

**Acceptability of medical male circumcision among uncircumcised young men at Mansa
College of Education, Zambia: influence of perceptions about effects on male sexuality**

by

Andrew Josephat Mlewa

*Assignment presented in partial fulfillment of the requirements for the
degree of Master of Philosophy (HIV/AIDS Management) in the Faculty of
Economics and Management Science at Stellenbosch University*



Supervisor: Dr Thozamile Qubuda
Co-supervisor: Dr Margaret Phiri Kasaro

March 2013

Declaration

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: March 2013

Abstract

Research focus:

Voluntary Medical Male Circumcision (VMMC) is one of the top priority interventions for HIV prevention in Zambia. However, the country is struggling with scale-up of this intervention. New insights into factors that facilitate or impede its acceptability in non-circumcising communities are urgently needed, including the influence of perceptions about effects of circumcision on sexuality.

Research methods:

To gain new insights into these factors 24 uncircumcised young men and seven young women were recruited to participate in the study. Using ten In-depth interviews and three focus group discussions, the study examined perceptions about effects of MMC on male sexuality and the influence on acceptability of the procedure.

Results/findings:

Despite doubts about its efficacy, the research found overwhelming support among uncircumcised men for circumcision as a tool for preventing HIV. The study also found that uncircumcised men have specific perceptions and concerns about how male circumcision positively or negatively affects sexual function/performance and pleasure in men and for women. These perceptions were found to be important considerations for accepting circumcision among the majority of male respondents. Circumcision preference among female respondents was because of the perception that it protects men against HIV and women against cervical cancer.

Main conclusions and recommendations:

There was overwhelming support for male circumcision among uncircumcised men in the study, majority of who consider protection against HIV as the most important reason for accepting the procedure. More than half of the male respondents saw it as important for enhancing sexual performance and sexual pleasure for themselves and their sexual partners.

Key recommendations include: development of effective community-based demand generation strategies that include use of multiple channels that address the main barriers to acceptability; conduct further research on facilitators of MMC acceptability; conduct research

on effects of circumcision on male sexuality, risk compensation and sexual disinhibition among circumcised men. These measures will contribute to the design of more effective Information Education Communication (IEC) strategies and activities.

Opsomming

Navorsingsfokus:

Vrywillige mediese manlike besnydenis (VMMB) is een van die hoofprioriteitsintervensies vir MIV-voorkoming in Zambië. Tog sukkel die land om hierdie intervensie uit te brei. Daar is dus 'n dringende behoefte aan nuwe insig in die faktore wat bepaal hoe maklik of moeilik gemeenskappe wat nie aan besnydenis glo nie, die intervensie sal aanvaar. Dít sluit in die invloed van opvattinge oor die effek van besnydenis op seksualiteit.

Navorsingsmetode:

Om nuwe insig in hierdie faktore te verkry, is 24 onbesnyde jong mans en sewe jong vroue gewerf om aan die studie deel te neem. Met behulp van tien diepteonderhoude en drie fokusgroepbesprekings het die studie ondersoek ingestel na die opvattinge oor die effek van MMB op manlike seksualiteit, en in watter mate dit die aanvaarbaarheid van die prosedure beïnvloed.

Resultate/bevindinge:

Ondanks twyfel oor die doeltreffendheid van die prosedure, dui die navorsing daarop dat onbesnyde mans oorweldigend ten gunste is van besnydenis as instrument om MIV te voorkom. Die studie bevind ook dat onbesnyde mans bepaalde opvattinge het oor die hetsy positiewe of negatiewe uitwerkinge van manlike besnydenis op seksuele funksionering/prestasie en genot vir mans sowel as vroue. Vir die meeste manlike respondente blyk hierdie opvattinge belangrike oorwegings te wees in die aanvaarding van besnydenis. Vrouerespondente se voorkeur vir besnydenis kan toegeskryf word aan die opvatting dat dit mans teen MIV en vroue teen servikskanker beskerm.

Hoofgevolgtrekkings en -aanbevelings:

Die onbesnyde mans in die studie is oorweldigend ten gunste van manlike besnydenis. Die meeste van hulle beskou beskerming teen MIV as die belangrikste rede om die prosedure te aanvaar. Meer as die helfte van die manlike respondente reken ook besnydenis is belangrik om seksuele prestasie en genot vir hulself sowel as hul bedmaats te verhoog.

Hoofaanbevelings sluit in die ontwikkeling van doeltreffende gemeenskapsgebaseerde vraagverhogingstrategieë, wat onder meer van verskeie kanale gebruik maak om die hoofversperrings vir aanvaarbaarheid uit die weg te ruim; verdere navorsing oor faktore wat

MMB-aanvaarbaarheid fasiliteer, sowel as navorsing oor die effek van besnydenis op manlike seksualiteit, risiko-kompensasie en seksuele disinhibisie onder besnyde mans. Inligting hieroor sal bydra tot die ontwerp van doeltreffender inligting-en-opvoedingstrategieë en -aktiwiteite.

Acknowledgement

First of all the researcher would like to thank the 31 participants who took part in the in-depth interviews and focus group discussions, and the principal and registrar for Mansa College of Education (MCE), who gave consent to their participation. My heartfelt appreciation also go to Mr Lwansa Chela the Registrar for MCE who assisted the researcher in identifying potential respondents, making appointments and confirmations for the In-depth interviews and focus group discussions.

The researcher would also like to sincerely thank Dr Chitalu Chilufya who provided him with accommodation while in Mansa and Mr Christopher Sinyinza who provided him with transport during the entire duration of the research. The researcher would further like to thank his sister Esnea Mlewa who facilitated his accommodation in Mansa. Last but not least the researcher would like to acknowledge the support and guidance provided by his principal Supervisor at Stellenbosch University in South Africa, Dr Thozamile Qubuda and Co-supervisor in Zambia, Dr Margaret Phiri Kasaro.

Table of Contents

Declaration.....	ii
Abstract.....	iii
Opsomming.....	v
Acknowledgements.....	vi
Chapter I: Background of the study.....	1
1.1 Introduction.....	1
1.2 Rationale of the study.....	3
1.3 Research problem.....	4
1.4 Research question.....	4
1.5 Significance of the study.....	5
1.6 Aims and objectives of study.....	5
1.7 Theoretical framework for study.....	5
1.8 MMC acceptability conceptual framework.....	6
1.8.1 Figure 1. MMC acceptability Conceptual Framework.....	8
Chapter II: Literature review.....	9
2.1 Acceptability for MMC- the evidence.....	10
2.2 Perceptions about MMC and sexuality.....	12
2.3 Perceptions about MMC and sexuality in Zambia.....	14
2.4 Perceptions about negative effects of MMC on sexuality.....	15
2.5 Sexual consequences of MMC- the evidence.....	17
2.6 MMC and sexual pleasure for women-the evidence.....	18
2.7 Key definition of terms:.....	20
Chapter III: Research design and methods.....	20
3.1 Study design.....	22
3.2 Study site.....	23
3.3 Study population.....	23
3.4 Sample size.....	23
3.5 Data collection.....	23
3.6 Data analysis.....	24
3.7 Research limitations.....	25
3.8 Ethical consideration.....	26

Chapter IV: Results and findings.....	25
4.1 Demographic characteristics of respondents.....	27
4.2 MMC programme in Luapula province	27
4.3 Summary: perceptions about impact of MMC on male sexuality.....	27
4.5 Key themes.....	28
4.6 Sexual reasons that facilitate acceptance of MMC	28
4.7 Other reasons that facilitate MMC	34
4.8 Sexual reasons that impede circumcision.....	37
4.9 Other reasons that impede acceptance of MMC	38
Chapter V - Discussion of findings.....	43
5.1 MMC programme performance in Luapula province	43
5.2 Sexual behaviour context of MMC in Zambia.....	44
5.3 Perceptions about effects of MMC on Sexuality	44
5.4 Male circumcision in the context of male sexuality.....	50
5.5 Physical pleasure and male circumcision.....	51
5.6 Sexuality theory and medical male circumcision.....	54
5.7 Acceptability of MMC: role of theories and models of behaviour change.....	54
5.8 Other reasons that facilitate MMC	57
5.9 Sexual reasons that impede circumcision.....	61
5.10 Other reasons that impede acceptance of MMC	61
Chapter VI: Conclusion and recommendations	66
Recommendations.....	68
References.....	69
Appendices.....	80

Chapter I: Background of the study

1.1 Introduction

In 2007, the World Health Organisation (WHO) and UNAIDS (WHO/UNAIDS, 2007) recommended urgent roll out of voluntary medical male circumcision (VMMC) to 13 priority countries in Sub-Saharan Africa, all countries with low male circumcision prevalence and generalised epidemics with high HIV prevalence. Zambia was one of the countries, with HIV prevalence now estimated at 14.3% (CSO, 2007) and male circumcision prevalence estimated at 17% (Ministry of Health, 2012). The recommendation came after three randomised controlled trials successfully demonstrated the partial protective effect of male circumcision against HIV during vaginal sex. In Kenya the protective effect was 53% (Bailey, Moses, Parker, Agot, Maclean, Krieger, Williams, Campbell, & Ndinya-Achola, 2007). In Uganda it was 51% (Gray, Kigozi, Serwadda, Makumbi, Watya, Nalugoda, Kiwanuka, Moulton, Chaudhary, Chen, Sewankambo, Wabwire-Mangen, Bacon, Williams, Opendi, Reynolds, Laeyendecker, Quinn & Wawer, 2007). The South African trial showed a protective effect of 61% (Auvert, Taljaard, Lagarde, Sobngwi-Tambekou, Sitta & Puren, 2005).

Other observational studies (Gebremedhin, 2012; Weiss, Quigley & Hayes, 2000) assessing the protective effect of male circumcision from HIV infection confirm the significant association between being uncircumcised and HIV risk; the risk (with statistical significance of $P < 0.05$) for circumcised men was found to be half that of uncircumcised men. A model-based study (Andersson, Owens, & Paltiel, 2010) examined the influence of male circumcision on heterosexual transmission of HIV transmission in Southern Africa and found that circumcision programs could prevent a substantial number of new infections in Africa targeting 10-20% of uncircumcised men each year.

A thorough epidemiological, Modes of Transmission analysis (MOT) in 2009 in Zambia identified low prevalence of male circumcision as one of three primary drivers of new HIV infections in the country (National AIDS Council and UNAIDS, 2009). According to the MOT analysis, available data shows that HIV prevalence in circumcised men is slightly lower; 13% of men who report being circumcised had an HIV prevalence of 10.8% and uncircumcised men had an HIV prevalence of 12.5%. This association, however, needs

further analysis to take into account confounding factors. For instance it is not clear if men who reported being circumcised were HIV infected prior to their circumcision. The MOT concluded that Zambian population level data on the relationship between reported circumcision and HIV prevalence needs further analysis. There is however overwhelming evidence from ecological and biomedical studies (discussed below) in many African countries that male circumcision is highly effective in reducing HIV transmission from women to men.

Further, a recent assessment (MOH, 2012) of the potential impact and costs of scaling-up male circumcision in Zambia found that expanding medical male circumcision (MMC) coverage to 80% of adult men and boys by 2015 would avert an estimated 486,000 new HIV infections, approximately 50% of all new infections. The country's National Strategic AIDS Framework for 2011-2015 aims to reduce incidence from the current 1.6% (about 82, 000 new annual infections) to below 0.8% (40,000 new annual infections) by 2015 (NAC, 2010). Preventing new infections is therefore a priority for slowing Zambia's epidemic. The Country Operational Plan (2012-2015) for the Scale-up of Voluntary Medical Male Circumcision (MOH, 2012) has set the goal of 80% male circumcision coverage among uncircumcised, HIV-negative men between the ages of 15 and 49 years by 2015 (1.9 million circumcisions between 2012-2015). This has been aptly referred to as the "catch-up phase" by MOH.

Admittedly, there is an urgent need for a dramatic increase in male circumcision scale-up rates in order for the country to reach its ambitious goal. The National Male Circumcision Strategy and Implementation Plan 2010 – 2020 (MOH, 2009) says Zambia needs to increase the number of circumcisions to 100,000 per year by the end of 2010 and up to 300,000 per year by 2014 in order to reach its goal of 80% coverage or 1.8 million circumcisions. However, by December 2011, the country had cumulatively circumcised over 167,000 males countrywide since 2007 when the VMMC program was launched. This is despite some evidence which purports high acceptability of VMMC in Zambia (Friedland, Hewett, Apicella, Schenk, Sheehy, & Manda, 2011; Sanjobo, Mbalwe, Chikungu, 2010; Lukobo & Bailey, 2007; Ministry of Health, 2009). In contrast, the Zambia Sexual Behaviour Survey (CSO, 2007) found that many males had no desire to be circumcised; 78% among males in the age range 15-19, 74% among those in the 20-24 age range and 83% among those between 25-59 (CSO, 2009). This is despite increasing availability of free MMC.

It has been noted, however, that availability of the intervention does not automatically translate into its acceptability; the less than impressive numbers highlighted above bear testimony to this. However, acceptability is a key factor for successful scale up in Zambia and although acceptability is purported to be high, in both traditionally circumcising (North-Western province) and non-circumcision areas of Zambia, barriers, information gaps and fears about VMMC persist, particularly in non-circumcising communities (NAC/UNAIDS, 2009). A wide range of concerns about pain, death, deformity to the penis, complications, long healing process, and loss of fertility (MOH, 2009; Friedland et al., 2011.) are key barriers to improving acceptability.

One important dimension of VMMC not very well understood the world over is whether perceptions among would be clients that MMC enhances sexual performance and sexual pleasure for the man and woman, have the potential to facilitate or impeded the procedure's acceptability. Unfortunately, and although highlighted in a number of studies (see below), this dimension has not been explored in any great detail anywhere. How these perceptions might facilitate or impede acceptability and subsequent decision making and uptake of VMMC is not very well understood in Zambia either and cannot be ignored because of the implications this might have for acceptability of male circumcision. For example there is some evidence in Zambia that sexual performance and sexual pleasure are perceived among young men to be more important reasons for circumcising than HIV prevention which they consider to have partial protective value against HIV (Friedland et al., 2011). Clearly research and program efforts need to focus on improving not only availability, quality and safety of the procedure but its acceptability in the context of male sexuality. The National Prevention Strategy has explicitly called for more research on male circumcision in Zambia to focus on this dimension of sexuality (NAC/UNAIDS, 2009).

1.2 Rationale of the study

Thousands of men have been circumcised in Zambia; many more will be circumcised in years to come. Circumcision seems to be primarily about sex; as with condoms, it concerns men's penises. But unlike condoms which can be worn and removed, the procedure involves permanent alteration of the penis through the removal of 30-50% of the penile foreskin, said to contain the most sensitive parts on a penis (Sorells, Snyder, Reiss, Eden, Milost, Wilcox, & Van Howe, 2006; Kim DaiSik & Pang Myung-Geol, 2006). The foreskin is said to have an

important role in sexual function and pleasure for the man and there have been claims, even for the woman as well. If this is true, it is important to understand men's perceptions about the effect of the procedure on sexual performance and sexual pleasure for the man *and* woman, and the extent to which these perceptions either facilitate or impede acceptability of VMMC. Critical questions need to be explored that could inform the design of VMMC interventions. For instance, are men circumcising primarily because they believe this will enhance their sexual performance, theirs and their partner's sexual pleasure and are therefore downplaying the protective role of circumcision against HIV? Or are they not accepting to circumcise for fear of damage to their penis and the perceived decrease in sexual performance, pleasure, and loss of fertility etc. that might come with MMC?

Understanding these questions is important to policy makers and programme developers because they provide clues about how VMMC programmes can help change the way men think about their own sexuality and in relationships in the context of HIV and AIDS. An opportunity therefore exists for us to explore and increase our current understanding of acceptability to include issues related to male sexuality, and female sexuality to some extent. Rightly so, the WHO (2002, p. 5) defines sexuality as "a central aspect of being human throughout life" which involves sex (i.e. intercourse), pleasure, intimacy and reproduction.

1.3 Research problem

VMMC is one of the top priority interventions for HIV prevention in Zambia. However, the country is struggling with scale-up of this intervention. New insights into factors that facilitate or impede its acceptability in non-circumcising communities are therefore urgently needed. The Country Operational Plan for the scale-up of VMMC (2012-2015) notes: 'thus far, the number of VMMCs performed each year has fallen short of annual targets' (MOH, 2012, p.11). The estimated 84, 604 circumcisions performed in 2011 represented only 56% of the 150,000 target for that year. To achieve population level impact of VMMC on HIV transmission, the country needs to achieve 80% coverage among HIV negative young adult males (WHO/UNAIDS, 2007).

1.4 Research question

Are perceptions among uncircumcised young men about the effects of Medical Male Circumcision on sexuality a facilitator of or barrier to its acceptability in non-circumcising

communities?

1.5 Significance of the study

The study is important because it will hopefully contribute new insights into the interface between medical male circumcision and sexuality, specifically, about whether perceptions about effects of MMC on male sexuality facilitate or impede its (VMMC) acceptability. The research is important to policy makers, program designers and implementers because results from the study will contribute towards improving current male circumcision information, education and communication (IEC), pre- and post-procedure counselling about the long term benefits and risks including those related to male sexuality. The minimum package in Zambia's National Male Circumcision Plan (MOH/WHO, 2012, p. 5) highlights the need to address "sexuality", and developing communication materials that are "*technically accurate and comprehensive*".

1.6 Aims and objectives of study

To increase our understanding about whether perceptions about the effects of medical male circumcision on male sexuality are a facilitator of or barrier to acceptability of VMMC for HIV prevention among young men in non-circumcising communities, in order to contribute new knowledge that will improve VMMC programming.

Objectives:

- To explore young men's perceptions about medical male circumcision for HIV prevention in a non-circumcising community
- To assess men's and women's perceptions about the effects of male circumcision on male sexuality
- To assess the role of these perceptions as facilitators of and barriers to acceptability of VMMC for HIV prevention
- To make recommendations about how to improve VMMC information, education and communication (IEC), pre- and post-procedure counselling about the long term benefits and risks including those related to sexuality

1.7 Theoretical framework for study

The overriding goal of this study is to generate new theoretical understanding of the interface between male circumcision and sexuality and more specifically, whether perceptions about

impact of the procedure male sexuality facilitate or impede its acceptability among young uncircumcised men. The study will use the Interpretive Paradigm as its theoretical framework, which focuses on the interpretation of reality as seen and experienced by people and the meanings attached to this reality, used to understand and explain their lives (Sarantakos, 1997). The study will apply the grounded theory approach, developed by Glaser and Strauss (1967) which argues that theory is 'grounded' because it is "related to, emerges out of, and is created through and grounded on empirical data" (Sarantakos, 1997, p. 200). The purpose of this approach according to Sarantakos is for the researcher to "understand people, not to measure them" (Sarantakos, 1997, p. 200). He further observes that this approach is not about collecting huge volumes of data but about "organising the variety of thoughts and experiences the researcher gathers during analysis of data" (Sarantakos, 1997, p. 200).

1.8 MMC acceptability conceptual framework

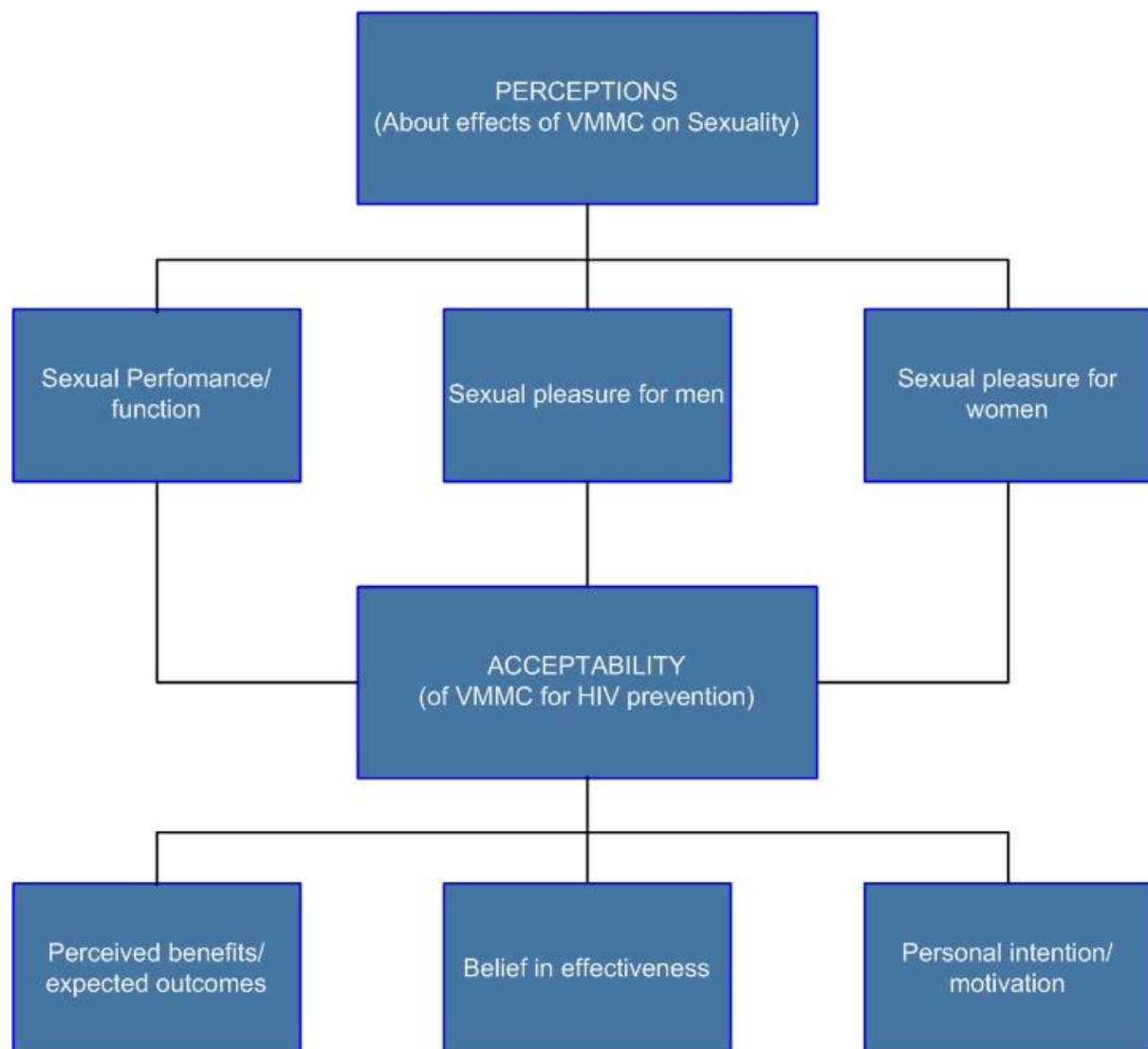
The conceptual framework depicted in the diagram (figure 1.8) below shows the two main constructs that will guide the study; acceptability of medical male circumcision (MMC) and perceptions of the impact of MMC on male sexuality. The framework is meant to explore the interface between the two constructs and to what extent this interface either facilitates or impedes acceptability of VMMC. Based on previous acceptability studies (discussed below), the researcher makes the assumption that because of the centrality of sexuality in people's lives, perceptions about the effects of MMC on male sexuality are likely to be a significant facilitator of or barrier to its acceptability among men in non-circumcising communities.

