IDENTIFYING BARRIERS AND EFFECTIVE COMMUNITY INTERVENTIONS TO VOLUNTARY MEDICAL MALE CIRCUMCISION IN THE ZAMBEZI REGION

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ABSTRACT

Voluntary Medical Male Circumcision (VMMC) is basically the surgical removal of foreskin of the penis. This is done for many reasons. However, cultural, religious and medical reasons are the most paramount for Male Circumcision (MC) around the world today. Needless to say, since the three randomized controlled trials on male circumcision in Kenya, Uganda and South Africa proved that VMMC can reduce the HIV transmission by at least 60%, this has become the main reason for MC, especially in sub-Saharan Africa (Woambe, 2003). VMMC has also proved to protect both men and women against diseases and infections among others: Sexually Transmitted Infections (STIs), cervical cancer and penile cancer. Subsequent to these realizations, the World Health Organization (WHO) and the United Nations Programme on HIV/AIDS (UNAIDS) recommended VMMC to 14 countries in Eastern and Southern Africa (including Namibia) with high Human Immunodeficiency Virus (HIV) prevalence rates and low MC prevalence rates, as an additional HIV prevention strategy (Woambe, 2003).

However, since the roll out of VMMC services in these countries, fewer men have heed the call to go for VMMC as the achieved number of circumcised men at the country and regional levels is not promising any significant realization that would have a positive health impact on the population, especially in relation to the HIV pandemic. Nearly all these countries could not reach the set targets, Namibia included. Despite numerous interventions to scale up VMMC in priority countries, the MC prevalence rates are still low. For example, Namibia as a country set the target of 330 128 men to

be circumcised by 2016, however the numbers are not promising. Therefore, the objectives of this study were to identify barriers and the most effective community interventions in scaling up VMMC in the Zambezi Region. This study utilized a qualitative approach. Since the study dealt with a sensitive cultural topic of male circumcision, the most appropriate research design was ethnography (Adams, 2012), in particular 'compressed ethnography' (Rowsell, 2011).

The data collection techniques that were used in this study included: focused group discussions (FGDs), in-depth interviews (IDIs) and VMMC modified client forms to collect detailed views about barriers and the most effective community interventions from study participants. A total number of 89 participants (about 58%) out of 153 targeted population took part in the study which included: circumcised men, uncircumcised men, women, traditional leaders, church leaders, VMMC providers and VMMC promoters. The research was conducted in three locations: Katima Mulilo, Bukalo and Sibbinda. Data was collected over a period of two months. This was done as follows: modified client forms with prospective VMMC clients: n=23, focus group discussions (FGDs): n=8 with 49 participants and in-depth interviews (IDIs): n=17.

The majority of the study participants identified the main barriers to VMMC in the Zambezi Region as: fear of pain, fear of needles, fear of surgical complications and fear of taking an HIV test. The other additional barriers included: cultural barrier, religious beliefs, lack of adequate information, women staffs at VMMC sites, cost, abstinence from sex for 42 days after VMMC procedure, stigmatization, lack of parental consent, age limit and distance to VMMC facilities. The study also revealed

that the barriers to VMMC can be addressed by strengthening the already existing educational advocacy approaches. The study further found out that the motivating factors associated with the scaling up of VMMC in the Zambezi Region are mainly: the prevention of disease, penile hygiene, peer-to-peer influence and social recognition. In addition, the most repeatedly mentioned effective community interventions in scaling up VMMC in the Zambezi Region were: community mobilization, peer-to-peer influence, radio and television, and posters and leaflets. Additionally, the use of influential persons such as artists and the use of women were found to be vital players in encouraging more men to sign up for VMMC.

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This study is dedicated to my daughter, my all, Felicity Kabuba Mintu Lukubwe

DECLARATIONS

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Lukubwe Austine Simataa **Date**

LIST OF ABBREVIATIONS AND ACRONYMS

AEs	Adverse Events
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinics
ASI	Accelerated Saturation Initiative
AVAC	Global Advocacy for HIV Prevention
B4L	Brother 4 Life
CDC	Centre for Disease Control and Prevention
CIDRZ	Centre for Infections Disease Research in Zambia
EGPAF	Elizabeth Glaser Paediatric AIDS Foundation
EIMC	Early Infant Male Circumcision
FBOs	Faith Based Organizations
FGDs	Focus Group Discussions
FHI	Family Health International
GRN	Government of the Republic of Namibia
HBM	Health Belief Model
HTC	HIV Testing and Counselling
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
HR-HPV	High-Risk Human Papilloma Virus
IDIs	In-Depth Interviews
IBM	International Business Machines
ILO	International Labour Organization

ICAP	International Centre for AIDS Care and Treatment Programme
IPC	Interpersonal Communication
I-TECH	International Training & Education Center for Health
JHPIEGO	John Hopkins Programme for International Educational in Gynaecology and Obstetrics
MC	Male Circumcision
MCC	Male Circumcision Consortium
MCHIP	Maternal and Child Health Integrated Programme
M & E	Monitoring and Evaluation
MICT	Ministry of Information and Communication Technology (Namibia)
MMC	Medical Male Circumcision
MGCW	Ministry of Gender and Child Welfare (Namibia)
MoE	Ministry of Education (Namibia)
MOH	Ministry of Health (Uganda)
MoH	Ministry of Health (Malawi & Zambia)
MOHCW	Ministry of Health and Child Welfare (Zimbabwe)
MoHSS	Ministry of Health and Social Services (Namibia)
MOHSW	Ministry of Health and Social Welfare (Tanzania)
MICT	Ministry of Information and Communication Technology (Namibia)
MRLGRD	Ministry of Regional, Local Government and Rural Development (Namibia)

MYNSSC	Ministry of Youth, National Service, Sport and Culture (Namibia)
NAC	National AIDS Council (Zambia)
NACP	National AIDS Control Programme (Tanzania)
NASF	National AIDS Strategic Framework 2011-2015 (Zambia)
NBC	Namibian Broadcasting Corporation
NDoH	National Department of Health (South Africa)
NGOs	Non-Governmental Organizations
PA	Public Announcement System
PEPFAR	U.S President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV
PS	Permanent Secretary
ODI	Overseas Development Institute
RACOC	Regional AIDS Coordinating Committee (Namibia)
ReCAPP	Resource Center for Adolescent Pregnancy Prevention
RCC	Roman Catholic Church
RCT	Randomized Controlled Trials
SADC	Southern Africa Development Community
SDA	Seventh-Day Adventist Church
SHOPS	Strengthening Health Outcomes through the Private Sector
SFH	Society for Family Health
SMC	Safe Male Circumcision
SMS	Short Message Service
SPSS	Statistical Package for the Social Science Software

STIs	Sexually Transmitted Infections
TV	Television
UNAIDS	United Nations Programme on HIV/AIDS
UNAM	University of Namibia
UNICEF	United Nations International Children's Emergency Fund
US	United States
USA	United Sates of America
USAID	United States Agency for International Development
USDOL	United States Department for Labour
VCT	Voluntary Counselling Testing
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter introduces the study by outlining the orientation of the study and the statement of the problem. It also outlines the research objectives, the significance of the study, the limitations, delimitations of the study, definition of terms and the divisions of the chapters of the thesis.

1.2 Orientation of the Study

Voluntary Medical Male Circumcision (VMMC) was discovered and strengthened by the three randomized controlled trials done from 2002 to 2006 and reported in the following studies in South Africa (AUVERT, Taljiaard, Lagarde, Sobngwi-Tambekon, Sitaa & Pren, 2005), Kenya (Gray, Kigozi, Serwadda, Makumbi, Watya, Nalugoda, Kiwanuka, Moulton, Chaudhary, Chen, Sewankambo, Wabwire-Mangen, Bacon, Williams, Opendi, Reynolds, Laeyendecker, Quinn & Wawer, 2007) and Uganda (Bailey, Moses, Parker, Agot, Maclean, Krieger, Williams, Campbell & Ndinya-Achola, 2007) under the auspices of the World Health Organization (WHO) as a measure to curb the Human Immunodeficiency Virus (HIV) pandemic around the world (Martinson, 2010).

According to UNICEF (2007, p.1) “the relationship between male circumcision and HIV was cemented between 2005 and 2007 when three large randomized controlled

studies proved beyond any reasonable doubt that MC reduces the risk of HIV transmission in men by approximately 60 per cent." Male circumcision as an HIV prevention strategy is further confirmed by 21 out of 27 meta-analysis studies by Weiss, Halperin, Bailey, Hayes, Schmid and Hankins (2008). The trials conducted in Uganda, Kenya and South Africa between 2002 and 2006 demonstrated that VMMC could reduce the HIV infection by at least 60 per cent (Wouabe, 2003).

In Uganda, the trials were conducted in Rakai District whereby 4, 996 men aged between 15 to 49 participated in the study with 51 per cent reduction in the HIV infections, while in Kenya the trials were conducted in Kisumu with 2, 784 men aged 18 to 24 whereby the result was 59 per cent. In South Africa, the trials took place at Orange Farm where 3, 000 men aged 18 to 24 with approximately 60 per cent reduction in the HIV infections (Bailey, Moses, Parker, Agot, Maclean, Krieger, Williams, Campbell & Ndinya-Achola, 2007). The following table illustrates the number of participants who enrolled for trials and the results from the three RCTs:

Table 1.1: The Number of Participants who enrolled for Trials and the Results from the Three RCTs.

	South Africa		Kenya		Uganda		Total	
	Intact	Circumcised	Intact	Circumcised	Intact	Circumcised		
Number Recruited	1582	1546	1393	1391	2522	2474	5497	5411
HIV+	45	20	47	22	45	22	137	64
HIV+ (%)	2.84%	1.29%	3.37%	1.58%	1.78 %	0.89%	2.49 %	1.18 %
Absolute risk reduction		1.55.%		1.79%		0.90%		1.31 %
Relative risk reduction		60%		53%		51%		54.6 7%

Source: Adams (2012)

Table 1.1 above indicates the number of participants from the three randomized trials in Kenya, South Africa and Uganda that were not circumcised were at a higher rate of contracting HIV than those who were uncircumcised. According to Wouabe (2003, p.5) "encouraged by these results, the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) convened in March 2007 and recommended the implementation of VMMC programmes as one component of a comprehensive HIV prevention strategy for the prevention of heterosexually acquired

HIV infection in regions with low Male Circumcision (MC) rates, and high HIV prevalence rate."

In light of the realization the WHO and UNAIDS recommendation, the Government of the Republic of Namibia (GRN) through the Ministry of Health and Social Services (MoHSS) endorsed VMMC in 2009. Subsequently, Namibia became one of the fourteen countries in Eastern and Southern Africa to benefit from a WHO and UNAIDS programme aimed at implementing VMMC in regions with low MC rates, high HIV prevalence rate and large populations at risk of HIV infections (MoHSS, 2009). This recommendation was urgent for Namibia, since according to the National Census of 2011 "Namibia has a relatively small population of just 2, 113 077 people" (Namibia Statistics Agency-NSA, 2011, p.1) and has one of the highest HIV prevalence rates at 16% (MoHSS, 2014) and low MC prevalence rate at 21% (WHO, 2013). The Zambezi Region has a total population of 90 596, making it the fifth least populated region in Namibia (NSA, 2011). Not only is it the least populated region in Namibia, but it also has the highest HIV prevalence rate in the country and one of the lowest MC prevalence rates. Hence, this study focused on this particular region.

Male Circumcision (MC) is not traditionally practiced by all the ethnic groups in Namibia, in exception of the Hereros and Himbas (LaFont, 2010). MC is therefore a relatively new topic and a new HIV prevention strategy in Namibia. This is supported by Wilcken, Keil and Dick (2010) who stated that data for national prevalence of traditional male circumcision is available in Namibia which indicates that one in four circumcision is done by a traditional circumciser. Nonetheless, Namibia still has a low

MC prevalence rate of 21% (WHO, 2009). The MC prevalence rates among the 14 priority countries in Eastern and Southern Africa ranges from a low percentage of 8.2 in Swaziland to a high percentage of 92.2 in Ethiopia (Welte, 2014).

MoHSS (2008) states that due to cultural beliefs and practices, the Zambezi Region has one of the lowest MC prevalence rates (6%) as well as Ohangwena Region (1%) in Namibia. In response to the call by the WHO and UNAIDS recommendation, a Male Circumcision Task Force of Namibia was formed (MoHSS, 2009). After which the Government of the Republic of Namibia announced male circumcision as a strategy for HIV prevention through the Ministry of Health and Social Services in February 2009 (Wouabe, 2013).

Consequently, a National Policy on VMMC was developed and launched in 2010 by the Ministry of Health and Social Services. This National Policy includes: task shifting from the surgery to nurses (at that time, only trained surgeons could carry out the procedure) in order to have enough human resources in the implementation of the second phase of the male circumcision (MoHSS, 2010). This move was supported by National Strategic Framework for HIV and AIDS Response of 2010/11-2015/16 which advocates for an increase in MC coverage rate from the 21% to 80% of adolescents and adult men, aged 15 to 49 years by 2016 (MoHSS, 2013).

The Ministry of Health and Social Services piloted the VMMC programme at four district hospitals in 2009 and increased the coverage to all district hospitals in the country thereafter (MoHSS, 2013). The MoHSS set a target of 330 128 men to be

circumcised by the end of 2015/16. However, the programme was to be implemented in phases, in which the regions with the highest HIV infections but with low MC prevalence rates would initially be prioritized first and be followed by the least affected regions of the country. The MoHSS identified the seven (7) priority regions, namely: Zambezi, Kavango, Oshikoto, Ohangwena, Oshana, Omusati and Khomas (MoHSS, 2013). Below is a table indicating the seven priority regions with their MC prevalence rates:

Table 1.2: HIV Prevalence, MC Prevalence Rates and Target Clients for MC

Region	HIV Prevalence Rate	MC Prevalence Rate	Target Clients for MC
Zambezi	36%	6%	17 220
Kavango	24.1%	31%	28 558
Oshikoto	14.8%	8%	33 762
Ohangwena	13%	1%	50 462
Oshana	18.2%	14%	29 886
Omusati	11.4%	8%	45 411
Khomas	4.1%	27%	47 203

(Source: MoHSS, Surveillance Report 2014: National HIV Sentinel Survey, 2014, MoHSS, 2013 and MoHSS Situation Assessment of MC for HIV Prevention, Nov 2008).

Table 1.2 above indicates the HIV, MC prevalence rates and the MC targets of each region. Evidently, the Zambezi Region is one of the regions with the highest HIV prevalence rates in the country at 36% and has the second lowest MC prevalence rate at 6%. The table further shows that the MoHSS and the stakeholders are facing a big challenge in meeting the target population in all seven prioritized regions in the scaling

up of VMMC. Given the low demand for VMMC services, the targeted population of uncircumcised men in these seven priority regions (as indicated in the table above) will more likely not be achieved by 2016 as prescribed by the MoHSS in its Strategic and Implementation Plan on VMMC.

Based on these low MC percentages, Zambezi Region was chosen for this study. The number of VMMCs performed at health facilities in the Zambezi Region so far are still very low as compared to the set targets. There has not been any formal research or study on the barriers that are leading to the low VMMCs performed at health centres across the Zambezi Region. Hence, it appears necessary to identify barriers to VMMC and investigate the most effective community interventions to scale up VMMC for HIV prevention in the Zambezi Region. The study findings may contribute to the interventions that may help address some (if not all) of the barriers that slow down the increase for VMMC.

1.3 Statement of the Problem

The Ministry of Health and Social Services (MoHSS) and their stakeholders in VMMC are experiencing challenges in reaching the set targets by 2016 in all regions, including the Zambezi Region. Alarmingly, the Zambezi Region has the highest HIV prevalence rates of 36% in the country and the target number of 17 220 men to be circumcised by 2016. Nevertheless, the region has only managed to circumcise about 946 men since the programme started in 2010 (MoHSS, 2013). The achieved number of circumcised men at the country and regional levels is not promising any significant realization that

would have a positive health impact on the population, especially in relation to the HIV pandemic. Therefore, this study is aiming at identifying the barriers and the most effective community interventions in scaling up VMMC in the Zambezi Region.

1.4 Aims and Objectives of the Study

The aim of the study was two-fold, focusing on the barriers to VMMC and the effective community interventions in scaling up VMMC in the Zambezi Region. Therefore, the objectives of the study were:

a) To identify and understand barriers to VMMC in the Zambezi Region.

b) To explore how to address barriers in scaling up the VMMC in the Zambezi Region.

c) To explore the factors that facilitate VMMC among men in the Zambezi Region.

d) To identify the most effective community interventions to scale up VMMC in the Zambezi Region.

1.5 Significance of the Study

The findings of the study may assist in identifying barriers that are specific to the region and suggest solutions that may not only contribute to the scaling up of VMMC in the Zambezi Region but also to other regions with similar challenges to scaling up VMMC. The identification and understanding of the most effective community interventions in order to scale up the demand of VMMC may also assist in identifying the best ways to convey VMMC to men and women in the region, so that more men may sign up for VMMC in the Zambezi Region.

1.6 Limitations of the Study

Conducting research studies on sexuality topics such as male circumcision is notoriously difficult and involves issues of honesty, compliance and confidence (LaFont, 2010). Also, the lack of prior research on this topic, especially from the Namibian perspective proved to be a limitation for the study since the issue of male circumcision as an HIV prevention strategy is relatively new to Namibia. In addition, culture played a vital role in limiting this study as circumcision practices are largely culturally determined, especially in the Zambezi Region where MC is not traditionally performed.

This was also coupled with the fact that the researcher comes from the region under study and therefore this became a disadvantage, especially in collecting crucial and

private data from someone they knew or are known to. The study was further limited by strong beliefs and opinions by some men, surrounding its practice (Siegfried, 2003). However, the willingness and commitment of health workers that are based at health facilities assisted in the completion of the modified client forms for VMMC clients which made the study a success and those who were willing shared their views during the in-depth interviews and the focussed group discussions. In the end, the limitations mentioned above became temporal hindrances.

1.7 Delimitations of the Study

This study focused on the Zambezi Region and the data collection was conducted at three health facilities, namely: Katima Mulilo State Hospital, Bukalo and Sibbinda Health Centres. The traditional circumcisers were not included in this research study. Therefore, the findings of this study cannot be generalized with to the whole region or country. The scope of this study was limited to identifying barriers to VMMC and effective community intervention to VMMC in the Zambezi Region.

1.8 Definition of Terms

1.8.1 AIDS (Acquired Immune Deficiency Syndrome or Acquired Immunodeficiency Syndrome) is a syndrome caused by a virus called HIV (Human Immunodeficiency Virus). The illness alters the immune system,

making people much more vulnerable to infections and diseases. This susceptibility worsens as the syndrome progresses (Nordqvist, 2016).

1.8.2 Community-Based Intervention: often refers to community as the setting for interventions. As a setting, the community is primarily defined geographically and is the location in which interventions are implemented (McLeroy et al., 2003). In this study, community interventions are those that have been put in place by VMMC practitioners in order to have more men signing up for VMMC services.

1.8.3 Adolescent: The World Health Organization (WHO, 2014) defines adolescents as those people between 10 to 19 years of age. The great majority of adolescents are included in the age-based definition of "child", adopted by the Convention on the Rights of the Child, as any person under the age of 18 years. Other overlapping terms used in this WHO report are youth (defined by the United Nations as 15–24 years) and young people (10–24 years). In the context of this study adolescent as a target group covered the age of 15 to 24 years as defined by the WHO.

1.8.4 HIV: stands for Human Immunodeficiency Virus. It weakens a person's immune system by destroying important cells that fight diseases and infections (CDC, 2016).

1.8.5 Medical Male Circumcision: is the complete surgical removal of the foreskin covering the head of the penis under local anesthesia. (UNAIDS, 2010). In some countries they have MMC as their main programme, however, in the context of this study, MMC has become VMMC which stands for Voluntary Medical Male Circumcision.

1.8.6 Traditional Male Circumcision: is regarded as a sacred and indispensable cultural rite intended to prepare initiates for the responsibilities of adulthood (Behrens, 2014). In the context of this study, traditional male circumcision is also practiced by the Ovahimbas and Ovahereros in northern and central Namibia.

1.8.7 PrePex: is an elastic ring device that requires no injected local anaesthetic and can be placed and removed by trained mid-level healthcare workers. It works by stopping the flow of blood to the foreskin due to the comprehensive force of the elastic ring. Eventually, the foreskin tissue dies and can be easily removed after one week. It is hoped that the device will accelerate the scale up of VMMC in low-income countries and relieve the demands placed on the limited number of healthcare workers (AUVERT, 2016). In the context of this study, this is one of the effective interventions in the scaling up of VMMC.

1.8.8 Prevalence: is not defined by a time interval and is therefore not a rate. It may be defined as the number of cases of a disease that exist in a defined population at a specific point in time (Mann, 2003). In the context of this study, it may be

defined as the number of HIV infection cases or the number of circumcised men at a specific point in time.

1.8.9 Randomized Controlled Trial: A study design that randomly assigns participants into an experimental group or a control group. As the study is conducted, the only expected difference between the control and experimental groups in a Randomized Controlled Trial (RCT) is the outcome variable being studied (Himmelfarls Health Sciences Library, 2011). In the context of this study, the three randomized controlled trials which were conducted in Kenya, Uganda and South Africa, which proved that VMMC can reduce the HIV infection by at least 60 per cent, are the cornerstones of this study.

1.8.10 Variable: is a value or quality that can vary between subjects and/or over time (Mann, 2003). In the context of this study, the demographic variables of the study participants are: sex, age group, education level, marital status, employment status, religious affiliation and place of residence.

1.8.11 Voluntary Medical Male Circumcision: is a surgical removal of the foreskin - the retractable fold of tissue that covers the head of the penis. The inner aspect of the foreskin is highly susceptible to HIV infections (WHO, 2012). This form of male circumcision was recommended by the WHO and UNAIDS after the successful trials in Kenya, Uganda and South Africa to 14 countries in sub-Saharan Africa, including Namibia. In the context of this study, demand

creation has proven to be a major obstacle among men in nearly all the priority countries.

1.9 Chapter Divisions

The thesis is composed of six chapters and they are divided as follows:

Chapter 1: This chapter introduces the study by giving the orientation of the study and the statement of the problem. It also states the research objectives, the significance of the study, the limitation, delimitation of the study and the definition of terms.

Chapter 2: This chapter is subdivided into two parts. It outlines the theoretical frameworks of this study. The chapter also reviews the literature related to the study by providing an overview of VMMC. Finally, the chapter's summary concludes by outlining the key factors.

Chapter 3: This chapter discusses the research design and methodology used in the study to identify barriers and effective community interventions to the scale up of VMMC in the Zambezi Region. The chapter further discusses the research methods used, namely: population and sampling procedures, and data-collection methods; the research instruments used and data collection method. The researcher also addresses ethical issues related to the data collection and analysis.

Chapter 4: This chapter presents the findings from the data analysis. The data was collected through qualitative in-depth interviews with key informants such as: traditional leaders, church leaders, VMMC promoters and providers; focus groups discussions (FGDs) with circumcised men, uncircumcised men and women and modified client forms with uncircumcised men at VMMC sites.

Chapter 5: This chapter presents the discussion of findings and conclusion.

Chapter 6: This chapter highlights the summary of the findings, makes recommendations to various stakeholders within the scope of VMMC. It also outlines suggestion for further research.

1.10 Summary

This chapter provided an overview and introduction to the study. It gave a general orientation of the study, the statement of the problem, the research objectives, significance of the study, limitations and delimitations of the study, definitions of terms and the division of this thesis.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The previous chapter outlined the context and objectives of this study. This chapter therefore reviews the literature on VMMC. The chapter is structured as follows: theoretical frameworks are presented first; then what is male circumcision: what is known so far? The chapter also presents in detail: circumcision and HIV/AIDS, MC as an HIV/AIDS prevention strategy, the benefits of male circumcision, barriers to VMMC studies in Botswana, Kenya, Lesotho, Malawi, Mozambique, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe and Namibia. The chapter further presents relevant literature on VMMC in sub-Saharan Africa, VMMC in the other countries, barriers to VMMC in sub-Saharan Africa, factors and community education interventions facilitating the scaling up of VMMC. This chapter concludes with the summary by outlining the main factors regarding the barriers and various community interventions to VMMC from different countries.

2.2 Theoretical Frameworks of the Study

The study was based on assumptions adopted from two theories, namely: Social Cognitive Theory (SCT) of Motivation by Alfred Bandura (Denler, 2014) and the Health Belief Model (Lizewski, 2010). In other studies, the Health Belief Model (HBM) has been used alone or in combination with other models as a theoretical basis

of health education programmes (Resource Center for Adolescent Pregnancy Prevention-ReCAPP, 2016). ReCAPP (2016) further state that since no model or learning theory can explain or predict all aspects of health behaviour, combining compatible theories and models can create stronger health education programmes.

