

**HEALTH AND SEXUALITY AMONG OUT OF SCHOOL
ADOLESCENTS IN AN URBAN SLUM IN NAIROBI,
KENYA**

**A THESIS SUBMITTED IN PART FULFILMENT
FOR THE
DEGREE OF MASTERS IN PUBLIC HEALTH OF
THE UNIVERSITY OF NAIROBI, DEPARTMENT
OF COMMUNITY HEALTH**

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JUNE 1999

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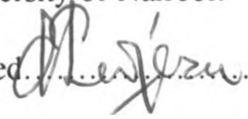
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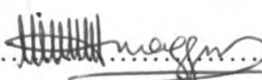
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DEDICATION

This work is dedicated to my husband, Mr. Adnan Merdin for his patience and support throughout my work. Our children Alican, Atakan and Atilla. To my parents Mr. Adan Ali and Mrs. Esther Ali for the love and education they gave me and finally to my late brother, Harun, my sisters Racheal, Miriam and Lidya and my brother in law, Ergun.

ACKNOWLEDGMENTS

1. I would like to extend my sincere thanks to the Department of Community Health, University of Nairobi and to GTZ for sponsoring my research project.
2. Special appreciation goes to my supervisors, Mr. E.K. Njeru, Dr. J. Olenja of the University of Nairobi, Department of Community Health and Dr. A.B. Maggwa of The Population Council. I wish to thank them for the advice and help given to me at all stages of this study. Their support and encouragement did a lot to enable me to complete my work.
3. The survey would not have been undertaken without the cooperation of the youth of Kibera, the chief Mr. Ali Marshall and our guard, Mr. Abdul Kafe
4. I am also grateful to my interviewers who assisted in data collection and especially Mr. Tom Khanadi who made the data collection very exciting.
5. I am also grateful to my employer, the Ministry of Health for sponsoring my postgraduate studies and to the Office of the President for granting the research permit.
6. My final gratitude goes to all who contributed towards the completion of this work, especially to Dr. Sarah Onyango, Mr. Livingstone Wanene and Mr. Kihoro of the Department of Community Health for Providing advice and computer facilities.

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LIST OF ABBREVIATIONS

WHO	World Health Organization
ASFR	Age Specific Fertility Rate
TFR	Total Fertility Rate
KDHS	Kenya Demographic Health Survey
CBS	Central Bureau of Statistics
AIDS	Acquired Immuno-Deficiency Syndrome
HIV	Human Immuno-deficiency Virus
IPPF	International Planned Parenthood Federation
FGD	Focus Group Discussion
MOH	Medical Officer of Health
DO	District Officer
AMREF	African Medical and Research Foundation
DHS	Demographic Health Survey
STD	Sexually Transmitted Disease
SPSS	Statistical Package For Social Sciences
NGO	Non-Government Organizations
KSH	Kenya shilling
SQ	Square

ABSTRACT

In the last decade, the reproductive health and sexuality of adolescents has received increasing recognition world-wide. Several factors have accounted for these new trend. More than half of the population in developing countries, constituting 85% of the worlds young people is under the age of 25 years. Hence, the demographic prospects of the future, with its consequences, will depend on the reproductive, sexual behaviour and health of these adolescents. The emerging epidemic of the hazards of unprotected premarital and teenage sexual relations, especially pregnancy complications, induced abortions, sexually transmitted diseases, including HIV/AIDs among today's adolescents put a greater burden on public health both in the short and long-term. The high population rate of Kenya (3.7% p.a.) is significantly contributed to by the adolescents who have a very high Age-specific fertility rate (ASFR). In Kenya, adolescents constitute about 25% of the total population and it is the fastest growing segment of the population³. Previous Surveys show that teenage sexual activity is increasing in many countries, and that in some, adolescents are starting sexual activity earlier and having more partners and more casual relationships.

This was a cross-sectional survey conducted on out of school adolescent health and sexuality in Kibera slum in the division of the Nairobi city, with the aim of investigating: the common health problems and sexual behaviour; opinion on abortions; contraceptive knowledge, attitudes and use; and knowledge on STDs/HIV in adolescents out of school. The study population comprised of female and male adolescents aged between 14 and 20 years who were not attending school. Both structured interviews and Focus group discussions (FGDs) were used to collect data. A total of 397 adolescents were interviewed and nine Focus group discussions were carried out. In most cases results obtained from the FGDs were similar to those of the structured interviews.

The study found that a large proportion of the adolescents (81%) had indulged in sex, the mean age at first coitus being 14 years. Majority of the respondents also knew of a method of modern contraception and current use of a method was found to be high (43.6%). The main source for contraceptives was mass media followed by peers, although they preferred their parents to be their main source of information on Reproductive Health and Sexuality.

The study concluded that majority of the adolescents are sexually active and that the prevalence of unprotected sex in out of school adolescents is high, leading to the high prevalence of STDs. The study also implied that there are some activities in the study area which have lead to the high knowledge on modern contraceptive and Sexually Transmitted Diseases. There was also good knowledge on the transmission of HIV/AIDS. Adolescents also felt that parents could be of great help to them on matters related to sexuality.

The study underscores the need to strengthen and sustain whatever activities that are responsible for the high level of contraceptive knowledge and prevalence. Activities that will enhance and develop the parents participation and peers in Family Health Education also need to be developed. Programmes addressing the needs of adolescents need to be strengthened. Accessibility to family planning services, and counseling on family planning /abortions for the youth need. to be provided. These services should be youth friendly.

INTRODUCTION AND LITERATURE REVIEW

1.1 General Introduction

For many years, the health of adolescents has been neglected because they are generally less vulnerable to disease than children and the elderly people (elderly being 60 years of age and above). One third of the world's population is between ten and twenty years of age¹, and four out of these young people live in developing countries. The adolescents are, however, highly vulnerable to the radical changes in social conditions that have occurred in recent times, which can have a profound effect on their health. In many societies, changes in social and sexual behaviour have increased the risks of unwanted pregnancy, sexually transmitted diseases (STDs), and the new threat of Acquired Immuno-deficiency Syndrome (AIDS). The need for action to promote healthy development of adolescents has never been more urgent.

Adolescence has been defined by the World Health Organization (WHO) as being the ages of 10-19 years, and youth as between 15-25 years². While adolescence can simply be described as the process whereby an individual makes a transition from childhood to adulthood, it is difficult to define adolescence in specific universal terms. A more detailed definition worked out at a WHO meeting on pregnancy and abortion defines adolescence as a period during which:

- ◆ The individual progresses from the point of initial appearance of secondary sex characteristics to that of sexual maturity;
- ◆ The individual's psychological process and patterns of identification develop from those of a child to those of an adult;

- ◆ A transition is made from the state of socio-economic dependence to one of relative independence.

One thing is certain, though no longer a child, an adolescent is not yet considered by society to be fully an adult. They do not get the protection accorded to the adult or the tender care postulated for the child.

The major problems of adolescents include:

- ◆ Sexual and Reproductive Health problems;
- ◆ Unemployment and underemployment;
- ◆ Rural/urban migration;
- ◆ Socio-economic deprivation;
- ◆ Risky behaviour, for example smoking, drug abuse, which may lead to incidents of accidents; crime and suicide; unprotected sex may lead to contraction of STDs, HIV/AIDS and unwanted pregnancies.

In Kenya, adolescents constitute about 25% of the total population and it is the fastest growing segment of the population³. The population of adolescents aged between 15-24 years grew by 72.2% between 1969 and 1979 census in contrast to 40.1% increase for the total population. This group (15-24 years) is also among the most fertile. The older Kenyan adolescent aged 20-24 years have one of the highest recorded Age-Specific Fertility rate (ASFR) in Africa⁴. The significance of the high ASFR among adolescents in Kenya cannot be over-emphasised given that the country has one of the fastest population growth rates in the world i.e. 3.7% per annum with a Total Fertility Rate (TFR) of 5.4

Children per woman²⁰. In addition, about half of Kenya's population is aged 15 years and below, thus providing the potential for a continued higher population growth rate.¹⁷

The behaviour of adolescents can have both short and long term consequences. Unprotected sexual relations are at the heart of problems associated with unwanted or too early pregnancies and childbirth, induced abortion and STDs including HIV infection leading to AIDS. These activities may also result in maternal and child morbidity, mortality and infertility, not to mention thwarting of the social and economic development of young people especially females.

There are perhaps four obstacles to good health and health behaviours in young people.

These are:

- ◆ Young people themselves generally don't have adequate knowledge about their own maturation, especially sexuality, and have little information about what reproductive health services exist and how to use them;
- ◆ People who could provide such help - doctors, nurses, teachers, religious leaders, youth leaders and others are rarely trained in issues of adolescent sexuality or on how to communicate with young people on adolescent sexuality effectively;
- ◆ Existing services are rarely designed with young people in mind and almost never involve youth in planning or evaluating the services;
- ◆ Policies and legislation that affect young people are often simply a by-product of other actions and do not express a clear and constructive approach to young people's needs.

The obstacles reflect myths about adolescent sexuality that create fear among adults. Many adults believe that young people are promiscuous, that giving adolescents information and help to prevent pregnancy and STDs will make them more sexually active or promiscuous. This may not necessarily be so. Young people usually have the same fundamental values as their parents. Overcoming obstacles to good adolescent's health requires doing away with such myths and clearly articulating other positive ideas for decision-makers. Information from the young people themselves is needed to accomplish this, because they know more about their own behaviour than adults do.

Sexuality and Sexual behaviour.

Grupo Ceres defines Sexuality as having different meanings for different people in different contexts. Drawing on sociological and anthropological literature, sexual behaviour consists of actions that are empirically observable (in principle, at least): what people do sexually with others or with themselves, how they present themselves sexually, how they talk and act. In contrast, sexuality is a more comprehensive concept that encompasses the physical capacity for sexual arousal and pleasure (libido) as well as personalised and shared social meanings attached to both sexual behaviour and the formation of sexual and gender identities (Grupo Ceres 1981).

1.2. LITERATURE REVIEW

Of the 500,000 women who die every year world wide as a result of pregnancy, 40% die due to abortions done under inadequate conditions. Almost all of these women live in developing countries⁵. Since in Africa, the most neglected target group of all are the adolescents, who make up half of Africa's population, it is conceivable that a considerable number of those deaths are of adolescents. Their sexuality is tabooed by parents as well as governments. Yet because of their ignorance and increased sexuality they are more exposed to unwanted pregnancies, illegal abortions and STDs including AIDS. Over 50% of the students and 33% of the non-students aged 12-19 years who became pregnant outside marriage resorted to induced abortions, according to a study done in Monrovia, Liberia⁶.

In Sierra Leone, adolescents aged 15-19 and 20-24 accounted for 23% and 21% respectively of all abortions in 1980. Further, 80% of all the patients with induced abortion were aged 15-24 and 30% of them had experienced previous abortions⁷. In Nigeria, of all adolescents who become pregnant, 90% choose abortion⁸. In Kenya, induced illegal abortions account for 84% of all septic abortions⁹.

In 1987, a survey of high school girls in Nairobi city and a rural area showed that 24% of the urban and 58% of the rural girls were sexually active¹⁰. The disparity in sexual activity between urban and rural school girls is anomalous to popular belief. It has been hypothesised that urban school girls exposed as they are to mass media, a cosmopolitan population and a more sexually stimulating environment, are likely to be more sexually active. Kenya's high adolescent fertility is related to high levels of sexual activity among

adolescents accompanied by low contraceptive use (Central Bureau of Statistics Compendium Vol.1, 1979 Population Census).

In a survey conducted on Female Adolescent Health and Sexuality in Kenyan Secondary Schools by AMREF, among the 34% of girls who were sexually experienced, 7% of them reported ever being pregnant and 47% of the pregnancies were aborted while 53% ended in deliveries. For those who reported they had ever been pregnant, 11% were pregnant at the time of the survey. Nearly 18% of the sexually experienced girls had ever used modern contraceptives and 47% of sexually active girls reported that their male sex partners had never used a condom during sexual intercourse with them. Mean age at menarche was 14.35 years. Thirty-four percent of the girls had ever had sexual intercourse. Average age at first coitus was 14.7 years. By the age of 15 years, 38% of sexually experienced girls had already had this experience. Only 28% of the girls knew that pregnancy was likely to occur if sexual intercourse took place around mid-cycle. The girls basic knowledge on common STDs was quite good. Seven percent of the sexually experienced girls had ever been pregnant¹¹.

A survey by the International Planned Parenthood Federation (IPPF) in 1977 indicated that throughout the world, three quarters of those under fifteen have no access to reproductive health information¹².

Millions of adolescents world-wide are sexually active and at risk for pregnancy, as well as AIDS and other STDS. In some sub-Saharan Africa countries, for example, as many as 82% of young women have been married or had premarital sex before the age of 19. Many youth are sexually active for some time before they seek condoms or other

protection. They do not plan for sexual activity, often afraid that obtaining contraceptives means they are being immoral¹³.

The use of contraceptives among unmarried young women is considerably greater in developed countries than in developing countries. The rates vary from 7% in Spain and 19% in Hungary to 70% in Denmark and 91% in the United Kingdom¹³. In developing countries, fewer than 30% of married women aged 15-19 use contraceptives. In some countries the figure is as low as 2% or 3%.

According to Kenya Fertility Survey (1977-1978)¹⁴, contraceptive prevalence among those aged 15-19 was only 2% and for the overall adolescent population irrespective of marital status, the respective proportions using modern contraception in 1977 was 3.4% among the under twenty years of age and 10.8% for the age groups 20-24 years. Among females under 20 years of age, 72.9% had heard of modern contraception, 87.8% being the equivalent for those aged 20-24 years. Maggwa¹⁵ found that 2.6% of the girls had ever used any form of Family Planning and the equivalent figure for the boys was 3.1%.

In Nairobi, despite high rates of sexual activity in the 15-19 age groups 53.8% of the boys and 69.8% of the girls interviewed knew nothing about contraception. In another survey of 100 Kenyan school girls who became pregnant, 65 had never received information about contraceptives¹⁶.

A study done by Gachuhi in a survey of adolescent sexuality and Family Planning revealed that adolescents had a low level of knowledge of facts about human reproduction but post elementary students knew a great deal about contraceptives although very few had actually used them¹⁷.

