ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH CARE SERVICES BY ADOLESCENT GIRLS AGED 15-19 YEARS AMONG PASTORAL COMMUNITIES IN NAROK COUNTY, KENYA.

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DECLARATION

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

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DEDICATION

To my parents, Mr. and Mrs. Isaiah Mbugua without whose support I wouldn’t have made it this far. To my siblings Dan, Grace, Samuel and Sarah and all my friends for their genuine support.
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ABBREVIATIONS AND ACRONYMS

AIDS : Acquired Immune Deficiency Syndrome
ARDP : Adolescent Reproductive Health and Development policy
ASRH : Adolescent Sexual and Reproductive Health
BSc : Bachelor of Science
CHEWS : Community Health Extension Workers
CHWS : Community Health Workers.
FGC : Female Genital Cutting
FND : Foods Nutrition and Dietetics
GBV : Gender Based Violence
HIV : Human Immunodeficiency Virus
ICPD : International Conference on Population Development
KARHP : Kenya Adolescents Reproductive Health Project
KDHS : Kenya Demographic Health Survey
KNCHR : Kenya National Commission on Human Rights
MGCSD : Ministry of Gender, Children and Social Development
MOYAS : Ministry of Youth Affairs
NCAPD : National Coordinating Agency for Population and Development.
PMTCT : Prevention of Mother to Child Transmission
SRH : Sexual and Reproductive Health
STI : Sexually Transmitted infection
SOA : Sexual Offenses Act
UNFPA : United Nations on Population Development
VCT : Voluntary Counseling and Testing
DEFINITION OF OPERATIONAL TERMS

**Adolescents** - the World Health Organization defines adolescents as individuals between 10 and 19 years of age.

**Child marriage** - marrying off of girls who are under 18 years of age.

**Entito** - These are young, pre-pubescent, unmarried Maasai girls.

**Esoto** - A sexual practice said to take place among young warriors and young unmarried Maasai girls.

**Gogo** - grandmothers. They are the ones who attend to girls’ sexual and reproductive issues such as abortion and delivery.

**Murran** - Also known as Moran (warriors). They are groups of young men who are of the same age set and normally serve the Maasai community as warriors for approximately twenty years during which time they are required to marry.

**Reproductive health** - it means a state of complete physical, mental and social well-being in all matters relating to the reproductive system and its functions and processes, and is not merely the absence of disease, dysfunction or infirmity.

**Sexual Health** - it is a state of social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. It requires a positive approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences free of coercion, discrimination and violence.
ABSTRACT

The subject of adolescent sexual and reproductive health has acquired prominence more than ever before in recent years, dominating local and international forums deliberating on adolescent sexual and reproductive health. Most of the discussions, targeted interventions and researches undertaken on Adolescent Sexual and Reproductive Health (ASRH) have looked at the issue from infrastructural and resource capital allocation culminating into school-based reproductive health programs. Pastoral communities are characterized by a life of moving from place to place which complicates their access to basic facilities including static healthcare services. This study sought to establish access to sexual and reproductive healthcare services by adolescent girls among pastoral communities. The study was a cross-sectional descriptive study and was confined to the adolescent girls among pastoral communities in Narok South Sub-County which was purposively sampled to represent pastoral communities in Kenya. Simple random selection of households and individual respondents was done. Interviewer administered structured questionnaires, key informant interviews guides and focus group discussions guides were used to garner quantitative and qualitative data. Data analysis was performed using SPSS version 21 for quantitative data and content analysis was done for qualitative data. The study found out that there were no specific youth sexual and reproductive healthcare services. The factors that influenced access to SRH services by the adolescent girls included socio-cultural factors: cultural beliefs(27%) and restriction by family members(73%); individual barriers: shyness (14%) and fear (86%); unfriendly service providers (19.6%); economic factors: financial constraints (39%), long distances (32%) and lack of transport (29%); information barriers: ignorance and illiteracy (58%) and no knowledge of where services are offered (42%). There was significant association between access of SRH services and their use: SRH information ($\chi^2=15.064$, df=1, $p<0.001$), condoms ($\chi^2=19.167$, df=1, $p<0.001$), injections ($\chi^2=7.851$, df=1, $p=0.005$), and prenatal care($\chi^2=5.738$, df=1, $p=0.017$). The study recommends that the government and other stakeholders set up of centres that offer adolescent-friendly SRH services and setting up of mobile clinics to serve adolescents in the interior marginalized areas who are unable to access static facilities due to financial constraints, distance and lack of transport.
CHAPTER ONE: INTRODUCTION

1.1 Background to the study
Adolescent sexual and reproductive health has emerged as area of key concern globally. In many parts of the world the sexual and reproductive health needs of adolescents are either poorly understood or not fully appreciated. Evidence is growing that this neglect can seriously jeopardize the health and future well-being of young people (WHO, 2010).

Globally, adolescents continue to face challenges in accessing reproductive health services (Kamau, 2006). While adolescents have the same reproductive rights as adults, they face more obstacles in enjoying those rights. These include denial of access to reproductive health information and services, violence and exploitation, and extreme hardship when faced with an unwanted pregnancy (NCAPD, 2010).

In Kenya as in other parts of Africa, adolescents and youth face several reproductive health challenges. These include early pregnancy which is mostly unwanted, complications of unsafe abortion, and complications of pregnancy and childbirth. Adolescents lack easy access to quality and friendly health care, prevention and treatment of Sexually Transmitted Infections (STIs), safe abortion services, antenatal care and skilled attendance during delivery, which result in higher rates of maternal and perinatal mortality (KNCHR, 2012).

The Government of Kenya developed a national Adolescent Reproductive Health and Development Policy in 2003 which aimed to address the various challenges facing adolescents in Kenya. Further, the Reproductive Health Policy of 2007 set to improve the reproductive health of adolescents and ensure adolescents and the youth has full access to SRH health information. It also sought to have youth friendly reproductive health services and to promote a multi-sectoral approach in addressing adolescents sexual and reproductive health needs (KNCHR, 2012).
A study conducted by Nduba et al. in 2011 found out that sexual practices are among the nomadic youth in Kenya are often influenced by cultural and social environments. These authors point out that nomadic ways deprive these communities of basic services as do distance, high illiteracy rates and local beliefs and practices, besides poor training of staff at the few available health facilities to health services (Nduba et al., 2011).

1.2 Statement of the problem
Narok South Sub-County is largely occupied by nomadic communities whose life is characterized by cultural practices such as early marriages and early sexual debut among adolescent girls resulting in early or mistimed pregnancies as well as sexual violence. Further, low education status of the girls in this community mirrors lack of knowledge and information. These highlight a dire need of SRH services for the adolescent girls. The high mobile nature of the community limits access to basic facilities including healthcare facilities which are static in nature. Despite marked increase in efforts by Kenyan government, development partners and other stakeholders through policies, legislations and targeted interventions to enhance access to sexual and reproductive healthcare services for the youth evidence from existing studies provide that conventional youth programming does not reach the large population of marginalized and disadvantaged nomadic girls who are in need of reproductive health information and services (Nduba et al., 2011). It is against this background that this study aimed to establish access to SRH services by adolescent girls aged 15-19 years among pastoral communities in Narok South Sub-County.
1.3 Justification
Narok South Sub-county provided a fair representation of pastoral communities for the purpose of this study. The Sub-County is largely occupied by pastoral communities who are practice a culture characterized by cultural beliefs and harmful practices including moranism, early and forced marriages, female circumcisions, patriarchy and subordination of women and girls and a nomadic lifestyle of moving from place to place that hinder access to basic services by the pastoral communities including health. According to a study by UNICEF in 2009 deep-rooted traditions of patriarchy and subordination of women and girls make it difficult for the girls to realize their sexual and reproductive health rights in many parts of the world (UNICEF, 2009). Nomadic girls’ low social status mirrors their isolation, limited friendship networks, early marriages and female genital mutilation which undermine their sexual and reproductive health (Nduba et al., 2011). This study focuses on access to SRH services by nomadic girls aged 15-19 years and adds to existing literature on ways through which access to these services by the young girls among pastoral communities can be enhanced.

1.4 Research questions
i) What sexual and reproductive healthcare services are available to adolescents within Narok South Sub-county?

ii) What factors influence access to sexual and reproductive healthcare services by adolescent girls among pastoral communities in Narok South Sub-county?

iii) In what ways can access to sexual and reproductive healthcare services by adolescent girls in Narok South Sub-County be improved?
1.6 Null Hypothesis
Access to sexual and reproductive healthcare services by adolescent girls among pastoral communities in Narok South Sub-County is not related to factors influencing access to SRH services like socio-cultural factors.

1.7 Objectives

1.7.1 Broad objective
To establish access to sexual and reproductive healthcare services by adolescent girls aged 15-19 years among the pastoral communities of Narok South Sub-County, Kenya.

1.7.2 Specific objectives
i) To establish the types of sexual and reproductive healthcare services available to adolescent girls in Narok South Sub-County.

ii) To determine the factors that influence access to sexual and reproductive healthcare services by adolescent girls in Narok South Sub-County.

iii) To determine ways through which access to SRH services by adolescent girls can be improved.

1.8 Significance of the study
The information generated will help the government and other stakeholders in developing strategies and policies that will enable improvement of access to sexual and reproductive healthcare services by adolescent girls among pastoral communities. The information generated may also be used by NGOs and other relevant organizations to initiate projects aimed at enabling the adolescent girls to access SRH services.
1.9 Limitations of the study
This study covered adolescent girls aged 15-19 years among pastoral communities and the results can therefore be generalized only to a similar group in Kenya or in other developing countries.

1.10 Conceptual framework
The conceptual framework shows the demographic characteristics, factors influencing access to SRH services by the adolescent girls, challenges that the adolescent girls face in accessing SRH services and suggestions on ways by which access to SRH services by the adolescent girls can be improved.
Fig 1.1 Conceptual framework
CHAPTER TWO: LITERATURE REVIEW

2.1 Overview of adolescent sexual and reproductive health

Adolescence is a time of transition from childhood to adulthood. It is a period in which significant physical and psychological changes take place, and a time when young people develop many of the habits, behaviours and relationships they will carry into their adult lives. While these changes occur at the level of each individual, adolescents make up such a large proportion of the population that in the aggregate they present the government with the crucial task of promoting healthful behaviour and preventing disease among the entire adolescent population (NCAPD, 2010).

