FACTORS ASSOCIATED WITH REPRODUCTIVE BEHAVIOR OF LOW INCOME MOTHERS IN KIANDUTU SLUM IN THIKA DISTRICT, KENYA.

"A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE (FAMILY AND CONSUMER SCIENCES) OF KENYATTA UNIVERSITY"

SEPTEMBER, 2007
DECLARATION

“This thesis is my original piece of work and has not been presented for a degree in any other University or any other award”.

______________________________
KAMAU JANE NJERI
H60/6274/2003

“We confirm that the work reported in this thesis was carried out by the candidate under our supervision”.

______________________________
DR. LUCY W. NGIGE
DEPARTMENT OF TEXTILES, FAMILY AND CONSUMER SCIENCES, KENYATTA UNIVERSITY

______________________________
DR. ALICE N. ONDIGI
DEPARTMENT OF TEXTILES, FAMILY AND CONSUMER SCIENCES, KENYATTA UNIVERSITY
DEDICATION

I dedicate this work to my dear husband, Kieru

and our two lovely daughters Wambui and Gathoni

for their encouragement, inspiration, concern and

support.
ACKNOWLEDGEMENT

I am most indebted to my supervisors, Dr. Lucy Ngige and Dr. Alice Ondigi for their dedication, enthusiasm, patience and close supervision of this work from its inception to the end. My gratitude to my dear husband, Kieru for encouraging me to enroll for this course and for his moral and financial support. Special thanks to my dad, Kamau, for his prayers and also my daughters, Wambui and Gathoni for their great understanding of their mother's absence from home.

My heartfelt gratitude also to Mr. Gitau, principal Kimunyu secondary school for his great understanding and my colleagues for their encouraging words and support throughout this course. Many thanks to Mr. Okaka and Jane Mugwe for the computer space, time and assistance they offered. My gratitude also to Lucy Muhia and Alice for their professionalism in typing this work.

I wish to acknowledge Kenyatta University which made it possible for me to pursue this course and to all my respondents in Kiandutu slum who provided the data I needed to complete this course. Finally I wish to acknowledge my sisters (Mary and Irene), friends and any other person who came to my assistance and did what they could in their various capacities.

To all of you thank you very much and may God richly bless you.

Thanks to God Almighty for His sufficient grace, strength and sustenance throughout the course of study.
ABSTRACT
The low income mothers are characterized by poverty and yet they seem not to have the desire to limit the number of children they have, hence there was need for a research concerning aspects of their reproductive behavior where crucial gaps still seem to exist. Thus the purpose of this study was to investigate factors associated with reproductive behavior of low income mothers in Kiandutu slum in Thika District, Kenya. The study was based on the safe motherhood theoretical framework, which outlines the linkages between the contextual, intermediate, and proximate causes that determine the prenatal health status of pregnant mothers. A conceptual framework was used which outlined the contextual, intermediate and proximate causes that determine the reproductive behavior of low income mothers. The study employed a descriptive survey research design and used a sample size of 120 respondents (mothers) to provide the required data through the use of interview schedule guides. The data was analyzed using frequency tables, percentages, means, cross-tabulation chi-square, and one-way Analysis of Variance (ANOVA). Qualitative data involved coding of the information and then identifying variables that would depict general concepts and themes. The results of the study revealed that some of the mother's demographic characteristics, that is, the level of education, occupation, income levels and religion affiliation had an influence on the reproductive behavior of low income mothers. For instance majority of respondents with secondary level of education (73.3%) had a lower reproductive behavior than those with primary
education (66.7%). An examination of knowledge of contraceptives revealed a high index of 95% and was found to have a significant relationship with marital status and income levels. But however statistical analysis revealed that knowledge of contraceptives had no influence on reproductive behavior of low income mothers. Out of the 95% who knew about contraceptives 77.5% of them were found to use them. Chi square test results revealed that use of contraceptives had a significant relationship with age of the respondent, income levels and occupation. Further analysis revealed that use of contraceptives had no influence on reproductive behavior of low income mothers. On attitude towards contraceptives; the findings showed that it had a significant relationship with all the respondents’ demographic factors under study. Further analysis revealed that attitude towards contraceptives was found to influence reproductive behavior of low income mothers. Mother’s decision making patterns on issues related to reproduction had no influence on reproductive behavior of low income mothers. The study also revealed that although the women were knowledgeable on issues dealing with contraceptives, this was greatly undermined by the fact that men made decisions on matters dealing with when to have sexual intercourse and the number of children to have. Lastly the researcher made several recommendations all geared towards enhancing the reproductive behavior of low income mothers. It is hoped that this information will enable the low income mothers to delay age at first birth, age at first marriage and also space and limit births so that they can bring up well-developed children.
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CHAPTER ONE
INTRODUCTION

1.0 BACKGROUND OF THE STUDY

Human fertility is a complex process responsible for the maintenance of human society (Kenya, 2003). African people have long valued fertility and therefore many couples have large families. In the past, many African families measured their riches by the number of healthy children they had (Centers for Disease Control and Prevention, 1999). The Sub-Saharan Africa has the lowest rate of contraceptive use in the world, making it to the highest unmet need for contraceptives (CDC, 1999). This is contributed by difficulties in getting contraceptives supplies, lack of adequate family planning clinics, low social economic levels and the high value many cultures place on large family size (CDC, 1999).

Recent data shows that the level of fertility in Kenya has been a major factor underlying the high rate of population growth (Kenya, 2003). This could have been partly because of the cultural forms and norms that support high fertility (Bolaji & Poukouta, 1997). Such norms are said to be relatively impervious to social, economic and political changes and always cause transitory increases in fertility (Ascadi T.F., Ascadi G. J. & Bulatao R. A., 1990). Due to high population, poverty in Kenya has been on the rise and increasing at an alarming rate. In 1973, 3.1 million people were classified as poor but in 2000, there were 15 million poor people (Poverty Reduction Strategy Paper, 2001-2004). The poor are defined as those members of the society who are unable to
afford minimum basic needs that are food, shelter, clothing and medical care. They are clustered in certain social economic categories such as unskilled and semiskilled laborers, female headed households, agricultural laborers, physically handicapped, HIV/AIDS orphans and street children (Poverty Reduction Strategy Paper, 2001-2004). Over half of Kenya’s population (52.3%), live below the absolute poverty line which is earnings below Ksh. 2648 in the urban areas and Ksh.1239 in the rural areas (Central Bureau of Statistics, 1999).

Fertility preferences are closely related to the number of living children a woman has and women always show a greater interest in controlling the pace of child bearing once they have a child (Kenya, 2003). Most recent researchers show that there is a decline in fertility rate in Kenya from 4.7 births in 1998 to 3.3 births in 2004. This has been contributed by improved use of contraceptives and also improved education status of women (Thumbi, 2004). Therefore with planned pregnancies, the children brought forth will be able to access the basic needs. Hence an analysis of reproductive behavior among low income mothers could provide an insight into women’s attitude towards future child bearing and demand for contraceptives.

1.1 PROBLEM STATEMENT

Low income mothers are characterized by limited education and training skills, chronic low incomes, recurring health problems and they are either unemployed, underemployed or have unreliable employment which provides
low incomes. Hence they are unable to purchase good quality food thus making them to have reduced nutrients intake, therefore they are vulnerable to malnutrition. They also lack access to good medical care (Ngige, 2004). Such factors contribute to deficient health care, which may affect productivity on the job and compound the already low income by being absent from work. Children also lack access to education hence facilitating the vicious cycle of poverty from one generation to another (Ngige, 2004). Since contraceptive prevalence increases dramatically with increasing level of education (Kenya, 2003), the low income mothers with low levels of education therefore have a high non-use of contraceptives. In addition to this, contraceptives affect the health of individuals due to the side effects associated with them (Zeba, Casterline & Haque, 2001), hence this may also explain the non-use of contraceptives by the low income mothers because of the fear of these side effects and their management which may incur costs. Due to their financial constraints, they tend to have a large family size.

The last three welfare surveys have observed that poverty in Kenya is persistent and on the increase as in 1992 poverty levels were 46.4%, then declined to 43.5% in 1994 and then increased to 51% in 2000 (Government of Kenya, 2000). Despite the fact that poverty trends are still on the rise, there has been no desire among Kenyan low income mothers to limit the number of children they have even when the urban and rural economic prospects seems so grave. Hence there was a need for more research concerning aspects of reproductive behavior of low income mothers where crucial gaps still seem to
exist. Therefore the purpose of this study was to investigate factors associated with reproductive behavior of low income mothers in Kiandutu slum of Thika District.

1.2 PURPOSE OF THE STUDY

The purpose of the study was to investigate factors such as mother's demographic characteristics, knowledge of contraceptives, use of contraceptives, attitude towards contraceptives and mother's decision making patterns concerning issues related to reproduction and their relationship to reproductive behavior of low income mothers. It also sought to relate mother's demographic characteristics to knowledge of contraceptives, use of contraceptives, attitude towards contraceptives and mother's decision making patterns.

1.3 OBJECTIVES OF THE STUDY

The study sought to address the following objectives:

1. To investigate the influence of mother's demographic characteristics on reproductive behavior.

2. To analyze the influence of contraceptive knowledge and awareness on reproductive behavior.

3. To investigate the influence of contraceptive use on reproductive behavior.

4. To establish the influence of mother's attitude towards contraceptives on reproductive behavior.
To investigate the relationship between mother’s decision making patterns and reproductive behavior.

1.4 HYPOTHESES

1. There was no relationship between mother’s demographic characteristics and reproductive behavior.

2. There was no relationship between contraceptive knowledge, use and attitude and reproductive behavior.

1.5.1 THEORETICAL FRAMEWORK

The study was based on safe motherhood theoretical framework that outlines the linkages between the contextual, intermediate and proximate causes that determine the prenatal health status of the pregnant mothers. These determinants are outlined in Figure 1.1

![Figure 1.1: Safe Motherhood Theoretical Framework.](source)

*Source: Adopted and modified from McCarthy and Main, in Ondigi (2003)*
The framework focuses on the relationships that exist among the contextual, intermediate and proximate determinants of safe motherhood. Contextual determinants are the existing factors already acquired, which influences directly or indirectly the prenatal health status of pregnant mothers. Intermediate determinants are the practiced, supported or provided to enhance the pregnant mother’s health. Proximate determinants are the outputs which are characterized by proper management of pregnancy (Ondigi, 2003).

1.5.2 CONCEPTUAL FRAMEWORK

Based on the safe motherhood theoretical framework, an operational model was conceptualized for this study (Figure: 1.2).

Figure 1.2: Hypothesized relationship between mothers’ variables and reproductive behavior

Out of this conceptual framework, the contextual determinants which are existing factors already acquired such as age, marital status, mother's level of
education, occupation, mother’s income and religion and cultural beliefs and practices could have an influence directly or indirectly on the reproductive behavior of the low income mothers.

Likewise the intermediate determinants which are practiced supported or provided like, knowledge of contraceptives, use of contraceptives, attitude towards contraceptives and mother’s decision making patterns on issues related to reproduction could have an influence on the reproductive behavior of low income mothers directly or indirectly. Proximate determinants were characterized by proper management of fertility which directly influenced the reproductive behavior of low income mothers. This theoretical framework was chosen because it outlines the linkages between contextual, intermediate and proximate factors that could determine the reproductive behavior of low income mothers. For example education levels of the low income mothers could influence use of contraceptives which in turn influences fertility levels and this may have an impact on their reproductive behavior. Also each set of factors could directly influence the reproductive behavior of low income mothers.

1.6 SIGNIFICANCE OF THE STUDY

The findings from this study could be made available to non-governmental organizations like Family Planning Association of Kenya (FPAK) to provide reproductive health information and contraceptive services to the low income mothers so that they are able to space and limit births. This could be done
through the use of local authority by holding chief 'barazaas'. The findings could also be made available to religious leaders within the slum so as to address the issue of reproduction and put more emphasis on the plight of children in their respective churches or mosques.

1.7 LIMITATION OF THE STUDY

The study was confined to assessing the reproductive behavior of low income mothers living in Kiandutu slum in Thika district. The findings of this study would therefore not be generalized to other income groups within Thika district.

1.8 CONCEPTUAL DEFINITIONS

- **Low Income mothers**
  Refers to women living below the absolute poverty line, which is Ksh.2648 per month in the urban areas (CBS, 1999).

- **Reproductive behavior**
  It refers to the practice, act, way or process of procreating off-springs, in the family for its survival. In this research, reproductive behavior of low income mothers will be measured by using three indices namely:

  - The total number of children born per woman.
  - Age of the mother at first birth.
  - Age of the woman at first marriage.
• **Household**

It refers to a person or a group of people who live together in the same homestead or compound, have common housekeeping arrangements and are answerable to the same head of the house (CBS, 1999- pg.37).

• **Fertility**

It refers to the number of births a woman would have if she went through her entire reproductive period (15-49 years).
CHAPTER TWO
LITERATURE REVIEW

2.0 INTRODUCTION
The literature reviewed under various variables was presented in this section.

2.1 DEMOGRAPHIC CHARACTERISTICS AND THEIR
INFLUENCE ON REPRODUCTIVE BEHAVIOR

2.1.1 Mother’s level of education
Lack of education reduces people’s ability to find gainful employment and is associated with increased poverty as shown in 1999 population and housing census where household heads with no education reported the highest incidence of poverty in both rural (64%) and urban (66%) areas (CBS, 1999). The lowest poverty levels were reported among people with tertiary education comprising of 6.8 per cent and 14.3 per cent in rural and urban areas respectively. The greater proportion of low income mothers living in the slums may have little or no education hence subjecting them to poverty. Education confers skills, attitudes and knowledge which increases productivity of people’s labor (Ngige, 2004), better nutrition and better access to health care services (CBS, 1999). The level of education determines the type of occupation, which in turn determines the size of income hence low income mothers with low levels of education, can barely afford the basic needs.

Education also influences fertility (CBS, 1999). For instance, Ayiemba (2000) reported that extended formal education has been found as one of the main reasons for the postponement of marriage among the educated women and this
may shorten the child bearing period. Higher education attainment is also associated with the use of more effective modern contraceptive methods (Hill & Bushan, 1995) which may help to space and limit births. Reports show that contraceptive prevalence increases dramatically with increasing level of education (Kenya, 2003) and in fact clear-cut differences exist between women with little or no education and women with secondary and above level of education (Ayiemba, 2000). While little education may not have much effect on the number of children a woman bears, secondary education is normally associated with reduced fertility because it delays marriage and the age at first birth hence shortening the reproductive period. Early marriages probably due to poverty are higher in areas reporting low levels of education and this contributes to a longer reproductive period (Ayiemba, 2000) and this may influence their reproductive behavior. Therefore in this study, mother’s level of education was assessed to determine whether it had any influence on reproductive behavior of low income mothers.

2.1.2 Marital status and fertility

Most of the married women have a high contraceptive prevalence, which peaks among women in the age group of 35-39 years when the ideal family size has been attained. It is lowest for women at the age of 15-19 years (Kenya, 2003). But all in all a married woman has 80 per cent probability of getting pregnant if she uses no method of contraceptive over a month (Knox, 1979). Therefore contraceptives play a great role in spacing and limiting births for a woman who is married. Indeed recent reports show that the ideal family
size among married people has declined from 4.4 children in 1989 to 3.8 children in 1998 (Thumbi, 2004), showing a declining fertility rate among the married couples. Single women through divorce or being widowed also show a declining fertility rate (National Council of Population and Development, 2003). But on the other hand, the number of single women either by choice or through teenage pregnancies is increasing hence a number of births are occurring outside marriage (CBS, 1999). The teenage mother has little or no idea of contraceptives and usually has many children in quick succession (Ngige, 2004). Single women are more vulnerable to poverty than married women (GOK, 2000) and in their search for financial and emotional support from men, they find themselves with more children. In 1999, the fertility level for those married was almost double that for the single, that is a total fertility rate of 6.1 for the married against 3.4 for the single. Over the years, the total fertility rate has been dropping from 8.1 births per woman in the 1970s to 6.7 births in the 1980s then to 5.4 in the early 1990s, dropping remarkably to 4.7 towards late 1990s but then rose to 4.9 between 2000 and 2002. Currently the total fertility rate in the urban areas is 3.3 births which is considerably lower than the rate in the rural areas of 5.6 births (NCPD, 2003). This study therefore examined the marital status of low income mothers to determine if it had any influence on their reproductive behavior.