In Nigeria, a study conducted by Ladipo in 1982 showed that a substantial proportion of the young unmarried population is sexually active and many are engaging in sexual relations without the benefit of contraceptive protection¹⁸. A study done by J.M. Igaga found that 40% of the sexually active adolescents do not take any precautions against pregnancy¹⁹.

The Demographic and Health Survey (DHS) of 1993 looked at age at first birth²⁰. The age at first birth is a crucial demographic indication that usually reflects age at first marriage, level of contraceptive used and pre-marital sexual exposure. Early initiation into child bearing is generally a major determinant of large family size and rapid population growth, particularly in countries where Family Planning is not widely practised. Child bearing begins early in Kenya, with the majority of women being mothers before they reach the age of 20. The median age at the first birth was found to be 19. In the same survey it was noted that urban women start childbearing later than rural women. Educated women, especially those with secondary education start childbearing later than those with no education.

In the same survey it was found that 17% of teenage women were mothers and another 4% were pregnant with their first child. It was also found that slightly over half of the women aged 15-19 had not yet had sexual intercourse, meaning that just under half had been sexually active. The Kenya Demographic Health Survey of 1993 also showed that 17% of teenage women were mothers while 4% were pregnant with their first child. This presented a decline in teen childbearing. The 1989 KDHS had showed that 21% of women aged between 15-19 were already mothers. This might be explained by the fact that there has been a radical shift to greater use of modern methods of contraception. In the same survey, when knowledge of modern contraceptive methods and source were

looked at, it was found that 98.1% knew of any method, 97.0% knew of a modern method and 89.6% knew a source for modern method.

A worker at CAFS (Centre for African Family Studies)²¹ did a study on "Socio-Cultural and Medical outcomes of Adolescent Pregnancies in rural Kenya". Of the 1058 female adolescents interviewed, 50% of them were single while 45% were living with their husbands. The majority of the other interviewees had been pregnant only once, 24% were still bearing their first pregnancy at the time of the interview, 57% had delivered once and 4% had more than two pregnancies. Most of them had carried their first pregnancy to successful delivery, while 15% had stillbirths, 3% had terminated their first pregnancies through abortions.

It was found that 75% of the adolescent interviewed had their first sexual intercourse before the age of 16. Age at first intercourse increased with level of education. Most girls were aware of modern contraceptives, but the condom was noted to be unfamiliar to most of the adolescents. Apparently 25% of the adolescents had some form of STD in the past one year before the survey. Use of contraceptives was fairly high among the girls interviewed 28% were using a method of contraception at the time of the survey and of these 16% were using a modern method. The incidence of pregnancy was very high among students in the districts covered by this study. 42% of the students interviewed had their first pregnancy while still in school²¹.

Numerous recent studies in Kenya show that youth are beginning sexual intercourse at an early age. It is documented that by age 19 about 85% of teenagers have undergone sexual experimentation and initiated coitus.²² The age at first sexual experience being between 7 and 13 years of age²³. Thus the mean age at first coitus for boys and girls is 13 and 14

years respectively. Other studies suggest that young people are sexually active by ages as early as 9 to 10. This sexual activities are not protected by contraceptives and result in high levels of STDs, HIV infections, unwanted pregnancies, incomplete abortions and in many cases death. A recent study in 4 rural districts showed that 25% of the 1,058 adolescents interviewed had some form of STD in the previous one year before the survey²⁴

Ochola S. A.¹²⁵ looked at the number of lovers ever had among polytechnic students. His study showed that 81.3% of the male and 65.7% of the female respondents had previously had a lover, that is, more males reported having had a lover. He also found out that more males currently had a lover than their female counterparts. Overall 60.2% of the respondents stated that they currently had a lover. In the same study it was found out that the majority of the respondents who were sexually active had engaged in sexual relations during the last six months. Of these, 49.6% of the males and 24.2% of the females had had sex with two or more partners. A study conducted by The National Council for Population and Development (NCPD) and John Hopkins Population Communication Services/Population Information Services²⁶ in 1995 showed that 39% of unmarried Kenyan girls aged 15-19 years, and 65% of unmarried boys, of the same age had had sexual intercourse. In the same study it was also found that by age 19, 44% of girls had begun child bearing. The study also showed that teenagers lack sufficient information on STDs including AIDS.

Njau W. and Radeny²⁷ in 1995 carried out a study on "Adolescents in Kenya, The Facts". Their findings revealed that: adolescents lack adequate reproductive health information: over 90% of teenage pregnancies are unintended: teenage pregnancy increases the risk of obstructed labour, abortion, maternal morbidity and mortality: over 71% of teenagers 15-

19 years would like reproductive health information and services availed to them and that over 252,800 abortions are done to girls aged 15-19 each year in Kenya. This translates to 710 abortions in a day. This same study showed that teenagers aged 15-19 years constitute 35% of all reported AIDS cases in Kenya. The KDHS of 1993²⁰ revealed that in one rural area, 57% of the young people below 20 years had contracted an STD, while Njau²⁴ showed that teenagers aged 15-19 years constitute 35% of all reported AIDS cases in Kenya.

CHAPTER 2

2. RESEARCH PROBLEM

2.1. Statement of the Problem

There is still a great deal that is not known about how to make reproductive health programs for adolescents more effective. The phenomenon of "adolescence" is one of the greatest public health concerns in Kenya. By age 19, about 85% of adolescents would have initiated coitus. Currently, youth sensitive policies are yet to be developed. This has contributed to the complexity of the problem of adolescent sexuality. Many studies on reproductive health have tended to concentrate mainly on the married population and on youth who are in educational institutions. However, there has not been conclusive agreement on the strategies to use to reach the adolescents and neither has there been an incorporation of adolescents views in the formulation of such strategies wherever they exist.

Adolescents don't live in isolation. Much of what they do is determined by what others do, including key adults in their families, in health and education programs, in the work place, in the environment generally, and in policy and law making positions. The needs of adolescents have traditionally been given low priority. While they do not appear as frequently in morbidity and mortality statistics, a longer-term view of their behaviour and its consequences leads to a persuasive public health argument for giving the needs of adolescents high priority.

Adolescent coitus may result in unwanted pregnancy, illegal abortions, STDs, and HIV/AIDS. Sexually transmitted diseases are a major problem of the young people world-wide. Adolescents often fail to get proper treatment for STDs, others may not be aware that they have a problem and hence fail to seek help. These problems were

addressed as a world-wide concern during the International conference on Population and Development (ICPD) in Cairo in 1994, as a part of discussion on human rights. What become apparent then, is that most countries in the world, Kenya included, face a dilemma when considering the problems associated with adolescent sexual activity. This dilemma is concerned with whether or not to provide adolescent with information about their sexuality and reproductive health needs, whether to have services that cater to their reproductive needs. Services on Maternal and Child Health, (MCH), Family planning (FP) and Antenatal care (ANC) already exist while no specific services for the youth are available. Problems of early pregnancies, unwanted pregnancies, abortions and STDs/HIV arise due to lack of these programmes and services. Youth friendly services which will provide information on reproductive health needs need to be established.

2.2 Justification of the study

The high population growth rate of Kenya (3.7 p.a) is significantly contributed to by the youth who have a very high Age-Specific Fertility Rate (ASFR). Surveys show that teenage activity is increasing in many countries, and that in some adolescents are starting sexual activity earlier and having more partners and more casual relationships. However, many sexually active teenagers know little about reproduction or contraception. Considerable gains in the long-range reproductive health could be achieved through adolescent health programmes which can only be developed after determining their behaviour.

The present day adolescents live in a fast changing world where cultural values are rapidly being eroded and replaced by new ones. The knowledge, attitude and practice of adolescents on reproductive health, contraception, sexual behaviour, STDS and

HIV/AIDS could be influenced by these external forces. It is therefore necessary to have an updated picture of this situation through primary research on the adolescents. Research conducted in Kenya on adolescents has mostly been centred on schools and other formal education institutions, thus, most times omitting adolescents who are out of formal educational institutions. This group is a vulnerable one, especially as pertains to HIV/AIDS, STDs, unwanted pregnancies, abortions, low contraceptive use, early marriages and other sexually related problems. This is because they may lack the guidance that is accorded their counterparts through the formal school system. The contribution of adolescents to the sexually related problems is also relatively unknown. Therefore, a study attempting to fill in this gap by focusing on both sexes is invaluable. The relevance of this study was to gather the correct information on adolescent sexuality, contraception, STDS and HIV/AIDS which will help in development of appropriate programs to address adolescent health. It will assist in advocating for the health of the adolescent and providing services that cater for their special reproductive health needs.

2.3. Study Objectives

2.3.1. General objectives

To obtain information on out of school adolescents on their health, sexuality and sexual behaviour. The aim of the study was to define areas of focus for interventions and make this information available to policy makers and program managers to facilitate development and implementation of programmes aimed at improving adolescent health.

2.3.2. Specific objectives

1. To determine the sexual behaviour of adolescents of Kibera slums.
2. To assess most common illnesses (morbidity) among these adolescents.
3. To determine contraceptive knowledge, attitude and use or practice among adolescents.
4. To assess the extent to which existing programmes address adolescent reproductive health needs.

2.4. Hypotheses

A number of hypotheses already exist on adolescent sexuality and sexual behaviours.

This study wished to test the following commonly held hypotheses:

1. Adolescents have risky sexual behaviours.
2. Most common illnesses among adolescents are different from the general population.
3. Most adolescents do not use contraceptives.
4. Existing programmes do not adequately address adolescent reproductive health needs.

CHAPTER 3

STUDY METHODOLOGY

3.1. Study Design

This was a descriptive cross-sectional study. The purpose of the study was to provide information on out of school adolescents' health, sexuality and sexual behaviour. Qualitative and quantitative methods of data collection were used. The study instruments comprised of a structured questionnaire for the interviews and a question guide for the Focus group discussions. A total of 397 adolescents were interviewed while nine FGDs were conducted. The average size of an FGD was 8 to 10 participants.

3.2. Study Population

The study was carried out on adolescents aged between 14-20 years in the Kibera slums of Nairobi. WHO defines adolescence as being the age between 10-19 years. For the purpose of this study, the age range used was 14-20 years since interviewing adolescents younger than 10 years of age would have been very sensitive. The study included both male and female adolescents out of school.

Inclusion criteria

1. Both male and female adolescents aged between 14 and 20 years and are not in an educational institution.
2. Willingness to participate in the study.

Exclusion criteria

1. Those not willing to participate in the study.
2. Adolescents below 14 years of age.

3.3. Study Area

The study was conducted in Kibera, an urban slum in Nairobi City, the capital of Kenya. The choice of an urban slum was ideal because slums house more than 50% of Nairobi's population. The slums are overcrowded and most of the residents are either not in school or are unemployed. All ethnic groups are also represented. Kibera was chosen because it is the largest slum not only in Kenya but in Sub-Saharan Africa²⁴.

3.3.1. Description of study area

Topography

Nairobi is the capital city of Kenya and is largest city in East and Central Africa. It is situated on the edge of the Athi River plains at an altitude of about 1,700m above sea level. It covers a total land area of 684 km² which is about 0.1% of Kenya's total land. Kibera is the largest slum in Nairobi; located in Langata division about 7 Km from the city. The Kibera group of settlements is the largest informal settlement in Nairobi. It was originally used as a settlement for Nubian soldiers who were part of Kings African Rifles during the second world war and was established during the 1940s.

Demographic Characteristics

Kibera covers an estimated area of 2256 hectares and has an estimated population of 393,961²⁴ with a density of 1100 persons/ha. The population of Kibera is divided into nine villages (at the time of the study) with population ranging from 20,000 to 50,000 in each village. The nine villages are: Makina, Kisumu Ndogo, Gatwikira, Mashimoni, Laini Saba, Lindi, Soweto, Silanga and Kianda. Population density is highest in Kisumu Ndogo, Laini Saba and Gatwikira while Makina, Mashimoni and Lindi, some of the original areas occupied by Nubians, have lower density.

Housing Conditions

Most houses are constructed of mud and wattle and have corrugated iron roofs. They are usually built in rows. Most rooms are 3 meters square. Monthly rents are between 340 and 800 Kenya shillings (KSH).

Infrastructure and services

Since Kibera is government land with temporary occupation licenses, the City Council of Nairobi, a local authority, does not provide services for the area.

Water: Water is obtained from kiosks at a cost. Many of these water kiosks are run by women's water committees. Seventy five-ninety percent of the population gets water this way. Other sources of water include the Nairobi Dam (although it is polluted) and rain water catchment from the roofs.

Sanitation: Principally pit latrines are used, one per about 50 persons and in some areas up to one per 500 people. Because of the inadequacy of toilet facilities, human excreta litters the area posing a major health risk especially during the rainy season when the area floods. Hardly any bathing facilities exist and where they do, they are in bad conditions such that residents hardly use them.

Roads: Mostly earthen roads (temporary) and footpaths. Planned roads are found in Makina, Kisumu Ndogo, Lindi and Silanga.

Health Facilities: Health services in Kibera are provided by a number of NGOs and a few government health facilities. There are 20 NGO run clinics that offer free services. There is also a large number of private clinics owned and operated by medical doctors that offer services for a fee. Other health services are accessible within walking distance at Kenyatta National Hospital, Ngong Road Dispensary, Langata Health Centre, Woodley Health Centre, Dagoretti Corner Dispensary and Otiende Health Centers. There are also traditional medicine men, women and traditional birth attendants.

Education: There are four Government schools within proximity of the informal settlement of Kibera, although there are none within the informal settlement. There is one private primary school (Mashimoni Primary school) but no secondary schools. Private facilities include numerous nurseries/day care centers and some special schools for disabled children and street children, adult education and technical skills. Many children enrol! in schools in the surrounding area, however, this number is limited by the large number of applicants, the high cost of uniforms and books, and the mandatory building fee paid annually as a contribution to the maintenance of the school.

Organizations: The following are the organizations that provide various facilities to Kibera: International Planned Parenthood Federation (IPPF) provides family planning services; Danish Volunteer Service, Christo Utuwema and Church of God Prophecy provide housing; Don Bosco Boys Town, Focolare Movement, and Kibera Mosque provide health, education and welfare; Nairobi Family Support Service provides welfare services; Undugu Society of Kenya, Y.M.C.A and Crescent Medicaid provide health services; Catholic Church provides housing, health and education; Church of God education and Friends World Committee for Consultation provides education, especially vocational training for women.