What men do with or without their foreskins is important for HIV prevention. If one of the main reasons men are accepting to remove their foreskins is because they believe it will improve their sex lives or if the reason they are holding back is because they believe it will ruin their sex lives, it is urgent to understand how male circumcision for HIV prevention is shaping or redefining men's sexuality, if indeed it is. The framework will thus use the three most commonly used indicators associated with sexual activity, namely sexual performance, sexual pleasure for men, and sexual pleasure for women (Westcamp & Bailey, 2006) to assess and predict acceptability of medical male circumcision among uncircumcised men. Acceptability will further be analysed using selected theoretical constructs, namely: perceived benefits/outcome expectancies, intention, pre-contemplation, contemplation,

preparation and cues to action in relation to acceptance of male circumcision. The constructs are borrowed from four behaviour change theories: the Health Belief Model, Social Cognitive Theory, Theory of Reasoned Action, the Stages of Change Model and the Diffusion of Innovation Theory (UNAIDS, 1999; Bandura, 1992; Fishbein, Middlestadt, & Hitchcock, 1991; Rosenstock, Strecher, & Becker, 1974 In DiClemente, & Peterson, 1994).

Another key assumption being made is that circumcision-seeking behaviour is significantly influenced by an individual's psychological processes such as perceptions, attitudes and beliefs that an individual has. In non-circumcising areas decisions about circumcision would appear to be a matter of individual preference for men. A 2010 household survey (MOH, 2012) in five provinces in Zambia used the stages of change behaviour change model to assess willingness to circumcise among male respondents (age 15-35). The survey found 30% of the "not circumcised" reported contemplating accessing MMC services in the near future and 22% of the "not circumcised" were considered in preparation stage for accessing MMC services (i.e. meaning they had undertaken critical steps such as talking to a health provider about MMC).

1.8.1 Figure 1. MMC acceptability conceptual framework



Chapter II: Literature review

The roll out of VMMC as an intervention for HIV prevention in Sub Saharan Africa with its high HIV prevalence and low male circumcision prevalence followed three successful clinical trials (Auvert et al., 2005; Gray et al., 2007; and Bialek et al., 2007) in Africa which showed the procedure could protect against HIV. Prior to the clinical trials, some 37 observational studies (Sawires, Dworkin, Fiamma, Peacock, Szekeres, & Walker, Williamson, 2003) demonstrated strong epidemiological association between male circumcision and prevention of HIV, especially in high risk groups. A review by Sigfried, Muller, Volmink, Deeks, Egger, Low, Weiss, Walker and Williamson (2003) assessed the likelihood that circumcision will reduce heterosexual transmission of HIV to men, as opposed to past studies that focused on correlation between circumcision and HIV prevalence. Of the 37 studies reviewed by Siegfried and colleagues, 18 were among the general population and 19 among high risk populations. Of the 18 general population studies, 12 reported circumcision as having a beneficial effect with 9 being statistically significant. All 19 high risk population studies demonstrated a beneficial effect. Another review found compelling evidence of a substantial protective effect of male circumcision against HIV infection in sub-Saharan Africa, especially in populations at high risk of HIV/STIs (Weiss, Quigley & Hayes, 2000).

Unfortunately, efficacy alone, as we have learned with condoms, is not sufficient to ensure acceptance and uptake of an intervention. Acceptance of this latest biomedical intervention in traditionally non-circumcising communities is slow judging by the circumcision prevalence levels in a number of African countries. While a number of acceptability studies (discussed below) generally purport high acceptability of male circumcision in sub-Saharan Africa, the generalizability of acceptability results should be treated with caution. Acceptability may be limited by the context in which such studies are conducted. For example, a number of factors may influence acceptability, including whether an area is circumcising or non-circumcising, the reasons for circumcising - namely whether it is done for preventing HIV or other diseases, hygiene, cultural or religious reasons. But what and how much is known about acceptability in Sub-Saharan Africa?

2.1 Acceptability for MMC- the evidence

It is important to point out at the outset that very few formal acceptability surveys have been published in peer reviewed journals or presented at international conferences. One of the most extensive study collection and search by Westercamp and Bailey (2006) yielded 13 articles that were directly related to the acceptability of circumcision in sub-Saharan Africa with ten of the studies including both male and female participants. A comprehensive review (Westercamp & Bailey, 2006) of the studies among non-circumcising communities (see Annex 1 below) found that on average, the proportion of men willing to be circumcised was 65%. The range in the different countries reviewed was between 29% and 87%. In the same review, 69% of women favoured circumcision for their partners. In Kenya, Bailey, Muga, Poulusen, and Abicht (2002), in their study among the Luo, a large, traditionally non-circumcising ethnic group in western Kenya, found that 60% of uncircumcised men would accept circumcision while 62% of the women would prefer their male partners to be circumcised. Next door in Tanzania one study in a traditionally circumcising community, found that there is a shift from traditional male circumcision to medical male circumcision, creating a timely opportunity for introducing safe services and creating demand for it (Wambura, Mwanga, Mosha, Mshana, Mosha & Changalucha, 2011).

Another study in Tanzania among policemen in Da res Salaam provides important evidence about the perceived benefits of circumcision: the study found that knowledge, beliefs, perceptions and attitudes towards male circumcision influence the acceptability of male circumcision among adults (Tarimo, Francis, Kakoko, Munseri, Bakari & Sandstorm, 2012). Further south in Botswana, Kebaabetswe, Lockman, Mogwe, Mandevu, Thior, Essex and Shapiro (2003) 61% men said they would “probably or definitely” circumcise if the procedure was free and hospital-based. In the same study the proportion went up to 89% after exposure to information about circumcision, proving the importance of information about this very complex intervention. A study among adolescents and young adults in Rwandan found that they were “more willing to be circumcised” with 50% saying they were willing to undergo the procedure (Gasasira, Sarker, Tsague, Nsazimana, Gwiza, Mbabazi, Karema, Asiiimwe, & Mugwanez, 2010, p. 4). This is encouraging because studies have demonstrated that MMC is most effective when it is applied to 20-30 year old risky males. Its effectiveness reduces when applied to the wider male population (Londish, & Murray, 2008).

In their study in South Africa, Lagarde, Emmanuel, Dirk, Taljaard, Puren, Adrian, Reathe, Rain-Taljaard., and Auvert (2003) found more than 70% of men would prefer circumcision

and 18% of non-circumcised men thought circumcised men could safely have sex with multiple partners. Sexual disinhibition has been documented as a key concern that has potential to negate the success of this intervention where some men are reported to see it as a 'natural condom'.

A study (Lukobo & Bailey, 2002) in Zambia conducted in a mere four out of 72 districts and involving only 34 focus group discussions concluded that the procedure was acceptable. Interestingly, out of 34 focus group discussions, eight were in traditionally circumcising areas where circumcision is near universal. This reinforces the point made earlier about treating acceptability surveys with caution. Apart from the North-western province which is traditionally circumcising in Zambia, the few studies highlighted above suggest it is acceptable in the country. The less than impressive circumcision numbers discussed above suggest it may not be as acceptable as has been suggested by the few studies whose coverage has been extremely limited.

Other later studies conducted in Africa are consistent with findings of earlier studies in Africa. In Kenya, a study by Mattson, Bailey, Muga, Poulssen, and Onyango (2005) found 60% of men willing to circumcise and 69% of women who said they would prefer circumcised men. Another community based survey in a non-circumcising community of Kenya which sought to learn more about factors contributing to acceptability and preference for male circumcision among uncircumcised men and women, found that 60% of men reported preference to be circumcised and 68% of women preferred a circumcised partner (Westcamp, Agot, Ndinya-Achola & Bailey, 2011).

An even more recent qualitative study in Malawi carried out in four districts by Ngalande, Levy, Kapondo, & Bailey (2006) concluded that "MC is likely to vary by region, but many men and women would welcome MC services if they were safe, affordable and confidential"(2006, p. 383). In the same country, a longitudinal study (Pierotti, & Thornton, 2012) found that among a large sample (approximately 1,700) of uncircumcised men, approximately 50% indicated willingness for a circumcision, but less than eight per cent actually did get circumcised in the year between the baseline and follow-up surveys. In a rural Zulu population in South Africa, acceptability rates were almost comparable as was found elsewhere; 51% of uncircumcised men favoured circumcision and 68% of women preferred their partners to be circumcised (Scott, Weiss & Viljoen, 2005). In Uganda,

between 40% and 62% uncircumcised men would consider circumcision (Albert, Akol, L'Engle, Tolley, Ramirez, Opio, Tumwesigye, Thomsen, & Baine, 2011).

The evidence presented above appears to show compelling evidence about high acceptance of MMC in sub-Saharan Africa; but as discussed above, acceptability cannot be generalised as this tends to vary depending on the context. Contextual variables noted in the study samples for the studies discussed above include groups that were ethnically mixed, ethnically homogeneous, varying education levels and marital status, as well rural and urban differentiation. Some groups consisted only of adults and adolescents, sex workers, traditional and medical providers. The all-important selection criterion was communities that were non-circumcising. It has also been pointed out by some studies that the way questions are framed can influence the perceptions about MMC, giving the impression of acceptability when this may not be the case; the case of the Botswana study is a case in point where participant's willingness to circumcise increased after immediate exposure to information. For example if people are asked about their willingness to participate if the procedure "was safe and affordable", or if "it could prevent HIV and STIs", or "if it could help keep the penis clean", the responses and the suggested acceptability might vary.

Nevertheless, acceptability of male circumcision appears high considering the studies were conducted in non-circumcising areas; the reasons for this apparent high acceptability varied and were based on cultural, ethnic, and religious identity. Personal hygiene was universal as a reason for wanting circumcision, followed by protection from STIs and HIV, as well as sexual performance and pleasure. As indicated, Tarimo et al. (2012) found that knowledge, beliefs, perceptions and attitudes towards male circumcision seem to influence the acceptability of male circumcision among adults. Interestingly, perceptions about effects of MMC on sexual performance and pleasure are common in a number of the studies highlighted above and discussed below.

2.2 Perceptions about MMC and sexuality

Several studies (Bailey et al., 1998; Mattson et al., 1999; Ngalande et al., 2003; Lagarde et al., 2001; Scott et al., 2002; Rain-Taljaard et al., 2000; (Nnko, Washija, Urassa, & Beorma, 2001), 1997; Lukobo & Bailey, 2007 – see Annex 1) conducted in the sub-Saharan region highlight the fact that even though personal hygiene and protection from STIs/HIV are major

reasons for accepting VMMC sexual reasons may play an influential role in acceptability of the procedure. Westercamp and Bailey (2006, p. 8) observed that “How circumcision is perceived to influence sexual drive, sexual performance, and sexual pleasure for the man himself or for his partners is likely to influence decision making around MC.” According to Westercamp and Bailey (2006), most studies assessed three factors associated with sexual activity based on circumcision status (i.e. circumcised or uncircumcised), namely sexual performance, sexual pleasure for men and sexual pleasure for women and found these factors to be a significant reason for circumcision preference both by men and women.

A study in South Africa by Scott et al. (2010) found that sexual reasons for circumcising may be more influential than other reasons, noting that “men were 8 times more likely to accept male circumcision if they believed that circumcised men enjoyed sex more, and 6 times more likely to accept circumcision if they believed women enjoyed sex more with circumcised men.” The South African study also found that older men were more likely to be motivated to circumcise in order to give a woman sexual pleasure. A study in rural Uganda by Wilcken, Miir-Nakayima, Hizaamu, Keli, and Balaba-Byansi (2010) found that enhanced sexual pleasure was considered a reason to get circumcised significantly more often by uncircumcised than circumcised men (18.9% versus 2.4%). Further, men considered enhanced sexual pleasure twice as often a reason to circumcise than females (4.8% versus 9.2%). In one study (Mattson et al., 2005, p. 182) in neighbouring Kenya, acceptability was at 60% among men and 68% among women.

Further, in the same study Mattson and colleagues concluded that the strongest predictor of circumcision preference among men and women even after controlling for education employment, beliefs about circumcision status and disease, was related to “the perception that women enjoy sex more with circumcised men because they have more feeling in their penises, enjoy sex more, and confer more pleasure to their partners” (2005, p. 182). In another study (Obure, Nyambedha, Oindo, & Koderu, 2009) in Kenya among non-circumcising Luos, a contrary view was that a circumcised penis loses sensitivity which was perceived as a good thing because it prolonged sex before ejaculation, thus rendering greater satisfaction to women. Circumcised men are perceived by both men and women as having the ability to sustain sexual activity, giving more satisfaction to their female partners.

Plotkin, Kuver, Curran, Mziray, Prince, and Mahler, (2011) found somewhat mixed results with perceptions varying in the same non-circumcising region of Iringa region of Tanzania, both among men and women. Half the women in the study felt that sex with an uncircumcised man is painful during sex (what they referred to as “pinching”), and hence the preference for a circumcised man. Some men in the study thought that the procedure would reduce sexual sensation while, others thought such men climaxed earlier and yet still others felt that circumcised men took longer to climax which they thought was good for the woman. In Malawi, men and women also perceived a circumcised man as having less penile sensitivity and taking longer to ejaculate, and deriving more pleasure for himself and for his partner (Ngalande et al., 2006).

In Uganda, participants in a study there also perceived circumcision as increasing men’s sex drive and a woman’s pleasure, something that was viewed as an important benefit by many (Albert et al., 2011). A study (Nnko et al. 2001) in Tanzania found perceptions that confirm the importance of enhanced sexual performance and sexual pleasure for the man and the woman, as being motivating factors for getting circumcised. A study by Rain-Taljaard et al. (2003, p.323) in South Africa found beliefs about sexual performance with MMC perceived to “enhance sexual performance, enlarge the penis and make the penis more appealing to women.” This perception was also prevalent in another study in Malawi (Pierotti & Thornton, 2012).

2.3 Perceptions about MMC and sexuality in Zambia

Zambia is reported to be one of the leading countries in implementing successful MMC programs in sub-Saharan Africa. The evidence however, tells a different story. Further, it is not very clear what the levels of acceptability are. Because this is a relatively new intervention in the country, only official launched in 2009, research has been very limited. The few studies done on acceptability and feasibility of implementing the program indicate potential for scaling up the program. However, the National AIDS Council acknowledges the need for more research to understand acceptability, particularly in non-circumcising communities. Countries like Kenya, Tanzania and Uganda have carried more research than Zambia and are much more knowledgeable about factors affecting acceptance of the procedure among men and among women for their male partners. The handful of studies (Friedland et al., 2011; Lukobo & Bailey, 2007; Sanjobo, Mbalwe, & Chikungu, 2010; MOH, 2012; MOH, 2009; Population Services International/Society for Family Health Zambia,

2007) carried out in Zambia nevertheless support the limited findings that the procedure is acceptable.

Further, there is also some evidence in these studies about the existence of perceptions about the effects of VMMC on sexual performance and sexual pleasure and how these might influence acceptability. In their study, Friedland et al. (2011) found that young people and adults seemed to downplay the protective effect of VMMC because of its partial protection. Circumcision preference was meant “to improve their sexual prowess or increase their partners’ sexual pleasure, to prevent premature ejaculation, and to cure painful sex” (2011, p. 16). In Lukubo and Bailey’s study (2007), most men perceived uncircumcised men as having “greater sensation” and “ejaculating early”. Uncircumcised men perceive circumcised men as being able to prolong sex and delay ejaculation because of the perception that the penis of a circumcised man become desensitised due to removal of the protective foreskin. This phenomenon of desensitisation of the penis has been studied in neurophysiological studies in Europe and America and assesses the sexual consequences of VMMC on the penis. Some studies have concluded that circumcised penises have “high pressure thresholds” (see discussion below) or that they become desensitised to the point of needing much more or longer ‘fine touch pressure’ (sexual stimulation) in order to achieve orgasm (sexual climax).

A study by Population Services International/Society for Family Health Zambia (2007) found that men perceived circumcised men to enjoy “better, longer sex, due to the penis becoming ‘harder’ and ‘bigger.’ ”. This was considered an advantage for both men and women as a man is able to both derive and impart greater sexual pleasure to a sexual partner. In another study of 195 male university students in Zambia, majority of them (including those circumcised) perceived circumcised males as having a natural condom, including the perception that they had enhanced sexual performance (Sanjobo, Mbalwe, & Chikungu, 2010). Other than these studies, there are no other studies officially available at the National AIDS Council or the Ministry of Health Male Circumcision Unit, or any that the author could find in his electronic search.

2.4 Perceptions about negative effects of MMC on sexuality

While the perceived positive effects of MMC on sexuality seem to be a significant factor in circumcision preference, perceptions about the negative effects of MMC on sexuality include also appear to have the potential to influence acceptability and decision making on male

circumcision. Most acceptability studies have found that the most common perceived negative effects are loss of penile sensitivity and fear of permanent damage to the penis and the perceived resulting impact on sexual function and sexual pleasure. Circumcision is an irreversible procedure or one-time procedure; the prospect of permanent loss of sexual function of the penis appears to be an important factor in impeding acceptability among men. It is not surprising that much focus is not only on availability and acceptability but on safety of MMC services and hence the introduction of medical male circumcision even in areas where traditional male circumcision has been practiced. The commonest documented perceptions related to sexuality (discussed below) for poor receptivity of circumcision includes perceived loss of penile sensitivity (loss of sexual feeling as described by respondents), erectile dysfunction, shrinking of the penis, and accidental amputation. These are issues that have been documented to impede acceptability of VMMC among men in other African studies.

In Tanzania (Bailey et al., 2002) and South Africa (Rain-Taljaard et al., 2003), perceptions about loss of penile sensitivity, reduction in penis size, decreased ability to satisfy women, excessive sexual desire and increased promiscuity were documented as reasons for not wanting to circumcise. Some of these perceptions are supported even though evidence is not conclusive in many instances. For instance, Legarde et al. (2003) found that 30% of circumcised men and 14% of uncircumcised men believed MMC decreased sexual pleasure. In Zambia, however, there is limited data on perceptions about negative effects of male circumcision on sexuality as a potential barrier to acceptability of MMC. The male circumcision situation analysis sanctioned by the Ministry of Health (2009) documented perceptions about outcomes of male circumcision as follows; injury to the penis and accompanying complications, reduced sexual pleasure, loss of shape of the penis, the loss of fertility and resulting impotence. The fact that in Zambia (CSO, 2009) all age groups of males 15-59 (80%), 20-24 (74%) 25-59 (83%) had no desire to circumcise suggest serious barriers to acceptability than the high acceptability which studies (discussed above) conducted so far appear to suggest. As discussed above, MMC is primarily about sex; the prospects of having a sexual life that is less than ideal or optimal as a result of an irreversible procedure, probably weighs heavily in the decision-making process about whether to circumcise or not to.

2.5 Sexual consequences of MMC- the evidence

Perceptions about effects of MMC on sexuality are probably based on many factors, including first-hand information from those who have been circumcised but also on myths and misconceptions. However, these perceptions need to be confirmed or disproved through clinical, non-experimental, quantitative and qualitative studies. A few neurophysiological and qualitative self-reported studies conducted in Europe and America, and even fewer in Africa (see discussion below), provide limited conclusive evidence. Most of the studies had methodological flaws with study design, small samples, poor response rates, and inadequate analysis of results. These studies nevertheless either confirm or dispute any negative effect on male sexuality.

In one study, Sorells, Snyder, Reiss, Eden, Milost, Wilcox, and Van Howe (2006, p. 45) concluded that because circumcision removes the most sensitive parts of the penis which has “thousands of fine touch receptors and other highly erogenous nerve endings”, they claimed, inevitably reduces sexual sensation experienced by circumcised men. The study used the Brief Male Sexual Function Inventory (BMSFI), a tool that is administered to sexually active males older than 18 years before undergoing circumcision to determine baseline and measure changes after 12 weeks and is used to measure male sexuality using a number of indicators on sexual performance and functioning. These include sexual drive, erection, ejaculation, problem assessment and overall satisfaction in male sexuality (Senkul, Iseri, Sen, Karademir, Saracoglu, & Erden, 2003; Sorrells et al., 2006). In Korea where adult circumcision is at 100% coverage, there is overwhelming evidence that appears to provide important insights into the effects of adult circumcision on sexuality. In a self-reported study, Kim and Pang (2006) noted a significant decrease in masturbatory pleasure (48% of participants), masturbatory difficulty after circumcision (63%) and masturbatory improvement (37%), while 6% of circumcised men reported improved sex lives and 20% reported “worse sex life” as a result of circumcision, mainly because of loss of penile sensation. The authors concluded that “adult circumcision adversely affects sexual function in many men, possibly because of complications of surgery and a loss of nerve endings” (Kim & Pang 2006, p. 619). They further noted that only eight per cent reported increased pleasure. They also noted a nine per cent incidence of “severe penile scarring or uncomfortable erections from insufficient skin and erectile curvature” (p. 620) after circumcision. A study by Frisch, Lindholm and Gronbaek (2011, p. 9) In non-circumcising Denmark found that circumcision was associated with “non-trivial sexual difficulties in a substantial proportion of men and their partners”,

including “frequent orgasmic difficulties (11%)”, frequent erectile difficulties (10%) and premature ejaculation (12%). In the United Kingdom, Masood et al. (2005) found 17% of circumcised men were unsatisfied because they experienced loss of penile sensitivity (18%) and 33% experienced premature ejaculation.

However, other studies found no significant difference between circumcised and uncircumcised men and concluded that circumcision does not significantly affect male sexual performance, function, penile sensation or pleasure (Fink, Carson, De Villes, 2002; Payne, Thaler, Kukkonen, & Binik, 2007; Bailey et al., 2007; Kigozi, Watya, Polis, Buwembo, Kiggundu, Wawer, Serwadda, Nalugoda, Kiwanuka, Bacon, Ssempijja, Makumbi, & Gray, 2007; Bluestein, Eckholdt, Arezzo, & Melman, 2003; Senkul et al., 2004; Collins, Upshaw, Rutchik, Ohannesian, Ortenberg, & Albertsen, 2002; Luamann, Masi, Zuckerman, 1997; Ritchers, Smith, de Vesser, Grulich, & Rissel, 2006). However, the evidence from these studies still suggest existence of sexual problems among a proportion of circumcised men which warrant further investigation.

