



UNIVERSITY OF KWAZULU-NATAL

Assessment of health care workers' attitudes and perceptions towards voluntary medical male circumcision at Ugu District, KwaZulu-Natal

By

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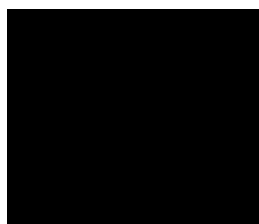
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July, 2024

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ABSTRACT

During the last two decades, Voluntary Medical Male Circumcision (VMMC) has emerged as a cornerstone in the fight against Human Immunodeficiency Virus (HIV) in sub-Saharan Africa. This intervention, particularly in regions like South Africa, serves as a significant measure for reducing HIV transmission. Success of VMMC programmes is intricately linked to the attitudes and perceptions of healthcare workers, who play a crucial role in mediating intervention's implementation and acceptance amongst target populations. Male circumcision is performed for various reasons, including religious, cultural, personal, hygienic, and medical purposes (Maibvise & Mavundla, 2013:139). The VMMC is an integral part of a comprehensive HIV prevention strategy that is implemented. This strategy encompasses HIV counselling and testing (HCT) and counselling on reducing the number of sexual partners. This strategy, spearheaded by the National Department of Health (NDoH), has expanded significantly, positioning VMMC as a key component in the nation's HIV prevention efforts. While traditional male circumcision (TMC) has deep cultural and religious roots in South Africa, it poses significant risks. In contrast, VMMC is conducted in a medical setting, ensuring higher safety standards and enhanced health outcomes. The study demonstrated a positive link between VMMC and the reduced risk of sexually transmitted infections (STIs) that underscored its significance within the public health agenda. This research aimed to evaluate the attitudes and perceptions of healthcare workers towards VMMC in the Ugu District of KwaZulu-Natal (KZN). This region is located in the south of KZN as an economic hub with a diverse population. The study was theorised within the lenses of public policy dimension and the Health Belief Model, influencing adoption and effectiveness towards improving public health service delivery. Qualitatively, the study sought to identify factors influencing healthcare workers' acceptance, understanding, and advocacy for VMMC. The NDoH has recognised the critical need to enhance VMMC as a primary STI prevention strategy. Since 2014, the department has actively promoted VMMC through medical and demand generation drives, targeting males aged 15 and above. These efforts are implemented across The United States President's Emergency Fund for AIDS Relief (PEPFAR) priority and non-priority districts in primary and community-based healthcare facilities.

Key Words: Voluntary Medical Male Circumcision, Human Immunodeficiency Virus, HIV counselling and testing, National Department of Health, United States President's Emergency Fund for AIDS Relief

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LIST OF ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
DoH	Department of Health
NDoH	National Department of Health
HCT	HIV Counselling and Testing
HIV	Human Immunodeficiency Virus
KZN	KwaZulu-Natal
NDP	National Development Plan
NPG	New Public Governance
PEPFAR	President's Emergency Plan for AIDS Relief
SDG	Sustainable Development Goals
STATS SA	Statistics South Africa
STI	Sexually Transmitted Infections
TMC	Traditional Male Circumcision
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organisation
USAID	United States Agency for International Development
UNAIDS	United Nations HIV/AIDS Programme
UKZN	University of KwaZulu-Natal
WHO	World Health Officer

CHAPTER ONE: GENERAL SYNOPSIS AND OVERVIEW OF STUDY

1.1 INTRODUCTION

The onset of the HIV/AIDS epidemic taking root in South Africa dates back to 1982 when the first two cases were officially recorded, with the first confirmed AIDS-related death occurring in 1985. Within the initial years, between 1982 and 1986, nearly all diagnosed cases, barring two, resulted in fatalities (Shell, 2000:08). By 1995, the prevalence of individuals infected with Human Immuno Deficiency Virus (HIV) in South Africa surged significantly, reaching an estimated 1.8 million people (Shell, 2000:09). Alarming statistics continued to emerge, with approximately 700 new infections reported daily in 1996 alone (UNAIDS, 2000:09). By the turn of the millennium, around 4.2 million individuals in South Africa were infected with HIV/AIDS, positioning the country as the global leader in HIV/AIDS prevalence (UNAIDS, 2000:09).

It has been more than 60 years since the first reported case of the HIV, with approximately 75 million persons having been infected with HIV globally, since its outbreak. In the current landscape, more than 38 million individuals are still living with HIV (UNAIDS, 2020). HIV has emerged as a global pandemic, with the largest number of individuals infected with HIV coming from the Southern Africa region (National Department of Health, 2016), which when broken down against the population of the country, constitutes approximately 6.8 million people (Tchuenche, Palmer, Hate, 2016: 03). The country that contains the most significant number of patients infected with HIV in the world remains the Republic of South Africa.

It is critical that the limited financial and operational resources, such as public health funds and resources from both government and international donors, are properly managed, accounted for and rooted in the public healthcare spectrum, so that those tasked the with responsibility and accountability of these resources have adequate policies in place for service delivery oversight and alignment to national development goals of the country.