The HBM is often combined with social learning theories in health education programmes. According to Rosenstock, Strecher and Becker (1998, p.182) "a comparison of Bandura's social cognitive theory with HBM shows that the two theories have much in common - a not surprising finding, since both represent applications of value expectancy theories." The component of value expectancy refers to the belief that one's effort results in an attainment of the desired goals (Shalyefu, 2004). Furthermore, it has been noted by a number of authors that the HBM is closely related to SCT (Rosenstock et al., 1998; Maiman & Becker, 1974; Leventhal, Meya & Gutman, 1980). For this particular study, the underlying assumptions of the two theories has been used as lenses in reviewing relevant literature and in formulating the questions in the interview guides. The next sections gives an exposition of the theories used in this study.

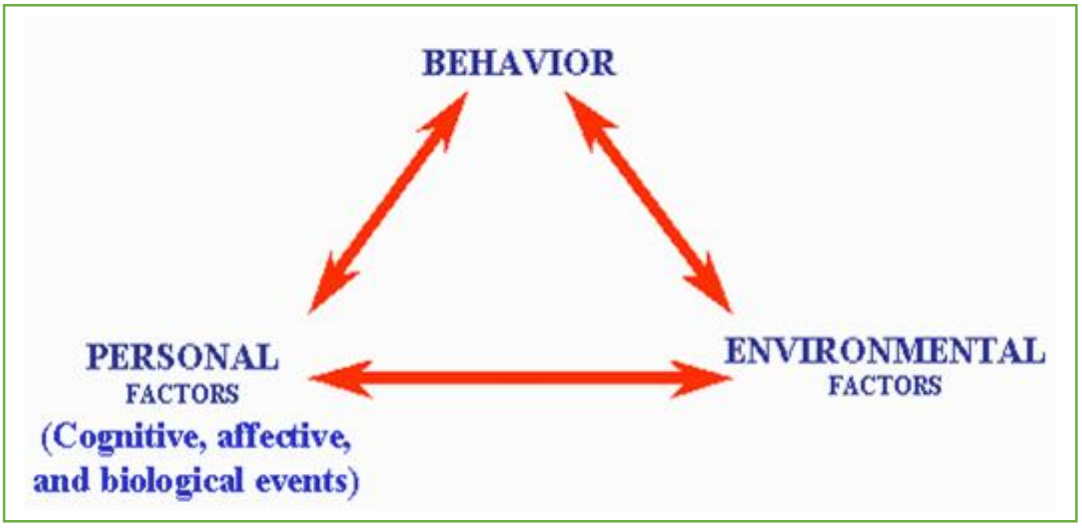
2.2.1 Social Cognitive Theory of Motivation

The Social Cognitive Theory of Motivation by Alfred Bandura (1977; 1989) advocates that people have an agency or ability to influence their own behaviour and their environment in a purposeful, goal-directed fashion (Denler, 2014). Bandura's social learning theory (SLT) which he recently relabelled Social Cognitive Theory (SCT)

hold that behaviour is determined by expectations and incentives (Rosenstock et al, 1988). Hurst (2015, p.1) further states that "the psychologist Albert Bandura discovered the importance of behavioural models when he was working with patients with snake phobias." He found out that "the patients' observation of former patients handling snakes was an effective therapy. The patients in treatment abstracted the information that others, who were like them, handled snakes with no ill effects. These patients considered that information in reflecting on their own behaviour. Bandura found that these observations were more effective in treating their phobias than persuasion and observing the psychologists handling the snakes" (Hurst, 2015).

The SCT is linked to male circumcision, for example, the fear of getting circumcised by some men can be compared to the snake phobia presented above, which ultimately gave way to the discovery of the theory of social cognitive of motivation by Bandura. The relevance of theory to male circumcision is further supported by the study done by the University of Twente (2012) which states that social cognitive theory is relevant to health and community education. Firstly, the theory deals with cognitive, emotional aspects and aspects of behaviour for understanding behavioural change. Secondly, the concepts of the SCT provide ways for new behavioural research in health education. Glanz, Rimer and Lewis (2002) states that the three factors: environment, people and behaviours are constantly influencing each other. The figure below illustrates the fact that the social cognitive theory focuses on how people learn from individual experiences or learned experiences, the actions learned from others and the interaction of people within their environment.

Figure 2.1: Conceptual Model



Source: Pajares (2002) cited by the University of Twente (2012).

Figure 2.1 presents the conceptual model which illustrates behaviour as being influenced by personal and environmental factors. For this study, the Social Cognitive Theory of Motivation helped in bringing about lenses of cognitive, affective, biological and environmental events in identifying barriers to VMMC and the most effective community interventions to scale up VMMC.

2.2.2 Health Belief Model

The second theoretical model supporting the assumptions of this study is the Health Belief Model (HBM) which was developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels (Lizewski, 2010). They developed a theoretical psychological model (Health Belief Model) that attempts to explain and predict health behaviours by focusing on the attitudes and beliefs of individuals. The Resource

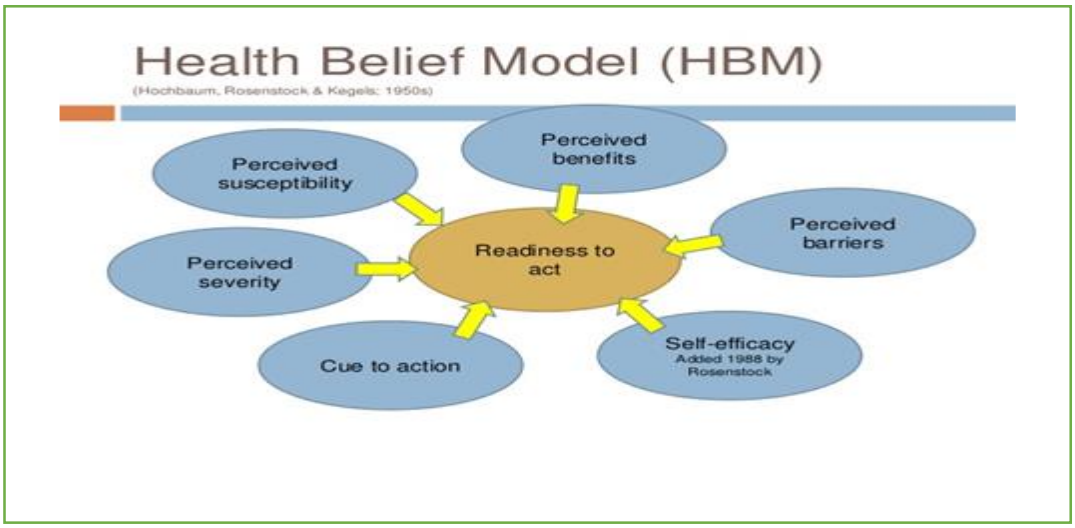
Center for Adolescent Pregnancy Prevention–ReCAPP (2016) defines the Health Belief Model as a framework for motivating people to take positive health actions that uses the desire to avoid a negative health consequence as the prime motivation. ReCAPP (2016) further cites an example of HIV as a negative health consequence and the desire therefore to avoid HIV can be a motivating factor for sexually active people in practicing safe sex. This is thus, the key element of the health belief model and is used when developing health education strategies. The Health Belief Model (HBM) has been used or applied to a variety of health education topics inducing sexuality education (ReCAPP, 2016).

Table 2.1: Theory at a Glance: A Guide for Health Promotion Practice (1997)

Concept	Definition	Application
Perceived Susceptibility	One's opinion of chances of getting a condition	Define population(s) at risk, risk levels; personalize risk based on a person's features or behaviour; heighten perceived susceptibility if too low.
Perceived Severity	One's opinion of how serious a condition and its consequences are	Specify consequences of the risk and the condition
Perceived Benefits	One's belief in the efficacy of the advised action to reduce risk or seriousness of impact	Define action to take; how, where, when; clarify the positive effects to be expected.
Perceived Barriers	One's opinion of the tangible and psychological costs of the advised action	Identify and reduce barriers through reassurance, incentives, assistance.
Cues to Action	Strategies to activate "readiness"	Provide how-to information, promote awareness, reminders.
Self-Efficacy	Confidence in one's ability to take action	Provide training, guidance in performing action.

Table 2.1 above is from "Theory at a Glance: A Guide for Health Promotion Practice" (1997) cited by the University of Twente (2012) to illustrate and explain the issues discussed above. The HBM is by far the most commonly used theory in health education and health promotion (Jones & Bartlett Learning, 2016). This model has been over the years, applied in a broad range of health behaviours. Below is a diagram on the health belief model by Houchbaum, Rosenstock and Kegels.

Figure 2.2: Health Belief Model (HBM)



(Source: Chai-Eng, 2003)

Figure 2.2 above is indicating that HBM is constructed on the four perceptions; perceived seriousness, perceived susceptibility, perceived benefits and perceived barriers. According to Jones and Bartlett Learning (2016, p.1) each of these perceptions individually or in combination, can be used to explain health behaviour. They state that "other constructs have been added to the HBM; thus, the model has been expanded to include cues to action, motivating factors and self-efficacy."

Therefore, since the HBM is based on motivating people to take action, by utilizing the Health Belief Model, more relevant themes emerged that both addressed the research objectives and gave light to the effective community interventions that may help in addressing the barriers to VMMC. The underlying assumptions of the Health Belief Model guided the contents of the interview guides and the focus group discussions. The questions in the interview guides focused on the motivation, beliefs and attitudes that direct the behaviour of the clients for VMMC and the barriers that hinder voluntary participation.

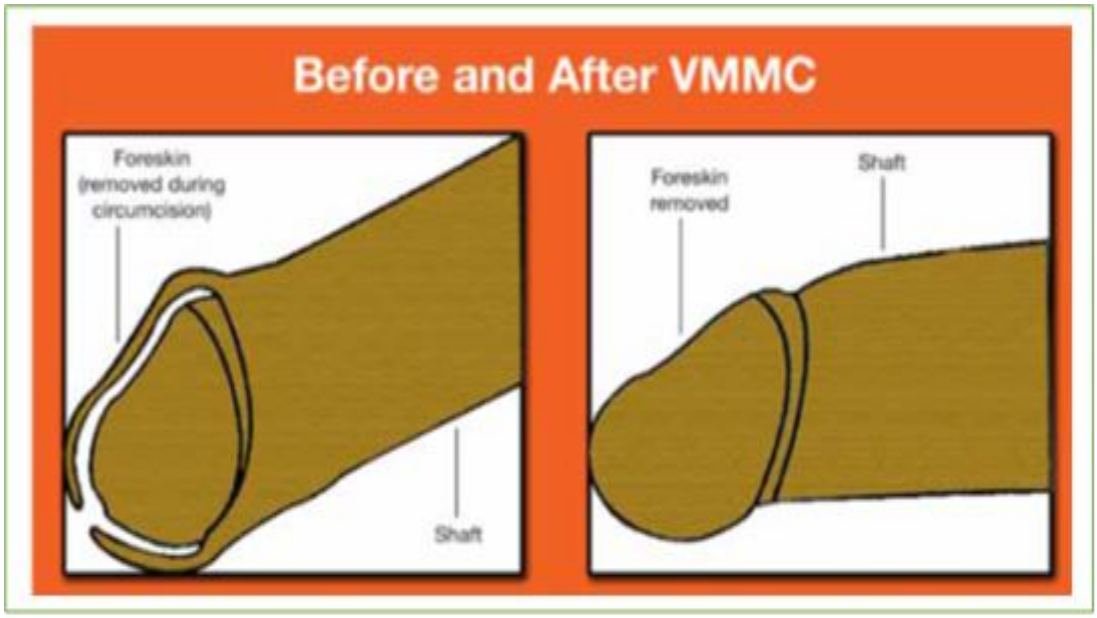
2.3 What is Male Circumcision: What is known so far?

Primarily, male circumcision is basically the removal of the foreskin at the head of the penis. This is practiced around the world for different reasons and in most cases it is done for religious or cultural purposes. According to Weiss et al., (2008) "by reviewing nationally representative data sources and assuming that Muslim and Jewish men are circumcised, we estimate that 30 to 34% of adult men are circumcised worldwide. Overall, an estimate 68% of circumcised men are Muslim and 1% are Jewish, with coverage almost universal in the Middle East, North Africa, Pakistan, Bangladesh and Indonesia."

In the Jewish religion, male infants are traditionally circumcised on the eighth day of life. This is based on the justification in the Jew Holy book, the Torah that a covenant was made between Abraham and God, the outward sign of which is circumcision for all Jewish men (UNAIDS, 2007). This is also supported by Hopgekiss (2014) who

stressed the fact that circumcision is safer for new-borns and infants than for older male.

Figure 2.3: Before and After VMMC



Source: FHI360 (2010)

Figure 2.3 above illustrates the male penis, before and after the VMMC procedure is performed to a male client. In other words, the figure represents the uncircumcised penis and circumcised penis. Furthermore, male circumcision is also practiced for non-religious purposes either neo-natally or as a rite of passage to manhood. These practices are commonly found in West, Central and East Africa, the United States (US), Republic of Korea and the Philippines. Within countries, MC prevalence can vary widely with religion, ethnicity and socioeconomic status (Weiss et al., 2008). In the Philippines where circumcision is almost universal and typically occurs between the ages of 10 to14, a survey among boys found out that two-thirds are choosing to be

circumcised for the simple reason of avoiding being uncircumcised, while 41% stated that it was part of their tradition (UNAIDS, 2007). In Southern Africa, MC is not common practice among the people. Nevertheless, tradition plays a major role for many ethnic groupings, such as the Lunda and Luvale tribes in Zambia and the Xhosa in South Africa who practice MC as part of the tradition. Among these communities, it is unacceptable to be uncircumcised, to the extent that, they do force circumcision and punish those who are uncircumcised (UNAIDS, 2007). Despite all these, in most parts of sub-Saharan Africa, increasing the demand still remains a big challenge.

2.4 Benefits of VMMC

After the successful three randomized controlled trials in the mid-2000, VMMC was found to reduce the women-to-male sexual transmission of HIV by 60% (AUVERT, 2016). Given the scientific evidence of the benefits of male circumcision in reducing HIV incidence rates among men, several sub-Saharan African countries began to scale-up VMMC services for adult and adolescent men (Jennings et al., 2014). Furthermore, UNAIDS and WHO advise that the greatest public health benefit from VMMC would result from prioritizing male circumcision for young men between the ages of 12 and 30 years (AUVERT, 2016). VMMC potential clients are expected to first know their HIV status before the VMMC procedure, thus voluntary counselling and testing (VCT) is done before VMMC.

Apart from reducing the HIV transmission, Tobian and Gray (2011, p.1) states that "male circumcision has been shown to reduce the risk of other heterosexually acquired sexually transmitted infections (STIs). Two trials demonstrated that male circumcision reduces the risk of acquiring herpes by 28% to 34% and the risk of developing genital ulceration by 47%." The trials further found out that male circumcision reduces the risk of oncogenic high-risk human papillomavirus (HR-HPV) by 32% to 35% (Tobian & Gray, 2011). In the same vein, the benefits of male circumcision have been proven to also extend to women. Not only has it shown to have a less risk of contracting Human Papiloma Virus (HPV), MC also helps with reducing the risk of cervical cancer (Mkhwanazi, 2012). Hence, counselling women on the benefits of VMMC is recognized as important in increasing the scale up in most priority countries. Kenya has in this regard, gone a step further by using married women to educate women and couples about VMMC in women's groups, antenatal clinics and other healthcare settings (AUVERT, 2016).

According to I-TECH (2015) "VMMC alone cannot and will not end the AIDS epidemic, but it can put a major dent in the epidemic. A recent UNAIDS report indicates that in Botswana, Lesotho, Malawi, Namibia, Rwanda, Swaziland, Uganda and Zambia, if VMMC coverage among 15 to 49 year old men is increased by 80% in five years, more than 20 percent of new HIV infections in both women and men would be averted by 2025. In Zimbabwe, the impact would be even greater, up to 42% of new infections among men and women would be averted." These are sentiments shared by a group called *"Truth about VMMC"* which stands for accelerated roll out of VMMC for HIV prevention in Africa.

"Truth about VMMC" is a group comprising of doctors, nurses, counsellors, advocates, and other men and women who have chosen VMMC as a tool to study, support and use. According to this group, the dismissal of VMMC as an effective intervention by denialists is insulting to Africans. In terms of cost savings, it is projected that net savings from 2011 to 2015 due to averted treatment and care costs amount would be US$16.5 billion. Scaling up VMMC today would therefore save lives and finances and combining VMMC with other proven interventions such as: abstinence, being faithful to partners of known sero-status, consistent and correct condom use, treatment of HIV infected persons, prevention of mother to child transmission and others will get us closer to a world free of HIV/AIDS (I-TECH, 2015).

2.5 Male Circumcision and HIV/AIDS

VMMC is the surgical complete removal of the foreskin of the penis. While conducted for a number of reasons, recent clinical trials in South Africa, Kenya and Uganda has shown that medical male circumcision can significantly reduce (but not eliminate) men's risk of acquiring HIV through heterosexual sex (Bailey et al., 2007). The hypothesis that male circumcision might protect against HIV infection in men was suggested first in 1986 (Weiss et al., 2008). Thus the association between circumcision and HIV and AIDS began in 1986 when the late California urologist and circumcision promoter Aaron J. Fink endorsed that the Keratinisation damage caused by male circumcision would prevent HIV infection (MGMbill, 2014).

Needless to say, since the suggestion in the 1980s that MC prevent HIV infection, numerous ecological, case-control and cohort studies, reviews, systematic reviews and meta-analyses have established that MC significantly reduces the risk of heterosexual HIV infection (Wamai et al., 2011). In addition, the meta-analysis by Weiss et al of 27 observational studies in the late 1990s showed a reduced risk in 21 of those studies. Male circumcision was thus seen as a good HIV prevention strategy. Some have however, disputed the association between HIV and MC.

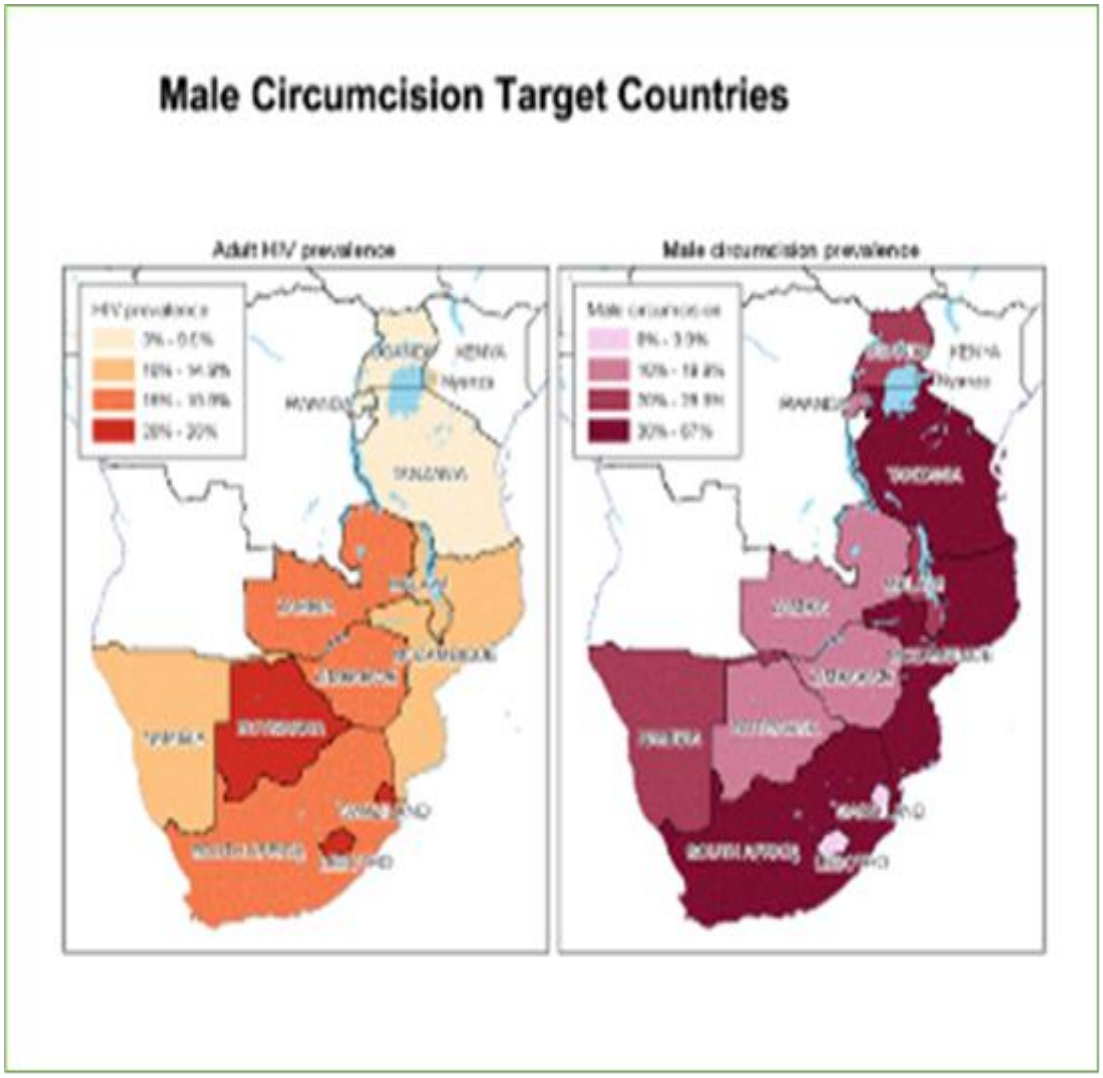
2.6 Male Circumcision as an HIV Prevention Strategy

Sgaier, Reed, Thomas and Njeuhmeli (2014, p.1) states that "voluntary medical male circumcision (VMMC) has been shown to be effective in reducing the sexual transmission of HIV from women to men." Ever since it was thought that MC can reduce the HIV infection in 1986, many researches and studies have been carried out by various organizations and individuals in many different countries to establish the link between the two. As a result of these studies and other researches, especially the three randomized trials in Uganda, South Africa and Kenya resulted in the WHO and UNAIDS in adopting this as a guidance for countries who wished to scale up male circumcision for HIV prevention.

Additionally, Siegfried (2003) stresses the fact that the findings from observational studies, reviews and meta-analyses, supported by biological theories, that circumcised men appear less likely to acquire Human Immunodeficiency Virus (HIV) has

contributed to the support for considering male circumcision as a strategy for preventing sexually acquired infection. Most of these countries have high HIV prevalence rates and low MC prevalence rates. Below is a Figure 2.4 illustrating Southern African countries (Male Circumcision target countries) with their male circumcision prevalence and their HIV prevalence rates.

Figure 2.4: Male Circumcision Target Countries



(Source: Njeuhmeli E, Forsythe S, Reed J, Opuni M, Bollinger L, Heard N, et al., 2011)

Figure 2.4, presents countries such as: Botswana, Swaziland and Lesotho as having some of the high HIV prevalence rates in the region, followed by South Africa, Zambia, Zimbabwe, Mozambique and Namibia. The rest of the countries then follows. The figure also shows that countries such as: South Africa, Mozambique and Tanzania have high MC prevalence rates than other countries. Namibia, Zimbabwe and Zambia are some of the countries with lower MC prevalence rates in the region.

2.7 Barriers to VMMC Studies in Sub-Saharan Africa

2.7.1 Barriers to VMMC in Botswana

According to the Botswana National Safe Male Circumcision Strategy (2008) the country has a high HIV prevalence and an overall HIV prevalence in the general population from 18 months of age and above is 17.1%. Botswana endorsed the MC strategy in 2008 as a complementary HIV prevention strategy on existing means of prevention in order to achieve no new HIV infections by the year 2016. The MC strategic document is primarily meant to serve as a guide to all stakeholders in the public and private sectors and it is meant to be implemented as a joint effort between these sectors to prevent further transmission of HIV (Botswana National Safe Male Circumcision Strategy, 2008).

Despite very high acceptability of MC, preliminary statistical data from the Botswana Ministry of Health's Monitoring and Evaluation (M&E) department shows very low safe male circumcision (SMC) uptake (17,805 MC have been performed from April

2009-August 2011) indicating some barriers (Botswana's Ministry of Health, 2008 cited in Goshme, 2012). A study by Goshme (2012) in Botswana, identified the following barriers to MC uptake among adolescents: fear of surgical complications, fear of long wound healing time, peer pressure, fear of stigma and discrimination. In this regard, the MC strategy in Botswana advocates for the correct communication and messages on male circumcision. MC in Botswana is performed both at private and public hospitals although at a low rate. Additionally, Jimmys, Gow, Gormley and Govender (2013) states that in a costing study of MMC programme implementation Botswana, results suggested that scaling up adult and neonatal MMC to reach 80% coverage by 2015 would result in averting almost 70, 000 new HIV infections at a total net benefit of US$ 47 million.

2.7.2 Barriers to VMMC in Kenya

According to Galbraith, Ochieng, Mwalili, Emusu, Mwandi, Kim, Rutherford, Maina, Kimanga, Chesang and Cherutich (2014) the Kenyan Ministry of Health initiated a VMMC programme in 2008. This is undoubtedly after the successful trials which were conducted in Kisumu. As a result, this was supported by the WHO and the Joint United Nations Programme on HIV/AIDS who issued recommendations encouraging the use of VMMC as an additional HIV prevention strategy in Kenya. In this vein, Kenya set a strategic target to increase the percentage of circumcised men nationally from 85% to 94% in 3 to 5 years by performing 860, 000 VMMCs (about 80% of estimated need) in men aged 15-49 years by 2013. Ambitious as it sounds, data showed that 560, 00

VMMCs were completed by the end of December 2012, achieving a 65% of its strategic target (Gabbraith et al., 2014).