2.1.3 Mother’s cultural beliefs and practices

Marriage and child bearing are used to measure the socio-cultural status of an individual in many societies in Kenya (Kabaria, 2002). These socio-cultural
codes of procreation are organized into rules of conduct, which are supposed to control sexual and reproductive behavior of the society members (Ayayo, 1991). These include traditional norms, beliefs and values with a deep religious inclination and are supposed to govern reproductive behavior of people in the society. Traditionally it was a social obligation to procreate and bring forth children (Kabaria, 2002) and the more the children a family had the higher the social status. Infact in the past, many African families measured their riches by the number of healthy children they had (CDC, 1999). Socio-cultural factors are an obstacle to using a contraceptive method because of the high value many cultures place on a large family size (Zeba, et. al, 2001) hence such people are not able to space and limit children and this affects their reproductive behavior. Likewise some cultures in Kenya like the Masaai promote early marriages of girls hence prolonging their reproductive period and this implies that they may have more children. Other cultures give high prevalence to male children when allocating resources towards education leaving the girls vulnerable to poverty due to little or no education given to them (Ngige, 2004). This lack of education coupled with poverty drive the girls into early marriages hence lengthening their reproductive period which may imply more children. This study therefore examined whether the reproductive behavior of low income mothers was still governed by their cultural beliefs and practices.
2.1.4 Mother’s religious beliefs and practices

The religious orientation of families may be an important factor in influencing the reproductive behavior of mothers. Some religious denominations exert pressure towards parenthood where after marriage children have to be brought forth. For example, Catholics are taught that having children is the basic purpose of marriage and gives meaning to a union (Knox, 1979). Some researchers have revealed that religious concern is a common reason of not using contraceptives hence influencing reproductive behavior of mothers in terms of usage of contraceptives to space and limit births (Bolaji, 1997). This study therefore investigated whether reproductive behavior of low income mothers was still governed by their religious beliefs and practices.

2.1.5 Age at first marriage

Women who marry early often give birth to more children. In Kenya, more than half of women (51%) are married by their 20th birthday. According to Kenya 2003, median age at first marriage is increasing over time from 19.2 years in 1998 KDHS to 19.8 in 2003 and this with time will decrease the reproductive period of a woman hence implying fewer children. However a recent research by Thumbi (2004) shows that the girls have a sexual debut at an early age of 15 years, which increases their fertility and contributes to a longer child bearing period. Age at first marriage greatly increases with education (Kenya, 2003) so that as a woman pursues higher education so will she get married at an advanced age hence reducing her child bearing period. In
this study age at first marriage was assessed to measure the reproductive behavior of low income mothers.

2.1.6 Age at first birth

When women enter child bearing at an early age their reproductive period is lengthened and fertility is high. The median age at first birth in Kenya is 20 years (Kenya, 2003) and this is becoming an important indicator of fertility irrespective of the marital status. A rise in this median age at first birth will significantly contribute to a reduction in fertility (CBS, 1999). Age at first birth also increases with education and wealth and is higher in urban areas than rural (Kenya, 2003) so that as a woman pursues higher education so will she get her first child at an advanced age. In contrast age at first birth is usually lower than age at first marriage in Kenya because it has been observed that significant child bearing occur out of wed-lock a fact that is never taken into account when marital fertility is being considered. In this study, age at first birth was investigated to determine the reproductive behavior of low income mothers.

2.2 KNOWLEDGE AND AWARENESS OF CONTRACEPTIVES

Contraceptive knowledge is almost universal with 96 per cent of women aged 15-49 years and 98 per cent of men aged 15-54 years know at least one modern method of contraceptives. The pill is the best-known contraceptive followed by injectables and condoms while the least known is the Norplant (Thumbi, 2004). Contraceptives allow a woman to avoid pregnancy once she
reaches her desired family size (Bolaji, 1997) which she is able to bring up without constraints. Hence the men and women with the knowledge of contraceptives are able to develop rational approaches to planning their families (Thumbi, 2004) thus making them able to access the basic needs of life. Therefore knowledge and awareness of contraceptives were investigated to examine if they had an effect on reproductive behavior of low income mothers.

2.3 USE AND ATTITUDE TOWARDS CONTRACEPTIVES

A woman’s knowledge of the source of contraceptives affects her use (Kenya, 2003). Similarly contraceptive use is also affected by attitude towards contraceptives and the level of motivation to use them (Ross & Winfrey, 2001). The use of modern methods of contraceptives among married women in Kenya has shown a steady increase since the early 1980s but it then slowed down between 1993 and 1998: In 1978 contraceptive prevalence rate for modern methods was 7 per cent, it increased to 17 per cent in 1984 and further to 39 per cent in 1998, but however recent studies show that the rate of increase of contraceptive use has slowed down (Thumbi, 2004). This has been contributed greatly by diverting the resources used to finance family planning programs to prevention of HIV/AIDS (Thumbi, 2004). Despite these achievements of family planning programs, much unmet need for family planning still persists. For instance, 24 per cent of Kenyan women who would like to either space or limit births are not using a method of contraceptives reflecting a high unmet need (Thumbi, 2004). Contraceptive use is
concentrated among women who have given birth within the last one year or two and it drops as the interval between the last births lengthens (Ross, et. al, 2001). The non-use of contraceptives is also reflected on the Daily Nation newspaper (2004) in the Wednesday magazine pg. 2, “The men do not like using condoms and the free supply of family planning drugs is no longer available to us (Slum dwellers).” Other reasons for non-use of contraceptives include health concerns, husband disapproval, low socio-economic status and potential information barriers (Zeba, et. al, 2001). This study investigated the use and attitude of contraceptives by the low income mothers to determine whether it influences their reproductive behavior.

2.4 MOTHER’S DECISION MAKING PATTERNS ON REPRODUCTION

Many women and girls suffer from poor health because of their limited power over their sexual and reproductive lives as their decisions are rarely held as important (Family Care International, 1994). Ascardi et. al. (1990) reported that in some settings, fertility decision making is beyond the control of the individual woman. It is controlled by people outside the family who do not recognize making decision on fertility should be upon the individuals who weigh the costs and benefits of choices made (Bolaji, 1997). Also Zeba et. al (2001) points out that contraceptive use and fertility prevalence are affected by decisions made within the family. Therefore it was important to investigate mother’s decision making patterns on issues related to reproduction and
contraceptives to examine if they had an influence on their reproductive behavior.

2.5 SUMMARY OF LITERATURE REVIEW

This chapter has reviewed literature on various variables which were under study. Level of education is said to influence fertility since contraceptive prevalence increases dramatically with level of education. Extended education is said to be a cause of postponement of marriage hence decreasing the child bearing period. It also determines the type of occupation one is engaged in which in turn determines the level of income. On marital status, married women are said to have a higher contraceptive prevalence than single women who are more vulnerable to poverty a factor that can have an adverse effect on their reproductive behavior as they seek emotional and financial support from men. Socio-cultural and religious factors were also seen as an obstacle to using a contraceptive method because of the high value placed on children by these factors. Age at first marriage and first birth have been cited as factors influencing reproductive period in that recent researches have showed that girls enter into sexual union at an early age of 15 years which increases their fertility. Also due to poverty girls enter into early marriages in anticipation of a better life hence prolonging their reproductive period. Literature review also showed that knowledge of contraceptives is widespread (96%) and this coupled with attitude towards contraceptives affects the use of contraceptives. But however recent researches done reveal that 24 per cent of Kenyan women who would like to either space or limit births are not using a method of
contraceptive reflecting a high unmet need. Also literature reviewed that women have no control over their fertility decision making which in some settings is said to be controlled by people outside the family and this influences their reproductive behavior.

3.1 RESEARCH DESIGN

The study adopted a descriptive design which seeks to determine the relationship between variables. It seeks to answer the question: what is the relationship between contraceptive use and fertility decision making? The data was collected using a questionnaire that was pre-tested in a control group before the final version was used. The data was analysed and interpreted within a statistical package (SPSS) and relevant reference was made to literature on contraceptive use and fertility decision making. It was noted that contraceptive use is one of the population control strategies in Kenya. Data on contraceptive use is collected at both national and district level and the analysis done in this study used data from the district level.

3.2 DESCRIPTION OF THE STUDY AREA

The study was conducted in Kericho town in Kericho District. Two slums were chosen for the study. These slums are part of the urban area in the town. The slums were selected based on their size and accessibility. The study was done in the months of October and November.
CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

This section describes the procedures and strategies, which were used in the study. It presents a description of the research design, sources of data, methods of data collection and data analysis that were used in the study.

3.1 RESEARCH DESIGN

The study employed a descriptive survey research design to determine the relationship between variables. A survey is a present-oriented research that seeks to accurately state what is there (Gall, Borg & Gall, 1996). According to Mugenda and Mugenda" (1999 pg. 165), "Survey research seeks to obtain information that describes existing phenomena by asking individuals about their perceptions, attitudes, behavior or values." It was used because of its convenience in collecting extensive data from a large sample of respondents within a short time (Miller, 1991). It also enables the researcher to study social conditions, relations and behavior of people. It provides quantifiable data from a cross section of the population chosen (Gall, et. al, 1996). It yields reliable data as it is collected at one point in time and conclusions can be inferred to the whole population (Sproul, 1988).

3.2 DESCRIPTION OF THE STUDY AREA

The study took place in Kiandutu slum within Thika Municipality in Thika district. This slum was chosen because so many other researches have been done in the slums within the city of Nairobi like Mathare, Kibera among
others and therefore the researcher wanted to carry out the study on a slum in a
different urban setup (town). The district is located in southern part of central
province and has an area of 2024 Km² with six administrative divisions,
namely Thika Municipality, Ruiru, Gatundu South, Gatundu North, Kakuzi
and Gatanga (PRSP, 2004). It borders Nairobi city to the south, Kiambu
district to the west, Maragua district to the north and Machakos district to the
east. It has a population of 645,713 out of which 260,000 persons are
considered as poor (GOK, 2000a).

3.3 TARGET POPULATION

The target population comprised low income mothers living in Kiandutu slum
within Thika Municipality. Low income mothers were selected because of
their tendencies of having a large family size that they cannot support.
According to population and housing census of 1999, households with many
members were reported to be poorer than those with fewer members.

3.4 SAMPLE SIZE AND SAMPLING PROCEDURE

According to Ary, Jacon and Razeviah (1972) 10-20 per cent of the sample
representation is adequate. The total number of households according to the
Central Bureau of Statistics was approximately 1587. The sample size was
made up of 10 per cent of the population, which was approximately 150
households. Kiandutu slum has one cluster and the houses are systematically
built though not physically numbered. The researcher used systematic
sampling method where the first household was picked randomly and the
remaining households were picked at pre-determined intervals. Therefore after picking the first household randomly, every 10\textsuperscript{th} household was considered as an element under study. However 16 households were dens for illegal brew (changaa) and due to insecurity reasons, they were not sampled, hence 134 households formed the sample size. Out of these 134 interviews, 14 of them were incomplete and were not considered in the analysis as the respondents refused to answer some of the important questions guiding the study. Hence the final population of the sample under study consisted of 120 respondents which represented 80 per cent of the sample size and these were considered adequate for the descriptive data analysis.

3.5 RESEARCH INSTRUMENT AND DATA COLLECTION PROCEDURE

3.5.1 The interview schedule guide and its administration

The researcher used interview schedule guide as a research instrument to collect the data. This instrument was deemed suitable because the level of illiteracy among the respondents was very high. The instrument had both open-ended and closed-ended items. The open-ended questions were reasonably objective and allowed a more thorough understanding of respondent’s opinions and reasons behind them (Gall, et al., 1983). This method enabled the researcher to probe so as to get in-depth information (Kinoti, 1989). The interview schedule was a structured type where questions were prepared in advance forming an interview schedule guide (Appendix 1). It had three sections: Section I of the interview schedule guide dealt with
questions on demographic characteristics of the mothers; Section II on knowledge, use and attitude towards contraceptives and Section III dealt with questions on mother’s decision making patterns on issues pertaining to reproduction and contraceptives. It was administered to the mothers who were the respondents so as to get an insight of their reproductive behavior.

Permission to conduct the research was obtained from the following after a brief explanation of the study:

- Ministry of education – Nairobi
- District Education Officer – Thika
- District Officer – Thika
- Ministry of Health – Thika
- Individual respondents (mothers)

The researcher had a face to face interview with individual mothers. Following a brief explanation of the study, and obtaining their consent, each mother was asked the same questions in the same order and the answers were recorded on the prepared interview schedule guide by the researcher.

3.6 PRE-TESTING

The data collection instrument was pre-tested on fifteen families from another slum, Kiganjo in Thika district, which was not part of the actual sample used in the study. After pre-testing, deficiencies in the instrument were detected such as having insufficient space to write the responses, wrong phrasing of the questions and irrelevant questions which were not geared to achieving the
objectives set. Therefore adjustments were made on the interview schedule guide in order to make it more appropriate before the fieldwork began. The vague questions which were being interpreted differently by the respondents were rephrased to convey the same meaning to the respondents. This enhanced the validity of the instrument, that is, the items tested what they were intended to. The instrument was also tested for reliability by administering it twice to five respondents after a week and the responses were the same showing that the instrument was highly reliable for it consistently measured the variables in the study. According to Mugenda (1999), the pre-testing procedure helps to ascertain that the instrument for collecting data is free of any pitfalls and mistakes that would have surfaced in the main data collection process if the pre-testing of the instrument had not been done. It also helped to estimate the length of time for the administration of the instrument.

3.7 DATA ANALYSIS

The researcher used both quantitative and qualitative analytical techniques for the study.

3.7.1 Quantitative data analysis

Quantitative data analysis included descriptive statistics, which were done by use of the statistical package of social sciences (SPSS). According to Sproul, (1988), descriptive statistics are measures used to describe and summarize data. Frequencies and percentages were calculated and presented in tabular form. Cross-tabulation was done to establish the relationship between variables. To test for significant relationship between variables the chi- square
test was used. A measure of central tendency (means) was also computed. ANOVA was used to test for significant differences in the sub-groups. A significance level of 0.05 was used in data analysis, as this is the commonly used level in social research (Sproul, 1988).

3.7.2 Qualitative data

For qualitative data, assigning labels to variable categories was done by coding. Common themes were obtained from data collected and clustered in a patterned order so as to identify variables that depicted general concepts and differences. Inferences were made from particular data under each theme and conclusions were then drawn from the findings.

3.8 MEASUREMENT OF VARIABLES

3.8.1 Dependent Variable

- Reproductive behavior

Was measured by the total fertility of a woman using three indices namely:

- The total number of children born per woman.
- Age of the mother at first birth.
- Age of the woman at first marriage.

Each of these three variables used to capture reproductive behavior were coded using a predetermined scale. In each of the three, a score of 1, 2 and 3 were assigned where 1-low score, 2-moderate score and 3-high score. Scores for the reproductive behavior were then computed by scoring for each respondent against the three variables. This meant that the lowest score out of
the three was 3 and the highest was 9. However none of the respondents scored 3 in each of the three variables to get the maximum score of 9. This is shown in pages 31-35. A score of 3-9 was developed to depict the reproductive behavior and was rated as follows:

- 3-4------Low reproductive behavior.
- 5-6------Moderate reproductive behavior.
- 7-9------High reproductive behavior.

3.8.2 Independent variables

- **Mother’s level of education**

Was measured in terms of mother’s formal education attainment, whether it was no education, primary, secondary, or higher education level.

- **Mother’s occupation**

Was measured by what the mother did the whole day for a living, that is, either formal or informal employment.

- **Religious beliefs and practices**

Was measured by religious affiliation and self reported religious convictions of the mother.

- **Attitude towards contraceptives**

Was measured by how much the mother strongly agreed (SA), agreed (A), disagreed (D), or strongly disagreed (SD), about a set of statements related to
contraceptives (Likert scale method). Scores were given and means calculated for both positive and negative items.

