UTILIZATION OF REPRODUCTIVE HEALTH SERVICES BY SECONDARY SCHOOL STUDENTS IN WOTE DIVISION, MAKUENI SUB-COUNTY.

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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PUBLIC HEALTH AND EPIDEMIOLOGY IN THE SCHOOL OF PUBLIC HEALTH, KENYATTA UNIVERSITY.

2015
DECLARATION

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

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DEDICATION

This work is dedicated to my loving husband, Paul, my children, Tesh and Collins and to my parents.
ACKNOWLEDGEMENT

I recognize and appreciate all the help extended to me by my supervisors, Dr. Keraka and Dr. Sharma. Without their guidance, I would not have made it.

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ABBREVIATIONS AND ACRONYMS

ASRH - Adolescent Sexual and Reproductive Health

HIV - Human Immune Deficiency Syndrome.

FHI - Family Health International

KDHS - Kenya Demographic Health Survey

MNPD-Ministry of National Planning and Development.

RH - Reproductive Health.

SRH - Sexual and Reproductive Health

UNDP - United Nations Development Programme

WHO - World Health Organization
DEFINITION OF OPERATIONAL TERMS.

Reproductive health is a state of complete physical, mental, emotional and social well-being and not merely absence of disease or infirmity in all matters relating to the reproductive health system and its functions and processes (ICPD, 2004)

Adolescents are young people between ages 10-19 years.

Youth are young people of 15-24 years (WHO, 2001)
ABSTRACT

Sexual and reproductive health is a physical and emotional well-being of all human beings. Adolescents globally have unique sexual reproductive health risks of early sexual debut, STI including HIV/AIDS unplanned pregnancies and illegal abortions. These challenges threaten their health and survival. For adolescents to effectively transit to adulthood, they need to be provided with factual, affordable accessible confidential, non-judgmental and friendly sexual health information and services. The purpose of this study was to establish factors that influence utilization of reproductive health services among secondary school students in Wote division of Makueni district. It focused on five priority themes; i) understanding of sexual health needs of adolescents, ii) the level of utilization of ASRH services, iii) existing ASRH services and iv) understanding challenges faced by adolescents in utilizing the services. Data were collected by carrying out face to face interviews with 270 adolescents. Qualitative data were analyzed using content analysis, whereas quantifiable data were coded and analyzed using SPSS. Chi square was used to test relationship between independent variable and the dependent variables. The study established that adolescents had unmet behavioral, psychosocial, emotional, maturation, developmental and gender-specific sexual and reproductive health needs and concerns. It further established that Makuenu district did not have specific adolescent-friendly RHS. Level of utilization was low due to lack of adolescent friendly services, inadequate school health services and lack of adequate awareness among adolescents on available ASRH services. Other factors include lack of clear and effective policies to guide provision of RHS to adolescents, lack of adequate awareness among health providers and care givers about existing ASRH policies, restrictive eligibility criteria and rigid legal requirements for parental consent, judgmental attitude, and professional bias among health providers. The study recommended that provision of adolescent-friendly services be intensified, use of information packages and brochures to increase awareness and sensitization of adolescents, care givers, health providers, teachers and other stakeholders about ASRH services; engendering adolescent health services to meet their needs, strengthening school health programmes. Further, there is need to strengthen private-public sector partnerships and stakeholder participation in adolescent health. All these will have implications for immediate and future reproductive health of adolescents and to bridge the reproductive health service gap across their lifespan.
CHAPTER ONE
INTRODUCTION

1.1 Background Information

Adolescent sexual and reproductive health has gained increased attention among researchers, public health experts and policy makers in the past decade. Adolescence is a time of rapid growth and development. Major physical, cognitive, emotional, social and sexual changes that affect adolescent behaviour occur during this period. Contrary to the early development theorists notion that adolescents are relatively healthy group with no major illness (Dehne, 2005), there is now substantial literature indicating that adolescents face unique reproductive health challenges. The 1994 International Conference on Population and Development (ICPD) marked a paradigm shift by recognizing that adolescents have unique needs and vulnerabilities.

The ICPD highlighted the vulnerabilities of adolescents and called for greater recognition of adolescents as a special group with special needs. It emphasized the need to provide adolescents with SRH information and services and for adoption of integrated and comprehensive approaches to sexual health. Additionally the ICPD underscored the need to remove social barriers that hinder adolescents’ access to SRH services and to modify policies and programmes to meet the demographic realities of the 21st century (Germain, 2000).

Adolescents make up 20% of the world’s population, with the majority living in developing nations particularly in Africa. In Kenya, young people (10-24) years constitute 36% total population (MPND, 1999 census.) Adolescents, 10-19 years constitute 25.9% of the total population (MPND, 1999 census). Young people in
Kenya are at a risk of a broad range of health problems. Sexual and Reproductive health behaviors are among causes of death, disability and diseases among young people. This makes them a special group whose needs have to be addressed with care (Tabifor, 2002). Health care facilities can play an important role in promoting sexual and Reproductive health among adolescents by providing youth-friendly services.

Viewing adolescents as a specific group with their own needs is a relatively recent practice, especially in the developing world. Young, unmarried people in the past were not expected to be in need reproductive health (RH) services. If young women—no matter how young—were married, they received the same services as older women, except nobody assumed the young women needed pregnancy prevention. Most developing country societies expected women to bear children soon after marriage.

Significant social changes, which affect all societies to some degree, have prompted program planners and managers to consider specialized services for people in the adolescent or young adult age group. Some of these changes relate to broadened opportunities for women, who are now staying in school longer and entering the workforce in larger numbers. The age of marriage is rising in most countries. Combined with the decreasing age of menarche, those years create a longer time period when young women are single and are capable of becoming pregnant.
Sexual activity during this non marital time has increased, fostered by other social changes such as urbanization and mass communications, thereby creating a new level of need for RH care.

Adolescence, or the transition to adulthood, is becoming more of a defined developmental stage in our country. Thus, there is concurrently a greater understanding of this age group's biological, psychosocial, and health needs. Specific biological issues for adolescents apply equally to married or unmarried young people, especially young women. For example, incomplete body growth can cause problems during pregnancy and delivery among very young adolescents (Senanayake, 2003). Also, because of immature reproductive and immune systems, young females are more susceptible to HIV transmission (Cates, 2001).

Adolescent behavior, including experimentation and risk-taking, makes young people more vulnerable to pregnancy and STD. Young people want to try new things, including sexual activities, often feeling invulnerable to negative consequences. Other psychosocial reasons, especially for female adolescents, place them at higher risk: wanting to please, having difficulty in refusing advances, and needing to provide sexual favors to meet various needs, such as for school money.

Finally, there is emerging evidence that indicate that sexual abuse is a major issue for adolescents worldwide, with effects on the sexual and reproductive health of young adults. For adolescents, concerns about sexuality and RH are new in their lives. In fact, the major defining biological aspect of adolescence is the process of attaining sexual and reproductive maturity. Given most societies' reluctance to
approach the subject forthrightly, it is not surprising that young people view these new feelings and needs with some trepidation—and are suspicious of where to find answers.

According to the WHO first Global strategy on Reproductive Health adopted by the 57th World Health Assembly in May 2004, five priority aspects of Sexual and Reproductive Health are targeted in the strategy. These are; improving antenatal, delivery, postpartum and newborn care provide high quality services for family planning, include infertility services, eliminate unsafe abortion, combat STI and HIV, reproductive tract infections, cervical cancer and other gynecological morbidities and promote sexual health.

As well as describing an age-range, adolescence also describes a distinct period of life, characterized by changing roles and increased freedom. As the world changes under the effects of globalization, traditional ways of life are breaking down, resulting in increasing urbanization, migratory working, and changing opportunities for employment and education. Coupled with the influence of the media and peers, these factors are shaping the adolescent period, often leading to greater sexual freedom.

1.2 Statement of the problem

As a response to the reproductive health needs of adolescents, the Ministry of Public Health and Sanitation initiated integration process of priority concerns into the Kenya Essential Package of Health (KEPH) programme. The government further adopted the Adolescent Reproductive Health and Development Policy in 2003 with
a commitment to address ARH issues raised by the National Population Policy for Sustainable Development and the Kenya Health Policy framework of 1994 (MOH, 2005).

The policy was meant to address; adolescent sexual health and reproductive rights, harmful practices including early marriages, teenage pregnancy, female genital cutting among others. The target was to reduce proportion of women aged below the age of 20 years with a first birth from 45% in 1998 to 22% (NCPD, 2004).