Recreation: There are few recreational facilities in Kibera. Through self-help efforts the community has built a social hall. Undungu Society, an NGO, provides a play ground, sports facilities and a hall for community use. The private sector also numerous bars and night-clubs which cater for adults. There is a serious shortage of open space and lack of ground cover (grass) in the area, hence children are often seen playing near garbage dumps, open drains and in other environmentally hazardous areas.

Economic Activities and Source of Income: Household incomes are in the range of Shs 700-1,800 per month. A survey of 677 respondents in Kibera in 1991 by K-REP showed the following sources of income: Employment 38%, Agriculture 26% (vegetable growing) and Self-employment 49%.

3.4 Sample Size

The sample size was based on the assumption that the prevalence of contraceptive knowledge among adolescents under study is 65%¹⁷. Therefore the sample size was determined using the formula:

$$n = \frac{P(100-P) \times f(1-\alpha/2)}{d^2}$$

where P = estimate of the population with the contraceptive knowledge.

$f(1-\alpha/2)$ is the confidence level for 95% confidence interval

$f(1-\alpha/2)$ is = 3.842

d is the level of precision (α 5%)

$$n = \frac{65(100-65) \times 3.842}{5^2} = 350$$

The minimum sample size was 350. In view of the sensitive nature of the study, refusal to participate and drop-outs were anticipated, therefore giving the sample size of 385. This was worked out using a non-response rate of 10%, hence 385 adolescents were sampled for the study.

3.5. Sampling Procedure

The procedure used was cluster sampling. Kibera was selected from the slums in Nairobi. At the time of the study, Kibera had 9 villages namely: Makina, Kianda, Gatwikira, Kisumu Ndogo, Lindi, Lami Saba, Silanga, Soweto, and Mashimoni. All the villages in Kibera were included in the study. Clusters were selected from each village and from these clusters households were randomly selected. The first household in each cluster was randomly selected using a prominent place e.g. the elders house or a church. Interviews were conducted with the adolescents in the households who were aged 14-20 years and were out of school. After selecting the first household the research assistants moved to the next nearest household. Any household without an adolescent who did not satisfy the criteria for selection was skipped and the research assistants moved to the next nearest household. The adolescents in every fifth household were not interviewed but requested to attend a focus group discussion. At least 43 adolescents were interviewed per village. Where there were more than one adolescent in a household they were all interviewed. A household was defined as a person or persons staying together in the same house or under the same roof or several roofs who cook and eat together.

3.6 Logistics

3.6.1 Preparatory Organization

The principal investigator identified four interviewers who underwent a two day training session. During this training a pre-test interview was carried out in Kawangware slum in Nairobi. The questionnaire was modified and completed after this.

3.6.2. Field Organization

The field work was carried out in two stages, namely:

1. Interviewing the individual respondents using a structured questionnaire.
2. Conducting Focus group discussions using a guideline;

3.7. Data collection Techniques and Procedures

Data was collected in two ways; FGDs and a structured questionnaire. The main data collection tool was a pre-tested structured questionnaire which was prepared in English and verbally translated to Kiswahili whenever it was necessary.

A discussion guide (annex ii) was used to facilitate the discussions. Nine sessions were held, three of male respondents, three of female respondents and three of mixed male and female respondents. Each FGD had at least eight respondents whose ages ranged between 14-20 years and were currently out of school. The discussions were carried out in a quiet isolated area (usually an elder's home or a community centre). The principal investigator conducted the discussions while two interviewers recorded down everything said and the third interviewer was an observer. The entire field work took about 30 days.

3.7.1. Data Collected

1. Socio-demographic characteristics: age, sex, marital status, number of children, education level and religion.
2. Age at menarche and puberty.
3. Knowledge, practice and opinion on contraception.
4. Pregnancy, abortions and opinion on abortions.
5. Sexual practices, attitudes towards sexual activity of adolescents.
6. Knowledge on STDs and protection against STDs.

3.8. Data management and analysis

The questionnaires were structured. All open ended questions were coded before data entry. The data from the questionnaires was checked and cleaned, then entered with a computer using SPSS (Statistical Package for the Social Sciences) data entry programme.

Analysis of quantitative data.

Data analysis was done by use of SPSS PC + programme. The results are presented in descriptive form, using Frequency tables, cross tabulations and figures. Statistical tests of association and significance are given where applicable. Level of significance is fixed at 0.05. (p value =0.05)

Analysis of qualitative data.

The qualitative data from the focus group discussions was transcribed and a summary written. The data from the field notes of the FGDs was compared with the results from the structured questionnaire. Similarities and disparities were described.

3.9. Ethical considerations

Ethical Consent

Prior to the study, clearance was obtained from the Ethical Committee of the Department of Community Health, University of Nairobi and from the Office of the President. Permission was obtained from the Provincial Commissioner (P.C.) and the Chief of Kibera who provided a guide to take the survey team to the various villages and introduced them to the Elders.

The following people were also approached:

1. The MOH of Nairobi was informed about the study and his cooperation sought;
2. The local administration (chiefs, sub-chiefs and DO) were also informed about the study and their cooperation sought.
3. Parents of the adolescents were informed of the study.

A detailed explanation of the purpose of the study was given to those involved. The nature of the study was also explained to the participants. The method used to select the participants was explained to them in simple terms, and they were assured that the findings of the study would be kept confidential and that no names would be entered on the questionnaires. In order to enhance the response rate, respondents were assured that the questions were not a test of their intelligence and that whatever answers they gave would be treated with extreme confidence. Female respondents were interviewed by female interviewers and vice-versa, but the option of freedom of choice was left open. Respondents who had been interviewed were requested not to disclose the questions to the others as this would bias their response. To ensure complete privacy, interviews were conducted on a one to one basis in an isolated area (mostly in the house with other members of the households being requested to wait outside). Focus group discussions were carried out in a quiet area where the adolescents felt free to talk. The quiet place was usually the elders house with only the interviewers and the participants present.

3.10 Limitations of the study

1. Due to the fact that some of the questions asked were sensitive, some respondents were not free to discuss freely and hence chances of inaccurate data.
2. Accuracy of reported ages, age at menarche in female adolescents, puberty in male adolescents and age at first sex may not be accurate data due to recall bias.

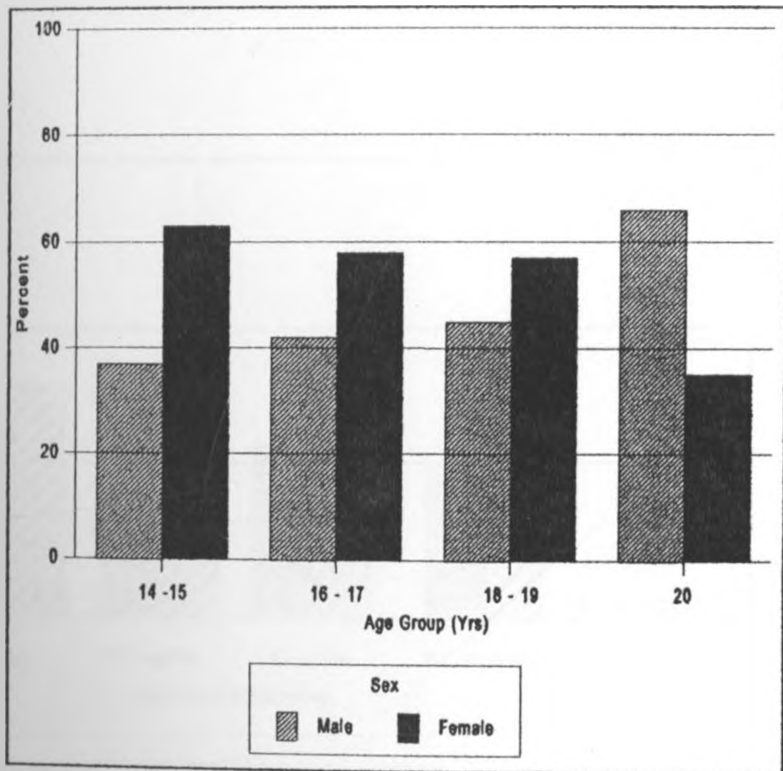
CHAPTER 4

RESULTS

4.1. Characteristics of the Study Population

A total of 397 respondents were interviewed. Their ages ranged from 14-20 years. The mean age of the respondents was 17.8 years, the median 18, the mode 20 and the standard deviation (SD) 1.74. Two hundred and five (51.6%) were females and one hundred and ninety two (48.4%) were males. Figure 1 shows the Age/Sex distribution of the respondents. The girls interviewed tended to be young compared to boys.

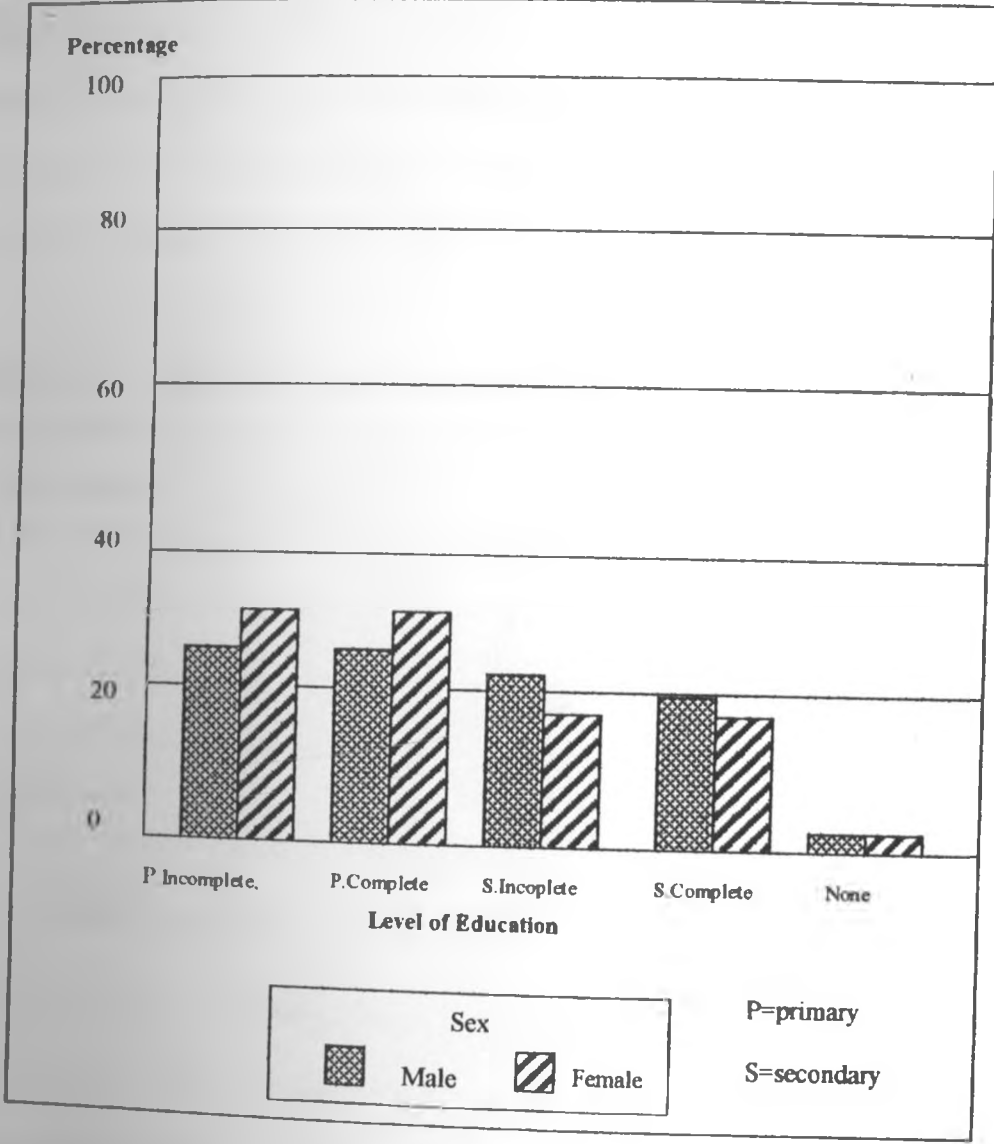
Figure 1: Age/Sex Distribution of Respondents



One hundred and forty seven (37%) of the respondents were Protestants; 25.7% Catholics; 33.2% Muslims and 4% belonged to other religions or had no religion. A large majority, 329 (82.9%) of the respondents were single, 62 (15.6%) were married, 6 (1.5%) were either separated, divorced or widowed. The majority of the respondents (97%) had

some formal education, with 111 (28%) having at least completed primary education while 84 (21.2%) had completed secondary school. There was no significant difference between males and females level of education ($p=0.5$). Figure 2 shows distribution by sex and level of education of respondents.

Figure 2: Distribution of respondents by Sex and Level of Education



4.2 Menarche and Puberty

Out of the 205 females interviewed 97.6% had already started their periods. The mean age at menarche was 13.4 years (the median 13 and the standard deviation 1.33).

To assess the age at which males attained puberty they were asked when they broke their voices and had first wet dreams. The number of male respondents who had broken their voices was 167 (87%). By the age of 16 almost all of the males (89.8%) had broken their voices. Mean age for breaking voice was 14.7 years (the median 15 years, mode 15 years) By the age of 16, 88.9% of the males had started having wet dreams (table 1). The mean age for starting wet dreams was 14.9 years, the median 13 years and the mode 13 years. The standard deviation was 1.2.