A study by the Male Circumcision Consortium (MCC) in Kenya identified financial concerns and fear of pain as the main barriers to VMMC adoption (FHI360, 2014). A study by Akinyi (2012) found out that the barrier to MC among the youth in Kisumu County, Kenya was the long distance to the health facilities. In addition, Herman-Roloff (2011) in her study in Kenya outlined the following as the primary barriers to MC uptake: too much time away from work; cultural and religious values; the possibility of Adverse Events (AEs); the post-surgical abstinence period; a desire to maintain the status quo and increased promiscuity. In order to create demand for VMMC and mitigate some of the barriers indicated above, the Kenyan Government employed the following types of interventions: research, messaging, social mobilization, IPC through community mobilizations, the use of the media and an MCC coordination approach both at national and provincial levels (Sgaier et al., 2015).

A demand creation toolkit was also developed in order to assist social mobilizers to communicate consistent messages, while journalists were trained in order for them to report accurate and adequate information about VMMC. In a study by Evens, Lanham, Hart, Loolpapit, Oguma and Obiero (2014) two primary concerns with VMMC emerged. Firstly, financial issues including missing work, losing income during the procedure and healing and family survival during the recovery period and the secondly, fear of pain during and after the procedure. In the same study, Evens et al., (2014, p.1) found out that “key interventions to address financial concerns included: a

food or cash transfer, education on saving and employer-based benefits. Interventions to address concerns about pain included refining the content of demand creation and counselling messages about pain and improving the ways these messages are delivered."

2.7.3 Barriers to VMMC in Lesotho

Lesotho has the third highest HIV prevalence rate in the world. Kikiya, Skolinik, Garcia, Nkonyana, Curran and Ashengo (2014) stresses the fact that Lesotho's HIV prevalence is estimated at 23% among adults. After the recommendations by WHO and UNAIDS with regards to VMMC reducing the HIV infection by at least 60% and Lesotho's HIV prevalence rate, its Ministry of Health decided to increase the VMMC programmes in February 2012 at four hospitals: Berea, Mafateng, St. Joseph and Scott (WHO, 2012). The development of the VMMC policy and operational plan followed with the purpose of enhancing the scaling up of prevention and impact on reduction of new HIV infections as well as contributing to high level commitment to 3 zeros; new infections, AIDS related deaths, stigma and discrimination (WHO, 2012). In the first 10 months of operation, it became clear that men in Lesotho were highly motivated to seek VMMC services (Kikiya et al., 2014).

The provision of VMMC services in Lesotho has contributed immensely to the number of men who have tested for HIV. In a study by Sknolik et al., (2014) men in Lesotho sought medical circumcision for the following main reasons: protection against HIV (73%), protection from other sexually transmitted infections (62%), and improved

penile hygiene (47%). In a study by Skolnik et al., (2014) found the following as perceived barriers to VMMC: fear of pain, compulsory HIV testing (fear of HIV testing and knowing one's sero status), cost and being attended to by women health staff. In addition, a cross-sectional study by Skolnik et al., (2014) in Lesotho, found out that the perceived concerns hindering service uptake included; fear of pain (57%), a women provider (18%) and "compulsory" HIV testing (15%).

In addressing these barriers and challenges to VMMC demand creation, Lesotho's VMMC programme relies on innovative demand creation strategies to attract men for services at both fixed and mobile VMMC sites. These includes: large scale mobilizations using mass media campaigns and the small scale door-to-door community mobilizations (John Hopkins University, 2014). Furthermore, according to the MCHIP Lesotho VMMC End-of-Project Report (2014) the Ministry of Health (MOH) in Lesotho developed new materials which were launched under the *Rola Katiba* ("take your hat off") brand. The launch of this brand coupled with EIMC services and other materials has resulted in not only speaking one voice by different stakeholders but also has created awareness of VMMC and EIMC services.

2.7.4 Barriers to VMMC in Malawi

According to the National AIDS Commission (2012) Malawi just like most countries in the sub region is one such country in sub-Saharan Africa with a high HIV prevalence and where the majority of men are not circumcised. Though VMMC has been proven to be a critical HIV prevention strategy and the widespread publicity of the benefits of

VMMC and its availability in public health institution in Malawi, VMMC has not taken root among the men. In this light, the Ministry of Health (MoH) in collaboration with major partners in the prevention of HIV in Malawi convened a national stakeholders meeting to map out the process for developing a Communication Strategy that was aimed at addressing the communication needs of men with regards to VMMC and also the uptake of VMMC for HIV prevention (National AIDS Commission, 2012).

The National Communication Strategy for VMMC was thus developed by the Government of Malawi through the Ministry of Health and its partners which cover the period 2012-2016. According to the National AIDS Commission (2012) the main goal of the communication strategy is to contribute to the reduction of HIV incidence in Malawi by providing a framework for all communications regarding VMMC, including demand creation activities, as an integral part of the national HIV prevention strategy. The strategy also emphases the fact that, Malawi should take care of critical elements before any VMMC mass campaign is launched which include among others: providing better and more in-depth information that people need about VMMC, engaging women in discussion around VMMC, ensuring the quality of the medical pre-op counselling and post-operation follow-up and ensure easy and continuous access to free condoms in all communities across Malawi (National AIDS Commission, 2012).

The VMMC programme in Malawi just like most priority has been hampered by numerous challenges associated with demand creation and programme

implementation. According to a report of a qualitative study on the barriers and facilitators of voluntary male medical circumcision in Malawi by Chilungo, Sanudi, Honde, Kohler, MfutsoBengo, Bellos and Walkins, (2015, p.7) "the uptake of VMMC has been low and that, the demand generation activities have been inadequate and where they have been, have been driven solely by PEPFAR partners and limited to the eight (8) districts within which these partners operate." Other barriers to VMMC uptake are fears of HIV testing, fear of pain and the need for transition.

In the same report, it is stated that "consequently, many men have expressed reluctance to undergo surgery and to harbour concerns about abstaining from sexual activity for 6 weeks." In this regard, Malawi implored the following as interventions to remedy the situation: social mobilization, IPC through community mobilizers, engaging traditional leaders and women partners, coordination and messaging incentives (Sgaier et al., 2015). Sgaier et al., (2015, p.217) further stresses the fact that "in Malawi, early and ongoing engagement with leaders of traditionally non-circumcising communities has been instrumental in mobilizing community-level support for the VMMC programme and in encouraging men to undergo circumcision."

2.7.5 Barriers to VMMC in Mozambique

The VMMC national programme in Mozambique was established formally in 2012 by the Ministry of Health after JHPIEGO, an affiliate of Johns Hopkins University in collaboration with the Ministry of Health implemented the provision of minor surgical services including male circumcision in 2009. In 2015, Mozambique rolled up a

comprehensive VMMC programme for HIV prevention services to more than 380, 000 adolescents and young adults in five provinces of the country (JHPIEGO, 2014). International Centre for AIDS Care and Treatment Programme (ICAP) also supported the Ministry of Health (MOH) in developing the first strategic plan to implement VMMC more widely in Mozambique (ICAP, 2014).

The VMMC provision in Mozambique has also been greatly supported by the Family Health International (FHI360) which leads the Male Circumcision Consortium, a partnership that works to reduce the number of new HIV infections in Kenya and helped the Kenyan government develop and implement a national VMMC strategy. FHI360 in Mozambique has supported VMMC services at eight sites in two provinces as part of a project led by Abt Associates and funded by USAID to strengthen HIV/AIDS clinical services (FHI360, 2014). Moreover, the VMMC services supported by FHI360 focuses on the sustainability of the programme by relying primarily on the MOH staff, offering services within their facilities and collaborating with the MOH on joint supervision and quality assurance (FHI360, 2014). Advocacy was the main community intervention to increase demand for VMMC. This was done with the help of partners such as PEPFAR.

2.7.6 Barriers to VMMC in Rwanda

According to Mutabazi, Forrest, Ford and Mills (2014) Rwanda is one of the identified priority countries and thus set an ambitious goal of performing 700, 000 additional VMMC procedures by 2015. VMMC became a vital HIV prevention strategy by the

Rwandan Government in its comprehensive national HIV strategic plan with the support from WHO, UNAIDS and the US President's Emergency Plan for AIDS Reliefs (PEPFAR). However, Rwanda does not have a history of traditional circumcision and until recently, the country has lagged behind other priority countries in terms of VMMC (Mutabazi et al., 2014). Rwanda has many challenges in the roll up of its VMMC programme. Mutabazi et al., (2014) identifies three key challenges or barriers and how these challenges can be addressed for Rwanda, which includes: simplifying the VMMC procedure, addressing a lack of health workers, infrastructure and mobilizing resources and engaging communities of men and women to communicate the benefits of the procedure.

In this study, the examples from Rwanda are used to highlight how these barriers can and should be addressed. According to Mutabazi et al., (2014) in simplifying the VMMC procedure, Rwanda introduced new devices to VMMC, the PrePex (Circ MedTech Ltd, Israel) and the Shang Ring (Wuhu Santa Medical Devices Technology co. Ltd, China). In addressing a lack of healthcare worker infrastructure and mobilizing resources, Rwanda adopted a strategy of focusing on developing a VMMC infrastructure by investigating task-shifting solutions for non-physician clinicians in clean, non-sterile settings, which results in minimizing the burden on the health care system (Mutabazi et al., 2014). In addressing the barrier of effective communication with communities, the Rwandan Government adopted some lessons learnt from neighbouring Uganda, which emphasized the fact that VMMC must be accompanied with counselling and education about maintaining consistent condom use and other preventive methods. The use of national leaders in educating the public about the

benefits of VMMC was also seen as a good platform to increase demand for VMMC among men. Furthermore, Rwanda also successfully initiated the infant and child male circumcision (Mutabazi et al., 2014).

2.7.7 Barriers to VMMC in South Africa

According to Govender, George, Mucheuki and Strauss (2014) as cited by the Health Systems Trust of South Africa; the implementation plan for the national VMMC Programme 2011/12-2015/16 was launched under the leadership of the National Development of Health (NDoH) and supported by various international partners and donors with the objectives of increasing access to VMMC services across the country, focusing on the establishment of high-volume sites, integrating safe medical circumcision into traditional practices, incorporating VMMC in an integrated package of health services and increasing demand for circumcision through media and special mobilization (Govender et al., 2014).

Under its plan South Africa set an ambitious target of 4.3 million VMMCs by 2016 to achieve an impact on the HIV epidemic. This is due to the high HIV prevalence rate of 12.2 % with a total of 469 000 new infections recorded in 2012 (Govender et al., 2014). Govender et al., (2014) further states that the NDoH's Annual Performance Plan for 2013-2016 reiterates the targets set out in the VMMC plan and gives performance figures to date; 140 120 medial circumcision were recorded in 2010/11, 347 947 in 2011/12, with a further 422 518 performed in 2012/13. This information proves the challenges in implementing this HIV prevention interventions on a large

scale. This is supported by the inherent complexities of the HIV epidemic and the social and economic contexts in which these interventions are rolled out. In this regard, South Africa implemented the VMMC communication strategies that included: mass media campaigns, billboard messages, print material, interpersonal recruitment and edutainment (Govender et al., 2014).

According to Peltzer and Mlambo in Govender et al., (2014) a high level of exposure to VMMC messaging, did not necessarily translate into acceptability or uptake of VMMC. In a study by George et al., (2014, p.1) "cognitive barriers related to the fear of HIV testing (and the subsequent result and stigmas) which preceded VMMC. Further barriers are related to the pain associated with the procedure and adverse events. The need to sustain from sex during the six-week healing period was a further prohibiting factor for boys. Therefore, timing in this regard was crucial, as boys were reluctant to get circumcised when involved in sporting activities and during examination periods." Similarly, Govender et al., (2014) identified barriers to VMMC which included: fear of HIV testing that precedes circumcision, concerns about adverse effects (for example, lack of sexual pleasure), transport costs, time off work, temporary sexual abstinence and unsupportive cultural norms.

Like many priority countries, South Africa too employed similar types of interventions in order to create demand for VMMC among men, which includes among others; social mobilization, IPC, ICT, incentives payments, research, engaging traditional leaders, messaging and the use of the media (Sgaier et al., 2015). Furthermore, Sgaier et al., (2015, p.217) states that "in South Africa, training, strong management oversight, and

a collective incentive structure strengthened the effectiveness of community mobilisers." In addition, the *Brother 4 Life* (B4L) campaign, which features TV and radio ads, radio talk shows, billboards, posters and community mobilization and dialogues, found a noticeable change in requests for referral for MMC, even from older men (Collinge, 2013).

2.7.8 Barriers to VMMC in Swaziland

The International Labour Organization (ILO), (2013) states that Swaziland has the highest HIV prevalence rate in the world, estimated at 26 per cent of adults in a total population of 1.2 million Swazis. Swaziland is the first country in the world to support a national male circumcision plan, named *Soka Uncobe. Soka Uncobe* means "to circumcise is to conquer" in siSwati is the Government of the Kingdom of Swaziland's campaign to achieve nationwide coverage of VMMC (ASI, 2012). Swaziland just like most priority countries has a high HIV prevalence rate and a low MC prevalence rate. It is against this backdrop that, the government of Swaziland launched a national Programme in January 2011 which was aimed at raising awareness and encouraging more men to sign up for voluntary medical procedures.

The VMMC National Programme in Swaziland forecasted to offer voluntary medical male circumcision to at least 80% of adult men. The ILO promotes circumcision in Swaziland through workplace information sessions as part of a combined prevention package that include: counselling and testing, treatment for STIs and information about safer sex practices and also the correct and consistence use of both male and women

condoms (ILO, 2013). The VMMC programme in Swaziland is also supported by the United States Department for Labour (USDOL) and the United States President's Emergency Plan for AIDS Reliefs (PEPFAR).

According to the Ministry of Health (2013) the Swaziland Male Circumcision Strategic and Operational Plan for HIV Prevention 2014-2018 the following are the MC demand creation strategies: strengthen the MC demand creation framework; engage traditional leaders and other key opinion leaders in creating demand for MC; develop and implement national and local MC multimedia campaigns; deploy information and communication technologies to promote MC; utilize multiple platforms to promote VMMC and EIMC messaging and to empower women to support MC scale up.

2.7.9 Barriers to VMMC in Tanzania

Tanzania is one of the priority countries which embraced VMMC as an additional HIV prevention strategy. This was done by emphasizing on task shifting and task sharing. The national VMMC strategy in Tanzania targets men between the ages of 10-34 years, who comprise 42.7% of the male population in regions with high HIV prevalence and low male circumcision prevalence (Ashengo et al., 2014). According to Plotkin, Castor, Mziray, Küver, Mpuya, Luvanda, Hellar, Curran, Lukobo-Durrell, Ashengo and Mahler (2013) male circumcision (MC) is performed in three major contexts in Tanzania, namely: traditional MC, religious MC and voluntary medical MC for HIV prevention. Under AIDSFree, JHPIEGO is working with the National AIDS Control

Programme (NACP) within the Ministry of Health and Social Welfare (MOHSW) to rapidly expand the provision of high-quality, client-centred, VMMC as a core component of comprehensive HIV prevention services (USAID, 2014).

The AIDSFree Tanzania VMMC programme builds on the successes of USAIDS's Maternal and Child Health Integrated Programme (MCHIP) and Accelovate programme to scale up VMMC in three regions of Tanzania; Iringa, Njombe and Tabora (USAIDS, 2014). Since 2009, the VMMC programme in Tanzania has performed over 400, 000 VMMCs in over 500 health facilities in all the three regions. The planned activities for AIDSFree VMMC Tanzania include: voluntary medical male circumcision, early infant male circumcision, implementation research and building the capacity of Government of Tanzania in implementation of VMMC and EIMC (USAID, 2014). Though there has been a significant progress made in Tanzania as the country reached 2 million VMMCs, a lot still needs to be done in achieving the set goal of 80% coverage.

Ploktin et al., (2013, p.108) "social and personal barriers to obtaining VMMC among adult men included shame associated with seeking services co-located with younger boys and perceived inappropriateness of VMMC after puberty, particularly after marriage and after having children. Additional barriers included concerns about partner infidelity during the post-surgical abstinence period, loss of income, and fear of pain associated with post-surgical erections." In this regard, Tanzania employed the following types of interventions in order to scale up the demand for VMMC and tackle the barriers to VMMC among men, especially in regions with low MC prevalence

rates: social mobilization, IPC, engaging women partners, the use of the media, research and advocacy. The use of print materials, the radio and Short Message Service (SMS) technology targeting older men are also some of the interventions used in Tanzania (Sgaier et al., 2015).

2.7.10 Barriers to VMMC in Uganda

According to Mera, Natumanya, Nanteza, Seelen-Palacin and Bitarakwate (2014) in 2010, Uganda's Ministry of Health (MOH) targeted reaching 80% of eligible men (769, 489) with VMMC services by 2016 to positively impact HIV prevention. To this effect, the MOH in this country in partnership with the Elizabeth Glaser Paediatric AIDS Foundation (EGPAF) have provided support to ensure effective and accessible VMMC services across 48 health facilities in all 13 districts in South West Uganda. Despite major progress having been made by Uganda in creating demand for VMMC, there have been shortcomings along the process, lack of proper funding being the most prominent challenge.

According to AVAC (2015) a Global Advocacy for HIV Prevention, in an interview with Dr. Barbara Nanteza, who has led the Uganda programme during the critical period of scale up, the target for 2015 was one million, however, the funding was for only 330 000 procedures which slowed down the programme. According to Sgaier et al., (2015) the types of interventions to create demand for VMMC in Uganda are mainly: social mobilization, research, advocacy, media, IPC and messaging. This they do by utilizing the already existing community resources and demand creation

mechanisms. They also make use of traditionally circumcising communities for VMMC campaigns.

Furthermore, Sgaier et al., (2015, p.214) adds that "the use of cross-country learning to create demand and the use of research is intended to inform communication strategy development and implementation, national tools with standardized branding and information to ensure constituency and recognition of VMMC but which can also be tailored to specific communities and contexts." The *Stand Proud, Get Circumcised* campaign makes use of a mix of radio, billboards, posters, TV, newspaper ads and community mobilization to promote MMC as a way to reduce risk of HIV infection (AFFORD, 2012). Parallel to this, Sgaier et al., (2015, p.217) stresses that "in Eastern Uganda, safe male circumcision is promoted among traditionally circumcising communities through the *"Be the Pride of Your Tribe"* campaign, which engages religious and tribal leaders as well as health care providers."

2.7.11 Barriers to VMMC in Zambia

According to the National AIDS Council of Zambia (2012), the MoH recognises male circumcision in the context of the Public Health Act of 1935 and also as an important component of comprehensive male reproductive health services under the Reproductive Health Policy of 2008 and as part of the comprehensive HIV prevention interventions under the HIV and AIDS Policy of 2005. In July 2009 the MoH of Zambia launched the National Male Circumcision (MC) Programme and consequently released a National MC Strategy and Implementation Plan for the period 2010-2020.

This plan outlines the minimum quality standards for MC services in Zambia and establishes guidelines for the provision of high quality, safe male circumcision services.

The MoH in Zambia has integrated the priorities of the National MC Programme within the comprehensive HIV prevention strategy outlined under the HIV and AIDS Strategic Framework of 2011-2015, the National Health Strategic Plan for 2011-2015 and the Country Operational Plan for the scale-up of VMMC in Zambia for 2012-2015 (National AIDS Council-NAC, 2012). The Zambian Ministry of Health's overall target is to achieve 80% coverage of VMMC among uncircumcised, HIV-negative men aged 15-49 by 2015. To optimize long-term public health benefits, the national programme also plan to scale-up neonatal VMMC services to reach at least 80% of male neonates by 2020 (National AIDS Council-NAC, 2012). Moreover, as male circumcision prevalence in Zambia is estimated at 13.3%, and Zambia aims to circumcise about 250,000 men every year. More than 200 doctors, clinical officers and nurses have been trained to perform the procedure (National AIDS Council-NAC, 2012).

Zambia has also scaled up male circumcision in 36 out of 73 districts. More than 16,000 men were circumcised at 11 sites in 2009, and the goal is to have 300 sites offering the services by 2014 (Kabwe, 2012). In addition, NASF promotes VMMC for all Zambian men targeting men aged 15-49 years as part of its strategy to reduce new incidence of HIV. This strategy offers facility-based and community-based VMMC services as part of a comprehensive HIV prevention package which includes: HIV

Testing and Counselling (HTC), condom distribution programme, screening and treatment of STIs and referrals for HIV positive clients (National HIV/AIDS Council, 2015).

The National Voluntary Medical Male Circumcision (VMMC) Communication and Advocacy Strategy 2012-2015 (2012) states that in a research by the Centre for Infectious Disease Research in Zambia (CIDRZ) in 2011, the following were identified as key barriers to VMMC uptake: the fear of negative outcomes (pain, death, damage to penis, wound not healing well), concern over riskier behaviour later in life, lack of a circumcising cultural identity within the family unit and resistance among non-circumcised father and grandparents. Seifert-Ahanda (2015) identified the following as barriers to VMMC and EIMC demand; cultural or traditional belief, myths, child's autonomy and unsupportive fathers. The types of interventions in Zambia to scale up VMMC includes: community mobilization through existing volunteer structures, social mobilization, IPC, media, research and the engagement of women partners (Sgaier et al., 2015).

In addition to this, a population-based survey conducted to assess predictors of male circumcision in Zimbabwe found out that, 71 per cent of men cited that the radio was a source of VMMC information, with television (TV) coming in second, as the most common source of VMMC information (Hatzold et al., 2014). Furthermore, the National Voluntary Medical Male Circumcision (VMMC) Communication and Advocacy Strategy 2012-2015 (National AIDS Council-NAC, 2012, p.2) states that "the national VMMC Communication and Advocacy Strategy offers guidance to all

participating public and civil society agents for the comprehensive, effective, ethical and culturally appropriate promotion, advocacy and informed-demand generation related to national VMMC scale-up." In addition, the Society for Family Health (SFH) has used the community engagement methodology of education through listening, which emphasizes the need to draw out and address individual barriers (Sgaier et al., 2015).

2.7.12 Barriers to VMMC in Zimbabwe

Zimbabwe is one of the thirteen countries in Eastern and Southern African countries scaling up VMMC as part of its HIV prevention strategy. In December 2009, the Ministry of Health and Child Welfare (MOHCW) in Zimbabwe launched the National Male Circumcision Policy for HIV Prevention as part of the integrated response and the VMMC strategy which aims to reach 80% of men aged 13 to 29 between 2011 and 2015 (Ashengo, Hartzold, Malher, Rock, Kanagat, Magaloma, Curran, Christensen, Castor, Mugurungi, Dhlamini, Xaba & Njeuhmeli, 2014). According to Hatzold, Mavhu, Jasi, Chatora, Cowan, Taruberekera, Mugurungi, Ahanda and Njeuhmeli (2014) among the 13 countries, Zimbabwe has the potential to avert the highest proportion of new HIV infections.

They further state that it is estimated that by circumcising 1.9 million Zimbabwean men aged 15 to 49 by 2015 could avert 42% (about 600, 000) of new HIV infections that would have otherwise occurred by 2025. Prior to the commencement of the Zimbabwe's VMMC programme in 2009 its MC prevalence was 10.3%, one of the

lowest in the Southern Africa region. Despite the roll up, the uptake of VMMC has been slower than anticipated with only 170, 000 men circumcised by September 2013 against a target of 1.9 million according to the five year target (2010-2015). Marketing VMMC proved to be particularly challenging (Hatzold et al., 2014). A study by Rupfutse, Tshuma, Tshimanga, Gombe, Bangure and Wellington (2014) found out that factors associated with the uptake of VMMC are mainly: having a circumcised relative, having a circumcised friend and having been encouraged by someone to undergo circumcision.

Simultaneously, women partners were found to be great influencers to the male counterparts to undergo VMMC. In a study on the barriers to male circumcision by Hatzold et al., (2014) the most frequently cited barrier to circumcision in Zimbabwe was fear of pain during the procedure. Supplementary to this, the other barriers the study found out included the low risk perception. In another study by Rupfutse et al., (2014) the reasons for not getting circumcised given by the uncircumcised respondents were fear of pain, long abstinence period, being too old for circumcision, possibility of partner infidelity during the abstinence period, being HIV positive and the fear of reduced sexual performance post circumcision.

According to Sgaier, Baer, Rutz, Njeuhmeli, Seifert-Ahanda, Basinga, Parlyn and Laube (2015) the types of interventions to generate demand for VMMC in Zimbabwe were messaging, media, social mobilization and IPCs through community mobilizers. Furthermore, the Health Communication Capacity Collaborative (2015, p.1) states that "in Zimbabwe, in a 12-month period, 20,737 10 to 19 year-olds were circumcised,

representing 48% of the total VMMC clients. One strategy in Zimbabwe included a popular Reggae artist developing songs and making appearances talking about VMMC as fashionable and positive. Campaigns were also targeted near schools, with 62% of all VMMC output attributable to school campaigns."

