ever used any method of contraception (Cleland J.G. et al, 1979).

In Java-Bali, 77% of all women interviewed in the

Indonesian Fertility Survey (IFS) had heard of at least one method of contraception. However only 34% had ever used a method, (Freedman, R. et al, 1981).

Immerwahr G. (1981) reported that 91% of the 6810 ever-married women covered in the Sri Lanka Fertility Survey, (SLFS) had heard of at least one contraceptive method, and each of the modern methods was quite well known. However, only 43% of ever-married women had ever used any method, and only 25% had ever used a modern method.

In Malaysian Fertility Survey and Family Survey conducted in 1974 in conjunction with World Fertility Survey (WFS) 92% of ever married women interviewed reported knowledge of family planning but only 52% had ever used and 36% were current users (Tey Nai Peng, 1981).

According to the Kenya Demographic and Health Survey (KDHS), 90% of Kenyan women knew at least one contraceptive method. In the 1977/78 Kenya Fertility Survey, (KFS) knowledge of contraception was 88% and 81% in the 1984 Kenya Contraceptive Prevalence Survey. Ever use of contraceptives on the other hand was 27%, 17% and 7% respectively.

The literature review above shows that contraceptive use is determined by demographic, socio-cultural, socio-economic and programme effort. This is conceptualized in the framework below.

2.2   THE CONCEPTUAL FRAMEWORK
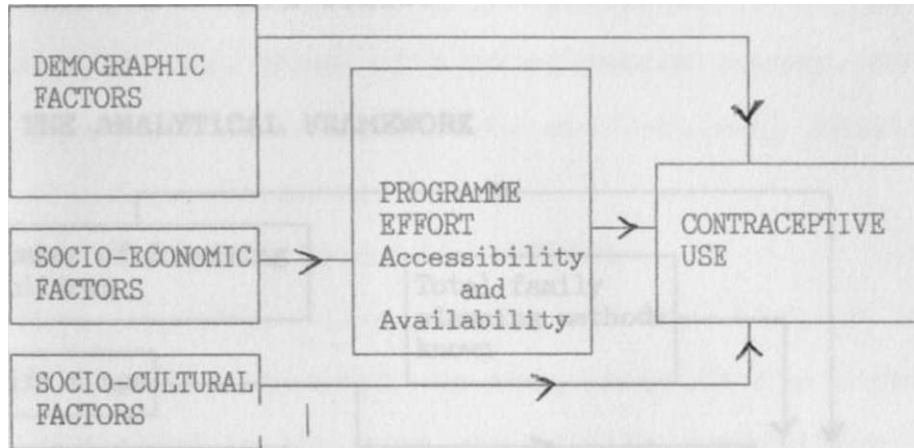
SOURCE: Adapted from Lampham and Mauldin (1984)

The demographic factors in the above model include age of women, number of surviving children (parity), duration of marriage etc., while socio-economic factors include: husband's and wife's education and husband's occupational status. Socio-cultural factors on the other hand include, ethnicity, religion and marital status and finally programme effort which means the sum of policies adopted and implemented activities carried out to provide family planning knowledge, supplies and services and the availability and accessibility of family planning. Programme effort is influenced by socio-economic factors as shown in the model. The study will therefore analyze the effect of availability and accessibility of family planning, age of women (wife), number of surviving children, husband's occupational status, husband's and wife's education, ethnicity, marital status and religion on contraceptive use.

These variables are schematically represented in the analytical framework below.

2.3 THE ANALYTICAL FRAMEWORK
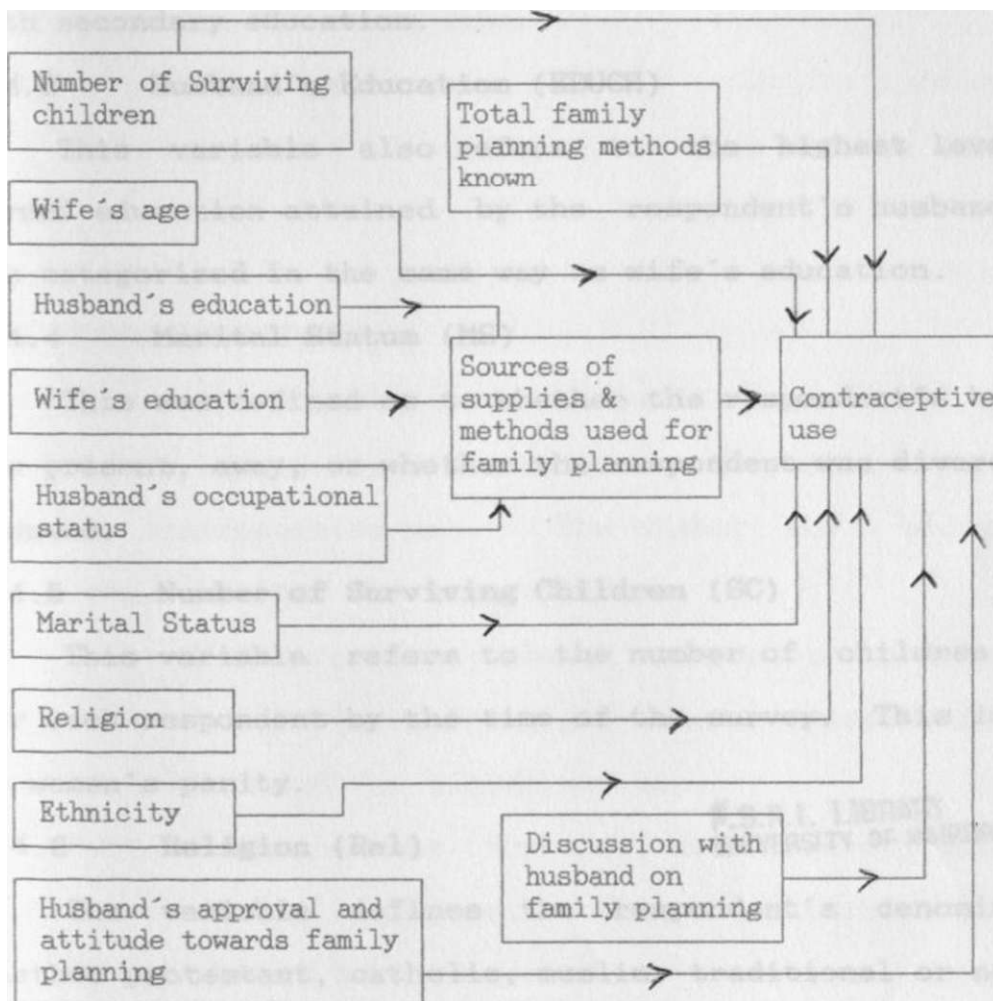
2.4 DEFINITION OF VARIABLES

2.4.1   Husband's Occupational Status (OCC)

    This refers to the type of work the respondent's husband was engaged in.

2.4.2   Wife's Education (EDUCW)

The variable is defined as the number of years spent in school by the respondent. The educational level is divided into four groups, those with no education (none), those with primary education for std.1-6, std.7-8, and finally those with secondary education.

2.4.3   Husband's Education (EDUCH)

This variable also refers to the highest level of formal education attained by the respondent's husband and its categorized in the same way as wife's education.

2.4.4   Marital Status (MS)

This was defined as to whether the respondent's husband was present, away, or whether the respondent was divorced or widowed.

2.4.5   Number of Surviving Children (SC)

This variable refers to the number of children alive for each respondent by the time of the survey. This is same as women's parity.

f S R 1. UBRAm

2.4.6   Religion (Re 1)   UN1VERS1TV OC MAlRflfc'

The variable defines the respondent's denomination whether protestant, catholic, muslim, traditional or none.

2.4.7   Ethnicity (Ethnic)

The respondents identified their ethnic groups as Embu, Meru, Kikuyu and Kamba.

2.4.8   Availability and Accessibility

Availability is measured in terms of the methods of family planning available by the survey period i.e. the

pill, condom, IUD, TL etc. Accessibility on the other hand
was measured in terms of where the family planning method
supplies were obtained. The respondents identified the
following sources, Ena, Embu hospital, Nembure Health centre
(HC), Ruyenjes HC, among others.

2.4.9   Wife's Age

The respondents identified their ages between age group
25-34.

2.5 STUDY HYPOTHESES

The hypotheses for this study are as follows:

1.   Wife's and husband's education are positively related
      to contraceptive use. The higher the educational
      level attained the higher the use.

2.   Husband's occupational status is positively related to
      contraceptive use. The higher the occupational status
      of the husband the higher the use.

3.   Married women whose husbands are present are more
      likely to use contraception than other married women.

4.   Contraceptive use is positively related to the number
      of surviving children. Women with higher number of
      surviving children are more likely to use
      contraception.

5.   Protestant women are more likely to use contraception
      than catholics and muslims.

6.   Wife's age is positively related to use. Older women

are more likely to use contraception than younger women.

7. Source of information and method used for family planning is positively related to contraceptive use level.

8. contraceptive use is related to husband's approval and attitude towards family planning.

9. Contraceptive use is related to ethnicity.

10. Contraceptive use is positively related to discussion with husband on family planning.

11. Contraceptive use is related to knowledge of family planning methods.

CHAPTER   THREE

3.0 METHODOLOGY

This chapter covers sources of data, reliability and
quality of data, and methods of data analysis. This study
will use cross-tabulation technique in analysis together
with percentages.

3.1.0   SOURCES OF DATA

The study uses secondary data collected from a survey
done by GTZ family planning support unit in the division of
family health Ministry of Health.

A cluster sampling strategy was used in the field
covering all sub-locations sequentially beginning at the Ena
market or cross roads and working from each household to its
nearest neighbour. In the survey 338 cases were covered.

Two survey instruments were used: the first was a short
background questionnaire which included sections on age,
education, child bearing history, family planning knowledge
and attitudes and where current users obtained their
methods, together with husbands occupational status and
education. The study looks at the husbands occupational
status and education, wife's education and age and attitudes
towards family planning. Most of the husbands were resident
at home or if they were employed outside they tended to
return at least once a month. The second instrument was
more innovative retrospective technique covering a period of

48 months prior to the field work i.e., January 1987-Dec. 1990, whose role was to provide for each months spousal separation biological status and contraceptive status. Periods of sexual abstention after birth, the attitudes of husband and wife towards successive pregnancies taking place during the period and the reasons for adopting, changing, or discontinuing the various methods of contraception. This study has looked at spousal separation and contraceptive status from this second category.

3.2 RELIABILITY AND QUALITY OF DATA

Early in September 1990, the fertility diary was field tested using an experienced health field worker in Kibwezi, Machakos district in which women aged 25-34 attending the MCH/FP clinic at Kibwezi Health centre were selected randomly and interviewed. Notes on timings, difficulties and ambiguities were made and some adjustments made to the diary layout and reduced the diary period from 58 months to 48 months.

In March 1991 field work began, after 3 preliminary visits for briefing the health personnel and local administration. Four female field workers were recruited and trained. At the end of each day, questionnaires were cross checked and omissions and errors corrected to the extent possible. A few revisits were made where appropriate to clarify dubious or contradictory information.