A study by Kigozi et al. (2007) found no difference in self-reported sexual satisfaction and function among men in a randomised trial of male circumcision in Uganda where one half of men received circumcision immediately while the other half was delayed for 24 months. Prevalence of sexual difficulties reduced from 24% at baseline to 6% after two years post circumcision. A similar study in Kenya found no association between the MMC and sexual function and reported that 98.9% circumcised men and 99.9% uncircumcised men were satisfied with their sexual intercourse at 12 months post circumcision (Bailey et al., 2007). No reasons were given to explain findings of the two African studies.

2.6 MMC and sexual pleasure for women-the evidence

On the effects of circumcision on the sexual pleasure for women, the situation is even more confusing because of lack of credible data. A study by Ohara (1999) was inconclusive about whether circumcision affects the pleasure experienced by women, and whether they can tell the difference between a circumcised and uncircumcised penis. A randomly selected population of women with experience of both types of men has been suggested to clear the air on this. Sex workers and young unmarried women in the Malawi study (Ngalande et al., 2006) discussed above thought circumcised men enjoy sex more and conferred more pleasure on their partners. Interestingly several acceptability studies conducted in Africa to assess

views on MMC for HIV prevention, a significant proportion of women prefer a circumcised man, mostly noting hygiene reasons followed by protection against HIV and other disease. Ngalande et al. (2006) in Malawi concluded that male circumcision maybe irrelevant to a woman's pleasure, noting that any difference arises from how the woman responds, her preconceived ideas about male circumcision and how she has been socialised. In the same study, some women explained that reasons including physical condition (e.g. vaginal lubrication or lack of), psychological and emotional state (self-esteem/inability to say no, belief that sexual pleasure is for the man, love etc.), and past experiences (e.g. rape) can alter sexual pleasure for the woman, noting it is these that make a difference and not circumcision status.

In Zambia, no formally documented data exists on sexual consequences of MMC despite over 158,000 men having been circumcised so far. Anecdotal evidence suggests that where the procedures have been performed by inexperienced providers or under unsafe conditions, some people have nearly bled to death and have had to return to the health facility for further management or have had permanent damage to their penis. There have also been media reports of a negligible number of men who bled to death. More rigorous documentation and dissemination of information about the occurrence of adverse events is urgently needed in Zambia. This will provide critical data for decision making and improving the quality of MMC services. It will also serve the purpose of providing evidence about how safe the procedure is to potential client thus allaying fears about getting circumcised, only if it can be demonstrated that there are few cases of adverse events. But as the discussion above demonstrates, there claims and counterclaims about the actual effects, positive and negative of MMC on sexual function with hardly any evidence, particularly in Zambia. Most HIV interventions have had their share of controversy with both proponents and those opposed strongly making their case.

Condoms are one such controversial HIV prevention tool. Medical male circumcision has generated its fair share of controversy with men in non-circumcising communities in Zambia suggesting that it is "unnatural" for instance. Nevertheless, the evidence about the potential effect on sexual function as a result of the removal of the foreskin with its purported 'sexual value' seems quite compelling. Unfortunately, the evidence presented above is inconsistent and thus inconclusive. If as the evidence suggests, that sexuality may be a significant factor in whether men accept or refuse circumcision, rigorous local research on this potentially

important issue is long overdue. Perceptions about the impact of circumcision on sexual drive, sexual performance, and sexual pleasure for the man and for the woman appear to play a role in acceptability and decision making; how significant this role is not clear and presents a timely opportunity for a research question. However, the implications of the link between MMC and sexuality seem as clear as the questions they suggest; are men interested in MMC because of the perception that it will enhance their sexual performance and confer more pleasure on their female partners? Are men interested because as one study (Sanjobo et al., 2011) in Zambia and another study (Lagrade et al., 2003) in South Africa suggest, that it removes the need to use condoms, i.e. that it is a natural condom?

Finally it raises the question about whether women are interested in men being circumcised because they think it is hygienic or because they (erroneously) think it will protect *them* from HIV infection or because they think they too will have better sex with their circumcised partners. Women have been found in many studies as discussed above to have potential in influencing men to get circumcised. The questions raised are important because of their potential role in influencing acceptability and actual circumcision by men.

2.7 Key definition of terms:

For the purposes of the study the following definitions will be used:

Voluntary Medical Male Circumcision (VMMC) and Medical Male Circumcision (MMC):

the two abbreviations will be used interchangeably; VMMC refers to the fact that the services to circumcise men are based on men volunteering while MMC refers to the actual procedure of removing the foreskin using qualified health personnel

Acceptability: in this study acceptability refers to willingness to undergo MMC for HIV prevention

Sexuality: in this study, sexuality refers to sex or sexual performance/functioning of the body (i.e. *the penis* as a source of sexual pleasure and satisfaction for the man and the woman).

Sexual reasons: in this study, sexual reasons refers to reasons influenced by sexual considerations or concerns such as ability or inability to perform sexually and to have sexual pleasure

Sex: in this study, sex refers to sexual intercourse

Sexual Performance/function: sexual performance/function refers to sexual drive, erection, ejaculation, problem assessment and overall satisfaction in male sexuality measured using the Brief Male Sexual Function Inventory (BMSFI)-see above.

Sexual Pleasure: In this study sexual pleasure refers to the physical sensation derived from sex.

Chapter III: Research design and methods

3.1 Study design

A cross-sectional exploratory/descriptive research design was used. The study explored and described individual attitudes, perceptions and values about the interface between medical male circumcision and sexuality and the influence this interface might have on acceptability of MMC. Primary data was collected using in-depth interview and focus groups discussion (FGDs). Open ended questions were used in the questionnaire and questions on related topics were grouped together to include social demographic characteristic of the participants, individual perceptions, attitudes and beliefs, outcome expectancies and personal intentions in relation to male circumcision, its effects on sexuality and the role these perceptions play in acceptability of MMC.

A total of 10 in-depth interviews were conducted using coded numbering, sex and age to identify participants. Three FGDs were conducted, two with men and one with women; coded numbering, sex and age were also used to identify participants. The coded numbers were linked to a name file to which only the researcher will have access.

The uncircumcised male participants were recruited through the following process:

- Identification of young men between the ages of 20 and 25, this being the group in whom male circumcision interventions are said to influence HIV incidence and prevalence.
- Potential participants were identified and recruited through a solicitation process to create interest among uncircumcised males in the college, through a public announcement about the study. The 30 male participants needed for the study were purposively selected. Verification of circumcision status was based on self-report.
- Inclusion criteria targeted participants who were born and bred in Luapula province.
- Eligible participants were engaged in an informed consent process which involved verbal consent to participate and signing of consent forms.

The female participants were also purposively selected through a convenience sampling process; the inclusion criteria was women ages between 20-25, who were born and bred in Luapula Province and were willing to participate in the study after they had gone through the informed consent process.

3.2 Study site

The study will be conducted at the Mansa College of Education, Mansa, Zambia.

3.3 Study population

The key inclusion criterion for the study was young uncircumcised men between the ages of 20-25 who were born and grew up in Luapula Province of Zambia. The study population is 160 male students between 20-25 years old attending Mansa College of Education in Mansa, Luapula province of Zambia. The participants understood the requirements of participating in the study. This is a key age group most recommended by models of the effectiveness of MMC as an HIV prevention tool because of the potential the group has for reducing HIV incidence and prevalence through VMMC (Londish & Murray, 2008).

3.4 Sample size

The study used non-probability sampling procedure in which uncircumcised young men between 20 and 25 years old who were willing to participate were purposefully recruited because of their relevance to the research topic. A sampling frame of all 20-25 year old male students was derived, from which a sample of 30 uncircumcised young men were purposively selected. The recruitment exercise was conducted with the help of the college management who announced the research in advance before the researcher travelled to the study site. The study was explained to the target population using a summary brief of the study, outlining the aim, objectives, and rationale of the study, before the recruitment exercise begun. Only participants who were willing to participate were recruited. A total of 10 male participants participated in the in-depth interview while 15 males participated in two focus group discussions. A total of seven females participated in one focus group discussion.

3.5 Data collection

Data collection took place from 22nd October to 26th October 2012. Data collection preceded permission being granted by the College Management at Mansa College of Education and ethical approval from the Research Ethics Committee of Stellenbosch University and the local ethics committee in Zambia, the Converge (see letters attached). The data was collected using In-depth interviewer administered questionnaire and conducted on a one to one basis. A Focus Group Discussion Guide will also be used to collect data during the two Focus Group Discussions for men and one for women. Code numbers were used to identify respondents to ensure their anonymity. Each in-depth interview respondent was identified by the acronym MCE (i.e. Mansa College of Education) followed by a number assigned from one to ten (i.e. MCE1, 2...) representing the ten interviews done. The FGDs respondents

were identified by similar code number on the individual consent form. Other demographics including year of study, age and sex, marital status were included on the questionnaire and consent form for the FGDs.

3.6 Data analysis

Following the grounded theory principles, all the data was transcribed verbatim and manually analysed for themes using categories and codes until saturation was achieved, i.e. when there were no more new concepts emerging from the data. The analysis includes all the data from the 10 in-depth interviews and three FGDs which were recorded using a voice recorder. The process involved the identification (coding) of recurrent patterns, themes, categories and sub categories that best described the responses from the in-depth interviews and FGDs, based on the main constructs in the conceptual framework outlined above. The main constructs are perceptions about the effects of VMMC on male sexuality and acceptability of VMMC. Data analysis also focused on three factors that are commonly used as the basis for analysing perceptions about the effects of MMC on sexuality namely, sexual performance, sexual pleasure for men and sexual pleasure for women (Bailey & Westercamp, 2006). Analysis of data also focused on perceived benefits/outcomes of MMC, perceived effectiveness of MMC and personal intention/motivation to undergo MMC. A thorough review of the transcripts of the recorded materials from the FGD and in-depth interview was used to identify themes that re-occurred across all the three FGDs and the 10 in-depth interviews. The following summary outlines the process followed in analysing the data:

- Familiarisation with the data: listening to the voice recording of the interviews and focus group discussions
- Transcription of voice recorded materials into typed word documents
- Identification of important ideas and concepts using codes, known as open coding on the transcribed data typed in word
- Identification of the most important concepts, known as axial coding
- Identification of key themes in the transcribed data. Three key themes were identified as follows: Sexual reasons that facilitate acceptability of MMC, Sexual reasons that hinder acceptability of MMC, and other reasons that facilitate/hinder acceptability of MMC
- Exploration of relationships between themes, categories, and sub categories

- Development of theory and incorporation of pre-existing knowledge. The perceptions about effects of MMC on sexuality and the influence on acceptability of the procedure are consolidated into a theoretical construct that attempts to explain the interface between male sexuality and medical male circumcision. The construct is compared with pre-existing theory.
- Report writing; the report was written based on the analysis of the data, theoretical constructs and a comparison of the findings with pre-existing theory. Verbatim quotes by respondents have also been included in the report.

Validity and reliability

The results of this research are expected to be valid and reliable in relation to young men and women between 20 and 25 years old at Mansa College of Education in Luapula province. To establish rigor and manage threats to trustworthiness, authenticity, or credibility (i.e. ensure a level of validity and reliability), the study used the following validity strategies (Sarantakos, 1997; Christensen, Johnson & Turner, 2011):

- (1) Theory, data and method triangulation (i.e. use of male and female FGDs, and In-depth interviews and comparison of data from the Mansa study with other studies and use of theories to analyse data);
- (2) Cumulative validation; comparison of Mansa study findings with other studies
- (3) Ecological validation: conducted study in the natural setting of the participants
- (4) Member checking: received feedback from participants about key findings;
- (5) Reflexivity (vigilance against researcher bias);
- (6) Use of direct quotes by participants;
- (7) Negative case sampling;
- (8) Pattern matching (testing predications about assumptions of relationships between sexuality and MMC).

3.7 Research limitations

The findings are drawn from a relatively small sample in a small teachers training college in Mansa district in Luapula province. Of the 40 participants that were targeted in the research proposal only 31 participated in the study. A key challenge contributing to low participation was the lengthy process of ethical review both at Stellenbosch University in South Africa and the ethical review board in Zambia. The data collection exercise coincided with end of year exams at the college which resulted in most students being unwilling to participate citing

busy schedules in preparation for exams. Even though the college is in a traditionally non-circumcising province, and the participants were all born and bred in the province, they do not represent the general population (e.g. older males or adolescents) in Luapula province. Nevertheless, the findings of the study were comparable to those obtained by other studies in Zambia and in the regions, including studies that used bigger samples than this study. Further, the findings provide in-depth knowledge and useful insights regarding perceptions about the impact of male circumcision on sexuality in the context of Luapula province. This is useful for programming at both the local and national level.

3.8 Ethical consideration

The study will adhere strictly to rules and ethics that govern research and will ensure full disclosure about the study, anonymity of research participants, and confidentiality of the information they provide during the study, and ensure written and verbal consent before the start of any interaction with participants. Any participant who does not wish to answer any question or continue being part of the interview or FGDs will be free to withdraw at any time. Participants will be informed before the start of the interview and FGDs that there will be sensitive questions relating to sexuality which might make some of them uncomfortable and that no participant is obliged to respond to these questions. However, it will be explained that honest responses will be useful in designing relevant demand generation information for an important intervention such as VMMC whose uptake is critical to halting and reversing the spread of HIV. The risk to participants is minimal as this is an exploratory study of people's perceptions about the effects of MMC on sexuality and not actual sexual experiences of participants. Participants will be provided with refreshments and snacks during the duration of their participation. The study will only proceed once all the ethical clearance and approval is obtained from Stellenbosch University Ethical Review Committee and the Ministry of Health-accredited Excellence in Research Ethics and Science (ERES) Converge Institutional Review Board (IRB) in Zambia. Prior written permission to carry out the study will be obtained from Mansa College of Education.

Chapter IV: Results and findings

4.1 Demographic characteristics of respondents

A total of 25 young uncircumcised men and seven young women between 20 and 25 years old participated in the study; 10 males participated in the one to one in-depth interview, 15 participated in two focus group discussions and seven females participated in one focus group discussion. All participants were born and bred in Luapula province and are currently enrolled as first and second year students at Mansa College of Education.

4.2 MMC programme in Luapula province

Male circumcision is not traditionally practiced in Luapula. Voluntary Medical Male Circumcision was introduced at MOH facilities in 2009 in the province. Of the national MMC target of 1, 949, 000 men to be circumcised by 2015, Luapula has been allocated a target of 149,890. This target is broken down as follows: 15, 960 (2012); 21, 749 (2013); 42, 354 (2014) and 69, 827 (2015). However, between January 2009 and September 2012, Luapula had only recorded an estimated 8, 819 men who have been circumcised. Between January and September 2012, the province recorded 5, 175 men circumcised out of the 2012 target of 15, 960. Based on past trends it is unlikely that the province could achieve the 2012 target by the end of 2012. Interestingly, the 2012 target is twice what the province has achieved (8, 819) in almost four years, underscoring the urgency to improve acceptability of male circumcision and increase demand among uncircumcised men.

4.3 Summary: perceptions about impact of MMC on male sexuality

A key finding of the research in Mansa was that young uncircumcised men have specific perceptions and concerns about how male circumcision positively or negatively affects sexual function/performance and pleasure in men and for women. Some female respondents believed circumcision enhanced male sexual performance.

In order to put the perceptions about the perceived impact of MMC on sexuality into context, the researcher asked general questions about sexual activity among young adults generally. A number of male respondents reported being in a sexual relationship; most claimed to use condoms. However, other male respondents believed that that unprotected sex was common among young men. Slightly less than half of the male respondents reported that they were abstaining from sex for now. A few more others reported that they were in non-sexual relationships with girls whom they described as being “mere friends”. Of the seven female respondents, one reported being married and another said she was engaged to be married

while the rest reported that they were not in a relationship because they had decided to abstain from sex.

The study found that male respondents were more expressive than their female counterparts and clearly own and live their sexuality, suggesting the centrality of sex in their lives. Related to this was the finding about the way men perceive a circumcised penis in relation to sexual function/performance and pleasure; this was likely to influence the way they might perceive and accept circumcision. If they felt it would enhance their sexual performance and sexual pleasure, they were more willing to accept MMC. If however, they felt it would negatively impact their sexuality, they were less willing to accept it.

4.5 Key Themes

The results presented below are based on the research question which sought to answer whether perceptions about the effects of Medical Male Circumcision on male sexuality facilitate or impede its acceptability among young uncircumcised men in a non-circumcising community. The results are categorised into three pre-set themes namely: Sexual reasons for accepting circumcision, Sexual reasons for not accepting circumcision and other reasons that facilitate or hinder acceptability of circumcision. The categories are further divided into three sub-categories based on the most commonly used indicators associated with sexual activity, namely sexual performance, sexual pleasure for men, and sexual pleasure for women (Bailey & Westercamp, 2007).

4.6 Sexual reasons that facilitate acceptance of MMC

4.6.1 Male perceptions about effects of MMC on sexuality

Although protection against HIV was found to be the most significant reason for accepting MMC for HIV prevention, perceptions about the positive and negative effects of male circumcision on sexuality were found to be an important consideration among the majority of male respondents. In fact in all the ten interviews and the two male focus group discussions, the study found important associations between acceptance of circumcision and perceptions about enhanced sexual performance and sexual pleasure for the man and for the woman. Majority of the male respondents ranked enhanced sexual performance among the top two reasons for accepting the procedure. Out of the 25 male respondents, six emphatically ranked enhanced sexual performance and sexual pleasure as the 'most important' reason why they would accept to get circumcised. Eleven male respondents ranked sexual benefits as 'important' reasons for accepting circumcision (see ranking matrix on page 31). Most male

respondents believe that circumcised men enjoy sex much more than uncircumcised men. A few respondents even claimed to have confirmed this fact from their peers who have been circumcised. Nevertheless, many thought that circumcision increases sexual vitality or energy in men and allows them to have sexual intercourse for much longer than uncircumcised men. The commonest reason given for this by most male respondents was that circumcision renders the glans penis (or front of the penis as they described it) less sensitive and allows a man to prolong sexual intercourse before he ejaculates. Almost all male respondents thought that loss of penile sensitivity was a good thing because it allowed both men and women to enjoy sex for longer periods. A few respondents made reference to the notion of ‘balancing sexual satisfaction’ between a man and a woman in explaining the perceived association between prolonged sex and pleasure, as one respondent stated:

“They say when you are circumcised the head of the penis becomes quite strong and a little bit hard meaning that it is not sensitive like someone who is not circumcised. If you are uncircumcised and you are having intercourse, it takes only a few minutes for you to ejaculate. But when you are circumcised since the penis is hardened and its sensitivity is reduced, we hear that it takes long for you to ejaculate which gives an advantage for a woman. Somehow it is important because you would want to think about the satisfaction of your partner because you might think you are performing okay and meanwhile you are not. You would want to balance up things. So for me what can encourage me to get circumcised, first, is to satisfy my partner sexually, to prevent cervical cancer in my partner and to protect myself from HIV.” [Male respondent, 22.]

Other respondents offered similar views about the perceived association between prolonged sex and pleasure as a result of circumcision:

“The guys who are circumcised they say “me am circumcised and am better than you when am having sex with a girl she feels very nice because I take long before releasing(i.e. ejaculating)”, but am not sure if it is true. I don’t believe that it is true. If it is true then I can go for it (i.e. circumcision) without hesitating about it.” [Male respondent, 25]

“According to those who have been circumcised, they say when having sex with a lady, the lady enjoys sex, because the front of the penis becomes strong and so I think the lady does really enjoy sex more than with an uncircumcised man; that can prompt me to become circumcised so that I can be satisfying my wife to the fullest.” [Male respondent, 25]

Of all the respondents, one was emphatic about the value of circumcision on a woman's sexual pleasure. He claimed to have knowledge from women who have experienced sex with circumcised men:

"I have heard from some women that when a man is circumcised and they have sex with him there is better sex and some even say they can't get married to someone who is not circumcised. I think women like men who are circumcised because the sexual power is increased and the man can have sex for a longer time before releasing." [Male respondent, 24]

Other male respondents emphasised the importance of mutually satisfying sex and the belief that circumcision can facilitate this in relationships. One male respondent was convinced that mutual sexual satisfaction between a man and woman can only be achieved as a result of circumcision, which he explained hardens the penis glans and acts to slow ejaculation:

"Balancing sexual satisfaction between a man and woman is important. when the penis has been circumcised it hardens and it takes a long time for a man to ejaculate which gives a better chance and time for a woman to also enjoy sex before a man ejaculates but if you are not circumcised the penis is too sensitive and you can ejaculate in a few minutes and the woman will not be satisfied. So for me circumcision is good because it is the only way to improve sexual satisfaction between a man and woman." [Male respondent, 23]

Another male respondent echoed the perceived impact of having a circumcised penis on a woman's sexual satisfaction because of the perceived increase in sexual vitality and energy in a man:

"When they remove the foreskin the head of the penis becomes very hard and this increases the number of rounds which a man can do sex with a woman and a woman even enjoys when you can do many rounds it shows that you are strong sexually." [Male respondent, 22].

One other respondent stated:

"When you are circumcised your penis will keep rubbing against your underwear and it will become hard and because of that women will enjoy sex with you because you can have sex for a long time before releasing sperms. Those who are not circumcised I think may they can do one or two rounds and sleep but when you are circumcised I think it can be possible to do many rounds." [Male respondent, 22]

Overall, data in the Mansa study found evidence that shows that young men are preoccupied with the need to demonstrate their sexual prowess by being able to perform sexually. One respondent echoed this expectation and said:

“Those who are circumcised they become very active (i.e. that they become sexually energised) and they can do many rounds with a woman and you find that if you are weak in bed your friends can be laughing at you if the woman you are having sex with tells your friends. Some women they like to say balya tabakwasnisha tebaume (i.e. that one cannot manage to perform sexually because he is not a real man). What we know is that a man is supposed to be strong sexually and women like men who are strong sexually.” [Male respondent, 21]

A round is a local term which refers to the number of sexual sessions a man is able to perform in a given timeframe for example in one night. The belief is that the more rounds a man is able to perform, the more he is considered to be a real man and thus sexually desirable to women.

Another important finding in the Mansa study is the perception among male respondents of the dual function of MMC; providing protection against HIV while still allowing a man to enjoy some referred to as “live sex”, ‘skin to skin sex’, which most respondents was considered to be “real sex” among young men. The acceptable (Zambian) definition of sex is seen as penetration of a woman (without a condom) and ejaculation of sperms in the vagina. This perception of sex was expressed by more than half of the respondents, some of who had this to say:

“At least when you are circumcised you can protected against HIV and you can enjoy sex at the same time because you can have that nice feeling of a woman’s skin inside but with a condom sex is not enjoyable because you just feel the plastic and the woman also feels the plastic and she cannot feel the sperms when you release because they remain inside the condom.” [Male respondent, 23]

“A condom is not natural because to be honest no one enjoys sex with a condom either a man or a woman, because the man releases inside the condom instead of releasing inside the woman, and both the man or the woman don’t enjoy the warm, nice feeling because there is no skin to skin contact. For me that is not real sex it is the same like what they call masturbation.” [Male respondent, 24]

When asked to rank reasons for accepting circumcision, some male respondents' ranked sexual performance and sexual pleasure over HIV prevention (see ranking matrix below). Very few ranked hygiene over protection against HIV. Similarly, among female respondents, some ranked hygiene as being more important than HIV prevention while others ranked prevention of cervical cancer as being more important than HIV prevention.