2.7.13 Barriers to VMMC in Namibia

Namibia has one of the highest HIV prevalence rates in the world. According to the Centre for Disease Control (CDC)-Namibia (2016, p.1) "there are an estimated 215, 000 people living with HIV in Namibia, and 131, 103 of those individuals are receiving antiretroviral therapy." According to the MoHSS (2015a, p.11) "HIV prevalence amongst people aged 15 to 49 is estimated to be 16% and the total population of PLHIV aged 15 and above is estimated at 260, 000. The revised 2015 estimated projects people with HIV to increase to over 273, 000 in 2017 and over 296, 000 by 2020". In a national HIV sentinel survey of 2014 by MoHSS (2015b) conducted amongst pregnant women attending Antenatal Clinics (ANC), the overall prevalence was 16.9%, a reduction from 18.2% in 2012.

The sites with the highest HIV prevalence rates were Katima Mulilo (36.0%), Rundu (24.1%) and Engela (22.8%). Namibia has a relatively low prevalence of male circumcision at 21 percent (MoHSS, 2008). In addition to this, Namibia is among countries which include Lesotho, Malawi, Rwanda and Zimbabwe with very low coverage of MC ranging from 6% to 26% (UNAIDS, 2015). In this regard, according to an organization called Strengthening Health Outcomes through the Private Sector-

SHOPS (2013) the Ministry of Health and Social Services in Namibia set a target in its national policy on VMMC to scale up VMMC to 80 percent among neonatal, adolescent and adult men by 2015. In this regard, the Government of the Republic of Namibia (GRN) recognizes male circumcision (MC) as an effective and additional prevention intervention against the HIV/AIDS pandemic (MoHSS, 2010).

In 2012, Namibia became the first country in the world to cover voluntary medical male circumcision through medical aid scheme as an HIV preventive benefit (Strengthening Health Outcomes through the Private Sector-SHOPS, 2013). VMMC initiatives are supported by different organizations which have partnered with the MoHSS. Namibia just like many priority countries employed various interventions in order to create demand for VMMC. Currently, the campaign by *The Dogg* a local artist called *"Get a Smart Cut with The Dogg"* is bearing considerable results. However, though Namibia has recorded some progress in terms of VMMCs performed over the years, a lot still needs to be done in order to achieve the desired results. The VMMC programme in Namibia has been hampered by a number of barriers or challenges, though no sufficient research and documentation has been done in this regard.

2.8 VMMC in Sub-Saharan Africa

According to Wamai et al., (2011) "implementation of male circumcision (MC) for HIV prevention in sub-Saharan Africa remains disappointingly slow despite its proven efficacy of greater than 60% based on the results of three randomized controlled trials (RCTs) conducted in the region." The Centre for Disease Control (2013, p.1) states

that “sub-Saharan Africa bears the greatest global burden of human immuno deficiency virus (HIV) infection; 70% (25.0 million) of all persons living with HIV reside in this region.” In addition, the setting in sub-Saharan Africa is that the established convention is that heterosexual transmission is the primary driver for the HIV epidemic (Wamai et al., 2011). Correspondingly, Nevin (2014) further states that “since the 1980s observational studies have shown that HIV infection rates in African tribal or ethnic groups that practice male circumcision are lower than rates in groups that do not. HIV protection by male circumcision has biologic plausibility; the removal of the foreskin reduces the covered, moist space in which the virus can incubate after sex.”

On top of that, UNAIDS (2011, p.64) states that “at the time of the 2001 United Nations General Assembly Special Session, epidemiological patterns suggested that circumcised men might be less likely to become infected by HIV. However, no clinical trials had been performed that would provide definitive scientific evidence that medical circumcision of adult men reduced the odds of women-to-male sexual transmission. Beginning in 2005, a series of randomized controlled trials in sub-Saharan Africa found that circumcising adult men reduced their risk of infection by about 60%.” According to Ledikwe, Nyanga, Hagon, Grignon, Mpofu and Semo (2014) the table below shows the number of VMMC procedures conducted between 2008 and 2012 by the priority countries in Eastern and Southern Africa.

Table 2.2: Number of VMMC Procedures conducted between 2008 and 2012 by priority countries

Country	VMMC procedures done (2008–2012)	Target	% of target
Botswana	63,863	345,244	18.5%
Ethiopia	22,961	40,000	57.4%
Kenya	543,000	860,000	63.1%
Lesotho	10,521	376,795	2.8%
Malawi	36,250	2,101,556	1.7%
Mozambique	172,325	1,059,104	16.3%
Namibia	12,973	330,218	3.9%
Rwanda	165,405	1,746,052	9.5%
South Africa	864,210	4,333,134	19.9%
Swaziland	48,083	183,450	26.2%
Tanzania	319,320	1,373,271	23.3%
Uganda	467,318	4,245,184	11.0%
Zambia	340,992	1,949,292	17.5%
Zimbabwe	91,335	1,912,595	4.8%
Total	**3,158,556**	**20,855,905**	**15.1%**

Source: Ledikwe et al., (2014) NOTE: Reproduced with the permission of the publisher, from the World Health Organization (WHO) Progress Brief - Voluntary medical male circumcision for HIV prevention in priority countries of East and Southern Africa. July 2014. Available from: http://www.who.int/hiv/topics/malecircumcision/male-circumcision-info-2014/en/ Accessed May 15, 2014.

2.9 Barriers to increase VMMC uptake in Sub-Saharan Africa

According to Hatzold et al., (2014) qualitative findings in Zimbabwe suggested that fear of an HIV test is a major barrier to VMMC uptake. However, the most frequent cited barriers in the same study is the fear of pain during the procedure. Similarly, in South Africa, the identified barriers to VMMC include fear of HIV testing that precedes circumcision, concerns about adverse effects (for example, lack of sexual

pleasure), transport costs, time off work, temporary sexual abstinence and unsupportive cultural norms (Govender et al., 2014). In Lesotho, a study by Skolnik et al., (2014) found out the following as perceived barriers to VMMC: fear of pain, compulsory HIV testing, cost and being attended to by women health staff.

In Kenya, a study by the Male Circumcision Consortium (MCC) identified financial concerns and fear of pain as the main barriers to VMMC adoption (FHI360, 2014). A study by Akinyi (2012) found out that the barrier to MC among the youth in Kisumu County, Kenya was the long distance to the health facilities. In addition, a study by Goshme (2012) in Botswana, identified the following as barriers to MC uptake among adolescents: fear of surgical complications, fear of long wound healing time, peer pressure and fear of stigma and discrimination. Herman-Roloff (2011) in her study in Kenya outlined the following as the primary barriers to MC uptake included: too much time away from work; cultural and religious values; the possibility of AEs; the post-surgical abstinence period; a desire to maintain the status quo; and increased promiscuity.

A cross-sectional study by Skolnik et al., (2014) in Lesotho, found out that the perceived concerns hindering service uptake included; fear of pain (57%), a women provider (18%), and “compulsory” HIV testing (15%). On top of that, in Nyanza, Kenya, two primary concerns with VMMC emerged: financial issues including missing work, losing income during the procedure and healing and family survival during the recovery period and the fear of pain during and after the procedure (Evens, Lanham, Hart, Loolpapit, Oguma & Obiero, 2014).

Similarly in South Africa's KwaZulu-Natal, a study among adolescents by George, Strauss, Chirawu, Rhodes, Frohlich, Montague and Govender (2014) found out that cognitive barriers are related to the fear of HIV testing (and the subsequent result and stigmas) which preceded VMMC. Further barriers are related to the pain associated with the procedure and adverse events, the need to abstain from sex during the six-week healing period was a further prohibiting factor for boys. Therefore, timing in this regard was crucial, as boys were reluctant to get circumcised when involved in sporting activities and during examination periods.

2.10 Community Education Interventions to increase VMMC uptake in Sub-Saharan Africa

In order to educate the public about VMMC, thirteen countries in Eastern and Southern Africa utilize various interventions to give information about VMMC. These interventions include: financial incentives, information and advocacy provided by religious, community, cultural and civil society leaders (WHO, 2013). Additionally, community educators and public health providers use small group interpersonal communication (IPC) sessions that allow interested community members to get in-depth information about VMMC and how it reduces the HIV infection (WHO, 2013). It is in these sessions that a platform is created whereby a provision of basic information regarding VMMC benefits, its limitations and the VMMC procedures in general are discussed.

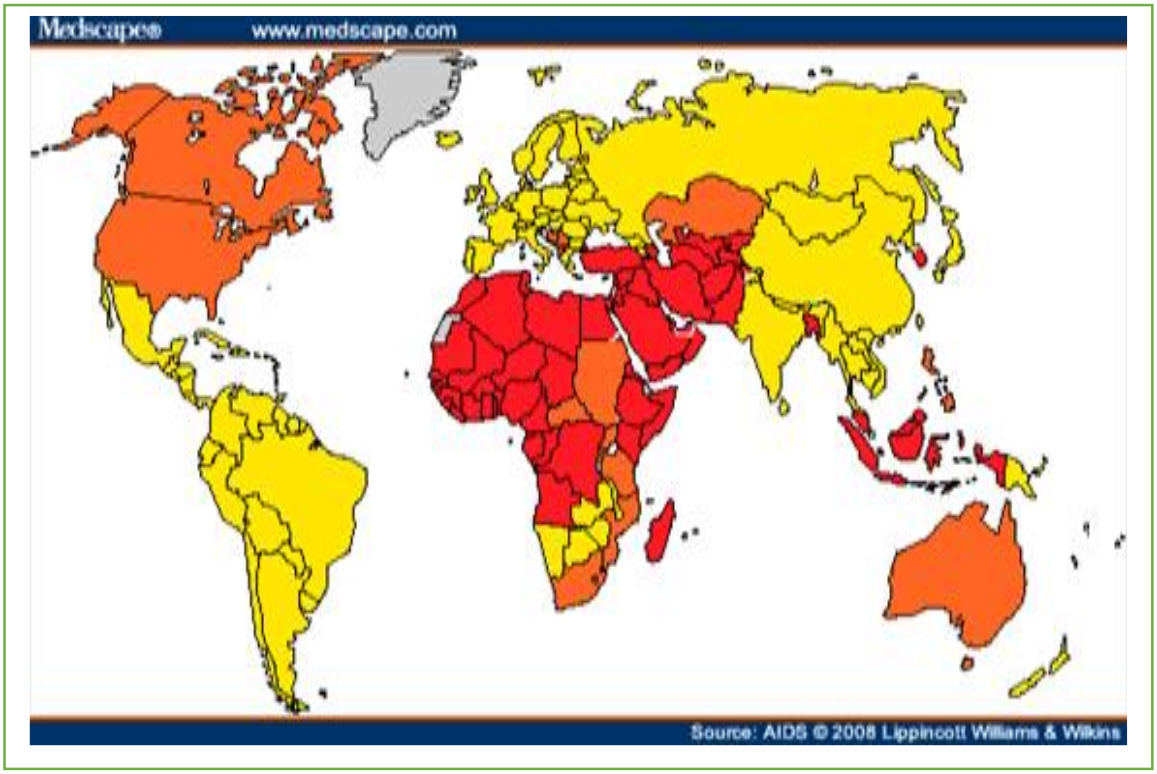
All in all, a communication strategy called the social and behavioural change communication was developed for each country and implemented thereafter (WHO, 2013). These group sessions are also supported by other communication activities such as mass media and large group sessions at community level and are usually offered by staffs that are trained on VMMC (WHO, 2013). However, these processes have been hampered by lack of dedicated staff members, low demand for MC services and frozen funds (WHO, 2013). Therefore, there is a need to research what the real barriers to VMMC are and also to find out the most effective community interventions in order to scale up the VMMC.

2.11 Barriers to VMMC in the other countries

WHO and UNAIDS (2007) estimates that approximately 30% of the world's men aged 15 years or older are circumcised. Of these, around two thirds (69%) are Muslim (living mainly in Asia, the Middle East and North Africa) 0.8% are Jewish and 13% are non-Muslim and non-Jewish men living in the United States of America. According to WHO (2007) male circumcision is almost universal in the Middle East and Central Asia and in Bangladesh, Indonesia and Pakistan. In addition, there are an estimated 120 million circumcised men in India (WHO, 2007). In all these countries, male circumcision is undertaken primarily for religious and cultural reasons. WHO (2007) further states that the examination of the prevalence of male circumcision shows that the major determinant of circumcision globally is religion, but that significant numbers of men are circumcised for cultural reasons.

Historically, in various parts of the world there have been increases and decreases in the popularity of non-religious male circumcision. These trends often result from changes in perceptions of the health benefits or cultural beliefs associated with the practice, indicating that the cultural determinants of male circumcision can evolve (WHO, 2007). In the US, circumcision occurs shortly after birth. The determining factor in this regard is the reason of many parents wanting their sons different from the father. In the same vein, a review in the US found out that 4.7 million new-born male circumcision nationwide between 1988 and 2000 had a significant association with private insurance and higher socioeconomic status (UNAIDS, 2007). The map below shows the global male circumcision prevalence at country level;

Figure 2.5: Global Map of Male Circumcision Prevalence at Country Level as of December 2006



Global map of male circumcision prevalence at country level, as of December 2006. Grey = No data; Yellow = <20% prevalence; Orange = 20-80% prevalence; Red = >80% prevalence. Source: World Health Organization. The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

2.12 Summary

Literature reviewed has confirmed that VMMC provides about 60% protection against HIV. It should however be accompanied by HIV prevention strategies such as the use of condoms as MC could only offer a partial protection. Most priority countries in Eastern and Southern Africa have thus far implemented comprehensive VMMC in their individual countries. However, all countries have experienced numerous challenges, especially in expanding this programme. Despite these challenges, many countries including Namibia have recorded tremendous achievements in the scaling up of VMMC in their individual countries.

In this regard, different studies were reviewed in order to identify gaps in knowledge in this study on the identification of barriers and effective community interventions with regards to VMMC in the 14 priority countries. One thing is for sure, there are some barriers to achieving higher levels of VMMC in all the 14 priority countries and thus creating demand for VMMC in the priority countries has proven to be a big challenge. Identified barriers included among others: fear of pain, stigmatization, lack of coordination, lack of funds and many more. The community education interventions to increase VMMC uptake in Eastern and Southern Africa in the priority countries were also reviewed in this chapter. In order to educate the public about VMMC, 14

countries in Eastern and Southern Africa utilizes various interventions to give information about VMMC.

These interventions include: financial incentives, information and advocacy provided by religious, community, cultural and civil society leaders (WHO, 2013). Likewise, community educators and public health providers use small group interpersonal communication (IPC) sessions that allow interested community members to get in-depth information about VMMC and how it reduces the HIV infection (WHO, 2013). It is in these sessions that a platform is created whereby a provision of basic information regarding VMMC benefits, its limitations and the VMMC procedures in general are discussed. The next chapter will discuss the research methodology in detail.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The previous section reviewed the literature on VMMC. This chapter discusses the research design and methodology used in the study which was used in identifying barriers and effective community interventions to VMMC in the Zambezi Region. The chapter further discusses the research methods used; the population of the study, the study setting, the samples and sampling procedures, the research instruments used, data-collection procedures and the data analysis. The researcher also addresses ethical considerations related to the data collection and analysis.

3.2 Research Design

This study utilized a qualitative approach. Since the study dealt with a sensitive cultural topic of male circumcision, the most appropriate research design was ethnography (Adams, 2012). The concept of ethnography was developed by Gerhard Friedrich Müller (White, 2014) as a method to study "social interactions, behaviours, and perceptions that occur within groups, teams, organizations and communities" (Reeves, Kuper and Hodges (2008, p.1). In this regard, 'compressed ethnography' coined by Rowsell, (2011) was the most appropriate method because it is a highly intensive modified ethnographic approach (Jeffrey & Tronman, 2004) that can be employed in a short time, such as a month. In using this method the researcher

establishes the relationship with the case and focuses on a specific aspect of the cultural context (Sweet, 2007). This method further imposes several conditions upon the researcher in order to ensure valid data (LeCompte & Schensul, 2010). Such conditions emphasize the researcher's earlier knowledge of the research setting and a narrow design that focuses on one particular aspect of culture, rather than on a wide range of human behaviour. In addition, Reeves et al., (2008) states that the central aim of ethnography is to provide rich, holistic insights into people's views and actions, as well as the nature of the location they inhabit.

Hence, in following 'compressed ethnography', the researcher visited the VMMC sites and spent two months collecting data. In practice, this was the only the time the researcher could manage and the only time allocated to the researcher by the VMMC site management. In the end, the compressed ethnographic method aided in collecting detailed information using the data collections techniques such as the focused group discussions (FGDs), in-depth interviews (IDIs) and VMMC modified client forms in a limited time. This aligned well with the compressed ethnography. These data collection techniques were used to collect detailed views on identifying the barriers to VMMC and the most effective community interventions in scaling up VMMC from study participants. This makes the compressed ethnographic method ideal for this particular study.

3.3 Population of the Study

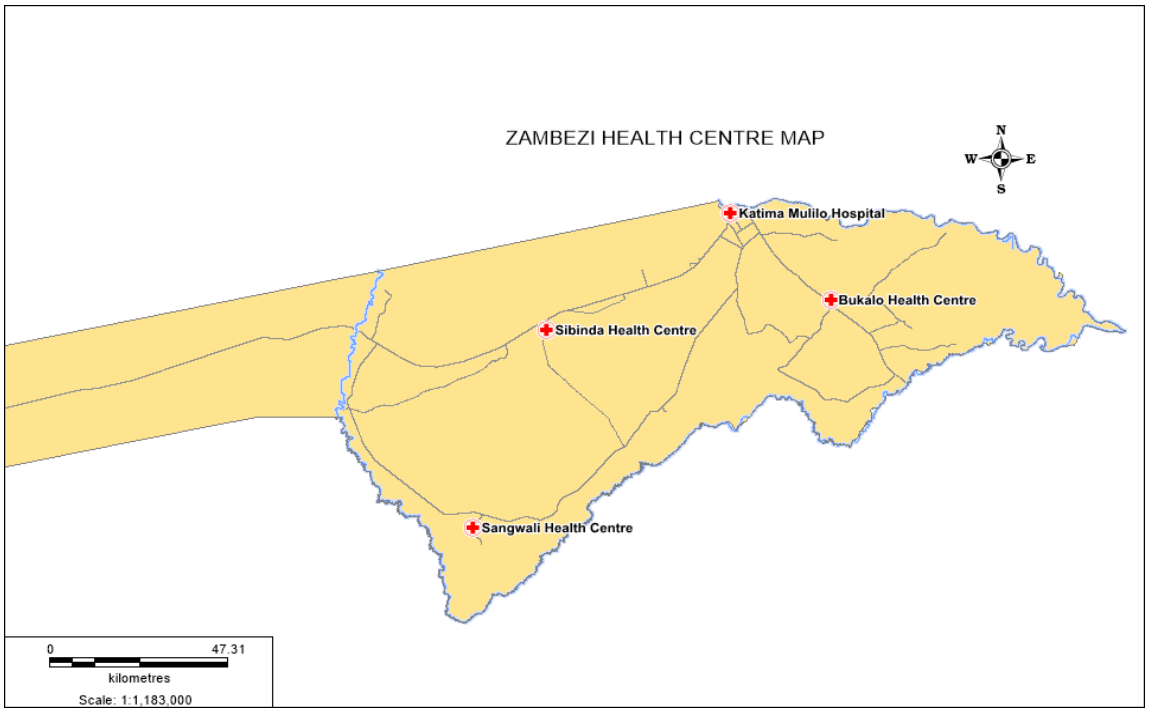
According to Boudah (2011, p.301) "in a research study population can be defined as a group with identifiable characteristics; the larger group of people to whom researchers wish to generalize, apply or relate the results of their research." The separate individuals or objects belonging to the population are called the elements of that population. A population can be finite, which means that all the elements can be ordered and counted (Fox & Bayat, 2007). The Namibia National VMMC Policy indicates that the target population for VMMC is adolescents and adult men of 15 to 49 years old (MoHSS, 2010). Therefore, for the purpose of this study, the population covered men and women between the ages of 15 to 49 years old.

Theoretically, the study population was 159, of which 53 participants represented each health facility under the study setting within its catchment area. This population firstly included the clients who had undergone the VMMC procedure (MC clients). Secondly, the study included uncircumcised men and women. Women were considered for FGD because it is believed, that they are more influential to men in their decision making to sign up for VMMC (WHO, 2013) The key informants are people that are believed to be influential to men's decisions about VMMC like: church leaders, traditional leaders and health officials (such as: nurses, doctors, and VMMC service providers) at VMMC facilities.

3.4 Study Setting

The study involved three health facilities, purposively selected to represent client populations, namely: the main hospital in Katima Mulilo, the main town in the Zambezi Region and health centres: Bukalo Health Centre (Peri-Urban) and Sibbinda Health Centres (rural).

Figure 3.1: Map Showing the Geographical Locations of the Study



Source: Siloka Griffith

Figure 3.1 above is a map showing the geographical locations of the study setting in the Zambezi Region.

3.5 Samples and Sampling Procedure

According to Gay, Mills and Airasian (2009, p.124) "in a research study, a sample is a group of individuals, items or events that represents the characteristics of the larger group from which the sample is drawn. The process of selecting a sample is known as, sampling." Samples must be the representatives of the population being studied or else, no general observations about the population can be made from studying the sample (Goddard & Melville, 2012). Therefore, as indicated in section 3.2, fifty-three participants were targeted per each health facilities under study. The table below illustrates the sample of the study.

Table 3.1: Sample of the Study

Description of Study Participants	Bukalo Health Centre	Sibbinda Health Centre	Katima Mulilo State Hospital	Total
MC Clients	15	15	15	45
Men (FGDs)	15	15	15	45
Women (FGDs)	15	15	15	45
Church Leaders	2	2	2	6
Traditional Leaders	2	2	2	6
VMMC Promoters	2	2	2	6
VMMC Providers	2	2	2	6
Totals:	**53**	**53**	**53**	**159**

Table 3.1 above is indicating the distribution of participants per health facility. The researcher selected participants from the community in consultation with the local health staff, local leaders, community leaders, and some members of the community with influence who know better about the communities under study. Participants had to be those who are able to provide information in line with the objectives of the study. The following non-probability sampling technique was used at all the three health facilities: purposive sampling for the MC clients (for the modified client forms), the key informants for the in-depth interviews and the participants for the focus group discussions on VMMC.

Likewise, the participants were selected by consulting with the local health staff, local leaders and community members in line with the purposes of the study. The number of modified client forms completed daily depended on the volunteers and the consent given by the MC clients. However, the introduction of the study and the invitation to the participants was done by the researcher with the assistance of the VMMC promoters and the trained VMMC providers that would act as research assistants at the research sites. To all intents and purposes, Fox and Bayat (2007, p.58) states that "in non-probability sampling, units of analysis in the population do not each have an equal chance and sometimes have no chance of being included in the sample. Furthermore, they state that "this method of sampling is often used in studies because it is convenient and inexpensive."

3.6 Research Instruments

According to Mathews and Ross (2010, p.181) "a research instrument or tool is something used to collect data, e.g. a questionnaire, the researcher himself or herself, or an interview schedule." The following research instruments were used, namely: two interview guides, one for the in-depth interviews (IDI) with key informants and one for FGDs, a VMMC modified client form for the MC clients that were adopted from the existing data collection tools at the health facilities offering MC services. Boyce and Neale (2006, p.3) state that "in-depth interviewing is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea."

The two interview guides used in this study included questions about the source of motivation to undergo VMMC, the attitude and beliefs and the perceptions on the barriers, strategies to address the barriers and effective community interventions to the uptake of VMMC. The interview guides also included questions on how best the VMMC messages can be conveyed and the role of women in the uptake of VMMC. Additionally, information packages based on the various VMMC interventions was used to educate participants after FGDs and to invite follow-up discussions for the benefit of the communities. According to Marczak and Sewell (1999) "focus groups were originally called focused interviews or group depth interviews."

This FGD technique was developed after World War II to evaluate audience response to radio programmes (Stewart & Shamdasani, 1990 in Marczak & Sewell, 1999). A FGD is a good way to gather together people from similar backgrounds or experiences to discuss a specific topic of interest. The strength of the FGD relies mainly in the fact that, it allows the participants to agree or disagree with each other. This allows for an even greater insight into how the group thinks of the issue or the topic at hand (Overseas Development Institute-ODI, 2009). The focus group discussions and in-depth interviews guides were divided into the following sections:

1. **SECTION A: BIOGRAPHICAL INFORMATION**
    - This section focused on information such as: age, sex, marital status, educational level, employment status, religion and place of residence.

2. **BARRIERS TO VMMC**

- This section was mainly focused on identifying barriers to VMMC in the Zambezi Region and strategies to address the identified barriers in scaling up the VMMC in the Zambezi Region.

3. **SECTION B: EFFECTIVE COMMUNITY INTERVENTIONS TO SCALE UP VMMC**

- This section examined the community interventions which are in place with regards to VMMC in the Zambezi Region, the most effective community interventions to the scaling up of VMMC in the Zambezi Region and what

other community interventions can be considered in the quest of having more men signing up for VMMC. This section also considered the role of different stakeholders including women in scaling up VMMC in the Zambezi Region.

