A SURVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF MALE CIRCUMCISION AMONG LUO

A CASE STUDY OF LUO COMMUNITY IN RONGO DISTRICT

BY

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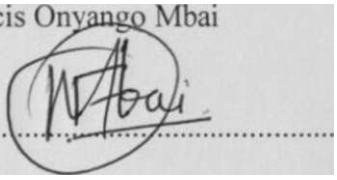
DECLARATION

I, declare that this thesis is my original work and has not been presented for the equivalent in any other University.

NAME: Francis Onyango Mbai

Signature .....



This research project has been submitted for examination with my approval as the Supervisor of the candidate

NAME: Dr. Maria Onyango

Supervisor's Signature '

DEDICATION

To my family members led by loving wife Mrs. Beatrice golla Muga and to the entire Mbai Obonyo's family and my Colleagues Patrick Ogunde and Joel Wangendo . Their prayers, continued support and encouragement have been the cornerstone of my success to this level of academic achievement.

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ABSTRACT

Recent publications have reported an association between the lack of male circumcision and sexual transmission of HIV. The government of Kenya is in the process of rolling out a policy of universal male circumcision as a part of basic health care serv ice with an aim of controlling the spread of HIV infection. According to Luo opinion leaders, male circumcision cannot be introduced to the community as a government policy without consultation. There is scanty information on what the common members of the community say about male circumcision. Information to post the community stand is required.

This study is aimed at determining possible barriers to male circumcision as a method of risk reduction to HIV infection among the Luo community in Rongo district by evaluating the knowledge, attitude and practice of male circumcision among Luo community living in district.

This is a cross-sectional study which intends to describe the level of knowledge, attitude and the practices of the study population on male circumcision as a method of HIV prevention

All (100%) of the respondents were aware of the three common modes of HIV transmission and methods prevention of HIV. However, only 101 (51.8%) thought that male circumcision could reduce risk of HIV transmission .The study found out that there was a significant (P-value < 0.05) change of attitude towards male circumcision among the youths, male guardians and the cultural elders after they were informed that MC can help reduce heterosexual HIV transmission . In conclusion, this study demonstrates that circumcision services for male children among the luo community would be highly acceptable. Over 74% of the participants felt that the best age for circumcision is after 6 years. IT is recommended that parents in Rongo district should be offered the option of hospital-based circumcision for their male children to protect them from the acquisition of HIV

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
HIV	Human Immuno Deficiency Virus
NACC	National Aids Control Council
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's' Fund
NGO	Non Governmental Organization
KDHS	Kenya Demographic Health Survey
MC	Male circumcision

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background information

Recent publications have reported an association between the lack of male circumcision and sexual transmission of HIV (Bongaarts J *et al.,* 1989, Royce R, 1992, Moses S *et al.,* 1990, Weiss HA *et al.,* 2000). A number of observational studies indicate that circumcised men have lower levels of HIV infection than uncircumcised men (Weiss HA. *et al.,* 2000, Bailey C, *et al.,* 2007, Gray H, *et al.,* 2007). These results support findings published in 2005 from the South Africa Orange Farm Intervention Trial, sponsored by the French National Agency for Research on AIDS, which demonstrated at least a 60% reduction in HIV infection among men who were circumcised (Auvert B, *et al.,* 2005). These findings have prompt interest in a possible HIV infection prevention intervention through male circumcision.

At the end of 2006, an estimated 39.5 million people were living with HIV and 4.3 million were newly infected with the virus that year worldwide (UNAIDS/WHO, 2006). In Kenya, HIV infection continues to be a major challenge to the socio-economic development. Since the first case was diagnosed in 1984, it is estimated that over 1.5 million people have died due to AIDS-related illnesses, resulting in 1.8 million children left as orphans, it is also estimated that 1.4 million people in the country are living with HIV today (NASCOP, 2004). This make prevention greatly prioritized in the response to

AIDS and efforts are being made to find new prevention technologies to bolster the package of already known effective prevention methods. Male circumcision is one of these new potential methods, along with vaginal microbicides, pre-exposure prophylaxis with antiretroviral medication, herpes suppressive therapy, cervical barrier methods and HIV vaccines (UNAIDS/WHO, 2006). The questions that follow are; how can the new HIV prevention method be operationalized, how acceptable is it as a public health initiative?

The government of Kenya is in the process of rolling out a policy of universal male circumcision as a part of basic health care service with an aim of controlling the spread of HIV infection. However, the topic of male circumcision carries an enormous amount of cultural and ethical challenges. Observers at the 2006 XVI International AIDS Conference in Toronto, Canada noted that excitement about the potential epidemiological impact of research on male circumcision may be difficult to translate into policy and practice (Nolen S, 2006). Similar calls for caution have been raised before and elsewhere (Ntozi J M P 1997, Siegfried N., 2005). Little is known about whether male circumcision interventions would be acceptable or feasible in traditionally non-circumcising areas of Africa.

Studies have been conducted in other traditionally non-circumcising regions in sub-Saharan Africa to assess acceptability of the initiative, but all had a common limitation i.e. used convenience sampling to recruit participants which is a limitation to generalization (Bailey RC, *et al.,* 2002. Kebaabetswe *et al.,* 2003, Lagarde, Dirk, *et al.,*

2003, Lukobo & Bailey, Submitted. Mattson, *et al.,* 2005, Ngalande, *et al.,* 2006, Scott, *et al., 2005,* Tsela & Halperin, *2006).* This study intends to examine some of the underlying social factors associated to knowledge, attitude and practice of male circumcision among the Luo community that may contribute to the challenges in implementing the policy. This is a cross-sectional study which intends to examine and describe the level of knowledge, attitude and the practices of male circumcision as a method of HIV prevention among the study population. This design analyses and describes the details of the subject matter at the prevailing situation among a defined population and at a particular point time.

1.2 Statement Of The Problem

In Kenya, HIV infection continues to be a major challenge to the socio-economic development. Since the first case was diagnosed in 1984, it is estimated that over 1.5 million people have died due to AIDS-related illnesses, resulting in 1.8 million orphans. It is also estimated that 1.4 million people in the country are living with HIV today, (NASCOP, 2004). The government of Kenya is currently in the process of rolling out a policy of universal male circumcision to be part of basic health care as a new initiative to controlling the spread of HIV. Modeling studies suggest that universal male circumcision in sub-Saharan Africa could prevent 5.7 million new cases of HIV infection and 3 million deaths over 20 years (WHO/UNAIDS, 2007) but there are no variable indicators.

