

**KNOWLEDGE AND ATTITUDES TOWARDS MALE CIRCUMCISION IN THE ERA OF HIV  
AND AIDS-THE CASE OF MEN IN THREE RESIDENTIAL AREAS OF LUSAKA, ZAMBIA**

**BY**

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**A dissertation submitted to the University of Zambia towards partial fulfillment of the  
award of Masters of Arts in Population Studies.**

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2010.**

## DECLARATION

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**APPROVAL**

This dissertation by Kalonga Mwiinga has been approved as fulfilling part of the requirements for the award of the degree of Master of Arts in Population studies of the University of Zambia.

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## Abstract

This study investigated knowledge and attitudes towards male circumcision in three residential areas of Lusaka. Using non-probability sampling technique, a total of 120 men were captured to whom a pre-tested questionnaire was administered. The analysis of study findings indicate that a significant proportion of those interviewed were not only sexually active but also engaged in risky sexual relationships which expose them and their partners to the risk of HIV infection. The study has also highlighted the fact that although most of the respondents were aware of male circumcision and its potential role in reducing chances of HIV transmission, there seems to be some reluctance among the respondents to undergo the procedure. This reluctance seems to be based largely on unfounded fears about the consequences of being circumcised. Apart from recommending that government should quickly formulate and pass the male circumcision policy, the study also emphasizes the need to continue with the **ABC** campaign with renewed vigor and in more innovative ways, and to train more medical personnel and set up more circumcision centers. Further, the study underscores the urgent need to find ways of making the media, church, traditional healers, and traditional ceremonies more effective avenues for disseminating information about male circumcision. Areas for future research have also been recommended.

## **Dedication**

To my children- Milimo, Chinyama and Nkombo

## **Acknowledgements**

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## **Abbreviations/ Acronyms**

ABC-Abstinence, Be Faithful, Condomise

AIDS-Acquired Immune Deficiency Syndrome

ANRS- Agency Nationale de Recherché sur le Sida

ARVs-Anti-Retroviral Drugs

C.E-Common or Christian Era

CSO-Central Statistical Office

DSMB-Data Safety Monitoring Board

HBM-Health Belief Model

HIV-Humane-Immuno Virus

HSV-2- herpes simplex 2: a herpes virus that can cause genital herpes

MC-Male Circumcision

MGM-Male Genital Mutilation

MOH-Ministry of Health

NAC-National AIDS Council

NHANES- National Health and Nutrition Examination Survey

RCTs-Randomised Control Trials

SPSS-Statistical Package in Social Sciences

STDs-Sexually Transmitted Diseases

STI-Sexually Transmitted Infections

UNAIDS-Joint United Nations Programme on HIV and AIDS

UNZA-University of Zambia

USA-United States of America

USAID-United States Agency for International Development

UTH-University Teaching Hospital

WHO-World Health Organisation

## **CHAPTER ONE**

### **Background**

Over 25 million people have died from HIV and AIDS world-wide. So far approximately 60 million have been infected with HIV. Half of all new infections are in people under 25 years of age. In all, 33.4 million are currently living with HIV (Avert, 2008). In addition, HIV related deaths are also expected to rise from 2.2 million in 2008 to a maximum of 2.4 million in 2012, before declining to 1.2 million in 2030 (WHO, 2008). Over 15 million children have been orphaned, Zambia having 600, 000 AIDS orphans (UNAIDS, 2008). Heterosexual sex remains the major mode of transmission of HIV in Zambia accounting for 78 per cent of new HIV infections. In the last UNGASS Country Progress Report, Zambia indicated that this mode of transmission is exacerbated by high-risk sexual practices, among others (Zambia 2010 Country Progress Report).

In Zambia, the HIV and AIDS epidemic has been devastating the population for almost 20 years now. Many families have been affected, and thousands more are to face this same sad predicament. The infected and dying population from the scourge is increasing, agonies are escalating and the trauma is on-going. Available data indicate that it is now attacking vigorously the youths, the backbone of Zambia's future prosperity (National AIDS Council, 2003). In 2009, 14.3 per cent of Zambia's estimated 12.9 million population was infected with HIV (2010 Zambia Progress Report). Over 900,000 people are estimated to be living with HIV and AIDS in Zambia of which nearly 80,000 are the newly infected (MoH/NAC/CSO). According to the 2009 mid year projected population, Zambia's life expectancy at birth dropped from 52.6 in 2005 to 51.2 in 2009 (Central Statistical Office).

On average, one in five adults is infected with HIV, and 84% of Zambians diagnosed as having AIDS are aged between 20 and 39, most of who are economically active and have young children to support (NAC, 2003). In 2005 alone, 98, 000 people died of AIDS. And 14% adults aged 15-49 are HIV positive (ZDHS, 2007). About 710, 000 children are AIDS

orphans (UNAIDS/WHO 2006).

The impact of HIV and AIDS has gone far beyond the household and community level. All areas of the public sector and the economy have been over-stretched, and national development has been impeded. Infant and child mortality rates, after decades of steady improvements, are now deteriorating (National AIDS Council, 2003). Tuberculosis, which was at one point contained, is now one of the most serious public health threats (National AIDS Council, 2003). The health, education, economic, agricultural, transport sectors, etc. have all been adversely affected. Morbidity and mortality rates among workers in these sectors have been high (National AIDS Council, 2003).

In trying to mitigate the spread of HIV and AIDS, the Government of Zambia has adopted an integrated response from all sectors of society including faith-based organizations, non-governmental organizations, the private sector, and collaborating agencies to work together and fight the common cause. These strategies include providing care and support for people living with AIDS, orphans and vulnerable children; reducing HIV transmission among the most-at-risk populations; strengthening of HIV and AIDS coordination at the national and local levels; and improving the policy and regulatory environment (USAID-The Multi-Sectoral Response to HIV and AIDS Fact Sheet). Facility-based services related to HIV/AIDS, such as Voluntary Counseling and Testing (VCT), Preventing Mother to Child Transmission (PMTCT) and Care and Support Services (CSS) have also been incorporated (The 2005 Zambia HIV/AIDS Service Provision Assessment Survey).

There is very strong observational, biological, and now clinical trial evidence suggesting that male circumcision has a strong protective effect against HIV transmission and acquisition. Data from more than 40 studies show that men who are circumcised are less than half as likely to acquire Sexually Transmitted Infections (STIs).

There is also evidence that their partners have lower rates of HIV, STI and even cervical cancer (USAID/ AIDSMARK, 2003). This new research in male circumcision further shows that the vice could reduce HIV infections by 60%, preventing 5.7 million new cases and 3 million deaths over 20 years in Sub Saharan Africa (WHO, 2007).

At the 4<sup>th</sup> International AIDS Society Conference in 2007 the Director of the National Institute of Allergy and Infectious Diseases and the then US President George W. Bush's top advisor on HIV and AIDS stated that there have been scientific advances that the research community should be proud of, namely the finding that male circumcision substantially reduces the risk of acquiring HIV (Honey, 2007). On 28 March 2007 the World Health Organization and UNAIDS issued a statement endorsing circumcision in the prevention of the spread of HIV (WHO, UNAIDS, 2007). It stated thus "the efficacy of male circumcision in reducing female to male HIV transmission has now been proven beyond reasonable doubt. This is an important landmark in the history of HIV prevention". It went on to recommend circumcision for men and boys. Infant circumcision was also advocated because it is 'less complicated and risky'. Consequently, male circumcision is widely being considered as a potential intervention in the prevention of Sexually Transmitted Infections including HIV and AIDS.

### **Statement of the problem**

The major cause of HIV and AIDS infection has been that of unsafe or unprotected sex. Responses to HIV and AIDS in Zambia have been aimed at preventing HIV transmissions; to care for those who are infected and reduce the personal, social and economic impact of AIDS. Since late 2002, the government has been engaged in an ambitious Anti-Retroviral Treatment programme. Today, however, HIV prevalence remains at a very high level, despite a general decline HIV infection rates. Reducing the number of new infections while scaling up provisions of treatment is a challenge that must be met if

Zambia is ever going to have a population less devastated by the HIV and AIDS pandemic.

As we enter a third decade of living with HIV/AIDS, there is still no cure—and no vaccine against the virus that has infected more than 33 million people since it was first recognized in the early 1980s. Most industrialized countries have seen a decline in AIDS-related mortality over the past few years, largely due to antiretroviral drugs, but rates of HIV infection and of AIDS-related mortality continue to soar in many parts of the developing world (UNAIDS, 2007).

Based on the evidence showing that male circumcision greatly reduces chances of HIV infection, the Zambian government has come out in full support of the idea. However, currently, there is dearth of scientifically derived and documented information regarding, not only awareness, attitudes and beliefs about circumcision but also its acceptability among Zambian men. These issues need to be explored and better understood if appropriate decisions about the allocation of scarce intervention resources are to be made.

## **Objectives**

The general objective of the study was to examine people's knowledge and attitudes about male circumcision in three residential areas of Lusaka. Specifically, the study investigated:

1. Knowledge and misconceptions regarding HIV/AIDS among men in three residential areas of Lusaka.
2. Sexual experience and current sexual behaviour of men in the study sites.
3. Awareness and attitudes towards male circumcision.
4. Willingness to be circumcised, and;
5. Factors underlying willingness to be circumcised



## **Rationale of the study**

Epidemiological and biological studies provide compelling evidence for the protective effect of *Male Circumcision* against the acquisition of HIV and AIDS. With millions and millions of people living with HIV and AIDS, especially in Sub-Saharan Africa, *Male Circumcision* is a potential intervention measure to reduce risk of acquisition of HIV in men. Strides have been made in developing policy on MC so as to increasing numbers of males seeking Circumcision (Zambia 2010 Country Progress Report). While this is the case, some experts in the field like Professor Nkandu Luo are pessimistic over the practice (Voice of America News). Some critics have argued that operationalising male circumcision would lead to false security against the epidemic. Men would actually go about having un-protected sex after undergoing circumcision, feeling they are not prone to infections. Amid these conflicting views over male circumcision, there is need to assess and establish people's knowledge and attitudes towards male circumcision in reducing new HIV and AIDS infections.