Compared with adults, adolescents are at higher risk of illness and death from reproductive causes, including early pregnancy, unsafely performed abortion, and HIV and other sexually transmitted infections (STIs). Their greater vulnerability is due to a combination of physiological and behavioural factors. Young girls, whose bodies are still growing and developing, are more vulnerable to infection during intercourse and are at greater risk for pregnancy-related complications, particularly obstructed labour and associated injury (NCAPD, 2010).

Adolescents, both unmarried and married, face many sexual and reproductive health risks stemming from early, unprotected, and unwanted sexual activity. Key factors underlying this issue are lack of access to sexuality education, and to accessible, affordable, and appropriate contraception. Major sexual and reproductive health threats abound, such as unwanted pregnancies, especially among adolescents, STI and HIV/AIDS, and other related issues, such as sexual violence and exploitation (WHO, 2010).
Governments, in collaboration with NGOs, were urged by the International Conference on Population and Development of 1994 to establish programmes to meet the needs of adolescents and address Adolescent Sexual and Reproductive Health issues, including unwanted pregnancy, unsafe abortion, STDs and HIV/AIDS (GoK, 2003).

2.2 Components of adolescent sexual and reproductive healthcare services

2.2.1 Sexual and reproductive health information
State parties are obligated to provide adolescents and the youth with reproductive health information to take full charge of their lives (KNCHR, 2012). United Nations Population Fund advocates for and supports the efficient and delivery of a holistic, youth-friendly health-care core package that includes universal access to accurate sexual and reproductive health information (UNFPA, 2007). Sex education programmes should offer accurate, comprehensive information while building skills for negotiating sexual behaviours (Bearinger et al., 2007). The Kenya Adolescent Reproductive Health and Development Policy of 2003 provide that Adolescent Sexual and Reproductive Health encompass the provision to adolescents sexual and reproductive health information and education (GoK, 2003).

Educating adolescents about sexual health and/or HIV/AIDS does not encourage them to increase sexual activity. It is best to start such education before the onset of sexual activity. Health Ministries have a key role in elaborating and providing appropriate education material and in engaging and supporting other government departments (such as education) to carry out effective sexual health education programmes (WHO, 2006). Despite continued investments in adolescent sexual and reproductive healthcare programs worldwide, challenges still exist in adequately meeting the SRH information and service needs of this subset of the population. The
inadequacy of programs to effectively meet the SRH information and service needs of adolescents exposes them to undesired health consequences such as the risk of acquiring sexually transmitted infections (STIs) including HIV (Cleland and Magadi, 2006).

2.2.2 Family planning services
In every region of the world, impoverished, poorly educated and rural girls are more likely to become pregnant than their wealthier, urban, educated counterparts. Girls who are from an ethnic minority or marginalized group, who lack choices and opportunities in life, or who have limited or no access to sexual and reproductive health, including contraceptive information and services, are also more likely to become pregnant (UNFPA, 2013). Most pregnancies to adolescent girls in sub-Saharan Africa are unintended or mistimed and the use of family planning methods among this group remains low (Cleland and Magadi, 2006). Unmet need for family planning is highest among those 15-19 years old for both married and unmarried adolescents (UNFPA, 2012). Adolescents—married or unmarried—often lack access to contraceptives and information about their use. Providing reliable access to quality contraceptive products is a significant challenge for many developing countries. As such, adolescent girls, like older women, face many concrete barriers to accessing family planning services (Marshall and Jones, 2012).

Barriers that impede girls’ access to contraception include laws prohibiting or restricting young and/or unmarried girls’ contraceptive access or requiring permission from parents or husbands, and a prevalent belief that exposure to family planning information increases the propensity for young people to engage in sex, a lack of knowledge of where to obtain them, fear about being rejected by service providers, opposition by a male partner, community stigma about
contraception or adolescent sexuality, inconvenient locations or clinic hours, costs, and concerns about privacy and confidentiality (UNFPA, 2013).

Unmarried pregnant girls may be embarrassed to seek help from judgmental or critical service providers. For married adolescents, a decision to seek, or not to seek, antenatal care may be taken by the husband, mother-in-law or other members of her husband’s family. Health services often do not meet the needs of pregnant adolescents. Care may unavailable in the places where pregnant girls live or be otherwise inaccessible. Cost may inhibit adolescents from seeking care. Pregnant girls have little money of their own and usually depend on support from others (WHO, 2006).

2.2.3 Antenatal services
All adolescents need access to quality youth-friendly services provided by healthcare providers trained to work with this population. Support during pregnancy has been associated with positive pregnancy outcome. Adolescent mothers are a group with special needs, because they are children themselves and their bodies are not yet sufficiently developed to handle pregnancy and delivery. It is therefore necessary to encourage them to attend antenatal clinics where they will be equipped with health information on how to care for themselves during pregnancy, delivery and after childbirth (Phafoli et al., 2007). Adolescents’ health services should be financially, functionally and geographically accessible, and should be adolescent-friendly and confidential (Yinger and Ransom, 2002). It is important that antenatal services, especially those meant for pregnant adolescents, are planned with input from adolescents and that the services are made as meaningful and as interesting as possible – otherwise the pregnant adolescents will not view the
services as valuable to them (Lesser et al, 1998). Financial constraints are main factor leading to delayed antenatal care attendance by adolescents (Phafoli et al., 2007).

2.2.4 Delivery services
Most maternal deaths are preventable. Critical factors for improving maternal health for adolescents include access to and use of obstetric care to ensure the safe delivery of young mothers and their infants. (Advocates for Youth, 2007). Adolescent mothers are less likely to have a skilled attendant present during birth (WHO, 2003). A pregnant adolescent, especially in rural areas, is unlikely to have cash for transport and care, and her mobility may be restricted by social conventions about travelling unescorted. Unmarried adolescents may fear being stigmatized if they visit a nearby clinic. Fees often remain a barrier to adolescents with no income (WHO, 2006).

2.2.5 Post natal services
Ensuring access to postnatal services for new adolescent mothers often means providing financial support for health care and diet, advice about breastfeeding, help returning to school or training, shelter and services if they have been rejected by their families and contraceptive or birth-spacing information and services. Antenatal and postnatal care are not only essential for the health of the girl and her pregnancy, but they also present opportunities to provide information and contraception that may help an adolescent prevent or delay a second pregnancy (UNFPA, 2013). A study by Kothari et al. (2012) revealed that in some countries, including Brazil, Bangladesh, India and Indonesia, adolescents were less likely than women to obtain skilled care before, during and after childbirth. This, according to UNFPA in 2013, is because adolescents have the extra burden of being unfavorably judged by healthcare providers and her community and family (UNFPA, 2013).
2.2.6 Post-abortion care

Eighty-five young women die from unsafe abortion-related causes each day (WHO, 2004). Unsafe abortion endangers the health and lives of many female adolescents worldwide. These abortions result from a special vulnerability, lack of information and resources, and fears of many adolescents. In addition, adolescents often delay seeking care and therefore experience disproportionately high rates of abortion-related complications. Few adolescent-specific post abortion care programs exist anywhere in the world (Herrick, 2010).

Adolescents make up a large proportion of patients hospitalized for complications of unsafe abortions. A study done by Kothari et al. (2012) revealed that compared to adults who have unsafe abortions, adolescents are more likely to experience complications such as hemorrhage, septicemia, internal organ damage, tetanus, sterility and even death. Some explanations for worse health outcomes for adolescents are that they are more likely to delay seeking and having an abortion, resort to unskilled persons to perform it, use dangerous methods and delay seeking care when complications arise (UNFPA, 2013). Lack of reproductive and sexual health information and education may affect adolescent girls’ ability to make an informed decision regarding abortion (Cook and Dickens, 2000).

Barriers to abortion care include legal and policy barriers, as well as a variety of other barriers such as provider attitudes, stigma, misinformation or lack of accurate information, gestational limits, and infrastructural or logistical facility characteristics (including cost and distance). These barriers make safe abortions less accessible to some women, and these challenges particularly impact young women (Davis and Beasley, 2009). It is imperative that the sexual and
reproductive health of young people be improved. Abortion care should be provided to young clients non-judgmentally (Westervelt et al, 2010).

### 2.2.7 Prevention of and treatment of STIs

Worldwide each year, there are 340 million new sexually transmitted infections, or STIs. Youth between the ages of 15 and 24 have the highest rates of STIs (UNFPA, 2013). At least one in five female adolescents between the ages of 15 and 19 who ever had sexual intercourse indicated had an STI or symptoms of one. STIs are of special concern for adolescent girls because they can lead to pelvic inflammatory disease, ectopic pregnancy, premature membrane rupture, infertility, and other complications. Higher rates of STIs in younger women than older ones could account for higher miscarriage rates for younger mothers (WHO, 2004).

### 2.2.8 HIV/AIDS prevention and control

Young women are more vulnerable to HIV infection because of biological factors, having older sex partners, lack of access to information and services and social norms and values that undermine their ability to protect themselves (WHO, 2009). Adolescent girls are also more likely than boys to be living with HIV (UNFPA, 2013). Among young people living with HIV, 62% live in sub-Saharan Africa, of which 76% are female. The need to focus on HIV among young people has been endorsed by governments in a range of international fora (UNAIDS/WHO, 2011).

According to UNAIDS/WHO (2011) there are four core areas of action that target both risk and vulnerability reduction among young people, and that are reflected in the global goal of achieving universal access to services for HIV prevention, treatment and care. These include provision of information to develop knowledge; opportunities and support to develop life skills;
provision of appropriate and accessible health services; and creation of a safe and supportive environment. Adolescent girls seldom have access to youth-friendly, quality SRH services. Ensuring access to SRH services for adolescent girls contributes to both effective global HIV response and to the reduction of gender inequality and poverty (Engender Health, 2006).