The Adolescent Reproductive Health and Development Plan of Action 2005-2015 was developed to guide the implementation of this policy and later a National Guideline for Provision of Youth-friendly services developed all in an effort to meet sexual and reproductive health needs of the youth.

Non-Governmental Organizations (NGO) have also not been left behind in trying to increase the utilization of reproductive health services through various initiatives. The effects of these efforts have not been felt across Kenyan schools as evidenced by persistent reproductive health problems and challenges of adolescents such as unwanted pregnancies and its consequences, Sexually Transmitted Infections (STIs) and HIV/AIDS (MOH, 2003). In Kenya, Nigeria and Tanzania adolescent girls make up over half of women admitted to hospital for complications arising from unsafe abortions. About 46% of the youth have begun child bearing by age 19 (MOH, 2006).

Wote Division of Makueni sub-county has the highest prevalence of teenage pregnancy in the sub-county with at least 25 girls dropping out of school each year (Ministry of Education, 2008). This is an indication that adolescents are sexually
active. This puts them at an increased risk of HIV infection. In the neighboring Kibwezi district, the dropout rate is about 15 girls each year. Such girls who drop out face an increased risk to complications during child birth since their bodies are not well developed and mental problems like suicidal tendencies and depression (WHO, 2006) It is against this background that this study was carried out to investigate the factors influencing the utilization of SRH services to get correct information on their sexual health.

1.3 Justification of the study

The access to and utilization of Adolescent Reproductive Health services is a primary concern surrounding the promotion of reproduction health and rights (Braeken, 2012). This is attributed to the sensitive nature of sexual and sexuality issues among adolescents which have not been fully addressed and to a large extent the way the reproductive health services are being offered to them (MOH, 2005). Studies by Family Health International (FHI) in 2006 further showed that attracting the adolescents to the clinical services has remained a challenge and that there was need to create a demand and improve the health seeking behavior of the youth. It is these findings which prompted this study.

1.4 Research questions.

1. What are the main sexual health needs of adolescents?

2. What are the existing preventive reproductive health services available to adolescents in Wote division?

3. What factors influence utilization of reproductive health services by adolescents?
1.5 Null Hypotheses

1. Adolescents do not have sexual health needs.

2. There are no reproductive health services available to adolescents in Wote division.

3. There are no factors that influence utilization of sexual and reproductive health services by adolescents.

1.6 Study objectives

1.6.1 Broad objective

The main objective of this study was to establish the factors associated with utilization of preventive SRH services by secondary school students in Wote division of Makueni sub-county.

1.6.2 Specific objectives.

The specific objectives of this study were;

1. To establish the main reproductive health needs of adolescents.

2. To establish the ASRH services available to the adolescents.

3. To determine the factors that influence the utilization of ASRH services.

1.7 Conceptual Framework

The study used Andersen’s model of Health Service utilization (Andersen’s and Newman, 2005) to study utilization of Reproductive Health services by adolescents in Wote division.
The model provides a systems approach to investigate a range of individual and provider-related variables associated with decision to seek health care. It proposes that utilization of health care is a function of three categories of determinants; Predisposing characteristics which explain association of socio-demographic factors such as age, sex and utilization of health services. Enabling characteristics such as family income, economic status, location of residence, accessibility and availability of services are key determinants of utilization of health services. Need characteristics which explore the need for health services and the expected benefits of utilization of these services.

**Independent variables**

- Individual factors
  - Awareness
  - affordability

- Facility factors
  - Availability of services
  - Organization of services
  - Attitude of health workers
  - Accessibility

**Dependent variable**

Utilization of Reproductive Health Services

*Fig 1.1 Conceptual framework of study adopted from Andersen and Newman, 2005*
2.1 Introduction

Reproductive health services for adolescents should be accessible, acceptable and appropriate to effectively attract them and retain them for continued care. Services should include Family Planning (FP), sex information, pregnancy testing, treatment of sexually transmitted infections and counseling (Pathfinder, 2005). Literature reviewed was on utilization of reproductive health services globally, regionally and nationally and the demographic, economic and socio-cultural factors that influence utilization of these services.

2.2 Overview of sexual and reproductive health services.

2.2.1 Global overview

The 1994 and 2004 ICPD conferences held in Cairo and Dakar respectively, made several recommendations for improving adolescent access to RHS. Participating countries affirmed their commitment to intensify efforts to enhance rights of adolescents to access sexuality information, counseling and youth friendly services; safeguard adolescents right to privacy, confidentiality and informed consent and to involve them in design, implementation, monitoring and evaluation of youth programmes (UNFPA, 2005b).

Since the 1994 ICPD, efforts have been made globally to address reproductive health challenges of adolescents. An example is the establishment of adolescent-friendly clinics particularly in developed countries. However, there are no standard or uniform models of adolescent health services. Different countries adopt different
approaches. In the United States for example, some programmes maintain the traditional medical model by offering drop-in and after-school-hours services. Others set aside time in clinics for sessions open only to teenagers (Hocklong, 2003).

Evidence from research shows remarkable achievement in adolescent sexuality in countries where adolescent services are available and offered. For instance, in the US, the UK and other western European countries have recorded a significant drop in adolescent pregnancy rates since 1970s. This drop has partly been attributed to the availability of more effective methods of contraceptives and increase in condom use. In the UK, the positive changes were attributed to the 1990 Health of the Nation initiative which spurred creation of more effective adolescent and STI prevalence strategies at the national level (Bornemann, 2006). Several developed countries like Germany, Netherlands, Canada and the USA have youth friendly clinics.

In Sweden, youth clinics were established in the 1970s. These are centres where adolescents can receive advice, counseling, information, medical examination, treatment and therapy about sex and relationships (Nordin, 2005). In Russia, although the government has identified young people’s reproductive health needs as a priority, health care and education systems are not yet properly equipped to address the youth’s specific reproductive health needs (WHO, 2010).

2.2.2 Regional overview
Reproductive health programmes targeted at adolescents are a relatively new phenomenon in sub-Saharan Africa, with the first programmes having been established in the late 1970s. In response to the understanding that many young people are ill-informed on matters concerning sexuality and RH, most of the early
programmes focused on giving RH information to young people or on increasing parents’ and teachers’ capacities to convey such information. Programmes focusing on improving adolescents’ access to reproductive health services, however, are comparatively less developed on the continent. This is possibly because of the political sensitivity and socio-cultural biases surrounding provision of family planning methods to unmarried young people (Senderowitz, 2001). Studies in several African countries revealed that providers impose age restrictions on providing family planning methods, including condoms, even when such restrictions are neither medically justifiable nor officially sanctioned (Hubbard, 2000).

In a study in Tanzania, more than one-third of providers placed restriction on condom provision based on age. This is surprising, given that condoms are very suitable to the sporadic nature of adolescent sexual behaviour as well as to reducing the risk of HIV infection (Marjorie, 2004).

A study done by Motuma (2012) on utilization of youth friendly in Harar, Ethiopia, concluded that most youth had a positive attitude towards reproductive health services but had poor knowledge of these services. In Africa, South Africa is among the leading countries to implement adolescent health services through its National Adolescent-friendly Clinics Initiative (NAFCI) (FHI, 2000).

2.2.3 National overview

Adolescent sexual and reproductive health in Kenya is a relatively new and sensitive area mainly due to lack of formal structures to address of sex and sexuality. In an
attempt to address the reproductive health challenges experienced by young people in Kenya, the Government, through the Ministry of Health, Division of Reproductive Health in partnership with other stakeholders developed the Adolescent Reproductive Health and Development Policy (ARH&D) in the year 2003. It was not until July 2005 that the guidelines for the policy were finalized and disseminated. The Adolescent Reproductive Health and Development Policy Plan of Action 2005-2015 also seeks to spearhead the need to provide and accelerate access and utilization of reproductive health services by young people (NCPD/MOH, 2005)

Preliminary results of the 2004 Kenya Service Provision Assessment (KSPA) reveal that many youth in need of sexual and reproductive health care do not access the existing services because providers are often biased, unfriendly, or not adequately trained to serve sexually active youth. The proportion of facilities with youth-friendly services was found to be only 12 percent (NCAPD, 2004).