It is against this background that the study was undertaken to provide further insight into *Male Circumcision* as no similar studies have been carried out based on data from Zambia. The findings would also help in the formulation of policies and programmes that could help reduce HIV and AIDS infections in Zambia.

## **Conceptual Framework**

This study was guided by the Health Belief Model (HBM). Developed in the 1950s, the Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviours. It mainly focuses on attitudes and beliefs of individuals. The HBM was part of an effort by social psychologists in the United States Public Health Service (Hochbaum, Rosenstock and Kegels, 1952) who attempted to explain lack of public participation in health screening and prevention programmes (e.g. a free and conveniently located tuberculosis screening project). Since then, the HBM has been adapted to explore a variety of long- and short-term health behaviors, including sexual

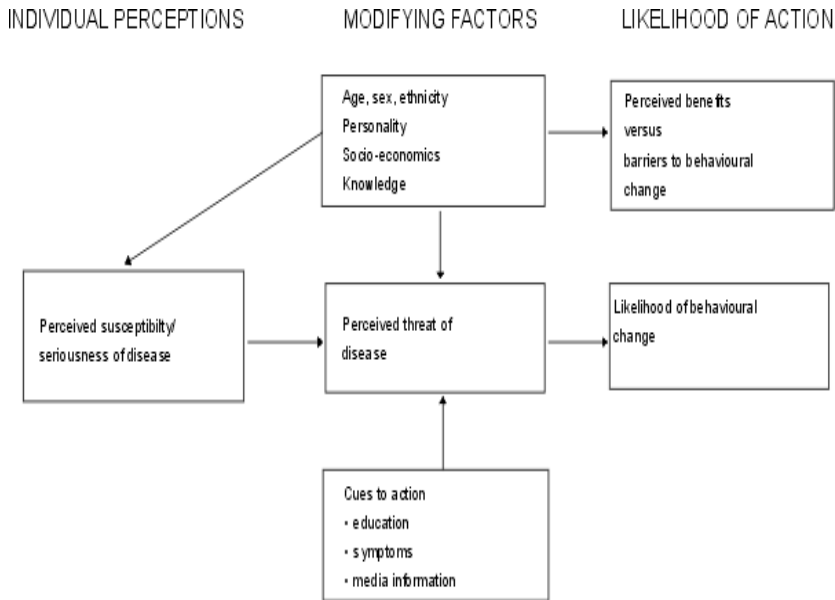
risk behaviors and the transmission of HIV/AIDS, such as Tuberculosis screening services and Condom use. Other areas include: 1) Preventive health behaviours, which include health-promotion (e.g. diet, exercise) and health-risk (e.g. smoking) behaviours as well as vaccination and contraceptive practices; 2) Sick role behaviors, which refer to compliance with recommended medical regimens, usually following professional diagnosis of illness. 3) Clinic use, which includes physician visits for a variety of reasons (Conner, M. & Norman, P. (1996).

The key variables of the **HBM** are as follows (Rosenstock, Strecher and Becker, 1994):

- **Perceived Threat:** Consists of two parts: perceived **susceptibility** and perceived **severity** of a health condition.
  - **Perceived Susceptibility:** One's subjective perception of the risk of contracting a health condition
  - **Perceived Severity:** Feelings concerning the seriousness of contracting an illness or of leaving it untreated (including evaluations of both medical and clinical consequences and possible social consequences).
- **Perceived Benefits:** The believed effectiveness of strategies designed to reduce the threat of illness.
- **Perceived Barriers:** The potential negative consequences that may result from taking particular health actions, including physical, psychological, and financial demands.
- **Cues to Action:** Events, either bodily (e.g., physical symptoms of a health condition) or environmental (e.g., media publicity) that motivate people to take action.
- **Other Variables:** Diverse demographic, socio-psychological, and structural variables that affect an individual's perceptions and thus indirectly influence health-related behaviour.
- **Self-Efficacy:** The belief in being able to successfully execute the behaviour required

to produce the desired outcomes. (This concept was introduced by Bandura in 1977).

**Figure 1: The diagrammatic presentation of the HBM is depicted below.**



Source: Glanz et al, 2002, p. 52)

In this study, the variables that have been employed include perceived benefits, perceived barriers, and cues to action.

## Study Methodology

### Study Sites

The study was conducted in Lusaka's three residential areas namely Kaunda-Square Stage 1, Chelstone and Kabulonga residential areas which have a population of diverse backgrounds and cultures. Purposive Sampling technique was used in the selection of these sites. Table 1 (page 24) shows the distribution of the sample by residence.

### **Data Collection Tools and Process**

A pre-tested questionnaire was used to collect the data for the study. The researcher administered the questionnaire. The Researcher administered the questionnaires over a period of six weeks.

### **Data Analysis**

Data analysis was done using the Statistical Package for Social Sciences (SPSS) Software. Before the analysis could be done, data was entered in Microsoft Excel and then exported to SPSS.

### **Ethical Issues**

Respondents were assured that the data they provided was exclusively for the purpose of the study and that at no time was the information to be leaked to a third party.

## CHAPTER TWO

### Literature Review

#### Knowledge and misconceptions regarding HIV/AIDS

Knowledge and awareness of HIV and AIDS has consistently remained high among both males and females, and among those residing in both rural and urban areas. According to the 2009 Zambia Sexual Behavior Survey, overall, there was a very slight decrease in the proportion of respondents who have heard of HIV and AIDS in 2009 compared to 2005, and this decrease was seen in both male/female and urban/rural subgroups. The percent of respondents who know that HIV and AIDS can be avoided increased steadily from 2000 to 2005 in both rural and urban areas, declining only slightly among urban respondents in 2009 (ZSBS, 2009).

In addition, the proportions of respondents knowing the **ABC's** of HIV prevention were slightly lower in 2009 survey compared to the 2005 survey. This means that compared to 2005, fewer people in the 2009 survey were able to spontaneously name various ways to prevent HIV transmission (ZSBS, 2009).

On Mother To Child Transmission (MTCT) of HIV and AIDS, awareness has been rising among both males and females and among those residing in rural and urban areas, with the exception of rural males since 2003. Overall, there has been a 7 percentage point increase between 2000 and 2009 (ZSBS, 2009). And the proportion of respondents who knew that transmission can occur at delivery and through breast milk increased by about 27 and 18 percentage points, respectively (ZSBS, 2009). There is also a substantial increase from 2005 to 2009 in the proportion of respondents who knew that mothers can prevent MCTC by taking ARVs. Overall, awareness increased by 31 percentage points, from 40% in 2005 to 71% in 2009 (ZSBS, 2009).

As a virus that causes AIDS, HIV for many reasons, is commonly a misunderstood disease and, as a result, unduly feared. Myths and misconceptions of HIV and AIDS have quite often been believed and passed on without being authenticated. These false ideas about HIV and AIDS are sabotaging prevention and treatment strategies. Indeed, myths can kill — and frequently do. Whether it is the idea that HIV/AIDS can be cured by sleeping with a virgin, or even — less spiteful, but no less misleading — the widely held idea that an effective cure already exists (leading to a relaxation in precautionary measures), belief in such myths costs lives. Even the less obvious myths, for example that HIV/AIDS can be transmitted through coughing or merely touching someone, can inflict enormous damage (Dickson, et al: 2003). By implying that people should keep away from those who are known to be infected, such myths encourage the latter to remain silent about their infection. And this in turn stops them from taking measures to prevent the infection being spread to others. The worst aspect of society's all-too-common tendency to stigmatise HIV/AIDS victims is that it drives the disease underground, where it become even more inaccessible to both treatment and prevention (ibid).

HPB, MAECS and AFA to deepen HIV/AIDS knowledge in the Malay Community on 20<sup>th</sup> January, 2010 outlined five common myths about AIDS:

***Myth 1: I shouldn't work or be friends with someone who's HIV positive because I might get it.***

Some people believe that they can get HIV through casual contact. This also implies that some believe they can get HIV by being in the same room with the infected person, hugging or even kissing someone with the disease (unless it is deep kissing and that both have got sores in the mouth).

***Myth 2: I can't get HIV from my boyfriend/ girlfriend because I know this person loves***

***me, and I trust him or her.***

This can be a potentially deadly misconception. While it's true that people who love each other wouldn't intentionally give each other HIV, it's also true that one partner in a relationship can be HIV-positive and not know it. A person can have HIV for years and not show any symptoms.

***Myth 3: There's a cure for HIV and AIDS.***

Current treatments for this deadly disease are better than ever, but the bottom line is that these treatments only help prolong life, not cure the disease itself. When the treatments work, there's so little virus in the blood that blood tests can't detect it. However, research on patients with this "undetectable" level has shown that the virus is still there, hiding in a sleeplike state in the lymph nodes and other areas of the body. People whose HIV is in this state are probably in something similar to remission, and they must continue taking their medications to stay well. They can also still give HIV to someone else, so they should still practice safe sex.

***Myth 4: I don't want to be tested, because if I find out I have HIV, my life is over anyway.***

While finding out you're HIV-positive is devastating, it's important to get tested as soon as possible if you think you could be. The sooner you find out, the better your chances of responding well to the current treatment options, which are better than ever before. People with HIV are feeling better and living longer. While there's not yet a cure for AIDS, we hope that, in time, HIV may become an even more manageable illness, much like heart disease or diabetes.

***Myth 5: I won't get HIV because I'm straight.***

In fact, HIV rates continue to rise among heterosexuals. People who have multiple sexual partners are at the highest risk. Unfortunately, sometimes people are reluctant to tell potential sexual partners that they've had a lot of past encounters. So practice safe sex, get yourself tested, and get your partner tested, too.