Table 1: Age at Puberty for male Respondents

Age interval	Wet dreams (N = 164)	Breaking voice (N = 167)
13-14	38.8%	44.3%
15-16	52.1%	45.5%
>17	8.6%%	7.8%
Don't know	2.5%	2.4%
TOTALS	100	100

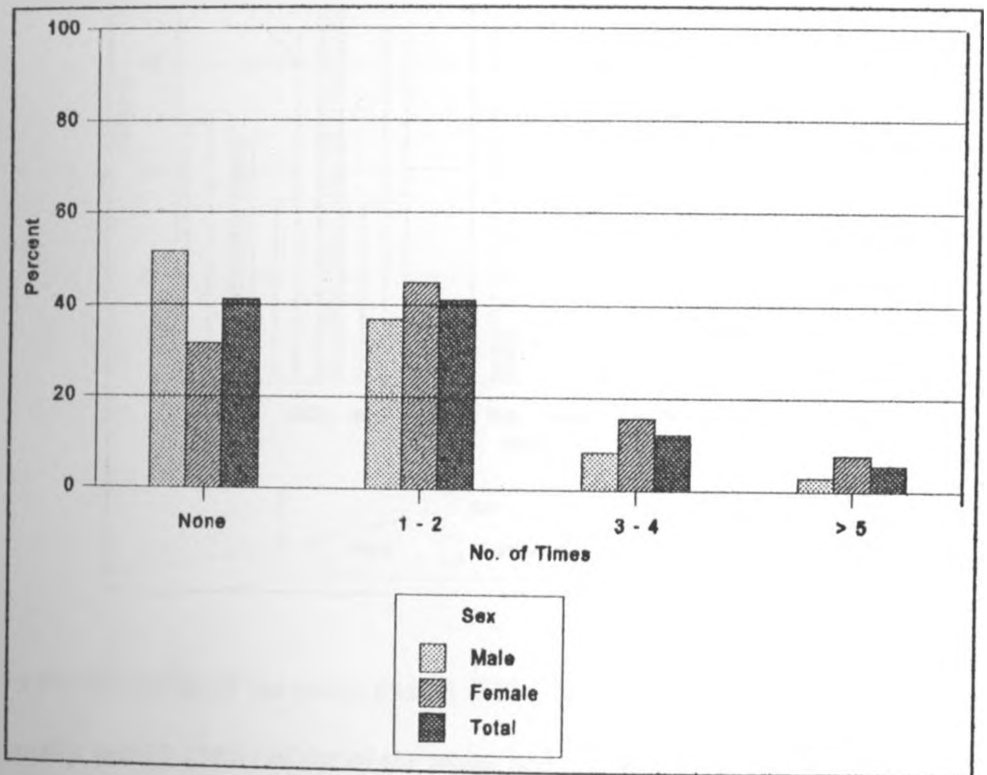
All the participants in the FGDs knew at about what age a girl is expected to start having her periods (14 being the most common age mentioned), when young boys break their voices (15-16 years) and when they start having wet dreams (15-16 years). They knew that a girl starts developing breasts at about the age of 12-13 years, their hips widening at

about the ompare favourably with those from the quantitative analysis. same age and that boys start having wide shoulders at about 15-16 years. These results c

4.3 Morbidity and Health Seeking Behaviour among Adolescents

A total of 58.8% of the respondents had sought medical care in the last one year. However, it was found that more females than males had sought medical care in the last one year (figure 3). Most sought medical care from Health Centres or private doctors.

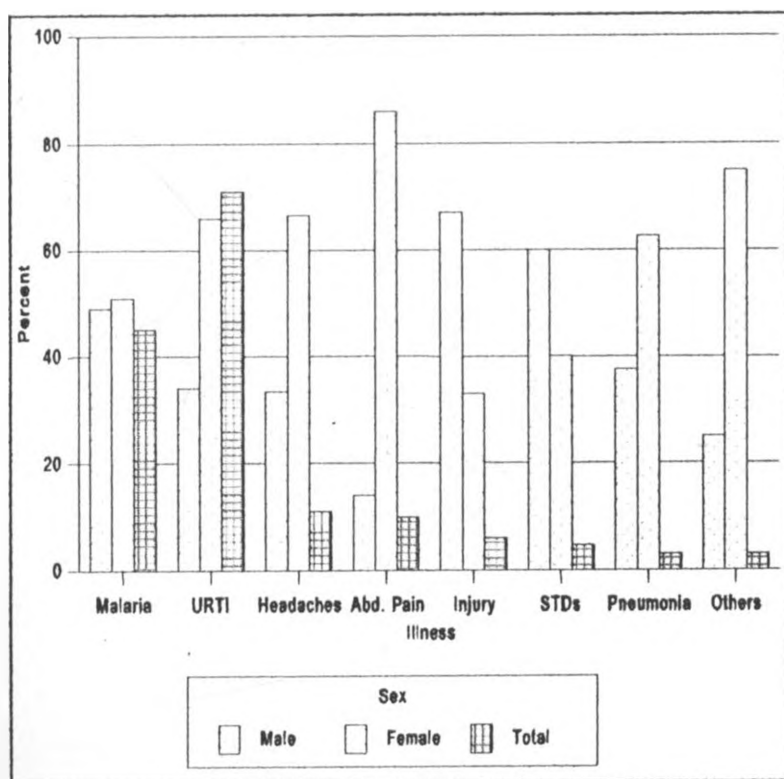
Figure 3: Distribution of Respondents by Sex and No.of times they Sought Medical Attention in the last one year



There was a significant association in the number of times they sought medical attention and sex of the respondents ($p=0.0002$) with more female respondents (68.3%) seeking medical attention compared to male respondents (48.4%).

When respondents were asked what illnesses they had sought medical care for, 45.0% mentioned Malaria, 16.3% Upper Respiratory Tract Infections, 11.1% Headaches, 10% Abdominal pain (all abdominal discomforts), while the rest sought care for other illnesses as shown in figure 4.

Figure 4: Most common Illnesses Among the Respondents



The study found that 51 (49%) of the males and 54 (51%) of the females had malaria; 25 (66%) of the females and 13 (34%) of the of the males had URTI; 10 (67%) of the males 5 (33%) of the females had injury; 6 (60%) of the males and 4 (40%) of the females had STDs; 3 (14%) of the males and 19 (86%) of the females had abdominal pain and 10 (23%) of the males and 33 (77%) of the females had other illnesses. There was a significant association between the type of illness and sex of the respondent (p value 0.003). It appears that malaria is a big health problem among the adolescents and this

needs to be addressed. It was also clear that more males had STDs and injuries than females, while more females had abdominal pain than males. The fact that female respondents had more abdominal pains may be explained by presence of pelvic inflammatory diseases (PID). The percentage of adolescents who had sought medical care for STDs was 4.7%, which is of concern, thus suggesting that there is need for effective sex education to help minimize the increase in sexually transmitted diseases.

In the FGDs there was a general agreement that the most common illnesses they encountered were malaria, common colds and STDs, especially gonorrhoea. AIDs was said to be increasing and most of them had friends who had died from this. Most participants said adolescents did not seek medical attention when ill due to lack of money and also due to inadequate health facilities. Those who sought medical attention preferred going to private health facilities, especially if they were seeking treatment for STDs. This was mainly due to the negative attitude of health workers in government facilities. Government health workers tend to have a negative attitude towards adolescents who are sexually active and hence scorn them when they seek treatment for STDs.

When respondents were asked where they lastly received medical care 40.8% of the youth sought medical care from Health Centres or Dispensaries, 29.7% from private doctors, 28.6% from government hospitals and 5.8% from other sources, like Herbalists.

Respondents were asked if they sought medical attention in the last one year whenever they needed it, 51.9% said they had, 14.9% had not while 34% said they never needed it. More female respondents (60.2%) were found to have sought medical care than males (39.8%). From the FGDs female respondents were said to have more free time than the males, hence they could afford seeking medical care. They were also said to be more

concerned about their health than the males and that the community health workers were more accessible to the females than males.

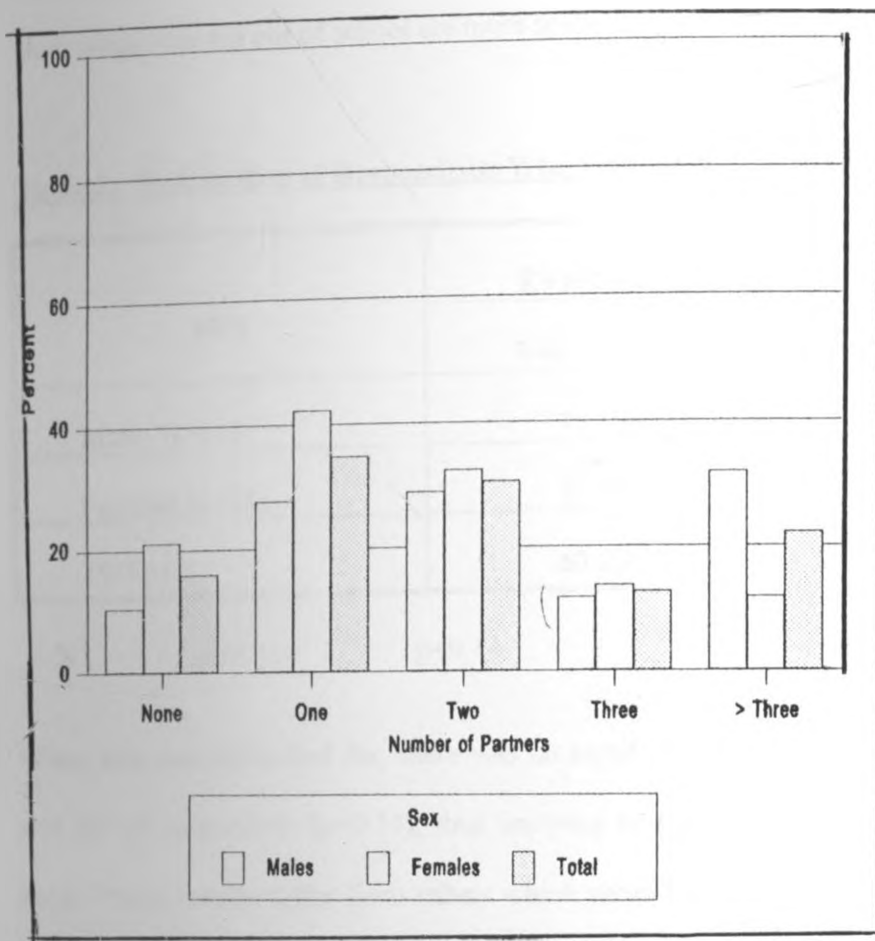
Of the 56 who needed medical attention but did not seek it, 46 (82.1%) mentioned lack of money as the reason for not going for treatment, while 7 (12.5%) said they had no time and 3 (5.4%) said there was no health facility near them.

4.4 Sexuality and Sexual Behaviour

Over 80% of the respondents had ever had a boyfriend/girlfriend (partner) (boyfriend/girlfriend not necessarily implying a sexual partner) in the past. The males (89.6%) were more likely to have had a girlfriend than females (79%) having a boyfriend. This could be because the males were older than the females. Another explanation could be that the girls were unwilling to admit ever having a boyfriend due to cultural beliefs. However this association was not significant ($p=0.142$). A total of 61.1% of the respondents currently had a girlfriend or boyfriend, 26.2% did not while 12.1% were married. There was a significant association between currently having a boy/girlfriend and sex of respondents ($p=0.008$). More male respondents currently had a girlfriend. Furthermore, the males were twice as likely to have had more than one girlfriend than the females having a boy friend. This association was highly significant ($p=0.00013$) (figure 5).

Figure 5: Distribution of respondents by Sex and Number of boyfriends/girlfriends

ever had



When age was controlled for, for age groups 14-15, 16-17, and 20 there was no significant difference between both sexes as regards number of partners ever had.

However, there was a significant difference for age group 18-19, with males having had more girl friends ($p=0.01$).

The study revealed that 80.9% of the respondents had ever had sex, while 19.1% had never had sex (See table 2). Of the 172 boys who had ever had a girlfriend, 161 had ever had sex, while 159 of the 162 female respondents who had ever had a boyfriend had ever

had sex. Having ever had a boyfriend or girlfriend influenced ever having had sex. Indulgence in sex in this study is much higher than found in other surveys in Kenya. It appears that more adolescents are sexually active now than before or that adolescents in slum areas who are out of school are more sexually active compared to those in schools.

Table 2: Distribution of Respondents Who Were Single and Had Ever Had Sex

SEX	EVER HAD SEX	
	Yes	No
Males N=168	71.4%	28.6%
Females N=181	59.5%	40.5%
TOTALS	80.9%	19.1%

χ^2 DF=1 p=0.14

When age was controlled for, there was no significant difference between ever had sex and sex of respondent ($p=0.14$), thus implying that girls are equally sexually active as boys. These results differ from others which show that male adolescent who have ever had sexual intercourse are usually more than the female adolescent. Adolescents of both sexes were found to be equally sexually active at all ages.

When further analysis was undertaken to check any association between education and ever had sexual intercourse, those with no education and incomplete primary education were less likely to have had sex. This association was highly significant ($p=0.0001$) (Table 3). Also the older they were the more likely they were to have had sex because sex starts early and hence they have gone through this age group. These findings may be influenced by age rather than education of adolescents.

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Table 3: Distribution of Ever Had Sex By Level of Education

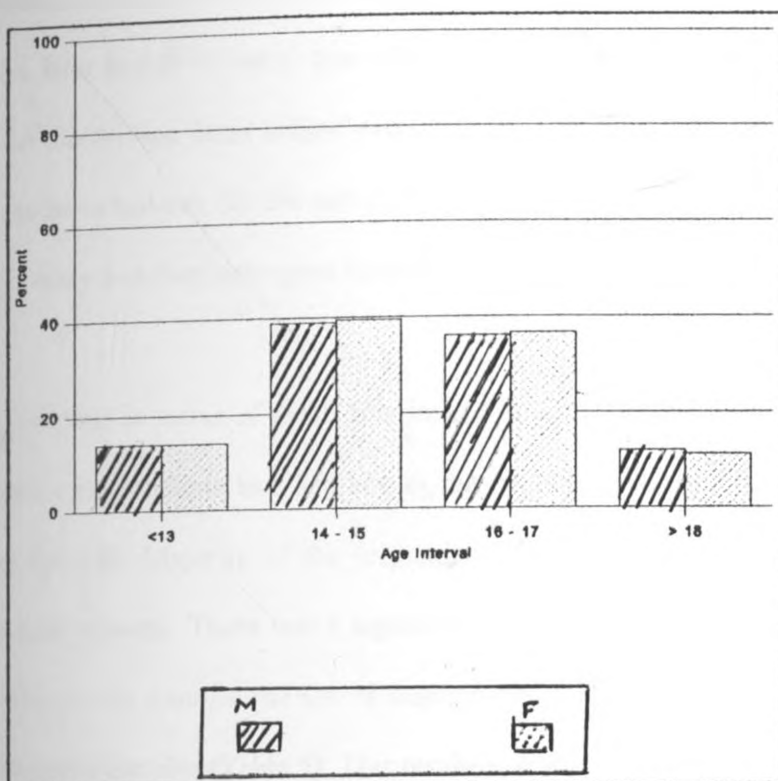
N=397 Level of Education	EVER HAD SEX	
	YES	NO
None	66.7%	33.3%
Primary Incomplete	68.5%	31.5%
Primary Complete	86.5%	13.5%
Second Incomplete	79.7%	20.3%
Second Complete	92.9%	7.1%

$$X^2 = 22.7 \quad DF = 4 \quad p = 0.0001$$

The respondents were asked the age when they had their first sexual intercourse. Figure 6 shows distribution by sex and age at first sex. More than two thirds of the respondents were aged 14-17 years when they first had sex. The mean age was 15.4 years (mode and median were both 15 years). The standard deviation was 1.78. Also, relationship between sex of respondents and age at first sexual intercourse revealed that there was no significant association between the two ($P=0.87$).