Despite grim reports of adolescents' deaths attributed to unsafe sex, pregnancies and AIDS very little attention has been given to reproductive health services tailored for adolescents in Kenya. Adolescents often lack access to comprehensive reproductive health services, which include education, counseling, treatment and products (UNFPA, 2003)

Kenyan youth are severely threatened by the HIV and AIDS epidemic. Data from within Kenya and other countries in Africa show that young people are at the greatest risk for new HIV infection, and yet they have the best chance of reversing trends in behavior that place them at risk. They need to make responsible decisions about
sexual behavior and protect themselves from unwanted pregnancies, HIV, and other sexually transmitted infections (MOH, 2006).

2.3 Reproductive health needs of adolescents.
Throughout the world, young people begin their sexual activities before and within marriage with inadequate information to protect their reproductive and sexual health. Over one billion young people between ages 10 and 24 years live in developing countries. Yet there still exists a lag in the information on their sexual and reproductive health needs (Jegeb hoy, 2006).

The transition to adulthood is surrounded by many challenges including bodily changes that are not well understood by young people. For many young people, adolescence is a confusing and stressful time. Their sexual reproductive health behaviors are compounded by many myths, misconceptions and misinformation that require clarification for effective management and service provision.

The public policy debate over whether teenagers should be allowed to obtain reproductive health services confidentially or required to involve their parents dates back to the 1970s, when teen sexual activity became increasingly visible and teen pregnancy was first deemed a national social problem. Although teenagers did not initiate sexual activity any earlier over the course of that decade (according to groundbreaking surveys measuring levels of teenage sexual activity), the age of marriage was rising. Therefore, pregnancies that would have occurred to teenagers within marriage in previous years increasingly occurred before marriage (Cynthia, 2005).
According to a report, *Young People and HIV/AIDS: Opportunity in Crisis*, released on July 2, in advance of the International Conference on AIDS (July 7–12, Barcelona, Spain) the “vast majority” of the world's young people have no idea how HIV/AIDS is transmitted or how to protect themselves from the disease. Surveys from 60 countries indicated that more than half of young people aged 15 to 24 “harbour serious misconceptions about how HIV/AIDS is transmitted–a strong indicator that young people are not getting access to the right information”, notes the report, which was produced by UNICEF, UNAIDS, and WHO (Nare, 2001).

Meanwhile, a growing body of research demonstrated that teenagers who gave birth had worse maternal and child health outcomes than did those who postponed childbearing, and that these young women were more likely to be poor and have reduced educational and workforce achievement. Reproductive health providers and others concerned about adolescent health and well-being increasingly turned their attention to ensuring that teenagers had the information and services they needed to avoid early and unwanted pregnancies (Elster, 2001).

Young people, especially those who are sexually active, need access to a variety of reproductive health (RH) and HIV services, including contraception, HIV counseling and testing, testing and treatment for other sexually transmitted infections (STIs), pre- and postnatal care, and post abortion care. Frequently youth seek services only when there is an acute illness or problem - such as a symptomatic STI or pregnancy - and do not typically seek preventive services, such as contraception to avoid pregnancy (Wilbon, 2005).
2.4 ASRH services available to adolescents

The Kenya Adolescent Reproductive Health and Development Policy; Plan of Action 2005-2015 identifies adolescents as a cohort with special needs. One of the strategies identified in the Plan of Action is improving access to, and utilization of sustainable youth-friendly services achieved through the training of service providers and establishing friendly centers (MOH, 2006).

The need for youth-friendly sexual and reproductive health programmes has become critical due to high risks of STI and HIV/AIDS, disproportionate high risk of sexual abuse and violence, adolescents are at an opportune age/stage to learn good health practices, severe consequences of lack of reproductive health care (MOH, 2006).

The available SRH services currently include:

2.4.1 Services after Sexual Assault

Management includes pregnancy prevention, HIV prevention, STI prophylaxis, treatment of physical injuries and counseling (MOH/DRH, 2004).

2.4.2 Post Abortion Care (PAC.)

Unsafe abortion accounts for 20-50% of all maternal deaths. In Kenya, adolescent women aged < 20 years accounted for 16% of abortions (IPAS, 2003). PAC involves care given to an individual seeking or being offered post abortion services or is at risk of developing post abortion related complications. Unsafe abortion among adolescents is due to factors like economic problems, level of education, peer pressure, lack of access to contraceptives, stigma, marital status and socio-cultural problems. Services offered include counseling, treatment of incomplete and unsafe abortion.
abortion, FP services and other services. These are offered at the youth centers at the hospitals.

2.4.3 Adolescent Pregnancy

Factors that may contribute to adolescent pregnancy include economic factors, poverty, incest, early marriage, lack of information, coerced sex and misconceptions. Management involves counseling and ante natal care. (MOH/DRH, 2004)

2.4.4 STI/AIDS

Of the estimated 5 million new HIV infections annually half of the infections are among young people (15-24 years). Annually, more than 1 out of 20 adolescents contract a curable STI not including viral infections. In Kenya it is estimated that about 20% of all reported AIDS cases are young people aged 15-24 years. Sexual conducts account for 80 to 90% of all infections while the rest are due to exposure to infected blood and mother to child transmission (KDHS 2003, NASCOP) Management services include counseling and testing, care and treatment, support and positive prevention (MOH, 2006) Other services include management of DSA, and mental health problems of adolescents.

2.5 Factors that influence the utilization of Adolescent Reproductive Health Services

Adolescents globally continue to face challenges in accessing reproductive health services. Many adolescents lack a consistent source of basic care and are less likely to visit a doctor or have any regular medical care than young children or adults.
Many of the health issues of adolescents are socially stigmatized or difficult to discuss. Mostly, young people think about and take steps to obtain adequate protection only after having sexual intercourse (Kipke, 2000)

In Kenya, like in other developing countries, existing societal, cultural and external prohibitions affect provision of adolescent SRHS. Health centers are in a good position to provide information and counseling to adolescents. However, many are so unresponsive to the needs of adolescents that they are rarely used. When surveyed, adolescents report that the targeting of services to older, married women, and negative staff attitudes are the main barriers to their use of services. Feeling judged or finding that their privacy and confidentiality are not respected, not to mention user fees, are key factors that discourage adolescents from returning (Townsend, 2004)

Numerous studies have revealed that adolescents are neither well-received nor comfortable in mainstream family planning clinics, which are mostly government-owned. Many of the existing studies regarding young people’s reception at clinics have focused on providers’ reactions to them. Young people often feel that they are unwelcome in such facilities, encountering providers who are judgmental, who treat them rudely, or who deny them services. These studies also found that legal requirements restricted adolescents from getting tested for HIV even if they were sexually active and at risk for HIV (Zanele, 2003)

In separate studies in Ghana and Nigeria, using mystery clients, young clients were neither treated with the same level of respect as older clients, nor were they given
detailed information as their older counterparts. Authors speculate that differences in treatment by providers were due to providers’ negative attitudes regarding young unmarried women who are sexually active (Olowu, 2005). Young people said that cost of services represents a barrier to service, fear that services are not confidential, as well as fear of meeting their parents or other adults they know at the facility (Kirumira, 2002)

A UNESCO review found that young people lacked knowledge of where to access health services to meet their needs. Adolescents in numerous countries are sexually active yet have low rates of contraceptive use (Lindstrom, 2009). A study conducted by OneWorld UK in Nigeria to assess facilities providing youth-friendly services found that gaps existed in provision of services and that few facilities qualified to be called youth-friendly as they did not meet universally acceptable standards (Osanyin, 2009). In Kenya, there are new efforts and reforms in the health sector which are captured in the Second National Health Sector Strategic Plan 2005-2010. The plan provides a framework for addressing reproductive health challenges in the National Reproductive Health Policy of 2007 (MOH, 2006)

According to a policy implementation report released in 2013, implementation of this policy has led to perceived improvement in reproductive health of adolescents by increasing access to and quality of RHS. However, there was still need to improve service delivery by equipping service providers with skills and resources, increase number and availability of youth-friendly services, provide teachers with skills and learning materials for life-skill education and inform adolescents about available RH services. Additionally, ASRH remains a contentious issue among some communities
and some cultural and religious practices are barriers to provision of services. Adolescents still face challenges such as completion of secondary school, postponing marriage, avoiding STIs and unintended pregnancies (NCPD, 2013).
CHAPTER THREE

MATERIALS AND METHODS

3.1 Introduction

This chapter describes the methodological approaches used in the study. It presents a description of the study area and methods of data collection and analysis.