Male FGD/In-depth interview ranking matrix: acceptability of MMC by key reason

Reasons for accepting circumcision	# of respondents who ranked it as most important	# of respondents who ranked it as important	# of respondents who ranked it as somewhat important	# of respondents who ranked it as not important	Total # of respondents
Protection against HIV	17	3	3	2	25
Personal Hygiene	5	9	5	6	25
Prevention of cervical cancer	4	6	7	8	25
Sexual performance/pleasure	6	11	6	2	25

Note: There were 31 male respondents who participated in the study

However, protection against HIV was overwhelmingly ranked as the 'most important' reason for accepting circumcision as an HIV prevention tool, followed by sexual performance and pleasure, penile hygiene and lastly prevention of cervical cancer in women. The male respondents in the ten in-depth interviews had similar rankings.

4.6.2 Female perceptions about effects of MMC on sexuality

Unlike their male counterparts, sexual reasons were not as important for majority of the female respondents. At least they did not give that impression. Although all the seven respondents said they would prefer a circumcised man, the reasons given were preventing HIV and other STIs, cervical cancer, and ensuring penile hygiene and lastly sexual pleasure. Five respondents thought that prevention of HIV, penile hygiene, and sexual pleasure for the

woman, in that order, were important reasons for preferring a circumcised man. Only two respondents, one married and another engaged, specifically mentioned the fact that circumcision was protective against HIV for the man and not for the woman; the two were also more emphatic in their perception about the potential of circumcision to enhance sexual performance in a man and how this would allow him to give more pleasure to a woman during sex. Almost all female respondents reported that they have heard that a man's penis glans becomes hard once the foreskin is removed. One respondent explained that because the "front of the man's penis" becomes hard, it allows a man to prolong sexual intercourse, and was seen as beneficial for the woman. She stated:

"Most men when they are circumcised they become more active (i.e. they become sexually energised and want more sex); the front of the penis when inside the foreskin it is very sensitive but when the foreskin is removed the skin on the front of the penis becomes very hard such that if that man used to have sex two times at night he can even have it four times because the hard skin on his penis makes him to increase the number of rounds." [24, married woman]

Another respondent reported that she had heard that once a man is circumcised his penis becomes hard which improves his sexual performance and allows him to have sex longer with a woman. She also noted that uncircumcised men suffer from premature ejaculation:

"I have heard that circumcised men have strong erections because their penis becomes harder than before they were circumcised and they can have sex with a woman for a long time before releasing. This means that a woman can be really satisfied with a circumcised man but not with someone who is not circumcised who releases (i.e. ejaculates) very fast." [Female respondent, 23]

There was an attempt to explain the interface between circumcision and its effects on sexual function and pleasure by one respondent who stated:

"They say sex is different between a circumcised and uncircumcised man; for the one who is not circumcised because the sensitive part is inside the foreskin it will take time for the penis to erect. But for someone who is circumcised, once the penis rubs anywhere the person will be sexually aroused faster and for a circumcised man the number of rounds will increase because each and every time he releases, the penis will erect itself again and again but I don't know what causes that." [Female FGD respondent, 25]

Although all female respondents interviewed declined to say whether they have had any experience with either a circumcised or uncircumcised man, they nevertheless offered some interesting views, based on what they had heard from circumcised men and peers. In the case of one respondent, she reported having heard from a friend who has experienced sex with a circumcised and an uncircumcised man. According to the respondent, her friend preferred a circumcised man:

“I have a friend who was married to a circumcised man, and she was saying she cannot get married to a man who is not circumcised because she benefited a lot from him being circumcised she used to say the sex was very enjoyable because the husband used to take long when having sex and he used to do it many times at the night.” [Female respondent, 25]

Another very interesting finding was the perception that uncircumcised men experience pain when having sex. According to one female respondent, circumcision is perceived to ‘treat’ painful sex:

“You can even encourage your partner to get circumcised because some men experience pain when having sex, so the circumcision helps them because they say the pain goes but I am not sure what causes that but I think the foreskin expands and when a man is having sex it makes him to start experiencing pain but without the foreskin I think there can be no pain.” [Female respondent, 22]

Two studies one in Malawi (Ngalande et al., 2006) and another in Tanzania (Plotkin et al., 2011) found that vaginal dryness and lack of foreplay partly accounted for the pain experienced by some couples during sex. There is no conclusive evidence proving that the foreskin causes painful sex.

4.7 Other reasons that facilitate MMC

Even though perceived sexual benefits were found to be a significant reason for accepting medical male circumcision among male respondents, the study found overwhelming support for the procedure as a tool for preventing HIV in men. This is despite doubts about its efficacy in preventing HIV. Most female respondents believed MMC to have partial protective effect against HIV of 30 and 40 per cent while among male respondents, the rates mentioned were 40, 50, 60, 70, 75, 80, 99 and 100 per cent. A clear misconception the study found was the belief among female respondents that having a circumcised man would protect them from HIV. One female respondent stated:

“Men don’t like to use condoms even if you try to force them so at least when you have a partner who is circumcised you feel safer because the chances of him infecting you with HIV are less because he is at least protected with the circumcision even if it is not 100 per cent.”
[Female respondent, 22]

An equally important finding, related to efficacy of circumcision was the belief among some male respondents that once circumcised a man may not need to wear a condom during sex because of the protection provided by his circumcision status. However other disagreed and argued that since both condoms and circumcision did not provide 100 per cent protection, it was still important for circumcised men to wear condoms. One male respondent offered this explanation:

“A condom is only 40 per cent safe, and male circumcision is only 60 per cent safe so when you add the two you get 100 per cent protection which to me is okay.” [Male respondent, 24]

“I saw an experiment where a condom with water was put in a jar with water that was mixed with blue ink. After some time the water in the condom became blue which proved that condoms have very small holes which can allow vaginal fluids to enter the condom. So for me I think a condom should go together with circumcision since both are not 100 per cent safe.”
[Male respondent, 25]

Penile hygiene was universally mentioned as an important reason for accepting male circumcision, a view that was particularly strong among female respondents. A female respondent explained the importance of penile hygiene:

“It is important for men to remove the foreskin because some men do not bath all the time and the penis can easily become dirty and it can carry a lot of dirt and germs which can give a woman some diseases like cervical cancer.” [Female respondent, 23]

Some male respondents were more explicit about why they thought penile hygiene was important. One male respondent observed:

“You know with the penis when you have not washed it for some time it can have some white stuff inside the foreskin which smells showing that there are some germs and dirt there, but if you are circumcised, you don’t even have to worry about washing your penis always because it will always be clean.” [Male respondent, 24]

Others differed with this view, noting that when a man bathed regularly, he is able to keep his penis clean and disease free; one male respondent stated:

“It is only when you go for many days without washing your penis that you can have that white stuff inside your foreskin but most men do wash their penis because it is part of bathing, how can you bath your whole body and then you don’t wash your penis?” [Male respondent, 24]

Even though not factually correct, a male respondent explained why he considered penile hygiene more important than HIV prevention as the reason for accepting circumcision:

“The idea of hygiene is an important reason for me to accept circumcision. When I am having a shower it has to click in my mind to wash my penis. If I am circumcised it can be an advantage because I don’t have to wash my penis all the times. So for me hygiene is the most important reason to get circumcised. When you talk of HIV, removing the foreskin makes the head of the penis harder, the chances of getting disease are there because the head of the penis is no longer protected and when it has scratches it can encourage the HIV virus to enter through the scratches. So I am not convinced that circumcision can protect against HIV but for hygiene yes am sure.” [Male respondent, 23]

A female respondent stated:

“A man who has a circumcised penis is clean and does not carry dirt and diseases like someone who is not circumcised. It is these dirt and germs which can cause cervical cancer because they are hidden inside the foreskin and if the man does not bath you can get the germs when you have sex with him. Me I prefer a circumcised man.” [Female respondent, 21]

Cervical cancer was mentioned by both male and female respondents but much more so by women as an important reason for accepting circumcision. Most respondents referred to “germs” and “dirt” that cause cervical cancer which they said are harboured in the foreskin. Two respondents, a male and a female specifically mentioned the human papilloma virus (HPV) by name as the virus that causes cervical cancer. Despite this apparent knowledge about cervical cancer, the study found inadequate knowledge and poor understanding among almost all respondents about the HPV. Women were found to be receptive towards circumcised men because of the perception that it protects against cervical cancer. One male respondent stated:

“In Zambia it seems the women have become sensitised and think that a man who is circumcised is the right man to sleep with mostly because of protection against HIV and cervical cancer and when you meet a lady and you tell her that you are circumcised they become comfortable and give you whatever you feel you can take from them because they feel okay and safe that they cannot get HIV and cancer from a circumcised man.” [Male respondent, 22]

The potential influence of social networks and social norms was referred to throughout the study. Most male respondents talked acknowledge the influence of their peers being circumcised which they noted had promoted them to seriously think about the procedure. One respondent summed up the feeling among his peers by quoting a local Bemba saying:

“Palekomaila nondo ipali ubulemu” (i.e. where you can see everyone going then there must be something very important or worth trying). So because of that I have also finally decided to get circumcised soon.” [Male respondent, 21]

4.8 Sexual reasons that impede circumcision

Apart from perceptions about the positive impact of MMC on sexual function/performance and pleasure, there were a number of perceptions about the negative impact of the procedure, which are believed to impede acceptability of MMC.

The most commonly mentioned effects were: impotence, loss of penile sensitivity (described as *“loss of sexual feeling”*), painful erection (also known as curvature), shrinking of the penis and amputation. Describing the loss of sexual feeling, one respondent stated:

“I think the pleasure is less and sensitivity is less to the person who is circumcised and he does not enjoy sex because those who are circumcised take long to release (i.e. ejaculate) and the sweetness is removed from the sex. But again I have heard that there is better sexual satisfaction for the circumcised man because he takes long to release so am not sure what the truth is on this one.” [Male respondent, 23]

One respondent had this explanation about why circumcision was not acceptable to him, noting fear of potential damage to his penis and erectile dysfunction, stating:

“I was about to be circumcised but this program which comes on radio one day, the doctor said circumcision can lead to a weak erection and from that time I have that fear that if I can get circumcised my erection can be weak. I am not sure what can cause this but it makes me

think a lot and make me to hesitate even if I know a few guys who have done it I always think that me I can be unfortunate and they make a mistake when cutting the foreskin, it worries me a lot so I think for now I will wait.” [Male respondent, 24]

Impotence was another reason mentioned about why some men are not readily accepting circumcision:

“Some of us we are worried because we don’t know what can happen to your penis if they do not do it properly (i.e. cut the foreskin). May be they can damage your penis and once that happens there is nothing than can be done to make you okay, and you can even fail to have children in future.” [Male respondent, 22]

Another respondent attempted to explain why he is not receptive to the idea of having his foreskin removed. He explained the makeup of the foreskin and its role in conferring pleasure on the man during sexual stimulation and sexual intercourse in particular:

“When circumcision is done, I hear when the foreskin is removed underneath the foreskin there are some nerves which are very sensitive which are also removed. I hear that when the foreskin is removed the penis is not the same because you lose the sensitive part on the penis and I hear that because of that the man will stop feeling pleasure during sex.” [Male respondent 25]

A few male respondents expressed worry about the possibility of painful erections, also known as curvature. One respondent made this observation:

“I have heard from some of our friends who went to get circumcised that sometimes they feel pain when they have an erection so we don’t know whether this only happens when the wound is still healing or it can continue even after the wound is dry.” [Male respondent, 23]

4.9 Other reasons that impede acceptance of MMC

Other key findings documented why some men do not readily accept MMC were: fear of pain, long healing time, and uncertainty about the efficacy of MMC. Other reasons include lack of comprehensive information about MMC and uncertainty about personal reasons for accepting MMC.

The study found that among all respondents there was a perception that circumcision is a very painful procedure that is accompanied by excessive bleeding which some believe could even result in death. Majority of respondents also believe that the wound from the procedure takes

a too long to heal; a few male respondents noted that six weeks was too long to wait for the wound to heal. One respondent had this to say about the perceived pain:

“The myths behind circumcision are that sometimes people will tell you that they will inject you with 3 to 4 needles (injections) and me I don’t like injections especially in my penis. Some say it is very painful when they cut off the foreskin. Also we hear that the healing process can be difficult if you have not been treated properly and it can cause the wound to burst.” [Male respondent, 22]

One male respondent made an observation which sums up the anxiety many uncircumcised men appear to have about the procedure when he stated:

“They just tell us circumcision will do this or that, they just mention the good things but no one is telling us about the disadvantages of circumcision so that we can make our own decision, after all it is my penis and I should know if there is anything bad that can happen not the way it is happening now everyone is telling us that we must do it to prevent HIV and to be clean but what are the bad things about it? We know that everything has a good side and a bad side.” [Male respondent, 24]

While accepting that circumcision confers some protection against HIV, a number of male respondents had doubts about the protective effect of medical male circumcision and saw no reason to get circumcised if the procedure offered only partial protection against HIV. A number of male respondents also wondered if the procedure was worth the pain and inconvenience as it does not provide 100% protection against HIV. One respondent stated:

“The thing (i.e. MMC) is so painful when they do it and when healing it takes too long and yet it does not give 100 per cent protection, so what is the point of doing it if only gives 40 or 60 per cent protection. So why do it? It is better just to control yourself or to use condoms which can protect you at least because the condom gives 99 per cent which is better than circumcision.” [Male respondent, 24]

Another respondent alluded to the potential problem of risk compensation and sexual disinhibition among men who are circumcised and suggested that there is need to educate people thoroughly so that they understand that circumcision does not provide 100 per cent protection against HIV. Several views were offered about the potential of sexual disinhibition and risk compensation:

“Those people at the clinic they must be telling people that circumcision is not 100 per cent because these people who are circumcised many of them they are just having sex anyhow in fact if they were to carry out research in Zambia among those who are circumcised, they will find that a good number of those who are circumcised are HIV positive because many think they have a natural condom. So those people at the clinics should tell people that circumcision is not 100%.” [Male respondent, 23]

“There are some guys who are circumcised who have not received correct information, and they say ifwe kunthu twalya umwanakhashi uulionse twalichingililwa kale. Translation: (some of us can eat {i.e. have sex with} any woman because we have already been protected against HIV through circumcision).” [Male respondent, 23]

“I feel this practice (circumcision) is increasing the rate of HIV infection in this country. What I mean is that those who are circumcised think they are protected as a result they are having sex without using condoms and they think they can have sex with anyone because they feel safe and protected against HIV.” [Male respondent, 22]

The study also found that poor access to accurate and comprehensive information about MMC is hindering acceptance of circumcision for HIV prevention. Majority of male respondents in this study reported that they have had limited access to information. Although almost all the respondents correctly described what medical male circumcision is, numerous information gaps exist on how the procedure protects against HIV, other STIs and cervical cancer.

There were even some male respondents who were particularly interested in understanding more about the perceived sexual benefits of circumcision but have had no information on this aspect. One respondent stated:

“The other reason that has been keeping me slow in deciding is because of the questions I have about it. I don't know how a person who is circumcised and a person who is not circumcised can experience sex. People say that men who are circumcised take long to release. I have been thinking what makes it to take long unlike with a man who is not circumcised.it gives me a lot of questions and worries. I have been asking is the sexual organ the same after circumcision or is there a change.” [Male respondent, 25]

One of the consequences of the lack of comprehensive information about MMC is the tendency for uncircumcised men to question the very reason why the procedure is being promoted as one respondent said:

“How can removing the foreskin protect you from HIV when you have sex with a woman who has HIV? I think you can still get HIV because of the vaginal fluid which can enter through the hole in front of the penis so it is not clear to me how this thing works.” [Male respondent, 23]

Another respondent said:

“I have been asking myself if God created a man with a foreskin then there is a reason for it to be there and he would not have created it if it was not important because I think it is supposed to protect the front of the penis.” [Male respondent, 24]

Another respondent who reported that he will never get circumcised stated:

“Nothing can convince me to be circumcised because all I have to do is not to involve myself in immoral activities (a veiled reference to promiscuous sex). All these programmes the Americans are bringing into Zambia about circumcision do not make sense, because how come they don't have those programmes in America.” [Male respondent, 24] *Note: almost all MMC programmes in Zambia are supported by the American Government's Presidents Emergency Plan for AIDS Relief (PEPFAR).*

There was some frustration expressed about the lack of easy to understand information about male circumcision. A male respondent shared his view and said:

“It has only 40% and 60% in preventing HIV and others say it is 100% in preventing other STIs. The whole thing is confusing for me because am not getting enough information which is straight forward and simple to understand.” [Male respondent, 23]

One male respondent shared his views about the lack of information as follows:

“As I have said I am a Bemba. When male circumcision first came to Luapula, I was hearing about it but it was not important for us (i.e. Bembas), so when it came I never wanted to give up to it fast, before I can know how it has come, why it has come and the benefits it may give me so that is how I have not been for it because am still thinking about the importance it can

have for me if I do it. But with the information I have heard so far I am not convinced yet.”
[Male respondent, 23]

Another respondent had this to say:

“For me I am still in transit because am not sure yet but when I see someone who has come back from circumcision and they are wearing a cloth I think and they are limping in pain, I will wait until am convinced and comfortable to go for it but for now am still doubting, I think the pain involved is too much and am scared for now maybe later I can decide to do it also.” [Male respondent, 23]

Similar sentiments were echoed by another male respondent who said:

“As for me I think am getting there because a few of my friends are circumcised but am still on the ladder and am still trying to get more information because I have not been convinced from them but am slowly getting convinced. Am sure one day I will decide to go for it.” [Male respondent, 25]

Another important finding in the Mansa study was the apparent enormous gap between what individuals perceive and believe about MMC and what public health messages present. This tends to influence the weight given to particular reasons (facilitators) for accepting circumcision. It appears the importance attached to various reasons for accepting the procedure is based on individual speculation rather than factual information as presented by public health messages. The consequence of this apparent gap is that potential clients tend to downplay the importance of the circumcision in protecting against HIV in preference for the perceived sexual benefits offered by the procedure. One respondent said:

“Male circumcision is for cleanliness purposes and protection against HIV but cleanliness of the penis is more important because I have heard that on HIV it only protects by 40 per cent which is not good enough so may be the condom is better because it gives at least 90 per cent protection.” [Male respondent, 25]

Another male respondent had this to say:

“The HIV virus is found in the vaginal fluids so even when you have sex with a woman who is HIV positive, you can get the infection because her fluids can enter your penis in front of the penis through the hole (i.e. urethra), so for me the important reason for me to get circumcised is for me to satisfy my partner sexually.” [Male respondent, 24]

Chapter V - Discussion of findings

The present study sought to answer the question about whether perceptions about the impact of male circumcision for HIV prevention on male sexuality facilitate or impede acceptability of the procedure. A number of important issues were explored, including: the extent to which male circumcision affects or redefines men's sexuality or sexual identity; and perceptions about impact of male circumcision on sexual function and pleasure in men and sexual pleasure for women. The researcher discusses the study findings within the context of existing literature on the interface between male sexuality and male circumcision. It is noted that data on this subject is extremely limited and not conclusive. The researcher further discusses the findings within the context of selected sexuality theory in order to assess the significance of the findings. The analysis will also use psychological/behavioural theories and apply selected theoretical constructs as depicted in the conceptual framework above. The three key themes are analysed using selected theoretical constructs based on psychological theories and models in assessing acceptability of MMC. The constructs are: (1) perceived benefits/outcomes (of MMC); (2) perceived efficacy (of MMC); (3) individual intention/motivation (to undergo circumcision).

5.1 MMC programme performance in Luapula province

Luapula is falling behind in meeting its target for MMC. Part of the reasons is that the province is traditionally a non-circumcising province; further, the MMC programme officially started in 2009 at one facility, Mansa General Hospital. Services were later scaled up to eight health facilities in 2010, out of 126 Ministry of Health public facilities in the province. The MMC programme combines static facility-based MMC services with mobile MMC outreach services. Facility based services have not performed well hence the emphasis on mobile MMC outreach as a key strategy. Several factors contribute to poor performance at facility level; poor infrastructure, inadequate space, a critical shortage of qualified health personnel. Only 40 health care workers have been trained in MMC in the province and judging from the low circumcision numbers, the health care workers appear to be underutilised. Another hindrance is the low key and ineffective community mobilisation and demand generation at community level. Information, education and communication messages are largely restricted to national television and radio to which few people have access in the province.

5.2 Sexual behaviour context of MMC in Zambia

The study targeted young adults between 20 and 24 years old because they are an important target group for the MMC intervention. This group is targeted for its potential in reducing HIV incidence and prevalence (Londish & Murray, 2008). While it was not possible to confirm high risk sexual behaviour among respondents, the Mansa study found evidence of sexual activity among male respondents; unprotected sex was also acknowledged to exist by most of the male respondents who also explained that young people preferred ‘flesh to flesh’ sex over sex with a condom because the former is “sweet” (male respondent, 23). In fact current data on sexual activity among young adults in Zambia reveals sexually active young adults who engage in high risk sexual activities, suggesting they already own and live their sexuality.

According to the Zambia Sexual Behaviour Survey (CSO, 2009) the rate of young male adults (20-24) who report having ever had sex was between 80 and 90 per cent from 2000 to 2009. The Survey also found that between 43 and 52 per cent young adult males had sex 12 months prior to the survey between 2000 and 2009. Only 21.9 per cent (2000), 24.1 per cent (2003), 18.9 per cent (2005) and 31.1 per cent (2009) reported being abstinent a year before the survey. Among young adult males, 22 per cent had more than 2 sexual partners, 68 per cent engaged in higher risk sex, and only 52 per cent used a condom at last higher risk sex in 2006 (Zambia DHS, 2007). In fact according to both the DHS and ZSBS, condom use has remained unchanged between 2000 and 2009 and any reported increases in condom use have been insignificant to have population level impact on the epidemic. In the context of male circumcision for HIV prevention the statistics highlighted underscore the urgency to accelerate scale up of MMC in order to reach these young adults before they get infected.

According to the Panos Institute (2004) men behave the way they do because it is how society expects them to behave: “most boys grow up believing, implicitly or explicitly, that their identity as men, and therefore as individuals, is defined by their sexual prowess” (2004, p.10), which refers to the sexual skill, ability and strength to perform sexually.