While studies, (Auvert B, *et ai,* 2005, Weiss HA, *et al.,* 2000, Bailey C, *et al.,* 2007, Gray H, *et al.,* 2007) have shown that male circumcision could help reduce risk HIV

infection through sex, members of the Luo communities have displayed slow adaptation of the practice. According to Luo opinion leaders, male circumcision cannot be introduced to the community as a government policy without consultation. The clan Elders chairman, Mr Riaga Ogallo, argue that the Government's proposal cannot be implemented without an agreement on the way forward. However, as he states this, he suggests that "Anyone interested in circumcision should do so as an individual. NGOs are not allowed to undertake the initiative on behalf of the community until consultations are done". There is scanty information on what the common members of the community say about male circumcision. Information to post the community stand is required. This study would contribute knowledge needed to help in the decision making.

1.3 Broad Objectives

This study aims to explore knowledge, attitude and practice of male circumcision among Luo community living in Rongo district to reduce risk of HIV infection by sex.

1.4 Specific Objectives

1. To assess level of awareness among Luo community in Rongo district on the effect of male circumcision on risk of HIV infection.
2. To explore the attitude of the study population towards male circumcision.
3. To establish motive of practice of male circumcision among the study population.

1.5 Study Questions

1. Is the target population aware that male circumcision could help in reducing the risk of HIV infection?
2. What is the attitude towards male circumcision among the study population?

3. Why is male circumcision practiced among the study population?

1.6 Justification Of The Study

The efficacy of male circumcision in reducing female to male transmission of HIV has been proven beyond reasonable doubt (WHO/TJNAIDS, 2007) . Three randomized controlled trials showed that male circumcision performed by well-trained medical professionals was safe and reduced the risk of acquiring HIV infection by approximately 60%. (Bailey C, *el al.,* 2007., Gray H, *el al.* 2007., Auvert B *et al*, 2005.,WHO/UNAIDS, 2007). By examining the level of knowledge, attitude and practices of the population associated with male circumcision, we will expose some of their concerns and factors that may affect the policy implementation. It will analyze cultural, ethical, gender and technology implications to the population and other stakeholders. These will help the program developers and policy makers address concerns of the people hence improve their approach and acceptances among the population to enable them achieve an effective population cover.

A population level impact of male circumcision on HIV transmission is not likely until a large proportion of men are circumcised, although benefit to the individual is expected in the short term (WHOOJNAIDS, 2007).

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter will review study report about level of knowledge, attitude and practice towards sexual HIV transmission, existing methods of prevention of infection, practice of circumcision and the role of male circumcision in reducing risk of HIV infection.

2.2 The practice of circumcision

In the past, circumcision has been advocated for many reasons: for religious purposes among the Jews and Muslims; for cultural reasons among several African ethnic groups; for reasons of hygiene in the United States, Canada, and Australia and for therapeutic purposes—as the cure for phimosis. Consequently, circumcision is almost universal in some parts of the world (United States and Muslim countries) and rare in others (Europe and South America) (de Vincenzi I and Mertens T, 1994). In all situations, cultural differences between circumcised and uncircumcised men may affect their sexual and hygienic behavior, including their exposure to various STD and HIV. All these communities practiced circumcision with intention of preventing any medical problem. In 1975, the American Academy of Pediatrics (AAP) stated that there is "no medical indication for routine circumcision of the newborn (Daksha *et al.,* 1982).

2.3 Purpose of practice of circumcision

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Cultural norms, ethnic identity, and religious affiliation have been viewed as central factors in acceptability of circumcision. Globally approximately 25% of men are

circumcised for religious, cultural, medical, or parental choice reasons (Moses S, *et al.,* 1998).

Religion is a major determinant of circumcision acceptability. Male circumcision is universally associated with Islam. It is also considered fundamental to some Christian and animist sects. In a number of previous studies, there was no clear consensus on compatibility of male circumcision with Christian beliefs (Bailey *et al.,* 1999; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Nnko *et al.,* 2001; Rain-Taljaard *et al.,* 2003; Scott *et al.,* 2005). Great variability in perceptions of Christian churches' positions on male circumcision have been described by different study populations, ranging from condemning male circumcision as a pagan practice (Rain-Taljaard *et al.,* 2003) to viewing MC as consistent with Christian tradition according to the Bible and Jesus' circumcision status (Lukobo & Bailey, Submitted). Lukobo and Bailey describe the prevalent Zambian perception of circumcision being linked with Muslim or animist Chawa heritage, with several participants also reporting the belief that Christians should practice male circumcision since Jesus was circumcised and the Bible teaches the practice (Lukobo & Bailey, Submitted). In Kenya the Nomiya Church and a few other small Christian sects require circumcision for church membership (Mattson *et al.,* 2005).

In a survey in America the physicians gave as their major reason for recommending circumcision that "it was better for hygiene"; 90% offered this reason. Thirty percent said it was consistent with their religious or cultural traditions. Twenty-seven percent recommended routine circumcision because they believed it would prevent certain forms of cancer (Daksha *etal.,* 1982)

Among African communities Penile hygiene was universally recognized as being extremely important and was viewed as a major benefit of circumcision (Bailey RC *et al.,* 2002; Halperin *et al.,* 2005; Kebaabetswe *et al.,* 2003; Lukobo & Bailey, Submitted; Mattson et al., *2005;* Ngalande *et al.,* 2006; Nnko *et al.,* 2001). A great majority of participants, both male and female from multiple studies, agreed that it was much easier for a circumcised man to maintain cleanliness (Bailey et al., 2002; Lukobo & Bailey, Submitted; Mattson *et al.,* 2005; Ngalande *et al.,* 2006; Nnko *et al.,* 2001; Rain-Taljaard *et al.,* 2003). This was similar to findings in an acceptance survey in siaya Kenya where the main influencing factors were association of male circumcision with better hygiene and reduced risk of infection (Bailey RC. *et al.,* 2002)

In korea, adult males believed that circumcision is necessary because it improve penile hygiene (77.9%). Among youths, Peer pressure was one of the most influential factors when deciding upon circumcision: 60.8% believed that they might be ridiculed by their peer group unless circumcised (Oh SJ, *et al.,* 2004).