2.3 Barriers that adolescents face in accessing SRH services

2.3.1 Socio-cultural barriers
Adolescents have diverse experiences, given the varied economic, social and cultural environments in which they grow. Some social and cultural practices have a direct impact on the reproductive health status of adolescents, and consequently on their adult life. (GoK, 2005) Socio-cultural barriers generally take the form of restrictive social norms associated with youth sexuality that prevent young people from accessing SRH information and services for fear of stigma, social pressure, or embarrassment. Embarrassment and fear of social stigma prevent many young people from seeking information about SRH and from accessing services if they fear they might be seen or their information shared with family members (Ralph and Brindis, 2010). Social pressure and cultural norms around early child-bearing and contraceptive use imposed by partners, family, religious communities, and the larger society often limit a young person's desire and ability to access and utilize SRH services (Nalwadda et al., 2010).

2.3.2 Accessibility barriers
Cost may prevent young people from seeking SRH services because they may be unable to afford them and may not feel comfortable asking friends or family to provide funds for such expenses (Hock-long et al., 2003). In addition, location of SRH providers far from where youth live, works, or attends school, and limited access to transportation can prevent young people from accessing SRH service providers (Moya, 2011).
2.3.3 Information barriers
Young people who lack complete and correct SRH information may be unaware of their own need for SRH services, uncertain about the safety and reliability of SRH services and contraceptive methods, and consequently, unwilling to use them (Ramez et al., 2008). Lack of information about service locations and unfamiliarity with the healthcare system may pose barriers to access for young people who might otherwise make use of SRH services (Ralph and Brindis, 2010). Further, a study done by Chanon et al. (2010) revealed that adolescents themselves may be hesitant to seek SRH health services due to inadequate knowledge regarding SRH needs and service.

2.3.4 Provider and service delivery barriers
A study conducted by Kamau in 2006 points out that experience barriers that hamper their access and use of services including fear of being served by familiar healthcare providers and fear of sharing same facilities with adults (Kamau, 2006). Access and utilization of available reproductive health services by adolescents and the youth is determined by how the services are provided to them and how friendly the services are to them (Nduba et al., 2011). Provider biases may result in young people not seeking SRH services out of fear that providers and health facility staff will judge them or mistreat them (Katz and Nare, 2002). Study also points out that young people who are sexually active may face stigma at the health clinic, disapproval in some social settings and disgrace in their families (NCAPD, 2010). Further, lack of provider training on the unique SRH needs of young people may cause providers to feel uncomfortable providing services to youth and limit their ability to provide high-quality, confidential, and comprehensive SRH care (Creel and Perry, 2003). A study conducted by Mturi in 2001 points out that it is ironic that the healthcare institution that ought to serve as a beacon of hope to adolescents has turned
out to be a place of disillusionment for them, partly because of the judgmental attitudes of healthcare providers and the unfriendly nature of the services themselves. Mturi further states that while studies have identified the healthcare institution as a possible place where adolescents can seek information and services on sexual health, many adolescents are avoiding the use of the health care institution for this purpose (Mturi, 2001).

A study conducted by Chanon et al. in 2010 points out that at the health systems level, the infrastructure may not be attuned to the needs of adolescents, with providers who are unwilling or ill-equipped to serve young people, facilities which lack adequate provision to ensure confidential services, and products and services which do not meet the needs of adolescents (Chanon et al., 2010). Another study done by Moya in 2011 further pointed out that a variety of service delivery barriers, including stock-outs of family planning commodities, crowded waiting rooms, limited hours and lack of walk-in appointments, may limit the ability of providers to deliver SRH services to all clients, including young people, and may discourage youth from seeking SRH care (Moya, 2011).

2.4 Approaches to improving access to adolescent sexual and reproductive health services

Across a variety of global contexts, it has been demonstrated that Youth Friendly Services (YFS) can address this situation by improving the availability, acceptability, accessibility, and equity of health services for young people (Tylee et al., 2007). Recent reviews of adolescent programmes have identified school-based sexual and reproductive health education as a proven approach for improving adolescent sexual and reproductive health (WHO, 2011).

Kenya is a state party to various international and regional human rights instruments that guarantee the right to sexual and reproductive health (KNCHR, 2012). Kenya has also
formulated policies and guidelines on Adolescent Reproductive Health which include: The Children Act of 2001 which highlights children’s rights, setting the minimum age for marriage at 18 years and specifying that all persons below the age of 18 have the right to health and medical care. There is also Adolescent Reproductive Health and Development Policy (2003) which was formulated to address adolescent sexual and reproductive health. This policy recognizes that optimal health of adolescents will improve their productive capacity and contribute to the nation’s development. Another document is the National Guidelines for Provision of Youth-Friendly Services (YFS) in Kenya (2005) which outlines the essential reproductive health services package for young people aimed at improving their well-being and quality of life. In addition there is the National Youth Policy (2007) which identifies issues that must be addressed for young people to enjoy good health as they transition to adulthood. These include teenage pregnancies, unsafe abortions, STIs, HIV/AIDS and lack of youth-friendly services (NCAPD, 2010).
CHAPTER THREE: MATERIALS AND METHODS

3.1 Study area
The study was carried out in Narok Sub-County which lies in the southern part in the Rift Valley between latitudes 0°54 and 1°05 south and longitudes 35°28 and 36°025 east. (Appendix 9)

The sub-county has a network of health facilities including the sub-county hospital (Ololung’a), health centres and dispensaries as well as private healthcare facilities. The sub-county is highlighted to have a retrogressive culture characterized by cultural beliefs and harmful practices including moranism, early and forced marriages, female circumcisions, and traditional birth attendants.

3.2 Study population
The study population comprised of adolescent girls from pastoral communities within narok south sub-county who were aged 15–19. The focus group participants comprised of the girls who did not participate in filling up the structured questionnaires. The key informants comprised of guidance and counseling teachers for primary and secondary schools, community health workers, public health officers, medical superintendents and opinion leaders.

3.3 Study design
The study was a cross-sectional descriptive study. It employed both qualitative and quantitative approaches to data collection.

3.4 Study variables
The dependent variable for this study was access to sexual and reproductive health services by adolescent girls.
The independent variables were socio-cultural characteristics; factors influencing access to SRH services by adolescent girls; and ways of improving access to SRH services by adolescent girls.

3.5 Inclusion Criteria
Adolescent girls aged between 15-17 years from pastoral communities in Narok South Sub-County who assented and whose parents gave consent for them to be interviewed. Adolescent girls aged 18-19 years from pastoral communities in Narok South sub-county who consented to be interviewed.

3.6 Exclusion Criteria
Adolescent girls who were not from pastoral communities. Adolescent girls from pastoral communities aged between 15-17 years whose parents gave consent but they did not assent. Adolescent girls from pastoral communities aged 15-17 years whose parents did not give consent for them to be interviewed. Adolescent girls from pastoral communities aged 18-19 years who did not consent to be interviewed.

3.7 Sampling procedure
Narok South Sub-County was purposively selected. The sub-county is largely characterized by a pastoral culture and thus provides a fair representation of pastoral communities. The Kenya National Bureau of Statistics 2009 enumeration clusters for Narok South Sub-County were used. 10 clusters were selected through simple random sampling. Subsequently random sampling was used to select households within each cluster.

Eligible participants who comprised of adolescent girls who had not been interviewed with the semi-structured questionnaires were purposively selected for the focus groups discussions. Purposive sampling technique was employed to select key informants.
3.8 Sample size determination

The sample size was determined using the formula by Fischer et al (1998), \( n = z^2pq/d^2 \).

\( Z \) refers to the confidence limits of the survey results. For 95% confident in the results, \( Z = 1.96 \).

\( p \) refers to the proportion of the population with the attribute of interest (use 50% for an unknown population).

\( q = (1-p) \) the proportion of population without the attribute of interest

\( d \) refers to the desired precision of the estimate (5%).

So, using these figures in the equation above, we get:

\[ N = (1.96^2)(.5)(.5) = 384 \text{ respondents} \]

\[ 0.05^2 \]

The minimum sample size required is 384.

3.9 Data collection techniques

Interviewer administered Semi-Structured questionnaires were used to obtain quantitative data from 384 adolescent girls.

Key informant interviews were conducted with two community health workers, two guidance and counseling teachers at school, two public health officers, one medical superintendent and one area sub-chief.

Three Focus Group Discussions comprising of ten adolescent girls were held to delve deeper into the study subject. The discussions were facilitated by the researcher who led the participants on topics for discussion one by one.
3.10 Ethical Considerations
Permit to conduct the research was obtained from National Commission for Science, Technology and Innovation. Approval was obtained from Kenyatta University Ethics Review Committee. Permission was also sought from the Public Health Office, Narok Sub-County. Ethical issues were observed. Consent was obtained from the respondents and their identities were concealed during the study.

3.11 Data analysis
Quantitative analysis of data was performed using SPSS version 21 to yield descriptive statistics on socio-demographic information, SRH services offered to adolescents in Narok South Sub-county, factors influencing access to these SRH services and challenges adolescent girls face in accessing them. Chi-square was used to establish relationships between variables. Conventional content analysis was performed for qualitative data. Results have been presented in tables and graphs as well as in narrative form.
CHAPTER FOUR: RESULTS

4.1 Socio-demographic characteristics of the adolescent girls.

Out of the 384 adolescents interviewed 37% were 15 years of age, 16 years (28%), 17 years (17%), 18 years (14%) while 4% were 19 years of age (Table 4.1). The number of respondents for each age category decreased as age advanced. The study revealed that a high number of the respondents (57%) had primary school level education followed by secondary school (22%), tertiary level (2%) while only 19% of the respondents had not gone to school. It also revealed that majority of the respondents (83%) were single followed by married (16%) while 1% were separated (Table 4.1).