- **Knowledge of contraceptives**

  Was measured by whether the mothers knew about contraceptives or not and which types of contraceptives they knew.

- **Use of contraceptives**

  Was measured by whether the mothers used any contraceptives or not and which ones they used.

- **Mother’s decision making patterns on reproduction**

  Was measured by how much the mother co-operated, dominated, or participated on a set of statements given that are related to reproduction.
CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

The main purpose of the study was to investigate factors associated with reproductive behavior of low income mothers in Kiandutu slum in Thika District, Kenya. It also sought to relate these selected factors to demographic characteristics of the mothers like education and marital status among others. The findings are presented in this chapter and are based on the five research objectives earlier stated in chapter one. The hypothesis formulated in chapter one were also statistically analyzed by use of chi-square test and one way ANOVA.

4.1 Demographic Characteristics of Respondents

This study sought views from 120 female respondents with a wide range of demographic characteristics. These characteristics are summarized and presented in this section.

4.1.1 Age

Table 4.1 presents the results on the age distribution of the sampled respondents.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24 years</td>
<td>24</td>
<td>20.0</td>
</tr>
<tr>
<td>25-34 years</td>
<td>63</td>
<td>52.5</td>
</tr>
<tr>
<td>35-44 years</td>
<td>33</td>
<td>27.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The results show that respondents’ ages ranged from 15-44 years and were all within the reproductive period of 15-49 years (CBS, 1999). Most of the respondents fell in the age category of between 25 to 34 years which accounted for 52.5% which is the most reproductive period of a woman.

4.1.2 Marital Status

The results on the marital status of the respondents are summarized and presented in Table 4.2.

Table 4.2: Frequency distribution of the respondents according to marital status

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>93</td>
<td>77.5</td>
</tr>
<tr>
<td>Single</td>
<td>12</td>
<td>10.0</td>
</tr>
<tr>
<td>Separated</td>
<td>10</td>
<td>8.3</td>
</tr>
<tr>
<td>Widowed</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The findings indicate that most of the respondents (77.5%) were married and only 17% were single women. The high percentage of the married women was attributed by the fact that most of them in this set up were not legally married and were just cohabiting merely for financial and emotional support as revealed further by an informal interview.

4.1.3 Education Level

The results on the respondents by level of education is summarized and presented in Table 4.3.
Table 4.3: Frequency distribution of the respondents according to educational level

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>102</td>
<td>85.0</td>
</tr>
<tr>
<td>Secondary</td>
<td>18</td>
<td>15.0</td>
</tr>
<tr>
<td>Tertiary</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From Table 4.3 it can be observed that none of the respondents had attained tertiary level of education. Majority (85.0%) were primary school dropouts and only 15% attained secondary education. The low number of females attaining secondary education could be attributed by the high cost of secondary education coupled with increased poverty levels in the slum.

4.1.4 Occupation

The results on the occupation of the respondents are presented in Table 4.4.

Table 4.4: Frequency distribution of the respondents according to occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td>Small scale business woman</td>
<td>75</td>
<td>62.5</td>
</tr>
<tr>
<td>Casual laborer</td>
<td>30</td>
<td>25.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The data reveals that most (62.5%) of the sampled respondents were engaged in small scale business like selling vegetables in small kiosks. This could be explained by the fact that education determines the type of occupation one has, and since most of the respondents (85%) were primary school drop-outs and
never had opportunities to further their education, they can therefore only engage in occupations which do not require training skills.

4.1.5 Mother’s Income Level

The results on the income level of the respondents are presented below.

Table 4.5: Frequency distribution of the respondents according to mother’s income level

<table>
<thead>
<tr>
<th>Income level (Kshs) per month</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 -1000</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>1001 -2000</td>
<td>57</td>
<td>47.5</td>
</tr>
<tr>
<td>2001 -3000</td>
<td>24</td>
<td>20.0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>18</td>
<td>15.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The findings in Table 4.5 indicate that majority (65.0%) of the respondents earned less than Kshs. 2,000 per month. This means that most of the respondents were living below the absolute poverty line, which is Kshs. 2648 per month in urban areas (CBS, 1999).

4.1.6 Ethnicity

The findings on the ethnicity of the respondents are presented in Table 4.6.

Table 4.6: Frequency distribution of the respondents according to ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kikuyu</td>
<td>66</td>
<td>55.0</td>
</tr>
<tr>
<td>Kamba</td>
<td>36</td>
<td>30.0</td>
</tr>
<tr>
<td>Others e.g. Luo, Borana</td>
<td>18</td>
<td>15.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Most of the respondents according to the results were of Kikuyu origin (55.0%). This concurs with the geographical ethnic distribution in Kenya.
where Kikuyus are predominant in Central province where Thika district falls (CBS, 1999).

4.1.7 Religious affiliation

The research also sought to establish the religious associations of the respondents. The findings are presented in Table 4.7.

Table 4.7: Frequency distribution of the respondents according to religion

<table>
<thead>
<tr>
<th>Religion</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td>57</td>
<td>47.5</td>
</tr>
<tr>
<td>Protestant</td>
<td>27</td>
<td>22.5</td>
</tr>
<tr>
<td>Muslim</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Other</td>
<td>30</td>
<td>25.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The findings indicate that majority (47.5%) of the respondents were Catholics, followed by Protestants (22.5%). In total, Christians made up 70.0% of the sample population and were dominant in the sample.

4.2 Knowledge, use and attitude towards contraceptives

This section presents the results on the knowledge, use and attitude towards contraceptives.

4.2.1 Knowledge of Contraceptives

Table 4.8: Knowledge of contraceptives

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>114</td>
<td>95.0</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

N=120
The results in Table 4.8 indicate that 95 per cent of the respondents know about contraceptives. This means that knowledge about contraceptives is very high among the sampled respondents. This result concurs with those of Thumbi (2004) who noted that the knowledge of contraceptives among Kenyan women is almost universal, at 96 per cent.

4.2.2 Knowledge of Different Types of Contraceptives

The research further sought to establish knowledge of different types of contraceptives. The results are presented in Table 4.9.

Table 4.9: Knowledge of different types of contraceptives

<table>
<thead>
<tr>
<th>Type of Contraceptive</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pills</td>
<td>82</td>
<td>68.3</td>
</tr>
<tr>
<td>Injection</td>
<td>108</td>
<td>90.0</td>
</tr>
<tr>
<td>Coil</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>condom</td>
<td>75</td>
<td>62.5</td>
</tr>
<tr>
<td>Rhythm</td>
<td>72</td>
<td>60.0</td>
</tr>
<tr>
<td>Tube ligation</td>
<td>30</td>
<td>25.0</td>
</tr>
<tr>
<td>Nor plant</td>
<td>27</td>
<td>22.5</td>
</tr>
<tr>
<td>Breast feeding</td>
<td>9</td>
<td>7.5</td>
</tr>
</tbody>
</table>

From Table 4.9 it can be observed that pills and injectables were the most commonly known contraceptives among the respondents. This may be as a result of their reliability and ease of use as compared to the others especially for married women whose husbands oppose use of contraceptives. The least known was nor-plant (if breast feeding is not taken as a contraceptive). This finding concurs with those of Thumbi (2004), who reported that pills and injectables are the best known contraceptives, while nor-plant is the least.
4.2.3 Source of Information on Contraceptives

The results on the source of information on contraceptives are presented in Table 4.10.

Table 4.10: Source of Information on Contraceptives

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print/Electronic media</td>
<td>30</td>
<td>25.0</td>
</tr>
<tr>
<td>Friends</td>
<td>78</td>
<td>65.0</td>
</tr>
<tr>
<td>Clinic/Hospital</td>
<td>90</td>
<td>75.0</td>
</tr>
<tr>
<td>Others e.g. mother,</td>
<td>42</td>
<td>35.0</td>
</tr>
</tbody>
</table>

The findings in Table 4.10 indicate that the most frequent source of information on contraceptives was clinic, closely followed by friends. This can be attributed to fact that women who attend clinics are provided with information on contraceptive use. Those who miss on this obtain information from friends who have received the information.

4.2.4 Use of Contraceptives

This section presents data on the use of contraceptives by respondents. Table 4.11 presents the findings on the frequency and percentage of respondents who used contraceptives.

Table 4.11: Use of contraceptives

<table>
<thead>
<tr>
<th>Contraceptive use</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>93</td>
<td>77.5</td>
</tr>
<tr>
<td>Non-users</td>
<td>27</td>
<td>22.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The results in Table 4.11 indicate that over 77 per cent of the respondents used contraceptives. This means that the level of contraceptive use is high among
the respondents. According to Ross, et. al (2001) contraceptive use is affected by the level of knowledge of contraceptives. In this study, the knowledge was very high (95%), which accounts for the high percentage of use (75.5%).

4.2.5 Type of Contraceptives Used

Apart from establishing the knowledge of contraceptives the study further sought to establish the types of contraceptives used by the respondents. Table 4.12 presents the results on the type of contraceptive used.

Table 4.12: Types of contraceptive used

<table>
<thead>
<tr>
<th>Type of Contraceptive</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pills</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Injections</td>
<td>60</td>
<td>50.0</td>
</tr>
<tr>
<td>Coil</td>
<td>12</td>
<td>10.0</td>
</tr>
<tr>
<td>Condom</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Tube ligation</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Nor plant</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Others (e.g. herbs)</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From Table 4.12, it can be observed that the most common contraceptives used by the respondents were injectables and pills. As had been noted earlier these were the most known contraceptives. This means that knowledge influences the use of contraceptives.

4.2.6 Reasons for not Using Contraceptives

The instrument also sought to establish the reasons for non-use of contraceptives among the 27 respondents (22.5%) who were non-users. The results are summarized and presented in Table 4.13.
Table 4.13: Reason for non-use of contraceptives by women

<table>
<thead>
<tr>
<th>Reason</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want to have child</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Side effects</td>
<td>93</td>
<td>77.5</td>
</tr>
<tr>
<td>Breast feeding</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Husband refusal</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Ignorance (no money)</td>
<td>39</td>
<td>32.5</td>
</tr>
<tr>
<td>Single hood</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Religion</td>
<td>39</td>
<td>32.5</td>
</tr>
<tr>
<td>Culture</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Not accessed</td>
<td>12</td>
<td>10.0</td>
</tr>
</tbody>
</table>

- Frequencies of every response worked out of 100% due to multiple responses.

According to the results in Table 4.13, the main reasons for the non-use of contraceptives are the side effects associated with contraceptives. The other reasons cited include ignorance, religion, husband’s refusal, breast feeding and single hood. This concurs with reports from several researchers like Zeba et. al (2001), who have revealed that some contraceptives have side effects on the health of the users. This makes many to stop using the contraceptives and others develop a negative attitude towards contraceptives in general. This state of affairs is compounded by poverty which means that the affected woman cannot afford a remedy and therefore resorts to natural family planning methods like rhythm. This again is worsened by the fact that most of the respondents are illiterate and therefore do not count the days well hence may conceive against their wish.

4.2.7 Source of Contraceptives

The research further sought to establish the source of contraceptives. The results of the responses are summarized and presented in Table 4.14.
Table 4.14: Source of contraceptives

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital/Clinic</td>
<td>93</td>
<td>77.5</td>
</tr>
<tr>
<td>Chemist</td>
<td>18</td>
<td>15.0</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

The results in Table 4.14 indicate that the main source of information on contraceptives is hospital and clinics. This could be due to the fact that it was the same source that they got information on contraceptives from.

4.2.8 Attitude towards Contraceptives

Finally the research sought to establish the respondent’s attitude towards the contraceptives use. Items that were for contraceptives were referred to as positive items and those that were against were referred to as negative items. Attitude was measured on the likert scale and scores were given as: Strongly agree (4), Agree (3), Disagree (2) and Strongly disagree (1). The means were interpreted as follows for the positive items: 1.000-1.4900 strongly disagree, 1.5000-2.4900 disagree, 2.5000-3.4900 agree and 3.5000-4.000 strongly agree. The reverse interpretation was made for the negative items: 1.000-1.4900 strongly agree, 1.5000-2.4900 agree, 2.5000-3.4900 disagree and 3.5000-4.000 strongly disagree. The results on attitude are presented on the basis of frequencies, percentages and means. The findings are presented in Table 4.15.
Table 4.15: Attitude towards Contraceptives

<table>
<thead>
<tr>
<th>Positive Items</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contraceptives is a woman issue a man should not have to worry about it</td>
<td>3 2.5</td>
<td>27 22.5</td>
<td>9 7.5</td>
<td>81 67.5</td>
<td>3.4000</td>
</tr>
<tr>
<td>A woman should be sterilized after getting the number of children she wants</td>
<td>54 45.0</td>
<td>27 22.5</td>
<td>9 7.5</td>
<td>30 25.0</td>
<td>2.1250</td>
</tr>
<tr>
<td>A small family is the best</td>
<td>6 5.0</td>
<td>9 7.5</td>
<td>6 5.0</td>
<td>99 82.5</td>
<td>3.6500</td>
</tr>
<tr>
<td>I should use contraceptives even if husband does not approve of it</td>
<td>9 7.5</td>
<td>9 7.5</td>
<td>6 5.0</td>
<td>96 80.0</td>
<td>3.5750</td>
</tr>
<tr>
<td>Women have enough information contraceptives</td>
<td>0 0.0</td>
<td>3 2.5</td>
<td>57 47.5</td>
<td>60 50.0</td>
<td>3.4750</td>
</tr>
<tr>
<td>Women have a say when it comes to sexual matters</td>
<td>48 40.0</td>
<td>69 57.5</td>
<td>3 2.5</td>
<td>0 0.0</td>
<td>1.6250</td>
</tr>
<tr>
<td>Negative Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some women who use contraceptives may become promiscuous</td>
<td>3 2.5</td>
<td>18 15.0</td>
<td>84 70.0</td>
<td>15 12.5</td>
<td>2.1000</td>
</tr>
<tr>
<td>Contraceptives affect woman’s health</td>
<td>0 0.0</td>
<td>0 0.0</td>
<td>11 92.5</td>
<td>9 7.5</td>
<td>1.9250</td>
</tr>
<tr>
<td>Contraceptives reduces sexual urge</td>
<td>3 2.5</td>
<td>6 5.0</td>
<td>96 80.0</td>
<td>15 12.5</td>
<td>1.9750</td>
</tr>
<tr>
<td>A large family is the best</td>
<td>99 82.5</td>
<td>6 5.0</td>
<td>9 7.5</td>
<td>6 5.0</td>
<td>3.6500</td>
</tr>
<tr>
<td>I should not use contraceptives</td>
<td>102 85.0</td>
<td>15 12.5</td>
<td>0 0.0</td>
<td>3 2.5</td>
<td>3.8000</td>
</tr>
</tbody>
</table>

From Table 4.15, it can be observed that although women feel that a small family is good and thus there is need to use contraceptive to plan the family, there are reservations in terms of side effects of the contraceptives and a misconception that contraceptives may contribute to promiscuity and it may reduce sexual urge. This calls for the correction of such misconceptions. Efforts should be geared towards reducing health risks associated with the use
of some contraceptives. The side effects are real and therefore present a stumbling block towards the success of family planning programmes. According to Zeba et. al (2001), contraceptives affect the health of individuals due to the side effects associated with them. Therefore, the fear of these side effects and their management contributes to the non-use of contraceptives by low income mothers.

4.3. Mother’s decision making patterns on reproduction issues

This section presents the findings on mother’s decision making patterns among the sampled respondents.