Other common reasons given for favoring male circumcision were the social, political, and sexual benefits that could accrue when interacting with those in predominantly circumcising groups (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006). In more ethnically diverse areas, however, circumcision among traditionally non-circumcising peoples could be held as a positive, increasing a man's chances of being accepted by the women of the surrounding circumcising groups. For example, the Luo believed that they were often discriminated against by other Kenyans due to their circumcision status which led to political exclusion and even security concerns in times

of social upheaval (Bailey *et al.,* 2002). Many younger men from traditionally non-circumcising groups cited being accepted as a sexual or marriage partner by women from other ethnic groups as an important reason to be circumcised (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Nnko *et al.,* 2001). An important conclusion reached by several studies was that circumcision was increasingly an issue of personal choice rather than ethnic identity (Rain-Taljaard *el al.,* 2003; Scott *et al.,* 2005).

2.4 Barriers to male circumcision

Cost, fear of pain, concern for safety, Cultural norms, ethnic identity, and religious affiliation were the most consistent barriers to acceptability of male circumcision (Bailey RC *et al,* 2002). The cost of the procedure was a significant barrier to MC acceptability by participants in many studies (Bailey, Unpublished report to AIDSMARK, 2002; Bailey *et al.,* 2002; Lagarde *et al.,* 2003; Lukobo & Bailey, Submitted; Mattson *et al.,* 2005). In communities where circumcision is the norm families expect to incur the obligatory circumcision expenses negating the importance of cost. In non-circumcising communities circumcision is regarded as a voluntary procedure that may be unlikely to take precedence over competing needs. Cost is viewed as including not only the payment for the procedure, but also the opportunity costs of time away from work and other income generating activities. Cost as a primary consideration was shown dramatically by the pilot intervention in Siaya, Kenya, where men came in large numbers when the charges were lowered to S1.45US (Bailey, Unpublished report to AIDSMARK. 2002). These results indicate that the true cost of the procedure will have to be supplemented to achieve significant uptake of male circumcision.

The concerns for pain are based partially on the perception of circumcision as a surgical procedure with inherent risks and partially on the occasional press releases publicizing mutilations and deaths. Apprehension about pain during and after the procedure was reported to be the major barrier to MC acceptability in most studies (Bailey *et al.,* 2002; Kebaabetswe *et al.,* 2003; Lukobo & Bailey, Submitted; Mattson *et al.,* 2005; Ngalande *et al.,* 2006; Scott *et al.,* 2005). Participants belonging to non-circumcising ethnic groups were familiar with the circumcision practices in neighboring circumcising tribes where pain was a key characteristic of the procedure. As a rite of passage to becoming a man, the endurance of the pain from circumcision is often an integral aspect of the ceremony. Sustained uptake of male circumcision will require performance of the procedure with minimal adverse events (Lagarde *et al.,* 2003).

If men and parents believe that circumcision leads to high rates of complications, then uptake of male circumcision is likely to be slow. Concerns for safety were expressed by many. Mothers were vocal in their concerns, especially in cases of infant and early childhood circumcision. Excessive bleeding was a major concern and this fear was heightened if the procedure was to be performed by a traditional circumciser outside the hospital setting (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006). Infection and difficulty in healing were expressed as concerns as well, but are generally believed to be minimized in clinical settings (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006). Using the same knife for several boys was believed to be common in traditional settings and a source of infections, including HIV (Bailey et al., *2002*; Halperin et al., *2005;* Lagarde *et al.,* 2003; Ngalande *et al.,* 2006; Rain-Taijaard *et al.,* 2003). Women were especially opposed to circumcision at the traditional initiation

schools, as they feared that their children may be injured or die during the process (Rain-Taljaard *et al.,* 2003). Similar findings were reported by Ngalande et al. in Malawi (Ngalande *et al.,* 2006).

Lack of circumcision was mentioned as an element of the ethnic identity of those who do not circumcise traditionally. It serves as an ethnic marker primarily used by others. In both Botswana and Swaziland studies, only 2% of participants, for example, felt that circumcision would lead to disapproval by their community (Kebaabetswe et *al.,* 2003; Tsela & Halperin. *2006),* although in Botswana 22% cited "cultural reasons" as a factor in their decision not to circumcise their male child (Kebaabetswe *et al.,* 2003). In some ethnic groups in which circumcision is not commonly practiced, disapproval of circumcision is evident in the existence of a derogatory term for a circumcised man or a man with a congenitally shortened prepuce. These terms include *"rayuom"* in DhoLuo (Bailey *et al.,* 2002) and *"njilwa"* in the Sukuma language (Nnko *et al.,* 2001). In ethnically homogenous areas, circumcision could lead to rejection by local women and serve as a barrier to marriage (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted). It will likely be important that confidentiality is maintained by circumcision practitioners, since stigmatization for being circumcised is a possibility in non-circumcising communities.

Christian churches' positions on male circumcision have been described by different study populations, some condemning male circumcision as a pagan practice (Rain-Taljaard *et al.,* 2003). In South Africa 38% of circumcised and 32% of uncircumcised study participants described circumcision as "forbidden" by their religion (Lagarde et al., *2003).* Sukuma study participants in Tanzania felt that the Christian religion did not

theologically promote male circumcision, while circumcision serv ices were known to be available in church-run hospitals (Nnko *et al,* 2001).

Other barriers to circumcision, mentioned by participants, were lack of access to health care, required time away from work, the loss of penile sensitivity, reduction in penis size, decreased ability to satisfy women, excessive sexual desire, increased promiscuity (Bailey *et al,* 2002; Rain-Taljaard *et al.,* 2003), and the perception of circumcision as old-fashioned (Lagarde *et al.,* 2003; Rain-Taljaard *et al.,* 2003/ Some uncircumcised people claim that the toughening of the coronal membrane after circumcision reduces the sensory impulses from the region and renders coitus less pleasurable. (Wilson R A, 2005).