4. **SECTION C: RECOMMENDATIONS**

- Additional information on the barriers, strategies to address the barriers and the effective community interventions.

3.6.1 Validity

Validity is often as the extent to which a research instrument measures what it purports to measure. Validity actually requires that a research instrument is reliable but a research instrument can be reliable without being valid (Kimberlin & Winterstein, 2008). In simple terms, validity refers to the credibility or believability of the research. Validity in qualitative research means "appropriateness" of the tools, processes and data (Leung, 2015). Gay et al., (2009, p.375) states that "in qualitative research, validity is the degree to which qualitative data accurately gauge what we are trying to measure." In this regard, as the sample size was large enough, as it was drawn from large areas, research instruments were pre-tested prior to the commencement of the data collection process.

3.6.2 Reliability

According to Kimberlin and Winterstein (2008, p. 2277) "reliability estimates are used to evaluate (1) the stability of measures administered at different times to the same individuals or using the same standard (test-retest reliability) or (2) the equivalence of sets of items for the same test (internal consistency) or of different observers scoring a behaviour or event using the same instrument (interrater reliability)." In a layman's language, reliability refers to the repeatability of findings of the study. Leung (2015) states that "in quantitative research, reliability refers to exact reliability of the processes and the results.

In qualitative research with diverse paradigms, such definition of reliability is challenging and epistemologically counter-intuitive. Hence, the essence of reliability for qualitative research lies with consistency." Furthermore, Gay et al., (2009) states that reliability is the degree to which study data consistently measure whatever they measure. The researcher addressed the reliability of this study by making sure that, the same research instruments were used for data collection. This was done by incorporating the input from the two supervisors of this study before the final data instruments were adopted. No further assessment was conducted due to lack of resources such as time and money.

3.6.3 Trustworthiness

On the issue of trustworthiness, Chilisa and Preece (2005, p.235) states that "the concept of trustworthiness replaces reliability." Gunawan (2015) further states that "trustworthiness has been further divided into credibility, which corresponds roughly with the positivist concept of internal validity; dependability, which relates more to reliability; transferability, which is a form of external; and conformability, which is largely an issue of presentation." Gay et al., (2009, p.374) states that "qualitative researchers can establish the trustworthiness of their research by addressing the credibility, transferability, dependability and confirmability of their studies and findings."

In this regard, the researcher maintained trustworthiness by making sure that the evidence for the results reported is sound and that the arguments made based on the results are strong. Furthermore, credibility was ensured through triangulation whereby the researcher made use of multiple research instruments which included: focus group discussions, in-depth interviews and modified client forms. This enhanced the quality of data from different sources (Anney, 2014). Credibility was also ensured through persistent observation by the researcher at VMMC sites and lastly through peer debriefing which resulted in the participants being identified and described well. Transferability was ensured through purposive sampling of participants in the data collection process. This is supported by Bitsch (2005, p.85) who states that "the researcher facilitates the transferability judgement by a potential user through purposeful sampling."

Dependability on the other hand was ensured through peer examination, whereby the researcher discussed some issues and findings with VMMC providers and promoters, which enhanced the understanding and interpretations. This process of peer examination is also referred to as 'the Devil's Advocate' (Maxwell, 1997). Finally, conformability which refers to the degree to which the results of the inquiry could be confirmed or corroborated by other researchers (Baxter & Eyles, 1997 in Anney, 2014) was ensured through an audit trail.

An audit trail strategy involves an examination of the inquiry's process and product to validate the data where a researcher accounts for all research decisions and activities to show how data were collected, recorded and analysed (Bowen, 2009; Li, 2014 in Anney, 2014). In this regard, the researcher developed a research audit trail through keeping a journal documenting the research processes such as the identification of the research problem, the research proposal drafting, the reviewing of the literature, the development of research instruments, the data collection and data analysis (Carcary, 2009).

3.6.4 Pilot Study

The pilot study was conducted prior to the data collection by the researcher at the Katima Mulilo State Hospital VMMC site and with church and traditional leaders. The term 'pilot studies' refers to mini versions of a full-scale study (also called 'feasibility' studies) (Van Teijlingen and Hundley, 2001). In this study, the pilot study was necessitated mainly due to the fact that it enabled study methods and data collection

processes to be examined (Secomb & Smith, 2011). The results from the pilot study were helpful and indicated that the research instruments were consistent with the study's aims and objectives as it yielded good results. However, minor changes were made whereby some questions which were deemed irrelevant by the researcher were removed in nearly all the research instruments, except for the modified client form.

3.7 Data Collection Procedures

Gay et al., (2009, p.109) states that "data collection procedure is a section which describes all the steps in collecting the data, from beginning to end, in the order in which they will occur." In this study, the collection of qualitative data was conducted in order to gain a deeper understanding of the motivations, perceived barriers of VMMC and the most effective community education intervention by probing more with questions of "what" to understand "why" and the "how". The data was collected over a period of eight weeks. Furthermore, data was collected to describe the clients' socio-demographic characteristics (which include: age, sex, marital status, religious affiliation and educational background).

The first stage involved the researcher obtaining the ethical clearance from University of Namibia (UNAM)'s Research and Publication Office and a permission letter from the MoHSS Research Committee to access the research sites and potential participants. The second stage involved gathering data through the administration of a modified client form (Annexure H) by trained research assistants (health workers) as part of the procedures during VMMC. This was administered to the MC clients before they

undergo the VMMC procedure. The third stage consisted of in-depth interviews with key informants (For in-depth interview guides, see Annexure D, E, F & G).

Eight key informants (Church leaders, traditional leaders, VMMC promoters and VMMC service providers) were interviewed from the surroundings of each health facility. The in-depth interviews with key informants lasted between 10 to 30 minutes and were conducted both in English as well as in Silozi, Subia and Sifwe depending on the preferences of the participants. The fourth stage involved holding three focus group discussions with circumcised men, uncircumcised men and women, who were purposively selected from the catchment area of each health facility (For FGD guides, see Annexure A, B & C).

3.8 Data Analysis

The qualitative data was analysed using the thematic analysis method. Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) in the data. The thematic analysis is primarily concerned with characterizing and summarizing perceptions and lived experiences. This method is the most frequently used form of qualitative data analysis. (Braun & Clarke, 2006). Braun and Clarke (2006) further state that thematic analysis is a foundational method of analysis in qualitative research. To implement thematic analysis, the data collected utilizing tape recorders from the interviews (in-depth interviews and focus group discussions) was transcribed. Then the data analysis was done in phases. These phases included: familiarizing yourself (researcher) with the data, generating initial codes, searching for

themes, reviewing themes, defining and naming themes and producing the report (Braun & Clarke, 2006). Even though this data analysis process is long, it tends to be less time-consuming and it allows both summarization of the findings and the retention of raw data.

Furthermore, the biographical information gathered from the participants were presented with descriptive statistics that was analysed using the Statistical Package for the Social Science Software (SPSS). SPSS is software for editing and analysing data. It was developed by SPSS Inc. and acquired by IBM in 2009. In 2014, the software was officially renamed IBM SPSS Statistics. The software was originally meant for the social sciences, but has become popular in other fields such as health sciences and especially in marketing, market research and data mining (Van Den Berg, 2015). All categorical variables such as: age, marital status, religion was analysed and summarized in frequencies and percentages. The research sites were grouped separately by urban, peri-urban and rural status. In this regard, Katima Mulilo State Hospital was urban, Bukalo was peri-urban, while Sibbinda Health Centre was rural.

3.9 Research Ethics

The researcher obtained ethical clearance from UNAM's Research and Publication Office and then a permission letter from the MoHSS Research Committee to access the research sites and potential participants. Each participant was provided with a consent form and the researcher verbally explained the content. The written consent form (See Annexure I) contained the introduction of the study, addressing issues with

regards to anonymity and confidentiality. The consent form was also attached to the letter requesting access to VMMC sites which also included the modified client forms. Anonymity and confidentiality was exercised to avoid possible embarrassment, pain, loss of self-esteem, psychological damage, and loss of dignity and self-respect that might occur during the study.

The consent form further informed the participants that participation was voluntary, that no mental or physical harm would occur as a result of their participation in the study and that they were free to decide to terminate their participation at any point during the research process without penalty. Only participants who signed a consent form expressing their willingness to voluntarily participate in the study took part. After this period, the data will be destroyed. Recordings from the interviews will be kept in a locked file cabinet for five years. Anonymity was ensured by recording interviews without the participants' names and by using encoded identifiers or pseudonyms on written records in order to protect their identity.

For confidential or sensitive data, strict access regulations were also imposed. In this regard, the data was stored on network based storage with an encryption to limit access to the researcher and supervisors only and on an off-site secure place physically removed from the original data so that there will be backups for disaster recovery purposes. Further consideration was taken to safeguard the data as the circumstances may require after which the data will be destroyed. However, this will be based on the re-assessment of data to decide if the data should be kept or destroyed. The data will therefore be disposed using wiping utility, whereby these utilities will write random or

specific data on each available block thus overwriting old data, making it unrecoverable (Carabott, 2010).

3.10 Summary

This chapter discussed the research methodology undertaken by the researcher. It covers: the research design, population of the study, the study setting, the sampling method, the sample size, data collection procedures, data analysis methods were discussed in detail. The chapter also described the study approach and design. Ethical considerations as adopted by the researcher were presented in this chapter as well as key components of the consent form (See Appendix I). Thus, the ethical principles that govern the study participants' rights, as well as the researcher's integrity were also discussed in this chapter. The next chapter discusses the findings of the study in detail.

CHAPTER 4: PRESENTATION AND INTERPRETATION OF DATA

4.1 Introduction

This chapter presents the findings of the data analysis which were collected through modified client forms with prospective VMMC clients at VMMC sites: FGDs with circumcised men, uncircumcised men and women; and in-depth interviews with key informants such as: traditional leaders, church leaders, VMMC promoters and providers. The data was collected and processed according to the research problem as outlined in chapter one of this thesis.

Overall, the findings of this study explores the factors facilitating VMMC, identifies barriers to VMMC, how to address the barriers to VMMC and the most effective community intervention to VMMC in the Zambezi. In this regard, findings are presented in this chapter in accordance with the key themes that emerged from data analysis. For easier comprehension, the themes have been grouped according to the objectives of the study. Ultimately, the results from this study are intended to be a guide for demand creation among men with regards to signing up for VMMC in the Zambezi Region in particular and Namibia in general.

4.2 Presentation of Data

The sections below, presents data from the modified client forms designed for prospective VMMC clients at the sites, data from the FGDs with circumcised men, uncircumcised men and women and data from the in-depth interviews with traditional leaders, church leaders, VMMC promoters and VMMC providers. The four main themes identified during data analysis were:

- Barriers to VMMC and how to address the barriers in the Zambezi Region
- Factors facilitating VMMC among men in the Zambezi Region
- Effective community interventions to scaling up VMMC in the Zambezi Region
- The role of stakeholders in scaling up VMMC in the Zambezi Region.

4.3 Findings from the Modified Client Forms

Table 4.1: Number of Modified Client Forms Participants

Research Site	Number of Participants	Total
Katima Mulilo	15	15
Bukalo	08	08
Sibbinda	00	00
Total:	**23**	**23**

The modified client forms were administered with the help of health officials at the health facility on behalf of the researcher. VMMC clients at these facilities were asked in addition to the main VMMC client forms what they felt are the barriers to VMMC and the most effective community interventions to scaling up VMMC in the Zambezi Region. The table 4.2 below contains the responses from VMMC clients in Katima Mulilo and Bukalo. No modified client forms were obtained from Sibbinda as there were no VMMC campaigns or undertaking for men that took place during data collection.

Table 4.2: Findings from Modified Client Forms

Findings from Modified Client Forms, Katima Mulilo		
Client No.	**Barriers to VMMC**	**Most Effective Community Interventions to VMMC**
Client A	• Men are afraid of the injection • Men don't know the benefits of VMMC • Fear of pain	• Mobilization in schools • Television • Radio • Church
Client B	• Fear of needles or injections • Fear of pain (during and after the VMMC procedure)	• Radio • Television • Posters • Church • Mobilization at schools

Client C	• Fear of needles or injections • Fear of pain • Shyness	• Radio
Client D	• Fear of pain • Fear of not bearing children after the VMMC procedure • Fear of death from a VMMC procedure	• Peer-to-peer • VMMC messages in hospitals and clinics • VMMC mobilizations in schools • VMMC mobilizations in communities • VMMC messages from the radio and television.
Client E	• Fear of needles or injections • Fear of pain • Don't know the benefits of VMMC • Some men do not take charge of their health matters	• Television • Radio • Posters • Church • Mobilizations in schools

Client F	• Fear of pain • Afraid of needles or injections • Afraid that they will die during the VMMC procedure • Fear of losing a lot of blood during the VMMC procedure	• Mobilizations in schools • Radio • Television • Posters • VMMC messages from the clinic
Client G	• Afraid of needles or injections • Some parents refusing to consent for their children • Fear of unknown	• Mobilization in churches and schools • Peer-to-peer • Posters in shops and the police station • Television
Client H	• Fear of pain • Afraid of dying during the VMMC procedure • Lack of information	• Community mobilizations • Peer-to-peer • Posters from the local clinic • Mobilizations in schools
Client I	• Afraid of needles or injections • Fear of pain	• Television • Radio • Mobilizations in Churches • Mobilizations in schools

	• Fear of surgical complications	• Peer-to-peer
Client J	• Fear of pain • Fear of surgical complications • Lack of proper information	• Mobilizations in schools • Community mobilizations
Client K	• Religious beliefs • Peer influence	• Mobilizations in schools • Community mobilizations
Client L	• Lack of facilities • Not enough personnel • VMMC taking long to heal • Religious beliefs	• Community mobilizations • Mobilization in churches and schools
Client M	• Lack of information • Religious beliefs	• Radio • Dramas at Community mobilizations • House-to-house mobilizations
Client N	• Afraid of needles or injections • Fear of pain	• Radio

Client O	• Afraid of needles or injections	• None
Findings from Modified Client Forms, Bukalo		
Client No.	**Barriers to VMMC**	**Most Effective Community Interventions to VMMC**
Client A	• Fear of pain • Fear of surgical complications	• Radio • Television • Peer-to-peer
Client B	• Fear of surgical complications • Lack of proper information about VMMC • Fear of taking an HIV test	• None
Client C	• Fear of pain	• Community mobilization
Client D	• Fear of pain • Lack of proper information about VMMC	• None

	• Ignorance	
Client E	• Fear of pain • Shyness • Ignorance	• Television • Radio
Client F	• Fear of pain	• Radio • Television
Client G	• Fear of pain • Some men are afraid that, during the VMMC procedure, the whole penis is cut off	• Radio
Client H	• Afraid that doctors and nurses will cut off their whole penis • Fear of pain	• Radio • Peer-to-peer

4.4 Findings from the Focus Group Discussions (FGDs)

Focus Group Discussions according to Rabiee (2004) could provide information about a range of ideas and feelings that individuals have about certain issues, as well as

illuminating the differences in perspective between groups of individuals and that is why focus group discussions have become increasingly popular in health research. About eight (8) FGDs were conducted in all three locations of the study with circumcised men, uncircumcised men and women. Participants in the FGDs were mainly young men and young women (some still in school and some unemployed youth).

Table 4.3: Number of Participants in the FGDs

Method	**Type of Research Sites**			**Total**
	Urban	**Peri-urban**	**Rural**	
		Circumcised Men		
Katima Mulilo	8	0	0	8
Bukalo	0	5	0	5
Sibbinda	0	0	0	0
Sub-total	**8**	**5**	**0**	**13**
		Uncircumcised Men		
Katima Mulilo	6	0	0	6
Bukalo	0	5	0	5
Sibbinda	0	0	4	4
Sub-total	**6**	**5**	**4**	**15**
		Women		
Katima Mulilo	10	0	0	10
Bukalo	0	4	0	4
Sibbinda	0	0	7	7
Sub-total	**10**	**4**	**7**	**21**
Grand Totals:	**24**	**14**	**11**	**49**

Table 4.3 above indicates the number of participants that took part in the FGDs in all the three research sites.

4.4.1 FGDs on VMMC with Circumcised Men

When asked what the participants thought were the barriers to VMMC in the Zambezi Region, most of them felt that the number one barrier to VMMC in the region among men is the *fear of pain*. This was strongly cited by some men in Sibbinda. Furthermore, fear of other surgical complications during and after the VMMC procedure was cited by men in Katima Mulilo.

> *"The fear of needles or injections before the VMMC procedure is scaring more men to go for VMMC, apparently to some men, the needles is too big"* (One men in Sibbinda).

Furthermore, some men in Sibbinda also felt that:

> *"The VMMC services are not of good quality as compared to that which is offered in Katima Mulilo and therefore, some men in the village opts to travel for the same VMMC services to town."*

Another notable barrier which was mentioned is that, school going boys are not given sufficient time to rest and heal at home (One men in Sibbinda). Other barriers mentioned in the FGDs in nearly all the research sites include: lack of information and

misunderstandings regarding VMMC. Inevitably, when asked how these barriers could be addressed, some men in Sibbinda as most of them were school boys suggested that:

> *"Enough time to rest and heal should be given to school boys who goes for VMMC and that, VMMC providers should change the injection and make it less painful or substitute it with tablets to reduce the pain instead of injection in order to cater for those men who are afraid of injections."*

A similar sentiment was shared by men in Katima Mulilo who also felt that:

> *"VMMC providers should reduce pain during and after the VMMC procedure by all means necessary."*

Some participants in all FGDs further suggested that:

> *"The time of the VMMC operation or procedure should be reduced as it is currently too long."*

On the effective community interventions to scale up VMMC in the Zambezi Region, most men in the FGDs stated that:

> *"Mobilization in schools has played a vital role in this regard and that there should still go on in order to have more young men in schools signing up for VMMC."*

Men in Sibbinda cited the programme, *my future, my choice* as a good platform where more young men in schools can get the right information about VMMC as well as through the Life Skills subject which is taught in schools. In the same vein, some men in Sibbinda felt that, the local health centre is not doing enough to educate more men about the benefits of VMMC in their community. While some men in Katima Mulilo cited posters and the radio as effective community interventions to VMMC. When asked to suggest other community interventions to VMMC, some men in Sibbinda felt that:

> *"Education about VMMC should be extended to women in communities and pastors in churches as they are more influential in encouraging more men to sign up for VMMC in their respective areas."*

In conclusion, stigmatization was also cited as a barrier to VMMC in Sibbinda. One participant stated that:

> *"Some community members would refer to someone seeking VMMC as someone who is sexuality active."*

Meanwhile, the other participant stated that:

> *"Some people in the Sibbinda community felt that, a men who goes for VMMC eventually becomes disabled or develops some form of disability referred to in the local language as, impala or chiponokeza, which is very bad for any men."*

Furthermore, in Sibbinda, one men shared that:

> *"Some young men, especially those still in school were discouraged by their parents not to go for VMMC, as their parents feels that their children will lose out on the lessons during and after the VMMC procedure."*

On the same issue, some men felt that, permission from VMMC providers should be organized prior to the VMMC operations in their area. Distance and lack of transport in some instances for some men seeking VMMC services were also cited as barriers to VMMC in Sibbinda. Similarly, lack of transport was also cited as a barrier to VMMC by one participant in Katima Mulilo, who felt that, they should be provided with transport to and from VMMC sites.

4.4.2 FGDs on VMMC with Uncircumcised Men

When asked why men are signing up for VMMC, nearly all participants felt that, it was mainly done to prevent HIV and sexually transmitted infections (STIs). One participant in Katima Mulilo stated that:

> *"It is mainly because of the issue that VMMC reduces the HIV infection for at least 60 percent and that it reduces other infections such as cervical cancer on the part of the women."*

Nearly all the participants in all FGDs agreed that, VMMC is good for health and hygienic purposes. Furthermore, another participant in Bukalo felt that:

> *"Some men go for VMMC due to the pressure to do so from their women partners and to protect themselves against STIs and HIV/AIDS."*

When asked what participants perceived as barriers to VMMC, in all FGDs participants agreed that cultural belief is the number one barrier in this regard.

> *"It is not our culture to be circumcised, as it is like opening a new chapter in our lives and therefore a bit difficult to comprehend and later on, take part in"* (One participant in Katima Mulilo).

Fear of pain, the fear of taking an HIV test, the issue of abstaining from sex for about 6 weeks, shyness and lack of information and knowledge about VMMC were some of the perceived barriers cited in all the participants in the FGDs. On the issue of shyness, one participant in Sibbinda felt that:

> *"Some men are afraid to go to health facilities and make enquires about VMMC and do not open up easily when a chance to ask critical questions avails itself to such men."*

Moreover, the fear of not being mobile after the VMMC procedure was cited by some participants.

> *"The fear of not participating in sport and other recreational activities such as riding a bicycle, playing soccer and other games is one of the barriers to VMMC, especially among the boys who would go for VMMC and therefore have to spend some time healing"* (One participant in Katima Mulilo).

On how these barriers can be addressed, the issue of involving more men in the VMMC operations rooms as VMMC practitioners topped the discussions in all FGDs.

> *"Some men do not want to be operated on by a women nurse, hence some men shy away from VMMC in the region and also according to our culture no women should see or touch a men's private parts"* (One participant in Bukalo).

Moreover, one participant in Katima Mulilo also suggested that:

> *"VMMC staffs should be more discreet and maintain confidentiality regarding the VMMC clients and other related information."*

Peer–to-peer approach to encouraging more men was also suggested by some participants as one way to address barriers to VMMC. This they said would be more ideal in schools. When asked about the participants' knowledge on the community interventions in place to scaling up VMMC in the Zambezi Region, in all FGDs gave similar responses which included: the radio, posters, television, peer-to-peer mobilization and the use of traditional leaders. On the most effective community

interventions to scaling up VMMC in the Zambezi Region, community mobilizations, especially in rural areas and schools was singled up to be the most effective community intervention. One participant in Katima Mulilo stated that:

> *"Community mobilizations are most effective as people in the villages gets sufficient and adequate information about VMMC as the VMMC mobilization team provides a platform to ask questions on issues about VMMC that they do not understand."*

Generally, when asked what they felt are other community interventions that can be considered in the quest of having more men signing up for VMMC, the education of more men was seen by many in the FGDs as a good tool for promoting VMMC in the Zambezi Region. One participant in Sibbinda further suggested that:

> *"The distribution of t-shirts bearing VMMC information can also be a good intervention to sensitize more men in the region."*

While another participant also suggested that:

> *"The creation of health clubs in schools would also help drive the VMMC agenda at that level."*

The use of Regional and Local Leaders (Councillors) and the already circumcised men as ambassadors of VMMC in the Zambezi Region was also suggested in the FGDs. In addition, participants in the FGD in Bukalo suggested that:

> *"The VMMC administrators should encourage more men through a competition to win something like a bicycle or something for those men who have undergone the VMMC procedure at one of their VMMC facilities."*

4.4.3 FGDs on VMMC with Women

When asked about the main factors that leads more men to sign up for VMMC in the region, many participants felt that, the main reason is associated with the reduction of HIV, as the region has the highest HIV prevalence rate in the country.

> *"More men are signing up for VMMC in the region due to high death rate because of the HIV pandemic. Furthermore, with an intervention such as this, more men, even the ones who are conventionally shy are now making their way to VMMC sites, which is a good thing for our region"* (One participant in Katima Mulilo).

It also emerged in the FGD in Bukalo that, more men are signing up for VMMC due to the prevention of diseases such as, STIs and this according to them can only be achieved by removing the foreskin. On the reasons why more are not signing up for VMMC in big numbers, most participants in all the three FGDs felt that, men fear that

it might be painful and that, VMMC may bring more complications and of course, abstaining from sex for 42 days was also cited as a major barrier in the Zambezi Region.

> *"When I was pushing my partner to go for VMMC, the issue of staying for 42 days without sex was a major obstacle"* (One participant in Katima Mulilo).

In addition to this, another participant in Katima Mulilo narrated that:

> *"Most men in Katima Mulilo in general have fear of taking an HIV test as they prefer to hear it from the women partners after they go for such a test. Therefore, it might be one of the reasons why more men do not sign up for VMMC, as they might be scared to take an HIV test before going for the VMMC procedure."*

The fear of not healing in time, ignorance among some men, lack of confidentiality among the health staffs, cultural barrier, religious beliefs and peer pressure were some of the other barriers cited by participants in the FGDs. Engaging the young men in schools through plays was suggested by participants in Bukalo and Sibbinda as one way the barriers to VMMC can be addressed in the Zambezi Region.

> *"We girls should play a pivotal role in encouraging our boyfriends who are not circumcised to go for VMMC. Though I was scared, I played my part by*

> *escorting my boyfriend to the VMMC centre for the procedure and I also supported him during the healing process"* (One participant in Katima Mulilo).

In addition, other participants felt that, men should be circumcised at a tender age in order to avoid some of the barriers to VMMC which may affect that their judgment in teenage hood or adulthood of whether to sign up for VMMC or not.

> *"The Government should introduce a new law which would make VMMC compulsory in hospitals, health centres and clinics, which would also compel mothers to take their male children for VMMC at a specified time in life"* (One participant in Katima Mulilo).