Table 4.1 Socio-demographic characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>% distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>15 years</td>
<td>36.7</td>
</tr>
<tr>
<td>16 years</td>
<td>28.4</td>
</tr>
<tr>
<td>17 years</td>
<td>16.9</td>
</tr>
<tr>
<td>18 years</td>
<td>13.5</td>
</tr>
<tr>
<td>19 years</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Level of education</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>19.1</td>
</tr>
<tr>
<td>Primary school</td>
<td>56.4</td>
</tr>
<tr>
<td>Secondary school</td>
<td>22.4</td>
</tr>
<tr>
<td>College/university</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>83.3</td>
</tr>
<tr>
<td>Married</td>
<td>16.7</td>
</tr>
</tbody>
</table>
4.2 Types of SRH services available to adolescent girls

4.2.1 SRH services adolescents girls were aware of

The adolescents were asked about their awareness on type of SRH services offered in their area. More than half of the girls (68%) indicated supply of condoms followed by VCT (67%), provision of pills (35%), application of injectables (28%), delivery services (15%) and pre-natal care (12%). About 17% of the adolescent girls were not aware of any SRH services (Figure 4.1).

![Figure 4.1 SRH services girls were aware of](image)

4.2.2 Source of information on SRH services

The study established the following as the main sources of SRH information for the adolescent girls: friends (54%), school (43%), health facilities (25%) and parents (20%) (Figure 4.2).
Fig 4.2 Sources of SRH information.

Table 4.2 summarizes results of chi square test carried out between level of education of the respondents and sources of information on SRH services. Statistical significance was found to exist between level of education and school as a source of information. Higher numbers of respondents who had gone to school cited the school as the source of SRH information ($\chi^2 = 19.536, df=2, p<0.001$). A statistical significance was also attained between level of education and health facility as a source of SRH information ($\chi^2 = 32.251, df=2, p<0.001$) (Table 4.2)
### Table 4.2 Cross tabulation between education and sources of SRH information

<table>
<thead>
<tr>
<th>Education level</th>
<th>Source of SRH Information</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>21(30%)</td>
<td>49(70%)</td>
<td>70(100%)</td>
<td>$\chi^2 = 19.536, df=2, p&lt;0.001$</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>127(58.3%)</td>
<td>91(41.7%)</td>
<td>218(100%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td></td>
<td>56(60.9%)</td>
<td>36(39.1%)</td>
<td>92(100%)</td>
<td></td>
</tr>
<tr>
<td>Parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>23(32.9%)</td>
<td>47(67.1%)</td>
<td>70(100%)</td>
<td>$\chi^2 = 8.423, df=2, p=0.015$</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>38(17.4%)</td>
<td>180(82.6%)</td>
<td>218(100%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td></td>
<td>16(17.4%)</td>
<td>76(82.6%)</td>
<td>92(100%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>77(20.3%)</td>
<td>303(79.7%)</td>
<td>380(100%)</td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>28(40%)</td>
<td>42(60%)</td>
<td>70(100%)</td>
<td>$\chi^2 = 0.349, df=2, p=0.840$</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>94(43.1%)</td>
<td>124(56.9%)</td>
<td>218(100%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td></td>
<td>41(44.6%)</td>
<td>51(55.6%)</td>
<td>92(100%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>163(42.9%)</td>
<td>217(57.1%)</td>
<td>380(100%)</td>
<td></td>
</tr>
<tr>
<td>Health facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>15(21.4%)</td>
<td>55(78.6%)</td>
<td>70(100%)</td>
<td>$\chi^2 = 32.251, df=2, p&lt;0.001$</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>36(16.5%)</td>
<td>182(83.5%)</td>
<td>218(100%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td></td>
<td>43(46.7%)</td>
<td>49(53.3%)</td>
<td>92(100%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>94(24.7%)</td>
<td>286(75.3%)</td>
<td>380(100%)</td>
<td></td>
</tr>
</tbody>
</table>

### 4.2.3 Sexual and Reproductive Health concerns

Adolescents were asked about their main SRH concerns with the aim of establishing whether they had concerns warranting need and use of SRH services. The SRH concerns that they raised included sexually transmitted infections (19.2%), unsafe abortions (18.9%), HIV (18.6%), FGM (15.7%), unwanted pregnancies (14.8%) and early forced marriages (13%) (Table 4.3).
Table 4.3 Sexual and Reproductive Health concerns

<table>
<thead>
<tr>
<th>Concern</th>
<th>% distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI's</td>
<td>19.2%</td>
</tr>
<tr>
<td>Unsafe abortions</td>
<td>18.9%</td>
</tr>
<tr>
<td>HIV</td>
<td>18.6%</td>
</tr>
<tr>
<td>FGM</td>
<td>15.7%</td>
</tr>
<tr>
<td>Unwanted pregnancies</td>
<td>14.8%</td>
</tr>
<tr>
<td>Early forced marriages</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

4.2.4 Awareness on health facilities or organizations offering SRH services

When asked whether they were aware of clinics or organizations offering SRH services, majority of the respondents (96%) indicated that they were aware of at least one place which offered SRH services while 4% stated that they did not know of places that offered SRH services to adolescent girls within their community (Figure 4.3).

![Fig 4.3 Awareness of facilities offering SRH services](image)

4.2.5 SRH services available in health facilities or organizations

From the study findings, majority of the respondents (74%) cited supply of condoms as the services most offered in the health facilities followed by VCT (72%), provision of pills (40%), application of injectables (38%), information on SRH services (25%), delivery services (18%)
and prenatal care (15%) while 2% indicated that they were not aware of the types of SRH services that are offered in these health facilities/organizations (Table 4.4).

Table 4.4 Types of SRH services available in health facilities

<table>
<thead>
<tr>
<th>SRH service available</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply of condoms</td>
<td>74</td>
</tr>
<tr>
<td>VCT</td>
<td>72</td>
</tr>
<tr>
<td>Provision of pills</td>
<td>40</td>
</tr>
<tr>
<td>Application of injectables</td>
<td>38</td>
</tr>
<tr>
<td>Information on SRH services</td>
<td>25</td>
</tr>
<tr>
<td>Delivery services</td>
<td>18</td>
</tr>
<tr>
<td>Prenatal care</td>
<td>15</td>
</tr>
<tr>
<td>Don’t know</td>
<td>2</td>
</tr>
</tbody>
</table>

4.3 Factors influencing access to SRH services.

4.3.1 Use of services

Respondents were asked whether there was a time they were faced with an SRH need and did not know where to seek help. Fifty (52%) indicated yes while 48% said no. Asked whether they had ever used SRH services, most of the respondents (72.3%) stated that they had used the SRH services whereas 27.7% indicated that they had never used SRH services. The views of the respondents on accessibility of specified SRH services to adolescent girls in their community were sought. Many of respondents (51.4%) rated VCT and information on SRH services (51.4%) as most accessible followed by supply of condoms (50.5%) while delivery services (12.3%) were rated as least accessible (Table 4.5).
The study sought to establish factors influencing access to SRH services. These factors were categorized into individual hindrances, socio-cultural factors, information barriers and economic factors. The individual hindrances cited by the respondents included fear of family members (85.7%) and shyness (14.3%). Socio-cultural factors cited included restriction by parents (72.9%) and cultural beliefs (27.1%). Information barrier cited by the respondents included fear of parents (48%), shyness (8%) and cultural beliefs (7%). Economic factors cited included long distance to nearest facility (12.2%) and lack of transport (11.2%) while a good number (13.3%) of the adolescent girls had no idea of where the SRH services were being offered (Table 4.6).

<table>
<thead>
<tr>
<th>Type of SRH service</th>
<th>SRH service accessibility (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>VCT</td>
<td>51.4</td>
</tr>
<tr>
<td>Information on SRH</td>
<td>51.4</td>
</tr>
<tr>
<td>Supply of condoms</td>
<td>50.5</td>
</tr>
<tr>
<td>Provision of pills</td>
<td>26.4</td>
</tr>
<tr>
<td>Application of injectables</td>
<td>17.2</td>
</tr>
<tr>
<td>Prenatal care</td>
<td>15.9</td>
</tr>
<tr>
<td>Delivery services</td>
<td>12.3</td>
</tr>
</tbody>
</table>
Table 4.6 Factors influencing access to SRH services

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual hindrances</td>
<td>Fear of being discovered by family members</td>
<td>85.7</td>
</tr>
<tr>
<td></td>
<td>Shyness</td>
<td>14.3</td>
</tr>
<tr>
<td>Socio-cultural factors</td>
<td>Cultural beliefs</td>
<td>27.1</td>
</tr>
<tr>
<td></td>
<td>Restriction by parents</td>
<td>72.9</td>
</tr>
<tr>
<td>Information barriers</td>
<td>Ignorance and illiteracy</td>
<td>57.7</td>
</tr>
<tr>
<td></td>
<td>no idea</td>
<td>42.3</td>
</tr>
<tr>
<td>Economic factors</td>
<td>Financial constraints</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Long distance</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Lack of transport</td>
<td>29</td>
</tr>
<tr>
<td>Service provider barriers</td>
<td>Unfriendly service providers</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Chi Square was carried out to determine the relationship between marital status and access to SRH services. The results indicated a statistical significance between access to pills and marital status \( (X^2 = 12.557, df=1, p<0.001) \) The relationship between marital status and access to VCT services, condoms, pills for family planning, injectables, prenatal care and delivery services did not show any statistical significance (Table 4.7)
Table 4.7 Marital status and access to services