2.6 HIV prevention

Unprotected vaginal intercourse accounts for the vast majority of HIV infections globally. The majority of infections occur in sub-Saharan Africa, where heterosexual transmission accounts for around 90% of transmission (Quigley, *et al.,* 2001). Effective prevention of sexual transmission of HIV requires a combination of programmatic interventions and policy actions that promote safer behaviors, reduce biological and social vulnerability to transmission, encourage use of key prevention technologies, and promote social norms that favor risk reduction, as stated in the UNAIDS' policy position paper Intensifying HIV Prevention (see end of this chapter). Analysis of prevention interventions to change behavior has consistently found that such programmes reduce the frequency of sexual risk behaviors (Crepaz *et al,* 2005; Elwy *et al.,* 2002; Merson *et al.,* 2000). Behavioral change programmes typically include basic information about the

virus, personal risk assessment, counseling, building skills, such as negotiating condom use with sex partners, and access to condoms and other prevention technologies. Behavioral aims for HIV prevention include: abstinence and delayed sexual debut for young people; monogamy within relationships; reduction in the number of partners; and correct and consistent condom use. For sexually active people, the condom remains a vital prevention technology (UNFPA *et al.,* 2004). Correct and consistent use of the male condom reduces the risk of sexual transmission of HIV by 80-90%—an efficacy rate that exceeds those reported for many of the world's standard vaccines (Halperin *et al.,* 2004; Cohen and Farley, 2004). Observational studies, laboratory experiments and mathematical modelling indicate that female condoms also offer strong protection against HIV infection (Hoffman et al., 2004).

When assessing a community's level of knowledge on HIV prevention we consider the percent of respondents who, in response to a prompted question, say that people can protect themselves from contracting HIV by using condoms or having sex only with one faithful, uninfected partner.

2.7 Circumcision and HIV prevention

Hygiene as a mechanism of protection from STIs was mentioned by a great number of participants (Bailey *et al,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006). It was held that germs, din, bacteria, and viruses had a greater opportunity to proliferate in the warm moist environment beneath the foreskin (Bailey *et al.,* 2002; Lukobo & Bailey. Submitted; Ngalande *et al.,* 2006; Nnko *et al.,* 2001; Rain-Taljaard *et al.,* 2003). Participants also expressed a belief that it would be easier to detect rashes and/or

ulcerations with the foreskin removed allowing for earlier treatment (Bailey *et al.,* 2002; Ngalande *et al.,* 2006). The foreskin was also perceived as a portal of entry for sexually transmitted infection as the tissue is considered prone to traumatic injury during sexual intercourse (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Rain-Taljaard *et al.,* 2003). Male circumcision was recognized as a medical procedure to reduce or eliminate penile ulcerations and diseases of the penis (Bailey et al., 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Nnko *et al.,* 2001). Conversely, a minority of respondents in Zambia reported that the circumcised penis was "always dry", "susceptible to cracking", and that this state provided a portal of entry for bacteria and viruses (Lukobo & Bailey, Submitted).

Seventy percent of Botswana study participants willing to circumcise their male child listed protection from STIs or HIV among their reasons for doing so (Kebaabetswe *et al.,* 2003). This belief dropped to 43% and 60%, respectively, concerning the acquisition of AIDS (Mattson *et al*., 2005). In Swaziland, 81% of participants stated that male circumcision reduced risk of STIs and 18% believed that male circumcision reduced risk of HIV (Tsela & Halperin, 2006). In Tanzania STIs were considered more severe and more infective in uncircumcised men, with ulcers healing faster in those who are circumcised (Nnko *et al.,* 2001). Nearly all commercial sex workers believed that there exists a strong association between lack of circumcision and STIs, including HIV (Ngalande *et al.,* 2006). In South Africa (Scott *et al.,* 2005), no association was found between willingness to be circumcised and perceived health benefits. It was belief about sexual pleasure that was the strongest predictor of being willing to undergo circumcision.

In Nyanza Province, Kenya, 79% of uncircumcised men and 81% of women believed that it was easier for uncircumcised men to acquire STIs compared to circumcised men.

2.8 Age at which to circumcise

The ages at which males become circumcised will have an effect on how rapidly MC interventions may impact the HIV epidemic in any given area. Preferred age at circumcision varied both between and within studies. There appear to be two leading directions exhibited by previous studies: either circumcise males as babies due to a simpler procedure, less fear, easier care, and faster healing, or circumcise males around puberty and adolescence when boys can decide and take care of the wound for themselves (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Rain-Taljaard *et al.,* 2003; Scott *et al.,* 2005).

Among the countries where acceptability studies have been undertaken, only in Botswana were most participants in favor of circumcision in infancy and early childhood. Fifty-five percent of respondents were in favor of circumcising children under 6 years old with half of those preferring neonatal circumcision (Kebaabetswe *et al.,* 2003). In all other areas a significant minority were in favor of infant or early childhood male circumcision, but most favored circumcision between ages 8-16 years with very few saying that over 18 years was best. Those who advocated for infant circumcision did so for reasons relating to decreased pain during the procedure and faster healing times (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted), although babies under 1 year of age were thought to experience excessive pain, leading to crying and fevers (Lukobo & Bailey, Submitted). Participants from Malawi viewed infants especially vulnerable to potential complications

of male circumcision due to "lack of maturity" and difficulty of timely detection of bleeding due to babies being carried on the mothers' backs (Ngalande *et al.,* 2006).

Many studies reported strong beliefs among participants that circumcision should take place before the onset of sexual activity (Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Rain-Taljaard *et al.,* 2003). Ages 7-13 years were thought to be best since the boy could make the decision for himself, understand the significance of the event, take care of the wound himself, heal faster than if done post-pubertally, and has likely not begun sexual activity (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Rain-Taljaard *et al.,* 2003). One study in Botswana found that participants felt that circumcision before the age of six years may help to avoid a change in sexual behavior associated with sense of increased protection due to circumcision (Kebaabetswe *et al.,* 2003).

Circumcision as an adult or post-puberty was reported by many to be undesirable due to higher risk of complications, pain during the procedure (Ngalande *et ai,* 2006; Rain-Taljaard *et al.,* 2003), and painful erections after male circumcision, leading to complications and delays in healing (Bailey *et al., 2002*\ Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006).