Table 4.16: Mother’s decision making patterns on reproduction issues

| Decision making variables                        | Self | | | | Husband | | | | Both | | | | Others | | |
|-------------------------------------------------|------|-----|-----|-----|--------|-----|-----|-----|--------|-----|-----|-----|--------|-----|
|                                                 | n    | %   | n   | %   | n      | %   | n   | %   | n   | %   | n   | %   | n   | %   |
| Number of children to have                      | 18   | 15.0| 30  | 25.0| 39     | 32.5| 33  | 27.5|       |      |      |      |       |      |
| Whether to use contraceptives                    | 84   | 70.0| 9   | 7.5 | 27     | 22.5| 0   | 0   |       |      |      |      |       |      |
| Which contraceptives to use                      | 111  | 92.5| 0   | 0   | 3      | 2.5 | 6   | 5.0 |       |      |      |      |       |      |
| Where to obtain the contraceptives               | 117  | 97.5| 0   | 0   | 0      | 0   | 3   | 2.5 |       |      |      |      |       |      |
| Who to obtain the contraceptives                 | 117  | 97.5| 0   | 0   | 0      | 0   | 0   | 2.5 |       |      |      |      |       |      |
| When to have a child                            | 27   | 22.5| 27  | 22.5| 36     | 30.0| 30  | 25.0|       |      |      |      |       |      |
| When to have sexual intercourse                 | 15   | 12.5| 102 | 85.0| 3      | 2.5 | 0   | 0   |       |      |      |      |       |      |
| Who should use the contraceptive                | 108  | 90.0| 3   | 2.5 | 6      | 5.0 | 3   | 2.5 |       |      |      |      |       |      |

*Multiple Response for each Variable allowed n =120

The results presented in Table 4.16 indicate that majority of the sampled women made decisions on issues such as which contraceptives to use, where to obtain the contraceptives, who should obtain the contraceptive, who should use the contraceptive, and whether to use contraceptives. However, the husbands had more say on when to have sexual intercourse and number of children to have. Both partners had a say on when to have children. A critical
look at the results reveal that even though the women had more knowledge over contraceptives, this gain is undermined by the fact that it is the husband who decides when to have sex and the number of children to have. This means that the woman can easily conceive against her wish if she had not anticipated the intercourse or when the husband insists on having more children. This boils back to the assertion that women in most African cultures have limited power over their sexual and reproductive lives. This concurs with Ascardi et. al (1990) who reported that in some settings fertility decision making is beyond the control of an individual woman. Cases are abound where the woman is chased out of marriage merely because she has refused to have more children or she refused her husband’s sexual advance in one occasion that she felt unsafe.

4.4 Reproductive Behavior

This was measured by the total fertility of a woman by using three indices namely:

- The total number of children born per woman.
- Age of the mother at first birth.
- Age of the woman at first marriage.

Each of these three variables used to capture reproductive behavior were coded using a predetermined scale. In each of the three, a score of 1, 2 and 3 were assigned where 1- low score, 2- moderate score and 3- high score. The results are shown in Tables 4.17, 4.18 and 4.19.
4.4.1 Total number of children born per woman.

This was computed using the following scale:

0-2 children =1, 3-5 children =2 and over 5 children =3.

Women with a high number of children (over 5) were considered to have a high fertility and therefore assigned the highest score of 3 while those ones with few children (0-2) were considered to have a low fertility and therefore assigned the lowest score of 1. The results of the scoring per respondent according to the number of children are presented in Table 4.17.

Table 4.17: Scores for the total number of children born per woman.

<table>
<thead>
<tr>
<th>Score</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>39</td>
<td>32.5%</td>
</tr>
<tr>
<td>2</td>
<td>63</td>
<td>52.5%</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>15.0%</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

The data in Table 4.17 reveal that most of the respondents (52.5%) had between 3 and 5 children. This shows that more than half of the respondents under study had a high fertility rate of about 4.0 births per woman as compared to 3.3 births in the urban areas nationally (NCPD, 2003).

4.4.2 Mother’s age at first birth

This was computed using the following scale:

Below 16 years =3, 16 years =2 and 17 years and above =1.

Those who conceived their first child at the age of below 16 years were considered to have a longer reproductive period hence were assigned the highest score of 3 while those who conceived their first child at the age of 17
and above were considered to have a shorter reproductive period and therefore were assigned the lowest score of 1. The results of the scoring according to mother’s age at first birth are shown in Table 4.18.

Table 4.18: Scores for the mother’s age at first birth.

<table>
<thead>
<tr>
<th>Score</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60</td>
<td>52.6</td>
</tr>
<tr>
<td>2</td>
<td>39</td>
<td>34.2</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>13.2</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*6 had not conceived at all

The results in Table 4.18 show that majority of the respondents (52.6%) conceived their first child at the age of 17 years and above. This contrasts with the national statistics where the median age at first birth is 20 years (Kenya, 2003). Therefore this means that when the respondents enter child bearing at that age, their reproductive period is lengthened and fertility is higher (4.0 births compared to 3.3 births nationally).

4.4.3 Mother’s age at first marriage

This was computed using the following scale:

15-17 years = 3, 18-20 years = 2 and 21 years and above = 1.

The women who got married early at the age of below 17 years were considered to have a longer reproductive behavior and were therefore assigned the highest score of 3 while those who got married at a later age of 21 years and above were considered to have a shorter reproductive period hence were
assigned the lowest score of 1. The scoring according to mother’s age at first marriage is presented in Table 4.19.

Table 4.19: Scores for the mother’s age at first marriage

<table>
<thead>
<tr>
<th>Score</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28</td>
<td>25.9</td>
</tr>
<tr>
<td>2</td>
<td>61</td>
<td>56.5</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>17.6</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*12 were not married at all

The findings presented in Table 4.19 indicate that majority of the respondents (56.5%) first got married at the age of between 18 and 20 years. This concurs with Kenya, 2003 report that majority of Kenyan women (51%) are married by their 20th birthday. But although this indication that majority of the respondents were married at the legal age for marriage, that is 18 years, there were over 17.6% of them who were married before they reached 18 years; this was likely to influence their reproductive behavior since they have a wider span of child bearing period. Their tender age is also likely to affect their control of decisions on reproduction issues.

4.4.4 Scores for the reproductive behavior

These were computed by scoring for each respondent against the three variables of total number of children born per woman, mother’s age at first birth and at first marriage to come up with one value that represented the reproductive behavior of each respondent. Since the scores assigned were 1, 2 and 3 for each scale in the three variables, therefore this meant that the lowest
score out of the three was 3 and the highest was 9. However none of the respondents scored 3 in each of the three variables to get the maximum score of 9. The results of the reproductive behavior scores are presented in Table 4.20.

Table 4.20: Scores for the reproductive behavior per respondent.

<table>
<thead>
<tr>
<th>Reproductive behavior scores</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>19.6</td>
</tr>
<tr>
<td>5</td>
<td>34</td>
<td>33.3</td>
</tr>
<tr>
<td>6</td>
<td>27</td>
<td>26.5</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>10.8</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>7.8</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100.0</td>
</tr>
</tbody>
</table>

18 were not computed because the scores were missing

The results in Table 4.20 show a reproductive score for each of the 102 respondents which is 85% of the sample size of 120 mothers. The 18 missing cases included 12 mothers who had not been married at all and 6 who had not conceived at all. However for easier analysis, a score of 3-4, 5-6 and 7-9 was determined to signify low, moderate and high reproductive behavior respectively. This is presented in Table 4.21.

Table 4.21: Scores for reproductive behavior

<table>
<thead>
<tr>
<th>Reproductive behavior score</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (3-4)</td>
<td>22</td>
<td>21.6</td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>61</td>
<td>59.8</td>
</tr>
<tr>
<td>High (7-9)</td>
<td>19</td>
<td>18.6</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100.0</td>
</tr>
</tbody>
</table>
According to the results in Table 4.21 majority of the sampled respondents (59.8%) had a moderate reproductive behavior. This means that more than half of the sampled respondents in this slum had slightly more children than their counterpart urban women who have 3.3 births according to national statistics.

4.5 Respondents demographic factors and Reproductive behavior

This section presents the cross-tabulation results on the reproductive behavior of the respondents on the basis of the demographic characteristics.

4.5.1 Reproductive behavior and age of the respondents

The results of the age of the respondent and reproductive behavior are presented in Table 4.22.

Table 4.22: Reproductive behavior by age of the respondent

<table>
<thead>
<tr>
<th>Reproductive behavior scores</th>
<th>Age of the respondent (years)</th>
<th>15 - 24</th>
<th>25 - 34</th>
<th>35 - 44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (3-4)</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Moderate (4-5)</td>
<td>6</td>
<td>50.0</td>
<td>34</td>
<td>59.6</td>
</tr>
<tr>
<td>High (7-9)</td>
<td>1</td>
<td>8.3</td>
<td>10</td>
<td>17.5</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>100.0</td>
<td>57</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The data in Table 4.22 shows that majority of the respondents (24.2%) in the age category of 35-44 years registered a high reproductive behavior. Informal interview revealed that most of them were taking care of their grandchildren after their mothers died of HIV/AIDS related infections and therefore regarded such children as theirs. On the other hand majority of the respondents (41.7%) in the age category of 15-24 years registered a low reproductive behavior. This
was attributed by the fact that some of them were either newly married with one or no child.

4.5.2 Reproductive behavior and mother’s level of education

Table 4.23 shows the results of the reproductive behavior on the basis of mother’s level of education.

Table 4.23: Reproductive behavior by mother’s level of education.

<table>
<thead>
<tr>
<th>Reproductive behavior score</th>
<th>Level of education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Low (3-4)</td>
<td>10</td>
<td>11.5</td>
<td></td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>58</td>
<td>66.7</td>
<td></td>
</tr>
<tr>
<td>High (7-9)</td>
<td>19</td>
<td>21.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Secondary</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (3-4)</td>
<td>11</td>
<td>73.3</td>
<td></td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>4</td>
<td>26.7</td>
<td></td>
</tr>
<tr>
<td>High (7-9)</td>
<td>0</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The results in Table 4.23 reveal that majority of the respondents with secondary level of education (73.3%) had a low reproductive behavior than those with primary level of education (66.7%) who had a moderate reproductive behavior. This indicates that education is a factor in influencing reproductive behavior. Extended education means that marriage and age at first birth are delayed. This finding is supported by Kenya 2003, which reported that education greatly increases age at first marriage and first birth hence delayed marriage in most cases means that the woman will have a short span of child bearing period thus have few children. According to Ayiemba (2000), extended formal education is one of the main reasons for postponement of marriage. Those who drop at primary school level are highly likely to get married earlier since they have no commitment to further their
education. At the same time, poverty is the main cause of dropping out of school and marriage is often taken as an option to escape poverty.

### 4.5.3 Reproductive behavior on the basis of marital status

Table 4.24 presents the results on reproductive behavior on the basis of marital status.

Table 4.24: Reproductive behavior on the basis of marital status

<table>
<thead>
<tr>
<th>Reproductive behavior score</th>
<th>Marital status</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Married</td>
<td>Single</td>
<td>Separated</td>
<td>Widowed</td>
<td></td>
</tr>
<tr>
<td>Low (3-4)</td>
<td>n 19</td>
<td>% 21.8</td>
<td>n 0</td>
<td>% 0.0</td>
<td>n 2</td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>n 50</td>
<td>% 57.5</td>
<td>n 3</td>
<td>% 100.0</td>
<td>n 6</td>
</tr>
<tr>
<td>High (7-9)</td>
<td>n 18</td>
<td>% 20.7</td>
<td>n 0</td>
<td>% 0.0</td>
<td>n 1</td>
</tr>
<tr>
<td>Total</td>
<td>n 87</td>
<td>% 100.0</td>
<td>n 3</td>
<td>% 100.0</td>
<td>n 9</td>
</tr>
</tbody>
</table>

n = 102

According to the results in the Table 4.24 majority of the respondents across their marital status had a moderate reproductive behavior. However 20.7% of the married respondents registered a higher reproductive behavior than the other groups. The lowest reproductive behavior was found among the separated (22.2%). According to Knox (1979) a married woman has 80 per cent probability of getting pregnant if she uses no method of contraceptive over a month. This means that they are likely to have more children. In marriage, getting a child is the norm rather than the exception. Single women are limited not only by societal attitude towards pregnancy outside marriage but also because of their vulnerability to poverty and this has an effect on their reproductive behavior.
4.5.4 Reproductive behavior by occupation

Table 4.25 shows the results of reproductive behavior on the basis of occupation of the respondents.

Table 4.25: Reproductive behavior by occupation

<table>
<thead>
<tr>
<th>Reproductive behavior score</th>
<th>Occupation</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Housewife</td>
<td>Small scale business</td>
<td>Casual laborer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (3-4)</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>55.6</td>
<td>14</td>
<td>20.3</td>
<td>2</td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>2</td>
<td>22.2</td>
<td>42</td>
<td>60.9</td>
<td>18</td>
</tr>
<tr>
<td>High (7-9)</td>
<td>2</td>
<td>22.2</td>
<td>13</td>
<td>18.8</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100.0</td>
<td>69</td>
<td>100.0</td>
<td>24</td>
</tr>
</tbody>
</table>

n = 102

The data in the Table 4.25 indicate that majority of the respondents who were casual laborers (75.0%) and those who were self employed (60.9%) had a moderate reproductive behavior while majority of the respondents who were housewives (55.6%) had a low reproductive behavior. It was observed that most of the housewives were either newly married with no child or were having one child hence were not occupied eking for a living.

4.5.5 Reproductive behavior on the basis of mother’s income levels

The findings of reproductive behavior on the basis of income levels are presented in Table 4.26.

Table 4.26: Reproductive behavior on the basis of mother’s income levels

<table>
<thead>
<tr>
<th>Reproductive behavior score</th>
<th>Income levels (Kshs) per month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-1000</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Low (3-4)</td>
<td>0</td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>13</td>
</tr>
<tr>
<td>High (7-9)</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

n = 90 *12 did not indicate their income
The results shown in Table 4.26 indicate that majority of the respondents (86.7%) with a moderate reproductive behavior fell in the income category of 0-1000 that is the poorest of the poor. This agrees with CBS 1999 report that households with many members were reported to be poorer than those with fewer members.

4.5.6 Reproductive behavior by ethnicity

The results of reproductive behavior by ethnicity are presented in Table 4.27.

Table 4.27: Reproductive behavior by ethnicity

<table>
<thead>
<tr>
<th>Reproductive behavior score</th>
<th>Ethnicity</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kikuyu</td>
<td>Kamba</td>
<td>Others</td>
<td></td>
</tr>
<tr>
<td>Low (3-4)</td>
<td>n = 9</td>
<td>n = 6</td>
<td>n = 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 16.7</td>
<td>% 20.0</td>
<td>% 33.3</td>
<td></td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>n = 38</td>
<td>n = 16</td>
<td>n = 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 70.3</td>
<td>% 53.3</td>
<td>% 44.4</td>
<td></td>
</tr>
<tr>
<td>High (7-9)</td>
<td>n = 7</td>
<td>n = 8</td>
<td>n = 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 13.0</td>
<td>% 26.7</td>
<td>% 22.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>n = 54</td>
<td>n = 30</td>
<td>n = 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 100.0</td>
<td>% 100.0</td>
<td>% 100.0</td>
<td></td>
</tr>
</tbody>
</table>

The results in the Table 4.27 show that all the ethnic groups of the sampled respondents had a moderate reproductive behavior with the Kikuyus having the majority (70.3%). This may imply that within these ethnic groups, there are cultural practices that either limit the use of contraceptives or encourage bearing many children. According to Ayayo (1991), socio-cultural codes within some communities control sexual and reproductive behavior of the members; some of these practices contribute to high fertility rate in these societies.
4.5.7 Reproductive behavior by religion

The results on reproductive behavior by religion are shown in Table 4.28.

Table 4.28: Reproductive behavior by Religion

<table>
<thead>
<tr>
<th>Reproductive behavior score</th>
<th>Religion affiliation</th>
<th>Catholics</th>
<th>Protestants</th>
<th>Muslims</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Low (3-4)</td>
<td>12</td>
<td>23.5</td>
<td>7</td>
<td>38.9</td>
<td>0</td>
</tr>
<tr>
<td>Moderate (5-6)</td>
<td>35</td>
<td>68.7</td>
<td>7</td>
<td>38.9</td>
<td>2</td>
</tr>
<tr>
<td>High (7-9)</td>
<td>4</td>
<td>7.9</td>
<td>4</td>
<td>22.2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
<td>18</td>
<td>100.0</td>
<td>6</td>
</tr>
</tbody>
</table>

According to the data in the Table 4.28 majority of the respondents who were Catholics (68.7%) had a moderate reproductive behavior while those with high reproductive behavior were the Muslims (66.7%). Muslims have a tendency of marrying off their daughters early mainly due to Islamic religious practices which assigns women to taking care of children and other domestic chores and not in job seeking world that will need higher education. Their emphases on chastity before marriage drive parents to marry off their daughters early lest they are rejected due to their exposure to the world.