5.3 Perceptions about effects of MMC on sexuality

5.3.1 Sexuality: important consideration facilitating MMC acceptability

The Mansa study found that despite protection against HIV and penile hygiene being overwhelmingly mentioned as reasons for accepting male circumcision, perceptions about potential effects of circumcision on male sexuality are an important consideration for

acceptability of the procedure among almost all male respondents in the Mansa study. In their review of acceptability studies (discussed in this report) conducted in Sub-Saharan Africa, Westercamp and Bailey (2007) concluded that the way men perceived the relationship between male circumcision, enhanced sexual performance, and sexual pleasure for the man and for the woman, has the potential to influence receptivity and decisions about the procedure. Westercamp and Bailey describe results of some of the quantitative studies in their review that support these perceptions as being “statistically significant” among both men and women. The most important impact of circumcision mentioned by almost all the male respondents and some female respondents was the loss of penile sensitivity which was viewed both positively and negatively (see discussion below).

Loss of penile sensitivity is said to happen because of the progressive desensitisation of the glans penis as the surface keratinises or hardens. According to Bonner (2001), the circumcised penis develops a 0.0005 mm thick protective keratin surface layer. It is this layer that apparently facilitates prolonged coital thrusts in circumcised men and is said to be responsible for delayed ejaculation, or increased Ejaculation Latency Time (Sorells et al., 2006; Senkul et al., 2003; Payne et al., 2007; Masood et al., 2002). According to these studies the combined loss of the sensation from both the foreskin and the gradual desensitisation of the glans penis is what is believed to increase Ejaculatory Latency Time in men.

Loss of penile sensitivity is perceived to enhance sexual function and performance among circumcised men as well as improve sexual satisfaction for both men and women. This perception is consistent with other acceptability studies from sub-Saharan Africa (Bailey et al., 2002; Lukobo & Bailey, 2007; Mattson et al. 2005; Ngalande et al. 2006; Scott et al. 2005; Westercamp & Bailey, 2007; Lagarde et al., 2003; Nnko et al., 2001; Rain-Taljaard et al., 2003; Wilcken, Miiro-Nakayima, Hizaamu, Keli, & Balaba- Byansi, 2010). A study (Lagarde et al., 2003) in South Africa found that 50 per cent of circumcised men and 30 per cent of uncircumcised men believed that circumcision increased sexual performance. A study by Scott et al. (2003) in South Africa, discussed in this report, also found that men were more willing to accept the procedure if they believed that circumcised men enjoyed sex more and if they believed women enjoyed sex more with circumcised men. In another study in South Africa, Lagarde et al. (2003) found that about half of the men said women preferred circumcised men. Participants in Uganda in a study by Wilcken et al. (2010) concluded that enhanced sexual pleasure was considered a reason to get circumcised significantly more often by uncircumcised than by circumcised men (18.9 per cent versus 2.4 per cent). Further in the

same study, male respondents considered enhanced sexual pleasure twice as often a reason to circumcise than females (4.8 per cent versus 9.2 per cent. In the study in Mansa similar perceptions were expressed by male respondents who were more likely to mention sexual performance and sexual pleasure than the female respondents as reasons for accepting circumcision. Furthermore, most of the male respondents in Mansa believed that women enjoyed having sex with circumcised men.

In another study (Mattson et al., 2005) in Kenya, the strongest predictor of circumcision preference among men and women even after controlling for education, employment, beliefs about circumcision status and disease, was the perception about more sexual pleasure for women. Another study (Obure, et al., 2009) in Kenya found that circumcision preference was based on the perception that circumcised men rendered greater satisfaction to women, among both women and men. In Kenya, Westercamp, Agot, Ndinya-Achola, and Bailey (2011) beliefs regarding increased sexual pleasure when circumcised were important predictors of preference in both men and women. Westercamp and colleagues further found that men who preferred to get circumcised were likely to believe penis sensitivity increases following circumcision.

Other studies in Malawi (Ngalande et al., 2006; Pierotti, & Thornton, 2012), Uganda (Albert et al., 2010), Tanzania (Nnko et al., 2001), and South Africa (Rain-Taljaard et al., 2003) confirm similar perceptions among both men and women about enhanced sexual performance for the man and sexual pleasure for the woman, as reasons for accepting circumcision. In the Mansa study the perception about enhanced sexual performance and sexual pleasure for women was as strong a predictor of acceptability of MMC among male study participants. Based on the ranking categories (see ranking matrix above) of ‘most important’, ‘important’ and ‘somewhat important’, there were as many male respondents (23) who supported protection against HIV as there were male respondents (23) who mentioned sexual performance and pleasure as reasons for accepting MMC.

Similar perceptions about the effects of MMC on sexual performance and sexual pleasure have been documented by a number of studies (Friedland, 2011; Lukobo & Bailey, 2007; Sanjobo et al. 2010; MOH, 2012; MOH, 2009; Population Services International/Society for Family Health Zambia, 2007) in Zambia. The studies also provide some evidence that these perceptions have the potential to influence acceptability of the procedure. Friedland et al. (2011) discovered that some young people and adults downplayed the protective effect of

MMC because of its partial protection instead emphasising enhanced sexual performance and sexual pleasure. The PSI survey (2007, p.9) in Zambia documented overwhelming evidence about the significance of sexual reasons for men accepting circumcision, such that they identified beliefs that should be reinforced in messages about benefits of MMC. A key belief about sexual pleasure which the study recommended should be reinforced is that MC prolongs sex: *"You will be able to satisfy the ladies."* This perception was confirmed in the Mansa study. Another recommendation the study suggested should be reinforced was the belief the fact that circumcision is *"power."* Data in the Mansa study also supports this perception; a number of male and female respondents reported that they believe MMC increases 'sexual energy' (virility) which they claimed increases the number "rounds" (i.e. number of sexual sessions) among circumcised men.

The Mansa study also found another belief related to this perception of increased sexual power, which the PSI study supports and believes should be reinforced, namely loss of penile sensitivity. The PSI study suggested this is a *"good thing."* Almost all female and male respondents made reference to the loss of penile sensitivity which they felt had benefits for prolonging sexual intercourse and hence helping to achieve greater sexual pleasure for the man and the woman. The data from the Mansa study supports a small study done in Zambia which found that in addition to emphasising the HIV protective effect of MMC, its promotion should also highlight the social, sexual and romantic values and experienced by circumcised men as one study (Lundsby, Draebel, & Meyrowitsch, 2011) highlighted in Zambia.

Although the focus of acceptability studies did not dwell in detail on the interface between sexuality and male circumcision, they nevertheless provide useful insights. As discussed earlier, circumcision is primarily about a man's penis and hence his sexuality (specifically about sex) because it involves permanent alteration of the penis, said to contain thousands of sexually sensitive nerve endings which are important for sexual stimulation and pleasure for the man (and woman as claimed by some studies) during sex. Removal of the foreskin also leads to desensitisation of the glans penis, a vital part in the sexual function of a man. As data from the Mansa study shows, the removal of this important part of a man's sexual anatomy appears to have the potential to redefine a man's sexuality in a number of ways. It may change the way he thinks about sex, from thinking about sex as an intimate expression of love to reinforcing the notion of women as sex objects and sex as performance. Hardening of the glans penis and the resulting prolonged coital thrusts in a man was perceived by both male and female respondents to increase the number of rounds a man could perform. MMC

also has the potential change the way he might prefer to have sex (such as without a condom because of the false sense of safety and the preference for 'flesh to flesh sex'. It might also encourage him to have multiple sexual partners because of the belief in his improved sexual prowess as a result of penile desensitisation.

The data coming out of the Mansa study for instance suggests that MMC is being (wrongly) perceived as a way of securing permanent and natural sexual performance enhancement and protection against HIV. Most male respondents referred to how some of their peers perceived MMC as a 'natural condom' because of the perception that it offers 'natural' protection against HIV. Lagarde et al. (2003) demonstrated in South Africa that 9 per cent of circumcised and 7 per cent of uncircumcised men believed that circumcised men do not need to wear condoms and that 30 per cent and 18 per cent respectively who believed that circumcised men can safely have sex with many women.

As discussed earlier in this report, although there is some evidence regarding positive impact of MMC on male sexuality, the evidence is inconsistent and inconclusive. For example, studies in Uganda (Kigozi et al. 2009) and Kenya (Krieger, Bailey, Mehta, Kawango, Ndinya-Achola, Parker, & Moses, 2008) found no serious impairment post-circumcision on men's sexual function and women's sexual satisfaction after their male partner was circumcised. In Kenya, 54.5 per cent of men reported increased penile sensitivity and enhanced ease of reaching orgasm. Of the women surveyed in Uganda, 2.9 per cent said they were not satisfied, 39.8 per cent reported increased satisfaction and 57 per cent reported no change. Women reported being satisfied because of their partner's penises which they considered cleaner and an increase in the Ejaculation Latency Time referred to above. In fact 97 per cent of women reported no change or improved sexual satisfaction; it is not clear what the levels of satisfaction were among the women before the men were circumcised. In Uganda where Kigozi et al. (2007) investigated self-reported sexual satisfaction and function, the results showed an increase in sexual satisfaction from 98 per cent at enrolment to 99.9 per cent after two years. It is not clear how this analysis was arrived at or indeed its significance.

A study in South Korea which has universal coverage of MMC provides more reliable evidence on the potential positive impact of circumcision on sexual function. Kim and Pang reported that only 6 per cent male respondents reported improved sexual lives while 8 per cent reported increased sexual pleasure. Senkul et al. (2003) reported an increase in Ejaculatory Latency Time among circumcised men which he concluded can be considered an

advantage rather than a complication; it ensures prolonged coital thrusts during sex and may enhance sexual enjoyment for both the man and woman; this perception was expressed by both female and male respondents in the Mansa study.

In Zambia, no large scale studies on sexual function have been conducted despite thousands of men who have been circumcised. A small study of 13 men who had recently undergone the procedure found that in addition to emphasising the HIV prevention role of MMC, the procedure had “a social, sexual and romantic” value in the men’s everyday life-day experience. One man is reported as saying: “it brought joy in my home as in the area of my wife” (Lundsby et al., 2011). We can only speculate that this perhaps means that the procedure has had a positive impact on the couple’s sex life. Clearly, more research is needed in Zambia.

5.3.2 Sexuality: important consideration impeding MMC acceptability

While medical male circumcision is said to have few serious lifelong effects, this does not mean that there are no effects worth documenting and addressing within MMC programmes. Perceptions about the perceived impact of MMC on male sexuality are not only restricted to improved sexual performance and sexual pleasure. As the Mansa study found, young adults have concerns about the perceived negative effects of circumcision on male sexual function/performance and pleasure which have the potential to impede acceptability of male circumcision. The commonest negative perception is the belief that circumcision leads to reduced sexual pleasure because of loss of penile sensitivity (or loss of sexual feeling as described by some respondents), impotence, painful and weak erection, reduced ability to satisfy women, excessive sexual desire (referred to as circumcised men becoming “very active”).

These perceptions from Mansa are consistent with other acceptability studies (Bailey et al., 2002; Rain-Taljaard et al., 2003; Albert et al., 2010; Lukobo & Bailey, 2007; MOH, 2009; MOH, 2012) from sub-Saharan Africa which found similar perceptions. In South Africa, 21 per cent of circumcised men and 14 per cent of uncircumcised men believed that circumcision decreased sexual pleasure (Lagarde et al., 2003). Although not conclusive, some evidence exists which demonstrates the negative impact of MMC. A study by Sorells et al. (2006, p. 45) concluded that circumcision removes the most sensitive parts of the penis which has “thousands of fine touch receptors and other highly erogenous nerve endings” which reduces sexual sensation experienced by circumcised men, adding that this has the potential

to affect the way sex is experienced by men. In a self-reported study (Kim & Pang, 2006) discussed above, a significant number of men experienced reduced sexual pleasure mainly because of loss of penile sensation and only a few reported increased pleasure. The main conclusion of the Kim and Pang study, discussed above, was that male circumcision has the potential to negatively affect sexual performance and pleasure in men. A study by Frisch et al. (2011) in Denmark found that circumcision was linked to serious sexual problems post-circumcision in a number of men. In the United Kingdom, Masood and his colleagues (2005) concluded that some men who reported experiencing loss of penile sensitivity suffered from premature ejaculation.

A study by Schober, Meyer-Bahlburg, & Dolezal (2009) also concluded that removal of the foreskin and hardening of the glans penis alters the way in which circumcised men experience sexual pleasure. While the studies highlighted in this paragraph found differences in penile sensitivity and sexual satisfaction among circumcised and uncircumcised men, other studies (Payne et al. 2007); Bluestein et al., 2003; Collins et al., 2002) that evaluated penile sensitivity and sexual satisfaction in circumcised and uncircumcised men claim to have found no differences. It is important to point out that evidence on the negative effects of MMC on sexuality is highly controversial and remains inconclusive. Bias among the researchers appears to be a key factor in explain the conflicting evidence. Other reasons are due to poor inadequate study designs, samples that were too small to provide statistically significant data, poor response rates, and in some case inadequate analysis of results. As MMC becomes widely available in Zambia and elsewhere in Sub-Saharan Africa, it is hoped that more useful information can be documented about the effects of MMC on sexual function post-circumcision. To better understand implications of the evidence from the Mansa study, it is also important to understand the link between male sexuality and male circumcision.

5.4 Male Circumcision in the context of male sexuality

Sexuality has been described as “a central aspect of being human throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction” (World Health Organisation (2006, p.5). It has also been defined as the way in which we experience and express ourselves as sexual beings, either as men or women (Rathus, Nevid, & Fichner-Rathus, 1993). Gupta (2000, p.3) notes that sexuality is “a social construction of a biological drive”. In other words, it is the way men and women are socialised to think, feel and act (i.e. behave) in relation to sex. The Mansa data clearly shows that individual men are likely to think, feel and behave differently in relation to sex once they

become circumcised as has been presented in the findings above. According to Gupta, “an individual’s sexuality is defined by whom one has sex with, in what ways, why, and under what circumstances and with what outcomes” (Gupta, 2003, p.3). In the Mansa study, it is interesting to note that in the context of male circumcision most of the male respondents were clear in what ways they wanted to experience sex, why they have sex and the expected outcomes of sex for themselves and their partners. Majority of the male respondents espoused the idea of ‘flesh to flesh sex’, acknowledge the centrality (and the pursuit and expectation) of physical pleasure in their sexual lives. However, despite showing overwhelming support for circumcision, male respondents have some concerns about the circumstances under which they are being asked to have sex; i.e. sex with a penis that does not have a foreskin.

According to Blanc, (2001, p.45), “sexual enjoyment is influenced by the social construction of male and female sexuality”. Blanc observes that there is a belief in many societies that men are more interested in sex than women and that they need it frequently in order to stay sexually healthy. However, a double standard exists for women; women are often expected to be “sexually available but not to be sexually active” (Blanc, p.46) where as men are expected to be sexually active. A few (single) male respondents noted that the six weeks recommended healing time post circumcision was too long. It is such perceptions and societal expectations about sex which appear to influence the ways in which males and females seek and experience sexual pleasure. Male circumcision has brought into sharp focus the importance of perceptions about how men might seek and experience sexual pleasure post circumcision.

The World Health Organisation (2006, p.5) explains that “sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviours, practices, roles and relationships.” Majority of male respondents in the Mansa study clearly expressed their thoughts, fantasies, beliefs, attitudes, values, and perceptions about MMC and post-circumcision (sexual) behaviour, practices, roles and relationships; they clearly own their sexuality.

5.5 Physical pleasure and male circumcision

As suggested above, a key aspect of sexuality is the physical pleasure derived from sex. Reiss (1986) and Berer (2003) cited in Berger, (2004, p.62) argue that most sexual behavior is characterised by the pursuit of physical (sexual) pleasure. In Zambia, low condom use in high risk sexual encounters among young adults suggests they will pursue sexual pleasure at all costs. According to the Zambia Sexual Behaviour Survey (2009) only 53 per cent of males

supported the use of male condoms while reported condom use (among males 20-24) at first sex was at 35 per cent and between 24 to 30.4 per cent at last sex. The reasons often given for low use are that they are a barrier to physical (sexual) pleasure. The preference by most sexually active adults for the so-called 'skin to skin' or 'flesh to flesh' sex is common knowledge and has been documented in a number of studies (Campbell, et al., 2003; Walker, Reid, & Cornell, 2004 cited in Berger, 2004). A number of male respondents in the Mansa study made the observation that some of their peers who had been circumcised welcomed MMC as a replacement for condoms because, unlike the male condom, MMC has a dual function: protection against HIV and physical pleasure during sex.

The Zambia Sexual Behaviour Survey has noted an overall decline in condom use among both adults and young adults despite condom availability. And even though the survey does not put forward reasons for the low condom use, data in the Mansa study suggests that 'flesh to flesh' sex is a more preferred option because of physical sensation renders during sex. Might this lead to further decline in condom use? The evidence discussed in this report suggests that risk compensation is an emerging issue (see further discussion below).

Preoccupation with physical sensations of sex appears to dominate the minds of men as exhibited by the majority of male respondents interviewed in the Mansa study. Loss of penile sensitivity, the most commonly mentioned perceived outcome of MMC mentioned by most of the male and some female respondents is associated with increasing a man's ability to perform (sexually) and thus allowing him to enjoy sex much longer as well as give more and prolonged sexual pleasure to a woman. Both male and female respondents referred to how they perceived circumcision to increase the number of sex rounds by a circumcised man. According to most male respondents, increased virility defines a 'real man'. The data in the Mansa study also revealed that this perception has a lot to do with the expectation for sexual self-actualization among male respondents. A number of respondents suggested that it was important for a man to be adequate in sexual matters as not being able to perform - and hence satisfy his sexual partner - has the potential to cause problems in a relationship. A number of studies (Dixon-Mueller, 1993; More & Helzner, 1996; Mensch et al., 1998 cited in Blanc, 2001) have documented women's lived sexual experiences which are devoid of any pleasure and over which they have little say. Societal expectations about how men and women should behave sexually contribute to this lack of say in sexual matters.

Understandably so, women in the Mansa study were extremely reserved in expressing their perceptions about the perceived impact of circumcision on sexuality, particularly on women's sexual pleasure. While this could be explained by the fact that they lacked factual information on the issue, double standards exist which constrain women from expressing themselves sexually; female sexuality is restricted while male sexuality is explicitly or implicitly promoted. In many settings women are not expected to be knowledgeable about sex or even to be interested in sex while men are believed to be more interested in sex and expected to actively pursue it. This bias towards and emphasis on male sexuality reinforces the idea that it is okay for men to pursue sex, seek and expect pleasure. Almost all male respondents in the Mansa study clearly perceived their role in sexual relationships as that of *performing* sexually and hence satisfying their female partners. Women are further expected to be passive in sexual matters and may be less comfortable than men in discussing sexual matters, much less their own expectations, desires, and sexual satisfaction (Blanc, 2001; Aggleton, Rivers & Scott, 1999; Havanon 1996; Barnett & Stein 1998; Gupta 2000; Luke & Kurz, 2002, UNAIDS, 1999; Varga, 1997; Ulin, 1992; Wolff, Blanc, & Gage, 2000; Gupta, 2000; Gupta & Weiss, 1993).

The notion of masculinity in male sexuality is an important concept to which most male respondents ascribe to as indicated in the discussion above. Men are expected to be virile and to perform sexually in order to leave up to the 'real man syndrome'. One respondent in the Mansa study stated that:

"I can go for circumcision for me to be able to satisfy my partner sexually because we are told that when you are circumcised the penis in front becomes hard. It is sharp with feelings when it is inside the foreskin, but when the foreskin is removed, the front becomes hard and strong such that when you go to a woman for you to feel that you are with a woman it takes so long and you have to do it rough for a long time so that you can satisfy the woman. I think most men who are circumcised are proved to be real men when they are doing it with women." [Male respondent, 24]

Fortunately a few gender-equitable male respondents noted that circumcision facilitates "balancing sexual satisfaction" between men and women. Data in the Mansa study demonstrated the fact that circumcision may be changing expectations about men's role in relation to sex in relationships. Although some studies cited in Blanc (2001) referred to above have shown that most men generally see women as sex objects and see sex as performance,

circumcision appears to be helping men to rethink the way they understand women's sexual satisfaction and their role in facilitating this.

5.6 Sexuality theory and medical male circumcision

To what extent does sexuality theory help to understand and contextualise perceptions about the impact of MMC on sexuality? The most influential psychological theory of sexuality is the Psychoanalytic theory or Libido theory as it is also known. Put forward by Freud (1856-1939), the theory argues that sex drive is a very important life force and views the "sex energy or libido" as a major influence on sexual behavior (Boeree, 2009). Freud introduced the concept of erogenous zones; these are defined as those parts of the body that are sensitive to sexual stimulation (Oxford University Press, 2006). The penis is one of the most important erogenous zones on a man's body; the foreskin with its abundant sensitive nerve endings is an even more important erogenous zone for sexual stimulation and pleasure for the man as some studies (Yang, Lin, Zhang, Guo, 2008; Kim & Pang, 2007) have attempted to demonstrate, there is some evidence of both positive and negative sexual outcomes that may occur to a man's sexual function and sexual satisfaction as a result of circumcision. The data in the Mansa study supports the importance of the foreskin as an erogenous zone. All male respondents were concerned about having their foreskin removed because of the perceived negative implications on sexual function and pleasure. One male respondent observed:

"May be I can do it so that I can be satisfying my partner when having sex with her, but am not sure how this can benefit me because when you remove the foreskin I have heard that the front of the penis becomes very hard and I think the man who is circumcised cannot feel sweet because it can take him long to ejaculate but one who is not circumcised can enjoy more because of the sensitive foreskin which is there." [Male respondent, 23]

5.7 Acceptability of MMC: role of theories and models of behaviour change.

In addition to sexuality theory which can be used to contextualize perceptions about the impact of male circumcision on sexual function/performance and pleasure, theories and models of behavior change can also be used to enhance understanding of the role of perceptions in facilitating or hindering acceptability of MMC. The conceptual framework above depicts selected theoretical constructs within the theories and models and focuses on the role of perceived benefits/expected outcomes of MMC, belief in the efficacy of MMC and personal intention and motivation to undergo circumcision, in influencing or hindering acceptability.

5.7.1 The Health Belief Model and MMC

The Health Belief Model has been widely used to develop HIV interventions. The model postulates that for an individual to adopt a health behavior, in this case MMC, he must perceive himself at risk of contracting HIV, perceive that HIV is a serious problem, believe that MMC is effective in protecting against HIV, as well as accept the benefits of MMC, and overcome barriers of MMC. It also helps if individuals are spurred on by others to get circumcised, referred to as cues to action. Data in the Mansa study shows that while almost all the respondents know what MMC is, they were not sure about how and how much protection the procedure provides against HIV. A few male respondents doubted its efficacy because of its partial protective effect. Even though majority of the respondents considered HIV a serious problem, a number of them thought they were not personally at risk because they reported to be abstaining from sex and did not see the protection against HIV as an important reason for accepting MMC. Rather, they were more willing to accept MMC for the perceived sexual benefits it is said to offer. However, majority of male respondents noted serious barriers related to perceived negative impact on sexual function and pleasure. A few referred to the concept of cues to action noting that they had been spurred on by colleagues to think seriously about MMC.