On the community interventions in place in the Zambezi Region, some participants felt that, community meetings, mobilizations in schools and information fliers at hospitals and clinics are playing a vital role in helping more men access some information about VMMC and subsequently signing up for VMMC. Posters and leaflets were cited by nearly all participants as the most effectiveness community interventions to scaling up VMMC in the Zambezi Region. They also felt that, the focus should be on the young men by focusing on the Medias that are ideal to them such as Facebook, Twitter, WhatsApp, WeChat, etc. Additionally, one participant stated that,

"The wives should also encourage their husbands to go for VMMC. Therefore, wives should be educated on VMMC as well" (One participant in Katima Mulilo).

4.5 Findings from the In-Depth Interviews

The key informants for the in-depth interviews were; traditional leaders, church leaders, VMMC providers and VMMC promoters. The key informants were perceived as influential persons within their communities. Demographic variables of the respondents, such as: status in the community, sex, age group, education level, marital status, employment status, religious affiliation and place of residence are presented in the tables and figures below depending on the interview guide.

STATUS IN COMMUNITY

Table 4.4: Status of the Participants in the Community

Status	Frequency	Percent
Church Leaders	4	24.0
Traditional Leaders	4	23.5
VMMC Promoters	4	23.5
VMMC Providers	5	29.0
Total	**17**	**100.0**

Table 4.4 above shows the status of all the participants in the in-depth interviews in all the threes research sites, which included; church leaders n=4, traditional leaders n=4, VMMC promoters n=4 and VMMC providers n=5.

GENDER DISTRIBUTION

Table 4.5: Gender Distribution for the In-Depth Interviews

Gender	Frequency	Percent
Women	1	5.9
Male	16	94.1
Total	**17**	**100.0**

Table 4.5 above shows the sex of all the in-depth interview participants. According to the table, 16 participants were men representing 94.1%, while only 1 women participated in the in-depth interview, which represents 5.0%.

AGE DISTRIBUTION

Table 4.6: Age Distribution for participants for the In-Depth Interviews (Traditional Leaders and Church Leaders)

Age Distribution	Frequency	Percent
18-35	0	0.0
35-45	0	0.0
45-55	0	0.0
55-65	5	62.5
65-75	3	37.5
Total	**8**	**100.0**

Table 4.6 above shows the age group of participants for the IDIs with church and traditional leaders. A total number of 8 participants took part in the IDIs, of which 5 were in the age group of 55-65 while 3 were in the age group 65-75. There were no participants in the other age groups lower than 55.

EDUCATIONAL LEVEL

Table 4.7: The Educational Level of participants for the IDIs (Traditional and Church Leaders)

Educational Level	Frequency	Percent
Primary	1	12.5
Secondary	5	62.5
Tertiary	2	25.0
Total	**8**	**100.0**

Table 4.7 shows the educational level of the 8 participants who participated in the in-depth interviews (church leaders and traditional leaders).

MARITAL STATUS

Table 4.8: The Marital status of participants for the IDIs (Traditional and Church Leaders)

Marital Status	Frequency	Percent
Single	0	0.0
Married	8	100.0
Divorced	0	0.0
Total	**8**	**100.0**

Table 4.8 above shows the marital status of the participants. All the participants in the in-depth interviews with traditional and church leaders were married.

EMPLOYMENT STATUS

Table 4.9: Employment Status of the participants for the IDIs

Employment Status	Frequency	Percent
Catechist	1	5.9
Clinician	1	5.9
Community Mobilizer	4	23.5
Demand Creation	1	5.9
Deputy Programme Lead	1	5.9
Enrolled Nurse	1	5.9
Pastor	2	11.7
Pensioner	4	23.5
Public Servant	1	5.9
Senior Registered Nurse	1	5.9
Total	**17**	**100.0**

Table 4.9 shows the employment status of all the 17 participants. Majority were the pensioners and VMMC community mobilisers.

RELIGION

Figure 4.1: Religious Affiliation for participants for the IDIs (Church Leaders and Traditional Leaders)

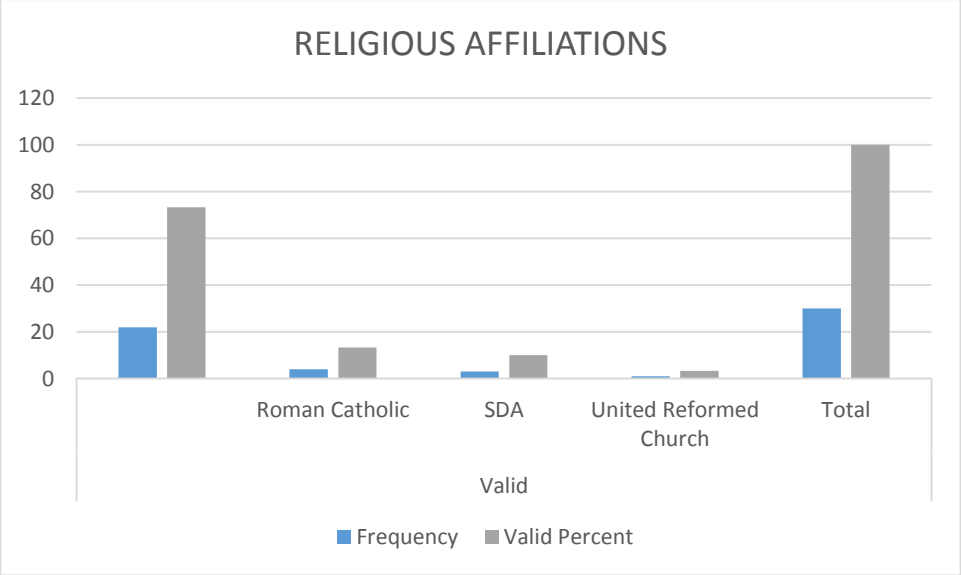


Figure 4.1 above figure shows the religious affiliations for participants who participated in the in-depth interviews with traditional and church leaders. Roman Catholic n=04, SDA n=03, while United Reformed Church n= 01.

PLACE OF RESIDENCE

Table 4.10: Place of Residence for Participants for the IDIs

Place of Residence	Frequency	Percent
Urban (Katima Mulilo)	7	41.1
Peri-Urban (Bukalo)	2	11.8
Rural (Sibbinda)	8	47.1
Total	**17**	**100.0**

Table 4.10 above shows that, there were 7 participants residing in Katima Mulilo (Urban), 2 participants in Bukalo (Peri-Urban) and 8 participants in Sibbinda (Rural) with a total number of 17 participants.

4.5.1 IDIs on VMMC with Traditional Leaders

Overall, when asked why men sign up for VMMC in their areas, nearly all participants felt that, men seek VMMC mainly due to health reasons. This they said was attributed to the fact that, the Zambezi Region has one of the highest HIV prevalence rates in the country and therefore, the HIV/AIDS issue is the leading factor in this regard. The prevention of STIs was also cited by many as one of the health reasons that lead some men to sign up for VMMC in the region. On the other hand, cultural barrier was cited by all participants as the main barrier to VMMC in the Zambezi Region. All the tribes in the Zambezi Region do not practice MC as part of their culture. However, it is not a new topic to the people of the region as some tribes native to nearby Zambia such as the *Luvale* do practice MC as part of the culture.

> *"It was even a taboo to talk about male circumcision in the then Caprivi Region, now Zambezi Region back in the days when some of us where growing up, until recently"* (One traditional leader in Katima Mulilo).

In addition, the following were cited as barriers to VMMC by traditional leaders in all the research sites: fear of pain, lack of proper information about VMMC, fear of the unknown, fear of complication during and after the VMMC procedure. Wrong

perceptions were also cited by one participant as a barrier to VMMC. Furthermore, one traditional leader in Katima Mulilo felt that, religious beliefs also play a vital role in the region as a barrier to VMMC. He further stated that, some men believe that:

> *"What God created, no men should temper with and that as men were created in the image of God, it means that men are perfect the way there are".*

In Bukalo, participants felt that some men, especially older men tend to be shy to sign up for VMMC. In addition to this, participants felt that some older men apparently feels that VMMC is beyond them or that it is too late for them, especially those above the age of 50, though some are still sexually active. When asked how these barriers can be addressed, some participants felt that, VMMC providers should continue to educate the masses spelling out the details. One participant in Katima Mulilo stated that:

> *"Workshops should be conducted for potential VMMC clients, especially old men and that during these workshops, men should be separated young from the old."*

In Bukalo, one participant felt that:

> *"Old people should encourage the young and also lead by example by signing up for VMMC and giving testimonies thereafter at public gatherings and meetings."*

However, contrary to this, one participant in the IDI in Bukalo requested that:

> *"VMMC for older men should done in such a manner that, older men are separated from the young, in order to maintain confidentiality at VMMC facilities and also ensure that the shyness barrier cited by many older men is overcomed in the process."*

A similar sentiment was shared by one participant in Katima Mulilo. When asked about the most effective community intervention to VMMC in the region, most participants stated that:

> *"The radio is an effective community intervention to scaling up VMMC as it reaches nearly all the corners of the region and is a widely used source of information among the masses, especially for those in the rural areas."*

Participants in Bukalo also felt that, the community mobilization activities in their area has been bearing results in addition to the VMMC campaigns on the radio. Some participants regarded enhancing the existing community mobilization on VMMC especially by involving the traditional authorities (Local Khuta) in order for them to spread VMMC messages at their meetings in their respective areas. They said this when they were asked on what they considered to be additional community interventions. Moreover, in the same vein, nearly all participants requested the Ministry of Health and Social Services and its stakeholders on VMMC to train them on VMMC so that they can be equipped with the necessary knowledge, attitudes and

skills before sharing the information with their subjects. One participant in Bukalo felt that:

> *"VMMC should be incorporated in the activities of the Ministry of Health and Social Services (MoHSS) called "sipatela mwa hae" meaning taking health services to the people which he felt was very productive in most areas of the region."*

On the role of women with regards to VMMC, nearly all participants felt that, women play a vital role in encouraging their male partners and their sons in signing up for VMMC and that, for this reason, women should be commended.

4.5.2 IDIs on VMMC with Church Leaders

It was the opinion of nearly all participants that most men decide to go for VMMC mainly due to health reasons. Moreover, one church leader in Katima Mulilo cited religious reason for some men who are convinced that, it is a religious duty for men to be circumcised and that it is written in the Bible as such. The other church leader in Sibbinda believes that more men sign up for VMMC due to the confidentiality aspect attached to it. On the barriers to VMMC in the Zambezi Region, the following were cited: fear of surgical complications, cultural barrier, shyness, lack of information as the main barriers. Furthermore, the issue of age is perceived as a barrier in some instances. One practical example in this regard was given by one participant in Sibbinda who narrated that, two boys were taken for VMMC, one aged 15 and the

other aged 13, however, only the one aged 15 was allowed and no proper explanation was given to the parents for not performing VMMC on the other boy who was 13 years old.

In Bukalo, one participant also felt that older men are not allowed to go for VMMC, whilst sexually active. In addition to this, one church leader in Sibbinda stated that:

> *"Distance to health centres and clinics where VMMC services are offered are long for some men and therefore this becomes a barrier for some men."*

The same church leader in Sibbinda gave an example of some men coming as far as Makanga and Sikubi villages to Sibbinda Health Centre, which are more than 10 kilometres away, just to come and access VMMC services. When asked on what can be done to address the barriers to VMMC in the Zambezi Region and how best VMMC messages can be conveyed to more men, two participants (One in Katima Mulilo and the other in Bukalo) felt that:

> *"The Bible should be used to as a proper reference and point of departure to influence more men to sign up for VMMC and that biblical evidence to educate more men to sign up for VMMC."*

Equally, one church leader in Sibbinda stated that:

> *"The Ministry of Health and Social Services should and intensify their outreach VMMC programme to enhance participation and take the VMMC services to smaller villages in order to mitigate the issue of distance whereby some men come as far as Makanga to Sibbinda seek such services."*

What is more, one participant in Katima Mulilo felt that:

> *"The faith based organizations should mainstream VMMC in their current HIV/AIDS education."*

The same sentiment was also shared by one church leader in Bukalo, who urged:

> *"The VMMC providers to bring them on board so that they can sojourn together by educating them as church leaders so that, they can join in as they are already involved in HIV/AIDS programmes such as the Catholic AIDS Action (CAA)".*

The same church leader in Bukalo also suggested that, VMMC services should be brought closer to the people and not concentrating on major towns, settlements and villages. Furthermore, television sessions on VMMC should also be enhanced to cater for the young men (One participant, Bukalo). Traditional male circumcision was sought as a good platform for those who do not believe in western styles of circumcising to be catered for by integrating traditional circumcisers into the mainstream VMMC services in the region and the country at large (One participant,

Sibbinda). Overall, nearly all participants felt that. VMMC campaigns are bearing positive results in the Zambezi Region. Community mobilization and the radio were cited by nearly all participants as the most effective community interventions in driving the VMMC agenda in the Zambezi Region. Moreover, peer-to-peer influence by some VMMC beneficiaries was seen as an additional community intervention in VMMC (One participant, Bukalo). Additionally, one church leader in Sibbinda felt that:

> *"Community meetings by the Regional AIDS Coordinating Committee (RACOC) in different areas of the region are also doing well in convincing more men to sign up for VMMC."*

VMMC providers were urged by one of the church leader not to waver in the mission of educating more men and the actual mission of circumcising more men as much as possible. When asked whether, VMMC campaigns have changed men's perception, nearly all participants felt that, yes, the myths surrounding VMMC is slowly but surely fading away due to the educational intervention put in place. Furthermore, in Bukalo, one participant stated that:

> *"Last year (2015) more young men signed up for VMMC in Bukalo due to the VMMC campaigns in the area."*

On how best VMMC messages can be best conveyed to men, one participant in Bukalo stated that:

"This can be achieved by enhancing greater community involvement through community meetings especially in remote areas such as; the flood-prone areas of the Kabbe North and South Constituencies."

In the same vein, one participant in Sibbinda felt that:

"The Ministry of Health and Social Services should employ a focal person or a community health worker at all the local health centres and clinics in the region who would be solely dealing with VMMC issues such as booking and counselling."

One church leader in Bukalo also suggested that:

"VMMC messages should be taken to places where more men congregate, like beer halls, barber shops, churches, etc."

Finally in Katima Mulilo, one participant stated that:

"The MoHSS and its stakeholders should organize trainings, seminars or workshops in communities, especially for circumcised men in order to share with them adequate VMMC information."

On the role of the church with regards to promoting VMMC in the Zambezi Region, nearly all participants stated that, it is not formally done in their church activities. However, one participant in Bukalo stated that:

> *"His church (Dutch Reformed Church) has over the years encouraged men to sign up for VMMC in their meetings and gatherings."*

What is more, in Katima Mulilo, one participant felt that:

> *"At least during their HIV/AIDS sessions they have touched on MC but not in details."*

He further requested this researcher to formally request for a formal training to be given to them as pastors so that, they can be equipped with the necessary knowledge and skills to tackle this issue more efficiently and effectively. The formal request in this regard was also done by the church leader representing the Roman Catholic Church (RCC) in Bukalo. On the role of women in influencing men to get circumcised, nearly all participants inception of one felt that, women do play a vital role in influencing men in their male counterparts to go for VMMC.

4.5.3 IDIs on VMMC with VMMC Providers

Hygiene and the issue of VMMC reducing the spread of HIV/AIDS and other infections were cited by nearly all respondents as reason for men to signing up for

VMMC in the Zambezi Region. The views of most VMMC providers on the barriers to VMMC in the Zambezi Region ranged from cultural barrier, fear of pain, fear of the unknown, ignorance, the age limit (15-49 years) and distance to health facilities offering VMMC services.

> *"The myth that VMMC is seasonal and it can only be performed in winter also plays a major role as a barrier to VMMC in the region"* (One participant in Katima Mulilo).

The same participant also felt that:

> *"Lack of parental consent is also a barrier especially for those young men under the age of 18."*

The issue of staying for 6 weeks without sex after undergoing a VMMC procedure was cited by one participant also in Katima Mulilo. Stigma for those sign up for VMMC, especially in schools is also a barrier in some instances.

> *"At some health facilities, health workers are hesitating or some do not want to share more information about VMMC and therefore, this can be a barrier to VMMC in the region"* (One participant at Bukalo Health Centre).

Continuous community mobilization and education to more men through door-to-door, group sessions and the use of traditional leaders at public meetings were cited by

participants in all three research sites as ways in which barriers can be overcomed in the region. Furthermore, one participant in Katima Mulilo stated that:

> *"To do more and in the process overcome the barriers to VMMC, parental and political involvement should be solicited and also involve more stakeholders who are currently involved in the fight against HIV/AIDS and last but not least involve faith-based organizations in order for them to mainstream VMMC promotions within their preaching and private conversations with Christians."*

In the same vein, one participant in Katima Mulilo also felt that:

> *"Women should be greatly involved in the promotions of VMMC in the Zambezi Region."*

On the community interventions, most of the participants felt that, the following are most effective; community activation (mobilization), house-to-house mobilization, radio announcements, posters, presentation through public announcers (PA) systems at different venues, community meetings and school mobilization. However, the radio was thought to be the most effective community intervention as it covers a vast majority of people in the region. Additionally, when asked the other community intervention other than the ones in place, one participant also felt that, the use of newspaper advertisement can also play a vital role in the promotion of VMMC. The other participant in Katima Mulilo also suggested that more slots on the national

broadcaster, NBC and other Medias dedicated to the promotion of VMMC should be initiated.

> *"The use of role models such as those who have undergone through the VMMC procedure and influential personalities such as musicians and regional leaders (such as, the Regional Governor, Regional and Local Councillors) should also be initiated"* (One participant in Katima Mulilo).

In addition, one participant in Katima Mulilo also suggested that:

> *"Incentives should be paid to additional VMMC ambassadors at community level."*

Moreover, one participant in Sibbinda stated that, additional community interventions to scaling up VMMC should include assurances that:

> *"Enrolled or booked prospective VMMC clients will be circumcised at least within three days."*

When asked if the VMMC messages are bearing results, nearly all participants responded that, yes, the VMMC messages are bearing positive results in the Zambezi Region as more men have signed up for VMMC in different localities of the region where such services have taken place. On how best VMMC messages can be conveyed to more men, one participant in Sibbinda stated that:

"Posters and booklets in the local language (Silozi) and the distribution of t-shirts bearing VMMC messages should be initiated in the Zambezi Region."

On the role of women, one participant in Katima Mulilo stated that:

"Most women who are aware of VMMC usually encourage their male counterparts and their sons to sign up for VMMC in the region."

While the other participant stated that:

"In fact, couples have been seen coming for VMMC enquires and subsequently women bringing and supporting their husbands as they go through VMMC" (One participant in Katima Mulilo).

Furthermore, some participants felt that, women also play a vital role in counselling and bring their sons for VMMC in some cases. In Sibbinda, one participant stated that:

"Women are assured of not contracting cervical cancer, STIs and HIV when their partners are circumcised. Therefore, their support in this regard is very important."

4.5.4 IDIs on VMMC with VMMC Promoters

Two participants in Katima Mulilo cited cultural and religious beliefs as the main barriers to VMMC in the Zambezi Region. Fear of pain, ignorance and misconceptions were also cited as possible barriers to VMMC. Similarly, in addition to these barriers, the other two VMMC promoters at Bukalo felt that, the issue of staying six weeks without sex after the VMMC procedure and some older men feeling that VMMC for young men and not for them anymore are some of the barriers to VMMC. When asked which one is the most effective community intervention, nearly all participants felt that, community mobilization is effective in the Zambezi Region.

> *"Through community and school mobilizations, the VMMC promoters share vital information regarding VMMC and that they go a little deeper into detail as compared to other interventions"* (One participant in Katima Mulilo).

Additionally, one participant in Bukalo felt that:

> *"We should have permanent staffs at health centres and clinics across the Zambezi Region dealing with VMMC mobilizations and booking."*

In Katima Mulilo, one participant stated that:

> *"Women should be involved in mobilizing their male counterparts to sign up for VMMC in their respective areas."*

When asked whether VMMC messages has changed the perception of men in the region all participants felt that, it has indeed changed the perception for most men as compared to when they started with the programme. On the role of their institutions, VMMC promoters, door-to-door visits and community mobilization at large were cited as activities that they are involved in, as part of mobilizing men to sign up for VMMC. Women were seen as vital partners in influencing the men and sons to go for VMMC. Ironically, one participant in Katima Mulilo suggested as a recommendation that:

> *"The Ministry of Health and Social Services and its partners should hire professional and qualified personnel with the necessary knowledge, skills and local language proficiency to serve as VMMC promoters in the Zambezi Region."*

The decentralization of VMMC services should also be thought through as an additional recommendation to the MoHSS and other stakeholders (One participant in Bukalo).

4.6 Summary

This chapter outlined the main findings from the modified client forms, focus group discussions and in-depth interviews used to collect data for this study with circumcised men, uncircumcised men, women, traditional leaders, church leaders, VMMC providers and promoters in Katima Mulilo, Bukalo and Sibbinda. The study found out that the main factors associated with the uptake of VMMC in the Zambezi Region

include; the prevention of diseases, penile hygiene and social recognition. The main barriers to VMMC in the Zambezi Region include: the fear of pain, needles, surgical complications and taking a HIV test; cultural barriers; religious belief; lack of adequate information; women health staffs at VMMC sites: cost; stigma; lack of parental consent, the issue of age limit and distance to VMMC facilities. The participants of the study also felt that, the most effective community interventions to scaling up VMMC in the Zambezi Region includes: community mobilization, peer-to-peer influence, posters and leaflets and lastly, radio and television. Women, traditional and church leaders were some of the important stakeholders or players that can bring about more men signing up for VMMC in the Zambezi Region.

CHAPTER 5: DISCUSSION OF FINDINGS AND CONCLUSIONS

5.1 Introduction

In the previous chapter, the researcher outlined the findings of this study. The purpose of this chapter therefore, is to discuss and make conclusions by describing the significance of the findings from the previous chapter. The findings are consistent with the research aims and objectives outlined in chapter one, explores the factors facilitating VMMC uptake, identifies the barriers to VMMC and ways on how to overcome them. It also identifies the most effective community interventions to scaling up VMMC in the Zambezi Region.

Moreover, it also touches on the role of various stakeholders, women in particular in influencing men to sign up for VMMC. The researcher also discusses the findings which corroborate with the findings from other recent researches in other countries in relation to the literature review. The study implored the qualitative approach, as it enhanced the identification of factors motivating men to seeking VMMC services, the barriers to VMMC and the most effective community interventions in scaling up of VMMC among men in the Zambezi Region.

5.2 Factors motivating men to seek VMMC in the Zambezi Region

There are many factors which the study found out as motivating more men to sign up for VMMC in the Zambezi Region. A study by Rupfutse et al., (2014) found out that factors associated with the uptake of VMMC are mainly: having a circumcised relative, having a circumcised friend and having been encouraged by someone to undergo circumcision. Furthermore, in a study by Sknolik et al., (2014) men in Lesotho sought medical circumcision for the following main reasons: protection against HIV (73%), protection from other sexually transmitted infections (62%), and improved penile hygiene (47%). However, the ones discussed below are the most prominent ones which includes: the prevention of diseases, hygiene and social recognition.

5.2.1 Prevention of Diseases

First and foremost, circumcision may result in a lower incidence of sexuality transmitted diseases, may reduce HIV transmission and lower the risks of contracting cancer of the cervix and cancer of the penis (Perlstein & Stöppler, 2015). Evidently, a great majority of participants, both men and women in the study stressed the fact that most men sign up for VMMC in the Zambezi Region basically due to the protection against HIV and STIs. This can be attributed to the fact that the Zambezi Region has the highest HIV prevalence rate in the country at 36.1% in 2015 (MoHSS, 2014). Based on this fact, more men might deem it fit to go for VMMC.

In a study by Sknolik et al., (2014) as outlined in the literature review of this study men in Lesotho sought medical circumcision for the following main reasons: protection against HIV (73%) and protection from other sexually transmitted infections (62%). Women are also playing a vital role in influencing their male counterparts and sons to sign up for VMMC in the region, probably with the fear of them contracting diseases. Women are also aware of the fact that they are at a greater risk of cervical cancer and therefore influence their male partners to sign up for VMMC. A number of studies have documented higher rates of cervical cancer in women who have had one or more male sexual partners who were uncircumcised (Morris, 2013).

5.2.2 Penile Hygiene

Penile hygiene was seen as an extremely important aspect universally and beneficial to male circumcision efforts (Westercamp & Bailey, 2006). Furthermore, Morris (2013) states that penile hygiene is often difficult to achieve and attempting a very high degree of hygiene in uncircumcised men can result in new dermatological problems. In this study's literature review, a study by Sknolik et al., (2014) men in Lesotho sought medical circumcision for improved penile hygiene (47%). Therefore, the study found out that hygiene in this regard is very much associated with male circumcision and the success of it thereafter in the Zambezi Region. Penile hygiene also helps to prevent viruses and infections. Some participants in the study, including women, believed that male circumcision can result in hygiene and general cleanliness

of a men, which is beneficial to both parties (men and women). Some women may see and use this as a good reason to convince their partners to go for VMMC.