4.6 Hypothesis testing

A statistical analysis was done to test if there were any significant relationships or differences in the variables stated in the hypotheses. Chi-square and ANOVA tests were used to analyze the different null hypotheses stated in chapter one. For each of the analysis, the probability or
4.6.1 Relationship between respondent’s demographic factors and knowledge of contraceptive

H0: There was no significant relationship between respondent’s demographic factors and knowledge of contraceptives.

Chi-square test was done to test this hypothesis and the results are presented in Table 4.29.

Table 4.29: Chi-square test results on respondent’s demographic factors and knowledge of contraceptive

<table>
<thead>
<tr>
<th>Respondents demographic factors</th>
<th>Value ($x^2$)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the respondent</td>
<td>4.586</td>
<td>2</td>
<td>0.101</td>
</tr>
<tr>
<td>Level of education</td>
<td>1.115</td>
<td>1</td>
<td>0.291</td>
</tr>
<tr>
<td>Marital status</td>
<td>8.353</td>
<td>3</td>
<td>0.039**</td>
</tr>
<tr>
<td>Occupation</td>
<td>3.789</td>
<td>2</td>
<td>0.150</td>
</tr>
<tr>
<td>Income levels</td>
<td>11.922</td>
<td>2</td>
<td>0.003**</td>
</tr>
<tr>
<td>Religion affiliation</td>
<td>4.026</td>
<td>3</td>
<td>0.259</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>1.818</td>
<td>2</td>
<td>0.403</td>
</tr>
</tbody>
</table>

**Significant at $p \leq 0.05$

From the results in Table 4.29 only two variables, that is, marital status ($p = 0.039$) and income levels ($p = 0.003$) were found to have a significant relationship to knowledge of contraceptives. This means that marital status and income affect the knowledge of contraceptives. On marital status Kenya 2003 reported that married women have a high contraceptive prevalence and at the same time the pre- and post-natal visits equip them with knowledge on contraceptives to limit and space births. Low levels of income could imply that they were not able to go to hospitals or clinics which are good sources of contraceptives.
4.6.2 Relationship between respondent’s demographic factors and use of contraceptive

H0: There was no significant relationship between respondent’s demographic factors and use of contraceptives.

Chi-square test was done to test this hypothesis and the results are presented in Table 4.30.

Table 4.30: Chi-square test results on respondent’s demographic factors and use of contraceptive

<table>
<thead>
<tr>
<th>Respondents demographic factors</th>
<th>Value (x²)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the respondent</td>
<td>14.009</td>
<td>2</td>
<td>0.01**</td>
</tr>
<tr>
<td>Level of education</td>
<td>1.425</td>
<td>1</td>
<td>0.233</td>
</tr>
<tr>
<td>Marital status</td>
<td>4.121</td>
<td>3</td>
<td>0.249</td>
</tr>
<tr>
<td>Occupation</td>
<td>12.645</td>
<td>2</td>
<td>0.002**</td>
</tr>
<tr>
<td>Income</td>
<td>10.944</td>
<td>2</td>
<td>0.04**</td>
</tr>
<tr>
<td>Religion affiliation</td>
<td>5.043</td>
<td>3</td>
<td>0.169</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>1.916</td>
<td>2</td>
<td>0.384</td>
</tr>
</tbody>
</table>

**Significant at p<0.05

According to the results in Table 4.30 age of the respondent (p = 0.013), occupation (p = 0.002) and income levels (p = 0.04) were found to have a significant relationship with the use of contraceptive. This means these variables influenced the use of contraceptives.

4.6.3 Relationship between respondent’s demographic factors and attitude towards contraceptives

H0: There was no significant relationship between respondent’s demographic factors and attitude towards contraceptives.
Chi-square test was done to test this hypothesis and the results are presented in Table 4.31.

Table 4.31: Chi-square test results on respondent’s demographic factors and attitude towards contraceptive

<table>
<thead>
<tr>
<th>Respondents demographic factors</th>
<th>Value (x²)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the respondent</td>
<td>47.254</td>
<td>16</td>
<td>0.000**</td>
</tr>
<tr>
<td>Level of education</td>
<td>36.303</td>
<td>8</td>
<td>0.000**</td>
</tr>
<tr>
<td>Marital status</td>
<td>51.134</td>
<td>24</td>
<td>0.001**</td>
</tr>
<tr>
<td>Occupation</td>
<td>54.068</td>
<td>16</td>
<td>0.000**</td>
</tr>
<tr>
<td>Income</td>
<td>32.514</td>
<td>16</td>
<td>0.009**</td>
</tr>
<tr>
<td>Religion affiliation</td>
<td>105.045</td>
<td>24</td>
<td>0.000**</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>65.234</td>
<td>16</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Significant at p<0.05

From the data in Table 4.31 it can be observed that all the respondents’ demographic factors had a significant relationship on attitude towards contraceptives. This implies that respondents’ demographic factors had an influence on attitude towards contraceptives.

4.6.4 Relationship between respondents’ demographic factors and mother’s decision making patterns

4.6.4 Relationship between mother’s decision making patterns and her age

H04: There was no significant relationship between mother’s decision making patterns and her age.

Chi-square test was used to test the hypothesis and the results are presented in Table 4.32.
According to Table 4.32 decisions on number of children to have, whether to use contraceptives, which contraceptives to use, when to have a child and when to have sexual intercourse were found to have a significant relationship with age of the respondent. Therefore age is a factor in making decisions related to reproductive behavior.

### 4.6.5 Relationship between mother’s decision making patterns and educational level

H0: There is no significant relationship between mother’s decision making patterns and educational level.

Chi-square test was used to test the hypothesis and the results are presented in Table 4.33.
Table 4.33: Chi-square test results for mother’s decision making patterns on the basis of educational level

<table>
<thead>
<tr>
<th>Decision making variables</th>
<th>Value (x²)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children to have</td>
<td>17.195</td>
<td>3</td>
<td>0.001**</td>
</tr>
<tr>
<td>Whether to use contraceptives</td>
<td>9.916</td>
<td>2</td>
<td>0.007**</td>
</tr>
<tr>
<td>Which contraceptives to use</td>
<td>18.251</td>
<td>2</td>
<td>0.000**</td>
</tr>
<tr>
<td>Where to obtain the contraceptives</td>
<td>0.543</td>
<td>1</td>
<td>0.461</td>
</tr>
<tr>
<td>Who should obtain the contraceptive</td>
<td>0.543</td>
<td>1</td>
<td>0.461</td>
</tr>
<tr>
<td>When to have a child</td>
<td>9.542</td>
<td>3</td>
<td>0.023**</td>
</tr>
<tr>
<td>When to have sexual intercourse</td>
<td>3.737</td>
<td>2</td>
<td>0.154</td>
</tr>
<tr>
<td>Who should use the contraceptive</td>
<td>2.353</td>
<td>3</td>
<td>0.502</td>
</tr>
</tbody>
</table>

**Significant at p≤0.05

The results in Table 4.33 show that decision making on the basis of education was significant in only four variables that is, on deciding the number of children to have, whether to use contraceptives, which contraceptives to use and when to have children. Therefore it can be argued that education helps women to make important decisions on issues affecting their reproductive behavior.

4.6.6 Relationship between mother’s decision making patterns and marital status

H₀ There was no significant relationship between mother’s decision making patterns and marital status.

Chi-square test was used to test the hypothesis and the results are presented in Table 4.34.

The results in Table 4.34 show that decisions on number of children to have, whether to use contraceptives, when to have a child and when to have sexual
Table 4.34: Chi-square test results for mother’s decision making patterns on the basis of marital status

<table>
<thead>
<tr>
<th>Decision making variables</th>
<th>Value ($x^2$)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children to have</td>
<td>50.428</td>
<td>9</td>
<td>0.000**</td>
</tr>
<tr>
<td>Whether to use contraceptives</td>
<td>14.157</td>
<td>6</td>
<td>0.028**</td>
</tr>
<tr>
<td>Which contraceptives to use</td>
<td>9.144</td>
<td>6</td>
<td>0.166</td>
</tr>
<tr>
<td>Where to obtain the contraceptives</td>
<td>0.893</td>
<td>3</td>
<td>0.827</td>
</tr>
<tr>
<td>Who should obtain the contraceptive</td>
<td>0.893</td>
<td>3</td>
<td>0.827</td>
</tr>
<tr>
<td>When to have a child</td>
<td>39.650</td>
<td>9</td>
<td>0.000**</td>
</tr>
<tr>
<td>When to have sexual intercourse</td>
<td>72.018</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>Who should use the contraceptive</td>
<td>3.871</td>
<td>9</td>
<td>0.920</td>
</tr>
</tbody>
</table>

**Significant at p ≤ 0.05

... were significant on the basis of marital status. Hence marital status could be a factor in influencing decisions on issues of reproductive behavior.

4.6.8 Relationship between mother’s decision making patterns and occupation

H0: There was no significant relationship between mother’s decision making patterns and occupation.

Chi-square test was used to test the hypothesis and the results are presented in Table 4.35.

Table 4.35: Chi-square test results for mother’s decision making patterns on the basis of occupation

<table>
<thead>
<tr>
<th>Decision making variables</th>
<th>Value ($x^2$)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children to have</td>
<td>24.989</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>Whether to use contraceptives</td>
<td>33.629</td>
<td>4</td>
<td>0.000**</td>
</tr>
<tr>
<td>Which contraceptives to use</td>
<td>23.773</td>
<td>4</td>
<td>0.000**</td>
</tr>
<tr>
<td>Where to obtain the contraceptives</td>
<td>1.846</td>
<td>2</td>
<td>0.397</td>
</tr>
<tr>
<td>Who should obtain the contraceptive</td>
<td>1.846</td>
<td>2</td>
<td>0.397</td>
</tr>
<tr>
<td>When to have a child</td>
<td>30.320</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>When to have sexual intercourse</td>
<td>5.534</td>
<td>4</td>
<td>0.237</td>
</tr>
<tr>
<td>Who should use the contraceptive</td>
<td>25.400</td>
<td>6</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Significant at p ≤ 0.05
According to Table 4.35 decisions on number of children to have, whether to use contraceptives, which contraceptives to use, when to have a child and who should use the contraceptives were significant on the basis of occupation. Therefore some important decisions on reproductive behavior could be influenced by occupation of women.

4.6.9 Relationship between mother’s decision making patterns and mother’s income

H0: There was no significant relationship between mother’s decision making patterns and mother’s income.

Chi-square test was used to test the hypothesis and the results are presented in Table 4.36.

Table 4.36: Chi-square test results for mother’s decision making patterns on the basis of mother’s income

<table>
<thead>
<tr>
<th>Decision making variables</th>
<th>Value (x²)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children to have</td>
<td>33.882</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>Whether to use contraceptives</td>
<td>21.351</td>
<td>4</td>
<td>0.000**</td>
</tr>
<tr>
<td>Which contraceptives to use</td>
<td>4.218</td>
<td>2</td>
<td>0.121</td>
</tr>
<tr>
<td>Where to obtain the contraceptives</td>
<td>2.440</td>
<td>2</td>
<td>0.295</td>
</tr>
<tr>
<td>Who should obtain the contraceptive</td>
<td>2.440</td>
<td>2</td>
<td>0.295</td>
</tr>
<tr>
<td>When to have a child</td>
<td>32.347</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>When to have sexual intercourse</td>
<td>7.410</td>
<td>2</td>
<td>0.025**</td>
</tr>
<tr>
<td>Who should use the contraceptive</td>
<td>6.630</td>
<td>4</td>
<td>0.157</td>
</tr>
</tbody>
</table>

**Significant at p≤ 0.05

The results in Table 4.36 show that mother’s decisions on number of children to have, whether to use contraceptives, when to have a child and when to have sexual intercourse were significant on the basis of income levels. Thus it can be argued that income levels influence women when making some important decisions on reproductive behavior.
4.6.10 Relationship between mother’s decision making patterns and religion affiliation

H0: There was no significant relationship between mother’s decision making patterns and religion.

The results are presented in Table 4.37.

Table 4.37: Chi-square test results for mother’s decision making patterns on the basis of religion

<table>
<thead>
<tr>
<th>Decision making variables</th>
<th>Value ($x^2$)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children to have</td>
<td>47.978</td>
<td>9</td>
<td>0.000**</td>
</tr>
<tr>
<td>Whether to use contraceptives</td>
<td>33.901</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>Which contraceptives to use</td>
<td>32.048</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>Where to obtain the contraceptives</td>
<td>58.462</td>
<td>3</td>
<td>0.000**</td>
</tr>
<tr>
<td>Who should obtain the contraceptive</td>
<td>58.462</td>
<td>3</td>
<td>0.000**</td>
</tr>
<tr>
<td>When to have a child</td>
<td>50.242</td>
<td>9</td>
<td>0.000**</td>
</tr>
<tr>
<td>When to have sexual intercourse</td>
<td>6.852</td>
<td>6</td>
<td>0.335</td>
</tr>
<tr>
<td>Who should use the contraceptive</td>
<td>75.370</td>
<td>9</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Significant at p ≤ 0.05

From Table 4.37 it can be observed that all decision making variables were found to be significant except in the case of when to have sexual intercourse. Across all the religions, the married women reported that it was their husbands who made decision on this issue. Among the Muslims most family decisions were made by the husband or other members of the family, while for the others it was self and husband. The findings thus indicate that religion has a lot of influence on decision making patterns among the sampled women.
4.6.11 Relationship between mother’s decision making patterns and ethnicity

H010 There was no significant difference between mother’s decision making patterns and ethnicity.

The results are presented in Table 4.38.

Table 4.38: Chi-square test results for mother’s decision making patterns by ethnicity

<table>
<thead>
<tr>
<th>Decision making variables</th>
<th>Value (x²)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children to have</td>
<td>50.720</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>Whether to use contraceptives</td>
<td>14.621</td>
<td>4</td>
<td>0.006**</td>
</tr>
<tr>
<td>Which contraceptives to use</td>
<td>13.956</td>
<td>4</td>
<td>0.007**</td>
</tr>
<tr>
<td>Where to obtain the contraceptives</td>
<td>17.436</td>
<td>2</td>
<td>0.000**</td>
</tr>
<tr>
<td>Who should obtain the contraceptive</td>
<td>17.436</td>
<td>2</td>
<td>0.000**</td>
</tr>
<tr>
<td>When to have a child</td>
<td>52.379</td>
<td>6</td>
<td>0.000**</td>
</tr>
<tr>
<td>When to have sexual intercourse</td>
<td>8.037</td>
<td>4</td>
<td>0.090</td>
</tr>
<tr>
<td>Who should use the contraceptive</td>
<td>33.939</td>
<td>6</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Significant at p ≤ 0.05

From Table 4.38 it can be observed that all decision making variables were found to be significant except in the case of when to have sexual intercourse on the basis of ethnicity. Across all the ethnicity groups, the married women reported that it was their husbands who made decision on this issue. Hence across all the ethnicity groups women were seen to make decisions on issues related to their reproductive behavior.

4.6.12 Relationship between respondent’s demographic factors and reproductive behavior

H011 There was no significant relationship between respondent’s demographic factors and reproductive behavior.
To test this hypothesis, chi-square was used and the results are presented in Table 4.39.