5.7.2 Social Learning Theory and MMC

The Social learning theory which uses the concept of expectancies (UNAIDS, 1999; Bandura, 1992) stresses the importance of how expected outcomes of health interventions (in this case MMC) might facilitate its acceptability and adoption. The data in the Mansa study demonstrates that uncircumcised men have both positive and negative expectancies about the impact of MMC in relation to sexual performance and sexual pleasure.

5.7.3 Theory of Reasoned action and MMC

The theory of reasoned action which focuses on personal intention as influenced by attitudes towards an intervention and social influence (UNAIDS, 1999) is another useful way of understanding acceptability of MMC in the context of behavioural theories. When the male respondents in Mansa were asked about their personal intention to get circumcised, almost all of them except three said they would get circumcised within weeks or months. Attitudes towards MMC remain mixed though. Some express willingness to go through with the procedure, while others are not yet ready. Lack of information about the disadvantages, perceived costs and barriers, and perceived low efficacy of MMC continue to demotivate

many potential clients. A quantitative study (Pierotti & Thornton, 2012) in Malawi found that among a large sample (approximately 1,700) of uncircumcised men, approximately 50 per cent indicated willingness for a circumcision, but less than eight per cent actually did get circumcised in the year between the baseline and follow-up surveys. The researchers concluded that decisions about circumcision are “complex and evolving” and require “high levels of motivation” before one gets circumcised.

5.7.4 Stages of Change Model and MMC

According to UNAIDS (1999), the stages of change model posits that an individual goes through a number of stages before deciding to take protective action against disease. As explained earlier, individuals may go through a lengthy process of reflection, consultation etc. before making a decision. An individual may not have thought about MMC known as the pre-contemplation stage, secondly he may have considered the importance of MMC and is known as the contemplation stage. Then comes the preparation stage during time an individual seriously thinks about getting circumcised and finally an individual will act by getting circumcised. The all-important stage of maintaining safe sexual practices including condom use, mutual faithfulness etc. might need to be reinforced. A final stage is the relapse stage which involves risk compensation or sexual disinhibition by circumcised men. Most male respondents interviewed in the Mansa study were in the preparation stage and are thinking about getting circumcised in the next few months. As indicated three respondents reported that they are in the pre-contemplation stage because according to them, they have not seen the need to get circumcised. The importance of the stages of change model derives from the fact that an opportunity exists to target individuals with specific messages that address the stage at which each individual is in. A critical stage useful in reinforcing the intervention is in the maintenance and relapse stages. Despite MMC being a one-off intervention it clearly needs ongoing reinforcement. Almost all participants were unanimous in suggesting the potential for risk compensation or sexual behavior disinhibition among circumcised men. Combination prevention (condoms, HIV testing, mutual faithfulness) for circumcised men is needed to reinforce ongoing protection against HIV. Some male respondents were critical of MMC noting that it is unnecessary because it tempts men to experiment with what is perceived to be a “natural condom” (i.e. a circumcised penis) thus putting themselves at risk of contracting HIV.

5.8 Other reasons that facilitate MMC

One of the most important findings for accepting medical male circumcision among both male and female respondents is its perceived role in preventing HIV transmission from female to men during vaginal sex. All respondents male and female recognise and accept MMC as a convenient, one-time intervention (unlike condoms) which provides men with life-long but partial protection against HIV as well as other sexually transmitted diseases, including prevention of cervical cancer in women.

Acceptance of circumcision, however, had little to do with its perceived efficacy which was questioned by a number of respondents. Rather, it appears to be from a genuine concern about the real threat of HIV and AIDS, as expressed by a significant number of respondents. Zambia is a high prevalence country, with adult prevalence estimated between 14 and 16 per cent. After almost three decades of the epidemic, Zambia has a mature and visible epidemic; more people are visibly getting sick while others are developing full blown AIDS and many more dying. In fact a number of respondents were worried that circumcision would increase infection levels because of the belief that it would encourage young men to have unprotected sex. Most respondents believe that circumcised have more and riskier sex believing they are protected from HIV. They noted that the problem of HIV and AIDS was serious. One respondent noted:

“Here in Mansa we see people who are sick with AIDS every day, especially when you go to Mansa General Hospital there are usually many people waiting for ARVs and some waiting for TB drugs but even some who are looking okay they have AIDS but sometimes you can’t know who is having AIDS unless you go for an HIV test so one has to be careful not to have sex anyhow because you can also get sick.” [Male respondent, 23]

Among female respondents in the study, the overwhelming support for circumcision as a prevention tool against HIV could be explained by the fact that most women generally feel vulnerable because of men’s behaviour. According to UNAIDS (2008), women’s vulnerability results from a range of factors outside the control of the individual that reduce the ability of individuals and communities to avoid HIV risk.

Women’s vulnerability has been documented in a number of studies (Panos Institute, 1999; Luke & Kurz, 2002, UNAIDS, 1999; Varga, 1997; Ulin, 1992; Wolff et al., 2000; Gupta, 2000; Gupta & Weiss, 1993). In Zambia, the Zambia Sexual Behaviour Survey and the Zambia Demographic Health Survey document women’s vulnerability seen in their inability

to negotiate condom use with male partners, or refuse sex because of economic dependence on a man, or inability to control a man's sexual behaviour. According to the Panos Institute (1999, p.4), "women are vulnerable to HIV while men are at risk". This statement shows how differently men and women get infected. The Panos Institute notes: "most women are vulnerable because they have limited opportunity to protect themselves; many men are at risk because they refuse to do so (i.e. protect themselves) - often deliberately, it seems".

The studies (Luke & Kurz, 2002, UNAIDS, 1999; Varga, 1997; Ulin, 1992; Wolff et al., 2000; Gupta, 2000; Gupta & Weiss, 1993) further document how women are unable to control men's sexual behaviour or force men to use condoms even when they feel at risk. Although many women probably manage to control their sexual lives, "a considerably great number find it difficult to persuade their male partners to use a condom or to abstain from sex with other women. A large number of other women refuse to challenge their partners for fear of a violent reaction" (The Panos Institute, 2004, p.9). A female respondent expressed women's vulnerability by stating:

"May be with circumcision they will at least be safe even if it is not 100 per cent safe but it is a permanent protection and I think it is better, but with condoms if a man is too drunk he can forget to use it or if he doesn't have it or maybe he doesn't want to use it you can't force him because most men say live sex is better and sweeter so they don't mind they can just have live sex anyhow and then can bring the infection to you." [Female respondent, 22]

Penile hygiene was universally mentioned as an important reason for accepting male circumcision. This view was particularly strong among female respondents most of who ranked it highly as one of the more important reason for preferring a circumcised man. In fact several acceptability studies highlighted above show that a significant proportion of women preferring a circumcised man mentioned penile hygiene. Bonner (2001, p.145) explains that an uncircumcised penis "requires careful cleansing, including regular retraction of the foreskin in order to remove smegma, which may accumulate underneath it." The importance for women is seen in the fact that a dirty penis is perceived as a source of infection such as cervical cancer. Epidemiological studies (cited in WHO & UNAIDS, 2007) have shown that circumcised men have a lower risk of several reproductive tract infections than uncircumcised men. The explanation for this is that the foreskin is a warm, moist area that may enable some disease causing germs to persist and multiply especially when penile hygiene is poor. When this is the case, smegma collects, which is a 'combination of

exfoliated epithelial cells, transudate skin oils, moisture and bacteria” (WHO & UNAIDS, 2007). For the male respondents, general cleanliness was also seen as important but not as important as it was suggested by the female respondents. Male respondents noted that washing the penis was part of the daily routine of bathing or at least that it should be in an average man. A few male respondents argued that it is unlikely that a man would bath and forget to wash his penis. However, WHO/UNAIDS (2007) cites studies in South Africa and India where about 49 per cent of uncircumcised men attending STI clinics had detectable wetness under the foreskin, a reflection of poor hygiene. Poor hygiene in uncircumcised men has been demonstrated to increase the risk for HIV infection in a number of studies (cited in WHO/UNAIDS, 2007).

Another important reason for accepting circumcision for HIV prevention, especially among female respondents, is the strong desire to prevent cervical cancer. Zambia’s first lady, Dr Christine Kaseba-Sata, a medical doctor by profession, has embarked on a personal crusade and launched a high profile national campaign to sensitise women about the disease since her husband Michael Sata became president of Zambia in September of 2010. It did not come as much of a surprise that almost all the female respondents mentioned prevention of cervical as a reason for accepting circumcision for HIV prevention. All the female respondents reported being aware about the seriousness of cervical cancer in Zambia noting that they had heard that thousands of women die every year from the disease. They also reported being aware about the national campaign being championed by the first lady. Cervical cancer directly afflicts a women’s sexual reproductive health with serious implications on her ability to have children; it therefore came as no surprise that prevention of cervical cancer was mentioned as a priority among all the female respondents. Most female respondents referred to “germs” and “dirt” which they said collect inside the foreskin which is then passed on during sex with a woman. According to WHO (2010) Human Papilloma Virus (HPV) infection in the genital tract has been detected in up to 73% of healthy men. Like other STIs, HPV may be transmitted more readily from men to women than from women to men, hence the rationale for male circumcision as a way of preventing cervical cancer in women. Prolonged hormonal contraceptive use, co-infection with HIV and other STIs contribute to development of cervical cancer in women. According to the WHO (2010), Zambia and Tanzania have the highest incidence of cancer of the cervix in Africa, with Zambia having the highest in Africa. Zambia has a population of 3.2 million women ages 15 years and older who are at risk of

developing cervical cancer. Further, the country diagnoses more than 2000 cases of cervical cancer each year and more than 1,300 die every year.

Social networks and social norms were found to be an important factor in facilitating acceptance of circumcision among male respondents. A number of male respondents acknowledged the power of prevailing social norms within their student social network of young people in influencing circumcision-seeking behaviour. The male respondents in the Mansa study reported that more young men were responding to the new social norm and expectation for young men to get circumcised because it is socially desirable among women to have circumcised men. According to the theory of reasoned action (UNAIDS, 1999) young people respond to calls for action based on what they believe their peers would expect them to do but also the perception that women prefer circumcised men because of the perceived benefits discussed above.

The power of social influence is also espoused in the diffusion of innovation theory (Rogers, 1983) which describes the process of how an innovation such as MMC is disseminated throughout a community. According to Rogers (cited in UNAIDS, 1999) the theory has four essential elements: the innovation, its communication, the social system and time (UNAIDS, 1999). The theory argues that people's exposure to a new idea such as MMC, which takes place within a social network (such as Mansa College of Education), determines the rate at which others will adopt the innovation. According to respondents in the study, most people, including college students only began hearing about circumcision from about 2009 when it was officially launched in the province. According to Kegeles (as cited in UNAIDS, 1999) the diffusion of innovation theory postulates that "people are most likely to adopt new behaviours based on favourable evaluations of the idea communicated to them by other members whom they respect". It was clear in the Mansa study that uncircumcised young men listen to and believe what their circumcised peers have to say about circumcision, particularly as it relates to sexual benefits of the procedure. What is not clear however, is whether enough influential peers (i.e. role models) among the college students have been circumcised who could be systematically and purposefully used to influence their uncircumcised peers, something Kelly (as cited in UNAIDS, 1999) considers a prerequisite for this theory to have impact in spreading such an innovation widely within peer networks such as the one at Mansa College of Education.

5.9 Sexual reasons that impede circumcision

While medical male circumcision is a relatively simple procedure even when done by qualified personnel, it may have surgical risks which can hinder its acceptability among uncircumcised men. A number of studies (Auvert, et al., 2005; Okeke, Asinobi, Adanze, Ikuero, & Odunayo, 2006; Magoha, 1999; Krieger, Bailey, Opeya, Ayieko, Opiyo Agot, Parker, Ndinya-Achola, Magoha, & Moses, 2005) have documented the significance of these potential risks in impeding acceptance of circumcision. Almost all male respondents mentioned loss of penile sensitivity, painful erection, and erectile dysfunction, fear of potential damage to penis and fear of impotence as barriers to accepting MMC. A number of male respondents were more concerned about the implications of removing the foreskin on a man's ability to perform sexually and derive sexual pleasure during sexual intercourse. Studies (Taylor, Lockwood & Taylor, 1996; Schober et al., 2009; Sorells et al., 2006; Kim & Pang 2006; Senkul et al., 2003; Lindholm & Gronbaek, 2011; Masood et al., 2005) discuss the role of the foreskin in giving pleasure to men as well as the negative impact of its removal.

Apart from the immediate loss of sensation as a result of the removal of the foreskin, circumcised men are also reported to experience progressive desensitisation of the glans as the surface keratinises and is covered in a hardened coating which is said to shield the nerves of the glans from stimulation (Schober et al., 2009). According to Schober and colleagues, this desensitisation of the glans changes the quality and reduces the quantity, of sensitivity of circumcised men. However, as pointed out above, most male respondents have a positive perception about this loss of penile sensitivity which they considered advantageous to prolonging coital thrusts in a man during sex with a woman.

5.10 Other reasons that impede acceptance of MMC

Other reasons that impede acceptance of MMC have been confirmed by other studies (Bailey et al., 2002; Kebaabetswe et al., 2003; Lukobo & Bailey, 2007; Mattson et al., 2005;; Ngalande et al., 2006; Scott et al., 2005) conducted in sub Saharan Africa. As reported in the Mansa study fears about pain during and after the procedure were reported to be one of the most significant barriers to MMC acceptability. Long healing time was another significant barrier mentioned in the Mansa study; acceptability studies highlighted above found similar views about healing time, especially among married couples. Reports have been documented about men who resume sex prematurely before the stipulated six weeks. Even though none were married, the male respondents interviewed in Mansa claimed that six weeks was too

long for them to wait before resuming sex. Other studies suggest that early resumption of sex is a common occurrence. In one study in Zambia, Hewett, Hallett, Mensch, Dzekedzeke, Zimba-Tembo, Garnett and Todd (2012) found that 46 per cent of circumcised men started having sex within three weeks of the recommended six week abstinence period. Premature resumption of sexual activity following circumcision poses a danger for HIV transmission because of the fresh wounds on the penis. This clearly undermines the effectiveness of circumcision programs. Other data from the three randomized trials conducted in Sub-Saharan Africa indicate that some men ignore the recommendation to abstain from sex while the wound heals (Guttmacher Institute, 2012). In Kenya the figure was 3.9 per cent, in Uganda it was 5.4 per cent while in South Africa it was 22.5 per cent (Guy de Bruyn, Martinson & Gray, 2010).

Uncertainty about the efficacy of MMC is another serious barrier. A few male respondents had serious doubts about the protective effect of medical male circumcision and saw no reason to get circumcised if the procedure only offered partial protection against HIV. Majority of the respondents did not seem to appreciate the concepts of risk reduction provided by circumcision as opposed to risk elimination.

The potential problem of risk compensation or sexual disinhibition was also reported by some male respondents as an important barrier for not readily accepting circumcision. The reasons given include the perception that circumcised men would be “forced to become very active” (male respondent, 24) and that he “would be tempted to have sex with many women without using a condom” (female respondent, 23). Kalichman, Eaton and Pinkerton (2007) and Pinkerton (as cited in Kalichman, Eaton and Pinkerton, 2007) define risk compensation as “any behavioural change that acts to offset a reduction in risk resulting from other changes”. In the context of MMC the partial protective effect of MMC might lead some men to engage in sexual and other behaviours that increase their risk of contracting HIV. Kalichman and colleagues define Sexual Disinhibition as a state of reduced control over one's sexual behavior as a result of removal of a factor (in this case the foreskin) which can lead to sexual behaviour that an uncircumcised man might not engage in. The foreskin is thus considered a restraint or moderator on risky sexual behaviour (Reiss, Achieng, Otieno, Ndinya-Achola, Bailey, 2010). Some male respondent in the Mansa study felt that getting circumcised would probably cause them to become promiscuous, noting that they have observed this tendency among their circumcised peers, some of who even brag about their sexual exploits. A few studies (Bailey et al., 2002; Rain-Taljaard et al., 2003) have

documented sexual disinhibition among uncircumcised men, with participants in those studies observing that MMC encouraged sexual experimentation among circumcised men. Participants in other studies (Ngalande et al., 2006; Lukob & Bailey, 2007) in Kenya, Malawi and Zambia respectively, also expressed concern about the potential of risk compensation and sexual disinhibition among circumcised men. The three randomised trials (Gray et al., 2007; Bailey et al., 2007; Auvert et al., 2005) conducted in Uganda, Kenya and South Africa discussed in this report, found no evidence of sexual disinhibition in the Ugandan trial. However, evidence from the South African and Kenyan trial showed that circumcised men reported having more sex than the uncircumcised men. Other studies (Lagarde et al. 2003; Bailey, Neema, and Otheino, 1999; Albert et al. 2010) found that circumcised men were more likely to engage in HIV risk behaviours than uncircumcised men. As highlighted above, a study (Lagarde et al., 2003) in South Africa provides some evidence found among circumcised and uncircumcised men who believed that circumcised men do not need to wear condoms and that circumcised men can safely have sex with many women.

Although Zambia does not have adequate evidence on risk compensation and sexual disinhibition among circumcised men, available data anecdotal data gathered from Mansa study and one study (Hewett et al., 2012; MOH, 2012-see below) suggests this could be a problem. Participants in a focus group discussions in a number of studies (Lukobo & Bailey, 2007; Sanjobo et al. 2010; Friedland et al., 2011) expressed concern that circumcised men would engage in more sex, a view expressed also by Mansa study participants who said circumcised men would become “very active” (translated to mean they would have more sex). According to a study in Zambia by the Population Council in 2010 (MOH, 2012), approximately 24% of men circumcised reported resuming sex within six-weeks; of these men, 82% reported at least one unprotected sex act and 37% had sex with two or more partners during the healing period. Zambia’s National Voluntary Medical Male Circumcision (VMMC) Communication and Advocacy Strategy 2012-2015 (MOH, 2012, p.12) “recognizes the importance of risky post-VMMC behaviour mitigation and maintains that pre-and post-operative counselling must be included as part of the comprehensive package of services offered at all VMMC service locations”. However, the MOH suggest more research is needed to identify the most effective behavioural counselling approaches for MMC clients and their female partners in the Zambian context. It suggests: “Individual HIV counselling and testing, and where possible, couples HIV counselling and testing, are promising add-ons to VMMC services which could help to reduce risky post-VMMC behaviour, and which

should be offered as part of the minimum package of VMMC services". Clearly, risk compensation and sexual disinhibition are an emerging priority for research as MMC becomes more widely available in Zambia and elsewhere in the region.

An important finding in the Mansa study was the apparent gap between what individuals perceive and believe what public health messages communicate about MMC. This gap appears to influence the weight individuals give to particular reasons (facilitators) for accepting circumcision. The study found that lack of accurate and comprehensive information tends to add a layer of confusion among uncircumcised men. It appears the importance attached to various reasons for accepting the procedure is based on individual speculation rather than factual information.

The consequence of this apparent information conflict as the study found is that potential clients tend to downplay the protective value of circumcision against HIV in preference for the perceived sexual benefits offered by MMC. For example, when asked to rank reasons (see ranking matrix on page 29) for accepting circumcision, six male respondents ranked sexual performance and sexual pleasure over HIV prevention. Eleven male respondents thought circumcision is 'important' against three who thought protection against HIV was 'important'. A few others ranked hygiene over HIV prevention because they claimed to be abstaining from sex and did not see protection against HIV as a priority. Similarly, among female respondents, some ranked hygiene as being more important than HIV prevention while others ranked prevention of cervical cancer as being more important than HIV prevention. When asked why they ranked sexual performance and pleasure as being 'most important' and 'important' compared to protection against HIV, less than half of the male respondents reported that they were abstaining from sex and did not consider protection against HIV as a priority for now. The findings presented above confirm the importance and centrality of sex in young men's lives, enhanced male sexual performance, sexual pleasure and ability to satisfy women sexually, all considered socially desirable and perceived as conforming to the 'real man' syndrome. Scot B.E., et al. (2003, p.311) concluded in his South African study that "while more men stated protection from STIS, including HIV, than increased sexual pleasure as a reason for circumcision, our data suggests that factors concerning beliefs about sexual pleasure may actually be more influential."

Scott et al. (2003) also found that uncircumcised men who believe that sexual reasons are more important than other reasons (i.e. more important than preventing HIV), are more likely to accept MMC. Data in the Mansa study has demonstrated the fact that sexual reasons are important for accepting circumcision and could even be more important than other reasons. It is also possible that the male respondents mentioned protection from HIV as the most important reason for accepting circumcision (see ranking matrix above) more than they did sexual performance and pleasure, because they probably believed it is what the principal investigator wanted to hear.

Chapter VI: Conclusion and recommendations

There is overwhelming support for male circumcision for HIV prevention among young uncircumcised men. Majority of the male respondents consider protection against HIV as the most important reason for accepting the procedure. However, more than half of the male respondents see it as important for enhancing sexual performance and sexual pleasure for themselves and their sexual partners. Part of the reason for this is that young people own and live their sexuality; data from the study demonstrated the centrality of sexuality in young people's lives. Further, uncertainty about the protective effect of MMC against HIV appears to explain this apparent emphasis on sexual benefits of MMC. It is also possible that because the study was introduced as a survey to explore what people thought about MMC for HIV prevention, could have predisposed majority of respondents to give protection against HIV as the most important reason when there could be other reasons why they would accept MMC. The significance of this is that if men downplay the importance of MMC as a tool for HIV prevention, as the study found in Mansa and documented by other studies, this has serious implications for the success of the intervention in controlling and curbing further spread of the epidemic.

MMC is a technical intervention and most respondents know what it is; however, they are less clear about how it works to provide partial protection against HIV, cervical cancer and other STIs. The study found that majority of respondents do not have access to user-friendly, accurate, and comprehensive technical information about how MMC works. Improved access is urgently needed. Young men also urgently need information about the actual impact of MMC on sexual function/performance and pleasure; silence in this area has potential to mislead young people in appreciating MMC for its protective value against HIV. The National Male Circumcision Plan explicitly mentions sexuality as an area that should be addressed by health care workers and counselors pre and post circumcision. However, expertise in this area is lacking and may not be available for the foreseeable future.

One of the consequences of poor access to information is the belief among both men and women that circumcised men are safe from contracting HIV fuelled by the perception that circumcised men have a 'natural condom'. This is despite public health messages that stress the partial protective effect of the procedure. Such perceptions appear to have the potential of

encouraging sexual disinhibition and risk compensation, underpinning the urgency to improve risk perception and reinforce combination prevention among circumcised men.