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Accessible</th>
<th>Inaccessible</th>
<th>Total</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VCT services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>200(82.6%)</td>
<td>120(84.5%)</td>
<td>320(83.3%)</td>
<td>$\chi^2 =0.223, df=1, p&lt;0.636$</td>
</tr>
<tr>
<td>Married</td>
<td>42(17.4%)</td>
<td>22(15.5%)</td>
<td>64(16.7%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>242(100%)</td>
<td>64(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
<tr>
<td>SRH information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>151(83.4%)</td>
<td>169(83.3%)</td>
<td>320(83.3%)</td>
<td>$\chi^2 =0.002, df=1, p=0.964$</td>
</tr>
<tr>
<td>Married</td>
<td>30(16.6%)</td>
<td>34(16.7%)</td>
<td>64(16.7%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>181(100%)</td>
<td>203(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
<tr>
<td>Condoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>158(84%)</td>
<td>162(82.7%)</td>
<td>320(83.3%)</td>
<td>$\chi^2 =0.133, df=1, p&lt;0.715$</td>
</tr>
<tr>
<td>Married</td>
<td>30(16%)</td>
<td>34(17.3%)</td>
<td>64(16.7%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>188(100%)</td>
<td>196(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
<tr>
<td>Pills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>68(71.6%)</td>
<td>252(87.2%)</td>
<td>320(83.3%)</td>
<td>$\chi^2 =12.557, df=1, p&lt;0.001$</td>
</tr>
<tr>
<td>Married</td>
<td>27(28.4%)</td>
<td>37(12.8%)</td>
<td>64(16.7%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>95(100%)</td>
<td>289(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
<tr>
<td>Injectable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>52(83.9%)</td>
<td>268(83.2%)</td>
<td>320(83.3%)</td>
<td>$\chi^2 =0.015, df=1, p=0.901$</td>
</tr>
<tr>
<td>Married</td>
<td>10(16.1%)</td>
<td>54(16.8%)</td>
<td>64(16.7%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>62(100%)</td>
<td>322(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
<tr>
<td>Prenatal care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>48(84.2%)</td>
<td>272(83.2%)</td>
<td>320(83.3%)</td>
<td>$\chi^2 =0.037, df=1, p=0.847$</td>
</tr>
<tr>
<td>Married</td>
<td>9(15.8%)</td>
<td>55(16.8%)</td>
<td>64(16.7%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>57(100%)</td>
<td>327(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
<tr>
<td>Delivery services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>36(81.8%)</td>
<td>284(83.5%)</td>
<td>320(83.3%)</td>
<td>$\chi^2 =0.082, df=1, p=0.774$</td>
</tr>
<tr>
<td>Married</td>
<td>8(18.2%)</td>
<td>56(16.5%)</td>
<td>64(16.7%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>44(100%)</td>
<td>340(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
</tbody>
</table>

A chi square test carried out to establish the relationship between level of education and access to SRH services revealed that there was a significant relationship between education level and access to SRH information ($\chi^2 =13.016, df=2, p=0.001$). Majority of the respondents who had primary and post primary education indicated that SRH information was accessible. However, there was no
significant relationship between the level of education of the adolescent girls and access to the other SRH services (Table 4.8).

**Table 4.8 Level of education and access to services**

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Accessible</th>
<th>Inaccessible</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>39(16.1%)</td>
<td>34(23.9%)</td>
<td>73 (19%)</td>
<td>$\chi^2 = 5.408$, $df=2$, $p=0.067$</td>
</tr>
<tr>
<td>Primary</td>
<td>137(56.6%)</td>
<td>81(57%)</td>
<td>218(56.8%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td>66(27.3%)</td>
<td>27(19%)</td>
<td>93(24.2%)</td>
<td></td>
</tr>
<tr>
<td>SRH information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>22(12.2%)</td>
<td>51(25.1%)</td>
<td>73 (19%)</td>
<td>$\chi^2 = 13.016$, $df=2$, $p=0.001$</td>
</tr>
<tr>
<td>Primary</td>
<td>105(58%)</td>
<td>113(55.7%)</td>
<td>218(56.8%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td>54(29.8%)</td>
<td>39(19.2%)</td>
<td>93(24.2%)</td>
<td></td>
</tr>
<tr>
<td>Condoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>22(14.9%)</td>
<td>45(23%)</td>
<td>73(19%)</td>
<td>$\chi^2 = 8.136$, $df=2$, $p=0.017$</td>
</tr>
<tr>
<td>Primary</td>
<td>104(55.3%)</td>
<td>114(58.2%)</td>
<td>218(56.8%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td>56(29.8%)</td>
<td>37(18.9%)</td>
<td>93(24.2%)</td>
<td></td>
</tr>
<tr>
<td>Pills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>22(23.2%)</td>
<td>51(17.6%)</td>
<td>73(19%)</td>
<td>$\chi^2 = 1.467$, $df=2$, $p=0.480$</td>
</tr>
<tr>
<td>Primary</td>
<td>52(54.7%)</td>
<td>166(57.4%)</td>
<td>218(56.8%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td>21(22.1%)</td>
<td>72(24.9%)</td>
<td>93(24.2%)</td>
<td></td>
</tr>
<tr>
<td>Injectables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>13(21%)</td>
<td>60(18.6%)</td>
<td>73(19%)</td>
<td>$\chi^2 = 0.198$, $df=2$, $p=0.906$</td>
</tr>
<tr>
<td>Primary</td>
<td>34(54.8%)</td>
<td>184(57.1%)</td>
<td>218(56.8%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td>15(24.2%)</td>
<td>78(24.2%)</td>
<td>93(24.2%)</td>
<td></td>
</tr>
<tr>
<td>Antenatal care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>13(22.8%)</td>
<td>60(18.3%)</td>
<td>73(19%)</td>
<td>$\chi^2 = 1.039$, $df=2$, $p=0.595$</td>
</tr>
<tr>
<td>Primary</td>
<td>29(50.9%)</td>
<td>189(57.8%)</td>
<td>218(56.8%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td>15(26.3%)</td>
<td>78(23.9%)</td>
<td>93(24.2%)</td>
<td></td>
</tr>
<tr>
<td>Delivery services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>11(25%)</td>
<td>62(18.2%)</td>
<td>73(19%)</td>
<td>$\chi^2 = 1.161$, $df=2$, $p=0.560$</td>
</tr>
<tr>
<td>Primary</td>
<td>23(52.3%)</td>
<td>195(57.4%)</td>
<td>218(56.8%)</td>
<td></td>
</tr>
<tr>
<td>Post-primary</td>
<td>10(22.7%)</td>
<td>83(24.4%)</td>
<td>93(24.2%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>44(100%)</td>
<td>340(100%)</td>
<td>384(100%)</td>
<td></td>
</tr>
</tbody>
</table>
Use of SRH services by the adolescents was measured against access to these services. The study found out that use of SRH information ($\chi^2 = 15.064, df=1, p<0.001$), condoms ($\chi^2 = 19.167, df=1, p<0.001$), injections ($\chi^2 = 7.851, df=1, p=0.005$), and prenatal care ($\chi^2 = 5.738, df=1, p=0.017$) was statistically related to access to these services by the adolescent girls (Table 4.8). Respondents who indicated that these services were accessible cited having used these services.

However, no significant relationship was found to exist between use of VCT ($\chi^2 = 0.047, df=1, p=0.829$), pills ($\chi^2 = 0.127, df=1, p=0.721$), and delivery services ($\chi^2 = 3.575, df=1, p=0.059$) and access to these services by the adolescent girls (Table 4.9).
Table 4.9 Cross tabulation between use and accessibility of SRH services

<table>
<thead>
<tr>
<th>Use of SRH service</th>
<th>Accessibility of SRH service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accessible</td>
<td>Inaccessible</td>
</tr>
<tr>
<td>VCT</td>
<td>Yes</td>
<td>161</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
</tr>
<tr>
<td>Total</td>
<td>242</td>
<td>142</td>
</tr>
<tr>
<td>( \chi^2 = 0.047, \ df=1, \ p=0.829 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRH information</td>
<td>Yes</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>181</td>
<td>203</td>
</tr>
<tr>
<td>( \chi^2 = 15.064, \ df=1, \ p&lt;0.001 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply of Condoms</td>
<td>Yes</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>188</td>
<td>196</td>
</tr>
<tr>
<td>( \chi^2 = 19.167, \ df=1, \ p&lt;0.001 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision of Pills</td>
<td>Yes</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>289</td>
</tr>
<tr>
<td>( \chi^2 = 0.127, \ df=1, \ p=0.721 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of injectables</td>
<td>Yes</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>322</td>
</tr>
<tr>
<td>( \chi^2 = 7.851, \ df=1, \ p=0.005 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prenatal care</td>
<td>Yes</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>327</td>
</tr>
<tr>
<td>( \chi^2 = 5.738, \ df=1, \ p=0.017 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery services</td>
<td>Yes</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>340</td>
</tr>
<tr>
<td>( \chi^2 = 3.575, \ df=1, \ p=0.059 )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The study also sought to establish the community’s stand on use and its influence on access to SRH services by the adolescent girls. More than half (56.1%) of the respondents indicated that their community did not allow girls to seek SRH services while 43.9% indicated that girls were permitted to seek SRH services.
Table 4.10 summarizes the reasons why the community prohibited girls from using and subsequently accessing SRH services. Half of the respondents (50%) cited cultural beliefs as the one of the reasons why girls were not allowed to seek SRH services. Other reasons cited included ignorance of community (12.5%), illiteracy (12%), beliefs of side effects (11%), beliefs they are for girls in towns (9%) and subordination of women and girls in the society (6.5%).

Table 4.10 Reasons why community does not allow girls to use SRH services

<table>
<thead>
<tr>
<th>Reason</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural beliefs</td>
<td>50</td>
</tr>
<tr>
<td>Ignorance</td>
<td>13</td>
</tr>
<tr>
<td>Illiteracy</td>
<td>12</td>
</tr>
<tr>
<td>Beliefs they have side effects</td>
<td>11</td>
</tr>
<tr>
<td>Beliefs they are for town girls</td>
<td>9</td>
</tr>
<tr>
<td>Subordination of girl child in society</td>
<td>7</td>
</tr>
</tbody>
</table>

4.4 Suggestions by the girls on ways to improve access to SRH services

The adolescent girls suggested various ways to improve their access to SRH services which included building of facilities for youth (34%), education for the girls (31%), community awareness (17%), improve transport sector (3.2%), offer free SRH services and broadcasting in media (2.7%) (Table 4.11).
Table 4.11 Suggested ways by which access to SRH services can be improved.