Table 4.39: Results of Chi-square test on respondents' demographic factors and reproductive behavior.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value $(X^2)$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>6.551</td>
<td>4</td>
<td>0.162</td>
</tr>
<tr>
<td>Education level</td>
<td>30.407</td>
<td>2</td>
<td>0.000**</td>
</tr>
<tr>
<td>Marital status</td>
<td>4.629</td>
<td>6</td>
<td>0.592</td>
</tr>
<tr>
<td>Occupation</td>
<td>10.212</td>
<td>4</td>
<td>0.037**</td>
</tr>
<tr>
<td>Income level</td>
<td>10.025</td>
<td>4</td>
<td>0.040**</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>5.805</td>
<td>4</td>
<td>0.214</td>
</tr>
<tr>
<td>Religion affiliation</td>
<td>17.634</td>
<td>6</td>
<td>0.007**</td>
</tr>
</tbody>
</table>

**Significant at $p \leq 0.05$

According to the chi-square test results in Table 4.39 mother's level of education ($p = 0.000$), occupation ($p = 0.037$), level of income ($p = 0.040$) and religion affiliation ($p = 0.002$) showed a significant relationship on reproductive behavior. This indicates that these variables influence the reproductive behavior of low income families in the area under study. Extended education means that marriage is delayed. This finding is supported by Kenya 2003, which reported that education greatly increases age at first marriage and first birth hence delayed marriage in most cases means that the woman will have a short span of child bearing period thus have few children. According to Ayiemba (2000), extended formal education is one of the main reasons for postponement of marriage. Those who drop at primary school level are highly likely to get married earlier since they have no commitment to further their education. At the same time, poverty is the main cause of dropping out of school and marriage is often taken as an option to escape
poverty. Since level of education determines the type of occupation which in turn determines the size of income (Ngige, 2004) therefore the low income families from the sampled area could not get gainful employment as majority of them (85.0%) were primary school dropouts. Hence majority of them (65.0%) had an income of below Ksh. 2000 which is below the absolute poverty line of Ksh. 2648 (CBS, 1999). This could imply that purchasing of contraceptives is not a priority to them. Income levels and occupation of respondents were found to have a significant relationship with use of contraceptives that is p=0.04 and p=0.002 respectively and attitude towards contraceptives; p=0.009 and p=0.000 respectively. Some religious orientation are known to influence reproductive behavior in terms of usage of contraceptives to space and limit births (Bonari, 2003) while others exert pressure towards parenthood for example Catholics who are taught that having children is the basic purpose of marriage and gives meaning to a union (Knox, 1979).

4.6.13 Relationship between contraceptive knowledge use, and attitude and reproductive behavior

$H_{012}$ There was no significant relationship between contraceptive knowledge use and attitude and reproductive behavior.

To test this hypothesis, chi-square was used and the results are presented in Table 4.40.
Table 4.40: Chi-square test results of contraceptive knowledge, use and attitude and reproductive behavior.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value (x²)</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of contraceptive</td>
<td>1.994</td>
<td>2</td>
<td>0.369</td>
</tr>
<tr>
<td>Use of contraceptive</td>
<td>1.119</td>
<td>2</td>
<td>0.572</td>
</tr>
<tr>
<td>Attitude towards contraceptives</td>
<td>46.010</td>
<td>16</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Significant at p≤0.05

The results of chi-square test in Table 4.40 shows that attitude towards contraceptives had a significant relationship (p = 0.000) with reproductive behavior hence it influences reproductive behavior of low income mothers.

Knowledge and use of contraceptives were found not to have an influence on reproductive behavior of low income mothers.

4.6.14 Relationship between mother’s decision making patterns and reproductive behavior

H₀₁₅ There was no significant relationship between mother’s decision making patterns and reproductive behavior.

To test this hypothesis, chi-square was used and the results are presented in Table 4.41.

Table 4.41: Chi-square test results of mother’s decision making patterns and reproductive behavior.

<table>
<thead>
<tr>
<th>Decision making variables</th>
<th>Value</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children to have</td>
<td>7.929</td>
<td>6</td>
<td>0.243</td>
</tr>
<tr>
<td>Whether to use contraceptives</td>
<td>4.713</td>
<td>4</td>
<td>0.318</td>
</tr>
<tr>
<td>Which contraceptives to use</td>
<td>1.013</td>
<td>2</td>
<td>0.603</td>
</tr>
<tr>
<td>Where to obtain the contraceptives</td>
<td>1.013</td>
<td>2</td>
<td>0.603</td>
</tr>
<tr>
<td>Who should obtain the contraceptives</td>
<td>1.013</td>
<td>2</td>
<td>0.603</td>
</tr>
<tr>
<td>When to have a child</td>
<td>12.544</td>
<td>6</td>
<td>0.051</td>
</tr>
<tr>
<td>When to have sexual intercourse</td>
<td>3.028</td>
<td>4</td>
<td>0.553</td>
</tr>
<tr>
<td>Who should use the contraceptive</td>
<td>2.959</td>
<td>4</td>
<td>0.565</td>
</tr>
</tbody>
</table>

**Significant at p≤0.05
The data in Table 4.41 shows that none of the mother’s decision making variables had a significant relationship with reproductive behavior hence reproductive behavior of low income mothers is not influenced by mother’s decision making patterns on issues pertaining to reproduction. This concurs with Ascardi et. al 1990 who reported that in some settings fertility decision making is beyond the control of an individual woman. Bolaji 1997 puts it clearly that it is controlled by people outside the family who do not recognize that making decisions on fertility should be upon the individuals who weigh between the costs and benefits of choices made. Therefore this could mean that the respondents do not participate in making decisions related to reproduction.

4.6.15 Mother’s demographic factors and attitude towards contraceptives

H014 There was no significant difference between attitude towards contraceptives and demographic factors

The null hypothesis was tested using one way ANOVA and the results are presented in Table 4.42.

Table 4.42: ANOVA results of the attitude towards contraceptives and respondents’ demographic factors

<table>
<thead>
<tr>
<th>Respondents demographic factors</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean squares</th>
<th>F</th>
<th>significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the respondent</td>
<td>56.325</td>
<td>119</td>
<td>2.056</td>
<td>4.310</td>
<td>0.000**</td>
</tr>
<tr>
<td>Level of education</td>
<td>15.300</td>
<td>119</td>
<td>0.675</td>
<td>6.018</td>
<td>0.000**</td>
</tr>
<tr>
<td>Marital status</td>
<td>63.300</td>
<td>119</td>
<td>1.863</td>
<td>2.992</td>
<td>0.004**</td>
</tr>
<tr>
<td>Occupation</td>
<td>43.125</td>
<td>119</td>
<td>1.117</td>
<td>2.364</td>
<td>0.022**</td>
</tr>
<tr>
<td>Income</td>
<td>44.912</td>
<td>101</td>
<td>0.639</td>
<td>0.365</td>
<td>0.936</td>
</tr>
<tr>
<td>Religion affiliation</td>
<td>182.325</td>
<td>119</td>
<td>5.313</td>
<td>2.913</td>
<td>0.005**</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>64.800</td>
<td>119</td>
<td>2.528</td>
<td>4.840</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Significant at p≤0.05
From the Table 4.42 it can be observed that all respondents' demographic factors except income levels had a significant difference with attitude towards contraceptives. This concurs with Chi-Square results discussed in Table 4.31. This implied that age, education, marital status, occupation, religion and social- cultural beliefs and practices of the respondents affect their attitude towards contraceptives.

4.6.16 Attitude towards contraceptive and reproductive behavior

H0 There was no significant difference between attitude towards contraceptives and reproductive behavior.

The null hypothesis was tested using one way ANOVA and the results are presented in Table 4.43.

Table 4.43: ANOVA results of the attitude towards contraceptives and reproductive behavior.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>26.432</td>
<td>2</td>
<td>13.216</td>
<td>3.707</td>
<td>0.028**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>352.980</td>
<td>99</td>
<td>3.565</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>379.412</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at p ≤ 0.05

The data in Table 4.43 shows that there was a significant difference between attitude towards contraceptives and reproductive behavior. This concurs with Ross et. al 2001 who reported that contraceptive use is affected by attitude towards contraceptives. Since the use of contraceptives was found to be high (77.5%) this could have meant that the respondents had a positive attitude towards contraceptives.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction
This chapter presents a summary of the major findings, conclusion, recommendations and suggestions for further research.

5.1 Summary of major findings
The central idea of the study was to investigate factors associated with reproductive behavior of low income mothers in Kiandutu slum in Thika District. It also sought to investigate the influence of mother’s demographic characteristics on knowledge of contraceptives, use of contraceptives and attitude towards contraceptives and mother’s decision making patterns on issues related to reproduction. This section summarizes the major findings based on the five objectives under study, which are discussed in chapter one.

The results indicate that only four demographic characteristics that is the level of education (p=0.000), occupation (p=0.037), income levels (p=0.040) and religious affiliation (0.007) had an influence on the reproductive behavior of the low income mothers. Education was found to affect age at first marriage and at first birth, while occupation influenced income levels. Hence some of the low incomes mothers (32.5%) ignore contraceptives because buying them is not a priority while 77.5% of the respondents fear the side effects associated with them because they incur more health care expenses. This agrees with the literature review that mother’s level of education adversely influences fertility levels hence impacting on reproductive behavior.
Analysis of the knowledge of contraceptives revealed that about 95 per cent of the respondents were aware of the contraceptives and majority of them (75%) got the information from the clinics. This was greatly influenced by marital status ($p=0.039$) and income levels ($p=0.003$). The most commonly known contraceptives were pills and injectables. However this knowledge of contraceptives had no influence on reproductive behavior of low income mothers.

The level of contraceptive use was high (77.5%) owing to the high level of contraceptive knowledge. The most commonly used contraceptives were pills and injectables. However it was also noted that most women failed to use contraceptives due to associated side effects on their health. In analyzing the extent of the use of contraceptives, it was noted that factors such as age ($p=0.01$), income levels ($p=0.04$) and occupation ($p=0.002$) were significant factors. However statistical analysis showed that the reproductive behavior of low income mothers is not influenced by use of contraceptives. This does not agree with the literature review as knowledge and use of contraceptives were seen to influence fertility levels of women.

Attitude towards contraceptives was found to influence reproductive behavior of low income mothers. The findings further showed that age, education, marital status, occupation, ethnicity and religious affiliation of the respondents had an influence on the attitude towards contraceptives. However the results showed that there were misconceptions that resulted in negative attitudes, for
example, contraceptives make women to become promiscuous and also it reduces sexual urge of women.

In analyzing the mothers’ decision making patterns on issues pertaining to reproduction, the findings showed that reproductive behavior of low income mothers is not influenced by decisions of the women. It came out clearly that although the women had a lot of knowledge on issues dealing with contraceptives, this was greatly undermined by the fact that men made decisions on matters dealing with when to have sexual intercourse and number of children to have. This meant that the women virtually do not control their sexuality and reproductive behavior, as they are expected to beget the number of children their husbands desire to have. Therefore the respondents were found not to participate in decision making on issues related to reproduction. This agrees with the literature review that in some settings fertility and reproductive decision making is beyond the control of an individual woman and are done by people outside the family.

Other findings included:

- Majority of the respondents (59.8%) of low income mothers in the area under study had a moderate reproductive behavior.
- Respondents with secondary level of education (73.3%) had a lower reproductive behavior than those with primary level of education (66.7%) who had a moderate reproductive behavior.
- Respondents across their marital status had a moderate reproductive behavior. However the some married women (20.7%) registered a higher reproductive behavior than the other categories.
• Majority of respondents who were housewives (55.6%) were found to have a lower reproductive behavior as compared to self employed (60.9%) and casual laborers (75.0%) who had a moderate reproductive behavior.

• Majority of the respondents (86.7%) who were earning below Ksh. 1000 had a moderate reproductive behavior.

• Majority of the respondents (66.7%) who were Muslims had a high reproductive behavior.

5.2 Conclusion
Reproductive behavior of low income mothers in Kiandutu slum in Thika district was found to be influenced by mother’s educational level, occupation, mother’s income levels, religious affiliation and attitude towards contraceptives. Therefore out of the conceptual framework, only four contextual determinants, that is, mother’s level of education, occupation, mother’s level of income and religion affiliation were found to influence directly or indirectly the reproductive behavior of low income mothers. Attitude towards contraceptives was the only intermediate determinant that was found to influence the reproductive behavior of low income mothers.

5.3 Recommendations
The central idea of the study was to critically analyze the factors associated with reproductive behavior of low income mothers. From the findings, the following recommendations were drawn:

• Reproductive health education should be taught to the women and teenage girls of this slum through the help of women affiliated
organizations like Maendeleo ya Wanawake. This will help to impart knowledge on reproduction which may help them and especially the young girls later in life since majority of the slum dwellers drop out of school at the primary level.

- Religious leaders within the slum should also address the issue of reproduction in their respective churches or mosques where they can emphasis on the plight of children. They can also liaise with the local authority that is the chief and the sub-chief to hold seminars or ‘barazaas’ for both men and women where family issues related to reproduction can be discussed. Men should be sensitized not only to allow their partners to make decisions on contraceptives, but also to give some room for their women to decide on matters dealing with sexuality and the number of children a couple should have. There should be co-operation between men and women when it comes to making decisions related to reproduction.

- The non-governmental organizations like Family Planning Association of Kenya (FPAK) through the local women groups like the merry-go-round groups should provide free contraceptives to the slum women since majority of them are the poorest of the poor earning below Ksh.1000 per month. This will enable these low income mothers to space and limit births. They should also be enlightened on the proper use of contraceptives.
• Finally on attitude towards contraceptive, the findings showed that there were misconceptions that resulted in negative attitudes. These misconceptions need to be addressed by health workers and family planning programme designers and implementers from the Thika Family Planning Clinic. It was also noted that most women fail to use contraceptives due to the associated side effects on their health. This means those health practitioners should provide information on side effects of some of the contraceptives and prescribe alternative contraceptives for those affected through easy accessibility to reproductive health services.

5.4 Suggestions for further Research

• This study was conducted in only one slum in Thika District. Further research could be carried in other low-income areas in other towns to compare results.

• The study focused mainly on women and factors that influence reproductive behavior of low income mothers. Further research could include male respondents and other factors that are not covered in the present study.

• A study could be carried out among adolescent girls to assess their knowledge of contraceptives to see how this would influence their future reproductive behavior.
REFERENCES


Centers for Disease Control and Prevention (1999). Family planning methods and practices. Africa 2nd Ed. Atlanta, USA.


APPENDICES

APPENDIX A: INTERVIEW SCHEDULE GUIDE

FACTORS ASSOCIATED WITH REPRODUCTIVE BEHAVIOR OF LOW INCOME MOTHERS IN KIANDUTU SLUM IN THIKA DISTRICT, KENYA.

SECTION I: Respondents Demographic Information

1. Age __________________________ years.

2. What is your highest level of education?
   i) No education [ ] ii) Primary [ ]
   iii) Secondary [ ] iv) Tertiary [ ]

3. Marital status
   i) Married [ ] ii) Separate [ ]
   iii) Single [ ] iv) Windowed [ ]
   v) Divorced [ ]

4. What is your occupation?
   i) Housewife [ ] ii) Casual laborer [ ]
   iii) Business women [ ]
   iv) Others specify ________________

5. What is the range of your monthly combined income in Kenya Shilling?
   i) 0-1000 [ ] ii) 2001-3000 [ ]
   iii) 1001-2000 [ ] iv) Over 3000 [ ]

6. What is your ethnicity?
   i) Kikuyu [ ] ii) Kamba [ ]
iii) Others (Specify) ______________________

7. What is your religion?
   i) Catholic [ ]  ii) Protestant [ ]
   iii) Muslim [ ]  iv) Others (Specify) ______________________

8. Approximately how often do you attend church, mosque or any other?
   i) Always (quite often) [ ]  ii) Sometimes [ ]
   iii) Never [ ]

9. What age were you when you first got married? ________ years.

10. What age were you when you conceived your first child ________ years.

11. How many children do you have? (Both alive and dead) __________________________

12. Does your religion influence the number of children you should have?
   i) Yes [ ]  ii) No [ ]
   If yes, how? _______________________________________

13. Does your culture determine the number of children you should have?
   i) Yes [ ]  ii) No [ ]
   If yes, how? _____________________________________

SECTION II: Knowledge, use and attitude towards contraceptives.