Even though the virus has been identified, there are many misconceptions about what causes HIV and where it comes from. Some rumours, for example, maintain that HIV is a disease that was introduced by white people to control the number of black people (ibid). Other rumours suggest that the virus was put into polio vaccines and other immunisations, while still others suggest that the substance inside condoms contains the virus (ibid). Many also believe that HIV and AIDS represent a punishment from the ancestors or gods, or that infection is a result of being bewitched. Many people believe that only promiscuous people or sex workers and their clients are at risk of contracting the virus, but this is not true (ibid).

### **Sexual experience and current sexual behavior**

The Zambia HIV Prevention, Response and Modes of Transmission Analysis conducted by the National AIDS Council (2009) states that high HIV prevalence in Zambia is as a result of individual factors such as sex with multiple and or concurrent partners, low condom use especially with non regular sex partners, absence of circumcision in men and sex with commercial sex workers.

Median age at first sex is important in abstinence interventions aimed at young people. The age at which young people start indulging in sex is important in mitigating the spread of HIV and STIs, as well as unwanted pregnancies. The younger the age at sexual debut, the longer the potential period of exposure to HIV transmission (ZSBS, 2009). Among men, the median age at first sex has increased from 18.2 years in 2000 to 20.2 years in 2009 in urban areas while in rural areas, the median at first sex has increased



from 17.8 years in 2000 to 18.8 years in 2009. And on recent sexual activity, among men, 14% of urban and 15% of rural men had sex on the night prior to the survey (ZSBS, 2009).

Having multiple sexual partners increases one's risk of acquiring HIV. The 2009 ZSBS information stipulates that among men, 9% (11% in rural and 6% in urban areas) reported having had sex with more than one sexual partner in the 12 months prior to the survey. Among men, the percentage who had two sexual partners in the 12 months prior to the survey was higher among single, never married men (9%) compared to those in monogamous marriages (4%). Similarly, the percentage was higher among rural men (11%) compared with urban men (7%). The pattern was similar for those with three or more sexual partners, but very few respondents reported three or more partners.

Multiple concurrent partnerships (MCPs) are believed to contribute greatly to the spread of HIV if one or more of the partners involved are infected. The 2009 Zambia Sexual Behavior Survey results show that among all men, 8% (10% in rural and 5% in urban) had overlapping sexual partnerships in the 12 months prior to the survey. The same information analyzed by marital status shows that 92% of men in polygamous marriages had multiple concurrent partnerships, compared with 5% of men in monogamous marriages, 6% of formerly married men (i.e., divorced, widowed or separated), and 4% of single, never married men. When analyzed by whether the respondent had spent time away from home during the 12 months prior to the survey, 12% of all men who had been away from home had multiple concurrent sexual partnerships, compared to 5% of all men who had not been away from home (ZSBS, 2009).

Consistent and correct use of condoms is one of the key strategies of the national HIV/AIDS prevention programmes, together with abstinence and being faithful to one sexual partner (**ABCs** of prevention). Zambia Sexual Behavior Survey 2009 results show

that overall condom use at last sex was low. Among men, 14% (19% in urban and 10% in rural) used a condom at last sex, while among women this percentage was 11% (14% in urban and 9% in rural). Despite numerous national and local awareness campaigns on the use of condoms for preventing STIs and HIV, condom use at last sex has remained low and shows little change between the 2000 and 2009 surveys periods. Among men, 6% (7% in urban and 6% in rural areas) used a condom at last sex with a marital/cohabiting partner (ZSBS, 2009). However, condom use at last sex with marital/cohabiting partner was higher among men who also had an extramarital partner (16%) and among those whose duration of sexual partnership was less than three years (12%).

### **History of Male Circumcision**

The practice of male genital mutilation, which in modern parlance is referred to as male circumcision, is far older than recorded history. Certainly, it is far older than the Biblical account of Abraham (Genesis 17). It seems to have originated in eastern Africa long before this time (deMeo, 1989: pp9-13). Many theories have been advanced to explain the origin of genital mutilation. One theory postulates that circumcision began as a way of "purifying" individuals and society by reducing sexuality and sexual pleasure. Human sexuality was seen as dirty or impure in some societies; hence cutting off the pleasure-producing parts was the obvious way to "purify" someone (Circumcision Information and Resource Pages).

It is now known that the male foreskin, or prepuce, is the principal location of erogenous sensation in the human male (Circumcision Information and Resource Pages). Removal of the prepuce substantially reduces erogenous sensation (Warren, 1994: 6-8). Therefore (in the appropriate cultural context), circumcision is revealed as a sacrifice of "sinful" human enjoyment (in this earthly life), for the sake of holiness in the afterlife (ibid).

The Jews adopted circumcision as a religious ritual (Bigelow, 1992, 1995) and preserved it into modern times (Taylor, et al, 1996: 291-295). The circumcision of Abraham removed only the very tip that extended beyond the glans penis (Schultheiss, et al: 1998). Moses and his sons were not circumcised (Exodus 4:25). Although Moses apparently prohibited circumcision during the 40 years in the wilderness, Joshua reinstated circumcision at Gilgal after the death of Moses (Joshua 5:2-10). In contrast to the Jews, the Greeks and the Romans placed a high value on the prepuce (Hodges, 2001: 375-401) The Romans passed several laws to protect the prepuce by prohibiting circumcision (ibid). Much later in the Hellenic period, about 140 C.E., the circumcision procedure was modified to make it impossible for a Jew to appear to be an uncircumcised Greek (Brandes, 1999). A radical new procedure called *peri'ah* was introduced by the priests and rabbis. In this procedure the foreskin was stripped away from the glans, with which it is fused in the infant. In a painful procedure known today as a *synechotomy*, more foreskin was removed than before and the injury was correspondingly greater. With the introduction of *peri'ah*, the glans could not easily be recovered, and so no Jewish male would easily be able to appear as an uncircumcised Greek (ibid)

The third stage of ritual circumcision, the *Messisa* or *Metzitzah*, was not introduced until the Talmudic period, 500-625 C.E (ibid). In Metzitzah, the *mohel* (ritual circumciser) sucks blood from the penis of the circumcised infant with his mouth (Hodges, 2001). This procedure has been responsible for the death of many Jewish babies due to infection (Tierney, 1997). In modern times, a glass tube is sometimes used instead.

The Christians took a strong stand against circumcision in the first century. Christians rejected circumcision at the Council at Jerusalem (Acts 15). St. Paul, the Apostle to the gentiles, taught parents that they should not circumcise their children (Acts 21:25). In a reference to the old practices of genital mutilation, St. Paul warned Titus to beware of

the "circumcision group" (Titus 1:10-16).

The modern use of Hebrew circumcision as a medicalized practice dates from about 1865 in England and about 1870 in the US (Gollaher,1994). The procedure accepted for medical use essentially was the Jewish *peri'ah*. Moscucci reports that circumcision was imposed in an attempt to prevent masturbation (Moscucci, 1996). No scientific studies were carried out to determine the efficacy and safety of circumcision prior to its introduction into medical practice, nor were any studies conducted to determine the social effects of imposing genital alteration surgery on a large portion of the population.

South Koreans started to circumcise children during the American trusteeship following World War II. The American cultural practice of circumcision became nearly universal in South Korea after the Korean War of 1950-52 (Kim, 1999).

In 1949, Gairdner wrote that circumcision was medically unnecessary and non-beneficial (Gairdner, 1949) because of complications and deaths (ibid). The British National Health Service (NHS) deleted non-therapeutic neonatal circumcision from the schedule of covered procedures in 1950. The incidence of neonatal circumcision in the United Kingdom declined sharply to a very low level after publication of this article after the procedure was delisted by the NHS.

America waited another 20 years before addressing the problem of non-therapeutic circumcision. The *Journal of the American Medical Association* published an influential landmark article by Dr. E. Noel Preston, Captain, MC, USAF (Preston, 1970). Dr. Preston established that there is no therapeutic or prophylactic benefit to circumcision. He also cited "undesirable psychological, sexual, and medico-legal difficulties"(ibid).

Influenced by Preston, the American Academy of Pediatrics (AAP), in 1971, issued a statement that "there are no valid medical indications for circumcision in the neonatal

period" (Gallerher, 1949). This marked the beginning of the end of America's infatuation with male circumcision. The incidence of male neonatal circumcision in the U.S. peaked in 1971 and began a slow decline that continues to the present day.

On the other hand, ritualistic circumcision has been practiced by several ethnic groupings in West Africa for more than 5000 years and in the Middle East for over 4000 years (Moses et al, 1998 & Warner et al, 2001). In the non-Muslim African countries of Cameroon and the Congo most men are circumcised. Similarly, in Kenya [mostly non-Muslim], all tribes except the Luo practice male circumcision (Morris, 2008). Male circumcision here is practiced as part of a male rite of passage. It includes a post-circumcision traditional period of seclusion of up to several weeks, in which boys are taught about the community's expectations of men, relationships with women, potential wives and children, and sexual activity, which (among some groups) is expected to begin soon after healing. Teaching methods often include beatings, harsh language and rote learning (Brown. J, 2002).

### **Awareness and attitudes towards male circumcision**

In recent years, male circumcision has received considerable attention as a method of HIV prevention. In fact, the association of lowered risk of HIV infection and male circumcision has been noted in many observational studies and systematic reviews of these data have supported this conclusion. It has been demonstrated that the cells in the foreskin are vulnerable to HIV infection and that circumcision reduces the risk of HIV infection for men.

The association between male circumcision and HIV risk has been noted for nearly 20 years. There is a strong geographical correlation between male circumcision practices and lower HIV prevalence, and numerous observational studies have identified lack of circumcision in men as a risk factor for acquisition of HIV, particularly among men at

higher risk of acquiring HIV. A decade ago, in a study of geographic patterns of male circumcision practices in Africa, investigators found significant differences in HIV seroprevalence in populations that practice male circumcision compared to populations that do not (Moses, et al: 1990).