3.3 METHODS OF DATA ANALYSIS

The techniques used in analysis are percentages and cross-tabulations. Cross-tabulations show relationship between contraceptive use (dependent variable) and the selected independent variables. Percentages are made to establish the proportions of women in various selected categories of education, and other variables covered by this study. The cross-tabulations give the following tables:

a. use of contraceptive by marital status

b. contraceptive use by the level of education of wife and husband

c. Current use by the husband's occupation

d. Current use by religion

e. current use by wife's age

f. current use by the wife's number of surviving children

g. current use by the source of information about method

h. current use by the source of supply for methods

i. current use by husband's approval of family planning

0- current use by husband's discussion on family planning

k. current use by total methods known

CHAPTER FOUR

4.0 DATA ANALYSIS, FINDINGS AND SUMMARY

4.1 INTRODUCTION

This chapter deals with data analysis and findings. An examination is made on currently married women currently using a method of contraception. The analysis is made using percentages and cross-tabulation method showing relationship between the demographic, socio-economic, socio-cultural and accessibility and availability factors and contraceptive use.

4.2 DATA ANALYSIS AND FINDINGS

4.2.1 Current Contraceptive Use by Marital Status

Table 4.1 below shows the percentage distribution of current contraceptive users according to women's marital status.

Table 4.1 Percentage Distribution of Current Users and Non-users by Marital Status

Marital Status	% Users	% Non-users	Number of Cases	% Cases
Husband present	51.7 (134)	48.3 (125)	259	76.6
Husband away	50.0 (36)	50.0 (36)	72	21.3
Widowed	-	100.0 (3)	3	0.9
Divorced	50.0 (2)	50.0 (2)	4	1.2
Total	50.9 (172)	49.1 (166)	338	100.0

Table 4.1 shows that of the 338 respondents 259 (76.6%) had husbands present and only 51.7% (134) were contracepting. There were 72 (21.3%) women whose husbands were away and only 50.0% (36) were current users.   All widowed women were non-users but 50% (2) of divorced women were current users.   50% non-use of contraceptives among women whose husbands are away, and among the divorced could be explained from the point of view that both groups are not exposed to the risk of conception.   However contraceptive use was slightly higher for women whose husbands were present than for those away, indicating very little significant relationship between marital status and contraceptive use.

From, the literature review, the Kenya Demographic and Health Survey, 1989 (KDHS) reported contraceptive use to be lower among divorced and widowed women.   Similar findings were reported in the Caribbeans by Norma Abdulah et al. (1984) where contraceptive use was highest among women in common law union and intermediate among visiting women. The 50% (2) current use, which is high, among the divorced women can be due to under sampling of divorced women. Thus there is a very weak relationship between contraceptive use and marital status.   There must be other factors determining contraceptive use.

4.2.2   Current Contraceptive Use by Woman's Age

Table 4.2:   Percentage Distribution of Current Users and Non-users by Women's Age

1 Age	% |Users	% Non-users	Number of Cases	% Cases
25	42.4 (14)	57.6 (19)	33	9.8
26	48.9 (22)	51.1 (23)	45	13.3
27	51.7 (30)	48.3 (28)	58	17.2
28	53.8 (21)	46.2 (18)	39	11.5
29	44.0 (11)	56.0 (14)	25	7.4
30	45.5 (15)	54.5 (18)	33	9.8
31	48.0 (12)	52.0 (13)	25	7.4
32	63.2 (24)	36.8 (14)	38	11.2
33	64.0 (16)	36.0 (9)	25	7.4
34	41.2 (7)	58.8 (10)	17	5.0
jTotal	50.9 (172)	49.1 (166)	338	100.0

Chi-square   D.F.   Significance
6.7688   9   **0.6612**

Table 4.2 indicates that of the 338 respondents, 33 (9.8%) were aged 25 years and only 14 (42.4%) were current users.   At age 30 years there were also 33 (9.8%) respondents of which 15 (45.5%) were current users. There were 25 (7.4%), 29 year olds, and 11 (44.0%) were users compared to an equal number (percent) of the 33 year olds with 16 (64.0%) current users.

These results imply that older women are more likely to use contraceptives than younger women.   Current use of contraceptives increased gradually with age but dropped off at age 34. This low rate of use at age 34 could be due to

under sampling of the 34 year olds, in addition to the fact
that women at this age are less educated hence not likely to
be users.   A chi-square value of 6.76 and a probability <
0.661, at a significance level of 34% implies a very weak
relationship between current use and wife's age.   From the
above findings, there must be other factors other than age
influencing contraceptive use.

     Similar findings were reported by Cleland et al.,(1979)
in Thailand where contraceptive use was relatively low among
the younger and older age groups and the 25-34 year olds had
the highest proportion of ever users.

4.2.3   CURRENT CONTRACEPTIVE USE BY WOMAN'S EDUCATION

Table 4.3:   Percentage Distribution of Current Users and
               Non-users by Women's Education

Education Level	% Users	% Non-users	Number of Cases	% Cases
None	50.0 (15)	50.0 (15)	30	8.9
Std. 1-6	51.6 (40)	48.4 (44)	91	26.9
Std. 7-8	48.8 (62)	51.2 (65)	127	37.6
Secondary*	53.3 (48)	46.7 (42)	90	26.6
Total	50.9 (172)	(166)	338	100.0

     Chi-square   D.F "   Significance
     0.463   3   0.9269

     Table 4.3 above, shows that of the 338 respondents, 30
(8.9%) had no education and only 50% (15) were users. Of
the 91 (26.9%) respondents with std.1-6 only 51.6% (40) were
users.   Most of the respondents, 127 (37.6%) had std.7-8

education but only 48.8% (62) were users. 53.3% (48) of the 90 (26.6%) respondents with secondary education and above were users. Thus more women with secondary education are likely to be users. Women with std.7-8 are less likely to be users, may be because the education received increases knowledge of modern methods at the same time increases knowledge of the side effects associated with these methods, since its not enough to provide a better understanding of these modern methods. A chi-square value of 0.464 with a probability of < 0.9269 at significance level 8% indicates that relationship between women's education and contraceptive use is very insignificant. The high use of contraceptives among women with secondary education is because women in this category seek jobs outside home and substitute contraceptives for breast feeding as a method of contraception. The absence of significant differences in contraceptive use level, between the educational levels can be attributed to the intensive family planning programme in Ena.

According to United Nations (UN) analysis of World Fertility Survey (WFS) mentioned in the literature review, education made the least difference to contraceptive us where family planning programmes were strong and where levels of socio-economic development were high.

4.2.4   CURRENT CONTRACEPTIVE USE BY HUSBAND'S EDUCATION

Table 4.4:   Percentage Distribution of Current Users and
Non-users by Husband's Education

Level of Education	% Users	% Non-users	Number of Cases	Number of Cases as %
None	47.1 (8)	52.9 (9)	17	5.1
Std.1-6	48.7 (37)	51.3 (39)	76	22.6
Std.7-8	56.8 (75)	43.2 (57)	132	39.3
Secondary+	46.8 (52)	53.2 (59)	111	33.0
Total	51.2 (172)	48.8 (164)	336	100.0

Chi-square   D.F   Significance
2.818   3   0.4202

The table above shows that of the 336 respondents, 17
(5.1%) had husbands with no education and 8 (47.1%)   were
using modern methods. Of the 76 (22.6%) respondents whose
husbands had std. 1-6 education only 37 (48.7%) were current
users.   There were 132 (39.3%) respondents whose husbands
had received std. 7-8 primary education yet only 75 (56.8%)
were current users.   Current use   among 111 (33.0%)
respondents whose husband had secondary and more education
was very low 46.8% (52).

The chi-square value of 2.8 with a probability of <
0.42 at significance level of 58% indicates that there is
some significant relationship between husband's education
and wife's contraceptive use.   Women married to men with
secondary education are the least likely to have been
current users.

4.2.5   CURRENT USE BY RELIGION

Table 4.5:   Percentage Distribution of Current Users and
                  Non-users by Religion

Religion	% Users	% Non-users	Number of Cases	Number of Cases as %
Protestant	50.3 (75)	49.7 (74)	149	44.1
Catholic	51.1 (96)	48.9 (92)	188	55.6
None	100 (1)	–	1	0.3
Total	50.9 (172)	49.1 (166)	338	

Table 4.5 shows that there are more catholics than **Protestants** in Ena. Of the 188 (55.6%) catholics 96 (51.1%) are users, whereas of the 149 protestants 50.3% (75) were users.   There were 55.6% catholics compared to 44.1% protestants, but only 51.1% of the catholics were users compared to 50.35% protestants.   Thus, current use was higher among the protestants than the catholics. Protestant women were more likely to be current users than catholic women.   Therefore there is **a** significant relationship between religion and contraceptive use.

Similar findings were reported in Nigeria by Caldwell (1968) where christians had three times the proportion of contraceptors than muslims but there were greater differentials between the protestant-catholic. According to the Kenya Demographic and Health survey (1989) use of family planning was 29% among protestants, 26% catholics and 17% muslims. Protestant women were more likely than catholic to use modern methods.

4.2.6   CURRENT CONTRACEPTIVE USE BY ETHNICITY

Table 4.6:   Percentage Distribution of Current Users and
                  Non-users by Ethnicity

Ethnic Group	% Users	% Non-users	Number of Cases	Number of Cases as %
Embu	51.7 (151)	48.3 (141)	292	86.4
Meru	36.8 (7)	63.2 (12)	19	5.6
Kikuyu	50.0 (11)	50.0 (11)	22	6.5
Kamba	50.0 (2)	50.0 (2)	4	1.2
Others	100.0 (1)		1	0.3
Total	50.9 (172)	49.1 (166)	338	100.0

From table 4.6, of the 292 (86.4%) Embu, 151 (51.7%) were current users compared to 19 (5.6%) Meru with current users of 36.8% (7). The 50% current use among the Kikuyu and Kamba can be attributed to the under sampling of these two ethnic groups.   The 100% current use is not representative enough for other ethnic groups, since there was only one respondent in this category. Thus half or more than half of the respondents among the Embu, Kikuyu and Kamba ethnic groups were more likely to use contraceptives than the Meru, ethnic group.   Therefore there is a significant relationship between the contraceptive use and ethnicity.

4.2.7   CURRENT   USE   OF   CONTRACEPTIVES   BY   HUSBAND'S

OCCUPATION

Table 4.7:   Percentage Distribution of Current Users and
Non-users by Husband's Occupation

Husband's Occupation	% Users	% Non-users	Number of Cases	Number of cases as %
Farmer	51.6 (79)	48.4 (74)	153	46.4
Small business	56.0 (14)	44 (11)	25	7.6
Askari/ police/ forces	38.9 (7)	61.1 (11)	18	5.5
Clerical	53.8 (7)	46.2 (6)	13	3.9
Unskilled :Manual	66.7 (10)	33.3 (5)	15	4.5
lMiddle ;Administ-ration	70.0 (7)	30.0 (13)	10	3.0
Technical	33.3 (1)	66.7 (2)	3	0.9
jManagerial		100.0 (3)	3	0.9
Skilled or semi-skilled manual	43.2 (19)	56.8 (25) • 1	44	13.3
Driver	71.4 (10)	28.6 (4)	14	4.2
Profes-sional	45, (9)	55.0 (11)	20	6.1
	Domestic	42.9 (3)	57.1 (4)	7	2.1
(Informal jj Service	60.0 (3)	40.0 (2)	5	1.5
jTotal	(169)	(161)	330	100

The   table   above   shows   that,   of   the   330   women

interviewed 153 (46.4%) had husbands who were farmers and

only 79 (51.6%) were contracepting. Of the 25 women whose

nusbands were small business men 14 (56%) were current users, compared to 18 (5.5%) women whose husbands were *askaris,* yet only 7 (38.9%) were current users. 13 (3.9%) women had husbands who were clerks and only 7 (53.8%) were using a method of contraception. For women whose husbands did unskilled manual work current use was 66.7% (10) out of 15 respondents. In this category use was moderately high. Current use was lowest, 33.3% among women whose husbands had technical jobs and 38.9% among those whose husbands were *askari/*police. The under sampled occupations, such as technical (3), managerial (3), domestic (7), and informal service (5) can not be decisively inferred from to show their relation with current use.