14. Do you know about methods a couple can use to delay or avoid pregnancy?
   i) Yes  ii) No
   If yes, which ones? __________________________________

15. Where did you get that information from?
16. Do you use any contraceptives?

i) Yes [ ]    ii) No [ ]

If yes, which ones?__________    If No, why?__________

17. Who first introduced you to the use of contraceptives?

i) Husband [ ]    ii) Friends [ ]

iii) Nurse/Doctor [ ]    v) If other, specify__________

18. Where do you get your contraceptives from?

________________________________________

19. What are the reasons for the non-use of contraceptives by women?

________________________________________

20. Does your spouse know if you are using contraceptives?

i) Yes [ ]    ii) No [ ]

If No, why?________________________________

21. Does your religion approve the use of contraceptives?

i) Yes [ ]    ii) No [ ]

If No, why?________________________________

22. Are there cultural beliefs that inhibit the use of contraceptives?

i) Yes [ ]    ii) No [ ]

If yes, which ones?_____________

23. **Attitude:** Criteria to use: SD=Strongly Disagree, D=Disagree, A=Agree, SA=Strongly Agree (whichever applicable was ticked).
STATEMENTS | SD | D | A | SA
--- | --- | --- | --- | ---
a) Contraceptives use is a woman issue a man should not have to worry about
b) Some women who use contraceptives may become promiscuous.
c) Contraceptives affect woman's health.
d) A woman is the one to get pregnant therefore she should be sterilized.
e) Contraceptives reduces sexual urge.
f) A large family is the best (more than five children).
g) A small family is the best (at most 4 children).
h) I should use contraceptives even if my husband does not approve of it.
i) I should not use contraceptive.
j) Women have enough information on contraceptives.
k) Women have a say when it comes to sexual matters.

SECTION III: Mother's decision making patterns on reproduction issues

24. Who makes decisions on the following statements? (Whichever applicable was ticked)

<table>
<thead>
<tr>
<th>Statements</th>
<th>Self</th>
<th>Husband</th>
<th>Both</th>
<th>Others</th>
</tr>
</thead>
</table>
a) Number of children to have
b) Whether to use contraceptives
c) Which contraceptive to use
d) Where to obtain the contraceptives
e) Who to obtain the contraceptives
f) When to have a child
g) When to have sexual intercourse
i) Who to use the contraceptive
Dear Madam

RE: RESEARCH AUTHORISATION

Reference is made to your application for authority to conduct research on “Selected family factors associated with reproductive behavior of low income families in Kiandutu slum in Thika”. This is to inform you that you have been authorised to carry out research in Thika District for a period ending 30th August, 2005.

You are advised to report to the District Commissioner, the District Education Officer and the Medical Officer of Health Thika District before commencing your study.

On completion of your research, you are expected to submit two copies of your research findings to this Office.

Yours faithfully

[Signature]

B. O. ADEWA
FOR: PERMANENT SECRETARY


APPENDIX I

OPERATIONAL DEFINED TERMS

1. FAMILY PLANNING
The process of using a contraceptive, a device, means or behavior which allows a couple to enjoy an inhibited sexual relations but at the same time prevent or delay pregnancy.

2. FAMILY PLANNING USER
Any currently married man aged 18-59 and any currently married women aged 15-49 with history of using a method of family planning.

3. CONTRACEPTION
This is the prevention by artificial means of fertilization of the ovum ensuing from sexual intercourse.

4. MODERN METHODS OF FAMILY PLANNING
Any one of the following pregnancy prevention method, pills, IUCD, female sterilization, male sterilization, injectable contraceptives, male and female condoms diaphragm, cervical cap, jellies, cream etc.

5. FAMILY PLANNING PRACTICE
These are past, present and future intentions of preventing or delaying pregnancy by using any method of family planning.

6. KNOWLEDGE OF FAMILY PLANNING
The ability of the participant to name and describe the use of family planning methods whether traditional, natural or modern.

7. PERCEPTION OF FAMILY PLANNING
The act of interpreting family planning according to individual desires, attitudes, goals, social cultural, religious beliefs and other determinants.
APPENDIX II

OPERATIONAL DEFINED VARIABLES

1. QUALITY OF KNOWLEDGE ON FAMILY PLANNING METHODS

   Number of correct answers a respondent gives to 10 methods of family planning

   **High Knowledge** – Correct responses to 8 or more methods.
   **Moderate Knowledge** – Correct responses to at least 5 but not more than 7 of the methods.
   **Low Knowledge** – Any correct response but not more than 4 of the methods.
   **No Knowledge** – No correct answers to any of the methods.

2. FAMILY PLANNING PERCEPTIONS/ATTITUDES

   Number of correct responses to the questions indicating approval of the use of family planning methods.

3. FAMILY PLANNING PRACTICE

   Number of positive responses to questions indicating past, present and future intentions on use of family planning.
APPENDIX III
CONSENT FORM

FAMILY PLANNING KNOWLEDGE, PERCEPTION AND PRACTICE AMONGST MARRIED MALE FACTORY WORKERS IN THIKA KENYA

INTERVIEW CONSENT FORM

This is to certify that I, Mr. ................................................................. of
P.O. Box ............ Thika, working in ............................................. factory
having been explained to and fully understanding that confidentiality shall be
maintained of any information I will give in this study. I understand the
purpose of this study and it’s benefits to my community and do hereby
voluntarily give consent to participate in the study.

Signature: ..............................................................................................

Signature of Interviewer: ........................................................................

Date: ........................................................................................................
APPENDIX IV;
QUESTIONNAIRE

FAMILY PLANNING KNOWLEDGE, PERCEPTION AND PRACTICE AMONGST MARRIED MALE FACTORY WORKERS IN THIKA KENYA.

INTERVIEW SCHEDULE:-

PARTICIPANTS ARE GUARANTEED IN ADVANCE THAT INFORMATION RECEIVED DURING THE INTERVIEW WILL BE TREATED IN TOTAL CONFIDENCE, AND ARE REQUESTED TO PARTICIPATE WITH SINCERITY.

(NB: MARRIED MALE WORKERS ONLY)

SERIAL NO: .................................................................

FACTORY NAME: ..........................................................

DATE: .........................................................................
INTRODUCTION

Hello
My name is ................. and I am interested in knowing more about family planning knowledge, perceptions and practice among your community. This survey is targeting married male factory workers in issues relating to family planning. The information you give is very important and therefore be sincere in your responses. I assure you that information received will be treated in total confidence.

Thank you and welcome.

PART 1 RESPONDENTS' CHARACTERISTICS

1.0 Where do you stay?
   (1) Urban [ ]
   (2) Rural [ ]

1.1 If living in urban do you stay with your wife?
   (0) No [ ]
   (1) Yes [ ]

1.2 What is your religion?
   (1) Catholic [ ]
   (2) Protestant [ ]
   (3) Muslim [ ]
   (4) Traditional [ ]
   (5) None [ ]
   (6) Others specify [ ]

1.3 How many wives do you have?
   (1) One [ ]
   (2) Two [ ]
   (3) Three [ ]
   (4) Four [ ]
   (5) More than four [ ]

1.4 How many years have you been living with your spouse/wife/wives?
   (1) First wife ............ years
   (2) Second wife ........ years
   (3) Third wife ........... years
   (4) Fourth wife ........... Years

1.5 How old are you? ........................ years
   (1) 10—19 years
   (2) 20—29 years
   (3) 30—39 years
   (4) 40—49 years
   (5) 50—59 years
1.6 How old is your wife/wives?
   (a) First wife ................. years
   (b) Second wife ............ years
   (c) Third wife ............... years

   Code for each part as follow:
   (1) 10—19 years
   (2) 20—29 years
   (3) 30—39 years
   (4) 40—49 years
   (5) 50—59 years

1.7 Type of employment
   (1) Casual/Informal [ ]
   (2) Permanent/Formal [ ]

1.8 Level of employment?
   (1) Operations level [ ]
   (2) Supervisory [ ]
   (3) Management [ ]

1.9 What is the occupation of your wife/wives? ________________________________

1.10 Which is the highest level of formal education, you and your wife(s) have attained? (Tick appropriately)

   Husband's | Wife | Other wives
   None [ ] | [ ] | [ ]
   Std. 1 - Std. 8 | Primary [ ] | [ ] | [ ]
   Form I-Form VI | Secondary [ ] | [ ] | [ ]
   College and University [ ] | [ ] | [ ]

1.11 Number of living children? → ........................................

1.12 Number of sons? → ........................................

1.13 Number of daughters? → ........................................

1.14 Number of children not alive? → ................................

1.15 How old is your last child? ...................... Years

1.16 Would you prefer to have more children?
   (0) No [ ]
   (1) Yes [ ]
   (2) Undecided [ ]
If No go to question 1.18

1.17 If yes how soon?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Within 1 year</td>
<td>[]</td>
</tr>
<tr>
<td>2</td>
<td>After 2 years</td>
<td>[]</td>
</tr>
<tr>
<td>3</td>
<td>After 3 years</td>
<td>[]</td>
</tr>
<tr>
<td>4</td>
<td>After 4 years</td>
<td>[]</td>
</tr>
<tr>
<td>5</td>
<td>After 5 years</td>
<td>[]</td>
</tr>
<tr>
<td>6</td>
<td>Undecided how soon</td>
<td>[]</td>
</tr>
</tbody>
</table>

1.18 If no state why?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Family size is enough</td>
<td>[]</td>
</tr>
<tr>
<td>2</td>
<td>Economic reasons</td>
<td>[]</td>
</tr>
<tr>
<td>3</td>
<td>Personal reasons</td>
<td>[]</td>
</tr>
<tr>
<td>4</td>
<td>No reason</td>
<td>[]</td>
</tr>
<tr>
<td>5</td>
<td>Other reasons specify</td>
<td>-----------</td>
</tr>
</tbody>
</table>

1.19 How many children would you desire to have? (If given a chance to choose exactly the number of children to have in your whole life how many would that be? Or for respondents with children ask; If you could go back to the time you did not have children and choose exactly the number of children to have in your whole life how many would that be?)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>One</td>
<td>[]</td>
</tr>
<tr>
<td>2</td>
<td>Two</td>
<td>[]</td>
</tr>
<tr>
<td>3</td>
<td>Three</td>
<td>[]</td>
</tr>
<tr>
<td>4</td>
<td>Four</td>
<td>[]</td>
</tr>
<tr>
<td>5</td>
<td>Five</td>
<td>[]</td>
</tr>
<tr>
<td>6</td>
<td>More than five</td>
<td>[]</td>
</tr>
</tbody>
</table>

1.20 How many sons? ____________________________________________

1.21 How many daughters? _________________________________________

PART II

KNOWLEDGE OF FAMILY PLANNING

1.22 Have you ever heard the term “Family Planning”?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No</td>
<td>[]</td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
<td>[]</td>
</tr>
</tbody>
</table>
2.1. If yes from which sources did you first hear about Family Planning (Tick Yes against sources mentioned spontaneously)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sources first heard about Family Planning (Question 2.1)</th>
<th>Most informative sources of FP information (Question 2.2) (RANKING)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Radio and Television</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Hospital/Health Centre/FP workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Newspapers Magazine Posters etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Relatives / Friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Wife or Partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 CBD/CHW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Church Priest Preachers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2 Where did you get most of your information on Family Planning in the last 3 months (Rank 1, 2, 3, 4 or 5 against the methods mentioned).

2.3 There are various ways or methods that a couple can use to delay or avoid pregnancy. Which ways or methods have you heard of? (tick against method mentioned spontaneously)

<table>
<thead>
<tr>
<th>Method/Type</th>
<th>Spontaneous Awareness</th>
<th>Probed Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Oral contraceptives pills</td>
<td>Yes =1</td>
<td>No=0</td>
</tr>
<tr>
<td>(b) Injectables contraceptives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Intra uterine devices (coils)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Condoms (Male and Female)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Foams tabs, Jelly diaphragm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) Female VSC (Tubal Ligation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Male VSC (Vasectomy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) Norplant Implants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Rythm (Counting Calendar days)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) Natural F/P (Temperature, BBT and mucus methods)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k) Withdrawal method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(l) Abstinence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(m) Other methods (Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.4 Explain how each of these methods is used to avoid or delay pregnancy?

To the interviewers please award marks according to whether respondent is able to describe the “type=1, route=1, duration=1” of each method mentioned above. 3 marks = know well, 1-2 = slightly know and 0 = don’t know

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Know Well</th>
<th>Know Slightly</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Contraceptive Pills</td>
<td>Taken orally by women a pill daily for either 21 days or 35 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Injectable contraceptives</td>
<td>Women are given injection by doctors or nurses every one, two or three months to prevent pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Intra Uterine devices (coils)</td>
<td>A loop or coil inserted inside the woman womb by a doctor or nurse and this prevents pregnancy for a number of years.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Condoms (Male or Females)</td>
<td>A rubber sheath worn by women or men in their genitals (penis or vagina) during sexual intercourse to prevent pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Norplant implants</td>
<td>(6 capsules/rods inserted by doctors or nurses on the upper arm of a woman and can prevent pregnancy)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) Diaphragm Foam, Jellies</td>
<td>Rubber diaphragm, tablets, creams or jelly placed inside the genital tract of a woman before sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Female VSC (Tubal ligation)</td>
<td>An operation done on women to cut and tie the womb fallopian tubes to avoid pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) Male VSC (Vasectomy)</td>
<td>Operation done on Men to cut and tie the vas tubes to avoid having any more children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Natural Methods</td>
<td>Natural ways of avoiding sexual intercourse on the days the woman is most likely to get pregnant by either counting calendar days, assessing cervical mucus or taking daily temperature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) Withdrawal</td>
<td>A method whereby the Man becomes careful during sexual intercourse and pull out before the fluids come out</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k) Any other method known (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.5 Where can Family Planning services be obtained? (Don’t probe)
(1) Chemists/Pharmacy [ ]
(2) Friends/Relatives [ ]
(3) CBD/CHW [ ]
(4) Govt. H/Centers, Hospitals and Clinics [ ]
(5) Mission Hospitals/Clinics [ ]
(6) Private Hospitals/Clinics [ ]
(7) NGO’s e.g. Marie Stopes/FPAK Clinics [ ]
(8) Don’t know [ ]
(9) Others (specify) [ ]

2.6 In your own opinion when is the woman likely to become pregnant? (Read the options)
(1) During bleeding period [ ]
(2) Right after the bleeding period has ended [ ]
(3) In the middle of the cycle [ ]
(4) Just before periods begins [ ]
(5) I don’t know [ ]

2.7 In your own opinion when is the best time for:-(Mention all the options and tick against the option given)

<table>
<thead>
<tr>
<th>Option</th>
<th>(a) Contraceptive use in general</th>
<th>(b) Female VSC (Tubal-Ligation)</th>
<th>(c) Male VSC (Vasectomy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Yes=1</td>
<td>Yes=1</td>
<td>Yes=1</td>
</tr>
<tr>
<td>After the birth of a child</td>
<td>No=0</td>
<td>No=0</td>
<td>No=1</td>
</tr>
<tr>
<td>After the desired family is complete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other times</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PART III:

COUPLES COMMUNICATION ABOUT FAMILY PLANNING

3.0 Have you ever discussed family planning issues with your Wife for the last six months?
(0) No [ ]
(1) Yes [ ]

If NO proceed to question No 3.3
3.1 If yes who usually initiate the conversation?
(1) Wife partner [ ]
(2) Husband [ ]
(3) Either [ ]

3.2 In your family discussion on family planning what are it's main features? (tick the ones mentioned, don't probe)
(1) Family planning methods [ ]
(2) Sides effects of methods [ ]
(3) Advantages and disadvantages of method [ ]
(4) Ideal family size and how to achieve it [ ]
(5) Rumours and misconceptions [ ]
(6) The role of men in Family Planning [ ]
(7) Benefits of Family Planning [ ]
(8) Others specify [ ]

3.3 Have you ever discussed family planning with other people?
(0) No [ ]
(1) Yes [ ]

If No proceed to question No 4.0

3.4 If yes, with who?
(1) Relatives [ ]
(2) Friends/working colleagues [ ]
(3) CBD/CHW/FPFC [ ]
(4) Clinic Staff [ ]
(5) Village-mates [ ]
(6) Others specify [ ]