More recently, this relationship was confirmed in a large, community-based, multi-site study comparing risk factors for HIV infection in two cities with low HIV prevalence with those found in two cities with a high prevalence of HIV infection (ibid).

A meta-analysis of studies examining the relationship between male circumcision and the risk for HIV infection among males in sub-Saharan Africa concluded that uncircumcised men are twice as likely as circumcised men to be HIV infected. The effect was stronger among men at high risk for HIV than among men in the general population.

The authors considered this effect strong enough that it is unlikely to be explained by residual confounding factors (Hayes, et al 1999).

Halperin and Bailey estimate that in countries such as Nigeria and Indonesia, where about 20 percent of men are not circumcised, the lack of circumcision may account for approximately 23 percent of all heterosexual HIV-1 infections (Halperin, et al.1999). However, in countries like Zambia and Thailand, where eighty percent of men are not circumcised, lack of circumcision may account for as much as 55 percent of HIV-1 infections (Ibid). A subsequent review and analysis of published studies conducted by the London School of Hygiene and Tropical Medicine found a profound association between lack of male circumcision and HIV infection in all 15 African studies. Circumcision was associated with a 58% decrease in risk for men in general population and a 71% decrease among higher risk men (AIDS 2000; 14:2361-2370). Randomized Controlled Trials (RCTs) to assess the safety and efficacy of male circumcision in reducing female to male HIV transmission in Kenya, Uganda and South Africa and

follow-up in the Orange Farm Study in South Africa demonstrated a 65 % protective effect for adult male circumcision (United Nations, 2005).

A study in New York City found that the risk ratio for HIV infection in heterosexual men as a result of being uncircumcised was 4.1, the rate being 2.1% versus 0.6% for uncircumcised men as compared to circumcised men (Telzak et al, 1993). In 2007, it was contended that circumcision would decrease the probability of a man acquiring HIV via penile-vaginal sex with an HIV-infected woman in the US and suggested some sexually active men may consider circumcision as an additional HIV prevention measure (Sullivan et al, 2007).

In order to evaluate the association between circumcision status and the risk of HIV infection in a population of African-American men attending sexual health clinics in Baltimore, investigators conducted a retrospective study of 40,571 clinic visits between 1993 and 2000. All the patients were tested for HIV and clinic notes recorded if the men were circumcised or uncircumcised, and if they had an ulcerative or urethral sexually transmitted infection. The investigators were also able to identify a subset of 394 visits that were made because the men had been notified that they had been exposed to HIV after penile-vaginal contact with a woman with diagnosed HIV infection. This enabled the investigators to look at the efficacy of circumcision as a method of HIV prevention in men known to have had exposure to HIV. Results show that most of the men (87%) were circumcised. HIV prevalence was four times higher in the subset of 394 clinic visits made because of documented exposure to HIV than in the 40,177 visits by men with no certain exposure to HIV (12% vs 3%). Among the 394 men who attended the clinic because of known HIV exposure, circumcision was associated with a significant 51% reduction in HIV prevalence (10% vs 22%). However, among the 40,177 visits by men without documented HIV exposure, there was no difference in HIV prevalence between circumcised and uncircumcised men (both 3%). In this group, however, HIV prevalence was higher amongst men who had an

ulcerative sexually transmitted infection (7%) than those with a urethral infection(2%). “The around 50% reduction in prevalence observed among men with known HIV exposure is of comparable magnitude to the risk reported across the three African trials (range, 48% to 60%),” comment the investigators (Morris, 2008). They conclude, “circumcision was associated with significantly reduced HIV prevalence among a cohort of African-American heterosexual men with known HIV exposure who were attending Baltimore sexual (health) clinics...these findings may also demonstrate that the benefits of circumcision may be most evident in observational studies of male patient populations with documented exposure to HIV-infected female partners” (Morris, 2008).

Male circumcision has also been linked to protection from other sexually transmitted infections other than HIV/AIDS. This link goes as far back as over 150 years (Morris, 2008). In 1855 syphilis was discovered to be associated with lack of circumcision (Hutchinson, 1855). Remondino confirmed this finding and also noted the possible protection afforded by circumcision against genital herpes and Urethritis (Remondino, 1891).

In 1947, a study involving 1,300 consecutive patients in a Canadian Army unit, showed that being uncircumcised was associated with a 9-fold higher risk of Syphilis and 3-times higher risk of gonorrhea (Wilson, 1947). A report in 1949 found higher syphilis, Chancroid and Gonorrhea (Hand, 1949) among men who were not circumcised. Higher Chancroid was also reported in 1952 (Asin et al, 1952). Men who were not circumcised were found with higher HSV-2 in 1967 (Parker et al, 1967). And during the mid 1970s, higher Chancroid, Syphilis, Papillomavirus and herpes in uncircumcised men was identified (Taylor et al, 1975).

As part of a larger survey of men interviewed at Harare beer halls in April–August of



2000, 43% (86) said they had heard of positive health benefits associated with circumcision (Halperin, et al, 2005). Sixty-nine respondents mentioned circumcision reduces STIs; however, HIV or AIDS was specifically mentioned by only 6 men (ibid). One of the focus group participants, for example, expressed the belief that although “circumcision is a means of trying to minimize the chance of getting infected. . . you should not say if I am circumcised it automatically means I can do without condoms. Let’s say you had been influenced by alcohol and have unprotected sex, the chances of getting HIV may then be reduced if you are circumcised” (ibid). Twenty-three men (12%) spoke more generally about circumcision promoting hygiene/sexual cleanliness (ibid). Six men (3%) suggested that circumcision could have unhealthy or risky consequences such as the danger of (traditional) circumcision spreading HIV through use of a single blade (ibid).

### **Willingness to be circumcised**

According to the Zambia Sexual Behavior Survey-2009, the proportion of males who indicated that they have no desire to be circumcised decreased by about four percentage points, from 84% in 2003 to 80% in 2009 while a higher proportion of males in rural areas expressed no interest in being circumcised, compared to males in urban areas. In response to the question “If you are uncircumcised, would you like to be circumcised if this practice is confirmed to reduce the risk of contracting HIV or STIs and if it is performed safely and affordably?,” 45% answered yes and that men willing to be circumcised were younger and never married (ZSBS, 2009). Willingness to be circumcised was not associated with recent sexual risk behavior as measured by having unprotected sex with casual partners, paying for sex, or having sex while intoxicated (ibid).

Meanwhile, the acceptability of male circumcision as an HIV intervention among a rural Zulu population, KwaZulu-Natal, South Africa study carried out in April 2005 by Scot,

et al. reported that while survey results showed a medium-level acceptability of male circumcision, focus groups did not reveal such high acceptance, older men feeling that it was not necessary to offer circumcision services as 'people do not need circumcision' and that it was more important for 'a person to have one partner to prevent diseases'. While the younger men thought that circumcision should be available to those who wished to undergo the procedure, of eight men, only two said they would be circumcised (Scot, et al, 2005). Of the 97 men who answered, 75 thought that circumcision should be carried out by a doctor, with 11 favouring traditional healers, where as 50% of men said that they would choose to circumcise their sons (ibid).

### **Factors underlying willingness to be circumcised**

And Scot, et al, 2005 contended thus men were more willing to be circumcised if they lived in an urban area, were single, were employed and had a higher education level. There was little association between willingness to be circumcised and beliefs about health aspects of circumcision (keeping the penis clean, catching STIs/HIV, pain during intercourse), although when asked to give reasons as to why they would be circumcised, more men included reduced risk of STI among their responses than any other reason (ibid). Men who did not know or have a view on the health aspects of circumcision were generally the least willing to be circumcised even as significant associations were found between willingness to be circumcised and beliefs about sexual pleasure (ibid). Men were more willing to be circumcised if they thought that circumcised men enjoyed sex more than uncircumcised men or if women enjoyed sex more with uncircumcised men (ibid). Among the 100 men interviewed, 56% said that they would be circumcised if the procedure could be performed safely at low cost. On the other hand, men who did not have particular beliefs regarding health or sexual aspects of circumcision were least likely to be willing to be circumcised (ibid).

About 58% of uncircumcised males with no desire to be circumcised gave the reason

that it is against tradition (ZSBS, 2009). To the contrary, Scot, et al, 2005 concluded that culture might not be a significant barrier in the promotion of male circumcision, as 34% of migrant Zulu males in Carltonville were circumcised despite a lack of cultural prescription. The next most common reason cited was pain (22% of respondents mentioned this reason), while the least frequently cited reasons were that it is against religion (6%) and is not natural (4%) (ibid). Among uncircumcised young adult men aged 20-24, one in two said they do not want to be circumcised because it is against tradition, about a quarter indicated it was painful, 19% feared complications, 5% felt it was against religion, and 6% felt they were too old/too young, and 3% felt it was not natural.

Bailey et al. (2002) suggested that women's views might have a powerful influence on the circumcision decisions of men among the Luo of western Kenya. These sentiments were also echoed by Scot, et al. 2002 when he highlighted that there may be some influence of women's views within health promotion targeting men, as believing that women enjoyed sex more with circumcised men than their uncircumcised counterparts was significantly associated with an increased willingness of men to be circumcised.

One identified barrier to the promotion of male circumcision in Hlabisa is that, theoretically, only hospital doctors can carry out the procedure. This raises problems of logistics and costs for the men, as well as the risk of diverting medical resources from other areas where they are needed (Scot, et al. 2005).

Given the foregoing, it was important to investigate, among others, awareness and willingness of people to be circumcised in a country like Zambia where most people are not circumcised but the HIV prevalence is among the highest on the continent.