3.2 Study Design

This was a cross-sectional study aimed at generating data on factors influencing utilization of SRH services by secondary school students in Wote division of Makueni district. Data was collected from the field using questionnaires and interview schedules. These were seeking information on reproductive health concerns of adolescents, utilization of services, available services and factors influencing their utilization.

3.3 Variables.

3.3.1 Independent variables.

The independent variables in this study were identified as awareness of services by students, attitude of staff as perceived by the students, accessibility, affordability, and arrangement of the services in the health facilities.

3.3.2 Dependent variable.

The dependent variable in the study was the utilization of Reproductive Health services.
3.4 Study Area

This study was undertaken in Wote Division of Makueni sub-county (Appendix 5.4) Makueni sub-county is in the eastern province of Kenya. It is largely rural and to a small extent urban. It is located to the south of Nairobi and borders Machakos, Kitui, Makindu, Kathonzweni and Kibwezi sub-counties. The sub-county has three administrative divisions namely Wote, Kaiti and Kee. Wote division has 15 secondary schools with 3 of them being Girls' Boarding, 3 Boys' Boarding and the rest 9, are Mixed, Day and Boarding. The enrolment in the schools is 3215. The health facilities in the division include three health centres, four dispensaries, one District Hospital and six private clinics (MOH, 2006).

Although the division has several health care providers which form a network for provision of reproductive health services, both adults and adolescents access the services from the same service points. This makes it difficult for adolescents to seek the services used by adults especially because parents are often opposed to some; for example contraceptive use.

Like the rest of Kenya, the division and the sub-county at large has experienced a shift in the socio cultural organization in traditions and life events. The akamba ethnic community is the predominant inhabitants of the division but due to the administrative capital being within it, other communities have come in. The traditional fabric that used to ensure provision of information on sexuality matters to adolescents by parents has been eroded by this mixing. There is little interaction about sexuality matters between adolescents and their parents and guardians.
(Brocknan, 2001). The researcher has inside knowledge of the community's cultural practices and is familiar with the education system in the district.

3.5 Target population

The study targeted secondary school students in Wote Division, Makueni District who were aged 15-19 years.

3.6.1 Sampling procedure

The sampling techniques used were purposive and simple random sampling. According to Mugenda and Mugenda (2003) purposive sampling is a sampling technique that allows a researcher to get cases that have the required information with respect to the objectives of his/her study. The division was purposively sampled out of the other divisions in the district because I was familiar with it and it had the highest prevalence of STI and HIV/AIDS among adolescents compared to the other divisions (Kaiti and Kee) in Makueni district (MOH, 2006).

According to Mugenda and Mugenda (1999) a sample size of 10%-30% of the accessible population is a sufficient sample in descriptive studies. The researcher randomly selected 30% of the schools since the schools were few; that is 5 schools and added one more to improve precision of the data collected. The selected schools were Makueni Girls' school, Makueni Boys' school, Ukia Girls, Mwaani Boys, Kambi mixed and St.Johns sec school. The total student population in the schools was 2667.
Selection of the students in each class was done by proportionate stratified sampling by class where the sample size of each class was proportionate to the population size. This is shown in table 3.1. With the help of teachers, I then asked for the particular number of students in each class to volunteer. I then called the selected students in one room where I introduced the research team and the purpose of the study. Once their verbal consent was obtained, the interviews were conducted.

3.6.2 Sample size

To get the sample size, the formula by Kothari, (2000), was used.

\[
N = \frac{Z^2 \times p \times q \times N}{e^2 (N-1) + Z^2 \times p \times q}
\]

Where

n= the desired sample size.

z= the value of standard variate at 95% (1.96)

p= the sample proportion 70% (PAHO, 2003)

q= 1-p

N= the population size (2667)

e= the precision (.05)

\[
n = 1.96^2 \times .70 \times .30 \times 2667
\]

\[
(0.05)^2(2667-1) + (1.96)^2 \times .70 \times .30
\]

=269.06593

A sample of 270 respondents was required.
### Table 3.1 Sample selection of in-school adolescents.

<table>
<thead>
<tr>
<th>Class totals</th>
<th>Students selected</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Makueni Boys</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-203</td>
<td>21</td>
</tr>
<tr>
<td>Form 2-184</td>
<td>19</td>
</tr>
<tr>
<td>Form 3-202</td>
<td>20</td>
</tr>
<tr>
<td>Form 4-200</td>
<td>20</td>
</tr>
<tr>
<td><strong>Mwaani Boys</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-120</td>
<td>12</td>
</tr>
<tr>
<td>Form 2-108</td>
<td>11</td>
</tr>
<tr>
<td>Form 3-93</td>
<td>9</td>
</tr>
<tr>
<td>Form 4-100</td>
<td>10</td>
</tr>
<tr>
<td><strong>Ukia Girls</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-114</td>
<td>12</td>
</tr>
<tr>
<td>Form 2-120</td>
<td>12</td>
</tr>
<tr>
<td>Form 3-124</td>
<td>13</td>
</tr>
<tr>
<td>Form 4-112</td>
<td>11</td>
</tr>
<tr>
<td><strong>Makueni Girls</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-122</td>
<td>12</td>
</tr>
<tr>
<td>Form 2-128</td>
<td>13</td>
</tr>
<tr>
<td>Form 3-124</td>
<td>12</td>
</tr>
<tr>
<td>Form 4-141</td>
<td>14</td>
</tr>
<tr>
<td><strong>Kambi mixed(girls)</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-33</td>
<td>3</td>
</tr>
<tr>
<td>Form 2-38</td>
<td>4</td>
</tr>
<tr>
<td>Form 3-18</td>
<td>2</td>
</tr>
<tr>
<td>Form 4-15</td>
<td>2</td>
</tr>
<tr>
<td><strong>Kambi mixed(boys)</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-46</td>
<td>5</td>
</tr>
<tr>
<td>Form 2-35</td>
<td>4</td>
</tr>
<tr>
<td>Form 3-34</td>
<td>3</td>
</tr>
<tr>
<td>Form 4-20</td>
<td>2</td>
</tr>
<tr>
<td><strong>St.Johns mixed(girls)</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-28</td>
<td>3</td>
</tr>
<tr>
<td>Form 2-27</td>
<td>3</td>
</tr>
<tr>
<td>Form 3-18</td>
<td>2</td>
</tr>
<tr>
<td>Form 4-16</td>
<td>2</td>
</tr>
<tr>
<td><strong>St.Johns mixed(boys)</strong></td>
<td></td>
</tr>
<tr>
<td>Form 1-38</td>
<td>4</td>
</tr>
<tr>
<td>Form 2-28</td>
<td>3</td>
</tr>
<tr>
<td>Form 3-25</td>
<td>3</td>
</tr>
<tr>
<td>Form 4-23</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2667</strong></td>
</tr>
<tr>
<td></td>
<td><strong>270</strong></td>
</tr>
</tbody>
</table>

3.7 Data validation and Reliability.

Two research assistants were recruited to assist in administering the interview schedules. The researcher trained them on study themes, aims and objectives and introduced them to the data collection methods. The team gained practical exposure.
The structural interview schedules were pre-tested to validate the information before the actual research. After the pre-tests the researcher held debriefing sessions with the assistants to get feedback about the clarity and consistency of concepts, terminologies and questions in the questionnaires. We identified a few that were not clear and made necessary adjustments. This helped in bringing up other emerging issues which required further probing during the actual data collection exercise and enhanced teamwork.

3.8 Inclusion criteria.
Secondary school students aged 15-19 years old and who gave their consent.

3.9 Exclusion criteria.
Secondary school students aged below 15 years and those who did not give their consent.

3.10 Data collection
Selection was followed by visits to the schools where the researcher met the principals and introduced herself and the study purpose to get clearance to conduct the interviews.

The interviews were scheduled in the weekends to avoid interruption of school programmes.

Primary data was obtained through field research. The researcher collected data from in-school adolescents. The aim of this was to get a broader perspective of the
complex and sensitive issues that often shroud adolescent reproductive health and sexuality.

Questionnaires and interview schedules were used to collect data from adolescents. All the interviews were conducted in English which is the official language with occasional interjections in Kiswahili especially during probing. All the adolescents were asked identical questions in the same sequence with probing where necessary. Secondary data were collected from government documents which included the KDHS 2009 report, District Education documents.