Distribution by Sex and Age at First Sex

Figure 6:



Age at first sexual intercourse and level of education was compared. The results are shown in table 4.

Table 4: Age at First Sex By Level of Education

N=321 Education	AGE INTERVAL			
	<13	14-15	16-17	>17
None	12.5%	25.5%	62.5%	0%
Primary	18.2%	44.7%	25.3%	11.8%
Secondary	8.6%	31.7%	46.8%	12.9%
TOTAL	13.9%	38.5%	35.6%	12%

$X^2 = 17.3$

DF = 4

p = 0.02

There was a significant association ($p = 0.02$) between age at first sex and level of education with those with no education and those with secondary education having had their first sex at a later age (>16 years) than those with primary education (<15 years). Age seemed to be the driving force behind ever had sex. The older they were, the more likely they were to have had sex. By the age of twenty almost all participants had had sex because sex starts early and they have gone through this age group.

Recent sexual behaviour in terms of recall was looked at. One hundred and twenty four (64.1%) of the male respondents had had sex in the last six months compared to 134 (65.5%) females ($p=0.8$). Majority of the respondents (64.7%) had had only one sex partner in the last six months. There was a significant difference between the number of sex partners in the last six months and sex of respondents, with males having had more sexual partners than the females (Table 5). This results compare favourably with previous studies which show that males tend to have more sexual partners than females (Ochola S A 1991)

Table 5: Number of Sexual Partners in the Last Six months

Sex	No. of Sex Partners in the last six months			
	1	2	3	4+
Males N=124	49.2%	30.6%	8.9%	11.3%
Females N=134	79.1%	13.4%	2.2%	5.2%
TOTALS	64.7%	21.7%	5.4%	8.1%

$X^2 = 25.8$

DF= 3

$p=0.00001$

The majority of the respondents (63.2%) had sex because they thought it was fun or because they enjoyed it. More than half (60%) of the respondents said it was not necessary for the youth to have sex. Ninety six (55%) of the male respondents said it was necessary for the youth to have sex as compared to 45% of the females. There was an important relationship between the sex of the respondents and whether they thought it necessary for the youth to have sex ($p=0.021$). More male respondents said it was necessary for the youth to have sex. This might explain the fact that male respondents had had more sexual partners than female respondents.

In the FGDs, Majority of the participants were of the opinion that most adolescents had friends (partners) of the opposite sex and that they were very sexually active. The majority view was that by the age of 19 most adolescents had had more than one sexual partner and that first sex was below the age of 15 with girls starting at an earlier age than boys. Reasons given for the adolescents having sex were mainly "enjoyment". The male participants also added that it was necessary for boys to have sex "since that is how nature had created them". A few participants said it was the "fashion" to indulge in sex these days. Peer pressure also came up as a reason for having sex.

4.5 Contraceptive Knowledge, Attitudes and Practice

Over 90% (365) of the respondents knew of a method of preventing pregnancy, while 35 (9%) did not. Knowledge on contraceptives is very high among these adolescents. The most commonly known methods were: Condom (79.8%), Pill (79.6%), and Injection (63%). Very few respondents knew of the Diaphragm (12.1%) (see table 6).

Table 6: Knowledge of contraceptive Methods

N=397 Method	Know a Method	
	Yes	No
Condom	79.8%	20.2%
Pill	79.6%	20.4%
Injection	63.0%	37%
Coil	38.0%	62%
Operation	23.4%	76.6%
Foam tabs./Sperm.	15.1%	84.9%
Withdrawal	14.6%	85.1%
Rhythm	13.4%	86.6%
Diaphragm	12.1%	87.9%
Others	3.3%	96.7%

Level of education and knowledge of contraceptive method was compared as shown in table 7.

Table 7:**Level of Education by Knowledge of a Contraceptive Method**

N=397 Level of Education	Knowledge of a Method	
	Yes	No
None	91.2%	8.3%
Primary	89.6%	10.4%
Secondary Incomplete	98.2%	1.8%
TOTALS	91.2%	8.8%

$\chi^2 = 17.3$

DF= 4

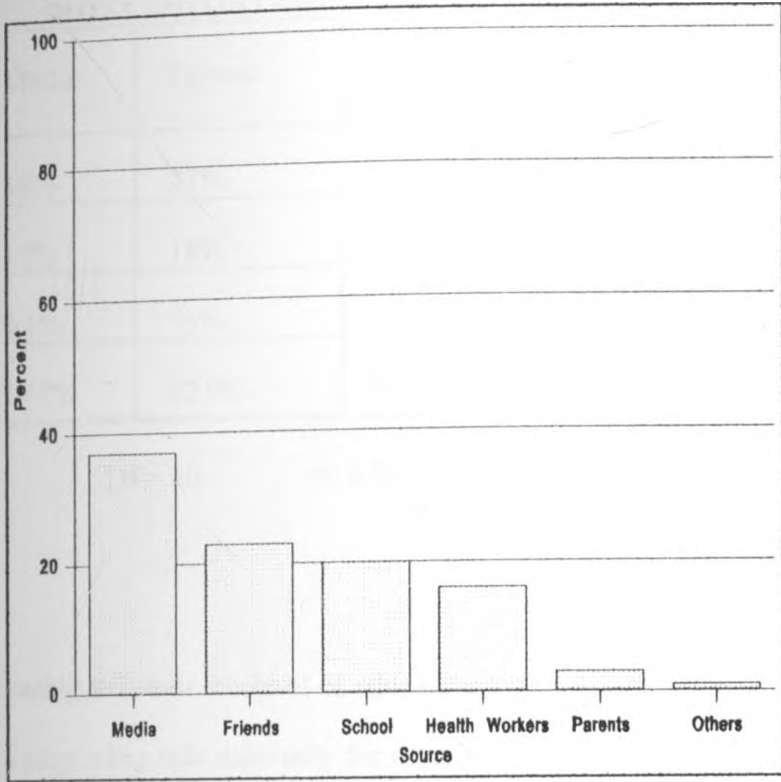
p=0.002

There was a significant difference between level of education and knowing a method ($p = 0.002$). Those with no education and secondary education were more likely to know a contraceptive method than those with primary education. Primary education seemed to have a negative effect on knowledge of a method. This may be explained by the fact that Family Life Education is not given in primary schools, hence the need to include it in the curriculum. Those at home are more likely to get their information when community health workers visit their mothers.

A total of 133 (36.7%) respondents gave the most important source of information of method as media (the radio being the most common); 83 (22.9%) as friends; 77 (21.3%) as school, 57 (15.7%) as health workers; 9 (2.55%) as parents and 3 (0.8%) from other sources (See Figure 7).

Source of Information of Method Known

Figure 7:



When source of information of method by level of education was analysed, for those with education the most important source of information was the media, while for those with none it was friends. (Table 8).

Table 8: Source of contraceptive Methods by Level of Education

N=397 EDUCATION	MOST IMPORTANT SOURCE OF INFORMATION					
	Media	Friends	School	Health Worker	Parent	Other
Prim	38%	27%	15%	19%	1%	0.5%
Sec	37%	16%	31%	13%	1%	1%
None	9.1%	55%	0	9.1%	18%	0
TOTALS	36.7%	22.9%	21.3%	15.7%	2.5%	0.8%

$X^2 = 66$

DF= 20

$p=0.00000$

There was a relationship between the level of education and source of method ($p < 0.05$). School appeared to play a big role especially for those with secondary school education. Those with no education at all got most of their information from friends while those with primary and secondary school education from media, mostly the radio.

More than half of the respondents (53.4%) had never used a method. Respondents ever used a method were 185 (46.6%), as shown in table 9.

Table 9: Ever Used A Contraceptive Method

Response	No. of Respondents	Percentage
Yes	185	46.6
No	212	53.4
TOTALS	397	100

The number of respondents currently using a method of contraception were 173 (43.6%) (Table 10). This shows that the prevalence of contraceptive use among the adolescents in the study area is higher than the national average. Again, the relatively high contraceptive prevalence may be reflective of the study population and accessibility to services.

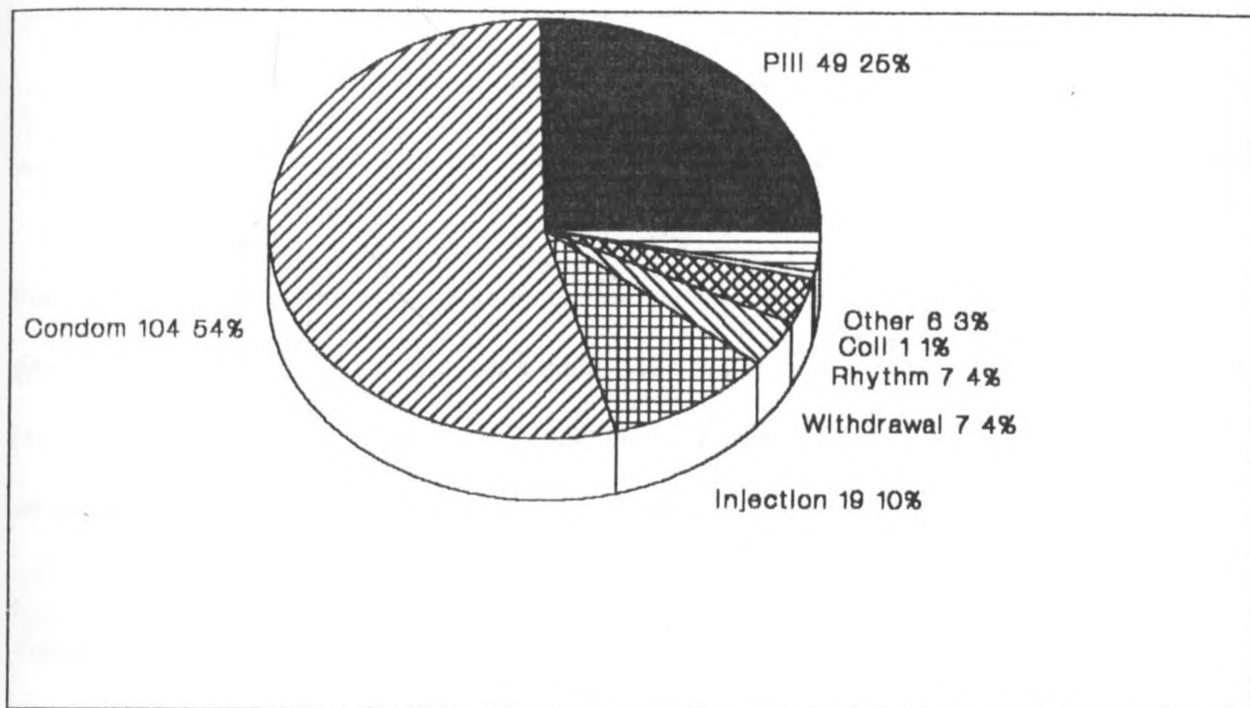
Table 10: Currently Using a Contraceptive Method

Response	No. of Respondents	Percentage
Yes	173	43.6
No	224	56.4
TOTALS	397	100

Cross-tabulating knowledge of a method and currently using a method showed that all the 173 respondents currently using a method had knowledge of a method while out of the 189 who were not using a method, 35 of these did not know of a method of contraception. Knowledge of a method was associated with use of a method ($p=0.00$).

Of those using a method, the majority (54%) were using the condom, followed by the pill (25%) as shown in Figure 8.

Figure 8 Current Type of Contraceptive Method Used



When respondents who were using a contraceptive method were asked the source, 45.3% got it from private institutions or bought, 17.4% from friends, 15% from government facilities while 22.2% got it from other sources (Table 11).

Table 11: Source of Contraceptive

Source	No. of Respondents	Percentage
Private /Buy	78	45.3
Friends	30	17.4
Govern. Hospitals	27	15.1
Others	38	22.2
TOTALS	173	100

For those respondents not using a contraceptive method, the following reasons were given: Not thought of it (15.6%), want a child (15.3%), do not want to use a method (11.2%), fear of risks of contraceptives (9.3%), not available (8.8%) and trust partner to do so (3.3%).

The relationship between level of education and current use of a method showed that level of education had no influence on current use of a method ($P=0.4$). This result may be misleading as most youth in an urban slum have some form of education. A reasonable proportion use contraceptives given their urban exposure.

Asked whether the youth should use contraceptives to prevent pregnancy, 52.9% of the respondents said they should, 30% said they should not while 17.1% said they did not know (Table 13). This result shows that half of the adolescents approve use of contraceptives among the adolescents.