2.8 Circumcision as a medical service

In areas where traditional circumcision is uncommon, the preference is overwhelmingly for a medical practitioner to be the provider. All studies reported fear of infection, bleeding, excessive pain, and possible mutilation at the hands of traditional circumcisers

(Kebaabetswe *et al., 2003;* Lagarde *et al., 2003*\ Lukobo & Bailey, Submitted). In Zambia (Lukobo & Bailey, Submitted), even in the traditionally circumcising area of Zambezi District, the majority believed medical doctors to be experienced, more apt to use sterile equipment, able to minimize pain through anesthesia, and capable of dealing with complications. The few participants who preferred traditional surgeons viewed these practitioners as more experienced and more willing to maintain confidentiality (Lukobo & Bailey, Submitted).

Scott et al. found that 77% of male Zulu preferred male circumcision by a doctor or medical surgeon, 8% by a nurse, 11% by traditional circumciser, and 3% by other providers (Scott *et al., 2005).* Another study based in South Africa observed that male circumcision was commonly performed in both "initiation schools" and by clinical providers. The more common circumcision was in an ethnic group, the less likely it was done in medical settings (Rain-Taljaard *et al*2003).

CHAPTER THREE

3.0 METHODOLOGY

.„.1 Introduction

This section describes the procedures that were followed in the study. It discusses design of the study and the methods used to collect data; the target population; sample size and sampling technique applied; data collection and analysis methods used.

3.2 Research design

This is a cross-sectional study describing the level of knowledge, attitude and the practices of the study population on male circumcision as a method of HIV prevention. The study uses survey method in data collection. It uses both quantitative and qualitative data. The qualitative data is used to analyze the details of the subject matter at the prevailing situation among the population and at a particular point time.

3.3 Study site

The study was conducted in Rongo district of Nyanza province, Kenya. Rongo district is situated in the southern part of Nyanza province. It bordered by Homa-Bay to the west, south Kisii to the north-east Transmara district in the east and Migori district in the south. The main economic activity in the district is agriculture majoring in sugar cane farming and it has sugar milling factory.

The district has a population of about 343,918 persons by 1999. The main inhabitants are members of the Luo community who are traditionally none circumcising. They are however bordered by the Gusii and Maasai communities in south Kisii and Transmara

districts respectively who are traditionally circumcising and could have some socio-cultural influence on them. HIV prevalence in the district is about 14%. The district is transversed by a major highway connecting Kenya and Tanzania; it hosts a large sugar factory which employs people from all communities of Kenya; has two large urban centers, Rongo and Awendo. These can also have some influence on the people's culture. This research is targeting male members of the Luo community with whom the procedure is aimed.

3.4 Study population

The study population is members of the Luo ethnic community residing in Rongo district. This community is known to be traditionally non-circumcising. Level of knowledge and attitude towards the subject can contribute to stigma and rejection of a practice or the persons practicing. Respondents to the survey interviews include male youths above 14 years, parents and guardians of male children, grand parents, and cultural leaders in the community and local medical practitioners.

3.4 Sample and sampling technique

The study sampling is by stratified random sampling along the categories. The categories identified in the study include male youths of 14 years to 24 years, parents and guardians of male children, grandparents who are cultural opinion leaders, and medical practitioners in the area. A Random sampling method v/as used in each stratum. From an accessible population, a sample of 250 participants was targeted.

3.5 Systematic random sampling

Systematic sampling was done in two levels namely divisions and locations. The one division was randomly sampled. Four locations in this division were randomly selected from which homesteads sampled. The homesteads were used as the sampling units for the youths, parents or guardians and grand-parents to include in the survey. In the homesteads random sampling was used to select participants namely the youths, guardians in to participate in the survey.

3.6 Data collection technique

A survey method was used to collect data. This is social field research depended on semi-structured one-to-one interviews. The process involved face to face interviewing of respondents by use of standard questionnaires to gather information. The interviews were conducted by trained enumerators from the community supervised by the researcher.

3.7 Questionnaire tools

A study instrument, a structured questionnaire was developed and used in the field to collect information from the individuals. There were four different questionnaires for the different strata. Samples of these questionnaires are in annex I, II, III, IV. The questionnaires consist of five sections according to predisposing factors.

- Demographic characteristics
- Socio-economic characteristics
- Level of knowledge
- Attitude and Practice

A set of questions were used to guide a structured forecast group discussion among male youths.

3.8 Ethical consideration

Ethical issues were checked in four steps:

1. The University of Nairobi's ethical committee went through the proposal to check any bridge of social ethics and gave a recommendation.
2. The local public administration was allowed to go through the proposal and gave an approval.
3. The district health management team was allowed to study the proposal and granted approval.
4. The household were first explained to the purpose of the interview in order to grant permission to continue. They were assured of confidentiality on the information obtained.

3.7 Data processing

The questionnaires were checked in the field by the supervisor for improper entries or omissions. Back in the office the data was cleaned by checking the incompleteness or improper entries that were not corrected in the field.

The data was summarized into a frequency tables. From the frequency table, descriptive statistics has been used to analyze the data to show population's knowledge, attitude and practice of male circumcision as a method of HIV prevention. Measure of central tendency, Variability, and ratios/percentages have been computed where **necessary'** with frequency distributions will be presented in tables to describe the result.

CHAPTER FOUR

Study Findings

This chapter presents the findings of a survey carried out with the aimed of determining possible barriers to male circumcision as a method of risk reduction to HIV infection among the Luo community in Rongo district, Nyanza province, Kenya. The district has a population of about 343,918 persons by 1999. The main inhabitants are members of the Luo community who are traditionally none-circumcising. Survey participants were sampled from four locations of Awendo division of Rongo district. A total 195 out of the targeted accessible of 250 people were interviewed.

Characteristics of the study participants

A total of 195 (78.4%) of the 250 people approached accepted to be interviewed in the study. Those who accepted to participate were as follows: 110 (51.7%) youths of age 14-to- 24 years; 50 (71.4%) guardians of male youths; 27 (90%) grandparents or the community cultural opinion leaders; 8 (100%) health workers (5 clinical officers and 3 nurses) two from each of the four health facilities in Awendo division. The youths who accepted to participate were nearly equally distributed by age. Twice as many male guardians as female participated in the survey. The demographic characteristics of the study sample are summarized in table 1.