3.11 Data analysis.

Quantitative raw data were coded, sorted, entered and processed using the SPSS data entry program. Descriptive statistics such as frequencies, percentages and means were used to describe both quantitative and categorical data. After entry, cross tabulation was done followed by inferential statistics (Chi-square in this case) to get independent variables that were significantly associated with utilization of reproductive health services at 95% confidence level, p< 0.05. Qualitative data from open ended questions was transcribed and organized into thematic areas.

3.12 Ethical Consideration.

Authority to carry out this study was sought from Kenyatta University, Ministry of Higher Education, Science and Technology, the Makueni District Education officer and the principals. Informed consent was also sought from the respondents to ensure voluntary participation. No names were written in the interview schedules to ensure anonymity.
Although parental or guardian consent is required when dealing with minors, it was not possible to obtain it since these were in-school adolescents. The researcher informed the adolescents in details about the study purpose and that participation was voluntary and they were free to decline or and the interview any time they felt they were obliged to do so. They were assured that their decision about participation would not affect their relation with the interviewers. They were also assured of confidentiality and that the information would not be used for any other purpose other than that of the study. Respondents did not receive any incentives to participate in the study and none was forced to answer any question they did not wish to answer.
CHAPTER FOUR
RESULTS

4.1 Introduction

This chapter focuses on data analysis and presentation of the findings of the data collected. The findings of the research study were presented in figures, pie charts and tables to give relevant meaning to the findings.

4.2 Socio demographic characteristics of Respondents

In this subsection, the researcher sought to establish the student respondents background information such as age, gender, and class.

The results in Figure 4.1 show that majority of respondents (56%) were in the age bracket of 17-19 years. Only 44% of the respondents were in the age bracket of 15 and 16.

According to the findings, 53% of the respondents were male students while 39% were female students. The study results in Table 4.1 revealed that majority of the respondents (56%) were in form three while those in form four represented 31%. The study results also showed that 158 (72%) respondents were protestant, 59(27%) catholic while 4(1%) belonged to other religions.

Those from Makueni district were 164(73%) and 57 were from other districts in the country. According to living arrangements, 170(77%) of them lived with both parents while 41(23%) had other living arrangements.
Table 4.1: socio demographic characteristics of the respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>15-16</td>
<td>98</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>17-19</td>
<td>123</td>
<td>56</td>
</tr>
<tr>
<td>Class</td>
<td>Form 2</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Form 3</td>
<td>124</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Form 4</td>
<td>69</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Religion</td>
<td>Protestant</td>
<td>158</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Catholic</td>
<td>59</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Home district</td>
<td>Makueni</td>
<td>164</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>57</td>
<td>27</td>
</tr>
<tr>
<td>Living arrangements</td>
<td>With 2 parents</td>
<td>170</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>41</td>
<td>23</td>
</tr>
</tbody>
</table>

4.3 Reproductive health needs of adolescents

Adolescents were asked about their main health needs. The aim was to find out if they had specific reproductive health needs that would require them to seek preventive reproductive health care.

According to the findings presented in Table 4.2, most of the respondents (84%) raised sexual health needs. Out of the 221 adolescents, 128 (58%) expressed fear of contracting HIV/AIDS, 100 had fear of contracting STI, and 80 had concerns about teenage pregnancy. This included 15 boys who raised concern about causing pregnancy or their sisters getting pregnant. In addition, 30 adolescents worried about sex experimentation among adolescents.

About half of them had psychosocial and emotional issues. Of the 221 adolescents interviewed, 53(24%) were concerned about negative peer pressure that made adolescents to engage in risky sexual behavior. Another 40 adolescents were
concerned about relationships with the opposite sex. They indicated that they experienced increased attraction to the opposite sex and desire to form relationships. Twenty of them also indicated that they experienced loneliness and mood swings. They also feared not fitting in and being treated like outcasts if they didn’t have boyfriends or girlfriends.

The results further show that close to a half (49%) of the respondents indicated maturation and developmental concerns. A few boys, 30(26%) had concerns about increased sexual desire and having pains in their genitalia. A few girls, 20(9%) had concerns about painful menstruation; whereas 15 raised the issue of lack of sanitary pads by some girls especially those that lived with their grandmothers as their guardians. A further 20(9%) indicated that they were shy about their physical body changes and having pimples on their faces.

About half of them (48.9%), had interpersonal concerns with twenty nine of them being concerned about relating with parents, teachers and friends. They reported having fear and difficulties in sharing their problems with teachers, parents, siblings and friends. They feared that if they shared they would be suspected of having indulged in sex. They also expressed lack of trust of their parents and teachers and felt that their problems would be disclosed or shared. Eighteen felt that they were being denied freedom to do what they wanted.

Some adolescents also expressed other service and societal related concerns. Fifty (22.6%), expressed concerns about drug and substance abuse. They mentioned cigarettes, alcohol and bhang as the common drugs abused especially among boys.
Twenty two (9.9%), were concerned about lack of awareness about available services as well as information about their reproductive health concerns. A few (5%) were concerned about increased rape incidences and dangers of contraceptive use. Results of the specific health needs of adolescents are summarized in Table 4.2.

Table 4.2: Main Reproductive Health needs and concerns of adolescents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Boys (n=127)</th>
<th>Girls (n=94)</th>
<th>% (for all)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Health needs and concerns</td>
<td>Fear of contracting HIV/AIDS</td>
<td>68</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Fear of contracting STI</td>
<td>43</td>
<td>57</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Concerns about teenage pregnancy</td>
<td>15</td>
<td>65</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Concerns about sex experimentation</td>
<td>13</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Psychosocial and Emotional</td>
<td>Negative peer influence</td>
<td>28</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Relationships with the opposite sex</td>
<td>22</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Experience loneliness'</td>
<td>3</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>Maturation and developmental</td>
<td>Increased sex desire</td>
<td>17</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Shy about body changes</td>
<td>5</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Painful menses</td>
<td>20</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Lack of sanitary towels</td>
<td></td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>Fear of sharing problems</td>
<td>11</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Being denied freedom by parents</td>
<td>8</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Other behavioral concerns</td>
<td>Drug and substance abuse</td>
<td>45</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>society related</td>
<td>Ignorance about services and where available</td>
<td>10</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>others (rape, contraceptive use, school drop-out)</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

4.4 Available Adolescent Reproductive Health Services

4.4.1 Service Providers

Another aim of the study was to find out the ASRH services available in Wote division. Adolescents were asked about their awareness about efforts by the
government through the ministry of Public Health had made efforts to respond to their concerns, 21% cited schools’ intervention and 9% interventions by religious organizations especially churches. Another 4% cited the media and 3% cited NGOs/CBOs.

The remaining 2% thought no efforts were being made. They mentioned the high levels of teenage pregnancy and laxity of the government to deal with issues of teenage prostitution. They felt that the government assumed that they were a healthy group and lacked major health concerns. The views of adolescents on efforts by various institutions to address their reproductive health concerns are presented in figure 4.1.

![Figure 4.1: Adolescent views about sources of PRHS in Wote division.](image_url)
4.4.2 Services offered

The study also sought to establish the adolescent reproductive health services which were offered by the mentioned institutions. According to the results, 69% of the adolescents cited provision of information and awareness creation about HIV/AIDS, condom use and HIV testing and counseling as the main services offered. In addition, 32% of the adolescents mentioned that the organizations offered counseling and advise services about dangers of early sexual debut, STI, unplanned pregnancies, abortions, drug use and relationships. Another 5% mentioned treatment of STI. The results also showed that 23% of the adolescents mentioned youth guidance and counseling seminars about sexual matters like unwanted pregnancies and drug abuse. A few, 5%, mentioned other services like provision of sanitary towels by support organizations and creation of awareness about HIV/AIDS through organizing football matches.

Adolescents were also asked to describe the services offered by schools. The results showed that 48% of the adolescents mentioned guidance and counseling while 16% cited formation of health clubs. In addition, 23% mentioned provision of sexual information on HIV, STI and 18% cited treatment and referral services. A few, 4% reported that their schools didn’t do much to address their reproductive health concerns. In all the schools, guidance and counseling was offered. Most of the adolescents, 73.2%, reported that they were offered both group and individual counseling services. They also mentioned that in-school counseling services were offered by the guidance and counseling teachers, guest professionals who were invited to speak to them and representatives of NGO/CBO. They named the topics covered as awareness creation about HIV/AIDS and STI, drug and substance abuse and avoiding
risky sexual behavior. They also said they were guided on how to cope with challenges of adolescence like menstruation, relationships, avoiding teenage pregnancy and negative peer influence. They also noted that they received guidance on career choices, importance of education, relations with teachers and appropriate dressing.