Table 12: Opinion on use of Contraceptives

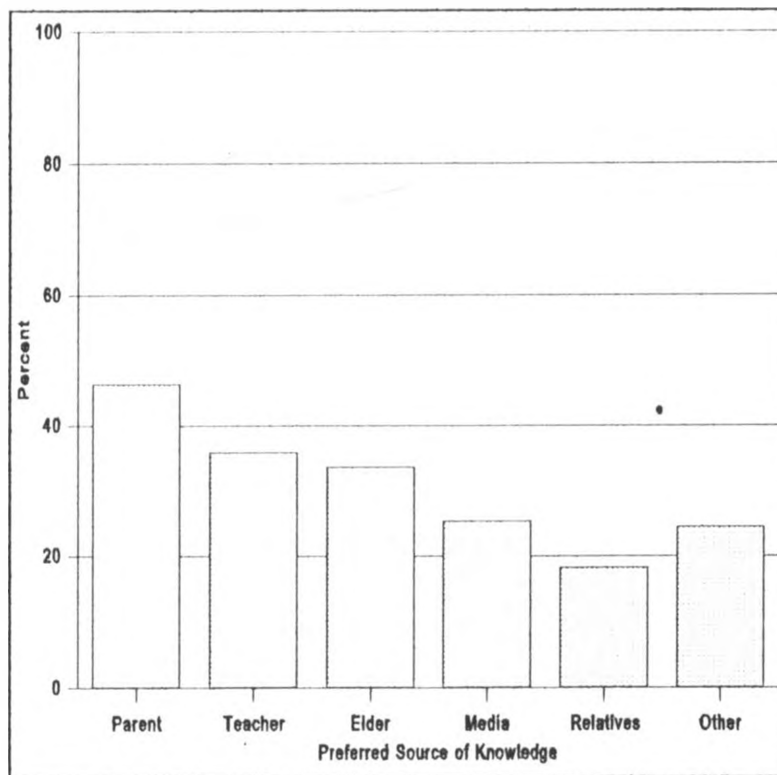
Response	No. of Respondents	Percentage
Yes	210	52.9
No	119	30.0
Don't Know	68	17.1
TOTALS	397	100

All of participants in the FGDs had heard of family planning or knew of at least one method of contraceptives. Most commonly heard of methods were the pill, condom, injection and safe periods. Majority of the participants mentioned the radio as the most common source of information on contraceptives. Other types of media (posters, pamphlets) were also mentioned quite frequently. Friends were also mentioned, especially in the female FGDs.

Majority of the participants said the pill was the most commonly used method among the girls and that boys used condoms for both preventing pregnancies and STDs, though most of the youth were of the opinion that few youngsters used any method to prevent pregnancies. Reasons given were: ignorance about availability and access; fear of side effects e.g. infertility; myths about contraceptives; feeling "embarrassed" to obtain them from a source; that they did not think about it or it wasn't just right for youth to use contraceptives. Most of the participants thought adolescents should not use contraceptives and that they would like to prevent pregnancy or delay their next pregnancy by abstaining from sex.

Respondents were asked whom they preferred to teach them about reproductive health and sexuality and contraceptives. Responses given are shown in figure 9. The most preferred source were parents even though most of the adolescents get most of their information from the media as seen from the results. Media is the fourth preferred source of information as seen from the figure. Parents were preferred because they are closer to them. There was a difference in gender preference of parents. Female respondents said they would like their mother to teach them about reproductive health and sexuality matters, while male respondents preferred their fathers to be the main source of information. In the FGDs the same views were observed. The participants strongly expressed the desire to have parents as their main source of information.

Figure 9: Preferred Source of Knowledge on Reproductive Health and Sexuality



4.6 Pregnancy

The percentage of female respondents who had ever been pregnant was 37.1%. Table 13 shows number of females ever been pregnant in relation to their level of education. Those with education were more likely to have been pregnant than those without education, even though there was no significant association in level of education and having ever been pregnant ($p>0.05$).

Table 13: Ever Been Pregnant Before by Level of Education

Level of Education	Ever Been Pregnant	
	Yes	No
None	0 (0%)	6 (100%)
Primary	46 (37.7%)	76 (62.3%)
Secondary	30 (39.0%)	47 (61.0%)
Total	76 (37.1%)	129 (62.3%)

$$X^2 = 4.5$$

$$DF = 4$$

$$p = 0.3$$

Cross-tabulating level of education and ever been pregnant while controlling for age did not show any significant relationship between the two (p value >0.05).

Outcome of pregnancy showed that more than 70% of pregnancies ended in deliveries, 17.1% aborted while 10.5% were still pregnant. Previous research carried out show that abortions among adolescents account for 28%-64% of abortions done in hospitals.

The outcome of the pregnancy and level of education was compared. Girls who had completed secondary school education tended to abort more than those with less education (Table 14).

Table 14: Outcome of Pregnancy by Level of Education

Level of Education	OUTCOME OF PREGNANCY		
	Gave Birth	Aborted	Pregnant
Primary Complete	21 (84.0%)	1 (4.0%)	3 (12.0%)
Primary Incomplete	17 (81.0%)	3 (14.3%)	1 (4.8%)
Secondary Complete	8 (57.1%)	6 (42.9%)	0
Secondary Incomplete	9 (56.3%)	3 (18.8%)	4 (25.0%)

There was a significant association between level of education and outcome of pregnancy ($p= 0.019$)

Asked whether they would like to delay their next or first pregnancy, 70.2% of the female respondents said they would, 14.6% said they would not while 15.1% said they did not know. Of the 144 who wished to delay, 27.1% said they would like to do so by abstaining from sex, 66.7% by using a contraceptive and 6.3% by not getting married early.

4.7: Abortions

Those who had an abortion were asked who performed the abortion. It was found that most of the abortions (67%) were performed by health workers. (table 15).

Table 15: Persons Performing Abortions

Performer	No. of Respondents	Percentage
Health Worker	8	67
Non-medical	3	23.1
Family member	1	7.7
Self	1	7.7
TOTALS	13	100

Reasons given as to why girls have abortions were: fear of their parents anger (20.7%), rejection by boyfriend (10.8%); still in school (7.8%); having a baby would mess their lives and reduce their chances of being "marketable" (30.7%); cannot financially afford bringing up a child (16.6%); ashamed of having a baby outside marriage (6.0%) and 7.3 % did not know why girls performed abortions.

Respondents attitudes towards abortions were asked. Over 95% of the respondents thought abortions were murder of an unborn child and also very risky to the mother, while 4% thought abortions were acceptable if a girl did not want a child.

Focus group discussions suggested that pregnancy in young girls was very common and a main reason for dropping out of school. Abortions were said to be very common and a health risk to the youth. A general opinion that abortions were bad was expressed in all the FGDs though a few participants said that a girl who is still in school should be allowed to abort if she wants to continue with her education. Reasons given for abortions were: fear of parents anger; rejection by boyfriend; most young girls do not want to "mess" their lives with child responsibility and want to retain their "market". Almost all the participants were against abortions saying that "a child was a gift from God" and that aborting was "pure murder of the gift".

Majority of the participants noted that most abortions were performed by traditional (female abortionist) or self induced using a foreign body unlike in the interviews where health workers were quoted as the main abortion performers. A large number of the participants knew someone who had had an abortion hence implying that abortions were common among the youth

4.8: STDs and HIV/AIDS

Knowledge of STDs was high with 98.2% of the respondents knowing at least one type of STD by name. (Table 16)

Table 16: Knowledge of STDs

STD	Know an STD	
	Yes	No
Syphilis	337 (84.9%)	60 (15.1%)
Gonorrhoea	364 (91.7%)	33 (8.3%)
HIV/AIDS	386 (97.2%)	11 (2.8%)
Chlamydia	40 (10.3%)	357 (89.7%)
Herpes	82 (21%)	315 (79%)

Majority (97.2%) of the respondents knew of HIV/AIDS, 91.7% of gonorrhoea, 84.9% of syphilis, 21% knew of herpes while 10.3% knew of chlamydia. The level of education of respondents had an affect on knowledge of an STD. Those with secondary school education were more aware of Herpes and chlamydia ($p < 0.05$).

On signs/symptoms of STDs, 305 (76.8%) of the respondents knew of vaginal/penile discharge; 220 (55.4%) knew of genital ulcers, 198 (49.9%) knew of skin lesions; 195 (49.1%) knew of lower abdominal pain in women and 27 (6.8%) knew of other signs/symptoms like pain on passing urine. There was a significant association between level of education and Knowledge of discharge and lower abdominal pain ($p < 0.05$).

A total of 356 (89.7%) of the respondents knew of a way of preventing STDs, while 41 (10.3%) did not. Of those who knew of a way of prevention, 318 (80.1%) mentioned condom, 207 (52.1%) mentioned abstinence and 74 (18.6%) mentioned having one sexual partner. As for whether they had ever used a method or not, 204 (51.4%) of the respondents said they had while 193 (48.6%) had not. The most commonly used method was the condom, 160 (78.4%), followed by abstinence, 21 (10.3%) and having one sexual partner, 23 (11.3%).

Asked whether they had ever contracted an STD, 13.1% had contracted an STD, 85.9% had never, and 1.0% did not know. Among those who had contracted STDs, a higher proportion of males (18.2%) had ever contracted an STD than females (8.3%)(Table 17)

Table 17: Ever Contracted an STD by Sex

Sex of Respondent	Ever Contracted an STD		
	Yes	No	Don't know
Males	35 (18.2%)	155 (80.7%)	2 (1%)
Females	17 (8.3%)	186 (90.7%)	2 (1%)
TOTALS	52 (13.1%)	341 (85.9%)	4 (1%)

$X^2 = 8.6$

DF= 2

p= 0.013

Males were more likely to have contracted an STD than females $p=0.013$). This result may be explained by the fact that clinically males experience more symptoms and therefore this might not be a true picture as females might not know they have an STD. Of the respondents who had ever contracted an STD, 47 (90.4%) had gone for treatment while 5 (9.6%) had not.

Basic knowledge on how AIDS is spread was quite good, 97% knew of vaginal sex; 35.3% knew of anal sex; 78.8% knew of sharing needles, syringes and other sharp objects; 60.2% knew of mother to child; 73.8% knew of blood transfusion; 2.3% mentioned other ways of spreading. Those who had higher education were more informed of blood transfusion as a mode of transmission ($p=0.0000$).

When respondents were asked whether AIDS is curable, 88.9% said it was not, 7.3% said it was and 3.8% did not know. As to whether other STDs are curable, 89.9% said they were, 5.5% said they were not and 4.5% did not know.

All the participants in the FGDs had heard of Sexually Transmitted Diseases. All mentioned gonorrhoea and AIDS. A large majority knew of syphilis. Very few mentioned chlamydia and genital warts. Majority of them said all STDs were curable except AIDS. A few who said AIDS was curable mentioned "Pearl Omega" as the new treatment for AIDS. Pearl Omega had just been exposed to the public through the media at the time this study was being carried out. The findings in the FGDs compared favourably with those in the structured interviews.

Most common signs/symptoms mentioned were; discharge in gonorrhoea; rashes in syphilis; lower abdominal pain and pain on passing urine. All said AIDS patients

presented with diarrhoea, vomiting, coughing, loss of hair and appetite, wasting and skin lesions.

Focus group discussions suggested STDs, especially gonorrhoea, were common among adolescents. There was a general agreement that STDs were more common in males than females as males tended to have more sexual partners. This reflects the results obtained in the interviews. Most of the adolescents who contracted an STD did not usually seek medical attention from a health worker/doctor. They treated themselves with advice from their peers. Reasons for not seeking proper medical attention were mainly “embarrassment”; lack of funds and fear of encountering a negative attitude from the health workers.

Majority of them knew that STDs/AIDS could be prevented by use of condoms, abstaining from sex and having one sexual partner. Majority also disclosed that most adolescents do not use any method while a few abstain and a few use condoms. These results were similar to those of the structured interviews except for the prevalence of STDs where the participants in the FGDs said STDs were a common problem in the adolescents. Majority of the participants knew AIDS is spread from one person to another by sex, blood transfusion and sharing sharp objects. A few knew that AIDS can be spread from mother to child. Some said it could be spread by sharing of utensils.

From the FGDs, the extent to which existing programmes addressed adolescent reproductive health issues was assessed. Participants were in agreement that there were hardly any reproductive health programmes that were specific for the youth. Those existing tend to adults and are unfriendly to unmarried youth. The adolescents are not

able to seek advice on matters concerning their sexuality or contraceptives from these programmes due to the negative attitude.

From these results it is clear that a large number of adolescents are sexually active and hence are exposed to STDs/HIV AIDS. This is a big public health concern and needs to be addressed urgently. Adolescents are well aware of these diseases and their mode of transmission yet many do not take precautions for prevention. Thus, unprotected sex is common among the adolescents, hence the need for sex education to this very vulnerable group. Contraceptive knowledge is high among these adolescents though use is not as high, hence youth friendly services are necessary. There is a great need for youth reproductive health services.

CHAPTER 5
DISCUSSION OF RESULTS

5.1. Discussion

Adolescents are vulnerable, especially as pertains to HIV/AIDS, STDs, unwanted pregnancies, abortions, low contraceptive use, early marriages and other sexually related problems. Unfortunately, specific youth services that address these issues do not exist.

This study was carried out on out of school adolescents in Kibera slums. The reproductive health of adolescents and their sexual behaviour was looked at.

A large majority of the respondents were single and most of the respondents had some formal education. There was no difference in level of education between the males and the females and hence from this study it may be concluded that majority of adolescents in Kenya have attended school up to some level and that education for the girl child is being accepted in our society

The study revealed that female adolescents seek medical care more often than the males. Female adolescents tended to have more time to go for medical care and took more interest in their health than their male counterparts. The community health workers were also more accessible to the female adolescents than to the males. Medical care was mostly sought from either private doctors or the nearest health centre. Private doctors were preferred because they treated the adolescents with respect and had a friendlier attitude towards them, unlike in government institutions where health workers were said to be unfriendly and reproachful.

The most common illnesses for which care was sought were malaria and upper respiratory tract infections. It is not surprising that malaria was said to be the most common illness. Malaria is a major life threatening disease in Kenya and many people die from it every year. The same trend is found in the other populations in Kenya, that is, the youth have the same health problems as the general population. STDs and AIDs/HIV were mentioned in the FGDs as being common among the youth.. Among the STDs, gonorrhoea was said to be the most common. The fact that STDs are common implies that the adolescents are practising unsafe sex and that they have multiple sexual partners.

A large majority of the respondents had ever had a boyfriend or girlfriend. Previous surveys show that teenage sexual activity is increasing in many countries, and that in some, adolescent are starting sexual activity earlier and having more partners and more casual relationships. There was a general agreement in the participants of the FGDs that most adolescents had lovers and that boys tended to have had more lovers than females.

There was no difference in the proportions of males and females who had ever had sex. Both male and female adolescents were equally sexually active. The study carried out by the NCPD and John Hopkins²³ showed that 39% of unmarried Kenyan girls aged 15-19 years and 65% of unmarried boys of the same age have had sexual intercourse. The high findings in this study could be attributed to the harsh conditions of an urban slum such as Kibera. Due to the high poverty level in slum areas many young people are forced to indulge in sex for money so as to be able to sustain themselves. Interestingly, some participants in the FGDs said that adolescents have sex as a “substitute” for parental love. Many said they have single parents, hence feel they do not get enough attention from this single parent. It was also felt that these days parents do not spare enough time for their

children due to the harsh conditions they find themselves in. They have to work hard, and, most times long hours in-order to sustain their families.