## CHAPTER THREE: PRESENTATION OF FINDINGS

### Study Population

The population of interest for this study was all male adults in the reproductive age range of 15-49 years. Potential respondents were selected based on their age, availability, and willingness to participate in the study. Nonproportional quota sampling, a purposive sampling technique, was used to sample 120 men from these three residential areas: Kaunda Square 50% (n=60) of respondents selected; Chelstone 33.3% (n=40) while Kabulonga which is a low density residential area contributed 16.7% (n=20) of the respondents as shown in table 1. This kind of sampling technique was adopted as it was found to be the only one that could ensure that respondents be reached out at within a shortest possible time and also for the fact that the minimum number of sampled men wanted in each category was specified.

**Table 1: Proportion of respondents from residential areas**

Place of interview	Frequency	Percent
Kabulonga	20	16.7
Chelstone	40	33.3
Kaunda-square	60	50.0
<b>TOTAL</b>	<b>120</b>	<b>100.0</b>

### Characteristics of respondents

Table 2 shows selected socio-economic and demographic characteristics of the respondents. As shown in Table 2, more than 9 out of 10 (95.9%) of the respondents were aged below 40 years with more than half (55.0%) falling within the most sexually active age group of 20-39 years. Most (85%) of the respondents were either single (57.5%) or married (27.5%), divorced (10%), cohabiting (2.5%), separated (1.7%) or wid-

**Table 2: Characteristics of Respondents**

<u>Characteristic</u>	<u>Frequency</u>	<u>Percent</u>
<b>Age Group:</b>		
15-19	35	29.2
20-24	20	16.7
25-29	30	25.0
30-34	16	13.3
35-39	14	11.7
40-44	4	3.3
45-49	1	0.8
<b>TOTAL</b>	<b>120</b>	<b>100</b>
<b>Marital status:</b>		
Single	69	57.5
Separated	2	1.7
Married	33	27.5
Divorced	12	10.0
Cohabiting	3	2.5
Widowed	1	0.8
<b>TOTAL</b>	<b>120</b>	<b>100</b>
<b>Ethnic group:</b>		
Bemba	32	26.6
Kaonde	8	6.7
Lozi	17	14.2
Lunda	6	5.0
Luvale	3	2.5
Nyanja	28	23.3
Tonga	18	15.0
Other	8	6.7
<b>TOTAL</b>	<b>120</b>	<b>100</b>
<b>Education Attained:</b>		
Primary	7	6.2
Secondary	49	40.7
Tertiary	64	53.1
<b>TOTAL</b>	<b>120</b>	<b>100</b>
<b>Circumcision Status:</b>		
Circumcised	24	20.0
Un-circumcised	96	80.0
<b>TOTAL</b>	<b>120</b>	<b>100</b>

owed (0.8%). In terms of education, very few (6.2%) respondents reported never having been to school while the rest claimed to have attained either secondary (40.7%) or

tertiary (53.1%) level education.

Zambia's four major ethnic groups were represented as follows: The largest ethnic group, i.e. Bemba, constituted 26.6% of the study population followed by Nyanja (23.3%), Tonga (15%) and Lozi (14.2%). The rest were as follows: Kaonde (6.7%); Lunda (5.0%) and Luvale (2.5%). About seven percent claimed to belong to other ethnic groups outside Zambia. Regarding religious affiliation, the Seventh Day Adventists made up the single largest (20.8%) group followed by members from the Apostolic and Pentecostal churches, which made up 11.7% each. The Baptists constituted 10.8% while members of the Presbyterian Church and Jehovah's Witness contributed 9.2% each to the study population. The Catholics and Reformists constituted 8.3% and 5.8% respectively. The rest (12.5%) claimed to belong to other religious affiliations. Meanwhile only 20 percent of the men included in the study were circumcised compared to 80 percent who were not.

### **Knowledge and misconceptions about HIV and AIDS**

Knowledge of HIV and AIDS is critical in the fight against the scourge. By recognizing its existence, mode(s) of transmission, and consequences, people may be able to regulate their conduct by reducing on risky behavior that would otherwise exacerbate HIV infection and spread.

More than nine out of ten (91%) of the respondents in this study had heard of HIV/AIDS and only 7.4% claimed not to have heard of HIV/AIDS. In addition, 97.3 percent knew that a person could contract HIV through blood transfusion. Also, 89.3 percent knew that multiple sexual partners increase one's vulnerability to HIV. On sharing razors/needles, 67.9% said it increased the risk of contracting the virus. On knowledge of HIV transmission/contraction, sixty seven percent indicated that a person could be infected with the HIV virus through vaginal secretions.

In spite of the high levels of awareness of HIV and AIDS and its modes of transmission, there still exist some misconceptions regarding how HIV can be transmitted and prevented. For example, 14.3 percent of the respondents believed that HIV can be transmitted through coughing, 40.2% said a person can get HIV through kissing. Also twenty five percent indicated that a person can get HIV through a hand-shake while 18.8% indicated that HIV can be cured through western medicine and 11.6% claimed that traditional medicine can cure HIV.

### **Sexual Experience**

Most (83.2%) of the respondents were sexually experienced (i.e. had already had sex by the time of the study) with more than 4 out of ten (45.3%) indicating that they had their first sex while aged between 15 and 19 years. And 15.4 percent had their first sex while aged between 20 and 24 years. Very few (3.1%) had their first sex at 25-29 years. In short, by age 25-29 years, more than 8 out of ten (82.4%) were already sexually experienced. However, some respondents chose not to respond to this question for unknown reasons. The rest of the results are presented in Table 3.

**Table 3: Age at first sex by age of respondent**

<b>Age-Group</b>	<b>Frequency</b>	<b>Percentage</b>
5-9	3	3.1
10-14	15	15.5
15-19	44	45.3
20-24	15	15.4
25-29	3	3.1
30-34	0	0
<b>TOTAL</b>	<b>80</b>	<b>82.4</b>

### **Current sexual behavior**

Current sexual behavior of the population is important as it provides an indicator of how the population is exposed to the risk of contracting HIV and AIDS. Table 4 shows that nearly 42% (41.7%) of the respondents in our sample indicated having only one sexual partner; 7.8% said they had two, while 9.7% and 39.8% revealed they had three or more than three sexual partners, respectively. Only 1 (1.0%) respondent reported having no sexual partner.

**Table 4: Number of sexual partners**

<b>Number of sexual partners</b>	<b>Percentage</b>
0	1.0
1	41.7
2	7.8
3	9.7
More than 3	39.8
<b>TOTAL</b>	<b>100.0</b>

Meanwhile most (97.1%) of the respondents said they had had sexual intercourse compared to 2.9% who said they never had sexual intercourse in the twelve months period preceding the study. Nearly 24 percent (23.8%) reported having had sexual intercourse within weeks before the study.

Table 5 shows type of sexual partner at last sex and whether or not a condom was used. Most (78.4%) of the respondents indicated that their most recent sexual encounter was either with a girl friend (36.1%), casual acquaintance (36.1%) or with a sex worker (6.2%), and only 21.6% percent indicated wife as their last sexual partner.

This clearly shows not only that most men have extra-marital affairs but also that they are doing so without protection against infection which puts them and their partners at risk of contracting HIV and other sexually transmitted infections. This is supported by the fact that a large proportion (46.1%) of these men reportedly never used a condom in



their last non-marital sexual intercourse (Table 5).

**Table 5: Relationship between different types of partners at last sex and condom use**

	Frequency	Percent
<b>Relationship to most recent sexual partner:</b>		
Wife	21	21.6
Girl friend	35	36.1
Casual acquaintance	35	36.1
Sex worker	6	6.1
<b>TOTAL</b>	<b>97</b>	<b>100.0</b>
<b>Condom use at last sex:</b>		
Yes	54	52.9
No	47	46.1
Can't remember	1	1.0
<b>TOTAL</b>	<b>102</b>	<b>100.0</b>

Furthermore, only 34%, 47% and 45.5% consistently used condoms with girl friends, strangers and sex workers, respectively. This is shown in Table 6.

**Table 6: Proportion of respondents reporting consistent condom use with different types of sexual partners**

	Girl friend	Stranger	Sex worker
All the time	34.0	47.0	45.5
Sometimes	29.0	20.0	8.9
Never	11.0	7.0	5.9
Not applicable	26.0	26.0	39.7
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### **Awareness of Male Circumcision**

Table 7 indicates that (92.4%) of the respondents indicated that they had heard of male circumcision. And 61.4% knew about the existence of a male circumcision center.

Almost two thirds (69.6%) reported knowing a Zambian ethnic group that circumcises males, 40.5% reportedly knew of an ethnic group outside Zambia that circumcises males while close to half (48.2%) indicated that they knew of someone who had been circumcised. In addition, 21.2% of the respondents indicated their ethnic group circumcised men. Interestingly, significantly less than half (44.6%) knew that the Ministry of health encourages male circumcision as a preventive measure against HIV.

**Table 7: Male Circumcision awareness**

<b>Acquaintance with male circumcision</b>	<b>Percentage</b>
Respondents with awareness of male circumcision	92.4
Knowledge of existence of a male circumcision center	61.4
Knowledge of a Zambian ethnic group that circumcises men	69.6
Knowledge of an ethnic group outside Zambia that circumcises men	40.5
Knowledge of someone who has been circumcised	48.2
Own ethnic group circumcising men	21.2
Knowledge of ministry of health encouraging male circumcision	44.6

### **Source of information about Male Circumcision**

Table 8 shows source of information about male circumcision. The major source of information about male circumcision according to 30.5% of the respondents was a cultural group followed by mass media, notably newspapers (10.5%) and radio (10.5%). Doctors, nurses and other medical personnel, including traditional healers do not seem to be very influential in disseminating information about male circumcision.