Table 1: Demographic characteristics of study participants

Characteristics	Participating n(%)	N%
Youths	110(73.3%)	56.4
Guardians	50 (71.4%)	25.6
Elders	27 (90%)	13.8
Health workers	8(100%)	4.1
Total	**195 (78,4%)**	**100**
Youths ages (years)		
14-17	27	33.6
18-20	46	41.8
21-24	37	24.6
Total	**110**	**100**
Sex of guardians		
Males	32	64
Female	18	36
Total	**50**	**100**
Education level		
None	18	9.2
Primary	89	45.6
Post primary-	88	45.1
Total	**195**	**100**

Knowledge on HIV transmission and prevention

Knowledge on HIV transmission and prevention was assessed by asking the participants to select the common modes of HIV transmission and methods of HIV infection prevention in the questionnaire answer choices. All (100%) of those who responded to the questions got their answers right. When they were asked if they were aware of the research finding that showed that male circumcision can reduce chances of HIV transmission and what they think about the findings. Majority of the participants 179 (91.8%) accepted that they had heard of the research finding but only 101 (51.8%) thought that male circumcision could reduce risk of HIV transmission 71 (36%) were not sure while 33 (11.8%) thought it was not possible. The response were as shown in table 2

Table 2: Knowledge on HIV transmission and prevention

	N	%
Aware of the research findings		
Yes	179	91.8
No	16	8.2
Total	**195**	**100**
What do you think about the report		
It is possible	101	51.8
It is not possible	23	11.8
Not sure	71	36.4
Total	**195**	**100**

4J Practice of Male circumcision

To investigate how much male circumcision was being practiced in the community, the study interviewed the youths, the guardians and the health workers in the health facilities serving the area. The researcher asked the youths if they had undergone circumcision but he did not verify. He asked the guardians if they ever took their male children for

circumcision; where they took them jnd at what age it was done. He asked health workers how frequently they performed male circumcision at the facility. The responses were as is indicated in the table 3.

Table 3: Practice of male circumcision

	N	%
Youths: N=ll0		
Circumcised	2	1.8
Not circumcised	108	98.2
Total	**110**	**100**
Guardians: N= 50		
Taken child for circumcision	9	18
Not taken child for circumcision	41	82
Total	**50**	**100**
Health worker rate of circumcision: N= 8		
Occasionally- less than 1 in a week	6	75
1-5 cases every week	2	25
Over 5 cases every week	0	
Total	**8**	**100**

Majority of the youths interviewed 108 (98.2%) were not circumcised, likewise, most of the guardians 41 (82%) had not taken their children for circumcision while the health workers only occasionally performed male circumcisions, less than one case per week in the past one year

4.4 Barrier and motives for the practice of male circumcision

The study explored for the possible motives to and barriers against male circumcision among the community members by interviewing the youths and the guardians. The

youths were asked to give one reason foi not undergoing circumcision. Those who were circumcised were asked what motivated them to be circumcised. The response were summarized in table 4

Table 4: Barriers and motives of practice of male circumcision

	Youths N(%)	**Guardians N(%)**
Barrier to circumcision		
Tradition	101 (91.8)	37 (90.2)
Fear of pain/complication	5(4.5)	1 (2.4)
Cost	2(1.8)	3 (7.3)
Motives for circumcision		
Tradition	-	–
Spiritual	–	–
Hygiene	1(50)	5(55.5)
Medical	1(50)	4(44.5)

Majority of the uncircumcised youths 101 (91.81%) gave tradition as the main reason for not undergoing circumcision. A few youths said they had no money to pay for the hospital fee. The same reason was also given by the guardians 37 (90.2%) for not taking their children for circumcision. Hygiene was the main reason for circumcision in the community.

Attitude towards male circumcision in the community

The study explored the attitude of participants towards male circumcision by interviewing the youths, guardians of male children and clan elders before and after

giving information about the research findings on relationship between male circumcision and HIV infection and then entered the result in table 5. The study found out that there was a significant change of attitude towar ;s male circumcision after the information was given (P- value < 0.05) among the youths, male guardians, and the cultural elders.

Table 5: Attitude towards male circumcision among study participants

	No(%) before information	N(%) after information	*P* -value for change in response
Youths going for circumcision in a safe hospital setting free of charge N-110			
Would definitely/ probably go	67 (60.9)	96 (82.3)	
Would definitely/probably not go	17(15.5)	11(1)	0.05
Unsure	26 (23.6)	3 (2.7)	
Male guardians taking child for circumcision in a hospital setting, free of charge **jV**= *32*			
Would definitely/ probably circumcise	6(18.7)	19(59.4)	
Would definitely/probably not circumcise	18(52.3)	6(18.7)	0.0003
Unsure	8(25)	7(21.9)	
Female guardians taking child for circumcision in a hospital setting, free of charge N =18			
Would definitely/ probably circumcise	10(55.6)	16(88.9)	
Would definitely/probably not circumcise	6(33.3)	2(11,1)	0.070
Unsure	2(11.1)	0	
Cultural elder advising the community member to circumcise male children in a safe hospital setting free of charge M=27			
Would definitely/ probably advise	5(5)	15(55.6)	
Would definitely/probably not advise	15(55.5)	3(11.1)	0.0003
Unsure	8 (29.5)	9(33.3)	

4.6 Preferred age of circumcision

The researcher also explored the feeling of the participants on the preferred age at which male circumcision should be performed. The youths and the guardians were asked to indicate what age circumcision would te preferable. Both the youths and guardians

preferred circumcision at ages between 5-14 years. However the youths were skewed to younger ages.

Table 6: Preferred age for male circumcision

	Youths: N=110(%)	Guardians N=50(%)
Below 5 years	43 (39)	5(10)
Between 5-14 years	62 (56.6)	32(64)
After 14 years	5 (4 5)	12(24)
Total	**110(100)**	**50(100)**

CHAPTILR FIVE

DISCUSSION

Introduction

This chapter discusses the findings of the study, looks for the possible conclusions and recommendation from it.