Contraceptive use was highest 71.4%, among women whose husbands were drivers, 70% among middle administrators, 66.7% among unskilled manual. Thus there is no significant relationship between current use and husband's occupation in Ena. Current use may therefore be influenced by other factors such as access to family planning services.

4.2.8   CURRENT USE OF CONTRACEPTIVES BY NUMBER   OF

SURVIVING CHILDREN

Table 4.8:   Percentage Distribution of Current Users and
Non-users by the Number of Surviving Children

Number of Surviving Children	% Users	% Non-users	Number of Cases	% Cases
1	19.0 (4)	81.0 (17)	21	6.2
2	51.6 (33)	48.4 (31)	64	18.9
3	52.3 (46)	47.7 (42)	88	26.0
4	57.3 (51)	42.7 (38)	89	26.3
5	53.2 (25)	46.8 (22)	47	13.9
6	42.9 (9)	57.1 (12)	21	6.2
7	50.0 (3)	50.0 (3)	6	1.8
8	50.0 (3)	50.0 (3)	2	0.6
Total	(172)	(166)	338	100.0

Chi-square   D.F   Significance
10.70   7   0.1519

Table 4.8 shows that there were 172 current users of
which 4 (19.0%) had one (1) surviving child, 33 (51.6%) had
2, 46 (52.3%) had 3, 51 (57.3%) had 4, 25 (53.2%) had 5, 9
(42.9%) had 6, 3 (50.0%) had 7 and 3 (50.0%) had 8,
surviving   children.   This   indicates   that   current
contraceptive use increases, with increase in the number of
surviving children. However, at parity 5 current use starts
to decline. This may be because women with parity 5 and
above are older and less educated.

A chi-square value of 10.7 with a probability of <
0.15, with significance level of 85% further reinforces the

above fact that there is a strong positive relationship between current use and number of surviving children.

From the literature review, similar findings were reported by R.S. Monteith et al (1987) in Paraguay, where contraceptive use was relatively low among married women with no living children, and increased rapidly after women had had their first and second child. It was only after the fifth living child that limiting family size became the motive for practising contraception. In Nigeria, Oyeka (1981) reported that the proportion of women who ever used modern contraceptives increased as the number of living children to 34.4% among women with 3 living children and dropped to 21.4% for those with 4 or more living children.

4.2.9   CURRENT USE OF CONTRACEPTIVES BY TOTAL METHODS

KNOWN

Table 4.9:   Percentage Distribution of Current Users and
Non-users by Total Methods Known

Total Methods Known	% Users	% Non-users	Number of Cases	% Cases
0	–	100.0 (6)	6	1.8
1	35.3% (6)	64.7 (11)	17	5.0
2	48.1 (25)	51.9 (27)	52	15.4
3	52.9 (74)	47.1 (66)	140	41.4
4	49.4 (39)	50.6 (40)	79	23.4
5	67.6 (23)	32.4 (11)	34	10.1
6	57.1 (4)	42.9 (3)	7	2.1
7	50.0 (1)	50.0 (1)	2	0.6
8		100.0 (1)	1	0.3
Total	50.9 (176)	49.1 (166)	338	100.0

Table 4.9 shows that of the 338 respondents, 1.8% (6)
did not know any method and were all non-users.   5.0% (17)
knew one method and only 35.3% (6) were using a method. Of
the 15.4% (52) who knew two contraceptive methods 48.1% (25)
were current users, compared to 41.4% (140) who knew 3
methods and 52.9% (74) using a method.   23.4% (79) knew a
total of 4 methods with only 49.4% (39) currently
contracepting. 10.1% (34) women, knew 5 methods of family
planning with only 67.6% (23) practising. On the other hand
2.1% (7) respondents knew 6 methods and 57.1% (4) were
current users.

Generally very many respondents 98.2% (332) knew at

least one method of contraception yet contraceptive use was
50.9% (172). There were big differences between the number
of respondents who knew a method and the number who were
current users. Thus there is no association between the
number of methods of family planning known (knowledge) and
contraceptive use.

4.2.10   CURRENT USE OF CONTRACEPTIVES BY DISCUSSION WITH
          HUSBAND ON FAMILY PLANNING (FP)

Table 4.10:   Percentage Distribution of Current Users and
               Non-users by Discussion   with Husband on
               Family Planning (FPHUS)

FPHUS	% Users	% Non-users	Number of Cases	% Number of Cases
Yes	59.6 (156)	40.5 (106)	262	77.5
No	21.1 (16)	78.9 (60)	76	22.5
Total	50.9 (172)	49.1 (166)	338	100.0

Chi-square	D.F.	Significance
33.39	1	0.000

Table 4.10   above   shows   that of the   338 women
respondents, 262 (77.5%) had discussed family planning with
their husbands, yet only 156 (59.5%) were users. 76 (22.5%)
women had not discussed with their husbands and only 16
(21.1%) were users.   From this we can, conclude that
husbands discussion on family planning enhances use.

A chi-square value of 33.39 and probability < 0.000 at
significance level 100% also indicates that there is a

strong positive relationship between, contraceptive use and husband's discussion on family planning.

In the literature review, similar findings were reported by Da Vanzo et al (1987) in Peninsular Malaysia. In Peninsular Malaysia the decision to adopt artificial contraception is a joint affair, and the husband's opinion is dominant.

4.2.11   CURRENT USE OF CONTRACEPTIVES BY HUSBAND APPROVAL

OF FAMILY PLANNING

Table 4.11:   Percentage Distribution of Current Users and Non-users by Husband's Approval of Family Planning (Happy)

jHAPPY	% Users	% Non-users	Number of cases	% Number of Cases
Yes	62.5 (150)	37.5 (90)	240	71.0
i No	22.4 (22)	77.6 (76)	98	29.0
Total	50.9 (172)	49.1 (166)	339	100.0

Chi- square   D.F.   Significance
43.07   **1**   **0.000**

Table 4.11 shows that husbands of 240 (71.0%) respondents approved of family planning but only 150 (62.5%) were current users. Of the 98 (29.0%) of respondents whose husbands did not approve of family planning 22.4% (22) were current users. From this therefore, it can be concluded that women whose husbands approve of family planning are more likely to be users than those whose husbands disapprove. However, husbands approval does not guarantee

100% contraceptive use, because there were some respondents 90 (37.5%) whose husbands approved yet were not contracepting.

A chi-square value of 43.07 and a probability < 0.00 at significance level 100% indicates a strong positive relative relationship between contraceptive use and husband's approval of family planning.

Thomas Dow et al (1983) reported similar findings in rural Kenya where husband's approval of family planning was found to be related to wife's perception of her husband's approval attitude towards it.

4.2.12   CONTRACEPTIVE USE BY THE SOURCE OF INFORMATION
          ABOUT MODERN METHOD INDICATOR (MSource)

Table 4.12   Percentage Distribution of Current Users and
                 Non-users by the Source of Information about
                 Modern Method Indicator (MSource)

MSource	% Users	% Non-users	Number of Cases	% Number of Cases
Health Worker	72.6 (127)	27.4 (48)	175	79.5
Friend or relative	67.6 (25)	32.4 (12)	37	16.8
Radio	100.0 (5)	-	5	2.3
Literature	100.0 (1)	-	1	0.5
Church	100.0 (1)	-	1	0.5
School	100.0 (1)	-	1	0.5
Total				

Table 4.12 shows that of the 220 respondents, 175 (79.5%) obtained information from health workers and only

127 (72.6%) were currently using a method of contraception. There were 37 respondents who obtained information about modern methods from relatives and friends yet only 25 (67.6%) were current users. Very few, respondents received information from radio (5), church (1), literature (1) and school (1). Those who obtained information from these sources were all users. However, respondents who obtained information from these sources are under-represented. Thus source of information about modern methods can not be convincingly concluded to influence contraceptive use, although information about family planning and adoption are predominantly the result of fact to face passing of information by health workers.

4.1.13   CURRENT CONTRACEPTIVE USE BY SOURCE OF SUPPLY FOR

    MODERN METHOD INDICATOR (Msupp)

Table 4.13   Percentage Distribution of Current Users and
              Non-users by the Source of Supply for Modern
              Method Indicator (Msupp)

jMsupp	% Users	% Non-users	Number of Cases	% Cases
Ena Dispensary	85.7 (54)	14.3 (9)	63	28.9
i Embu [Hospital	64.5 (20)	35.5 (11)	31	14.2
Nembure H.C.	66.0 (31)	34.0 (16)	47	21.6
Runyenjes \ H.C.	76.0 (38)	24.0 (12)	50	22.9
1 Private Clinic	80.0 (4)	20.0 (1)	5	2.3
Karingari | H.C.	100.0 (1)	-	1	0.5
Outside j Embu	50.0 (2)	75.0 (3)	4	1.8
.Karurumo i R.H.C.	25.0 (1)	50.0 (2)	4	1.8
i Other '.source	61.5 (8)	38.5 (5)	13	60.0
| Total	(159)	(59)	218	100.0

The above table shows that of the 218 respondents 63
(28.9%) obtained supply from Ena dispensary but only 54
(85.7%) were current users.   The 14.3% who were currently
non-users indicates the drop out rate. On the other hand 31
(14.2%) respondents obtained their supply   from Embu
hospital, 64.5% (20) were current users and 35.5% had
dropped out. 47 (21.6%) obtained supply from Nembure health

centre, 31 (66.0%) were contracepting and 16 (34%) had dropped out. There were 50 (22.9%) respondents who obtained supply from Runyenjes health centre, 38 (76%) were currently using a method but 12 (24.0%) were not current users, thus drop out rate was 24%.

Of the 5 (2.3%) respondents who obtained supply from private clinics, 4 (80%) were currently using a method. Ena dispensary, Runyenjes and Nembure health centres are the nearest sources of supply to the area under study, Ena. These health centres had the largest number of respondents who obtained their supply from there, and highest percentage current users. Drop out rate, which is indicated by the percentage of non-users was also lowest in those health centres. Ena dispensary is the closest to the study area, had the highest, 85.7% current users and lowest 14.3% drop out rate.

From the above it can be concluded that the closer the source of supply for family planning the higher the adoption and continuation rate, and the lower the drop out rate. Therefore women who live close to source of supply are more likely to be users than those who live far away. However, sources such as Karingari health centre, was under-represented and could not give a clear-cut distinction between current users and current non-users.

Thomas Dow et al (1983) reported similar findings in rural Kenya. As noted in the literature review, he pointed

out that women (31.7%) who were near a family planning clinic were more likely to have visited it than those who lacked access (18.2%).

4.3 SUMMARY

The objective of the study was to examine the demographic, socio-economic, socio-cultural and accessibility and availability factors which determine contraceptive use and provide recommendations for policy makers.