<table>
<thead>
<tr>
<th>Suggested improvement</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities for youth</td>
<td>34</td>
</tr>
<tr>
<td>Education for youth</td>
<td>31</td>
</tr>
<tr>
<td>Community awareness</td>
<td>17</td>
</tr>
<tr>
<td>Improve transport</td>
<td>13</td>
</tr>
<tr>
<td>Offer services for free</td>
<td>3.2</td>
</tr>
<tr>
<td>Broadcast in media</td>
<td>2.7</td>
</tr>
</tbody>
</table>
CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

5.1.1 SRH services available to adolescent girls
The findings from this study showed that adolescent girls had numerous sexual and reproductive health concerns which translated into a dire need for provision of appropriate sexual and reproductive healthcare services for the adolescent girls. The study revealed that the adolescents were exposed to early sexual debut mostly through early forced marriages and rape (forced sex) by the morans which the community considered acceptable. The girls feared contracting STIs and HIV/AIDS, unwanted pregnancies, kidnapping and rape and abortions. In event that the forced sexual encounters resulted into pregnancies the adolescent girls expressed that most often would abort through the help of their peers or the Gogo for fear of being discovered by their parents and family members and thus getting married off to older men at a tender age. This corresponds with a study by KNCHR (2012) who observed that adolescents are being subjected to harmful cultural practices including early forced marriage, and sexual violence and abuse including coerced sex, incest, defilement and rape, which increase their risk to STIs including HIV.

Despite having a myriad of SRH concerns, the study findings showed that the adolescent girls lacked comprehensive information on SRH services. According to the study findings, the most common source of information about SRH services was their friends. The adolescent girls also learnt about SRH services during guidance and sessions at school. The study found out that most adolescent girls were aware of clinics that offer SRH services. The SRH services that they most cited as being available were condoms, SRH information and VCT. Some also expressed that they knew CHWs who distributed condoms and pills.
The study found that there were many instances that adolescent girls had sexual and reproductive health needs and did not know what to do and they echoed sentiments that there were no specific clinics offering sexual and reproductive healthcare services for adolescents, especially girls. It revealed that there were no clinics or institutions offering youth-friendly SRH services. The girls could only seek services in general facilities together with adults. This negatively impacted on their health seeking behaviour and consequently access to SRH services by the adolescent girls. Many adolescents expressed that they feared visiting clinics for fear of stigmatization by the service providers due to their age. They also echoed the sentiments that the clinics are so far and transport is a problem. A study done by NCAPD (2010) observed that while adolescents have the same reproductive rights as adults, they face more obstacles to enjoying those rights. These include denial of access to reproductive health information and services, violence and exploitation, and extreme hardship when faced with an unwanted pregnancy.

This study sought to establish the types of SRH services that were available to adolescents. It revealed that the adolescent girls were in need of SRH information and SRH services ranging from antenatal, delivery services, abortion and post abortion care. The girls cited these services as being offered at the health facilities with VCT, supply of condoms, SRH information and provision of pills being cited as the most available services to the adolescent girls. These findings corresponded with a review conducted by KNCHR (2012) which pointed out that in Kenya as in other parts of Africa, adolescents and youth face several reproductive health challenges including early pregnancy which is mostly unwanted, complications of unsafe abortion, and complications of pregnancy and childbirth but adolescents lack easy access to quality and friendly health care, including STI services, safe abortion services, antenatal care and skilled attendance during delivery, which result in higher rates of maternal and perinatal mortality.
5.1.2 Factors influencing access to services

For the purpose of this study the factors influencing access were categorized into socio-cultural, individual hindrances, economic factors and service provider barriers.

The individual factors found to influence access to SRH services included shyness and fear of family members. A number of the adolescent girls cited shyness as a reason why they had refrained from seeking and using SRH services. This corroborated a study conducted by Chanon et al. (2010) who observed that adolescents themselves may be hesitant to seek SRH health services due to personal objections. Further, the study noted that the girls never wished to discuss their sexual and reproductive health concerns with their parents therefore when it came to a time of need they sought advice from their friends. The study through key informant interviews found out that girls and women in general had no freedom of expression and thus had no control and could not make decisions by themselves including decisions to seek SRH services by themselves. The girls were found to have no freedom of expression thus could not voice their SRH concerns to their parents nor the family members. Patriarchy a common characteristic of the pastoral culture was found thus to play a prohibitive role. These findings correspond to a study conducted by Nduba et al. (2011) among the Maasai in Kajiado district which revealed that the girl-child receives little or no attention regarding personal matters especially sexual and reproductive health issues, including high levels of unprotected sex among adolescents.

According to the study, the socio-cultural factors influencing access included restriction by parents as well as cultural beliefs and taboos. Some of the girls cited culture as the reason why they could neither use nor access SRH services. This corresponded with a study done by Chanon et al. (2010) who pointed out that the socio-cultural environment, such as religion and ethnicity,
may dictate that services may not or cannot be provided or accessed by adolescents. Though the girls were found to be having many SRH concerns which included early forced marriages and kidnapping and rape by the *morans* resulting into unwanted pregnancies, they were unable to exercise their sexual and reproductive health rights and access services as a result of cultural beliefs. According to the findings of the study, the community believed that use of contraceptives would make them unfertile. Culture beliefs were superior where a girl’s worth was measured by her fertility and pregnancy before marriage was culturally acceptable. It was culturally acceptable for girls to have sex at a tender age and pregnancy before marriage was culturally acceptable. According to the findings, unmarried girls who got pregnant were seen as a treasure by their parents and family members as they fetch higher dowry as they were proved fertile. They were usually betrothed and married off to older men. A study conducted by Nduba *et al.* in 2011 noted that the community finds early marriage and gender-based violence acceptable. And yet few programmes in the area address the sexual reproductive health (SRH) needs of nomadic girls.

Girls also refrained from using preventive SRH services for fear of being discovered by their parents and the family members. Looking at it through the mirror of culture, girls were faced with a dilemma of being caught in between cultural dictates and conventional SRH. This corroborated with a study by Nduba *et al.* in 2011 conducted among the Maasai of Kilindi District of Tanzania which pointed out that although many nomadic youth know about modern family planning methods, they do not use them due to various factors, including cultural beliefs, sexual norms, stigma and fear, long distances to health facilities and male dominance in decision making (Nduba *et al.*, 2011).
The economic factors found to influence access to SRH services by the adolescent girls included financial constraints, long distances to facilities offering these services and lack of transportation. The health facilities were situated very far from where the girls resided and there was poor transport network where the girls and other community members were forced to walk long distances to the facility. In addition, they lacked money to pay for motorbikes which were the readily available means of transport. This is in line with a study conducted by Nduba et al. in 2011 who pointed out that many nomadic youths do not use modern family planning services despite being aware about them due to various factors including long distances to health facilities and lifestyle of moving from place to place for subsistence seems to deprive pastoral communities of basic services including health and this trend is complicated by remoteness and physical distance to health services.

Information barrier was also among the factors influencing access to SRH services by the adolescent girls. High levels of illiteracy and ignorance among community members as well as lack of knowledge on sexual and reproductive healthcare services and their ultimate benefits in general was a major stumbling block towards access. The community perceived SRH services as meant only for the girls living in the towns and believed that these SRH services have negative side effects. This prompted inhibition on use of services by women and girls within the community. As such the community did not embrace nor advocate for use of SRH services by adolescent girls. These findings were consistent with a study done by Agwanda et al. (2009) who noted that many women in Kenya fear the side effects of contraceptives. This prompted inhibition on use of services by women and girls within the community. These findings bring to the limelight a need for community education and awareness on sexual and reproductive health services and their overall benefits to the society at large. The girls themselves also lacked
information on modern SRH services. Some girls also indicated that they did not know where to find these services and thus had not used them. This situation posed a major challenge because parents are the first educators to a child and when the family institution and the community at large are ignorant they are not in a position to support and advise the adolescents on matters relating to sexual and reproductive health. This implies that they will always turn to alternative methods such as traditional medicines that may be less effective and in some instances detrimental to the health of the adolescents. These findings are in line with a study done by Obunga (2003) who noted that inadequate information on sexuality also hinder contraceptive use among women and girls.

Noteworthy from the study was service provider barriers as another factor influencing access. The study showed that there existed barriers at the health clinics whereby the girls expressed that unfriendly service providers were a challenge towards accessing the services. The girls shared the facilities with adults and faced stigmatization from the service providers. This acted as a put-off for the girls and they therefore opted not to visit the health facilities in event of SRH need with majority resorting to seeking help from old women (Gogo). These findings corresponded with a study done by Chanon et al. in 2010 who noted that the obstacles to obtaining good SRH for young adults can be seen at three levels: the individual, the health system, and socio-cultural factors. At the health systems level, the infrastructure may not be attuned to the needs of adolescents, with providers who are unwilling or ill-equipped to serve young people, facilities which lack adequate provision to ensure confidential services, and products and services which do not meet the needs of adolescents. A study conducted by Mturi in 2001 noted that it is ironic that the healthcare institution that ought to serve as a beacon of hope to adolescents has turned
out to be a place of disillusionment for them, partly because of the judgmental attitudes of healthcare providers and the unfriendly nature of the services themselves.