Table 4.3 Services available to the adolescents

<table>
<thead>
<tr>
<th>Variable</th>
<th>category</th>
<th>frequency</th>
<th>% respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>Information on HIV/AIDS awareness</td>
<td>96</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>VCT</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>School</td>
<td>Guidance and counseling</td>
<td>105</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Information on HIV/AIDS awareness</td>
<td>51</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Health clubs</td>
<td>35</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>37</td>
<td>18</td>
</tr>
<tr>
<td>Religious organizations</td>
<td>Treatment</td>
<td>34</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Youth seminars</td>
<td>51</td>
<td>23</td>
</tr>
<tr>
<td>Media</td>
<td>HIV/AIDS awareness</td>
<td>75</td>
<td>34</td>
</tr>
<tr>
<td>NGO/CBO</td>
<td>Youth seminars</td>
<td>38</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Provide sanitary pads</td>
<td>42</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Create awareness</td>
<td>28</td>
<td>13</td>
</tr>
</tbody>
</table>

The frequency and regularity of the guidance and counseling sessions offered also varied in the schools. Almost three quarters (74%) of the adolescents noted that their schools lacked programmed guidance and counseling sessions and they often had ad hoc sessions. Out of the 87 adolescents who responded to this section, 12% noted that they had weekly sessions, 8.4% had them fortnightly while 5.6% noted that sessions were held whenever a problem arose like if a case of pregnancy was noted.
Table 4.4 Frequency of Guidance and Counseling sessions in schools

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>frequency</th>
<th>% respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidance and Counseling</td>
<td>weekly</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>fortnightly</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>No programme</td>
<td>64</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>if a problem arises</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

4.5 Factors that influence utilization of ASRH Services

The study sought to establish whether the respondents had utilized the adolescent sexual reproductive health services. The aim was to assess whether adolescents' knowledge about available services resulted in their use of the same. They were asked to;

(a) indicate their desired PRHS services

(b) describe the services they had used.

(c) to indicate their reasons for their choice of the services.

Adolescents were also asked what they liked about the services to establish their level of satisfaction with the services. The findings are presented in the subsequent sections.

4.5.1 Their desired services.

Adolescents were asked to state their desired services and identify specific needs for boys and for girls. They identified basic and special needs.

All adolescents expressed desire to be offered ARHS. About 40% wished to be educated about dangers of HIV/AIDS. They also expressed need for VCT services in rural areas. They added that adolescents found to be HIV positive should be supported and advised on how to live positively and deal with stigma even in school. All
adolescents indicated that they needed to be informed about dealing with the opposite sex and how to avoid peer influence. They wished to be offered individualized guidance and counseling services. They further noted that those offering those services should openly share (straight talk) with them sexual health issues and be willing to solve problems affecting adolescents.

Adolescents had specific problems according to gender. The girls wished to be informed about dangers of premarital sex and how to avoid unwanted pregnancies. They noted that girls felt guilty when they got pregnant and end up not getting antenatal care. This often leads to difficult delivery. The need for education about abortion and its dangers was also indicated. A few (12%) wished for seminars to be organized about growth and development. Some felt that they needed to be educated about early menstruation so that they are not caught unawares and cause embarrassment. They noted that most girls cried when they begun to menstruate due to lack of prior knowledge. They also wished to be informed about dealing with painful and irregular periods. Girls indicated that they felt more at ease discussing menstruation-related issues with friends and not with teachers or parents. Issues about personal hygiene and cleanliness were also mentioned and provision of sanitary pads. A few felt that girls needed to be informed about contraceptives, their use and dangers, if any.

Boys expressed their need to be advised on how to overcome sexual desires, and deal with homosexual tendencies and especially those in boarding schools. They also wished to be informed about effects of drugs like cigarettes and alcohol and how to avoid them.
4.5.2 Adolescent SRH services Sought

The respondents were asked to indicate whether they had received adolescents SRH services from the organizations which provide the services. According to Figure 4.2, majority of the respondents (65%) indicated that they had never visited the organizations for SRH services. And only 32% of the respondents had indeed received the services from the organizations.

Out of the 71 adolescents who indicated having used the services, 55 cited that they had received the services in Makueni district while the rest had sought them in other regions. The services adolescents indicated having used were as follows; health facilities which included government health facilities, private clinics, VCT services, services from CBO, individual counselors, and church youth seminars. A few mentioned having received information from mass media and some had consulted their parents and teachers. Adolescents also indicated having used school Guidance and Counseling services that were often compulsory.

![Figure 4.2: whether they utilised the services.](image-url)
The study sought to establish the adolescent SRH services sought by the respondents. The findings of the study presented in figure 4.3 show that 21% had sought VCT services, 43% of the respondents indicated that they sought treatment services from the organizations while 36% sought counseling services. A higher number of adolescents who had used the services indicated treatment and guidance and counseling as the most sought after services. They received guidance and counseling in the following areas: general health-how to prevent STD, HIV/AIDS, early sexual engagement, how to exercise self-control, relating with parents and peers, about condom use as well as information about drug abuse. They also indicated having received treatment services for diseases and STI, circumcision for boys and training as peer educators.

![Figure 4.3: Adolescent SRH services Sought](image)
4.5.3 Factors influencing utilization of the services

Table 4.5: Factors influencing utilization of SRH services by adolescents.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Utilization</th>
<th>Non-utilization</th>
<th>X² statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Awareness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aware</td>
<td>60(32%)</td>
<td>127(68%)</td>
<td>X²=8.828</td>
</tr>
<tr>
<td>Not aware</td>
<td>7(8%)</td>
<td>27(92%)</td>
<td>df=1 p=0.003</td>
</tr>
<tr>
<td>Total</td>
<td>67(15%)</td>
<td>154(85%)</td>
<td></td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td></td>
<td></td>
<td>X²=2.245</td>
</tr>
<tr>
<td>Near</td>
<td>47(90%)</td>
<td>10(12%)</td>
<td>df=1 p=0.327</td>
</tr>
<tr>
<td>Far and inaccessible</td>
<td>8(5%)</td>
<td>161(95%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55(12%)</td>
<td>166(88%)</td>
<td></td>
</tr>
<tr>
<td><strong>Attitude of staff.</strong></td>
<td></td>
<td></td>
<td>X²=12.24</td>
</tr>
<tr>
<td>Friendly</td>
<td>59(13%)</td>
<td>142(87%)</td>
<td>df=1 p=0.004</td>
</tr>
<tr>
<td>unfriendly</td>
<td>8(5%)</td>
<td>12(95%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67(15%)</td>
<td>154(85%)</td>
<td></td>
</tr>
<tr>
<td><strong>Arrangement of services</strong></td>
<td></td>
<td></td>
<td>X²=3.205</td>
</tr>
<tr>
<td>With adult services</td>
<td>8(5%)</td>
<td>161(95%)</td>
<td>df=1 p=0.049</td>
</tr>
<tr>
<td>Separate</td>
<td>39(89%)</td>
<td>13(11%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47(21%)</td>
<td>174(79%)</td>
<td></td>
</tr>
<tr>
<td><strong>Affordability</strong></td>
<td></td>
<td></td>
<td>X²=1.321</td>
</tr>
<tr>
<td>Free</td>
<td>54(75%)</td>
<td>36(25%)</td>
<td>df=1 p=0.739</td>
</tr>
<tr>
<td>Expensive</td>
<td>11(15%)</td>
<td>120(85%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>65(15%)</td>
<td>156(85%)</td>
<td></td>
</tr>
</tbody>
</table>

According to the findings in table 4.5, a larger proportion (67%) of adolescents who were aware of the existence of SRH services did not utilize them compared to the ones who were not aware. The results (X²=8.828; df=1; p=0.003) indicated that there is a significant relationship between awareness and utilization of SRH services.

The results in table 4.5 indicate that the largest proportion (95%) of respondents who had utilized the services were those that the services were near and accessible. Five percent (5%) of respondents who were far from the services also utilized them. The results (X²=2.245; df=1; p=0.327) indicated that there was no significant relationship...
between accessibility and utilization of SRH services. The larger proportion of adolescents who had utilized the services indicated that they were in the schools and so they were near. The out-of-school services were also near their homes.