In summary, marital status, husband's occupation, both wife's and husband's education have very little association with contraceptive use. Knowledge, in general about modern methods does not have a relationship with contraceptive use. The source of information about modern methods has no relationship with contraceptive use, although most women who were users obtained the information from health workers.

Wife's age, ethnicity and religion have some significant relationship with contraceptive use. On the other hand, there is a strong association between contraceptive use, and source of supply for modern methods. The further a woman lives from source of supply, the least likely she is to be a user.

Finally there is a positive strong relationship between the number of surviving children, husband's discussion on family planning with wife; husband's approval of and

attitude on family planning and contraceptive

are key factors determining current use.

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

Ena area is unusual, if not unique in rural Kenya regarding family planning. Contraceptive prevalence has risen to a level rarely found in rural Africa. The significant family planning situation in Ena, is that substantial change has occurred in the country, although some parts have been highly resistant to such change. Under conditions where policies and programmes have been implemented to encourage family planning adoption, contraceptive use is expected to be high. This is not the case in most places, because of low demand for family planning services, economic, cultural and social forces maintaining pressure to have large families.

However, this is not the case in Ena. The high contraceptive use in Ena, has been caused by certain demographic, socio-cultural and accessibility and availability factors.

a. Current use was found to increase with increase in number of surviving children. Higher parity women were more likely to be current users than low parity women. With improved health personnel, child survival is high and use of contraceptive only arise as a result of economic pressure in terms of bringing up of children.

Women who discussed family planning with their husbands formed the bulk of users. At the same time women whose husbands approved of family planning were most likely to be users. Most women adopt family planning as long as they have discussed with their husbands and they approve of it. Generally most husbands do not believe in practising contraception. One reason for this negative fatalistic attitude is that family planning services in Kenya have been directed to women only.

Source of supply for modern methods influenced current use. Women close to source of supply of family planning services were more likely to be users.

Wife's age had an association with current use to a small extent. Older women are more likely to be users than younger women, although current use declines at older ages. This decline could be attributed to the fact that older women are less educated and hence resistant to change.

Ethnicity had some influence on contraceptive use. Women from the Embu, Kikuyu and Kamba ethnic groups were more likely to use contraceptives than those from Meru ethnic group.

Protestant women were more likely to be contracepting than catholic women. More protestant than catholic women were currently using a method.

5.2 RECOMMENDATIONS

The factors which have contributed to high contraceptive prevalence in Ena, can be used for instructive setting in other areas to raise the level of contraceptive use.

a. Since contraceptive use increases with the number of surviving children, public health interventions should not be disassociated from societal transformation. They should be induced from and implemented with parental understanding or involvement. This will enhance the perception of changes in mortality conditions and therefore considerably stimulate the emergence of innovative attitudes towards child bearing. This is very important for policy makers. On the other hand further research should be done to seek ways and means of reducing the economic need and motivation for having many children especially sons. Possible approaches would include better education, the provision of improved family planning and child health services.

b. Community Based Distributors (CBD) systems have largely been devised to increase the accessibility of services. Depending on worker/client case load the amount of transactions may be very limited in the clinic setting, irrational and unorganized patient flow and poor interpersonal relations. The CBD programmes must

therefore ensure that there is continuity in use and relationship between users and field officers is good. Another possibility may be out reach offered by home visits for purposes of follow up of current clients, recruitment of former clients who drop out, and attraction of the less highly motivated. For this to happen there must be good client records. The problem of access may be affected by organized family planning programmes designed to provide contraceptives at minimal monetary costs to a larger population and increase service delivery points to reduce travel time to obtain services.

However if eligible women, are not aware of or in attentive to existing services then all increase in service volume will not lead to higher use levels. The perceived woman's access to family planning methods is frequently interfered with by lack of spouse support for family planning practice.

c. Information Education and Communication (IEC) is very important. In the absence of family planning information, women and their husbands are susceptible to rumours about the perceived dangers of contraceptives disseminated by female friends, neighbours, mothers, etc. To change husbands attitude to family planning, there should be an increase in the availability of male methods. The educational

programme should stress the need for males to have positive attitudes towards family planning. They should also be involved as participants in educational programmes. Family planning and educational programmes for both men and women, decision makers need to be promoted. Policy makers should focus on younger men less than 30 years regarding family planning because their attitudes are less rigid.

Population education courses should be introduced into both male and female schools and emphasis put on the health benefits of birth spacing.

The family planning information should reach the appropriate target groups such as the less educated, young couples so that they can limit their births early enough, and the Roman catholic couples through dissemination of information on natural family planning method by the national secretariat.

Further research should be carried out to find out reasons for dissatisfaction, and non-use of service sources. Thus policies that ensure full availability of all effective means of fertility control be formulated. Such action will no doubt increase the effectiveness of a national programme.

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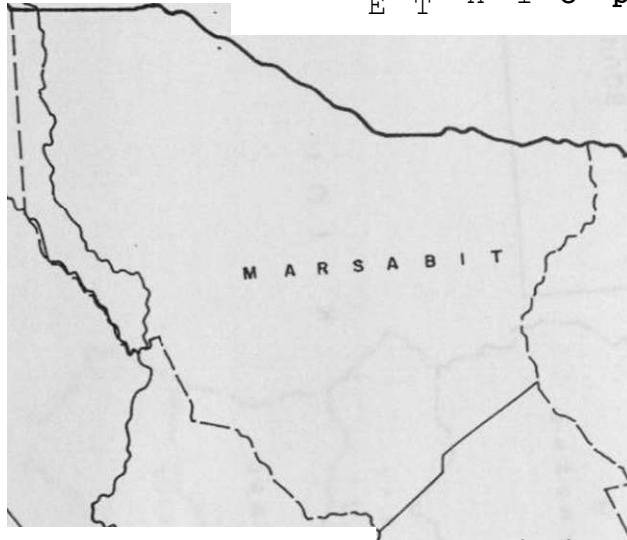   Peninsular Malaysia. Scientific reports.