The adolescents in the study population are more sexually active than the adolescents of previous generations and today's sexual climate is far more dangerous than that of before. Additionally, Kenya's population growth over the last twenty years has resulted in an increase in the sheer numbers of adolescents who are sexually active. The presence of HIV/AIDS and other STDs, lends an urgency to improving the reproductive health climate for adolescents through information services.

In assessing whether level of education had an effect on whether the respondents had ever had sex, a greater number of those who had higher education had ever had sex compared to those without. Age could be the driving force behind ever had sex and not level of education. The older they are, the more likely they are to have had sex. The mean age for age at first sex was 15.4 years. Aloys, in a study on Socio-Cultural and Medical Outcomes of Adolescent Pregnancies in rural Kenya²² (1993), revealed that mean age at first sex was 16 years and that age at first intercourse increased with level of education. The AMREF study showed that the mean age at first coitus for females in school was 14.7 years.

In Great Britain in 1992 the National Children's Bureau published the results of a detailed survey called " An Inquiry into Sex Education". In Great Britain Family Life Education is not included in the school curriculum while in Holland it starts in Primary school. The above study showed that Britain has got the highest birth rate among 15-19 year olds in Europe, three times higher than Holland. The English teenage pregnancy rate is a misery-making 65 per 1,000 girls compared to just 9 per 1,000 in Holland. The same study also

revealed abortion rate is higher in Great Britain among the youth and that the average age for first sex in Great Britain is 15.4 years while in Holland it is 17.4 years. This shows that Family Life Health Education does have an impact on adolescent sexuality.

Large numbers of adolescents are currently indulging in sex with more than one sexual partner (especially male adolescents). This compares favourably with Ochola's study²⁵ which revealed that the males in particular had more sex partners than the females. One participant in one of the FGDs conducted among males explained the multiplicity of sex partners by saying that "a man should not have only one woman, as this will be like eating ugali every day". This multiplicity of sex partners has important implications in the possible spread of STDs/HIV. This may be a significant observation given that the majority of sexually active adolescents do not use any method of preventing STDs.

There is a lot of media influence on the youth these days. They are exposed to pornography and live in conditions where there is a lot of peer pressure. They feel they have to identify with their age mates by following their examples, hence the statement that "it is fashionable to have sex these days". The harsh urban slum conditions that they find themselves in, is another factor that could be contributing to the high sexuality. The NCPD²³ study revealed that 15% of girls and 5% of the boys interviewed in a national survey responded that they had sex because they were "forced". Although most of the respondent had ever had sex, more than half (55.9%) of them expressed the opinion that it was not necessary for the youth to have sex. The same reiterated in the FGDs. It is clear that the adolescents are not in favour of premarital sex, yet most of them are sexually active. What they think morally and what they practice are two different things. Indulgence in sexual activity may be attributed to the harsh socio-economic conditions, peer pressure and media influence.

While a large number of adolescents are currently sexually active, a few remain abstinent. This segment of young people, however, will initiate sexual activity within the next few years. Their safety depends upon receiving accurate and complete reproductive health information and services before the commencement of sexual activity. For those currently sexually active, the need for information and services is evidenced by the high numbers of youth with HIV/AIDS, and those having unwanted abortions.

Knowledge of a method of contraception both in the interviews and the FGDs was much higher than the findings of The Kenya Demographic and Health Survey (KDHS) of 1989¹⁷ which showed that despite high rates of sexual activity in the 15-19 age groups, 53.8% of the boys and 69.8% of the girls interviewed knew nothing about contraception. The KDHS²⁰ of 1993 revealed that 98.1% of teenagers knew of any method while 97% knew of a modern method and 89.6% knew of a source of a modern method. Over the recent past knowledge has increased dramatically.

Primary education seemed to have a negative effect on knowledge of a method. This may be explained by the fact that Family Life Education is not given in primary schools, hence the need to include it in the curriculum. Those at home are more likely to get their information when community health workers visit their mothers.

Generally the media seemed to be the most common source of information on contraception followed by friends. The radio and posters were most frequently mentioned in both the structured interviews and FGDs. Ochola²² in his study also found out that mass media, friends and schools were the leading sources of information on contraceptive

issues although most of the youth preferred parents to be the most important source of this information.

The most commonly known methods of contraception were the condom and the pill. The same methods were the most commonly mentioned methods in the FGDs. The diaphragm was the least known method (12.1%). The level of education had no effect on the method known. This supports the fact that media and peers play a major role in information on contraceptives among the youth. Perhaps information through media should be increased and peers should be better informed about matters concerning youth reproductive health.

Although the majority of the respondents knew of a method, 46.6% had ever used a method while 43.6% were currently using a method. The most commonly used method was the condom (54%), followed by the pill (25%). The AMREF study also reveals contraceptive ever use of a teenage girl as 47% pill, 11% IUCD, 7% injection. The main reason given for not using any contraceptive was that they were not sexually active. The level of education did not affect use of method.

Information on contraceptives available to the adolescents appear to have centred mainly around the condom and the pill, perhaps giving the youth a very narrow picture of contraception and hence a limited choice.

Generally, attitudes towards adolescents using a contraceptive method were positive, with more than 50.0% of the respondents saying it was acceptable, though, in the FGDs the general attitude was that adolescents should not use contraceptives as, in actual sense, they should not be sexually active.

Pregnancy among adolescents was suggested to be very common by the participants in the FGDs. Of those who had ever been pregnant, more than 70% gave birth, while in the FGDs the impression was that most pregnancies end up in induced abortions. The NCPD and John Hopkins²³ study revealed that by age 19, 44% of the girls had begun child bearing. When level of education and outcome of pregnancy was looked at, those with complete secondary school education had the higher number of abortions (42.9%). This could be because they felt it was necessary for them to complete their education and also because they had more knowledge on abortions. The AMREF study showed that of the 34% of the girls who were sexually active, 7% of them had ever been pregnant. Of those pregnant, 47% had aborted while 53% ended their pregnancies in deliveries. The AMREF study was on secondary school girls. The abortion rate was higher because of desire to continue with education. Njau²⁴ also found out that over 40% of all documented school girls pregnancy terminate in abortions and that over 252,800 abortions are done to girls aged 15-19 each year in Kenya. This translates to 710 abortions per day. This is a highly significant figure and hence the need for programmes addressing abortions. The high prevalence of induced abortions is of great concern and issues and policies on induced abortions need to be addressed urgently.

Most (61.1%) abortions were performed by Health workers according to the adolescents interviewed, whereas the general view in the FGDs was that most abortions were performed by traditional female abortionists or self induced using a foreign body. The AMREF study also revealed similar results where 61% of abortions were conducted by doctors and nurses. The most commonly given reasons for girls having abortions were; having a baby would mess their lives and "reduce their market"; fear of parents anger and financial constraints in bringing up a child. Generally, attitudes towards abortions were mostly negative, but on the whole regarded as a necessary evil.

The study further showed that awareness of STDs and HIV/AIDS is high. Knowledge on how AIDS is spread was high, with 97% mentioning sexual transmission. Similar results were obtained in the FGDs. Despite the fact that most of the respondents (89.7%) knew of how STDs can be prevented, only 51.4% took any measures to prevent STDs. Most of them (80.1%) knew that condoms could be used to prevent contracting STDs, abstinence was mentioned by 52.1% of them while 18.6% mentioned having one sexual partner as a way to prevent STDs. The condom was the most commonly used method (78.4%), whereas 10.3% abstained from sex while 11.3% had one sexual partner. In the FGDs it was revealed that most adolescents did not take measures to protect themselves from contracting an STD, hence there is an important need to educate adolescents on preventive measures given the fact that majority are sexually active. Most youth are just not bothered to protect themselves from contracting an STD. The significance of preventive measures has to be explained to them.

AIDS is increasing most rapidly among persons in their twenties, which means that many AIDS patients contracted the virus during their adolescence. According to the National AIDS Control Programme, Ministry of Health (1992) Preliminary Data, Nairobi, the number of Kenyans aged 15-24 expected to be HIV positive by the year 2005 is 571,000. This of course is an alarming figure that calls for urgent need on Educating the youth on sexuality and sexually transmitted diseases. This data could be supported by the fact that most of the participants in the FGDs said they had many friends who had died of AIDS.

A significant number (13.1%) of the respondents had ever contracted an STD. In the FGDs gonorrhoea was said to be common and also there was a general agreement that STDs were more common in males than females as males tended to have more than one sexual partner. Most of those who had contracted an STD (90.4%) had gone for

treatment. Aloys²² found that 25% of the adolescents in his study had had some form of STD. As mentioned above the National AIDS control programme reports that many young people are infected with Sexually Transmitted Diseases.

In the FGDs the participants generally agreed that the most common STD among the adolescents was gonorrhoea. They actually brought this up as one of the main health problems facing the adolescents. They also said they had friends who had died of AIDS and that they thought the number of AIDS victims among adolescents was increasing rapidly.

Njau²⁴ also showed that teenagers aged 15-19 years constitute 35% of all reported AIDS cases in Kenya. These are alarming figure hence the urgent need for information and services for the youth. Most of the respondents (88.9%) knew that AIDS was not curable and that other STDS were curable (89.9%). NCPD and John Hopkins²³ state that teenagers lack accurate and sufficient information on STDs including AIDS. This could account for the high rates of STDs and HIV in the adolescents. The KDHS of 1994²⁷ showed that in a study done in one rural area, 57% of young people below 20 years had contracted an STD. These results show that there is need to set up programmes which can educate the youth on protection and prevention of STDs and also provide treatment for STDs.

In the FGDs suggestions made by the adolescents were that they would like their parents to be enlightened on matters concerning adolescents. They especially expressed that education on reproductive health, sexuality and contraceptives should be given to them by their parents. Parents were preferred because they were closer to them. Female participants preferred their mothers to be their main source of information while the

males preferred their fathers to be their main informants. The fact that most adolescents are still under parental care makes it easier for parents to be their informants. Also, most likely, the youth will tend to have more trust in their parents than in strangers. Some of the constraints of having parents as the main informants might be; some parents are very harsh and will not want to discuss such matters with their children; in some cultures matters concerning sexuality and sexual behaviours should not be discussed between parents and children. Hence, programmes providing information to parents on how to deal with sexuality matters of the youth are necessary. Njau and Radney²⁴ found that over 71% of teenagers 15-19 years would like reproductive health information and services to be availed to them. The adolescents also suggested that health facilities be made more accessible to them and that employment opportunities be created for them.

Youth centred reproductive health services were very few, thus posing a big problem for the youth. The existing services for reproductive health were not youth friendly and the staff not trained to deal with youth. The youth felt reluctant to use these services, thus having their needs unmet. They are unable to obtain contraceptives when they need them and also afraid to seek treatment for STDs.

Thus, from the discussion above, it may be concluded that out of school adolescents have high knowledge of modern family planning methods, though use is not as high. Pregnancies are not uncommon and abortions are usually performed under risky conditions. Friendly reproductive health services were not available to address the various needs of adolescents.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

From the results of these study the following conclusions can be made:

1. Majority of adolescents are highly sexually active and have multiple sex partners. This is of great concern since they are exposed to unprotected sex and re-infection of STDs. They are also exposed to early pregnancies, unwanted pregnancies and unsafe abortions.
2. Adolescents do not have different health problems from the rest of the population. They are affected by diseases like malaria and upper respiratory tract infections like the rest of the population.
3. Adolescents are aware of contraceptive methods mostly through media and over half of the adolescents approve the use of contraceptives. The females use the pill to prevent pregnancies while some have their male counterparts using condoms, thus providing total protection. They are aware that use of condoms reduces the chances of contracting sexually transmitted diseases.
4. Adolescents would prefer their parents to be the main source of information on matters concerning their sexuality and sexual behaviour as they see their parents as the closest people to them both in relationship, availability and proximity. They also feel they will get better advice from their parents as they are more concerned about them.

5. Adolescents are aware of the high rate of unsafe abortions and have a negative attitude towards abortions. Despite this general negative attitude towards abortions, abortions are also regarded as necessary especially for those who wish to continue with their education or do not want their lives to be messed up by a baby.

6. Knowledge on STDs HIV/AIDS and contraceptives in the adolescents is fairly high thus suggesting that there are some activities in the study area which have led to this level of high knowledge. Non-governmental organizations have set up centres where the youth can get information on sexuality matters. These centres also provide contraceptives to the youth

7. Adolescents feel that there is need for more youth specific reproductive health services. Those existing need to be strengthened and community health workers (CHW) should be able to meet with the adolescents and provide them with contraceptives when they request for them. Service providers need to have a positive attitude towards adolescents seeking contraceptives or treatment for STDs.

6.2: Recommendations

1. It is necessary to strengthen and sustain whatever activities that are responsible for the high knowledge and practice of family planning and safer sexual practices. The already existing services can also be linked to government programmes for better services. Specific programmes focusing on adolescent reproductive health needs need to be initiated nationally. These services should be accessible to the youth. Service providers in such programmes should be well trained on adolescents reproductive health and sexuality. Above all they should have a friendly attitude towards the youth.
2. Activities that will develop and enhance the parents and peers participation in Family Life Education need to be developed to respond to the youths desire for being educated by their parents. Information on adolescent sexuality and reproductive health should also be provided to parents, teachers, community elders and policy makers in a way that will lead to corrective and preventive action. Positive and collaborative youth-related dialogue among all members of society including political, religious, community, health, education, media and should be initiated and encouraged to address issues facing the youth. Seminars for these groups of people can be held so as to create an environment within which ideas may be exchanged on youth services. Mass media being the main informant on sexuality matters, it should ensure that the correct message is being passed to the youth.
3. Educate and counsel service providers and other health officials on the benefits of youth reproductive services and how these can be achieved. Adolescents who are

sexually active must be counselled about sexually transmitted diseases and AIDS by trained personnel. The government and various NGOs should advocate for and be in favour of programmes that provide appropriate reproductive health information and counselling on STDs, HIV/AIDS. These youth services need to be sympathetic to the youth and have a positive attitude.