Although the Mansa study found that most respondents were in the preparation stage and expressed personal intention to get circumcised in the near future, intention does not always translate into actual adoption of any health related behaviour. It seems unlikely that MMC education and promotion messages in their current form will translate into large scale uptake of MM by young men at Mansa College of Education and perhaps in the wider community. There is therefore urgent need to intensify community mobilisation and education through interpersonal approaches such as door to door campaigns and use of other medium such as youth social networks, churches, Neighbourhood Health Committees and community based organisations. While most respondents who participated in the study reported that some of their peers had been circumcised and that this was a motivating factor for them to consider getting circumcised, the potential role of social networks remains untapped judging from the circumcision numbers in Luapula.

Another potentially promising strategy for increasing acceptance and uptake of MMC, is targeting women with MMC programmes. Evidence suggests women can influence their male partners if public health messages are appropriately packaged. Among the female respondents in Mansa support for MMC was overwhelming; almost all of them were concerned about penile hygiene which they perceived as a prerequisite to preventing cervical cancer. Women's preference for circumcised men is a potentially effective entry point that can be exploited to bring in more men to be circumcised.

Lastly as Marge Bere (2007, p.47) comments: "What men do (or do not do) with their penises as a whole remains key, with or without their foreskins." It is important for HIV prevention programmes that promote medical male circumcision not to lose sight of the fact that circumcision is primarily about sex, central to most men's lives. The study in Mansa has shown that young men own and live their sexuality and are very clear about what they want or like about sex and expect from it. However, the data has also shown that these expectations can easily be in conflict with the key objective of MMC: protection against HIV. In a high prevalence setting such as Zambia, we cannot afford to get it wrong with MMC. For instance the expectation that circumcised men will continue to practice safe sex despite being

circumcised has been shown not to always work. Cases of risk compensation and sexual disinhibition among circumcised men have been documented in South Africa, Zambia, Tanzania, Kenya, and Malawi. Anecdotal evidence among study participants in Mansa also suggests increased risky behaviour among circumcised colleagues. This potential for risk compensation and sexual disinhibition reinforces the point that MMC also has to be about more than just the rush for numbers as has been the case in Zambia. It also has to be about addressing *all* concerns and issues that potential, newly circumcised and old clients may have.

Further, as Berer (2007) suggests, it seems rather obvious that medical male circumcision, which only offers partial protection from infected females to males, cannot and should not be seen as a permanent “techno-medical solution” to “a complex *social-sexual problem*” (Berer, 2007) of HIV and AIDS. In the context of MMC, and as has been suggested, MMC is about men’s penises and about their sexual lives. It would appear that all aspects of *individual* men’s sexuality need to be considered and addressed at individual level through appropriate interpersonal communication channels to ensure men are receiving accurate information that will help improve acceptability of this important intervention. As Berer puts it, medical male circumcision is a complex medical intervention, not only in the way it is (mis) understood, but in its actual implementation, monitoring *and* evaluation of its impact at individual and population level. Estimates suggest that it takes between 10 to 20 years to begin to see population level impact of the intervention in terms of number of HIV infections averted through circumcision (Londish & Murray, 2008). Twenty years is a long time and as has been presented in the case of Luapula province in Zambia, many factors stand in the way of successful implementation of MMC programmes: shortage of qualified personnel; inadequate facilities providing MMC services; poor access to technically accurate and comprehensive information; myths and misconceptions; sexual behavioural disinhibition/risk compensation all pose serious challenges to scaling up MMC and ensuring the desired impact on the epidemic. As has been discussed in this report there are many concerns and perceptions surrounding MMC, even some that may appear trivial, but as suggested in the studies referenced above, nothing is too trivial to consider in planning, implementing and monitoring of a long-term intervention.

Recommendations

- The National AIDS Council and Ministry of Health (MOH) Circumcision unit should develop effective community-based demand generation strategies that include use of

interpersonal communication approaches, social networks, Churches, CBOs, and Neighbourhood Health Committees, traditional and opinion leaders

- The National AIDS Council and MOH should develop information, education and communication (IEC) materials in local languages to include messages that comprehensively address myths, adverse events, complications and effects of MMC on sexuality
- NAC and MOH should conduct more research on effects of circumcision, risk compensation and sexual disinhibition among circumcised men.
- NAC and MOH should increase the intensity of mobile MMC outreach to compensate for limited facility-based MMC services in order to reach more men.
- NAC and MOH should consider developing MMC sexuality counselling skills manuals and guidelines, as well as training packages for health care workers trained in MMC

References

1. Aggleton, P., Rivers, K., Scott, S., 1999. Use of the female condom: Gender relations and sexual negotiation in Sex and Youth: contextual factors affecting risk for HIV/AIDS. A Comparative Analysis of Multi-Site Studies in Developing Countries.
2. Albert, L.M., Akol, A., L'Engle, K., Tolley, E.E., Ramirez, C.B., Opio, A., Tumwesigye N.M., Thomsen, S., and Baine S.O. Acceptability of male circumcision for HIV prevention of HIV infection among men and women in Uganda. <http://dx.doi.org/10.1080/09540121>
3. Andersson, K.M., Owens, D.K., & Paltiel, A.D. 2010. Scaling up circumcision programs in Southern Africa: the potential impact of gender disparities and changes in condom use behaviours on heterosexual HIV transmission. <http://springerlink3.metepres.com/content/j627448163u255q1/fulltex.pdf>
4. Auvert B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, & Puren A. Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 Trial. *PloS Med.* 2005; 2(11):e298. <http://fhinow/cbd/tsru/Quickref Library/Auvert - Randomized, Controlled intervention.pdf>
5. Bailey, R.C., Neema, S., and Otheino, R. 1999. Sexual Behaviours and other HIV risk factors in circumcised and uncircumcised men in Uganda.
6. Bailey, R.C., Moses, S., Parker, C.B., Agot, K., Maclean, I., Krieger, J.N., Williams, C.F.M., Campbell, R.T., & Ndinya-Achola, J.O. 2007. Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomized controlled trial. *Lancet.* 2007; 369(9562):643-56. <http://fhinow/cbd/tsru/Quickref Library/Bailey - MC for HIV.pdf>
7. Bailey, R.C., Muga, R., Poulussen, & R., Abicht, H. 2002. The acceptability of male circumcision to reduce HIV infections in Nyanza Province, Kenya: *AIDS Care*, 14 (1)27-40.[PubMed] http://www.tandfonline.com/doi/abs/10.1080/09540120220097919?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed
8. Bandura, A. (1992). Social Cognitive Theory and Exercise of Control over HIV infection. In M.H., DiClemente, R.J., & Peterson, J.L (Eds.).1994. Preventing AIDS; theories and Methods of Behavioural Interventions.(pp.25-54)
9. Barker, G.2000. Gender equitable boys in a gender inequitable world: Reflections from qualitative research and programme development with young men in Rio de Janeiro, Brazil.
10. Berger, J., 2004. Re-sexualising the epidemic: desire, risk and HIV prevention.

11. Berer, M. 2007. Male Circumcision for HIV prevention: Perspectives on Gender and Sexuality. *Reproductive Health Matters*. Retrieved from www.rhm-elsevier.com
12. Blanc, A.K, 2001. The effect of power in sexual relationships on sexual and reproductive health: an examination of the evidence
13. Bluestein, B., Eckholdt, H., Arezzo, J.C., & Melman, A. 2003. Effects of circumcision on male penile sensitivity. <http://www.circs.org/index.php/Library/Bluestein>
14. Boeree, G.C., 2009. Sigmund Freud 1856-1939. Retrieved on 30 November 2012, from <http://webspace.ship.edu/cgboer/freud.html>
15. Bonner, K., .2001. Male Circumcision as an HIV control strategy: not a 'natural condom'. <http://www.ncbi.nlm.nih.gov/pubmed/11765391>
16. Brooks, R.A., Etzel, M., Klosinski, L.E., Leibowitz, A.A., Sawires, S., Szekeres, G., Weston, M., Coates, T.J., 2009. Male Circumcision and HIV Prevention: Looking into the future. Retrieved from <https://sprnglink3.metapress.com/content/906012540m252505/fulltext.pdf>
17. Central Statistical Office. 2009. The Zambia Sexual Behaviour Survey 2009.
18. Central Statistical Office. 2007. The Zambia Demographic Health Survey, 2007.
19. Christensen, L.B., Johnson, R.B., & Turner, L.A. (Eds). 2011. *Research Methods, Design, and Analysis*.
20. Collins, S., Upshaw, J., Rutchik, S., Ohannesian, C., Ortenberg, J., & Albertsen, P. 2002. Effects of circumcision on male sexual function: debunking a myth? <http://www.circs.org/index.php/Library/Collins>.
21. Cortes-Gonzalez, J.R., Arratia-Maqueo, J.A., Matinez-Montelongo, & R., Gomez-Guerra, L.S., .2009. Does circumcision affect men's perception of sexual satisfaction? <http://www.ncbi.nlm.nih.gov/pubmed/19955598>
22. Eaton, L.A., Cain, D.N., Agrawai, A., Jooste, S., Udemans, N., & Kalichman, S.C. 2011. The influence of male circumcision for HIV prevention on sexual behavior among traditionally circumcised men in Cape Town, South Africa. <http://ijsa.rsmjournals.com/content22/11/674/full>
23. FHI. 2008. *Male circumcision and HIV prevention: positioning FHI to lead the charge*.
24. Fink, K.S., Carson, C.C., De Villes, R.F. 2002. Adult Circumcision outcomes study: effect on erectile function, penile sensitivity, sexual activity and satisfaction. <http://www.ncbi.nlm.nih.gov/pubmed/11956453>.
http://www.cirp.org/library/sex_function/fink1/

25. Fishbein, M., Middlestadt, S.E., & Hitchcock, P.J. (1991). Using information to change sexually transmitted disease-related behaviours: An analysis based on the Theory of reasoned Action. In M.H., DiClemente, R.J., & Peterson, J.L (Eds.).1994. Preventing AIDS; theories and Methods of Behavioural Interventions.(pp.61-77)
26. Friedland, B., Hewett. P.C., Apicella, L., Schenk, K., Sheehy, M., & P.C., Manda, J., 2011. Evaluation of the Informed Consent Process for Male Circumcision Scale-up in Zambia
27. Frisch, M., Lindholm, M., & Caonbaek, M. 2011.Male Circumcision and sexual function in men and women: a survey-based, cross-sectional study in Denmark. <http://ije.oxfordjournals.org/content/40/5/1367.full>
28. Gasasira, R.A., Sarker, M., Tsague, T., Nsazimana, S., Gwiza, A., Mbabazi, J., Karema, C., Asiimwe, A., Mugwanez, P. 2010. Determinants of circumcision and willingness to be circumcised by Rwandan men. Retrieved on 15th May from <http://www.biomedcentral.com/1471-2458/12/134>
29. Gupta, G.R., 2000. Gender, sexuality, and HIV/AIDS: The what, the why and the how. Plenary address at the XII International AIDS Conference, Durban, South Africa, 9-14 July
30. Gupta, G.R., and Weiss, E.,1993. Women's lives and sex: Implications for AIDS prevention.
31. Guttmacher Institute. 2012. As Circumcision Wound Heals, Some Men Ignore Advice to Abstain from Sex. Volume 38, Number 3, September 2012. Retrieved from <http://www.guttmacher.org/pubs/journals/3816812b.html>
32. Gebremedhin, S. 2010. Assessment of the protective effect of male circumcision from HIV infection and sexually transmitted diseases: evidence from 18 demographic and health surveys in sub-Saharan Africa. <http://www.ncbi.nlm.nih.gov/pubmed/21243923>
33. Gray R.H, Kigozi G, Serwadda D, Makumbi F, Watya S, & Nalugoda F. Male circumcision for HIV prevention in men in Rakai, Uganda: a randomized trial. Lancet. 2007; 369(9562): 657-66. <http://fhinow/cbd/tsru/Quickref Library/Gray – MC for HIV.pdf>
34. Guy de Bruyn, Neil .A. Martinson and Glenda .E. Gray. 2010. Male Circumcision for HIV Prevention: Developments from Sub-Saharan Africa

35. Halperin, D.T., Fritz, K., McFarland, & W., Woelk,G., 2005. Acceptability of Adult Male Circumcision for Sexually Transmitted Disease and HIV Prevention in Zimbabwe Retrieved on 2nd May 2012, from http://www.unaidsrstes.org/sites/default/files/malecircumcision/Male_circumcision_Zimbabwe_acceptability.pdf
36. Hankins, C.2007. Male circumcision: implications for women as sexual partners and parents. www.rhmjournal.org.uk
37. Herman-Roloff, A., Bailey, R.C., Agot, K. 2011. Factors Associated with the Early Resumption of Sexual Activity Following Medical Male Circumcision in Nyanza Province, Kenya. http://www.psi.org/sites/default/files/publication_files/Herman-Roloff%202011.pdf
38. Hewett P.C., Hallett T.B., Mensch B.S., Dzekedzeke K., Zimba-Tembo. S, Garnett G.P., Todd P.E., 2012. Sex with Stitches: assessing the resumption of sexual activity during the post-circumcision wound healing period. Retrieved from <http://www.biomedsearch.com/article/Resumption-sexual-activity-after-male/296571604.html>
39. Hovell, M.F., Hillman, E.R., Blumberg, E. Sipan, C., Atkins, C. Hofstetter, C.F., & Myers, C.A. (1994). A behavioral-ecological model of adolescent sexual development: A template for AIDS prevention. *Journal of Sex Research*,31, 267-281
40. Kalichman, S.C., Eaton, L., Pinkerton S.D., 2007. Circumcision for HIV prevention: failure to fully account for behavioural risk compensation. Retrieved from <http://www.plosmedicine.org/annotation/listThread.action:jsessionid+DF0A943520C4D0>
41. Kebaabetswe, P., Lockman, S., Mogwe, S., Mandevu, R., Thior, I., Essex, M., Shapiro, R.L. 2002. Male Circumcision: an acceptable strategy for HIV prevention in Bostwana. Retrieved 2nd May 2012. <http://sti.bmj.com/content/79/3/214.full>
42. Kigozi, G.,Watya, S., Polis, C.B., Buwembo, D., Kiggundu, V., Wawer, M., Serwadda, D., Nalugoda, F., Kiwanuka, K., Bacon, M.C., Ssempijja, V., Makumbi, F., & Gray, R.H. 2007. The effect of male circumcision on sexual satisfaction and function, results from a randomized trial of male circumcision for human immunodeficiency virus prevention, Rakai, Uganda. <http://onlinelibrary.wiley.com/doi/10.1111/j.1464-410X.2007.07369.x/abstract>
43. Kim DaiSik & Pang Myung-Geol. 2006. The effect of male circumcision on sexuality. <http://www.health.am/sex/more/the-effect-of-male-circumcision-on-sexuality/>

44. Krieger, J.N., Bailey, R.C., Mehta, S.D., Kawango, A., Ndinya Achola, J.O., Parker, C., & Moses, S. 2008. Adult male circumcision: effects on sexual function and sexual satisfaction in Kisumu, Kenya. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3042320/?tool=pmcentrez>
45. Krieger JN, Bailey RC, Opeya J, Ayieko B, Opiyo F, Agot K, Parker C, Ndinya-Achola JO, Magoha GA, Moses S. 2005. Adult male circumcision: results of a standardized procedure in Kisumu District, Kenya.
46. Lagarde, E., Dirk, T., Puren, A., Reathe, R.T., & Bertran, A. 2003. Acceptability of male circumcision as a tool for preventing HIV infection in a highly infected community in South Africa. *AIDS*, 17 (1)89-95. [Pub Med] http://journals.lww.com/aidsonline/Fulltext/2003/01030/Acceptability_of_male_circumcision_as_a_tool_for.12.aspx
47. Londish, G.L., & Murray J.M., 2008. Significant reduction in HIV prevalence according to male circumcision intervention in sub-Saharan Africa. <http://ije.oxfordjournals.org/content/37/6/1246.full.pdf+html>
48. Luke, Nancy, and Kathleen M. Kurz, 2002. *Cross-generational and Transactional Sexual Relations in Sub-Saharan Africa: Prevalence of Behavior and Implications for negotiating Safer Sexual Practices* (Washington, D.C.: International Center for Research on Women and PSI, September 2002), Retrieved on 19th December 2012 from http://www.icrw.org/docs/CrossGenSex_Report_902.pdf.
49. Luamann, E.O., Masi, C.M., Zuckerman, M.A.1997. Prevalence, Prophylactic Effects, and sexual Practice. <http://www.cirp.org/library/general/laumann/>
50. Lukobo, M.D, & Bailey, R.C., 2007. Acceptability of male circumcision for prevention of HIV infection in Zambia.
51. Lundsby, K., Draebel, T., & Meyrowitsch, D.W. 2011. 'It brought joy in my home as in the area of my wife.' How recently circumcised adult men ascribe value to and make sense of male circumcision. Retrieved from <http://www.tandfonline.com/doi/pdf/10.1080/17441692.2011.632638>
52. Magoha, GA (October 1999) Circumcision in various Nigerian and Kenyan hospitals. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/10734511>
53. Masood, S., Patel, H.R.H., Himpson, R.C., Palmer, J.H., Mufti, G.R., & Sheriff, M.K.M., 2002. Penile Sensitivity and Sexual Satisfaction after circumcision: Are we informing men correctly? http://www.cirp.org/library/sex_function/masood1/
54. Mattson, C.L., Bailey, R.C., Muga, R., Poulssen, R., Onyango, T.2005. Acceptability of male circumcision and predictors of circumcision preference among men and women in Nyanza Province, Kenya. <http://dx.doi.org/10.1080/09549120512331325671>

55. MOH.2009. Male Circumcision Situation Analysis, Zambia
56. Ministry of Health. 2006. Zambia Antenatal Clinic Sentinel Surveillance Report 1994-2006.
57. Ministry of Health. 2012. Country Operational Plan for the scale-up of Voluntary Medical Male Circumcision in Zambia, 2012 – 2015
58. Ministry of Health. 2012. National Voluntary Medical Male Circumcision (VMMC) Communication and Advocacy Strategy 2012-2015
59. Ministry of Health. 2009. National Male Circumcision Strategy and Implementation Plan 2010 – 2020
60. National AIDS Council (NAC) & UNAIDS. 2009. Final Report, Zambia HIV Prevention Response and Modes of Transmission Analysis
61. Ngalande, R., Levy, J., Kapondo, C.P.N., Bailey, R.C. 2006. Acceptability of Male Circumcision for Prevention of HIV infection in Malawi. <http://www.springerlink.com/content/8375306784mj138u/fulltext.pdf>
62. Nnko, S., Washija, B.A., Urassa, M., Boerma, T. 2001. Dynamics of male circumcision practices in Northwest Tanzania. <http://www.circumcisioninformation.com/urassa1.htm>
63. Nyanza Reproductive Health Society. 2009. Circumcision preference among women and uncircumcised men prior to scale up of male circumcision for HIV prevention in Kisumu, Kenya. Retrieved on 6th April 2012. http://www.bioportfolio.com/resources/pubmed/?filterfield=journal_name&filterval=AIDS+car
64. Ohara, K & Ohara J. 1999, The effect of male circumcision on the sexual enjoyment of the female partner. <http://www.cirp.org/library/anatomy/ohara>
65. Okeke, Linus I. Asinobi, Adanze A and Ikuero, Odunayo S (25 August 2006) Epidemiology of complications of male circumcision in Ibadan, Nigeria <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1560152/pdf/1471-2490-6-21.pdf>
66. The Panos Institute. 1999. AIDS and Men; Taking risk or taking responsibility? Panos/Zed Books.
67. Payne, K., Thaler, L., Kukkonen, & T., Binik, Y.2007. Sensation and sexual arousal in circumcised and uncircumcised men. <http://www.ncbi.nlm.nih.gov/pubmed/17419812>

68. Pierotti, R.S., & Thornton, R. 2012. *Contemplating Circumcision for HIV Prevention in a Low-Uptake Environment in Malawi*. University of Michigan. Unpublished.
69. Pinkerton S.D. 2001. *Sexual Risk Compensation and HIV/STD transmission: empirical evidence and theoretical considerations*.
70. Plotkin, M., Kuver, J., Curran, K., Mziray, H., Prince, J., Mahler, H. 2011. A qualitative Assessment of view and preferences concern Voluntary Medical Male Circumcision in Iringa Region, Tanzania. <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001131>
71. Population Services International/Society for Family Health (Zambia). (2007). *Preliminary Findings on Target Group Profiles and Perceptions about the Brand, Product and Place regarding the Provision of Male Circumcision Services to Men (15 to 30 years)*. Lusaka, Zambia. July, 2007. PSI Research & Metrics Division. Retrieved from http://www.psi.org/sites/default/files/publication_files/722_zambia_foqus_cd_mc.pdf
72. Rathus, A. R., Nevid, J. S., & Fichner-Rathus, L. (1993). *Human Sexuality: In a World of Diversity*. Boston: Allyn and Bacon
73. Reiss H, R., Achieng, M.M., Otieno, S, Ndinya-Achola, J.O., Bailey, R.C. 2010. "When I was circumcised I was taught certain things": Risk Compensation and Protective Behaviour among circumcised Men in Kisumu, Kenya. Retrieved from <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone0012366>
74. Ritchers, J., Smith, M.A., de Vesser, R.O., Grulich, A.E., & Rissel, E. 2006. *Circumcision in Australia: prevalence and effects on sexual health*. <http://www.cirp.org/library/general/ritchers1/>
75. Rosenstock, I.M., Strecher, V.J, & Becker (1974). Health Belief Model and HIV risk Behaviour Change. In M.H., DiClemente, R.J., & Peterson, J.L (Eds.).1994. *Preventing AIDS; theories and Methods of Behavioural Interventions*.(pp.5-22)
76. Sanjobo, N., Mbalwe, P., Chikungu, M. 2010. *Perceptions and beliefs about male circumcision among students at the Copperbelt University in Zambia*.
77. Sarantakos, S. 1997. *Social Research* (2nd Edition). Published by Palgrave. New York.
78. Sawires, S.R., Dworkin & Coates, T.J. 2007. *Male circumcision and HIV/AIDS: challenges and opportunities*, Retrieved on 2ndMay2012,from http://www.unaidsrtesa.org/sites/default/files/malecircumcision/circumcision_and_HIV-challenges_and_opportunities_articles.pdf