5.2.3 Social Recognition

Male circumcision has been linked to social recognition in many countries. In Europe, Australia and in the USA, circumcision was intended for the upper class and royal families only (Morris, 2013). This is how important male circumcision was to rich people in those days. However, in today's world, male circumcision has become a free commodity available even to the lowly ones and supported by most governments of the world for its citizens so much that, the issue of male circumcision relating to the rights of the child (Smith, 1998). The demand for VMMC is still very low in most countries, especially in the priority countries in sub-Saharan Africa, including Namibia. This study found out that social recognition does drive VMMC to some certain extent, as some men would want to feel that sense of belonging and some are driven by peer pressure as well especially those still in schools.

During data collection, the researcher observed that, majority of men signing up for VMMC were school going boys as it was during their holiday. This trend can also be attributed to social recognition and peer pressure. Moreover, one can see the role of some social media playing some kind of role in influencing young men to sign up for VMMC in the Zambezi Region. The researcher observed the use of artists and other influential personalities in the promotion of VMMC as vital tool in the region. More men signed up for VMMC in the region as a result of a promotion (Road Show) by

The Dogg (a renowned Namibian musician) and other artists called *'Come and Get the Smart Cut with The Dogg'* which is also concurrently running on NBC television. This was observed by the researcher during data collection at the VMMC site in Katima Mulilo. A similar strategy was employed in Zimbabwe which included a popular Reggae artist developing songs and making appearances talking about VMMC as fashionable and positive (Sgaeir et al., 2015).

5.3 Barriers to VMMC among men in the Zambezi Region

5.3.1 Fear of Pain

One of the fundamental issues that divides opinion on the practice of circumcision regards the presence or degree of pain (Boyle, Goldman, Svoboda & Fernandez, 2002). It emerged in this analysis that, the fear of pain was strongly cited by nearly all the respondents of this study as the main barrier to VMMC in the Zambezi Region. The fear of pain is in this regard is generally the perceived pain from the VMMC procedure. Some men in the study, especially those from the VMMC sites who took part in the modified client forms data collection process stated that some men thinks that they can even die during or after a VMMC procedure. Probably, this can be attributed to the fact that, most men who go for VMMC in the Zambezi Region are now old enough and therefore, perceive the VMMC procedure as something very painful. Hence, some participants especially from the FGDs with women felt that VMMC should be performed to men at a tender age in order to avoid pain and other complications during and after the VMMC procedure.

In order to comprehend this issue one can only think that this comes from rumours and poor imaginations on the part of some men. In addition to this, other men can pick it from observing those men who have recently undergone VMMC in their area, maybe a friend, brother or a relative and perceive the process of healing as too painful. In Kenya, a study by the Male Circumcision Consortium (MCC) as outlined in the literature review identified financial concerns and fear of pain as the main barriers to VMMC adoption (FHI360, 2014). In Zimbabwe, fear of pain was cited as the most frequent barrier to VMMC by Hatzold et al., (2014). Similarly, in Lesotho a study by Sknolik et al., (2014) fear of pain was found to be a perceived barrier to VMMC. In the same vein, fear of pain was also raised by uncircumcised respondents in a study in Zimbabwe by Rupftutse et al., (2014).

5.3.2 Cultural Barrier

Cultural beliefs as a barrier to VMMC in the Zambezi Region is probably what can be termed as the number two main barrier to VMMC. People in the Zambezi Region are very cultural and male circumcision has never been part of their culture or tradition. The Zambezi Region has about four predominate tribes residing in the region, namely: Masubia, Mafwe, Mayeyi and the Khwe (San speaking people). All these tribes do not practice male circumcision, even during their initiations of young boys into adulthood. One traditional leader in the IDI even stated that it was a taboo to even talk about MC in the past, until recently. It is therefore, safe to say that VMMC is something new to

the people of the Zambezi Region. What is more, most men especially the older men in the region do resist to go for VMMC as they consider it as an abnormal thing to do.

The study also found out that some older men do not feel that VMMC is for them, but rather for young men, while some are still sexually active and some even below the age of 49. In this study's literature review Govender et al., (2014) states that unsupportive cultural norms were identified as one of the barrier to VMMC in South Africa. Seifert-Ahanda (2015) identified cultural or traditional belief as a barrier to VMMC and EIMC in Zambia. However, tradition plays a major role for many ethnic groups, such as the Bendel State in Southern Nigeria, the Lunda and Luvale tribes in Zambia and the Xhosa in South Africa. Among these communities, it is unacceptable to be uncircumcised, to the extent that they do forced circumcision and punish those who are uncircumcised (UNAIDS, 2007).

5.3.3 Religious Beliefs

Religious beliefs on the other hand, was also found to be a barrier to VMMC in some instances. Some believers may feel that being circumcised goes against that religious belief and therefore may not go for circumcision. Just like most regions in Namibia, the Zambezi Region is a Christian region, as most residents belong to a Christian domination such as: the Roman Catholic Church, Seventh-day Adventist, New Apostolic Church, Apostolic Faith and many other protestant churches. Some participants in the study cited religious beliefs as a barrier to VMMC for some men,

especially from the traditional leaders who felt that it is against God's will to circumcise men.

However, it must also be noted that, the church leaders in the IDI of this study shared different sentiments, as they felt that it is right to circumcise men as it is written in Holy Bible (Genesis 17: 10 NLT) that "you and your descendants must all agree to circumcise every male among you." In this regard, based on religious beliefs male circumcision is seen as alien to some men in the Zambezi Region. In some instances religious beliefs does however facilitate VMMC in some men. For example, in the Jewish Religion male infants are traditionally circumcised on the eighth day of life. This is based on the justification in Jew Holy book, the Torah is that a covenant was made between Abraham and God, the outward sign of which is circumcision for all Jewish men (UNAIDS, 2007).

5.3.4 Fear of Needles or Injections

The fear of needles is called needle phobia. It is a fear of medical procedures that involve needles or injections. It is very common, affecting at least one in 10 people. Many patients with needle phobia will have had a lot of blood tests or procedures as a child. A fear of needles and injections often, but not always, results from bad memories of needles earlier in life (Hutton & Chung, 2013). The study found out that fear of injections was particularly with men either waiting to go for the VMMC procedure at VMMC sites or those men who have already benefited from the procedure. Some men who have not undergone VMMC perceive the injection before the VMMC procedure

which is intended to alleviate pain, like the conventional needles which are usually big and painful. This can be attributed to situations whereby these men lack basic information on VMMC. Some men during the study even suggested the needles or injections be replaced with tablets which will have the same effect as the needles.

5.3.5 Fear of Surgical Complications

There are multiple complications that can occur following circumcision, ranging from the insignificant to the tragic. Virtually all of these complications are preventable with only a modicum of care (Kaplan, 1983). This study also found that fear of surgical complications during and after the VMMC procedure as a barrier to VMMC in the Zambezi Region. Some men, especially older men feels that the VMMC procedure would just bring more problems and surgical complications such as wounds not healing. Some men even feel that they can even die from surgical complications from the VMMC procedures. The study also found out that some men have it that doctors and nurses can cut their whole penis during the VMMC procedures. This can be attributed to number of possible reasons.

One reason can be that some men have observed or knows someone who have undergone a VMMC procedure and had health complications thereafter or it can be attributed to just fear of unknown. Some women in the study even suggested that VMMC should be performed at a tender age in order to avoid complications. In Zambia this type of barrier to VMMC was referred to as the fear of negative outcomes (pain, death, damage to penis, wound not healing well) by the National Voluntary

Medical Male Circumcision (VMMC) Communication and Advocacy Strategy 2012-2015 (2012) derived from a research by the Centre for Infectious Disease Research in Zambia (CIDRZ) in 2011. Fear of surgical complications was also identified as a barrier to VMMC in a study by Akinyi (2012) in Kenya.

5.3.6 Fear of taking a HIV Test

The fear of taking an HIV test which is part of the VMMC package was found as a barrier to VMMC by some in the Zambezi Region by this study. In the literature review of this study, studies in South Africa (Govender et al., 2014) and Lesotho (Sknolnik et al., 2014) found out the same barriers to VMMC among men in those countries. These compulsory tests are based on the general idea of VMMC which to reduce HIV transmission. The tests are intended for VMMC staffs to know the CD-4 count of potential VMMC clients and thus recommend to them accordingly. This also helps determine whether the healing is possible or not for the HIV positive clients. Some men who know that they are HIV positive are also afraid to go for VMMC. This can also be attributed to lack of proper information and shyness.

This is not only a problem for the VMMC sector, but the HIV/AIDS sector as well, as more people especially men are very reluctant to get tested for HIV. This challenge has inevitably become a barrier to VMMC for some men in the Zambezi Region. Fear of HIV testing is also a barrier in some other priority countries. In a study in South Africa by George et al., (2014) cognitive barriers related to the fear of HIV testing (and the subsequent result and stigmas) which preceded VMMC is a perceived barrier

to VMMC. Fear of HIV testing was also cited in a study by Chilungo et al., (2015) in Malawi as a barrier to that countries' VMMC programme.

5.3.7 Lack of Adequate Information

The study basically found out that some men in the region either lack adequate information or are misinformed with regards to VMMC in general. The study also found out that the myths and misconceptions surrounding VMMC are as a result of lack of adequate information. This was even evident in the interactions by this researcher with some men, especially those that have not benefited from VMMC, especially in FGDs and through informal conversations. Wrong perception was also cited by some participants as a barrier to VMMC in the region. This can also be attributed to lack of proper information. During the pilot study for this study, one VMMC provider stated that most people in the Zambezi Region perceive or feels that VMMC should only be done in winter time. This was also found out during one IDI, again with a VMMC provider. Furthermore, the study also found out that enquires made at some health facilities have fallen on deaf ears as not proper information is channelled to those who have enquired.

5.3.8 Women Health Staffs at VMMC sites

The study found out that some men especially older men resents or do not want to be attended to by women health personnel either before or during the VMMC procedures. This can be attributed to shyness or attached to culture, as in the Zambezi Region, it is

not cultural for a women (latter on, a young women) to touch or even see the private parts of a men. Similarly, a cross-sectional study by Skolnik et al., (2014) in Lesotho, found out that the perceived concerns hindering service uptake included: fear of pain a women provider and compulsory HIV testing. Traditional leaders and some participants suggested that only men should attend to their fellow men. They even went on to suggest that the older men should be separated from the young men in terms of VMMC procedures and not having all of them in one room. However, some women in the study felt that older men and leaders in our societies should lead by example by signing up for VMMC and give testimonies at public meetings in order to encourage other men to follow suit.

5.3.9 Cost

Some participants in the IDIs and the modified client forms cited the cost of transport to VMMC sites, especially in rural areas as one of the barriers for some men to sign up for VMMC. This was cited by some participants in this study, despite the provisions that the Ministry of Health and Social Services (MoHSS) and its partner in VMMC implementation, I-TECH has in place whereby they provide transport to VMMC clients, especially for those in rural areas on request. Some men even said that, they have to travel to Katima Mulilo just access these services. This was also cited Skonlik et al., (2014) as a barrier to VMMC by a number of studies in Lesotho, Kenya, Malawi and Zambia.

5.3.10 Abstinence from Sex

The World Health Organization (WHO) recommends that VMMC beneficiaries or men who have undergone the VMMC procedure can only resume having sexual intercourse after 42 days from the day of the VMMC procedure. The 42-day abstinence from sex as recommended by WHO is based on the assumption that all or nearly all men will be healed within 6 weeks after circumcision (Odoyo-June et al., 2013). It is actually a prerequisite for VMMC beneficiaries. This is also coupled with the use of condoms after the 42 days, for at least three month. The issue of abstinence from sex for about 42 days was shared by young men in the study in the focus group discussions who felt that, it is too much. This they felt, has also resulted to be a barrier to VMMC in some men especially those who feel that they cannot stay that long without sexual intercourse. Similarly, in a study in South Africa, Govender et al., (2014) also cited temporary sexual abstinence as a barrier to VMMC.

5.3.11 Stigmatization

In Tanzania, a study by Ploktin et al., (2013) found out that social and personal barriers to obtaining VMMC among adult men included shame associated with seeking services co-located with younger boys and perceived inappropriateness of VMMC after puberty, particularly after marriage and after having children. Similarly, stigmatization was also one barrier that the study found out through the FGDs and IDIs with men. This is very much similar to the stigmatization against people living with HIV/AIDS. This stigmatization is also coupled with some form of discrimination in

some instances for men who circumcised. In actual fact, in the past a men who is circumcised was referred to as *'Impala or Chiponokeza'* which was stereotype by then. Other men would laugh and make ugly jokes about circumcised men as it was deemed as some form of disability. Therefore, circumcision was hidden from public domain in the past as compared to the current situation. A study in Botswana by Goshme (2012) found similar findings as fear of stigma was identified as a barrier to MC.

5.3.12 Lack of Parental Consent

It is basically a legal requirement in Namibia, that before operating or having a surgical procedure on a minor, those under the legal age, parental consent should be sought by letting the parents or legal guardian of such minors sign on forms to consent on behalf of the minor. This is exactly what should take place in case a minor comes to a health facility seeking VMMC services or in a case, whereby a parent brings a minor for such services. This, the study found that it becomes a barrier to VMMC when a parent or legal guardian refuses to consent on behalf of their child for reasons only known to them. In addition, apart from some parents, school administers in some cases do not allow school-going boys to go for VMMC. In cases where they are eventually allowed, enough time to heal is not allowed or awarded to them by the school.

5.3.13 Age Limit

According to the National Policy on Male Circumcision in Namibia (2010) the target group for VMMC in Namibia are boys and men in the age group 10 to 49 years.

Therefore, the study also found out that the issue of the age limit, 10 to 49 years (under and over age) is a barrier to VMMC according to some participants. The study also found out that the health facilities in the Zambezi Region do have the capacity to perform VMMC procedures for people under the age of 10 (children) and are therefore turned away all the time. Some parents felt that provisions should be made to cater for their children. Older men on the other hand also felt that they should not be an age limit as some who over the age of 49 years are still sexually active and contract diseases in the process.

5.3.14 Distance to VMMC Facilities

A study by Akinyi (2012) as outlined in the literature review found out that the barrier to MC among the youth in Kisumu County, Kenya was the long distance to the health facilities. Similarly, this study found out that in some places especially around the Sibbinda Health Centre deem the long distance to this facility as a barrier to VMMC in that part of the Zambezi Region. This therefore, results in some men travelling with public transport to Katima Mulilo for the same services which again some men felt is too expensive for them. In a study by Govender et al., (2014) transport costs was also cited as a barrier to VMMC in South Africa.

5.4 Suggestions on how to address the barriers to VMMC

The researcher's analysis and the data from the study's participants which included: circumcised men, uncircumcised men, women, traditional leaders, church leaders,

VMMC providers and promoters suggest ways on how the barriers to VMMC in the Zambezi Region can be addressed in order to create more demand among men for VMMC services. All in all, more detailed information on various VMMC topics which can help address critical elements within the education and motivation of men to sign up for VMMC in the Zambezi Region needs to be developed. Education in this regard is seen as a critical element in unlocking and igniting the interest of men as it can change their mind sets and behaviours. Capitalizing on the existing educational packages of the Namibia VMMC programme such as advocacy and mobilization the new information would address barriers such as: fear of pain, fear of surgical complications, lack of adequate information, stigmatization and many more.

The counselling and HIV testing which occurs before a potential VMMC client undergoes the VMMC procedure should also include a more robust approach addressing the issues of fear of taking an HIV test, fear of pain and healing in order to ease the tensions of more men. Ultimately, the use of circumcised men who recently underwent through a VMMC procedure as peer educators or speakers at various mass campaigns can also help overcome some of the barriers such as: stigma, fear of pain and surgical complications. Inclusiveness for all stakeholders within the scope of VMMC in Namibia such as men living with HIV, women and young people is also vital in attempting to overcome some of the barriers to VMMC in the Zambezi Region.

The use of religious and traditional leaders as motivators to more men to sign up for VMMC was also thought to be a good move. However, some traditional and religious leaders cited the need for capacity-building on VMMC in detail in order for them to

execute this new responsibilities diligently. In Mozambique, PEPFAR has been working with that country's government in spearheading advocacy as the main community intervention to increase demand for VMMC. In so doing the use of traditional and other influential leaders has shown positive results with regards to the promotion of VMMC in Mozambique. Similarly, in Eastern Uganda, safe male circumcision is being promoted among traditionally circumcising communities through the *"Be the Pride of Your Tribe"* campaign, which engages religious and tribal leaders as well as health care provider (Sgaier et al., 2015).

5.5 Most Effective Community Interventions to scaling up VMMC in the Zambezi Region

Most forms of community interventions to scaling up VMMC have shown success in many countries, in sub-Saharan Africa including Namibia through their respective communication Strategies aimed at creating demand for VMMC among men. Data on the community intervention to scaling up VMMC in the Zambezi Region derived from this study suggest that the most effective community intervention, which include: community mobilizations; radio and television; peer-to-peer influence and the use of posters and leaflets. Overall, in most priority countries such as Kenya, South Africa and Zimbabwe employed the following types of interventions: research, messaging, social mobilization, IPC through community mobilizations, the use of the media and an MCC coordination approach both at national and provincial levels (Sgaier et al., 2015).

5.5.1 Community Mobilization

According to Advocates for Youth (2000, p.1) "community mobilization is essentially a process for reaching out to different sectors of a community and creating partnerships in order to focus on, and ultimately address a pressing issue such as teen pregnancy." This study found out that community mobilizations in schools and the general communities is bearing positive results in influencing more men to sign up for VMMC in the various parts of region. These community mobilizations are conducted by the Namibia Voluntary Medical Male Circumcision, a programme by I-TECH and the Ministry of Health and Social Services (MoHSS). They have staff members who are conducting these mobilizations called VMMC Mobilizers going from community to community, in some instances even house-to-house educating and urging men to sign up for VMMC.

Community mobilization has the leverage in this regard as people asking questions on issues which they do not understand and the VMMC mobilizers or promoters providing great insights on the critical issues regarding VMMC, especially the misconceptions and myths surrounding VMMC. In addressing the barrier of effective communication with communities, the Rwandan Government adopted some lessons learnt from neighbouring Uganda which emphasised the fact that VMMC must be accompanied with counselling and education about maintaining consistent condom use and other preventive methods.

Therefore, Namibia can learn from Rwanda and Uganda and adopt a similar approach whereby more emphasis can be placed on educating more men in the important of other prevention strategies as well. In the same vein, in Kenya a demand creation toolkit was also developed in order to assist social mobilizers to communicate consistent messages. Namibia can also develop a similar toolkit for all the stakeholders involved in the demand creation of VMMC to follow and also enhance their knowledge and skills with regards to social mobilization.

5.5.2 Radio and Television

The Zambezi Region has a good radio and television receptions, especially radio as it reaches a large number of people in the region. This makes the radio and television great platforms whereby VMMC messages are conveyed well to the general population of the region, especially those residing in the rural areas, which the National Census of 2011 states that are the majority. The radio in particular is a good platform whereby a debate can be sparked in order for listeners to share valuable information regarding VMMC.

This was also consistent with findings of this research whereby most participants felt that, the radio especially, is one of the most effective community interventions which is helping with the scaling up of VMMC in the region. The Namibian Broadcasting Corporation (NBC) can be commended in this regard as they have a dedicated slot for health education which have included VMMC messages and discussions. In Kenya,

journalists were trained in order for them to report accurate and adequate information about VMMC (Sgaeir, et al., 2015).

Namibia should likewise extend a similar training whereby our journalists can be equipped with the necessary knowledge, skills and attitudes in order for them to report accurately as well. In South Africa, the *Brother 4 Life* campaign features TV, radio ads and radio talk shows (Collinge, 2015). In Uganda, the *Stand Proud, Get Circumcised* campaign makes use of a mix of radio, TV, newspaper ads and community mobilization to promote MMC as a way to reduce risk of HIV infection. In addition to this, in this study's literature review, a population-based survey conducted to assess predictors of male circumcision in Zimbabwe found out that 71 per cent of men cited that the radio was a source of VMMC information, with television (TV) coming in second, as the most common source of VMMC information (Hatzold et al., 2014).

5.5.3 Peer-to-Peer Influence

In a study in Southern Province, Zambia by Zanolini, Bolton, Lyabola, Phiri, Samona, Kaonga and Thirumuthy (2016) peer referrals were also reported to be important in men's decision to be circumcised after talking to someone who was circumcised. In Uganda, peer pressure was found to be important not only in influencing young men's decisions but those of parents as well, seeking VMMC for their male children (Muhangi, 2010). Similarly, this study also found out that peer-to-peer influence was a major influence among men, especially for those in schools and the youth. It was also observed by this researcher during FGDs that potential clients in particular were

from the same age group and that in most cases they knew each other well, either from the same school or attending the same church. However, it must also be noted that, a study in Botswana by Goshme (2012) identified peer pressure as a barrier to MC among the adolescents

5.5.4 Posters and Leaflets

The use of posters and leaflets in health education are common and have over the years proven to be effective platforms to transfer knowledge and information. The Namibia VMMC programme also makes use of posters to education the public, men in particular about its services and other useful information about VMMC. Posters and leaflets are also among the most effective community interventions to scaling up VMMC in the Zambezi Region. These posters and leaflets are placed at designated public places throughout the whole region. The posters and leaflets are printed in both English and the local language, Silozi which gives them some leverage. In South Africa, the *Brother 4 Life* campaign features VMMC information on billboards and posters (Collinge, 2013). In Uganda, the *Stand Proud, Get Circumcised* campaign makes use of billboards, posters, TV, newspaper ads and community mobilization to promote MMC as a way to reduce risk of HIV infection.

5.6 The Role of Stakeholders in scaling up VMMC in the Zambezi Region

According to the Namibian Policy on Male Circumcision for HIV Prevention (2010), relevant stakeholders involved in the scope of VMMC in Namibia include government ministries and bodies such as: MoHSS, Ministry of Education (MoE), Ministry of Youth, National Service, Sport and Culture (MYNSSC), Ministry of Gender and Child Welfare (MGCW), Ministry of Regional, Local Government and Rural Development (MRLGRD), international Non-Governmental Organizations (NGOs), private health practitioners and other partners. Moreover, the policy also advocates for the involvement of women, young people, marginalized groups, faith-based organizations (FBOs) and persons living with HIV and AIDS. In the other priority countries, organizations such as: WHO, UNAIDS, PEPFAR, FHI360, Abt Associates and many other having over the years been working with various government in promoting and offering VMMC services.

The involvement of women in particular is very vital in encouraging more men to sign up for VMMC, the study found out. In Swaziland the Male Circumcision Strategic and Operational Plan for HIV Prevention 2014-2018 advocates for the empowering of women to support MC scale up. In Zimbabwe, women partners were found to be great influencers to the male counterparts to undergo VMMC. The Kenyan Government also has so far placed more emphasis on women as influencers to more men in signing up for VMMC. Therefore, women have a major role to play as they encourage both their

husbands and sons. In fact, it emerged in the study that women are the majority in terms of parental consent for minors. The involvement of women in a more leading role is therefore important and this needs to be formalized within the frameworks of VMMC in Namibia. Hence, revising some of the frameworks that are in existence in Namibia is an undertaking that should be thought highly by those in position of power within the scope of VMMC in the Zambezi Region in particular and Namibia in general.

5.7 Summary

This chapter discussed and interpreted the findings derived from chapter 4. It emerged that, the main factors associated with the uptake of VMMC in the Zambezi Region include among others: the prevention of diseases, penile hygiene and social recognition. The main barriers to VMMC in the Zambezi Region include: the fear of pain, needles, surgical complications and taking a HIV test; cultural barriers; religious beliefs; lack of adequate information; women health staffs at VMMC sites; cost; stigma; lack of parental consent and the issue of age limit. Strengthened education and advocacy approaches were suggested as ways to address some of the barriers. The chapter also discussed in detail the most effective community interventions to scaling up VMMC in the Zambezi Region. These included among others: community mobilization; peer-to-peer influence; posters and leaflets; and radio and television. The role of stakeholders, especially women as key stakeholders as they encourage their male partners and male children (sons) was also discussed in detail.

CHAPTER 6: SUMMARY, RECOMMENDATIONS AND SUGGESTIONS

6.1 Introduction

This thesis, though a Master of Education (Lifelong Learning and Community Education) contributes massively to the body of knowledge in public health as it (Public Health) has a relationship with lifelong learning, adult education in particular whereby they complement each other. Therefore, this previous chapter discussed the key findings of the study. This chapter highlights the summary of the findings from the previous chapter, make recommendations to various stakeholders within the scope of VMMC in the Zambezi Region in particular and Namibia in general. Lastly, this chapter outlines the suggestions for further research in the area of barriers and effective community interventions to VMMC uptake.