**Table 8: Source of information on male circumcision**

<b>Source of information on male circumcision</b>	<b>Frequency</b>	<b>Percent</b>
Cultural group	32	30.5
Traditional healer	9	8.6
Doctor	3	2.9
Nurse	8	7.6
Other medical personnel	1	0.7
Newspaper	11	10.5
T.V	11	10.5
Radio	7	6.7
Magazine	8	7.6
Internet	5	4.8
Friend	5	4.8
Relative	2	1.9
Other	3	2.9
<b>TOTAL</b>	<b>105</b>	<b>100.0</b>

### **Attitudes and beliefs regarding male circumcision**

Respondents were asked to indicate the degree to which they agreed or disagreed with certain statements that indicate beliefs and conceptions about male circumcision. The results are presented in Table 9. It is encouraging to note from Table 9 that although the majority (81.3%) of the respondents agreed with the statement that male circumcision reduces HIV infection, more than two-thirds or 67.0% did not agree that circumcised men should not use condoms. This is important as it challenges fears that circumcision may lead to less use of condoms by circumcised men thinking that they are completely protected against the HIV virus. It is interesting to note from the results in Table 7 that more than one out of four (25.0%) respondents agreed with the assertion that women

enjoy sex more with circumcised men than with those who are not circumcised. This notion has also been reported in previous studies like those conducted in Madagascar and Japan (Morris, 2008).

**Table 9: Respondents’ beliefs and conceptions about male circumcision**

	<b>Agree</b>	<b>Disagree</b>	<b>Don’t know</b>	<b>TOTAL</b>
Women enjoy sex better with circumcised men	25.0% (28)	40.2% (45)	34.8% (39)	<b>100.0% (112)</b>
Male circumcision reduces chances of HIV infection	81.3% (91)	8.0% (9)	10.7 (12)	<b>100.0%(112)</b>
Circumcised men do not need to use condoms	8.9% (10)	67.0%( 75)	24.1% (27)	<b>100.0% (112)</b>

## **WILLINGNESS TO GET CIRCUMCISED**

### **Perceived benefits of male circumcision**

As earlier indicated, this study was guided by the Health Belief Model theoretical framework. Based on this model it was expected that willingness to get circumcised will be positively associated with perceived benefits. Measures of perceived benefits in this study included, among others, the belief that (a) women enjoy sex more with circumcised men than with uncircumcised men, (b) Male circumcision reduces the risks of getting HIV/AIDS, (C) Male circumcision reduces chances of transmitting HIV/AIDS to other people, and, (d) male circumcision reduces chances of getting other sexually transmitted infections. It was hypothesized that more respondents who agreed with these statements will express willingness to be circumcised than those who did not.

**Table 10** shows the responses of uncircumcised men and relationship between different measures of perceived benefits of male circumcision and willingness to be circumcised.

**Table 10: Perceived benefits of male Circumcision and willingness to get circumcised**

Perceived benefits	Number and Percentage distribution of un-circumcised men and the degree to which they agreed with perceived benefits of circumcision who were willing to get circumcised			
	Agree	Disagree	Don't know	Total (number)
Women enjoy sex more with circumcised men	7(36.8%)	18(34.6%)	12(54.5%)	<b>37</b>
MC reduces risk of getting HIV/AIDS	30(40.0%)	3(37.5%)	4(40.0%)	<b>37</b>
MC reduces chances of transmitting HIV	27(37.5%)	5(50.0%)	5(45.5%)	<b>37</b>
MC reduces chances of getting other STIs	29(39.7%)	4(44.4%)	4(36.4%)	<b>37</b>

According to Table 10, the percentage of respondents agreeing with the statement that women enjoy sex more with men who are circumcised than those who are not and are willing to be circumcised is higher (36.85%) than those who do not share this notion (34.6%) but are also willing to get circumcised. The difference between the two proportions is more than two percentage points (2.2%). Also, respondents (40.0%) sharing the view that male circumcision reduces the risk of getting HIV/AIDS were more likely to indicate willingness to get circumcised than those (37.5) who did not share this view. This suggests that, to some extent, the notion or belief that circumcision enhances sexual satisfaction in women and knowledge that the operation reduces the risk of one getting HIV/AIDS, may have some influence in determining whether or not men will take up circumcision.

Interestingly though, knowledge that male circumcision reduces chances of transmitting HIV including other sexually transmitted infections, seems to have the opposite influence: Fewer respondents who acknowledged this fact were willing to get circumcised than those who did not (50.0%).

**CUES TO ACTION AND WILLINGNESS TO BE CIRCUMCISED**

In order to investigate the relationship between availability of cues to action and willingness to get circumcised, this study used various measures that included (a) awareness of male circumcision (b) belonging to an ethnic group that circumcises, (c) knowledge of a place where one can be circumcised (d) knowledge of a place where one can be circumcised (e), awareness of a place where circumcision is done free of charge (f) knowledge of someone who has been circumcised and, (g) agreement with findings that male circumcision reduces chances of HIV transmission.

Table 11 shows the relationship between selected cues to action and willingness to get circumcised

**Table 11: Cues to Action and willingness to get circumcised**

Cues to action	Number and percent distribution of respondent who have had selected cues to action and expressed willingness to be circumcised	
	Yes	No
Ever heard of circumcision	38(41.3%)	1(20.0%)
Own ethnic group circumcises	3(42.9%)	33(38.8%)
Knows a place where one can be circumcised	30(50.0%)	7(21.2%)
Knows a place where one can be circumcised	30(55.6%)	9(22.0%)
Knows a circumcised person	17(47.2%)	19(33.3%)
Agrees with findings that circumcision reduces chances of HIV transmission	29(44.6%)	0(0.0%)

As hypothesized, results presented in Table 9 indicate that men who have heard of circumcision, those whose ethnic group circumcises (42.9%), know a place where one can get circumcised (50.0%), know a place where one can get circumcised (55.6%), know someone who has been circumcised (47.2%) and those who agree with findings on the positive effect of Male Circumcision on HIV transmission (44.6%), are more likely to express willingness to be circumcised than their counterparts. However, the extent to

which this knowledge translates into actual up-take of circumcision requires another study. What is important here is the fact that there is need to make more and more people aware not only of circumcision but also where they can go for the operation while at the same time emphasizing the benefits and that circumcision is not 100 percent protection against HIV and AIDS.

## **BARRIERS TO CIRCUMCISION**

To investigate barriers to circumcision, respondents were asked both direct and indirect questions. Directly, respondents who were not circumcised were asked why they had not done so. In addition, respondents who indicated willingness to be circumcised but had not been circumcised were asked to give reasons why they had not undergone the procedure. The results are shown in Tables 12 and 13.

**Table 12: Distribution of respondents who were not circumcised by the reasons why they have not been circumcised**

Barriers to circumcision	Number	Percentage
Fear of pain	18	32.14
Fear of death	10	17.85
Stigma	15	26.78
Against tradition	3	5.35
Against religion	-	-
Circumcised men belong to a cult	5	8.92
Lack knowledge about circumcision	2	3.57
Other	3	5.35
<b>Total</b>	<b>56</b>	<b>100</b>

From Table 12, it is clear that the main reasons for not having undergone circumcision are fear of pain, fear of stigma, and fear of death. These fears were cited by 32.14%, 26.78% and 17.85% of respondents, respectively.

**Table 13: Number and percent distribution of respondents who were willing to be circumcised but had not been circumcised by reason why they have not done so**

Reasons for not having undergone circumcision	Frequency	Percent
Still on waiting list	3	7.3
Process is too cumbersome	13	31.7
Procedure too expensive	13	31.7
Don't know any circumcision center	10	24.4
Other	2	4.9
<b>TOTAL</b>	<b>41</b>	<b>100.0</b>

It is evident from **Table 13** that more than three out of ten (31.7%) respondents who would otherwise have been circumcised were not circumcised at the time of the study because of the fact that they felt that the process one has to follow is too cumbersome (31.7%) and the cost for the procedure is too expensive (31.7%) at the same. Interestingly, close to a quarter (24.4%) of the respondents did not know of a place for male circumcision. Only 7.3% stated that they were on the waiting list.

To further investigate barriers to circumcision, the study examined the relationship between selected measures of obstacles and willingness to get circumcised. The perceived barriers included agreement with the following statements: (a) cost of male circumcision is prohibitive, (b) circumcised men take too long to ejaculate and (c) male circumcision inhibits sexual satisfaction. It was hypothesized that more respondents who agreed with these statements would express unwillingness to be circumcised than those who did not or did not know. The results are presented in Table 14. Cost, perceived or real, seems to be a factor in determining willingness to get circumcised. Men who think cost for circumcision is not prohibited (76.5%) are more likely to indicate willingness to get circumcised than those who think it is prohibitive (66.7%). This finding confirms earlier findings elsewhere. For example, during the study of Trial Intervention of male circumcision Services in Nyanja Province-Kenya, cost was the most important



factor in determining the number of men who requested male circumcision. The initial charge of 250 Kenyan Shillings (Ks), or about US \$3, appeared to be too expensive. The cost was reduced to 100 Ks, or about US \$1, which attracted many more clients (Onyango, 2002).

**Table 14: Relationship between selected barriers and willingness to get circumcised**

<b>Barriers</b>	<b>Agree</b>	<b>Disagree</b>	<b>Don't know</b>
Cost of MC is prohibitive	2(66.7%)	13(76.5%)	7(63.6%)
Circumcised men take too long to ejaculate	7(36.8%)	18(34.6%)	12(54.5%)
MC inhibits sexual satisfaction	0	15(37.5%)	22(41.5%)

### **SOCIO-ECONOMIC AND DEMOGRAPHIC FACTORS INFLUENCING WILLINGNESS TO BE CIRCUMCIZED**

Another set of factors that the HBM postulates as influencing health-seeking behavior are socio-economic and demographic variables that are said to interplay to bring about different attitudes towards circumcision, which in turn affect willingness to undertake circumcision. For example in Britain, class distinction is associated with circumcision. Circumcision traditionally indicated that a doctor had attended that birth (a marker of family wealth) rather than a midwife (more likely to be used instead by poorer people). The Royal Family and the upper classes are circumcised than the lower classes and those who left school before 17years or much less so (O'Farrell et al, 2005). Queen Victoria believed her family descended from King David (of the Biblical Old Testament) and sanctioned circumcision. Prince Charles was circumcised by a mohel (a rabbi who specializes in circumcision). Princess Diana decided that Princes William and Harry would go uncircumcised. However, it is suspected that William was later circumcised in

his teen years when it was announced that he went into hospital for a ‘hernia’ operation (regarded as ‘code’ for ‘circumcision’) (Morris, 2008).