79. Scott, B. E., Weiss, H. A., & Viljoen, J. I. 2003. The acceptability of male circumcision as an HIV intervention among a rural Zulu population, KwaZulu-Natal, South Africa. *AIDS Care*, April 2005; 17(3): 304-313. <http://dx.doi.org/10.1080/09540120412331299744>
80. Schober, J.M., Meyer-Bahlburg and Doelzal. 2009. Self-ratings of genital anatomy, sexual sensitivity and function in men using the Self-Assessment of Genital Anatomy and Sexual Function, Male questionnaire. Retrieved from <http://www.Circumcisions.com/sexuality.html>
81. Senkul, T., Iseri, C., Sen, B., Karademir, K., Saracoglu, F., & Erden, D. 2003. Circumcision in adults: effect on sexual function. <http://www.circs.org/index.php/Library/Senkul>
82. Sigfried N, Muller M, Volmink J, Deeks J, Egger M, Low N, Weiss H, Walker S, Williamson P. .2003. Male circumcision for prevention of heterosexual acquisition of HIV in men (Review) retrieved from <http://apps.who.int/rhl/reviews/CD003362.pdf>
83. Sorells, M.L., Snyder, J.L., Reiss, M.D., Eden, C., Milost, M.F., Wilcox, N., & Van Howe, S. 2006. Fine-Touch pressure thresholds in the adult penis. <http://onlinelibrary.wiley.com/doi/10.1111/j.1464-410X.2006.06685.x/full>
84. Stringer, E.M, Chintu, N.T, Levy, J.W., Sinkala, M., Chi, H.B., Muyanga, J., Bulterys, M., Bweupe, M., Megazzini, K., Stringer, J., SA. 2008. Declining HIV prevalence among young pregnant women in Lusaka, Zambia. Retrieved 17th February, 2011, from <http://www.who.int/bulletin/volume/86/9/07-045260.pdf>
85. Rain-Taljaard R.C., Lagarde E, Taljaard D.J., Campbell C., MacPhail, C., Williams B., & Auvert, B. 2003. Potential for an intervention based on male circumcision in a South African with high levels of HIV infection. *Aids Care* 2003; 15(3):315-327. http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=PubMed&list_uids=12828151&dopt=Abstract#
86. Tarimo, E.A.M, Francis J, M., Kakoko, D., Munseri, P., Bakari M., Sandstorm, E. 2012. The perceptions on male circumcision as a preventive measure against HIV infection and considerations in scaling up of the services: a qualitative study among police officers in Dar es Salaam, Tanzania. Retrieved from <http://www.biomedcentral.com/1471—2458/12/529>
87. Ulin, P.R., 1992. *African Women and AIDS: Negotiating behavioural change*.
88. UNAIDS. 1999. *Sexual behavioural change for HIV: Where have theories taken us?*
89. UNAIDS, .1999. *Gender and HIV/AIDS: Taking Stock of Research and Programmes*

90. WHO and UNAIDS. 2007. Male circumcision: Global trends and determinants of prevalence, safety and acceptability.
91. U.S. Agency for International Development. The potential cost and impact of expanding male circumcision in 14 African countries. Washington, DC: USIAD; 2009. <http://www.healthpolicyinitiative.com/policyRSS.xml>
92. U.S. Dept. Of Health and Human Services, National Institute of Allergy and Infectious Disease (NIAID). Adult Male Circumcision Significantly Reduces Risk of Acquiring HIV. December, 2006. <http://www.nih.gov/news/pr/dec2006/niaid-13.htm>
93. Taylor, J.P., A.P. Lockwood and A.J.Taylor.1996.The prepuce: Specialized mucosa of the penis and its loss to circumcision. Retrieved on 20 December 2012 from <http://www.cirp.org/library/anatomy/taylor/>
94. Varga, C.A., 1997. Sexual Decision Making and negotiation in the midst of AIDS; Youth in Kwazulu-Natal, South Africa.
95. Wambura, Mwita., Joseph Mwanga, Jacklin Mosha, Gerry Mshana, Frank Mosha and John Chagalucha,.2011.Acceptability of medical male circumcision in the traditionally circumcising communities in Northern Tanzania. Retrieved from <http://www.biomedcentral.com/1471-2458/11/373>
96. Wawire, S.N., 2009. The Role of Male Circumcision in Sexual Networks and Sexual Behavior among Youth in Kisumu, Kenya. Retrieved 30th May 2012. <http://iussp2009.princeton.edu/download.aspx?submissionId=93300>
97. Wawire, S.N., 2009. The Role of Male Circumcision in Sexual Networks and Sexual Behaviour among Youth in Kisumu, Kenya. Retrieved 30th May 2012. <http://iussp2009.princeton.edu/download.aspx?submissionId=93300>
98. Weiss, H.A., Quigley, M.A., Hayes, R.J. 2000. Male circumcision and risk of HIV infection in Sub-Saharan Africa: a systematic review and metal analysis. <http://journals.lww.com/aidsonline/pages/articleviewer.aspx?year=2000&issue=10200&article=00018&type=fulltext>
99. Westercamp, N & Bailey R.C.2006. Acceptability of male circumcision for prevention of HIV/AIDS in sub-Saharan Africa: a review. In AIDS Behaviour. 2007; 11 (3):341-55, from <http://fhinow/cbd/tsru/quickerLibrary/Westercamp-acceptability of MC.pdf>.

100. Westercamp, M., Agot, K.E., Ndinya-Achola, J., Bailey, R.C., 2011. Circumcision Preference among women and uncircumcised men prior to scale-up of male circumcision for HIV prevention in Kisumu, Kenya.
101. Wilcken, A., Miro-Nakayima, F., Hizaamu, R.N.B., Keli, T., Balaba-Byansi, D. 2010. Retrieved on 15 May, 2012 from <http://www.biomecentral.com/1471-2458/10/29>
102. Wolff, B., Blanc, A., Gage, A.J., 2000. Who decides: women's status and negotiation of sex in Uganda.
103. WHO/ICO Information Centre on HPV and Cervical Cancer (HPV Information Centre). 2010. Human Papillomavirus and Related Cancers. Summary Report Update. September 15, 2010.
104. World Health Organization. New data on male circumcision and HIV prevention: policy and programme implications. WHO/UNAIDS Technical Consultation on Male Circumcision and HIV Prevention: Research Implications for Policy and Programming. Montreux, Switzerland: WHO; 2007. <http://fhinow/php/prevent/ExternalResources/MaleCircumcisionRec07UNAIDS.pdf>
105. WHO/UNAIDS. 2007. Male circumcision Global trends and determinants of prevalence, safety and acceptability. www.who.int/hiv/pub/malecircumcision/globaltrends/en/index.html
106. Yang D.M, Lin H, Zhang B, Guo W, 2008; Circumcision affects glans penis vibration perception threshold. Retrieved on 2nd January 2013 from <http://www.ncbi.nlm.nih.gov/pubmed/18481425>

Appendices

Appendix 1: Summary of acceptability studies

Appendix 2: In-depth interview protocol

Appendix 3: Interview consent form

Appendix 4: FGD discussion guide- men's group

Appendix 5: FGD discussion guide- women's group

Appendix 6: Participant information sheet

Appendix 7: Letter of permission from Mansa College of Education

Appendix 8: Letter of ethical approval by the Zambian Ethical Review Board

Appendix 9: Letter of ethical approval from Stellenbosch University

Appendix 1: Summary of acceptability studiesTable 1 Summary of studies assessing acceptability of VMMC in non-circumcising communities reporting sexual reasons as facilitators of acceptability (***bold, italicised and underlined text under primary facilitators***)

Country/study	Date of study	Participants interviewed	Ethnicity	Primary barriers	Primary facilitators
Botswana Kebaabetswe et al. (51)	March– June 2001	316 male and 289 female participants of 29 ethnicities, aged 18–74, in urban and rural settings	Ethnically heterogeneous (29 ethnicities)	Pain Safety concerns Not culturally acceptable Religion	Protection from STI/HIV Culture/tradition Improved hygiene
Kenya Bailey et al. (25)	April– May 1998	30 focus groups, urban and rural populations, farmers, business people, teachers, sex workers, barmaids and touts	Ethnically homogeneous (Luo)	Pain Cost Safety concerns Not culturally acceptable Difficulty of access to health facilities	Protection from STI/HIV Improved hygiene <i><u>Enhanced sexual pleasure</u></i>
Kenya Mattson et al. (17)	April– May 1999	107 men and 110 women of Luo ethnicity in urban and rural settings	Ethnically homogeneous (Luo)	Pain Cost	Protection from STI/HIV Improved hygiene <i><u>Enhanced sexual pleasure</u></i>
Kenya got et al. (180)	2002– 2004	628 men enrolling in study offering circumcision to assess behaviour change post- surgery	Ethnically homogeneous (Luo)	(Not reported)	Protection from STI/HIV Improved hygiene Avoiding injuries during sex Social influence
Malawi Ngalande et	July– August 2003	318 participants, 32 focus groups with	Ethnically diverse (Chewa,	Pain Surgical	Protection from STI/HIV Improved

al. (19)		men and women aged 16–80	Tonga, Yao, Ngoni, Lomwe, Nyanja)	complications	hygiene Social acceptability <u>Enhanced sexual pleasure</u>
South Africa Lagarde et al. (52)	August– September 2001	482 men aged 19–29 and 302 women aged 14–25	Ethnically heterogeneous (Sotho, Tswana, Xhosa and other ethnicities)	Cost Surgical complications “Old fashioned”	<u>Enhanced sexual pleasure</u> <u>Increased sexual desirability</u>
South Africa Scott, Weiss and Viljoen (181)	July 2002	100 adult men and 44 adult women in rural Zululand and 4 service providers	Ethnically homogeneous (Zulu)	Pain	<u>Enhanced sexual pleasure</u>
South Africa Rain-Taljaard et al. (16)	1999– 2000	606 men aged 13–59 interviewed in August 2000 and 723 men aged 14–24 interviewed in August 1999	Ethnically diverse (Sotho, Xhosa, Zulu, Tswana, Shangaan, Venda)	Surgical complications “Old fashioned” Culture/tradition Religion	Protection from STI/HIV Improved hygiene <u>Enhanced sexual performance</u> <u>Increased sexual desirability</u> Greater respect Good fortune
Swaziland Tsela and Halperin (182)	2006	409 men aged 15–19 in urban and rural settings	Ethnically homogenous (Swazi)	(Not reported)	Protection from STI/HIV
Uganda Bailey et al. (32)	1997	365 men aged 18–67 from the Industrial	Ethnically diverse (17 tribal groups)	(Not reported)	(Not reported)

		Borough, Mbale			
United Republic of Tanzania	1991– 1997	998 Sukuma men from a cohort of factory workers in Mwanza town, 13 focus Groups from mostly rural area, and population-based surveys	Ethnically homogenous (Sukuma)	(Not reported)	Protection from STI/HIV Improved hygiene <u>Enhanced sexual performance</u>
Nnko et al. (11)					
Zambia	August– September	160 men and 162 women in 34 focus groups in rural and urban settings	Ethnically diverse (Lunda, Luvale, Chewa, Tonga)	Pain Cost Surgical complications Not culturally acceptable	Protection from STI/HIV Improved hygiene <u>Enhanced sexual performance</u> Increased social acceptability <u>Increased sexual desirability</u>
Lukobo and Bailey (18)	2003				
Zimbabwe	2000	200 men attending beer halls in Harare	Not reported, likely to be mainly Shona	Risk of infection through traditional circumcision if single blade used	Protection from STI Improved hygiene
Halperin et al. (50)					

Annex 2:

PROTOCOL FOR IN-DEPTH INTERVIEW**Summary of study**

- I. Research Topic: Acceptability of medical male circumcision among uncircumcised young men at Mansa College of Education, Mansa, Zambia: influence of perceptions about impact on male sexuality

- II. Research question: Are *perceptions* among young men about the effects of Voluntary Medical Male Circumcision on sexuality (i.e. sexual performance, men's and women's sexual pleasure) a facilitator of or barrier to its acceptability in non-circumcising communities?

- III. Objectives and social significance of the study
 - a. To explore young men's perceptions about medical male circumcision for HIV prevention in a non-circumcising community
 - b. To assess men's and women's perceptions about the effects of male circumcision on male sexuality
 - c. To assess if these perceptions are facilitators of or barriers to acceptability of VMMC for HIV prevention
 - d. To make recommendations about how to improve information, education and communication (IEC), pre- and post-procedure counselling about the long term benefits and risks related to sexuality

The study is significant because it will contribute new insights about the interface between medical male circumcision and sexuality (i.e. sexual performance, men's and women's sexual pleasure) as facilitators of or barriers to acceptability of VMMC for HIV prevention.

- IV. Research team: Principal Investigator; Mr Andrew Josephat Mlewa, FHI360/Zambia Prevention Care Treatment Partnership, Lusaka

- V. Reasons for full response to all questions
Participants are encouraged to respond to all questions as honestly and comprehensively as possible to allow the researcher to document relevant

information about the interface between medical male circumcision and sexuality as this will help to identify perceptions that serve as facilitators of or barriers to acceptability of VMMC. Participants can request to skip certain questions if they feel uncomfortable to respond to these.

VI. Anonymity and confidentiality

The study will adhere strictly to rules and ethics that govern research and will ensure full disclosure about the study, anonymity of research participants, and confidentiality of the information provided by participants and will ensure written and verbal consent before the start of interaction with participants. Participants who do not wish to continue will be free to withdraw from the interview or FGDs. Code numbers, sex and age for each participant (identifiable by a link log) will be used during the interview to ensure anonymity of participants. These codes will be identifiable through a link log that is connected to a name file with actual names of participants. Only the researcher will have access to the name file.

VII. Completion time for interview

The interview is expected to take approximately 60 minutes per respondent

Annex 3:

Participant informed consent form

Title of study: Acceptability of medical male circumcision among uncircumcised young men at Mansa College of Education, Mansa, Zambia: influence of perceptions about impact on male sexuality

Study Site: Mansa College of Education, Mansa

I have read and understood the information sheet and willingly agree to participate in the study. The potential risks and benefits are clear as well as the assurance of strict confidentiality of my identity. I also understand that I can withdraw from the study at any given point should I chose to do so. Further, I also understand that if I have any questions or concerns about the research, I can contact the ERES COVNERGE IRB.

The information above was further described to me, by Mr. Andrew Josephat Mlewa in English and I am in command of this language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of Subject/Participant

Date

Signature or thumbprint of participant

Annex 4:

FOCUS GROUP DISCUSSION GUIDE: MEN'S GROUP

Study site: Mansa College of Education, Mansa, Zambia

- VIII. Research Topic: Acceptability of medical male circumcision among uncircumcised young men at Mansa College of Education Mansa, Zambia: influence of perceptions about impact on male sexuality
- IX. Research question: Are *perceptions* among young men about the effects of Voluntary Medical Male Circumcision on sexuality (i.e. sexual performance, men's and women's sexual pleasure) a facilitator of or barrier to its acceptability in non-circumcising communities?
- X. Objectives and social significance of the study
- e. To explore young men's perceptions about medical male circumcision for HIV prevention in a non-circumcising community
 - f. To assess men's and women's perceptions about the effects of male circumcision on male sexuality
 - g. To assess the role of these perceptions as facilitators of and barriers to acceptability of VMMC for HIV prevention
 - h. To make recommendations about how to improve information, education and communication (IEC), pre- and post-procedure counselling about the long term benefits and risks related to sexuality

The study is significant because it will contribute new insights about the interface between medical male circumcision and sexuality (i.e. sexual performance, men's and women's sexual pleasure) as facilitators of or barriers to acceptability of VMMC for HIV prevention.

- XI. Research team: Principal Investigator; Mr Andrew Josephat Mlewa, FHI360/Zambia Prevention Care Treatment Partnership, Lusaka
- XII. Reasons for full response to all questions
- Participants are encouraged to respond to all questions as honestly and comprehensively as possible to allow the researcher to document relevant information about the interface between medical male circumcision and sexuality. This will help to identify perceptions that serve as facilitators of or barriers to acceptability of VMMC. Participants are free to request that certain questions be passed or skipped if they are uncomfortable responding to these.
- XIII. Anonymity and confidentiality

The study will adhere strictly to rules and ethics that govern research and will ensure full disclosure about the study, anonymity of research participants, and confidentiality of the information provided by participants and will ensure written and verbal consent before the start of interaction with participants. Participants who do not wish to continue will be free to withdraw from the interview or FGDs. Code numbers, sex and age for each participant (identifiable by a link log) will be used during the focus group discussions to ensure anonymity of participants. These codes will be identifiable through a link log that is connected to a name file with actual names of participants. Only the researcher will have access to the name file.

XIV. Completion time for Focus Group Discussion

The Focus Group Discussion is expected to take approximately 2 hours

Annex 5:

FOCUS GROUP DISCUSSION GUIDE: WOMEN'S GROUP

Study site: Mansa College of Education, Mansa, Zambia

1. INTRODUCTORY QUESTIONS

Participants' demographics

Where were you born and raised? What is your marital status?

2. DISCUSSION QUESTIONS

2.1 Knowledge and comprehension of VMMC for HIV prevention

- a) Can you please describe Voluntary Medical Male Circumcision (VMMC)
Probe for knowledge about what VMMC is and why it is done

Probe for knowledge about where VMMC is done in Mansa, Probe for understanding of its **partial** protective effect for HIV prevention.

Probe for understanding about who should be circumcised and rationale.

2.2 Reasons for preferring a circumcised partner

2.2.3 Would you consider marrying a non-circumcised man? If yes, why? If no, why not

2.2.4 If your partner is uncircumcised what are the main reasons why you would want him to be circumcised?

- a) Probe for perceptions about benefits/expected outcomes of VMMC, belief in its effectiveness for HIV prevention
- b) For those with partners, probe if participants have discussed MMC with partner and assess personal intention to influence a male partner to undergo the procedure. Probe for understanding of partial protective effect of VMMC and implications for HIV prevention methods (i.e. condom use)
- c) If not mentioned, probe for perceptions about effects of VMMC on male sexuality (sexual performance/function, men's sexual pleasure) and women's sexual pleasure and assess if these are facilitators of or barriers to acceptability of VMMC) Probe for perceptions about sexual behaviour post VMMC, specifically, risk compensation among circumcised men

Probe for perceptions about protective value of VMMC for women

Probe for source of perceptions.

2.3 Reasons for preferring an uncircumcised man

If your partner is uncircumcised what are the main reasons why you would not want him to be circumcised?

- a) Probe for perceptions reasons related to risk perception (i.e. he is not at risk), culture (i.e. not in his culture) and others, that influence preference for non-circumcision status for a partner

- b) Probe for perceptions about sexual reasons influencing non-circumcision status preference for a partner (e.g. fear of damage to his penis and decreased sexual performance)
- c) Probe for source of perceptions that influence preference for non-circumcision status for a partner
- d) Probe for what would change non-circumcision preference for a partner

3. TASK FOR THE GROUP

You are required to do the following:

1. Discuss each of the reasons given for preferring a partner to be either circumcised or not circumcised and confirm if you agree or not. Rank these reasons for circumcision preference for a partner in terms of the most important and least important

Rank these reasons for non-circumcision preference for a partner in terms of the most important and least important.

Annex 6: Participant information sheet

Title of study: Acceptability of medical male circumcision among uncircumcised young men at Mansa College of Education, Mansa, Zambia: influence of perceptions about impact on male sexuality

Introduction

This study is being undertaken by Mr. Andrew Josephat Mlewa, a student at Stellenbosch University, pursuing a Masters of Philosophy degree in HIV and AIDS Management. The results of this study will contribute towards a mini thesis which is a requirement for graduating in the degree.

Purpose of the study

The study is designed to establish the relationship between medical male circumcision and male sexuality and the extent to which this relationship influences acceptability of the procedure as an HIV prevention tool among uncircumcised men.

Justification of study

The study is important because it will contribute new insights into the interface between medical male circumcision and sexuality, specifically, about whether perceptions about effects of VMMC on male sexuality facilitate or impede its (VMMC) acceptability for HIV prevention among men.

Methods of data collection: One to one in-depth interview and Focus Group Discussions

Potential risks

The study is low risk because it focuses on getting participants' perceptions and not actual lived experiences. However, because the study is exploring the relationship between male circumcision and sexuality, some participants might be uncomfortable. The study does not have any physical or psychological risks to participation that might cause the researcher to terminate the study. **Strict confidentiality will be maintained; codes and not participants' names will be used.**

Potential benefits/incentives

Potential benefits for study participants include improved information and clarification about myths and misconceptions on voluntary medical male circumcision as they relate to male sexuality and the PI will arrange information/education sessions for the college on male circumcision by Mansa General Hospital, a facility supported by ZPCT II where the PI is Director of Program.

Voluntary participation and withdrawal from study

Participation in the study is completely voluntary and confirmed by signing of an informed consent form. Participants are under no obligation to continue if they feel uncomfortable and can withdraw at any point in the study.

Contact Details for the Principal Investigator and Chairperson of ERES CONVERGE are as follows:

1. Andrew Josephat Mlewa, FHI360/ZPCT II, P.O. Box 320303, Woodlands, Lusaka, Phone 260-21-1-368190-9 or 0955883792 or 0977517488, or 0966883792
2. The Chairperson, ERES Converge IRB, Plot No. 33 Joseph Mwilwa Road. Rhodes Park, Lusaka, +260 977796839 or +260 955 155633/4

Annex 7:



UNIVERSITEIT- STELLENBOSCH-UNIVERSITY
jou kennisvenoot • your knowledge partner

18 September 2012

Tel.: 021 - 808-9003
Enquiries: Mr. Winston A Beukes
Email: wabeukes@sun.ac.za

Reference No. DESC57/2012

Mr Andrew Josephat Mlewa
Africa Centre for HIV and AIDS Management, Stellenbosch University

Mr Mlewa

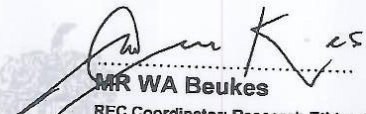
Letter of Ethics Clearance

With regard to your application, I would like to inform you that the project, **DESC57/2012**, was approved on the following proviso's:

1. The researcher will remain within the procedures and protocols indicated in the proposal, particularly in terms of any undertakings made in terms of the confidentiality of the information gathered.
2. The research will again be submitted for ethical clearance if there is any substantial departure from the existing proposal.
3. The researcher will remain within the parameters of any applicable national legislation, institutional guidelines and scientific standards relevant to the specific field of research.
4. The researcher will consider and implement the foregoing suggestions to lower the ethical risk associated with the research.
5. This ethics clearance is valid for one year from 18 September 2012 – 17 September 2013

We wish you success with your research activities.

Best regards


MR WA Beukes
REC Coordinator: Research Ethics Committee: Human Research (Humaniora)
Registered with the National Health Research Ethics Council (NHREC): REC-050411-032



Afdeling Navorsingsontwikkeling • Division for Research Development

Privaatsak/Private Bag XI • Matieland 7602 • Suid-Afrika/South Africa
Tel: +27 21 808 9184 • Faks/Fax: +27 21 808 4537
www.sun.ac.za/research