70

APPENDIX

71

MAPS

38° E

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4° NJ

MAN DERA

TURKftNA

MARSABIT

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LAIKIPIA

MERU

KIRINYAGA

NYANDARUA

NYERI

NAKURU

EMBU

MURANGA

KIAMBU

NAIROBI

GARISSA

KISUMU

KERICHO

SOUTH
NYANZA KISII

NAROK

KITUI

TANA
RIVER

MACHAKOS

0°

LAMU

TANZANIA

KAJIADO

INDIAN

LEGEND

BOUNDAR]ES
International
Provincial
District

KILIFI

TAITA TAVETA   .O CEAN

MOMBASA

KWAL£

Study Area District

—   ^   r   .   n   k e n y a

MERU

N

KYENI NORTH

KAGAARI NORTH

NGANDORI NORTH

NGINDA

GATURI NORTH

KYENI SOUTH

EVURORE

KAGARI SOUTH

RUNYENJES

KIANGOMBE

GATURI SOUTH

KIRINYAGA

MBETI NORTH

SIAKAGO

MUMINJI

KITUI

MBETI SOUTH

MAVURIA

KIAMBERE

GACHOKA

BOUNDARIES

District

Division

Location

KARABA

MAKIMA

MURANGA

Study Area

MACHAKOS

5 0 5 10 15 20 KM

Source: District Development Plan of Embu, 1989

ISTRiCT - ADMINISTRATIVE UNITS

Fig. 2 : EMBU ᴰ

N
Å

t

MERU

KIRINYAGA

KITUI

V

MURANGA1

r   t   ^   r

MACHAKOS

*   O   »   10   IJS   ZO KM

Source : District Development Plon of Embu, 1989

Fig. 3 ; POPULATION DENSITY OF EMBU DISTRICT BY DIVISIONS - 1988

72

GRAPHS

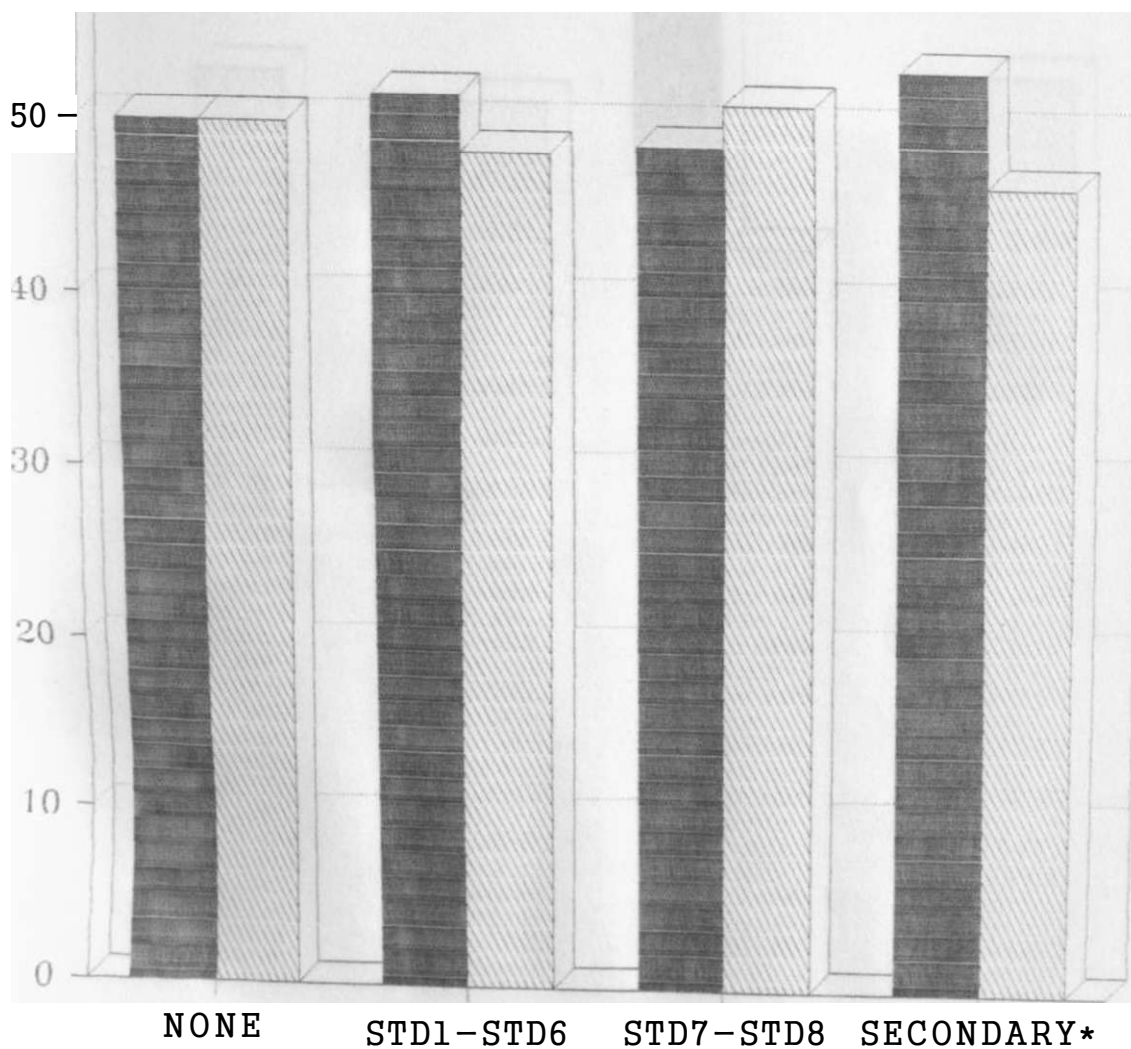# DISTRIBUTION OF CONTRACEPTIVE USE BY
MARITAL STATUS
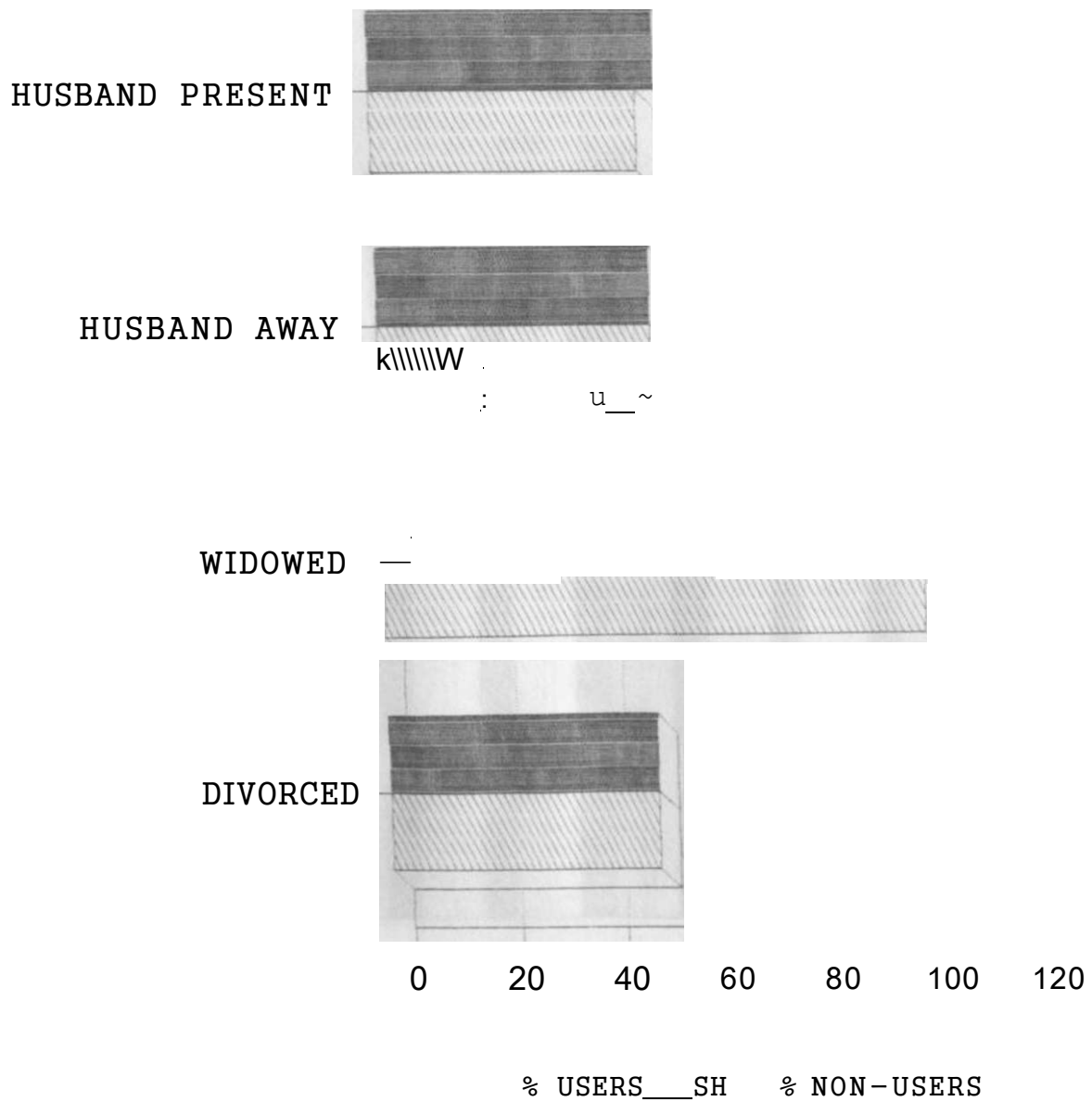
HUSBAND PRESENT

HUSBAND AWAY

k\\\\\\W

:   u__~

WIDOWED —

DIVORCED

0   20   40   60   80   100   120

% USERS___SH   % NON−USERS

DISTRIBUTION OF CONTRACEPTIVE USE BY WOMAN'S AGE

25 26 27 28 29 30 31 32 33 34
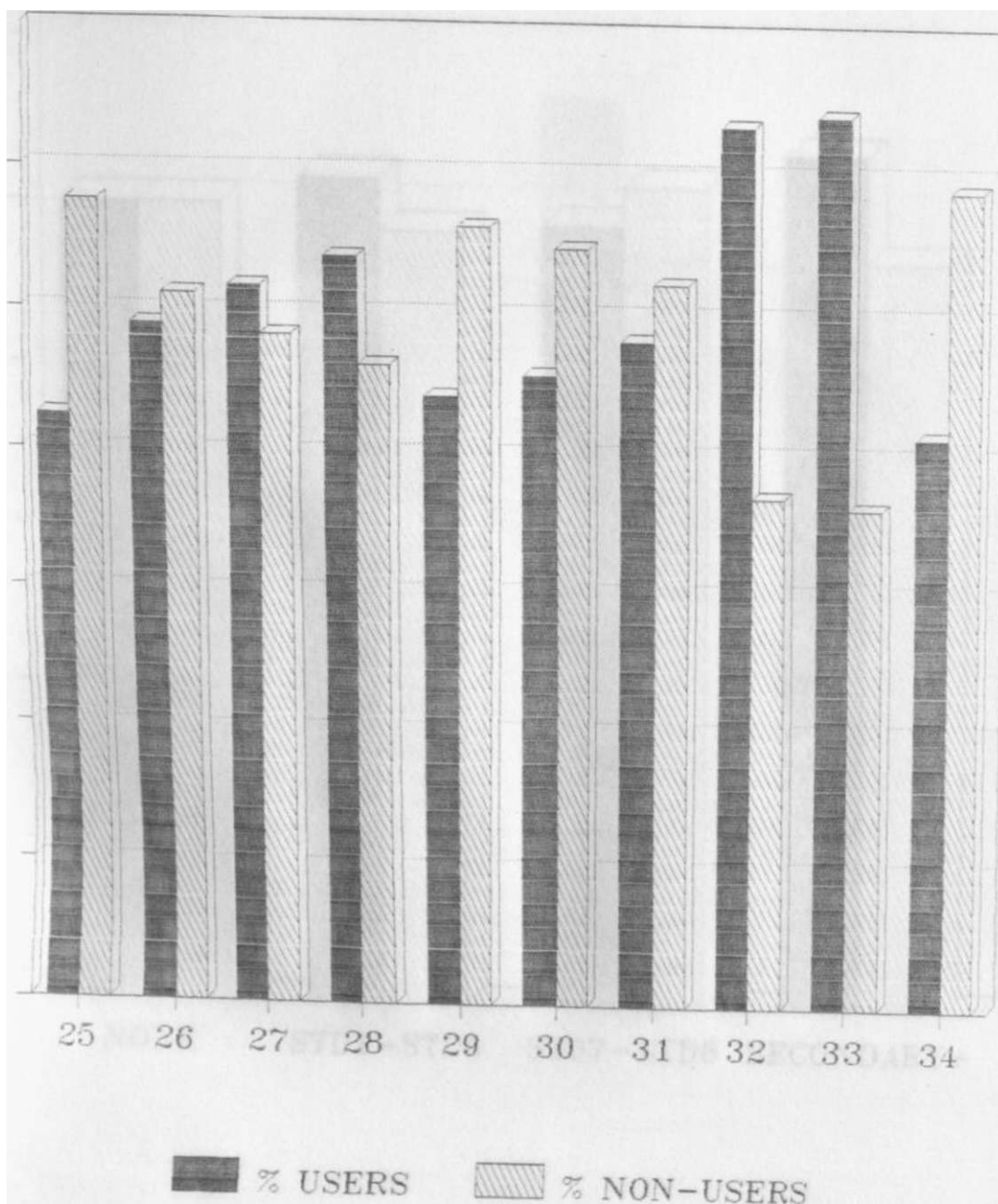
■ % USERS   ▨ % NON-USERS