6.2 Summary of the Main Findings

The study was designed to identify the barriers to VMMC and the most effective community interventions to scaling up VMMC in the Zambezi Region. This study utilized a qualitative approach. Since the study dealt with a sensitive cultural topic of male circumcision, the most appropriate research design was ethnography (Adams, 2012) in particular ‘compressed ethnography’ (Rowsell, 2011). Data was collected through in-depth interviews (IDIs) with key informants, focus group discussions

(FGDs) and modified client forms to collect detailed views from participants. The sample of the study covered men and women between the ages of 15 to 49 years old. The study involved three health facilities, purposively selected to represent client populations, namely: Katima Mulilo District Hospital, Bukalo and Sibbinda Health Care Centres. Permission to access these facilities was granted by the Permanent Secretary (PS) of MoHSS prior to the data collection process. A total of 89 participants took part in the study. The participants in the study included: circumcised men, uncircumcised men, women, traditional leaders, church leaders, VMMC providers and VMMC promoters. The data from the participants in the study revealed that prevention of diseases, penile hygiene and social recognition are the main factors associated with the uptake of VMMC in the Zambezi Region. The study also found that the fear of pain is main barrier to VMMC in the region. Other barriers also include: cultural barrier, religious beliefs, fear of needles, fear of surgical complications, fear of taking an HIV test, lack of adequate information, women staffs at VMMC sites, cost, abstinence from sex for 42 days, stigmatization, lack of parental consent, age limit and distance to VMMC facilities.

The findings of the study also revealed that the barriers to VMMC would be addressed by strengthening the already existing educational advocacy approaches which would include more pressing matters such as the issue of pain, healing and stigma which are deemed to obstacles to VMMC in the Zambezi Region. The study also found out that the most effective community interventions to scaling up VMMC in the Zambezi Region are mainly: community mobilization, peer-to-peer influence, radio and television, and posters and leaflets at designated public places. The use of influential

persons such as artists was found out to be a great platform to mobilize more men. The use of women as vital players in encouraging more men to sign up for VMMC is one of the critical elements in the study's findings as well.

6.3 Recommendations

The recommendations based on the findings of this study for the VMMC practitioners, MoHSS and I-TECH, relevant stakeholders and the local communities in the Zambezi Region, include:

6.3.1 Recommendations for VMMC Practitioners

- First and foremost, VMMC practitioners should be aware of the barriers to VMMC in the Zambezi Region. Subsequent to this, MoHSS and I-TECH should ensure the capacity for addressing the barriers to VMMC in the Zambezi Region by improving the education and counselling services at VMMC sites before the VMMC procedure by including more practical aspects in a more detailed and vivid way. These would include aspects on issues such as; the need to abstain from sex for about 42 days after the VMMC procedure, the issue of stigmatization, how to handle surgical complications, pain management, etc.

- VMMC should be performed preferably at a tender age and that, change in policy or even the laws of the country should be made in order to accommodate and formalize this aspect.

- VMMC practitioners to expand and extend the existing transportation mechanisms of prospective VMMC clients to health centres and clinics where such services are being offered.

- The decentralization of VMMC services by VMMC practitioners should also be considered.

6.3.2 Recommendations for MoHSS and I-TECH

- The MoHSS and its partners in VMMC to introduce more devices such as PrePex in local health facilities catering for VMMC. These devices requires no injected local anaesthetic and can be placed and removed by trained mid-level healthcare workers

- The MoHSS to solicit for more funds internally and externally in order to fully take ownership of the Namibian VMMC programme and have a massive roll out and also handle much larger capacities of prospective men who would sign up for VMMC in Namibia in general and Zambezi Region in particular. This will ultimately enable the government to create a conducive environment whereby men would feel comfortable enough to make the right decisions regarding VMMC.

- Strengthen the existing community mobilization mechanisms by MoHSS and the Namibia VMMC programme by developing a toolkit for all stakeholders,

as this study found out that they are doing quite well in influencing more men to sign up for VMMC in the Zambezi Region, however a lot still needs to done.

- MoHSS to educate the nurses at health centres and clinics throughout the whole region, in order to close the existing knowledge gaps which would in turn ensure that the nurses can offer reliable and relevant information about VMMC to prospective men seeking such services at their respective health centres and clinics.

6.3.3 Recommendations for Stakeholders

- Stakeholders to conduct capacity-building exercises for influential partners such as traditional authorities, faith based organizations (FBOs), local NGOs involved in the fight against HIV/AIDS. Eventually, their involvement would also help VMMC practitioners in addressing barriers to VMMC and encouraging more men to sign up for VMMC in the Zambezi Region. This was actually formally requested during data collection by some stakeholders such as the church leaders and traditional leaders.

6.3.4 Recommendations for the Local Communities

- The local communities to join forces with the Namibian VMMC programme in the Zambezi Region in its quest to make use of local circumcised men at their VMMC sites to give testimonies during the mobilizations.

- The use of artists (Musicians) should also be continued, parallel to the use of local circumcised men, as it has made a positive impact recently. This will also boost the ownership of the VMMC programme by men in the region. Ownership of a programme is very important and highly encouraged for the target group of the specific programme in any setting, as it would be useless for somebody else to own the programme other than the clients themselves.

- The local communities to build community linkages and foster greater cooperation and collaborations with stakeholders within the scope of VMMC and people on the grassroots level in the Zambezi Region, especially women. As stated above, the community should in the long run take full ownership of the VMMC programme in the region, by getting involved and also by becoming decision-makers, especially men, as it is their destiny, their future and lives that is at stake in this regard.

6.4 Suggestions for Further Research

Firstly, since the study dealt with a sensitive cultural topic of male circumcision, the most appropriate research design was ethnography. Ethnography is the study of social interactions, behaviours, and perception. Further research can make use other qualitative research designs such as narrative or case study to gain a deeper understanding of the barriers and the most effective community interventions to scaling up VMMC. Secondly, since the study was only based on identifying barriers

and the most effectiveness community interventions to scaling up VMMC in the Zambezi Region, further research can be conducted to tackle other equally pressing matters related to VMMC in the region such as, the impact of VMMC on the HIV pandemic in the Zambezi Region. Ultimately, the new data on the impact of VMMC on HIV would also help in the uptake of VMMC among men in the Zambezi Region.

6.5 Summary

In this chapter, a summary, recommendations and suggestions for further research with regards to the findings of this study were discussed in detail. The research findings revealed that, more men sign up for VMMC due to personal reasons associated with maintain their health. The study also found out that the main barriers to VMMC in the Zambezi Region are associated with the fears of risks involved in the procedure such as pain and healing. The research also revealed that community mobilization, peer to peer influence, radio and television, and posters and leaflets is the most effective community interventions to scaling up VMMC in the region.

School going children were found to be the easy group to convince to sign up for VMMC. However, their parents should be sensitized in order for them to consent for them. Furthermore, women, traditional and church leaders should be brought on board in encouraging more men to go for VMMC. Finally, further either narrative or a case were suggested as alternatives in future research on this matter in order to gain a deeper understanding on the barriers and effective community interventions and also on the impact of VMMC on the HIV pandemic in the Zambezi Region.

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APPENDICES

APPENDIX A: Focus Group Discussion; Circumcised Men

Date:_____

Group

Interviewed:_____

Interview Completed by:_____

My name is Lukubwe Austine Simataa, doing a research study on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region as part of my thesis for a Master's Degree in Education, majoring in Lifelong Learning and Community Education, with the University of Namibia (UNAM). The purpose in meeting with you today is to learn your thoughts, feelings and experiences with the Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Your insights will help the programme and other relevant stakeholders to make improvements.

I would like to request everyone in this group to maintain confidentiality and respect for other participants. There are no answers which are wrong; all the answers are therefore acceptable.

SECTION A: BARRIERS TO VMMC

1.1 What are the barriers to VMMC in the Zambezi Region?

1.2 What interventions can you suggest that can address barriers in scaling up the VMMC in the Zambezi Region?

SECTION B: COMMUNITY INTERVENTIONS TO SCALE UP VMMC

2.1 What community interventions are in place with regards to VMMC in the Zambezi Region?

2.2 What do you think are the most effective community interventions to the scaling up of VMMC in the Zambezi Region?

2.3 What other community interventions do you think should be considered in the quest of having more men signing up for VMMC in your community? Please elaborate

SECTION C: RECOMMENDATIONS

3.1 What else would you like to add with regards to VMMC?

- On the barriers to VMMC
- Strategies to address the barriers to VMMC

- Possible effective community interventions to VMMC

Thank you for your time!!!

Appendix B: Focus Group Discussion; Uncircumcised Men

Date:_____

Group

Interviewed:_____

Interview Completed by:_____

My name is Lukubwe Austine Simataa, doing a research study on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region as part of my thesis for a Master's Degree in Education, majoring in Lifelong Learning and Community Education, with the University of Namibia (UNAM). The purpose in meeting with you today is to learn about your thoughts, feelings and experiences with the Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Your insights will help the programme and other relevant stakeholders to make improvements.

I would like to request everyone in this group to maintain confidentiality and respect of other participants. There are no answers which are wrong; all the answers are therefore acceptable.

SECTION A: BARRIERS TO VMMC

1.1 Why are more men signing up for VMMC in the Zambezi Region?

1.2 Why are men not signing up for VMMC in the Zambezi Region?

1.3 Can you suggest ways on how to increase participation in VMMC in the Zambezi Region?

SECTION B: COMMUNITY INTERVENTIONS TO SCALE UP VMMC

2.1 What community interventions are in place with regards to VMMC in the Zambezi Region?

2.2 Which community interventions do you think are most effective for the scaling up of VMMC in the Zambezi Region?

2.3 What other community interventions do you think should be considered in the quest of having more men signing up for VMMC in your community? Please elaborate

SECTION C: RECOMMENDATIONS

3.1 What else would you like to add with regards to VMMC?

- On the barriers to VMMC
- Strategies to address the barriers to VMMC
- Possible effective community interventions

Thank you for your time!!!

Appendix C: Focus Group Discussion; Women

Date:_____

Group

Interviewed:_____

Interview Completed by:_____

My name is Lukubwe Austine Simataa, doing a research study on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region as part of my thesis for a Master's Degree in Education, majoring in Lifelong Learning and Community Education, with the University of Namibia (UNAM). The purpose in meeting with you today is to learn your thoughts, feelings and experiences with the Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Your insights will help the programme and other relevant stakeholders to make improvements.

I would like to request everyone in this group to maintain confidentiality and respect for other participants. There are no answers which are wrong; all the answers are therefore acceptable.

SECTION A: BARRIERS TO VMMC

1.1 What are some of the factors that make more men to sign up for VMMC in the Zambezi Region?

1.2 Why are more men not signing up for VMMC in the Zambezi Region?

1.3 Please suggest ways on how to address these barriers in scaling up the VMMC in the Zambezi Region?

SECTION B: COMMUNITY INTERVENTIONS TO SCALE UP VMMC

2.1 What community interventions are in place with regards to VMMC in the Zambezi Region?

2.2 What do you think are the most effective community interventions to the scaling up of VMMC in the Zambezi Region?

2.3 What other community interventions do you think should be considered in the quest of having more men signing up for VMMC in your community? Please elaborate

SECTION C: RECOMMENDATIONS

3.1 What else would you like to add with regards to VMMC?

- On the barriers to VMMC
- Strategies to address the barriers to VMMC
- Possible effective community interventions to VMMC

Thank you for your time!!!

Appendix D: In-depth Interview Guide; Church Leaders

Name of Interviewer_____

Date_____

Position_____

Location of the Interview_____

Thank you for participating in this study. My name is Lukubwe Austine Simataa, doing a study on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region as part of my thesis for a Master's Degree in Education, majoring in Lifelong Learning and Community Education, with the University of Namibia (UNAM). The purpose of meeting with you today is to learn from your views on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Your insights will help the programme and other relevant stakeholders to make improvements.

Our discussion will focus on identifying barriers to VMMC, good practices you have observed and recommendations you may have.

SECTION A: BIOGRAPHICAL INFORMATION

Question 1

1.1 Sex: F M

1.2 Age:……..…

1.3 Education Level:……..…

1.4 Marital Status: Married ☐ Single ☐ Other ☐

1.5 Employment:……

1.6 Religion:……...

1.7 Place of residence (urban/peri- urban/rural):.……..

SECTION B: BARRIERS TO VMMC AND HOW TO ADDRESS THESE BARRIERS

Question 2

2.1 Why do you think men go for VMMC in your community?

2.2 What do you think are the barriers to VMMC in the Zambezi Region?

2.3 How would we address the mentioned or foresaid barriers in scaling up VMMC in your community?

2.4 Based on your experience, what other additional barriers can you think of with regards to VMMC?

SECTION C : EFFECTIVE COMMUNITY INTERVENTIONS TO SCALE UP VMMC

Question 3

3.1 What are the most effective community interventions (that you are aware of) to VMMC in your community?

3.2 What other community interventions do you think should be considered in the quest of having more men signing up for VMMC in your community? Please elaborate

3.3 In your view, has VMMC campaigns influenced men's perception on VMMC in the Zambezi Region? Please elaborate

3.4 How best can VMMC messages be conveyed to men? Please elaborate

3.5 What role is the church playing in influencing more men to sign up for VMMC?

3.6 Do women play a vital role in influencing men to get circumcised?

SECTION D: RECOMMENDATIONS

Question 4

4.1 What else would you like to add with regards to VMMC?

- On the barriers to VMMC
- Strategies to address the barriers to VMMC
- Possible effective community interventions to VMMC

Thank you for your time!!!

Appendix E: In-Depth Interview Guide; Traditional Leaders

Name of Interviewer_____

Date_____

Position_____

Location of the Interview_____

Thank you for participating in this study. My name is Lukubwe Austine Simataa, doing a study on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region as part of my thesis for a Master's Degree in Education, majoring in Lifelong Learning and Community Education, with the University of Namibia (UNAM). The purpose of meeting with you today is to learn from your views on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Your insights will help the programme and other relevant stakeholders to make improvements.

Our discussion will focus on identifying barriers to VMMC, good practices you have observed and recommendations you may have.

SECTION A: BIOGRAPHICAL INFORMATION

Question 1

1.1 Sex: F M

1.2 Age:……

1.3 Education Level:……

1.4 Marital Status: Married ☐ Single ☐ Other ☐

1.5 Employment:……

1.6 Religion:……...

1.7 Place of residence (urban/peri-urban/rural):..……..

SECTION B: BARRIERS TO VMMC AND HOW TO ADDRESS THESE BARRIERS

Question 2

2.1 Why do you think men go for VMMC in your community?

2.2 What do you think are the barriers to VMMC in the Zambezi Region?

2.3 How would we address the mentioned or foresaid barriers in scaling up VMMC in your community?

2.4 Based on your experience, what other additional barriers can you think of with regards to VMMC?

SECTION C : EFFECTIVE COMMUNITY INTERVENTIONS TO SCALE UP VMMC

Question 3

3.1 What are the most effective community interventions (that you are aware of) to VMMC in your community?

3.2 What other community interventions do you think should be considered in the quest of having more men signing up for VMMC in your community? Please elaborate

3.3 In your view, has VMMC campaigns influenced men's perception on VMMC in the Zambezi Region? Please elaborate

3.4 How best can VMMC messages be conveyed to men? Please elaborate

3.5 What role is the traditional authority playing in influencing more men to sign up for VMMC?

3.6 Do women play a vital role in influencing men to get circumcised?

SECTION D: RECOMMENDATIONS

Question 4

4.1 What else would you like to add with regards to VMMC?

- On the barriers to VMMC
- Strategies to address the barriers to VMMC
- Possible effective community interventions to VMMC

Thank you for your time!!!

Appendix F: In-Depth Interview Guide; VMMC PROVIDERS

District:_____ Name of Facility:_____Date: _____

Type of Facility (Hospital, Health Centre, Clinic, etc) _____

Gender of Informant: Male_____ Women_____

Interviewer: _____

Designation of Interviewee: _____

Thank you for participating in this study. My name is Lukubwe Austine Simataa, doing a study on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region as part of my thesis for a Master's Degree in Education, majoring in Lifelong Learning and Community Education, with the University of Namibia (UNAM). The purpose of meeting with you today is to learn from your views on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Your insights will help the programme and other relevant stakeholders to make improvements.

Our discussion will focus on identifying barriers to VMMC, good practices you have observed and recommendations you may have.

SECTION A: BARRIERS TO VMMC AND HOW TO ADDRESS THESE BARRIERS

Question 1

1.1 Why do you think men sign up for VMMC in the Zambezi Region?

1.2 In your opinion, what do you think are the barriers to VMMC in the Zambezi Region?

1.3 What do you think can be done to address these barriers with the aim of scaling up VMMC in the Zambezi Region?

SECTION B : EFFECTIVE COMMUNITY INTERVENTIONS TO SCALE UP VMMC

Question 2

2.1 What are the most effective community interventions (that you are aware of) to VMMC in the Zambezi Region?

2.2 What other community interventions do you think should be considered in the quest of having more men signing up for VMMC in the Zambezi Region? Please elaborate

2.3 In your view, has VMMC campaigns influenced men's perception on VMMC in the Zambezi Region? Please elaborate

2.4 What role do women play in influencing men to get circumcised in the Zambezi Region? Please elaborate

SECTION C: RECOMMENDATIONS

Question 3

3.1 What else would you like to add with regards to VMMC?

- On the barriers to VMMC
- Strategies to address the barriers to VMMC
- Possible effective community interventions to VMMC

Thank you for your time!!!

Appendix G: In-Depth Interview Guide; VMMC PROMOTERS

District:_____ Name of Facility:_____Date: _____

Type of Facility (Hospital, Health Centre, Clinic, etc) _____

Gender of Informant: Male_____ Women_____

Interviewer: _____

Designation of Interviewee: _____

Thank you for participating in this study. My name is Lukubwe Austine Simataa, doing a study on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region as part of my thesis for a Master's Degree in Education, majoring in Lifelong Learning and Community Education, with the University of Namibia (UNAM). The purpose of meeting with you today is to learn from your views on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Your insights will help the programme and other relevant stakeholders to make improvements.

Our discussion will focus on identifying barriers to VMMC, good practices you have observed and recommendations you may have.

SECTION A: BARRIERS TO VMMC AND HOW TO ADDRESS THESE BARRIERS

Question 1

1.1 In your opinion, what do you think are the barriers to VMMC in the Zambezi Region?

1.2 What do you think can be done to address these barriers with the aim of scaling up VMMC in the Zambezi Region?

SECTION B : EFFECTIVE COMMUNITY INTERVENTIONS TO SCALE UP VMMC

Question 2

2.1 What are the most effective community interventions (that you are aware of) to VMMC in the Zambezi Region?

2.2 What other community interventions do you think should be considered in the quest of having more men signing up for VMMC in the Zambezi Region? Please elaborate

2.3 In your view, has VMMC campaigns influenced men's perception on VMMC in the Zambezi Region? Please elaborate

2.4 What role is your institution playing in conveying VMMC information to men and how best can VMMC messages be conveyed to men? Please elaborate

2.5 What role do women play in influencing men to get circumcised in the Zambezi Region? Please elaborate

SECTION C: RECOMMENDATIONS

Question 3

3.1 What else would you like to add with regards to VMMC?

- On the barriers to VMMC
- Strategies to address the barriers to VMMC
- Possible effective community interventions to VMMC

Thank you for your time!!!

Appendix H: Modified Client Form

1. What are barriers that are preventing men to sign up for VMMC in the Zambezi Region?

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   ……

   ……

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2. What are the most effective community interventions to increase participation in VMMC in the Zambezi Region?

   ……

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   ……

Appendix I: Informed Consent Form for Social Science Research for Focus Group

University of Namibia

Faculty of Education

Department of Lifelong Learning and Community Education

Research Title: Identifying Barriers and Effective Community Interventions to Voluntary Medical Male Circumcision in the Zambezi Region.

Principal Investigator: Austine Simataa Lukubwe

Box 95, Katima Mulilo, Namibia.

Cell: 081 1244 310/081 2810 481

Email: lukubwesimataa@gmail.com

I am a student at the University of Namibia, pursuing a Master's in Education (majoring in Lifelong Learning and Community Education). I am conducting a research study, which I invite you to take part in. This form has important information about the reason for doing this study, what we will ask you to do in the study and the way we would like to use information about you if you decide to participate in the study.

Supervisors: Dr. Rakel Kavena Shalyefu and Mr. Epafras. J. Anyolo

1. **Purpose of the Study:** This study is therefore aimed at identifying effective community interventions and the barriers to VMMC for HIV prevention. The identified barriers and effective community interventions may reduce the barriers that slow down the uptake for VMMC.

2. **Procedures to be followed:** You have been asked to participate in a focus group discussion based on Voluntary Medical Male Circumcision (VMMC) in the Zambezi Region. Although the focus group will be tape recorded, your responses will remain anonymous and no names will be mentioned in the report. Therefore, your participation in this research means that you gave permission to the Principal Investigator to get your input for the purpose of this study.

3. **Discomforts and Risks:** There is no physical or emotional harm in participating in this focus group discussion, beyond those experienced in our daily lives. However, some of the questions are personal in nature and might cause discomfort.

4. **Benefits:** The benefits are an increased awareness of health issues and services in this community, in this regard VMMC. Additionally, the

information learned in the focus group discussion will be used to design community education interventions intended to encourage men to sign up for VMMC in large numbers.

5. **Duration:** The focus group discussion will last for about 45 minutes.

6. **Statement of Confidentially:** Information from this discussion will not be shared outside the group. Only the Principal Investigator will know your identity. If this research is published in a journal, no information about your identity will be uncovered.

7. **Right to Ask Questions:** There are no right or wrong answers to the focus group questions. We want to hear different viewpoints and would like to hear from everyone. We hope you can be honest even when your responses may not be in agreement with the rest of the group. In order to respect each other, we ask that, only one individual speak at a time in the group and that responses made by all participants be kept confidential. In addition, you can ask questions about the research at any time by contacting Austine Simataa Lukubwe via Email or Cellphone. Austine Simataa Lukubwe will attempt to answer your questions to the best of his ability or will direct you to the appropriate sources for further information. Contact Simataa on the above given details.

8. **Compensation:** There is no compensation or payments for participating in this study.

9. **Voluntary Participation:** Participating in this group is voluntary. You can choose whether or not to participate in the focus group and you can stop at any time

NB: You must be 18 years of age or older to consent to participate in this research. If you consent to participate in this study and to the terms above, please sign and indicate below. Please also note that you will be given a copy of this consent form to keep for your records.

_____ _____

Volunteer/Participant (Signature) **Date**

The informed consent procedure has been followed.

_____ _____

Principal Investigator (Signature) **Date**

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STUDENT ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: FOE/61/2015 **Date: 10 November, 2015**

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: IDENTIFYING BARRIERS AND EFFECTIVE COMMUNITY INTERVENTIONS TO VOLUNTARY MEDICAL MALE CIRCUMCISION IN THE ZAMBEZI REGION

Nature/Level of Project: Masters

Principal Researcher: L.A Simataa

Student Number : 200108972

Host Department & Faculty: Faculty of Education

Supervisor(s): Dr. R. Shalyefu(Main) Mr. E. Anyolo (Co)

Take note of the following:

(a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.

(b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.

(c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.

(d) The UREC retains the right to:

(i). withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,

(ii). request for an ethical compliance report at any point during the course of the research.

UREC wishes you the best in your research.

Prof. I. Mapaure
UNAM Research Coordinator
ON BEHALF OF UREC

University of Namibia, Private Bag 13301, Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pionierspark
☎ +264 61 206 3111; URL: http://www.unam.edu.na

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UNIVERSITY OF NAMIBIA

12 November 2015

To Whom it May Concern

Confirmation of Studies, Mr Simataa Austine Lukubwe

Student No: 200108972

This is to confirm that Mr Simataa Austine Lukubwe, Student No: 200108972 is currently registered for a Master Programme in Adult Education at the University of Namibia. He is in his final year of studies.

Mr. Lukubwe is currently busy with his thesis.

I would hereby like to confirm that his Master Thesis does form part of his official study requirements. Herewith the title of his thesis:

Identifying Barriers and Effective Community Interventions to Voluntary Medical Male Circumcision in the Zambezi Region

Your assistance will be highly appreciated to provide Mr. Lukubwe with any information or support that he might need to collect the necessary data for his thesis.

I trust that you will find the above correct and in order.

I thank you for your kind assistance.

Yours truly

UNIVERSITY OF NAMIBIA
TEACHING & LEARNING
IMPROVEMENT UNIT
2015 -11- 12
SIGNATURE:

Dr. R. Kavena Shalyefu

Senior Lecturer: Lifelong Learning and Community Education

Director: Teaching and Learning Improvement Unit

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198 | Ministerial Building | Tel 061 – 203 2125
Windhoek | Harvey Street | Fax 061 – 2225.xd
Namibia | Windhoek | E-mail: [illegible]

OFFICE OF THE PERMANENT SECRETARY

Ref: 17/3/3
Enquiries: Mr. M. Simasiku

Date: 11 April 2016

Mr. Lukubwe Austine Simataa
P. O. Box 95
Katima mulilo
Namibia

Re: Identifying Barriers and Effective Community Interventions to Voluntary Medical Male Circumcision in Zambezi region.

1. Reference is made to your application to conduct the above mentioned study.

2. The proposal has been evaluated and found to have merit.

3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**

3.1 The data to be collected must only be used for academic purpose;

3.2 No other data should be collected other than the data stated in the proposal;

3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;

3.4 A quarterly report to be submitted to the Ministry's Research Unit;

3.5 Preliminary findings to be submitted upon completion of the study;

3.6 Final report to be submitted upon completion of the study;

3.7 Separate permission should be sought from the Ministry for the publication of the findings.

Yours sincerely,

Andreas Mwoombola (Dr)
Permanent Secretary