Knowledge on HIV transmission and prevention

All (100%) of the respondents were aware of the three common modes of HIV transmission and methods prevention of HIV. When they were asked if they were aware of the research finding that showed that male circumcision can reduce chances of HIV transmission and what they think abou the findings. Unprotected vaginal intercourse accounts for the vast majority of HIV infections globally. The majority of infections occur in sub-Saharan Africa, where heteiosexual transmission accounts for around 90% of transmission (Quigley, *et al.* 2001). Majority of the participants 179 (91.8%) accepted that they had heard of the research fir ding but only 101 (51.8%) thought that male circumcision could reduce risk of HIV transmission. This is because the topic has been in the media and has been discussed in several public gatherings. When assessing a community's level of knowledge on HIV prevention we consider the percent of respondents who, in response to a prompted question, say that people can protect themselves from contracting HIV by using condoms or having sex only with one faithful, uninfected partner.

52 Practice of Male circumcision

Majority of the youths interviewed were not circumcised, likewise, most of the guardians had not taken their children for circumcision while the health workers only occasionally performed male circumcisions less than one case per week in the past, one year. This is because this community is traditionally non-circumcising. In some ethnic groups in which circumcision is not commonly practiced, disapproval of circumcision is evident in the existence of a derogatory term for a circumcised man or a man with a congenitally shortened prepuce. In ethnically homogenous areas, circumcision could lead to rejection by local women and serve as a barrier to marriage (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted).

5.3 Barrier and motives for the practice o' male circumcision

Majority of the uncircumcised youths 101 (91.81%) gave tradition as the main reason for not undergoing circumcision. The sami: reason was also given by the guardians 37 (90.2%) for not taking their children foi circumcision this is associated to the fact that this is traditionally a non-circumcising community. Lack of circumcision has been mentioned as an element of the ethnic identity of those who do not circumcise traditionally. In some ethnic groups in .vhich circumcision is not commonly practiced, disapproval of circumcision is evident in the existence of a derogatory term for a circumcised man or a man with a (angenitally shortened prepuce. In ethnically homogenous areas, circumcision could lead to rejection by local women and serve as a barrier to marriage (Bailey *et al.,* 2002; I.ukobo & Bailey, Submitted). However, in both

Botswana and Swaziland studies, only 2% of participants, for example, felt that circumcision would lead to disapproval by their community (Kebaabetswe *et al.,* 2003; Tsela & Halperin, 2006).

Hygiene was the main reason for circumcision in this survey. This is similar to a finding in a survey in America in which the physicians gave as their major reason for recommending circumcision that "it was better for hygiene"; 90% offered this reason (Daksha, *et al.,* 1982). Among African communities Penile hygiene was universally recognized as being extremely important and was viewed as a major benefit of circumcision (Bailey RC *et al.,* 2002; Halperin *et al.,* 2005; Kebaabetswe *et al.,* 2003; Lukobo & Bailey, Submitted; Mattson et al., *2005*; Ngalande *et al.,* 2006; Nnko *et al.,* 2001). In a survey in Botswana, hygiene as a mechanism of protection from STIs was mentioned by a great number of participants (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006). This was similar to findings in an acceptance survey in siaya Kenya where the main influencing factors were association of male circumcision with better hygiene and reduced risk of infection (Bailey RC. *et al.,* 2002)

Finally, an important conclusion reached by several studies was that circumcision was increasingly an issue of personal choice rather than ethnic identity (Rain-Taljaard *et al.*, 2003; Scott *et al.,* 2005).

Attitude towards male circumcision in the community

The study found out that there was a significant change of attitude towards male circumcision after the information was given (P- value < 0.05) among the youths, male guardians, and the cultural elders. This shows that as a means of disease prevention,

circumcision can be highly accepted by the community. It was also shown that the participants are aware that unprotected vaginal intercourse accounts for the vast majority of HIV infections globally. The majority of infections occur in sub-Saharan Africa, where heterosexual transmission accounts for around 90% of transmission (Quigley, *et al.,* 2001). In more ethnically diverse areas, however, circumcision among traditionally non-circumcising peoples could be held as a positive, increasing a man's chances of being accepted by the women of the surrounding circumcising groups. It will likely be important that confidentiality is maintained by circumcision practitioners, since stigmatization for being circumcised is a possibility in non-circumcising communities.

5.5 Preferred age of circumcision

The ages at which males become circumcised has an effect on how rapidly MC interventions may impact the HIV epidemic in any given area. Preferred age at circumcision varied both between and within studies in previous reports (Bailey *et al,* 2002; Lukobo & Bailey, Submitted; Ngalande *et al.,* 2006; Rain-Taljaard *et al.,* 2003; Scott *et al,* 2005). In this survey, both the youths and guardians preferred circumcision at ages between 5-14 years. However the youths inclined to younger ages above 5 years. In all other areas a significant minority were in favor of infant or early childhood male circumcision, but most favored circumcision between ages 8-16 years with very few saying that over 18 years was best (Bailey *et al.,* 2002; Lukobo & Bailey, Submitted). Many studies reported strong beliefs among participants that circumcision should take place before the onset of sexual activity (Lukobo & Bailey, Submitted; Ngalande *et al.* 2006: Rain-Taljaard *et al.,* 2003).

Conclusions

> Safe circumcision services in hospitals could provide an effective, available, permanent, and affordable means to reduce the incidence of HIV in the next generation of children.

> Our study demonstrates that circumcision services for male children among the luo community would be highly acceptable

1) After an informational session, a significant proportion (p-value < 0.05) of all participants stated that they would definitely or probably circumcise their male child if this service were offered in a hospital setting

2) More than 74% of participants felt that the best age for circumcision is after 6 years

Recommendations

Promoting male circumcision should be recogiized as an additional, important strategy for the prevention of heterosexual ly acquired HIV infection in men

1). Parents in Rongo district should be offered the option of hospital-based circumcision for their male children to protect them from the acquisition of HIV

2) Proper health education and counseling will be required before CM is performed. Messages need to be developed to ensure that men opting for the procedure, and where possible, their partners are counseled that male circumcision is only partially protective and therefore they need to continue to use other effective measures of HIV prevention

3) Before circumcision can be offered elsewhere, there are likely to be operational requirements

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ANNEX I

,NI\TRSITY OF NAIROBI

SLAVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF MALE CIRCUMCISION

INDIVIDUAL QUESTIONNAIRE

This questionnaire is to be administered to male youths of ages between 14 and 24 years.

Identity

Division ..... **Location**

Sib-location ..... Home stead

Questionnaire number ..... Cluster number

Settlement ..... Date of interview

Demographic characteristics

1) Age in years

Socio-economic characteristics

Education level.