% DISTRIBUTION OF CONTRACEPTIVE USE BY WOMENS EDUCATION

o %USERS   SH%NON-USERS
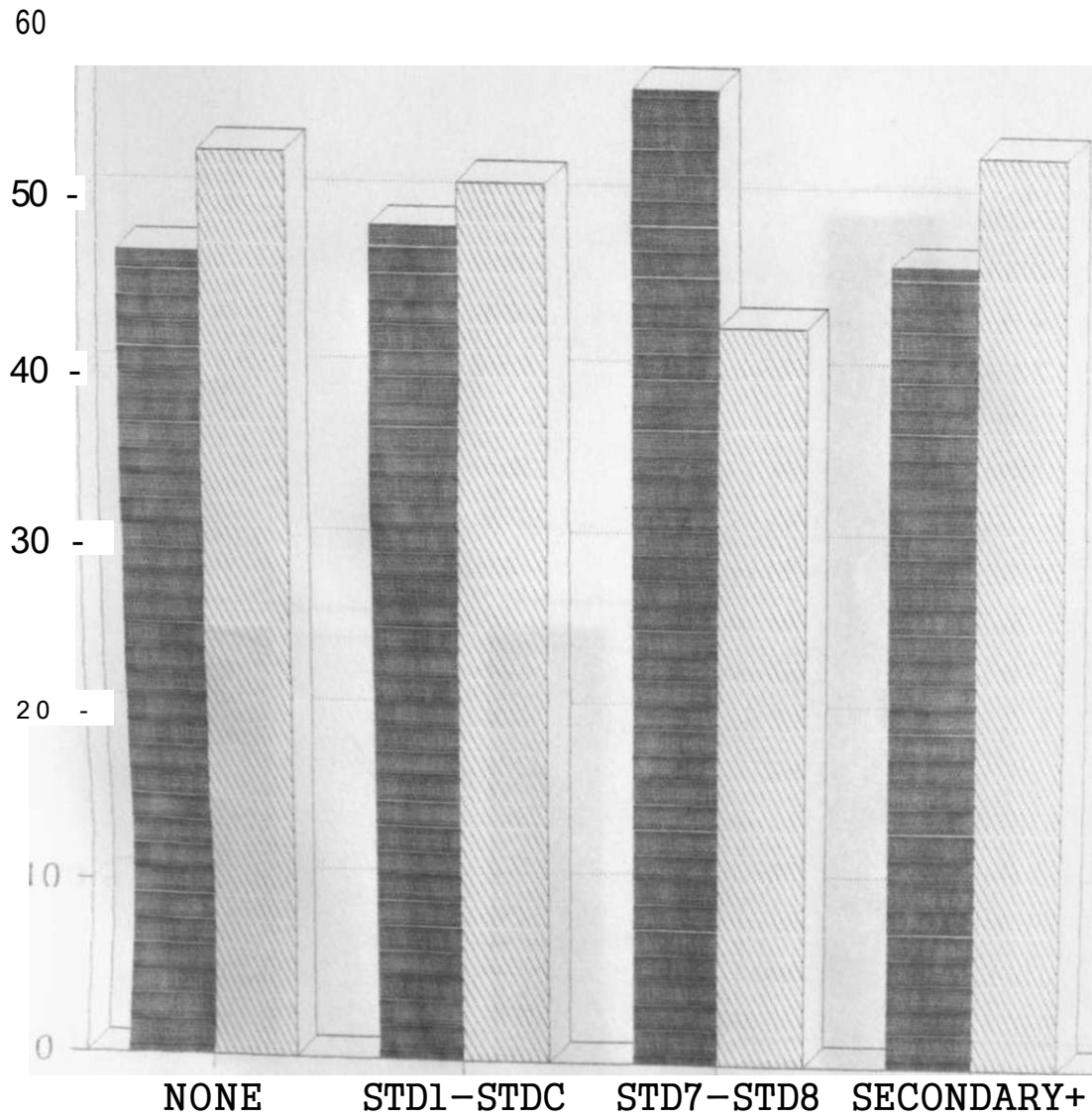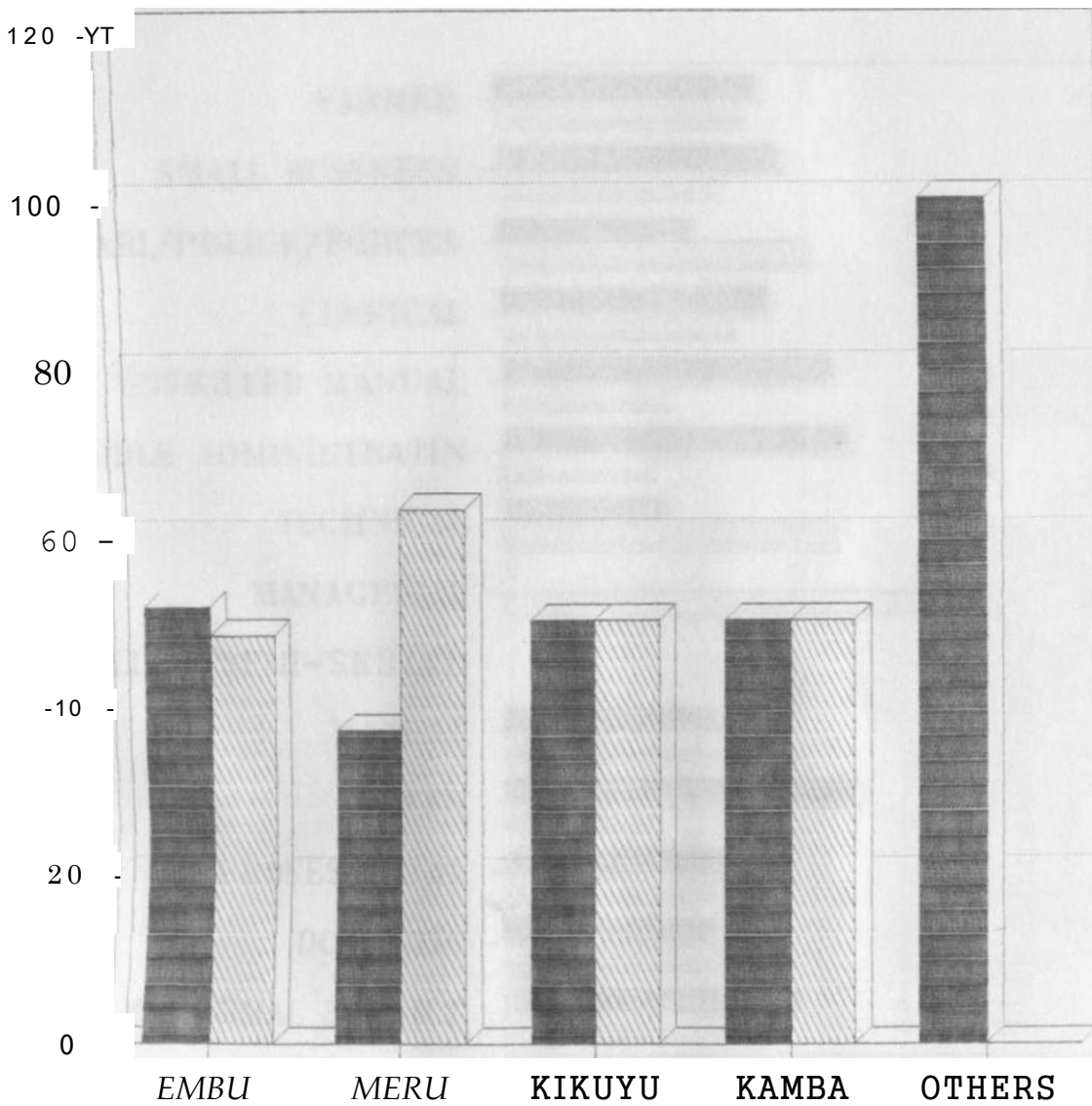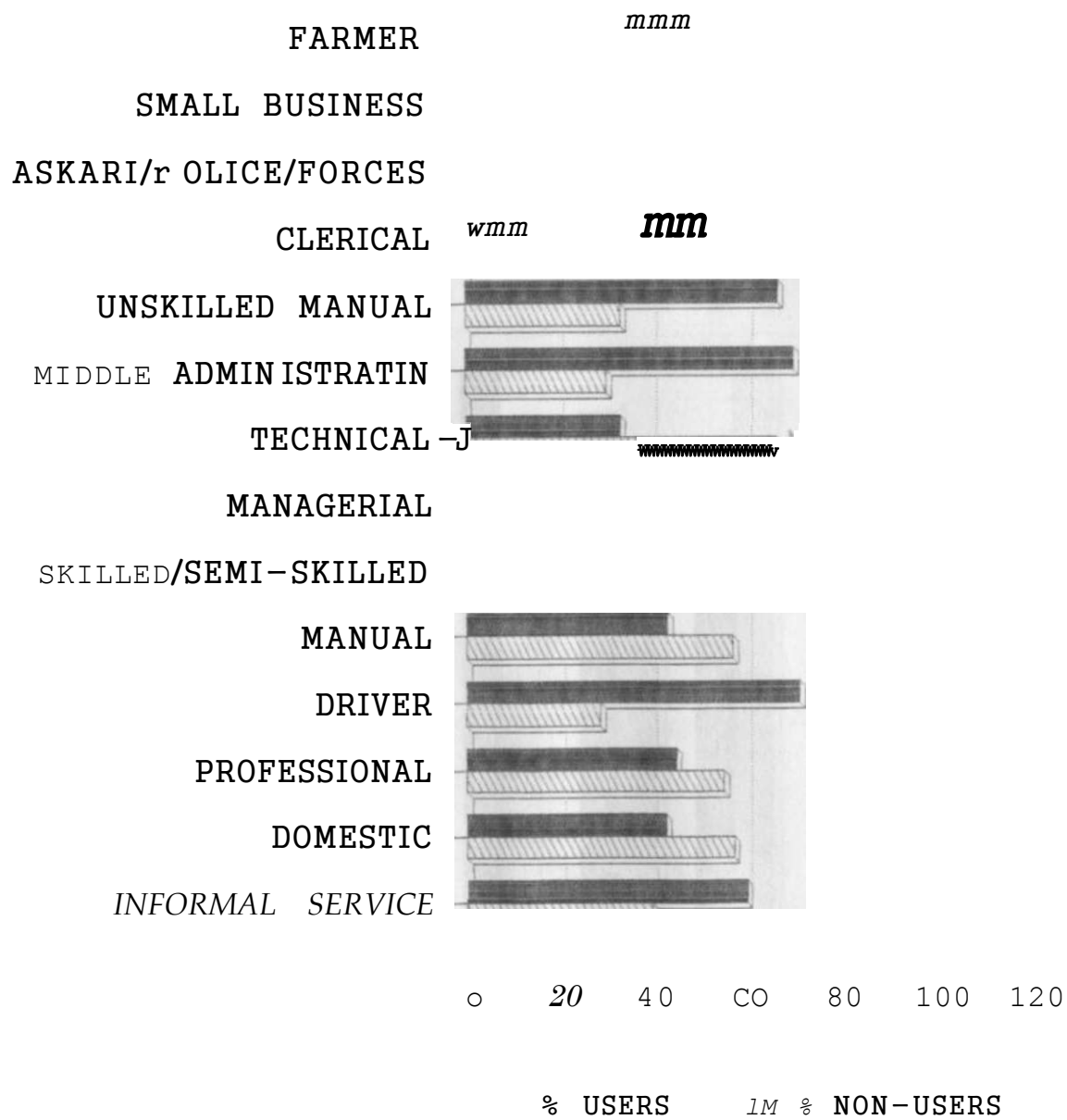
DISTRIBUTION OF CONTRACEPTIVE USE BY HUSBANDS EDUCATION