According to the findings, a smaller proportion (13%) of respondents had utilized the services as the staff was friendly. A further 87% of the respondents did not utilize the services because the staff was unfriendly. The results ($X^2=12.24; df=1; p=0.004$) indicated a significant relationship between attitude of staff and utilization of SRH services among adolescents. According to WHO (2001) one of the requirements for youth-friendly services is staff who are especially trained to deal with adolescent issues and who offer services to them in a friendly and confidential manner.

The results show that the largest proportion (89%) of the respondents who utilized the services did so because they were offered separately from the adult services. This was in comparison with five percent (5%) who had utilized the services where they were together with adult services. The results ($X^2=3.205; df=1; p=0.049$) indicated a significant relationship between arrangement of services and utilization of the SRH services.

The findings also show that 75% of the respondents utilized the SRH services due to the services being offered free of charge. This was a larger proportion than those who utilized the services but found them expensive (11%). This was attributed to the fact that some of the services required laboratory tests that were not free of charge. The results ($X^2=1.321; df=1; p=0.739$) showed no significant relationship between affordability and utilization of SRH services.
The null hypothesis was rejected at 95% confidence level, $p<0.05$ since it was found that awareness of availability of services, attitude of staff at the health facilities and arrangement of services in the facilities showed significant association with utilization of Sexual and reproductive health services by adolescents.

Two independent variables; affordability and accessibility showed no significant association with utilization of services.

4.6 Barriers to utilization of SRH services

Respondents who had not utilized the SRH services were asked to indicate why they had never used the services. This was a multiple response type of question meaning that a respondent could give more than one response from a set of alternatives. According to the findings, the majority (37%) of the respondents had never sought the services due to lack of awareness.

Other reasons for non-use were given as; feeling that the PRHS are for adults and not for young people (4%), and fear of being judged by health service providers as being too young or still unmarried to use the services (3%); and not having the need (2%).

Adolescents also indicated that they were embarrassed to use the services (1.5%) especially because they had to explain their problems to the health service providers before receiving the services. They also felt that they could not know how to live with their peers after testing positive for any sexual reproductive health disease.
Table 4.6 Barriers to utilization of SRH services

<table>
<thead>
<tr>
<th>Responses</th>
<th>Number of responses</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lack of awareness</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>2. Feeling that services are for adults not youth</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>3. Fear and stigma</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>4. Never had the need</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>5. Embarrassment</td>
<td>5</td>
<td>1.5</td>
</tr>
</tbody>
</table>
5.1 Discussion of the findings of the study

5.1.1 Reproductive health needs and concerns of adolescents.

Slightly more than a half (58%) of the respondents expressed fear of contracting HIV/AIDS, STI and teenage pregnancy. Out of these, only 15 boys (7%) raised concerns about causing pregnancy or their sisters getting pregnant. These findings concur with those of a study by Dehne et al that found out that there were gender differences in the concerns of girls and boys with just 6% of boys having concerns about teenage pregnancy.

In addition 24% of the respondents were concerned about negative peer pressure that made them engage in risky sexual behavior. Another 25% had concerns about relationships. This proportion was lower than that in the study done by Kamau, (2002) in which 35% of adolescents had the same concerns.

Close to a half (49%) of the respondents indicated maturation and developmental concerns. Out of these, only 30 were boys who had concerns about increased sexual desire and pain in their genitalia. The rest were girls who had concerns about menstruation, lack of sanitary pads and physical body changes. These results concur with findings of a study by Riedner et al (2006) in which boys were more concerned with matters of sex while a larger proportion of girls(50%) had reproductive health concerns.

About 22.6% of the adolescents expressed concerns about drug and substance abuse. This was lower compared to that found by KDHS (2003) in which 44% of secondary
school adolescents had concerns of alcohol and cigarette smoking. These variations were attributed to increased and improved school G&C services in the past few years (Lloyd, et al, 2002)

5.1.2 Available adolescent reproductive health services.

More than a half of the respondents (61%) of the adolescents indicated that the government through the ministry of Public Health and Sanitation had made efforts to address their concerns, 21% cited schools, 9% religious organizations and 7% media and NGOs. The remaining 2% thought no efforts were being made. They cited the high levels of teenage pregnancy and the laxity of the government to deal with teenage prostitution. These proportions are inconsistent with those of KDHS (2003) which found that a large proportion of adolescents (34%) felt that no efforts were being made to address their sexual and reproductive health concerns.

A large proportion (69%) of the respondents cited provision of information and creation of awareness about HIV/AIDS, condom use and HIV testing as the major services offered. In addition, 23% mentioned youth seminars and G&C. 5% mentioned other services like provision of sanitary pads and support to orphans. These findings concur with those of a study by Kamau, A (2002) which found that 63% of adolescents mentioned awareness creation on matters of HIV/AIDS as the major reproductive health services offered to them.

In all the schools G&C was offered. Most of them (73.2%) reported that they were offered both individual and group counseling services with just 4% reporting that their schools didn’t do much to address their needs. These proportions concur with the findings of a study by MOE (2009) which found that schools’ G%C programmes had
improved with 80% of adolescents reporting that their schools were addressing their reproductive health issues.

5.1.3 Factors influencing utilization of ASRH services.

The largest proportion (33%) of the respondents gave the reason for not utilizing the SRH services as lack of awareness. Out of the majority that reported being aware, only 32% utilized the services. The study found a significant relationship between awareness and utilization of SRH services. These results showed that school-going youth had generally low knowledge on RHS, a fact that led to low utilization of the same. Those who reported being aware of the existence of the services and where they can be accessed, registered increased utilization of the services than those who did not know as confirmed by the chi-square analysis. This was despite the services being available in all health facilities in the country.

The results are contrary to one of the goals of the Ministry of Health Services through its Adolescent Reproductive Health and Development policy (2003) which intended that reproductive health information be made available to youth.

These results are inconsistent with the findings of a study by Langille (2000) who asserted that adolescents being aware of services and facilities offering them is one thing but actual application of this knowledge in order to influence their behavior is a complex issue and entirely different. According to the same study, knowledge is an essential (though not in itself sufficient) component for adolescents to be able to take action to protect their sexual health.
In addition, 29% of the respondents cited the provision of the services together with adult services made difficult to utilize them. The study also found that youth would prefer not to meet older people at clinics because they got unfriendly reception. These findings concur with those of studies by Erulkar (2005) which found that 40% of adolescents preferred youth-alone services. Other studies in Zimbabwe and Swaziland also found that the youth preferred services that were offered in youth only centres which were also youth-friendly.

The ARHD policy (2003) had as one of its objectives, to increase the number of youth friendly facilities from baseline to 85%. From these findings, it was clear that this target has not yet been reached.

According to the findings, 47% of the respondents reported accessibility to the services as influencing their utilization. There was no significant relationship between accessibility and utilization. These findings concurred with findings of studies by Kolencherry (2004), Dehne (2005) and Kamau (2002) which found that health seeking behavior of the youth was not influenced by distance to the health facility. In addition, 45% reported that the services were offered free of charge and they could therefore utilize them although there was no statistical relationship between affordability and utilization of services. This finding is inconsistent with the finding in a study by Kamau (2002) which found out that adolescents could not afford the services since they were expensive. This inconsistence can be attributed to Kenya’s efforts to improve general reproductive health services as one of the MDGs. This includes making the services free.
About 30% of the respondents reported that unfriendly and rude staff made them not to utilize the facilities. These findings concur with the findings in studies by Kayenda (2008) and Kamau (2002) which found that adolescents were not utilizing SRH services because of unfriendly staff who were judgmental about under-age youth that were sexually active seeking SRH services. These studies also found that youth were being told by service providers they were too young to utilize the services. Restrictive policies on age and marital status may compound the challenges to adolescents utilizing SRH services. This is due to the fact that in many countries, including Kenya, parental consent is required for all reproductive services for the 15-18 year age group.

Other respondents (8%) cited factors like long waiting periods, stigma and not being able to deal with positive results for HIV as influencing utilization of SRH services. These findings concur with the findings of a study by Kayenda (2008) who asserted that youth felt that they did not have time to waste waiting for services and also that they wouldn’t know how to survive with others knowing they had SRH issues.

5.2 Conclusions

The findings of this study signify failure of the ARHD policy from meeting its objectives key among them to increase utilization of ARHS to 80% by 2015 and to increase the facilities offering youth-friendly services to 85% in the same period. Low level of awareness of RHS among the adolescents means that there is a wide gap between the policy makers and the adolescents which needs to be bridged.