Socio-economic stratification is seen in the USA as well. The US National Health and Lifestyle Survey saw higher circumcision rates among whites and the better-educated (Laumann et al, 1997). Similarly, in Australia, the higher socio-economic-educated groups in society had higher rates of circumcision (Richters et al, 2006). In English-speaking countries of Anglo-Celtic heritage, the upper ranks tend to be circumcised.

This section looks at the relationship between selected socio-economic variables and willingness to get circumcised. The main variables examined (Table 15) include age, ethnicity, religion, education, and income.

Data in Table 15 show that the age group most likely to indicate willingness to be circumcised is 20-24 years where more than half (53.3%) of the respondents indicated willingness followed by those in the age group 40-44 years (50.0%). This is significant because this is the most sexually active age-group (20-24 years). In terms of ethnicity, among the traditionally non-circumcising groups, Lozi respondents (58.8%) were more likely to indicate willingness to get circumcised than Tonga (41.2%), Nyanja (34.8%) and Bemba (32.3%) respondents indicating therefore that the Bemba speaking people are the least likely to take up circumcision.

Overall, only between 32.3% and 58.8% of men from traditionally non-circumcising ethnic groups indicated willingness to be circumcised. With regard to religious affiliation, Jehovah’s witnesses, Reformed church members as well as Presbyterians are less likely to embrace male circumcision as slightly 3 out of ten from each of these religious denominations indicated willingness to be circumcised. This is in contrast to the Adventists and Apostolic church members among whom more than half (55.6% and

**Table 15: Percent distribution of respondents indicating willingness to get circumcised by selected socio-economic and demographic characteristics**

Respondent characteristic	Percent indicating willingness to get circumcised
<b>Age group:</b>	
15-19	39.3
20-24	53.3
25-29	36.4
30-34	42.9
35-39	30.8
40-44	50.0
45+	0.0
<b>Ethnicity:</b>	
Bemba	32.3
Kaonde	100.0
Lozi	58.8
Nyanja	34.8
Tonga	41.2
<b>Religion:</b>	
Adventist	55.6
Apostolic	54.5
Baptist	38.5
Pentecostal	40.0
Presbyterian	37.5
Reformed	33.3
Jehovah's witness	33.3
Other	25.0
<b>Education:</b>	
Primary	66.7
Secondary	42.2
Tertiary	32.7
<b>Net Monthly Income:</b>	
Less than K100,000	42.8
K100,000-K500,000	50
K600,000-K1,000,000	40
K1,100,000-K1,500,000	14.8
K1,600,000-K2,000,000	33.33
Above K2,000,000	50

54.5%, respectively) indicated willingness to get circumcised. The results on the relationship between education and willingness to get circumcised (Table15) are quite surprising given previous findings elsewhere indicating a positive relationship between education and circumcision up-take. As mentioned earlier, circumcision rates have been found to be greatest among whites and those who are better educated, reflecting their exposure to and ability to evaluate and respond to scientific information about circum-

cision (Laumann et al, 1997). Due to the nature of their studies, and maybe their careers, the probability that the people with tertiary education might come across male circumcision literature is almost one. This does not seem to be the case in Zambia as demonstrated in Table 15 which shows that the proportion of respondents indicating willingness to get circumcised declines with level of education. Whereas 66.7 percent among those with primary education indicated willingness to get circumcised, the corresponding proportions among those with secondary and tertiary education are 42.2 percent and 32.7 percent, respectively. This is worrisome since it is this category of people with tertiary education who are much more learned and role models in society who are expected to be agents of change that are showing reluctance to get circumcised.

Another measure of high socio-economic status that does not seem to positively affect willingness to get circumcised is level of income. As a results, there is no clear and consistent pattern that emerges between the level of reported income and willingness to get circumcised. For example, the proportion of respondents earning less than K100,000.00 who indicated willingness to get circumcised is approximately 43 percent and this jumps to 50 percent but declines to 40 percent among respondents reporting an average income of between K100,000.00 and K500,000.00 and between K600,000 to K1,000,000.00, respectively. Among those reporting an income of K1,100,000.00 to K1,500,000.00, the proportion indicating willingness to be circumcised is only about 15 percent (14.8%). This figure increases to slightly more than three out of ten and to about half among those with a reported income of K1,600,000.00 to K2,000,000.00 and of those who reported an income above this figure, respectively.

## **CHAPER FOUR: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **Summary**

This study investigated knowledge and attitudes towards male circumcision in three residential areas of Lusaka by looking at (a) knowledge and misconceptions regarding HIV/AIDS among men in the three residential areas (b) sexual experience and current sexual behavior of men in the study sites, (c) awareness and attitudes towards male circumcision, (d) willingness to be circumcised, and (e) factors underlying willingness to be circumcised. Using non-probability purposive sampling, a total of 120 men were captured to whom a pre-tested questionnaire was administered. Most (95.9%) of the respondents were below the age of 40 which is the most sexually active age groups. Most (57.5%) of the respondents were single and only 27.5 percent were married. Ethnic representation (Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga) reflected the national composition of 93.3%. Most (92.5%) of the respondents indicated they had attended formal education with 53.1% claiming they had attended tertiary education, 40.7% secondary while only 6.2% of the respondents had gone up to primary level of education. Most respondents (83.2%) were sexually experienced and active with 39.8 percent having more than three sexual partners and only less than half (41.7%) had one sexual partner at the time of the survey.

A significant proportion of respondents can be said to be at risk of HIV infection as only 46.1 percent indicated having used a condom at last sex which, in most cases was out of marriage. Also only 34% indicated consistent condom use with non-marital sexual partners.

Other important highlights of the findings of this study are that awareness of male circumcision and its benefits is quite high among the sampled men as indicated by the 92.4% of the respondents who had heard of the procedure and by between 77.7% and

81.3% who were aware that male circumcision reduced chances of getting and transmitting HIV and AIDS and other sexually transmitted infections, respectively.

In spite of this awareness, only a small proportion of the respondents were circumcised at the time of the survey and only less than half indicated willingness to get circumcised. Fear of pain, stigma, and death and the perception that the procedure is too cumbersome and expensive emerge as the main obstacles to circumcision up-take among Zambian men. On the other hand, knowledge of a place where one can undergo the procedure, knowledge of a person who has been circumcised, as well as knowledge of an ethnic group that circumcises seem to be closely associated with willingness to undergo circumcision. In addition, knowledge that the government supports male circumcision as one of the preventive measures against HIV transmission is a potential catalyst to the up-take of the procedure as 44.6% revealed that they were aware that MOH is encouraging MC in the fight against the HIV and AIDS epidemic. Only slightly more than half (55.4%) indicated awareness that the Ministry of Health is currently advocating for this.

## **Conclusion**

From the findings of this study it can be concluded that a lot of people still have misconceptions regarding the modes of HIV and AIDS transmission which may translate into risky sexual behavior thereby contributing to the spread of HIV and AIDS. This is further supported by the finding that a lot of the respondents were not only sexually active, but also engaged in multiple extra-marital risky sexual relationships which expose them and their partners to the risk of HIV infection. In spite of this, there seems to be some reluctance among the respondents to undergo circumcision and this reluctance seems to be based on unfounded fears about the consequences of undergoing the procedure as well as the fact that only less than half of the respondents were aware that the Ministry of Health in Zambia encourages male circumcision as one of the preventive measures against HIV. It is encouraging to note that generally most

(81.3%) of the respondents do appreciate the role circumcision can play in reducing chances of HIV transmission as well as the fact that circumcision is not a vaccine against HIV infection. These are challenges that need to be immediately addressed if male circumcision is to contribute to the reduction in HIV transmission. The HIV and AIDS epidemic has come to stay in our midst. This means that both the current and future generations are more likely to suffer the consequences. If no appropriate measures are put in place, the infected, orphaned and dying numbers are likely to increase in the near future. This calls for concerted efforts and appropriate action in addressing the challenge. There is no single remedy that can mitigate HIV and AIDS. However, recent studies have revealed a positive relationship between male circumcision and a decrease in the risk of contracting and transmitting HIV, among others. Consequently, many calls have been made by stakeholders to promote circumcision of males. But before a lot of resources can be wasted in the scaling up of male circumcision, certain measures have to be put in place to ensure that perceived existing obstacles to male circumcision uptake are removed so that the male circumcision policy works out. Zambia is one of these countries working towards the rolling out of such a policy.

### **Recommendation**

Based on the findings of this study, the following recommendations are made.

1. Inconsistent condom use and multiple sexual relationships which this study has revealed suggest that the **ABC** campaign (i.e. Abstinence, Be Faithful and Condom use) is not yielding desired results. This underscores and justifies the need, not only to promote male circumcision as one of the preventive measures against HIV, but also to continue the **ABC** campaign with renewed vigor and in more innovative ways.
2. Misconceptions about negative consequences of undergoing circumcision need to be addressed and dispelled. As the results of this study reveal, a lot of people have not undergone circumcision not only because of the misconception that the operation is a painful undertaking associated with possible death but also because the procedure is

thought to be costly.

3. Government should quickly formulate and pass the male circumcision policy so that many people can come to understand government's position regarding male circumcision. Currently, the Ministry of Health seems not to have done enough so far in sensitizing people about the benefits of male circumcision in reducing HIV and AIDS.