NONE	STD1−STDC	STD7−STD8	SECONDARY+

% USERS   SH%NON−USERS

% DISTRIBUTION OF CONTRACEPTIVE USE BY RELIGION

I
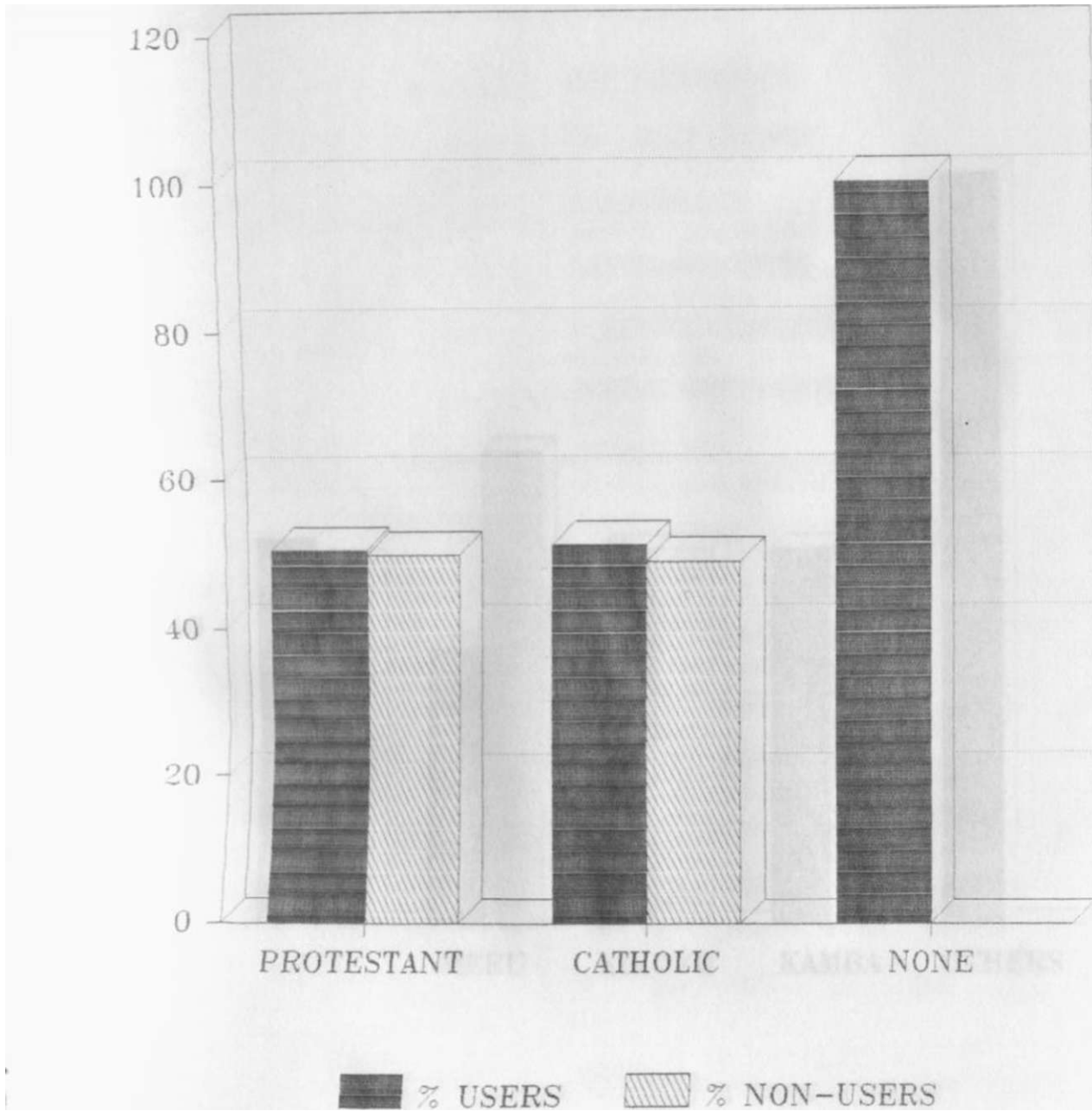
% DISTRIBUTION OF CONTRACEPTIVE USE BY ETHNICITY
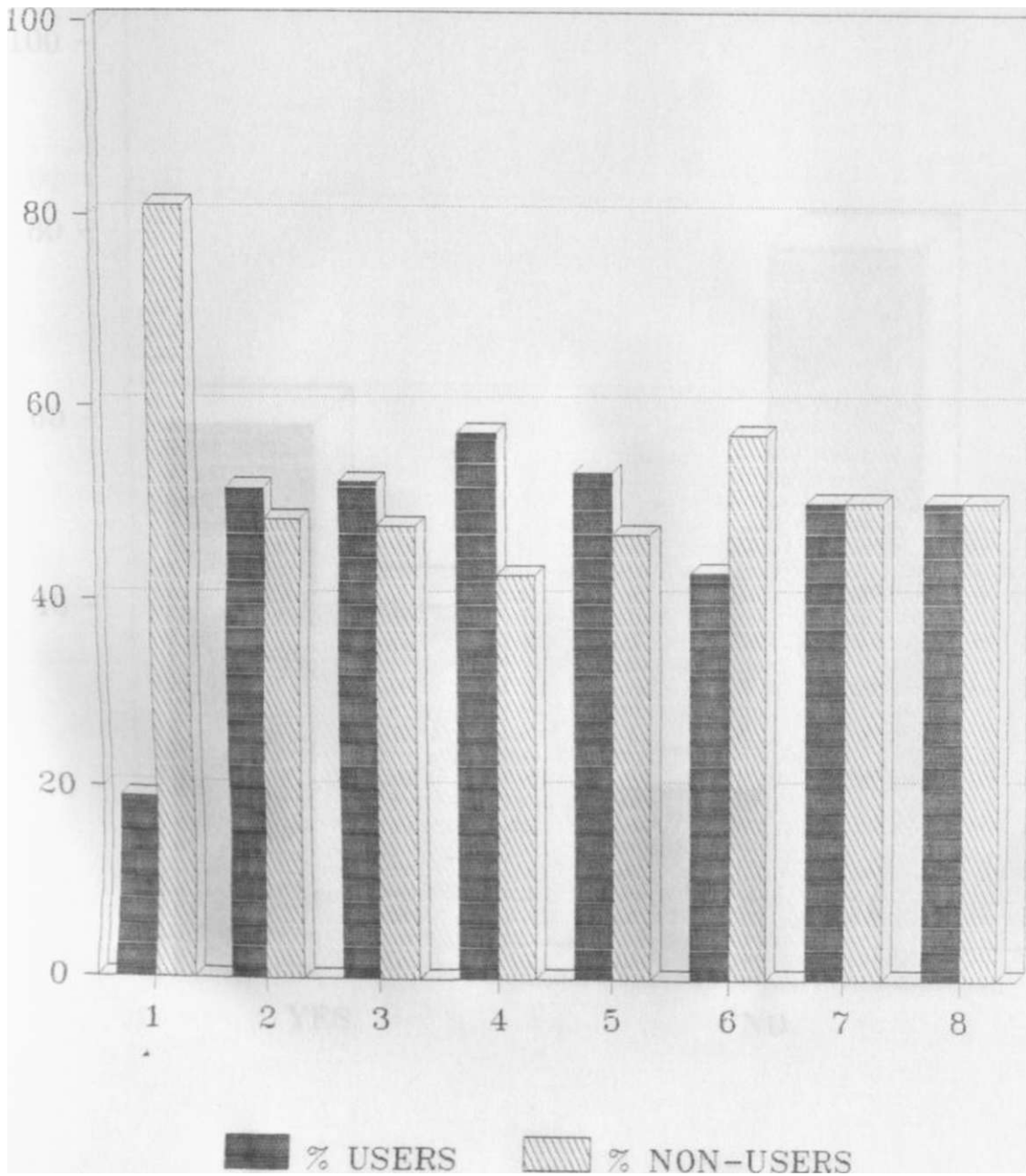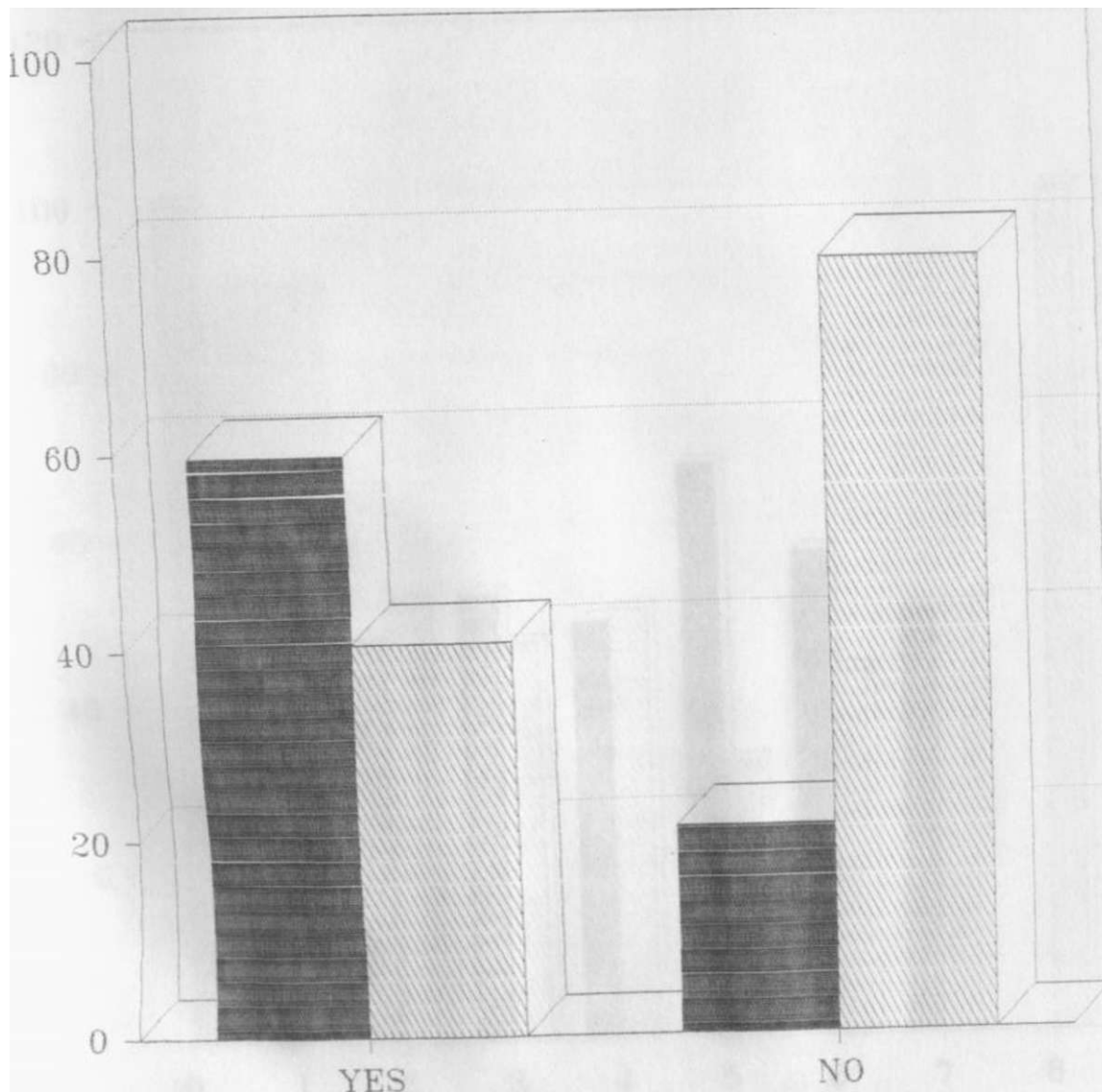