PART IV:
PERCEPTION, ATTITUDES OF FAMILY PLANNING AND MISCONCEPTIONS

4.0 What is your opinion of family planning?
(1) Strongly approve [ ]
(2) Approve [ ]
(3) Undecided [ ]
(4) Disapprove [ ]
(5) Strongly disapprove [ ]

4.1 What is your opinion on spouse/wife use of FP services?
(1) Approves [ ]
(2) Disapproves [ ]
(3) I don’t know (Not sure) [ ]
If approving go to question 4.3

4.2 If you disapprove what are the reasons?

4.3 Who should use family planning services?
   (1) The wife alone [ ]
   (2) The husband alone [ ]
   (3) The couple [ ]
   (4) None at all [ ]

4.4 Does your wife/spouse approve use of family planning?
   (1) Approves [ ]
   (2) Disapproves [ ]
   (3) I do not know [ ]

4.5 What is your opinion on adolescent’s use of family planning services.
   (1) Approves [ ]
   (2) Disapproves [ ]
   (3) I do not know [ ]

4.6 If you approve, give reasons why?

4.7 If you disapprove please explain why?

4.8 What is opinion concerning men undergoing vasectomy?
   (1) Approves [ ]
   (2) Disapproves [ ]
   (3) Don’t know/Not sure [ ]

4.9 If you approve give reasons why?

4.10 If you disapprove, give reasons why?

4.11 When a man has a vasectomy, he can no longer enjoy having sex?
   (1) False [ ]
   (2) True [ ]
   (3) I don’t know [ ]
4.12  Intrauterine contraceptive device (coil) can be dangerous because it can move around inside women’s body?
(1)  False  [ ]
(2)  True  [ ]
(3)  I don’t know  [ ]

4.13  In your own opinion who is supposed to make decisions related to health and family planning?
(1)  Husband alone  [ ]
(2)  Wife alone  [ ]
(3)  Couple  [ ]

4.14  Who decides on the number of children in the family?
(1)  The couple  [ ]
(2)  The husband  [ ]
(3)  The wife  [ ]
(4)  Parents  [ ]
(5)  God  [ ]
(6)  In-laws  [ ]
(7)  Society  [ ]

4.15  In your own opinion do you believe condoms can protect against pregnancy and STDs including HIV/AIDS?
(0)  No  [ ]
(1)  Yes  [ ]
(2)  I don’t know not sure  [ ]

If yes go to question 4.17

4.16  If no, what are your reasons?
________________________________________________________________________
________________________________________________________________________

4.17  What are the benefits of family planning to the family?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
PART V:

PRACTICE OF FAMILY PLANNING

5.0 Have you ever attended family planning clinic?
   (0) No []
   (1) Yes []

If yes go to question 5.2

5.1 If no what are the reasons?
   (1) Do not know of any F/P clinic []
   (2) Clinic is too far from Home/work []
   (3) No clinics for men []
   (4) Fear being seen by other men []
   (5) Respondent's spouse/wife oppose []
   (6) Never thought of attending []
   (7) Other reasons specify ____________________________

5.2 Have you ever been counseled about family planning by a health worker
   (0) No []
   (1) Yes []

5.3 Have you and your wife ever used any of these family planning methods? (Read and then tick the methods used)

<table>
<thead>
<tr>
<th>Method/Type</th>
<th>Ever used by Respondent</th>
<th>Ever used by wife</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Condoms (Male or Female)</td>
<td>Yes=1</td>
<td>No=0</td>
</tr>
<tr>
<td>(b) Rhythm (counting calendar days)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Abstinence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Withdrawal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Male VSC (Vasectomy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) Oral contraceptives pills etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Female VSC (Tubal Ligation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) Diaphragm Foams tabs jellies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Injectables contraceptives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) Natural Family Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k) LAM (Lactational Amenorrhea Method)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(l) IntraUterine Devices (coils)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(m) Any other method</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.4 For those ever used condom, with who did you use?

1. Spouse/Wife [ ]
2. Girl/Woman friend [ ]
3. Casual partner [ ]
4. Prostitute [ ]

5.5 Is your family currently using any method to delay or avoid pregnancy?

1. No [ ]
2. Yes [ ]
3. Not sure [ ]

5.7 If yes, which methods are you and your wife using currently?

<table>
<thead>
<tr>
<th>Method/Type</th>
<th>Current use by Respondent</th>
<th>Current use by spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Oral contraceptives pills</td>
<td>Yes=1</td>
<td>No=0</td>
</tr>
<tr>
<td>(b) Injectable contraceptives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Intrauterine devices (coil)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Condoms (Male or Female)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Diaphragm foam, tablets, jelly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) Female VSC (Tubal Ligation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Male VSC (Vasectomy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) Norplant implants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Rhythm (counting calendar days)/Abstinence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) Natural family planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k) Lactational Amenorrhea Method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(l) Withdrawal method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(m) Abstinence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n) Other method (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.8 If you are not using any method, what are the reasons? (Tick as many reasons as mentioned. Do not probe)

1. Infrequent sex (Spouse living away) [ ]
2. Wife menopausal/Hysterectomy [ ]
3. Breast feeding/Postpartum [ ]
4. Wife pregnant [ ]
5. Wants more children [ ]
6. Wife unable to get children [ ]
7. Lack of knowledge [ ]
5.9 What are the reasons for your wife not using family planning methods?

1. Fear of side effects [ ]
2. Lack of access/too far [ ]
3. Inconvenient to use [ ]
4. Interferes with body normal processes [ ]
5. Breastfeeding / postpartum [ ]
6. Expensive to use [ ]
7. Want more children [ ]
8. No reasons [ ]
9. Other reasons specify

5.10 Do both of you intend to use or continue using family planning?

0. No [ ]
1. Yes [ ]
2. I do not know [ ]

5.11 What additional information would you like to know concerning family planning? (Don’t read the possible answers but tick the areas mentioned)

1. More on the methods and how to use them [ ]
2. Side effects of most modern contraceptives [ ]
3. Clarifications of rumours and misinformation [ ]
4. Male participation in family planning [ ]
5. Sources of family planning and information services [ ]
6. Nothing more [ ]
7. Others specify

8. Other reasons specify

9. No source known by respondent [ ]
10. Opposition by wife [ ]
11. Religious prohibition [ ]
12. Culture Prohibition [ ]
13. No reason [ ]
14. Other reasons specify

1. Fear of side effects [ ]
2. Lack of access/too far [ ]
3. Inconvenient to use [ ]
4. Interferes with body normal processes [ ]
5. Breastfeeding / postpartum [ ]
6. Expensive to use [ ]
7. Want more children [ ]
8. No reasons [ ]
9. Other reasons specify

5.0 Do both of you intend to use or continue using family planning?

1. Yes [ ]
2. I do not know [ ]

5.1 What additional information would you like to know concerning family planning?

1. More on the methods and how to use them [ ]
2. Side effects of most modern contraceptives [ ]
3. Clarifications of rumours and misinformation [ ]
4. Male participation in family planning [ ]
5. Sources of family planning and information services [ ]
6. Nothing more [ ]
7. Others specify

8. Other reasons specify

9. No source known by respondent [ ]
10. Opposition by wife [ ]
11. Religious prohibition [ ]
12. Culture Prohibition [ ]
13. No reason [ ]
14. Other reasons specify

5.9 What are the reasons for your wife not using family planning methods?

1. Fear of side effects [ ]
2. Lack of access/too far [ ]
3. Inconvenient to use [ ]
4. Interferes with body normal processes [ ]
5. Breastfeeding / postpartum [ ]
6. Expensive to use [ ]
7. Want more children [ ]
8. No reasons [ ]
9. Other reasons specify

5.8 Do both of you intend to use or continue using family planning?

1. Yes [ ]
2. I do not know [ ]

5.7 What additional information would you like to know concerning family planning?

1. More on the methods and how to use them [ ]
2. Side effects of most modern contraceptives [ ]
3. Clarifications of rumours and misinformation [ ]
4. Male participation in family planning [ ]
5. Sources of family planning and information services [ ]
6. Nothing more [ ]
7. Others specify

8. Other reasons specify

9. No source known by respondent [ ]
10. Opposition by wife [ ]
11. Religious prohibition [ ]
12. Culture Prohibition [ ]
13. No reason [ ]
14. Other reasons specify
APPENDIX V:
FOCUS GROUP DISCUSSION (FGD) GUIDE

Participants are notified that their participation will be tape-recorded. The information obtained will be treated in absolute confidence and used only for the purpose of this study.

1. Family Planning (FP) awareness/definition.
2. Child spacing and family limitation.
3. Men awareness of male oriented FP methods.
4. Reasons why some men disapprove of FP.
5. Who should use FP in the family.
7. Men’s views on what is ideal or desired family size.
8. Couples communication about Family Planning.
9. What are the factors that may prevent men from practicing FP.
10. What do men/ people say concerning the following FP methods:
    - Oral Contraceptive Pills
    - Injectables Contraceptives
    - IUCD/ coils
    - Condoms
    - Diaphragm, Foaming tabs, Jellies, Cream
    - Tubal ligation
    - Vasectomy
    - Norplant
    - Natural Family Planning
    - Withdrawal
11. Do men understand the Menstrual Cycle (safe and unsafe days)?
12. Do men approve the practice of FP by Adolescents.
13. What are the men’s suggestions on how they can be involved in FP.
14. What are the men’s proposal concerning the services that may include their participation in FP.
15. What more information concerning family planning do men require.
### Number of Major Industries and Estimated Employees

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of Firms</th>
<th>Employees</th>
<th>Major Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee Factories</td>
<td>48 (Co-op)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee Mills</td>
<td>1</td>
<td></td>
<td>Thika Coffee Mills</td>
</tr>
<tr>
<td>Tea Factories</td>
<td>3</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Dairy Produce</td>
<td>1</td>
<td></td>
<td>Brookside-</td>
</tr>
<tr>
<td>Canning &amp; Fruit Processing</td>
<td>3</td>
<td>2000</td>
<td>Delmonte</td>
</tr>
<tr>
<td>Grain Milling</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Bakery Products</td>
<td>4</td>
<td>200</td>
<td>Broadways, Kenblest</td>
</tr>
<tr>
<td>Confectioneries</td>
<td>2</td>
<td>50</td>
<td>Kenya Tanning Extract</td>
</tr>
<tr>
<td>Wood extract</td>
<td>1</td>
<td>50</td>
<td>Kenya Tanning Extract</td>
</tr>
<tr>
<td>Tobacco</td>
<td>1</td>
<td>50</td>
<td>BAT Leaf plant</td>
</tr>
<tr>
<td>Oil Refinery</td>
<td>1</td>
<td>400</td>
<td>BIDCO</td>
</tr>
<tr>
<td>Spinning, Weaving and Textile Finishing</td>
<td>9</td>
<td>4000</td>
<td>UTI, KIM, Bhupco Synthetic Fibre, Kenknit</td>
</tr>
<tr>
<td>Knitting Mills</td>
<td>2</td>
<td>200</td>
<td>Spinners &amp; Spinners</td>
</tr>
<tr>
<td>Wearing Apparel</td>
<td>21</td>
<td>950</td>
<td>Kenware, Thika Cloth Mills</td>
</tr>
<tr>
<td>Tanneries &amp; Leather</td>
<td>3</td>
<td>500</td>
<td>Bulleys, Leather Industries of EA</td>
</tr>
<tr>
<td>Saw Mills &amp; Other</td>
<td>14</td>
<td></td>
<td>Munene Industry, Ready timber, Timesales etc.</td>
</tr>
<tr>
<td>Printing/Publishing</td>
<td></td>
<td></td>
<td>Carnaud, Metal Box</td>
</tr>
<tr>
<td>Pulp &amp; Paper</td>
<td>1</td>
<td>50</td>
<td>Kenya paper</td>
</tr>
<tr>
<td>Basic Industrials and Fertilizers</td>
<td>1</td>
<td>150</td>
<td>KEL</td>
</tr>
<tr>
<td>Drugs &amp; Medicines</td>
<td>1</td>
<td>90</td>
<td>House &amp; McGeorge</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>2</td>
<td>40</td>
<td>Thika Rubber, Redamed Rubber</td>
</tr>
<tr>
<td>Plastic Products</td>
<td>1</td>
<td>20</td>
<td>Ikenkel, Polysack Super Foam</td>
</tr>
<tr>
<td>Basic Metals</td>
<td>2</td>
<td>7500</td>
<td>Steel Mills, Gna Jivan Screws</td>
</tr>
<tr>
<td>Structural &amp; Fabricated Metal</td>
<td>-</td>
<td></td>
<td>Super Steel</td>
</tr>
<tr>
<td>Motor Vehicle Assembly</td>
<td>1</td>
<td>300</td>
<td>KVM</td>
</tr>
<tr>
<td>Printing</td>
<td>2</td>
<td>300</td>
<td>carnaud Metalbox</td>
</tr>
</tbody>
</table>

**Source:** District Industrial and Trade Development Office, Thika, 1996.
APPENDIX VII: Maps showing the location of Thika district and the study area.
APPENDIX VIII: Map of Thika showing Industrial Area and the Factories Visited

KEY:

P= Mjengo(K) LTD
N= Kel chemicals LTD
Q= Thika Clothes Mill
V= United Textiles LTD
R= Carnaud Metal Box
W= Bulleys Tanneries

S= Kenya Fruits Processors
X= Sana Shoes (K) LTD
T= Muus Feeds(K) LTD
Y= Howse & McGeorge
U= TPSCI LTD
Z= Thika Rubber Industries
12th October 1999

TO WHOM IT MAY CONCERN

RE: ROBERT KAMUGI MAINA

This is to introduce and certify that the above named, who is an MPH postgraduate student at Kenyatta University, is attached to AMREF Kenya for his fieldwork. He is presently attached to our HIV/AIDS Control Project in Thika District.

He will conduct research on family planning among married male, factory workers in Thika town. Findings from his study will assist us and the Ministry of Health develop strategies for improved family planning services for males, a group that has not been targeted so far. We believe that an informed married male will support his family to match resources to family needs and avoid such diseases as sexually transmitted diseases including HIV/AIDS.

This is therefore to request you grant him permission and give support to undertake the study.

Yours sincerely

DR. ELIAB SERONY SOME, MB, MPH, PhD
Head, Strategic Planning & Monitoring Office

cc: Post-graduate Studies Coordinator
Zoology Department
Kenyatta University
P.O. Box 43844
Nairobi
TO WHOM IT MAY CONCERN

ROBERT KAMUGI MAINA

The above named person is a full time student in this University. He is registered in the Department of Zoology for a M.Sc degree programme in Public Health and Epidemiology.

He has informed us that he wishes to apply for support from your organisation for his research proposal entitled "Knowledge perception and practice of family planning in Thika, Kenya".

His application has our strong support especially in view of the fact that the degree programme he pursuing is virtually new in this institution and because his research work will not only be of benefit to Kenya, but to the developing countries in general.

This is therefore to confirm that this Faculty approves his proposed research work. He will have all the support that he will require as regards preparation of his thesis.

Yours Faithfully,

J. M. MUTUNI
Office of the Dean

For: DEAN, FACULTY OF SCIENCE

20 JUN 1999
To Whom It May Concern

Ref: Research on Family Planning Knowledge, Perception and Practice by Mr. Kamugy Robert

This is to inform you that this office has no objection to the above research being carried out in our district. This would be an entry point to the factors influencing other issues like M/C/HD etc.

Yours faithfully,

Dr. P.G. Kirubi

Medical Officer of Health
Thika District Hospital
P. O. Box 227
Thika.
Dear Sir/Madam

RE: RESEARCH SURVEY OF FAMILY PLANNING AMONG MARRIED MALE FACTORY WORKERS

Mr. Kamugi Robert Maina is a post graduate student at Kenyatta University undertaking a M.sc in Public Health and epidemiology.

He would like to conduct a research targeted at the above group of factory workers and the data collected from this survey will facilitate formulation of policies that will ensure we have an informed and healthy workforce as far as sexually transmitted diseases and HIV/AIDS are concerned.

Your assistance and co-operation in facilitating the above survey will be highly appreciated.

J. N. Hakaa
DISTRICT LABOUR OFFICER
THIKA

KENYATTA UNIVERSITY LIBRARY