4. Abortions, even though not favoured, are high and performed in unsafe conditions. Abortion raises problems related not only to moral issues, but to physical and psychological health and well-being of the young women. Kenyan leaders can ease much of the anguish related to abortion by supporting policies and programmes that provide preventive reproductive health information and services to young people. As a leading country within Africa, Kenya can work out how to set new standards for a safe reproductive health environment for its young people.

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ANNEX I.

SERIAL NUMBER.

SECTION I

Date..... Date of birth.....

Interviewers code.....

Sex: 1. Male 2. Female

1. Where were you born?

2. Where do you live?.....

3. How long have you lived here?.....

SECTION II. BOTH BOYS AND GIRLS TO ANSWER QUESTIONS 1-9.

1. What is your religion?

- 1. Catholic
- 2. Protestant
- 3. Moslem
- 4. Other-specify.....

2. Marital Status

- 1. Married 2. single 3. separated 4. divorced
- 5. widowed

3. Level of education.

- 1. Primary complete 2. Prim. Incomplete
- 3. Secondary compl. 4. Secondary Incomplete
- 5. None 6. Other, Specify.....

4. Why are you not in school?

- 1. Finished 2. No school fees 3. I am pregnant
- 4. I have a baby 5. I got tired and left
- 6. others, specify.....

Section V. SEXUAL BEHAVIOUR. FOR BOTH BOYS AND GIRLS TO ANSWER

16. Have you ever had a lover/boyfriend/girlfriend in the past?
1.yes 2.no
17. Do you currently have a lover/boyfriend/girlfriend?
1.yes 2.No 3.Married
18. How many lovers/boyfriends/girlfriend have you had in your life?
1.one 2.two 3.three 4.more then three
19. Have you ever had sex?
1. Yes 2.No

IF NO TO QUESTION 19 GO TO NO.24

20. If yes, how old were you when you first had sex?
.....
21. In the last six months have you had sex?
1.yes 2.no
22. If yes, how many partners have you had sex with in the last six months?
1.one 2.two 3.three 4.more than three
23. Why do you have sex? 1.because it is fun
2.for money
3.because my friends do
4.I am forced to do so
5.I am married
6.others, specify.....
24. Is it necessary for the youth to have sex? 1. yes 2. no

SECTION VI. CONTRACEPTION KNOWLEDGE AND PRACTICE

BOTH BOYS AND GIRLS TO ANSWER.

25. Have you ever heard of methods of preventing pregnancy?
1. Yes 2.no

26. Do you know of any method of preventing pregnancy?
(contraceptives) that a girl or boy may use
to prevent pregnancy?
1.Yes 2.No

IF NO TO QUESTION 26 GO TO QUESTION 35

27. Which method(s) have you heard of?
1.pill
2.the coil (IUCD)
3.foam tablets (spermicides)
4.withdrawal (coitus interruptus)
5.operation (bilateral tubal ligation, vasectomy)
6.rhythm (natural method, safe period)
7.injection
8.Diaphragm (cup)
9.condom
10.Others, specify
28. Mention the most important source(s) of information where you
heard of this method.....
.....
29. Have you ever used any method to prevent pregnancy or to
prevent your partner from getting pregnant in the past?
1.yes 2.no
30. Which method(s) have you used before?
1.pill
2.coil
3.foam tablets, spermicides
4.injection
5.withdrawal
6.rhythm
7.condom
8.others, specify.....
31. Are you currently using any method to prevent pregnancy or to
prevent your partner from getting pregnant?
1.yes 2.no

IF NO GO TO QT 31, GO TO QT.34

32. Which method do you use?
1.pill
2.IUCD
3.Form tablets/spermicides/condom
4.injections

- 5.withdrawal
- 6.rhythm
- 7.other

33. Where do you get it from?
 1.friends 2.relatives
 3.private clinics
 4.shops
 5.hospital
 6.others, specify.....

34. If your answer to Q.31 was no, why are you not using any method to prevent getting pregnant or to prevent your partner getting pregnant?.....

35. Should the youth use contraceptives to avoid getting pregnant?
 1. yes 2.no 3.don't know

GIRLS ONLY.

36. Have you ever been pregnant before?
 1.yes 2.no

Age
how many times

37. If yes, what happened to the pregnancy?
 1.I gave birth
 2.I had an abortion
 3.I am currently pregnant

38. If you had an abortion, by whom was it conducted?
 1.qualified doctor
 2.qualified nurse
 3.non-medical person
 4.family member
 5.myself
 6.others specify.....

39. If you had an abortion, why did you decide to do so.....

40. If you didn't have an abortion, what made you decide not to do so?.....

41. Would you like to delay your first or next pregnancy?
 1. yes 2.no 3.don't know

42. How would you like to postpone or delay your getting pregnant?
 1.by abstaining from sex

- 2.by using a family planning method
- 3.by not marrying early

BOYS AND GIRLS

- 43. Do you know of any girl who has had an abortion?
1. yes 2.no
- 44. Why do you think girls have abortions?.....
.....
- 45. Why do you think some girls decide not to have an abortion
when they get pregnant?.....
.....
- 46. What do you think about abortions?.....
.....
- 47. Do you have a child? 1.yes 2.no

Section VII. STDs, AIDS/HIV. BOTH BOYS AND GIRLS.

- 48. Have you ever heard of sexually transmitted
diseases (STDs) before?
1.yes 2.no
- 49. If yes, which ones have you heard of?
1.syphilis
2.chlamydia
3.herpes
4.HIV/AIDS 5.gonorrhoea 6.none
- 50. Which are some of the signs/symptoms of STDs
that you know of?
1.lower abdominal pain
2.vaginal/penis discharge
3.skin rashes
4.ulcers/wounds on external genitalia
5.others,specify.....
- 51. Do you know of any method(s) of preventing STDs/HIV?
1.yes 2. no
- 52. If yes, which method(s) do you know of?
1.condoms/foam tablets/spermicides
2.abstaining (not having sex at all)
3.others,specify.....

53. Have you ever used any of these methods to prevent STDs/HIV?
 1.yes 2.no
54. If yes, which ones have you ever used?.....

- If no, why don't you use any method to prevent getting STDs?.....

55. Do you always use it each time you have sex?
 1.yes 2.no
56. Have you ever contracted a sexually transmitted disease before?
 1.yes 2.no 3. don't know
57. If yes to QT. 56, did you go for treatment?
 1. yes 2. no
58. If not, why not?.....
59. How many times have you had a sexually transmitted (STD) disease? 1.once 2.twice
 3. three times 4. more than three
60. How is AIDS spread from one person to another?
 1.anal sexual intercourse
 2.vaginal sexual intercourse
 3.sharing the same needles/syringes.
 4.mother to child
 5.through blood transfusion
 6.others, specify.....
61. Is AIDS curable?
 1.yes 2.no 3.don't know
62. Are other STDs curable?
 1.yes 2.no 3.don't know
63. Whom would you like to teach you about reproductive health matters and sexuality?
 1. Parents 2. Teachers 3. Elders
 4. Relatives 5. Media
 6. Others, specify.....

ANNEX II: FOCUS GROUP DISCUSSION (FGDs) GUIDELINE.

Section I: Health Seeking behaviour.

- Where were most of you born? Where do you live? How long have you lived there?
- We would like to discuss the youth today. To start with, who are the youth and what kind of general problems do they experience?
- What health problems do the youth experience?
- Do the youth seek medical attention when necessary? How often?
- What common illnesses do the youth seek medical attention for?
- Where do they get medical care from?
- Do the youth receive medical care when they think they need it?
- If not, why not?
- Where were most of you born? Where do you live? How long have you lived there?

Section II: Reproductive health, Sexual behaviour and Sexuality

We would like to talk a little more about reproductive health.

- What are the developmental stages you go through and at what ages?
- At what age do girls start having their periods?
- At what age do boys start breaking their voices?
- At what age do boys start having wet dreams?
- Do most young boys and girls have lovers/boyfriend/girlfriend?
- Have most of them had lovers in the past?
- About how many lovers do you think young people have?

- Do the youth indulge in sex (are they sexually active)?
- About how many sexual partners do you think a youth usually has?
- By the time a young person is about 19 years old, how many boys/girls do you think they have had sex with in the past ?
- Why do you think the youth have sex?

SECTION III. CONTRACEPTION KNOWLEDGE AND PRACTICE.

- Have you ever heard or know of methods of preventing pregnancy?
- Are there youth who have never had of methods of preventing pregnancy? If yes, are they many?
- Which methods have you heard of?
- What was the most important source of information from which you heard of this method?
- Do the youth use any method to prevent pregnancy?
- Which is the most commonly used method among the youth?
- Where do they get this method(s) from?
- Some youth do not use any method to prevent pregnancy. what do you think is the reason?
- Should the youth use contraceptives to avoid getting pregnant?
- Do you think the youth would like to delay their first or next pregnancy? By what means/ways would they like to do so?

SECTION IV. ABORTIONS.

(ABORTIONS WILL BE EXPLAINED)

- Do you know of young girls who have had a pregnancy?

- In most cases what happens to the pregnancy?
- Do most girls have abortions? If yes, why do you think they do so?
- For those who do not have an abortion, why do you think they don't do so?
- Who performs these abortions?
- Do you know of anybody who has had an abortion?
- What is your opinion about abortions?

SECTION V. STDs, HIV/AIDS

- Have you ever heard of Sexually Transmitted Diseases?
- Which ones have you heard of?
- Which ones are curable and which ones are not?
- Do you know of any sign of STDs? AIDS? Which ones do you know?
- Are STDs common among the youth?
- Do they seek medical care when they have an STD?
- Whom do the youth go to for treatment when they have STDs? What are the problems?
- Do you know of any methods of preventing STDs?
- Which ones do you know of?
- Do the youth use any of these methods?
- Which one(s) is commonly used?
- How can AIDS be spread from one person to another?

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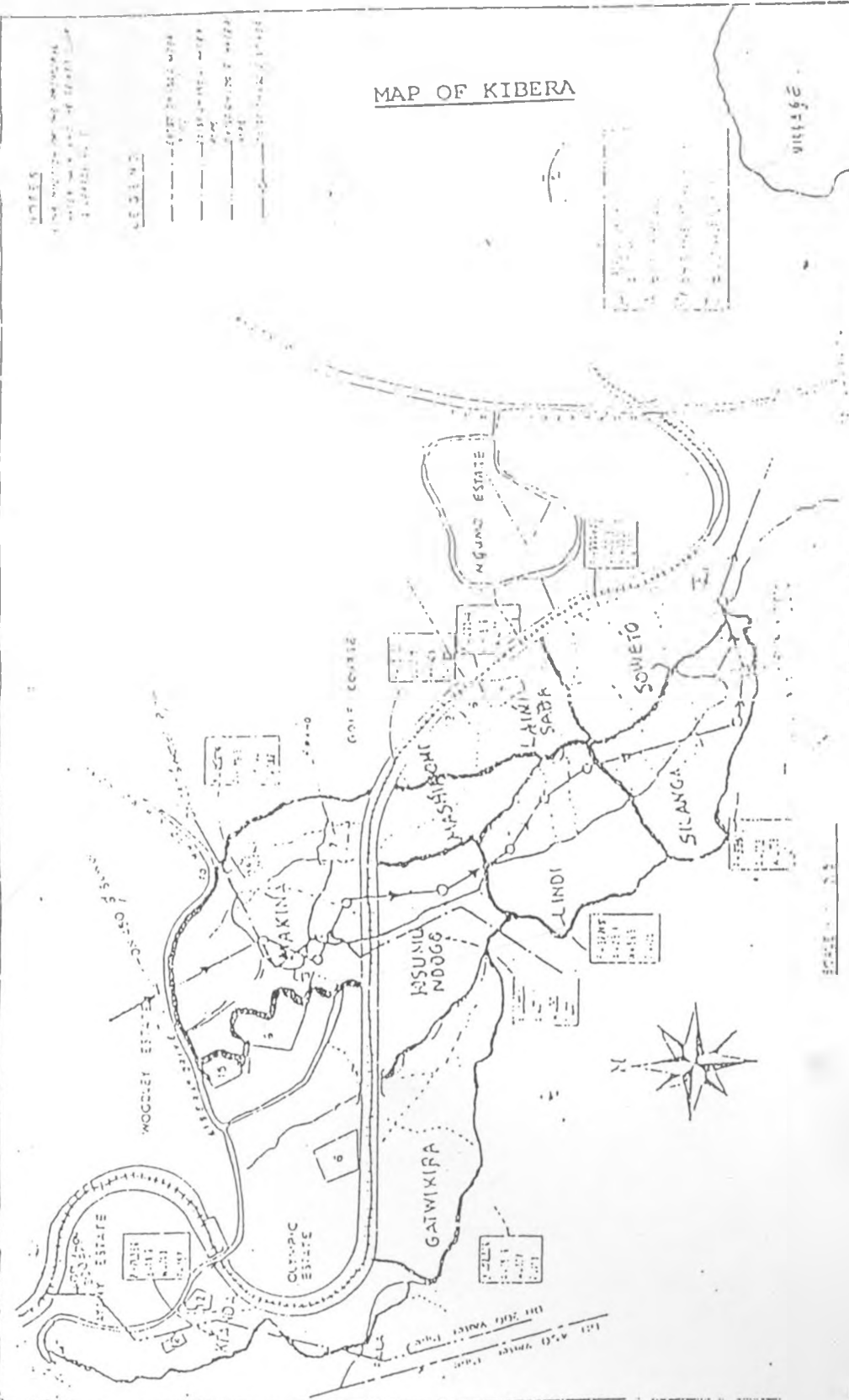
MAP OF KIBERA

NOTES

1. THE BOUNDARIES OF THE KIBERA SETTLEMENT ARE SHOWN BY A DOTTED LINE.

LEGEND

- BOUNDARY OF KIBERA SETTLEMENT
- BOUNDARY OF VILLAGES
- BOUNDARY OF ESTATES
- BOUNDARY OF FIELDS
- BOUNDARY OF PLOTS
- BOUNDARY OF ROADS
- BOUNDARY OF RIVERS
- BOUNDARY OF CANALS
- BOUNDARY OF GOLF COURSE
- BOUNDARY OF WOODS
- BOUNDARY OF OPEN SPACES



KIBERA SETTLEMENT
STATE OF WATER SANITATION

CONSTITUENTS

- BOUNDARY OF MAP AFTER MATRIX DEVELOPMENT