% USERS   % NON—USERS

% DISTRIBUTION OF CONTRACEPTIVE USE BY HUSBAND'S **OCCUPATION**

FARMER

SMALL BUSINESS

ASKARI/r OLICE/FORCES

CLERICAL

UNSKILLED MANUAL

MIDDLE **ADMINISTRATIN**

TECHNICAL

MANAGERIAL

SKILLED/**SEMI-SKILLED**

MANUAL

DRIVER

PROFESSIONAL

DOMESTIC

INFORMAL SERVICE

o   *20*   40   CO   80   100   120

% USERS   *1M* % NON-USERS

% DISTRIBUTION OF CONTRACEPTIVE USE BY NUMBER OF SURVIVING CHILDREN
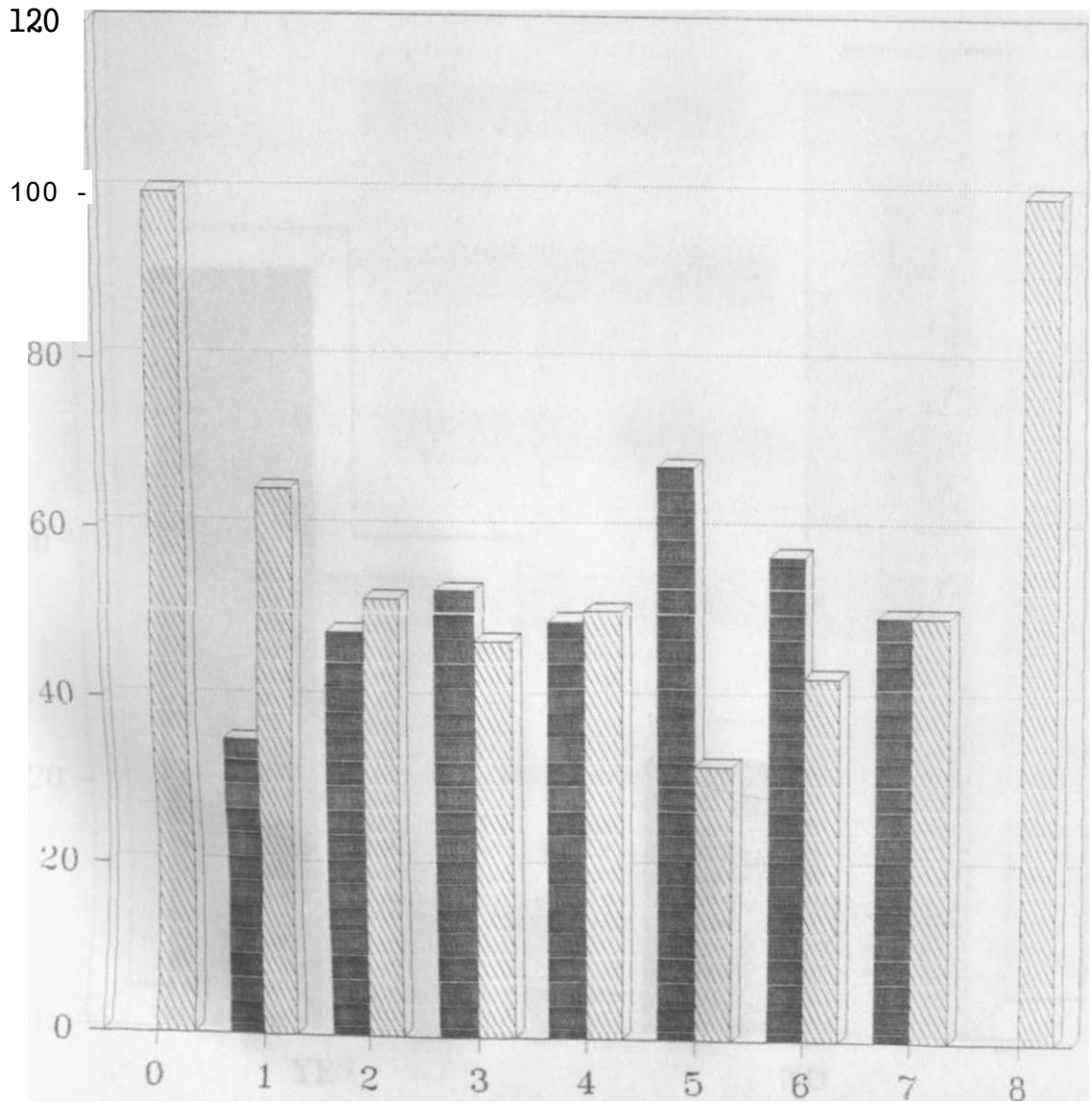

% USERS   % NON-USERS

% DISTRIBUTION OF CONTRACEPTIVE USE BY DISCUSSION WITH HUSBAND ON FP
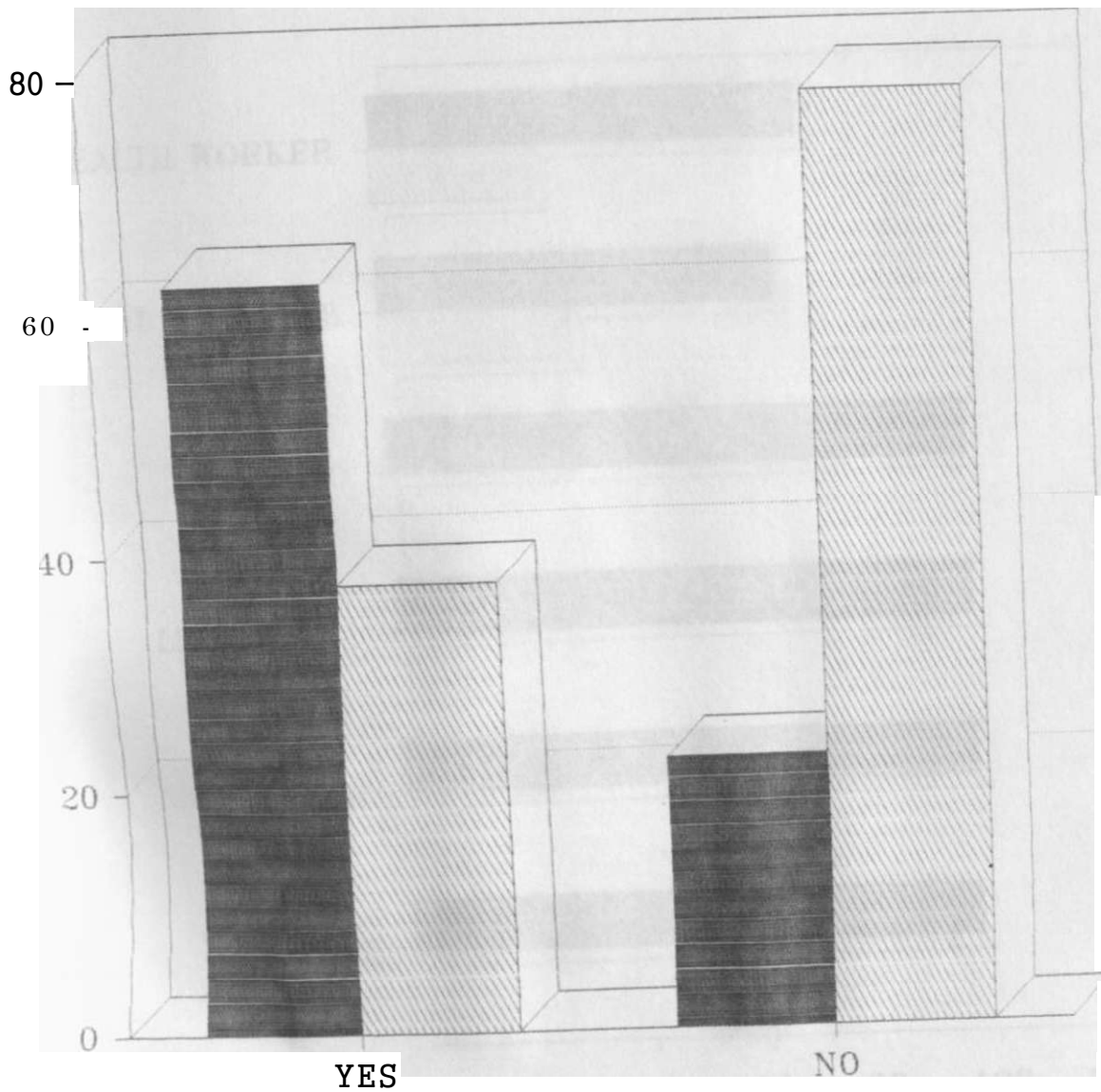

% USERS   SH % NON-USERS

^ DISTRIBUTION OF CONTRACEPTIVE USE
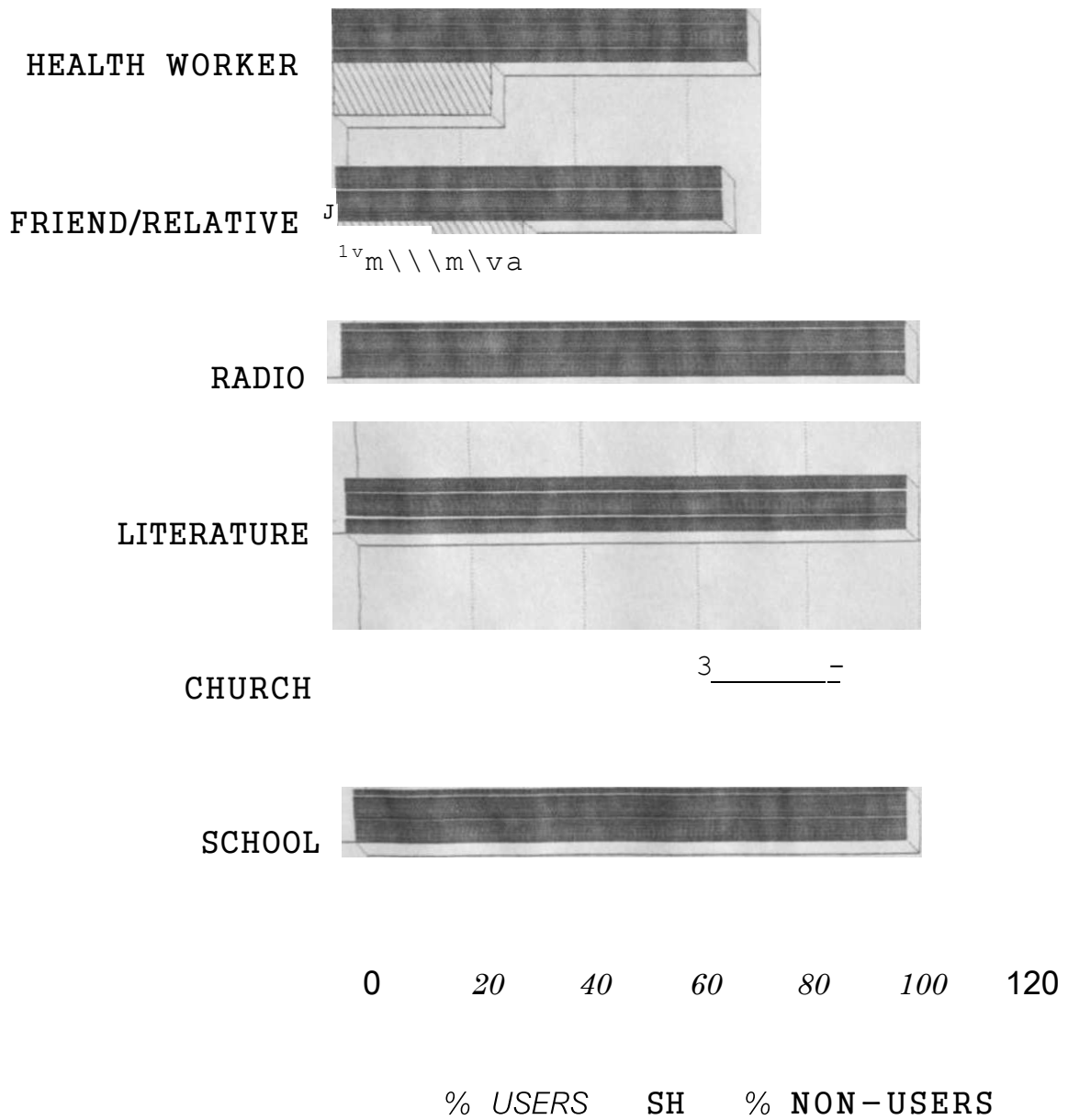TOTAL METHODS KNOWN

1 USERS   SSI % NON-USERS

DISTRIBUTION OF CONTRACEPTIVE USE BY
HUSBAND APPROVAL OF FP

% USERS   H % NON-USERS

— DISTRIBUTION OF CONTRACEPTIVE USE BY SOURCE OF INFORMATION

HEALTH WORKER

FRIEND/RELATIVE

RADIO

LITERATURE

CHURCH

SCHOOL

0   20   40   60   80   100   120

% USERS   SH   % NON-USERS

% DISTRIBUTION OF CONTRACEPTIVE USE BY SOURCE OF SUPPLY

ENA DISPENSARY

F.MBl HOSPITAL

XEMBURE H.C.

RVNYENGES K.C.

FK1YA1E L'LlMiL

KARUNGARI H.C.

OUTSIDE EMBU

KARURUMOR H.C.

UIHLK SUUKLfc

0   20   40   **60   80   100   120**