5.1.3 Suggestions by the girls on how to improve access to SRH services by adolescents. The study sought to establish ways that were most applicable in addressing the issue of access to SRH services by the adolescent girls. From the findings, numerous ways were suggested:

i) Setting up of health centres for youth

The study found out there was no youth centres or facilities that offered SRH services for the youth and especially adolescent girls. Despite having SRH needs, girls were found to be shying away from seeking SRH services from health facilities for fear of being discovered by parents or family members and also fear of service providers. This implies that they will need a place that they feel comfortable and socially and emotionally secure. United Nations Population Fund (UNFPA) advocates for and supports the efficient and delivery of a holistic, youth-friendly health-care core package that includes: universal access to accurate sexual and reproductive health information, a range of safe and affordable contraceptive methods, sensitive counseling, quality obstetric and antenatal care for all pregnant women and girls and the prevention and management of sexually transmitted infections, including HIV (UNFPA, 2007). This means that training service providers specifically to handle adolescents’ sexual and reproductive health issues is paramount to achieving this goal.

ii) Sexual and reproductive health education for girls

From the study findings, a number of girls were not aware of sexual and reproductive healthcare services. Although girls learn about sexuality during their biology classes at school, the scope is
not enough since it goes up to puberty development without equipping the girls with life skills on how to go about sexual and reproductive health issues. This implies that there is dire need to equip the girls with information on SRH services so that they will be better placed to make sound decisions regarding their sexual and reproductive lives. Although majority were found to have awareness on VCT and condoms, only a few were aware of other contraception methods, delivery services, antenatal services, abortion and post-abortion care. Education is thus paramount in order to equip girls with knowledge on contraceptive methods to avoid unwanted pregnancies. A study conducted by Bearinger et al. in 2007 pointed out that sex education programmes should offer accurate, comprehensive information while building skills for negotiating sexual behaviours.

iii) Community Awareness

Despite sexual and reproductive health being a fundamental human right, the adolescent girls were not able to realize their sexual and reproductive health rights. The community was marked by cultural practices such as patriarchy, early female marriages, female genital mutilation, and socialization of children into gender norms, illiteracy and ignorance among community members and was unaware of the overall benefits of SRH health services. These findings were in line with a study conducted by Matogo in 2010 which indicated that the Maasai community is characterized by a patriarchal system that subjects girls to early sexual experiences and the demands of having to marry at very young ages, cultural expectations to bear an accepted and desired number of children, unprotected sex with multiple partners through the demands of polygamy, Esoto and gender-based sexual violence as well as inconsistent use of safe sex
methods and limited access to education denying women and girls the ability to increase the capacity to safeguard their health and wellbeing.

Education and awareness forums to counter this phenomenon can be a major milestone towards achieving sexual and reproductive health for adolescent girls within this community. Awareness forums on the benefits of sexual and reproductive healthcare services are an essential ingredient.

**iv) Improvement in transport**

The study found out that long distances to the health facilities and lack of reliable mode of transport as well as lack of finances were some of the factors acting against access to SRH services by adolescent girls. Despite having community health workers who were within the villages and provide certain services such as pills and condoms, lack of access to means of transport still posed a major challenge since the CHWs could not provide other key services such as injections for family planning, antenatal services, abortion, post-abortion care and delivery services. Thus, even when in need the girls will more often than not resort to Gogos especially for delivery services which may have detrimental effects in the long run. There is thus dire need to improve transport infrastructure to facilitate easy access to the services when in need of a sexual and reproductive health service. Bringing services closer to the community in form of mobile clinics would also go a long way in making them accessible as it would reduce distance and subsequently reduce the cost incurred in paying for transportation to the facilities.

**v) Broadcasting on media**

The study found a proportion of the adolescent girls were not aware of sexual and reproductive healthcare services and some of those who were aware did not know where to obtain such
services. This implies that sexual education and SRH information for the girls is a key component that would facilitate access to SRH services by the adolescent girls. Suggestions were made that such sexual and reproductive health information and education could be passed to them through the media especially local radio stations. Sexual and reproductive health information is vital as it is the genesis towards use of SRH services. The Kenya Adolescent Reproductive Health and Development Policy of 2003 provide that Adolescent Sexual and Reproductive Health encompass the provision to adolescents sexual and reproductive health information and education.

5.2 Conclusions
From the findings the study concluded that:

i) The types of SRH services available to adolescent girls were supply condoms, VCT, provision of pills, application of injectables, and information on SRH services, delivery and prenatal care.

ii) Factors influencing access to SRH services included socio-cultural factors: cultural beliefs and restriction by parents; economic factors: financial constraints, lack of transport and long distances to the facilities; individual hindrances; shyness and fear of parents; information barriers and service provider barriers.

iii) Access to SRH services by the adolescent girls can be improved through community awareness, providing sexual and reproductive health education for the girls, building of facilities for the youth, and broadcasting in the media as well as improvement in transport infrastructure.
5.3 Recommendations

5.3.1 Recommendations from the study

i) Since delivery services and prenatal care services were the least cited as available by the adolescents, the government should put in place adolescent-friendly centres or clinics which will bring these SRH services close to adolescents.

ii) The government and other stakeholders should hold community awareness and sensitization programmes on benefits of SRH services to pave way for cultural acceptance and hence use and access to SRH services by adolescent girls.

5.3.2 Suggestions for further research

The study identified a knowledge gap that merits further research.

i) There is need to conduct research on influence of patriarchy on realization of SRH rights by adolescent girls among pastoral communities.

ii) Further, a study similar to the current one should be carried out among a different pastoral community in Kenya with a focus on adolescent girls to confirm and compare the findings.
REFERENCES


Matogo J. N. (2010). The impact of customs and sexual practices on young Maasai women’s ability to negotiate their sexual and reproductive health in relation to HIV and AIDS. Loitokitok, Kenya.


Tylee A., Dagmar M. H., Tanya G., Rachel C. L., Lena A S. (2007). “Youth-friendly primary care services: how are we doing and what more needs to be done?”


WHO. (2010). Social determinants of sexual and reproductive health; Informing future research and programme implementation.


Appendix 1 Consent form

Introduction
My name is Njoki Mbugua, student at Kenyatta University. I am undertaking a research titled ‘Access to sexual and reproductive health services by adolescent girls (15-19 years) among pastoral communities in Narok District’ for a Masters of Public Health degree. I am interested in learning about the access to sexual and reproductive health services by girls in your community. I would like to ask your permission to ask you questions about sexual and reproductive health. You are not obliged to answer any questions. The information will help us to learn more about the health and well being of girls in your community. I expect our conversation to last about one to two hours and kindly request that you spare some time to respond to this questions and I believe your responses will give me better insight into this study area, with the aim of producing a research paper. Your responses will be used in strict confidence and will not be attributed to you without your express permission. Thank you in anticipation of your cooperation. Your honest and reliable response will be highly appreciated. Myself and others researchers will take you through the form as we seek your responses to the listed questions. There may be some words that you do not understand. Please ask me or other researcher to stop as we go through the information and I will take time to explain.

Benefits
There will be direct benefits from this study. However, the study will help us learn more about the sexual and reproductive health concerns of adolescent girls within your community with the hope that these findings will help the government and other stakeholders be able to address those concerns better in future from a knowing point of view.

Risks
There are no risks involved in this study since the participant is only required to answer a set of questions that will be presented to you by other researchers and me. Your response will be treated with confidence and will not be shared with anybody.

Contacts
If you have questions later, feel free to contact the mentioned:
The student:
Njoki Mbugua L.
P.O. Box 22-00229,
Nderu-Limuru.
Cell No. : 0734 978 406
My University supervisors:

Dr Justus Osero,
Kenyatta University,
P.O. Box 43844-00100,
Nairobi-Kenya.
Cell No. : 0736 284 130

Professor Ephantus Kabiru,
Kenyatta University,
P.O. Box 43844-00100,
Nairobi-Kenya.
Cell No. : 0721 998 558.

This research has been reviewed and approved by the Kenyatta University Ethics Review Committee. You may contact the under mentioned for more information:

The Chairman,
Kenyatta University Ethics Review Committee,
P.O. Box 43844-00100,
Nairobi-Kenya.
Tel.: 020 8710901-19

**Please sign here below to indicate your acceptance to start with this questionnaire.**
I have been asked to give my consent to participate in this research study which will involve me completing a questionnaire and group discussions. I have been provided with the name of a researcher who can be easily contacted using the number I was given for that person.
Signature ___________________________ Date____________________

I have accurately read the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.
Name of researcher________________________
Signature of researcher _________________________
Date ___________________________
### Appendix 2 Semi-Structured Questionnaire

#### 1. Background characteristics

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>How old are you?</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>What is your level of education?</td>
<td>Not gone to school 1 Primary school 2 Secondary school 3 College/university 4</td>
</tr>
<tr>
<td>1.3</td>
<td>What is your marital status?</td>
<td>Single 1 Married 2 Separated 3 Widowed 4</td>
</tr>
</tbody>
</table>

#### 2. Availability of services

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>What do you understand by sexual and reproductive health?</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>What are some of sexual and reproductive health concerns that are faced by adolescent girls in your area?</td>
<td>Early forced marriages 1 Unwanted pregnancies 2 Female genital mutilation 3 Unsafe abortions 4 Sexually transmitted infections 5 HIV 6 Other (please specify) 7</td>
</tr>
<tr>
<td>2.3</td>
<td>Where did you learn about these services?</td>
<td>School 1 Parents 2 Friends 3 Health facility 4 Other (please specify) 5</td>
</tr>
<tr>
<td>2.4</td>
<td>Are you aware of any clinics/organizations that offer sexual and reproductive health services for adolescent girls in your area?</td>
<td>Yes 1 No 2</td>
</tr>
<tr>
<td>2.5</td>
<td>What services are offered in these clinics/organizations?</td>
<td>Voluntary testing and counseling 1 Condoms for family planning 2 Pills for family planning 3 Injections for family planning 4 Pre-natal care 5</td>
</tr>
</tbody>
</table>

- Go to 2.4
### 2. Delivery services
- **Delivery services**: 7
- **Others (please specify)**: 8
- **Don’t Know**: 9

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Go to</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6</td>
<td>Are you aware of places where you can obtain such services in your area?</td>
<td>Yes 1, No 2</td>
<td>2.9</td>
</tr>
<tr>
<td>2.7</td>
<td>Give a list of such places.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>What sexual and reproductive health services are offered in these other places?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>Is there a time you had a sexual and reproductive health need and did not know where to seek help?</td>
<td>Yes 1, No 2</td>
<td></td>
</tr>
</tbody>
</table>

### 3. Factors influencing access to services

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Go to</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Have you ever sought any sexual and reproductive health services?</td>
<td>Yes 1, No 2</td>
<td>3.2</td>
</tr>
<tr>
<td>3.2</td>
<td>What influenced your decision?</td>
<td>Parents 1, Friends 2, Church 3, Other (specify) 4</td>
<td>3.5</td>
</tr>
<tr>
<td>3.3</td>
<td>Did you find the services affordable?</td>
<td>Yes 1, No 2</td>
<td>3.4</td>
</tr>
<tr>
<td>3.4</td>
<td>Did you find the services friendly? (give reasons for your answer)</td>
<td>Yes 1, No 2</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>What are some of the reasons why you have not sought such services?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>Do you know any of your friends who have sought sexual and reproductive health services?</td>
<td>Yes 1, No 2</td>
<td></td>
</tr>
<tr>
<td>3.7</td>
<td>Are girls in your community allowed to seek sexual and reproductive health services?</td>
<td>Yes 1, No 2</td>
<td>3.8</td>
</tr>
<tr>
<td>3.8</td>
<td>Why do you think girls in your community are not allowed to seek sexual and reproductive health services?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4. Challenges in accessing sexual and reproductive health services

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Go to</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Do girls in your community experience any difficulties in accessing sexual and reproductive health services?</td>
<td>Yes 1, No 2</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>What are some of the problems girls face in accessing these services?</td>
<td>Financial 1, Distance 2, Other (specify) 3</td>
<td></td>
</tr>
</tbody>
</table>
5. Ways by which access to services can be improved

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding categories</th>
<th>Go to</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>What are some of the things that you feel can be done to improve access to sexual and reproductive health services by adolescent girls in your area?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Summary

Now, how would you rate the following reproductive health services in relation to girls in your community?