The findings of this study led to the following conclusions:
Adolescents in Kenyan secondary schools have reproductive health needs that need to be addressed.

There are SRH services available to adolescents but majority of adolescents do not utilize them.

The low level of utilization of RHS can be attributed to factors like, attitude of the staff, awareness, and arrangement of the services in the health facilities.

5.3 Recommendations.

The conclusions of this study lead to the following recommendations;

In view of the identified sexual and reproductive needs among school-going adolescents, the need to develop strategies that would appropriately suit them can no longer be ignored.

Provision of preventive and curative health services within schools is important.

There is need for the health and teaching sectors in Kenya to combine efforts so as to provide students with information through promotion of school health clubs and enactment of school health programmes.

In view of the high level of lack of awareness among adolescents, active sensitization of adolescents in schools through forums like seminars, rallies and any other gathering that creates such an opportunity should be done so as to increase awareness on availability of RHS and facilities that offer them. There is also need to train peer educators and teachers to complement health service providers in passing correct information to adolescents.
The integrated model of health service provision currently practiced in Kenya has not favored the youth. Young people are more likely to use reproductive health services available, if they are exclusively youth-friendly (Taffa et al, 1999) The government, through the Ministry of Health Services, should increase youth friendly clinics throughout the country. The clinics should be attractive but not showy, accessible in terms of physical location and hours of operation, affordable and confidential. The health workers should also be trained so that they can communicate effectively with adolescents without being judgmental and patronizing.

The government should review the existing Adolescent Reproductive Health and Development Policy to provide clear guidelines to service providers on provision of these services to adolescents.

The current policies address post-exposure reproductive health needs as opposed to pre-exposure needs. In most cases, the decision on whether to offer services to adolescents is shaped by personal interpretation of adolescent behavior. This usually leads to denial of PRHS to the adolescents.

5.4 Recommendations for further research.

There is need for further research in the following:

1. Determine the knowledge, attitudes and practices of secondary school teachers as concerns sexual and reproductive health needs of adolescents.

2. Determine factors influencing utilization of RH services among adolescents in other districts in Kenya.

3. Determine knowledge, attitudes and practices among primary school adolescents as concerns reproductive health in Kenya.
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Marjorie, A (2004) Improving the fit: adolescents’ needs and future programs for sexual and reproductive health in developing countries. Student Family Planning, 29


Nare, C, et al, (2001). Measuring access to Family Planning education and services for young adults in Dakar, Senegal


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Taffa, J (1999) Integrating Sexually Transmitted Infections Management into Family Planning; What Are The Benefits, WHO


Appendix 1: Research instruments

INTERVIEW SCHEDULE ON utilization of reproductive health services among secondary school students in Wote division, Makueni sub-county, Kenya

Interview details.

Name of interviewer.................................................................................................................

Name of school..........................................................................................................................

Consent form (for those above 18 years)

I am Mwikali Muia, a student at Kenyatta University pursuing a master’s degree of Public Health. The purpose of this study is to establish factors that influence utilization of SRH services by secondary school students in Wote Division. The information you give will be confidential and used for the purpose of this study only. Please be honest.

Date........................................ Signature............................................................

Assent form (for those who are below 18 years)

I am Mwikali Muia, a student at Kenyatta University pursuing a master’s degree of Public Health. The purpose of this study is to establish factors that influence utilization of SRH services by secondary school students in Wote Division. The information you give will be confidential and used for the purpose of this study only. Please be honest.

Date........................................ Signature.............................................................
Instructions

This interview schedule has been divided into sections. Please fill in your responses in the spaces provided. SRH here refers to Sexual and Reproductive Health which is a complete well-being in all matters relating to the reproductive system and its functions.
<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Skip</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Age in years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Gender of the respondent</td>
<td>Male ............... 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female ............. 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Class</td>
<td>Form 1 ............. 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form 2 ............. 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form 3 ............. 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form 4 ............. 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Religion</td>
<td>Protestant ........ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Catholic ........... 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other .............. 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Home district</td>
<td>Makueni ............ 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other .............. 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>Living arrangements</td>
<td>With two parents... 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other .............. 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 2: REPRODUCTIVE HEALTH NEEDS OF ADOLESCENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Skip</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Do you think it is necessary for adolescents like you to be provided with sexual health services? If yes, services concerning</td>
<td>HIV/AIDS............................1. VCT.................................2. Treatment............................3. Guidance and counseling........4. Other...........................5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>What are some of the services you feel could be provided for adolescent girls? (girls only to answer) Information about;</td>
<td>Body changes............................1. Painful menses (periods)..................2. Increased sexual desires............3. Boy/ girl relationships..............4. Other (specify).....................5.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## SECTION 3: AVAILABLE ADOLESCENT REPRODUCTIVE HEALTH SERVICES

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Skip</th>
<th>Code</th>
</tr>
</thead>
</table>
| 3.1 | Does your school provide information and services that can help you meet sexual and RH concerns? If yes, what are the services? | Guidance and counseling...............1  
HIV/AIDS club......................2  
Others(specify).....................3 |      |      |
| 3.2 | How frequently are the G&C services offered? | Weekly.................................1  
Fortnightly..........................2  
If a problem arises...............3  
No programme.......................4 |      |      |
| 3.3 | Do you think anything is being done by the government or any other bodies to address ASRH concerns in Wote division? Name the organizations. | VCT..................................1  
Seminars............................2  
Provision of sanitary towels..........3  
Others (specify)...................4 |      |      |
### SECTION 4: UTILIZATION OF ASRH SERVICES.

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Skip</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Have you ever received services from the organizations named above? yes/no</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>VCT........................................................................1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Treatment..................................................................2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Counseling..................................................................3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seminars on sexual health.........................................................4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other (specify)..................................................................5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>If yes, what kind of services?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The facility is far............................................................................1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unfriendly staff............................................................................2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Services offered together with adult services..............................................3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>affordability.............................................................................4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other (specify).............................................................................5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>Were you aware that such services were available for adolescents? Yes/no</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>What difficulties did you face in using the services?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Have never had the need............................................................................1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wasn’t aware of them........................................................................2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Embarrassed to use them....................................................................3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>They are for adults...........................................................................4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fear of testing positive..................................................................5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2: MAP OF MAKUENI SUB-COUNTY
NCST/RRI/12/1/MED-011/07/5

Zipporah Mwikali Muia
Kenyatta University
P. O. Box 43844
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “factors influencing access and utilization of reproductive health services among secondary school students in Wote Division, Makueni District, Kenya” I am pleased to inform you that you have been authorized to undertake research in Makueni District for a period ending 31st July, 2011.

You are advised to report to the District Commissioner, the District Education Officer, Makueni District, the District Medical Officer of Health, Makueni District Hospital, the Clinical Officer-In-Charge, Health Centres and the Nursing Officer-In-Charge in Makueni District before embarking on the research project.

On completion of the research, you are expected to submit one hard copy and one soft copy of the research report/thesis to our office.

P. N. NYAKUNDI
FOR: SECRETARY/CEO

Copy to:
The District Commissioner
Makueni District
The Permanent Secretary,
Ministry of Higher Education,
Science & Technology
P.O. Box 30040,
NAIROBI.

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION

I write to introduce Ms. Zipporah Mwikali Muia who is a Postgraduate Student of this University. She is registered for a M.P.H. degree programme in the Department of Public Health at the School of Health Sciences.

Ms. Muia intends to conduct research for a thesis project entitled, "Factors Influencing Access and Utilization of Reproductive Health Services Among Secondary School Students in Wote Division, Makueni District, Kenya."

Any assistance given to her will be highly appreciated.

Yours faithfully,

JOHN M. ODONGI
FOR: DEAN, GRADUATE SCHOOL

JMO/bkk

Committed to Creativity, Excellence & Self-Reliance
P.O Box 313 – 90300
MAKUENI.

7th JULY, 2011.

THE D.E.O,
MAKUENI DISTRICT,
P.O Box 41,
MAKUENI.

REF: RESEARCH AUTHORIZATION

I am a student of Kenyatta University undertaking a master’s degree in public Health.

As part of my degree’s requirements, I am undertaking research in secondary schools in Wote division of Makueni District. I humbly request for your permission to visit Makueni Girls, Mwaani Boys, Makueni Boys, Kambi Mawe Secondary and St. Johns Secondary School to collect data for my thesis.

Attached, please find letters of authorization from Kenyatta University and Ministry of Higher Education.

Yours Faithfully,

Mwikali Muia