4. Given the finding that very few respondents in this study cited the media (e.g. television, radio and newspapers) as their source of information about circumcision, there is need to find ways of making these, otherwise effective, tools more involved in disseminating information about male circumcision and its benefits.

5. A lot of Zambians, at one time or another, seek the services of traditional healers for various health-related issues and yet the findings of this study show that, for one reason or another, traditional healers have not been a major source of information about male circumcision. Consequently, it is highly recommended that ways be found to equip traditional headers, not only with appropriate information about the benefits of male circumcision, but also the skills to undertake the procedure. This will not only increase general awareness of male circumcision but will, eventually, encourage male circumcision even amongst non circumcising ethnic groups in Zambia.

6. There is need to encourage churches to include in their sermons messages on the benefits of male circumcision and encourage followers to undergo the procedure. Currently, as this study has demonstrated, majority, if not all, Zambians, claim affiliation to one religious denomination or another. Particular focus should be on those churches whose members, according to our study, are less willing to embrace male circumcision. These include Jehovah's Witnesses, Baptists, Pentecostal, Presbyterian and Reformed church. Only between 3 out of ten and 4 out of ten respondents from these religious denominations expressed willingness to be circumcised.

7. Apart from the media, the church and traditional healers, traditional ceremonies that are conducted by various ethnic groups in Zambia present other potentially effective avenues for promoting male circumcision and its benefits. Consequently, the



need to explore ways in which such ceremonies can include messages on male circumcision should be explored and implemented.

8. There is need to train more medical personnel and set up more centers to undertake circumcision to increase access to male circumcision. This will ensure that the process is less cumbersome which emerged as one of the reasons why a number of respondents had not been circumcised.

9. In terms of future research, there is need to investigate why education seems to be negatively associated with willingness to go for circumcision. This finding is not only counter-intuitive but is also at variance with most previous studies on the relationship between level of education attained and positive health-seeking behavior in general and male circumcision in particular.

10. Overall, there is need to encourage more and more people from the traditionally non-circumcising groups to embrace male circumcision as a strategy against HIV and AIDS.

11. There is also need to carry out a larger study on the same subject matter involving a larger sample that would also include both rural and urban areas.

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# Questionnaire



**THE UNIVERSITY OF ZAMBIA  
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES  
DEPARTMENT OF SOCIAL DEVELOPMENT STUDIES  
DEMOGRAPHY DIVISION**

**PROGRAMME: MASTER OF ARTS IN POPULATION STUDIES**

**TOPIC: KNOWLEDGE AND ATTITUDES TOWARDS MALE  
CIRCUMCISION IN THE ERA OF HIV AND AIDS**

**RESEARCHER: MWIINGA KALONGA**

**PLACE OF INTERVIEW:** \_\_\_\_\_

**QUESTIONNAIRE No.:** \_\_\_\_\_

**INTERVIEW DATE:** \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
DD MM YY



## SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

1. How old were you on your last birthday?

Number of years. \_\_\_\_\_

2. What is your marital status?

- (a).....Single
- (b).....Separated
- (c).....Married
- (d).....Divorced
- (e).....Widowed
- (f).....Cohabiting

3. If you are married, for how long have you been in this union?.....

4. What is your nationality?

- (a).....Zambian
- (b).....Other (specify). \_\_\_\_\_

5. Which ethnic group do you belong to?

- (a).....Bemba group
- (b).....Kaonde group
- (c).....Lozi group
- (d).....Lunda group
- (e).....Luvale group
- (f).....Nyanja group
- (g).....Tonga group
- (h).....Other (specify) \_\_\_\_\_

6. What is your religious affiliation?

- (a).....Adventist
- (b).....Apostolic
- (c).....Baptist
- (d).....Catholic
- (e).....Pentecostal
- (f).....Presbyterian
- (g).....Reformed
- (h).....Jehova's Witness

(i).....Other (specify). \_\_\_\_\_

7. Have you ever been to school?

- (a).....Yes
- (b).....No (**Go to Question 9**)

8. What is your highest educational qualification?

- (a).....Primary
- (b).....Secondary
- (c).....College/University



- (b).....False  
(c).....Don't know
15. Pulling out the penis before ejaculation prevents transmitting HIV/AIDS  
(a).....True  
(b).....False  
(c).....Don't know
16. All HIV+ pregnant women will give birth to HIV+ babies too  
(a).....True  
(b).....False  
(c).....Don't know
18. HIV can be spread by mosquitoes  
(a).....True  
(b).....False  
(c).....Don't know
19. HIV and AIDS are the same thing  
(a).....True  
(b).....False  
(c).....Don't know
20. A person infected with HIV can live for 5 years or more without developing AIDS  
(a).....True  
(b).....False  
(c).....Don't know
21. A person can get HIV/AIDS from vaginal secretions  
(a).....True  
(b).....False  
(c).....Don't know
22. A person can get HIV through blood transfusion  
(a).....True  
(b).....False  
(c).....Don't know
23. A person cannot get AIDS through kissing  
(a).....True  
(b).....False  
(c).....Don't know
24. A person can get HIV through hand-shake  
(a).....True  
(b).....False  
(c).....Don't know
25. Having more than one sex partner increases one's chances of contracting HIV/AIDS  
(a).....True  
(b).....False  
(c).....Don't know
26. Sharing needles/razor blades increases the risk of contracting HIV/AIDS  
(a).....True  
(b).....False  
(c).....Don't know
27. HIV/AIDS can be cured through western medicine  
(a).....True





- (a).....Cultural group
- (b).....Traditional healer
- (c).....Doctor
- (d)..... Nurse
- (e).....Other medical person
- (f)..... Newspaper
- (g).....TV
- (h).....Radio
- (i).....Magazine
- (j).....Internet
- (k).....Friend
- (l).....Relative
- (m)..Other(specify)\_\_\_\_\_

44. When was the first time you came to hear about male circumcision?

- (a)..... Days ago
- (b).....Weeks ago
- (c).....Months ago
- (d).....Years ago

45. Does your ethnic group circumcise males?

- (a).....Yes
- (b).....No
- (c).....Don't know

46. Do you know of any Zambian ethnic group that circumcises males?

- (a).....Yes
- (b).....No

47. Do you know of any group outside Zambia that circumcises males?

- (a).....Yes
- (b).....No

48. Do you know have any one who has been circumcised?

- (a).....Yes
- (b).....No

49. Are you aware the Ministry of Health encourages men to be circumcised as a way of reducing chances of HIV infection?

- (a).....Yes
- (b).....No

**PLEASE, INDICATE YOUR OPINION ON THE FOLLOWING STATEMENTS**

50a. Circumcised men take too long to ejaculate

- (a).....Agree
- (b).....Disagree
- (c).....Do not know

50b. Women enjoy sex more with circumcised men than with men who are not circumcised

- (a).....Agree
- (b).....Disagree
- (c).....Do not know

50c. Male circumcision inhibits sexual satisfaction.

- (a).....Agree
- (b).....Disagree
- (c).....Do not know

50d. Male circumcision reduces the risks of getting HIV/AIDS.

- (a).....Agree
- (b).....Disagree
- (c).....Do not know

50e. Male circumcision reduces chances of transmitting HIV/AIDS to other people

- (a).....Agree
- (b).....Disagree
- (c).....Do not know

46f. Male circumcision reduces the risks of getting other sexually transmitted diseases (STDs).

- (a).....Agree
- (b).....Disagree
- (c).....Do not know

50g. Circumcised men do not need to use a condom every time they have sex

- (a).....Agree
- (b).....Disagree
- (c).....Do not know

51. Give reasons to your answer above.

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52. Do you know of a place or places where one can be circumcised?

- (a).....Yes
- (b).....No (**Go to Question 53**)

53. If answer to the above question is **Yes**, where is this place? \_\_\_\_\_

54. At the place(s) mentioned above, is circumcision done free of charge?

- (a).....Yes
- (b).....No
- (c).....Don't know

55. If the answer to the above question is **No**, how much is one charged to get circumcised? K \_\_\_\_\_

56. In your opinion is this amount affordable to most people?

- (a).....Yes
- (b).....No
- (c).....Don't know

57. Would you be willing to be circumcised?

- (a).....Yes
- (b).....No (**Go to Question 64**)
- (c).....Not applicable (already circumcised)

**(Go to Question 65)**

58. If you are willing to be circumcised, why have you not yet undergone the operation?

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59. If you are willing to be circumcised would your sexual partner (wife or other) approve of your decision?

- (a).....Yes
- (b).....No
- (c).....Don't know

60. If your answer to the above question is **No**, why do you think your partner would oppose your decision to get circumcised?

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61. If your partner opposed your decision to get circumcised, would you still go ahead and undergo the operation?

- (a).....Yes
- (b).....No

62. If you are willing to get circumcised, whom would you prefer to undertake the operation?

- (a).....Traditional Healer
- (b).....Any qualified medical person
- Other..(specify)\_\_\_\_\_

63. Give reasons for your preference above.\_\_\_\_\_

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64. If you are not willing to be circumcised, what are your main reasons?

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65. Would you recommend a male relative or friend to undergo circumcision?

- (a).....Yes
- (b).....No

66. Give reasons for your answer above\_\_\_\_\_

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67. Studies conducted in other parts of the world have concluded that male circumcision can significantly reduce HIV transmission. Have you heard of this?

(a).....Yes

(b).....No

(c).....Don't know

68. Do you agree with the findings that circumcision reduces chances of HIV infection?

(a).....Yes

(b).....No

69. Give reasons for your answer above. \_\_\_\_\_

\_\_\_\_\_

70. In your view, what are the benefits of getting circumcised?

\_\_\_\_\_

\_\_\_\_\_

77. In your own view, what are the main disadvantages of getting circumcised?

\_\_\_\_\_

\_\_\_\_\_

THANK YOU FOR YOUR COOPERATION