<table>
<thead>
<tr>
<th>Service</th>
<th>Availability</th>
<th>Accessibility</th>
<th>Affordability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary Counseling and HIV testing</td>
<td>Available....1</td>
<td>Accessible....1</td>
<td>Affordable....1</td>
</tr>
<tr>
<td></td>
<td>Not available..2</td>
<td>Inaccessible....2</td>
<td>Unaffordable....2</td>
</tr>
<tr>
<td>Information on SRH</td>
<td>Available....1</td>
<td>Accessible....1</td>
<td>Affordable....1</td>
</tr>
<tr>
<td></td>
<td>Not available..2</td>
<td>Inaccessible....2</td>
<td>Unaffordable....2</td>
</tr>
<tr>
<td>Condoms</td>
<td>Available....1</td>
<td>Accessible....1</td>
<td>Affordable....1</td>
</tr>
<tr>
<td></td>
<td>Not available..2</td>
<td>Inaccessible....2</td>
<td>Unaffordable....2</td>
</tr>
<tr>
<td>Pills for family planning</td>
<td>Available....1</td>
<td>Accessible....1</td>
<td>Affordable....1</td>
</tr>
<tr>
<td></td>
<td>Not available..2</td>
<td>Inaccessible....2</td>
<td>Unaffordable....2</td>
</tr>
<tr>
<td>Injections for family planning</td>
<td>Available....1</td>
<td>Accessible....1</td>
<td>Affordable....1</td>
</tr>
<tr>
<td></td>
<td>Not available..2</td>
<td>Inaccessible....2</td>
<td>Unaffordable....2</td>
</tr>
<tr>
<td>Antenatal care</td>
<td>Available....1</td>
<td>Accessible....1</td>
<td>Affordable....1</td>
</tr>
<tr>
<td></td>
<td>Not available..2</td>
<td>Inaccessible....2</td>
<td>Unaffordable....2</td>
</tr>
<tr>
<td>Delivery services</td>
<td>Available....1</td>
<td>Accessible....1</td>
<td>Affordable....1</td>
</tr>
<tr>
<td></td>
<td>Not available..2</td>
<td>Inaccessible....2</td>
<td>Unaffordable....2</td>
</tr>
</tbody>
</table>

*Thank you for your time.*
Appendix 3 Key Informant Interview guide

1. Where do you work?
2. What health services or products relating to sexual and reproductive health do you offer?
3. Are you providing services targeting adolescents specifically, especially girls?
4. Which of these services do adolescents girls use most?
5. In your opinion what are the stumbling blocks to the access of these services by adolescent girls in this community?
7. How do you think these services could be improved to better serve the adolescents?
8. Do you think that the way the society is structured influences use of sexual and reproductive health services by adolescent girls in this community?
Appendix 4 Focus Group Discussion guide

_I want to ask you a question about your general well being_
1. What are the main problems young girls are facing in your community today?
2. What are the biggest fears among young girls in your community today?

_Now, I have some questions about health and sexuality_
3. What particular health concerns do girls have?
4. If you had a health problem, what would you do first? Would you have a doctor to go to? Who else would you see?
5. Are there any centres that are just for adolescents/youth?
6. Have you ever visited a centre that is specifically targeted for youth? If yes, what attracts you to the centre?
7. What if the problem concerned your sexual or reproductive health? What would you do? Would you go to see someone? Who would it be? Would there be people you could talk to about it? Who?
8. Do you know any of your friends who have had sexual and reproductive health problems? Where did they seek help from?
9. Are condoms available to young people who are having sex? If so, from where? Are young people using them? If not, why not?
10. What are the ways one can avoid getting pregnant? What are the modern ways? Are there traditional ways? Where would you go to get contraceptives? Any other place? Do you have to buy them? Is it difficult or easy to get contraceptives? Why? Do you think that most of your friends are protecting themselves/their partners from becoming pregnant? Why?
11. Sometimes girls get pregnant. What do girls do when they are pregnant? Modern ways? Traditional ways?
12. Would you say that girls in your community have access to sexual and reproductive health services? Why?
13. What are some of the challenges that you and other girls from your community face in accessing SRH services?
14. What do you think could be done differently in order to improve access to sexual and reproductive health services by girls in your area?

*Thank you*
Appendix 5 Ethical Approval from KUERC

KENYATTA UNIVERSITY
ETHICS REVIEW COMMITTEE

Fax: 8711242/8711575
Email: kuerc.chairman@ku.ac.ke
       kuerc.secretary@ku.ac.ke
Website: www.ku.ac.ke

Our Ref: KU/R/COMM/51/274

Date: 10th January, 2014

Leah Mbugua Njoki,
Department of Community Health,
Kenyatta University,
P.O. Box 43844.

Dear Ms. Mbugua,

APPLICATION NUMBER PKU/162/1 142 – “ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY ADOLESCENT GIRLS AMONG PASTORAL COMMUNITIES IN NAROK SOUTH DISTRICT.” - Version 2

1. IDENTIFICATION OF PROTOCOL
The application before the committee is with a research topic “Access to sexual and reproductive health services by adolescent girls among pastoral communities in Narok South District” dated 11th December, 2013.

2. DECISION
The committee has considered the research protocol in accordance with the Kenyatta University Research Policy (section 7.2.1.3) and the Kenyatta University Ethics Review Committee Guidelines AND APPROVED that the research may proceed for a period of ONE year from 10th January, 2014.

3. ADVICE/CONDITIONS
   i. Progress reports are submitted to the KU-ERC every six months and a full report is submitted at the end of the study.
   ii. Serious and unexpected adverse events related to the conduct of the study are reported to this board immediately they occur.
   iii. Notify the Kenyatta University Ethics Committee of any amendments to the protocol.
   iv. Submit an electronic copy of the protocol to KUERC.

When replying, kindly quote the application number above

PROF. NICHOLAS K. GIKONYO
CHAIRMAN ETHICS REVIEW COMMITTEE

I ................. accept the advice given and will fulfill the conditions therein.

Signature ................. Dated this day of ................. 2013.

cc. Vice-Chancellor
   Director: Institute for Research Science and Technology
Appendix 6 Research Authorization by NACOSTI

NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref: No. 13th March, 2014

NACOSTI/P/14/3564/697

Njoki Mbugua Leah
Kenyatta University
P.O.Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Access to sexual and reproductive health services by adolescent girls (15-19 years) among pastoral communities in Narok South District,” I am pleased to inform you that you have been authorized to undertake research in Narok County for a period ending 30th June, 2014.

You are advised to report to the County Commissioner and the County Director of Education, Narok County before embarking on the research project.

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

DR. M. K. RUGUTT, PhD, HSC.
FOR: SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Narok County.
Appendix 7 Research Permit from NACOSTI

This is to certify that: MISS. NJOKI MBUGUA LEAH of KENYATTA UNIVERSITY, 0-229 Nderu-Limuru, has been permitted to conduct research in Narok County on the topic: ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY ADOLESCENT GIRLS (15-19 YEARS) AMONG PASTORAL COMMUNITIES IN NAROK SOUTH DISTRICT for the period ending: 30th June, 2014.

Applicant’s Signature: ____________________________

Secretary, National Commission for Science, Technology & Innovation

Permission No.: NACOSTI/P/14/3564/697.

Date of Issue: 13th March, 2014.

Fee: Reicved: Ksh 1000.00.
Appendix 8 Permission Letter from Public Health Office, Narok South sub-county

MINISTRY OF PUBLIC HEALTH AND SANITATION

Telegrams ....
E-mail: dpphonaroksouth.13@gmail.com
When replying please quote
Ref:

NJOKI MBUGUA
STUDENT, KENYATTA UNIVERSITY
PHONE; 0734978406/0723594306
REF; RESEARCH AUTHORIZATION
Your letter dated 03/12/2013 refers.
The purpose is to carry out research to determine Access to sexual and reproductive health services by adolescent girls among pastoral communities in Narok South District.
You are granted the permission to carry out the study. However ethical issues e.g. privacy of the respondents should not be compromised.
You are also advised to liaise with CHEWs (community health extension workers to guide you in selection CHWs (community health workers) whom you intend to use.
I do hope that this office will get the benefit of sharing the results of the study with you.
You will be required to furnish the office with the relevant research documents and recommendation from the university.

Thank in advance.

OTWANI B. OKWARE
PHO NAROK SOUTH SUB COUNTY
CC; THE MOH NAROK SUB COUNTY

DISTRICT PUBLIC HEALTH OFFICE,
NAROK SOUTH
P.O. BOX 47-20503,
OLOLULUNGA.
5TH DECEMBER, 2013
Appendix 9 Map of Study area (inset: map of Kenya showing position of Narok)