2) Have/are you attending school ..... a Yes

b. No

J) If yes, to what level ..... a. primary

b. Post primary

What is your occupation ..... a. student

b. Salaried employment

c. Farm worker

d. Others (specify)

Level of knowledge

What are the common modes of HIV transmission?

•*a)* Transfusion with contaminated blood

b) Use of contaminated needle or blade

c) Shaking hands with an infected person

d) Unprotected Sex with infected persons

What methods can be used to prevent HIV infection?

a) Abstaining from sex

b) Use of condom

c) Being faithful to one sex partner

d) Being circumcised

Attitude and practices

Have you heard that male circumcision can reduce chances of HIV infection through sex?

a) Yes

b) No

What do you think about that..... a) possible

b) Not possible

c) Wrong

d) Don't know

Have you been circumcised?..... a) Yes

b) No

If yes, what lead to your circumcision?..... a) Sickness

b) Tradition

c) Don't know

If no, would you accept being circumcised... a) yes

b) no

If no, why would you not accept?..... a) not our tradition

b) It causes pain

c) It is expensive

d) No reason

If you accept, why have you not been circumcised?

a) not our tradition

b) Fear pain

c) No money

d) No time

e) I don't know where is done

d) No reason

14) Do you know any friend in your community who have gone for circumcision?

a) Yes

b) No

15) If Yes, what do you think about him?

ANNEX II

UNIVERSITY OF NAIROBI

SURVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF MALE CIRCUMCISION

This questionnaire is to be administered to guardians of male children

Identity

Division..... Location

Sub-location..... Home stead

Questionnaire number..... Cluster number

Settlement..... Date of interview

Age..... Sex

Socio-economic characteristics

1) Did you attend school..... a) Yes
b) No

2) If yes, up to what level..... a) Primary
b) Secondary
c) Post secondary

3) What is your occupation..... a) .Salaried employment
b) Self employed
c) Farm worker
d) Others (specify)

Level of knowledge

4) What are the common modes of HIV transmission?
a) Transfusion with contaminated blood
b) Use of contaminated needle or blade
c) Shaking hands with an infected person
d) Having Sex with infected persons

5) What methods can be used to prevent HIV infection?.....a)Abstaining from sex

b) Use of condom

c) Being faithful to one sex partner

d) Being circumcised

6) Have you heard that male circumcision can reduce chances of HIV infection through sex?

a) Yes

b) No

Attitude and practices

7) What do you think about that?.....a) possible

b) Not possible

c) Don't know

8) Have you ever taken any of your sons/nephew for circumcision?

a) Yes

b) No

9) If yes, why.....a) tradition

b) Sickness

c) Other(s)

specify

10) Where was it done.....hospital

a) Traditionally

b) Other(s) specify

11) At what age was it done.....bellow 5 years

a) Between 5-14 years

b) After 14 years

12) If no. why?.....a) not our tradition

b) No money

Other(s) specify

13) Knowing that male circumcision can reduce chances of HIV transmission through sex, would you mind taking your son/nephew for circumcision?. a)Yes

b) No

14) If yes, why?.....a) not our tradition

b) No money

c) Don't think it is true

d) He is old for the procedure

15) If it were to be offered free of charge, would take your nephew for it?

a) Yes

b) No

16) If you were to take them for circumcision, at what age would you do it?

a) Bellow 5 years

b) Between 5-14 years

c) After 14 years

ANNEX III

UNIVERSITY OF NAIROBI

SURVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF MALE CIRCUMCISION

This questionnaire is to be administered to health personnel

Identity

Name of the facility

Name of the catchment area

Name of the division

category of the facility

Officer interviewed..... a) medical officer

b) Clinical officer

c) Nurse

1) Are circumcisions done in this facility.... a) yes

b) No

2) If yes who does them..... a) medical officer

b) Clinical officer

c) Nurses

d) Other(s) specify

') Have you ever done any..... a) yes

b) No

4) What is the frequency..... a) bellow 5 clients per week

b) Above 5 clients per day

5) Does the facility charge any fee for circumcision services?.

a) yes

b) No

6) Health researcher reported that male circumcision can reduce chance of HIV infection

Have you come across this information..... a) yes

b) No

~) If yes, what think about it?..... a) .it is possible

b) Not possible

g) Would you advice your clients to take it..... a) yes

b) No

9) At what age would you advice the to take it..... a) bellow 5 years

b) Between 5-14 years

c) After 14 years

10) .Are these practitioners able to perform safe male circumcision

a) Yes

b) No

ANNEX IV

SURVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF MALE CIRCUMCISION

THIS QUESTIONNAIRE IS TO BE ADMINISTERED TO GRANDPARENTS AND COMMUNITY CULTURAL ELDERS

Identity

Division

Location

Sub-location

Home stead

Questionnaire number

Cluster number...

Settlement

Date of interview

Age

Socio-economic characteristics

1) What level of school did you reach. . . . . a) Primary

b) Secondary

c) Post secondary

d) Nil

2) What is your occupation. . . . . a) Salaried employment

b) Self employed

c) Farmer

e) Others (specify)

Level of **knowledge**

3) What are the modes of HIV transmission?....a) Transfusion with contaminated blood

b) Use of contaminated needle or blade

c) Shaking hands with an infected person

d) Having unprotected Sex with an infected person

4) What methods can be used to prevent HIV infection?. . . . . a) Abstaining from sex

b) Use of condom

c) Being faithful to one sex partner

d) Being circumcised

Attitude and practices

5) Can you recommend circumcision for male members of the community?

a) Yes

b) No

6) If yes, why..... a) tradition

b) Requirement of the church

c) Sickness

d) Other(s) specify

7) If no, why?..... a) not our tradition

b) No money

c) Other(s) specify

8) Health researcher reported that male circumcision could reduce chance of HIV infection

Have you come across this information..... a) yes

b) No

9) What do you think about the research finding?..... a) possible

b) Not possible

c) Wrong

d) Don't know

10) Knowing that male circumcision can reduce chances of HIV transmission through sex, would you recommend circumcision?

.a) Yes

11) If it were to be offered free of charge, would recommend for it?

a) Yes

b) No

12) At what age would you recommend MC to be done?

a) Bellow 5 years

b) Between 5-14 years

c) After 14 years