The purpose of this study is to assess the attitudes and perceptions of healthcare workers resulting from the medical procedure known as voluntary medical male circumcision (VMMC). This chapter outlines the global environment that has emerged out of the HIV epidemic and seeks to dive into this primary protective measure against the spread of HIV. This study utilised the Health Belief Model (HBM) to facilitate an assessment of healthcare workers' perceptions and attitudes towards VMMC and the factors that may influence them.

The Department of Health (DoH) has seen VMMC develop and grow into a pivotal and crucial strategy in the battle against the rapid speed of HIV/AIDS transmission, particularly in sub-Saharan Africa, where the epidemic remains a significant public health concern. South Africa, with its high HIV prevalence rates, has implemented VMMC programmes as part of its holistic mission to curb HIV infections. However, the successful execution of such programmes hinges not only on their accessibility and efficacy, but also on the attitudes and perceptions of healthcare workers who play a crucial role in their implementation.

In 2008, the World Health Organisation (WHO), relying on scientific evidence that VMMC is able to reduce the risk of infection of HIV amongst males by 60%, recommended for VMMC to become the global HIV/AIDS prevention approach (World Health Organisation, 2011). The United Nations Programmes for HIV/AIDS (UNAIDS) estimates that in South Africa, seven and a half million persons were infected with HIV in 2019; therefore, HIV remains one of the greatest challenges that face all South Africans. VMMC has since been at the forefront as a core HIV prevention component under multiple international programmes and across numerous countries.

There have been medical research studies which estimate that 18% (six million individuals) of the population of South Africa have been living with HIV. The Global Burden of Diseases, Injuries, and Risk Factors Study, published in 2010, had revealed that the Age-Standardised Mortality Rate (ASMR) from AIDS (and illnesses related to AIDS) in South Africa has more than tripled since 1997 (Wyk, Msemburi & Laubscher, 2013). The global AIDS pandemic led to the loss of six million lives from AIDS, and illnesses related to HIV/AIDS, in South Africa by the end of the last decade, with an

additional two million children orphaned (Bozicevic, Riedner & Calleja, 2013; Global HIV/AIDS Response, 2011; Lozano, Lukman & Lozano, 2013; UNAIDS/WHO, 2013).

The adoption of HIV prevention strategies by the NDoH and other key stakeholders has been crucial in the fight against HIV. As part of this strategy, HIV prevention services for men from public health facilities will include the medical procedure known as VMMC. The WHO and the UNAIDS have underscored in their reports to global health departments that countries with high HIV prevalence and low rates of VMMC should acknowledge the critical role of VMMC in preventing heterosexually acquired HIV infections (WHO, 2007). Randomised clinical trials have illustrated that VMMC can be used as a medical initiative to lower the risk of HIV acquisition in men by at least 60%, making it a fundamental component in the global effort to reduce new HIV infections (Mbambo, 2021: 06).

The spread of HIV occurs primarily due to heterosexual relationships of contact and has been the cause of 85% of HIV infections observed globally (UNAIDS/CAPRISA, 2007). This rate is greater in Southern Africa, where countries are reporting that 92% of new HIV cases that occur through heterosexual contact (Government of Zimbabwe, 2011a). The majority of these new infections are among individuals aged 20-29, with a higher prevalence in females as compared to males (Government of Zimbabwe, 2011b; Niekerk & Kopelman, 2008; WHO & UNAIDS, 2011).

Given this context, programmes aimed at the prevention of further spread of HIV must prioritise the rapid transmission rate. Achieving success in prevention depends significantly on modifying human behaviour and lifestyle choices to disrupt the cycle of HIV transmission. However, this presents a considerable obstacle due to the intricate and poorly understood factors influencing human behaviour. The complexity of the issue is reflected in the limited adoption rates of recommended prevention measures such as abstinence, condom use, early antiretroviral treatment, providing HIV testing and counselling on an elective basis, encouraging having a single sexual partner, deferring sexual activity, and treating sexually transmitted infections (WHO & UNAIDS, 2007). As this obstacle persists, it is imperative to develop and implement supplementary prevention strategies that result in further decreasing new HIV infections.

The UNAIDS defines VMMC as a medical procedure performed on males to reduce cells highly receptive to the Human Immunodeficiency Virus. Medical research studies provide convincing evidence that male circumcision significantly lowers the risk of transmission of HIV as a policy imperative.

While male circumcision has been practised for many years within traditional settings for cultural and religious reasons, VMMC is a pioneering programme started by the National Department of Health as a critical policy strategy to significantly lower HIV transmission in South Africa (Naidoo *et al.*, 2012: 13). There has been significant scientific evidence that proposes the benefits of the VMMC procedure. This surgical procedure routinely regarded as one of the world's oldest procedures, is that of male circumcision, which has been utilised over many years for both cultural and religious beliefs. Multiple research studies have been commissioned internationally, which substantiate the biological plausibility, which additionally forms the causal link between a reduced susceptibility to HIV infection and the surgical procedures, known as male circumcision (Reed, Bailey, Njeuhmeli & Goldzier, 2012: 02).

The KwaZulu-Natal (KZN) DoH, led by then Premier Dr. Zweli Mkhize and Members of Executive Committee (MEC) for Health Dr. Sibongiseni Dhlomo, played a pioneering role nationally by partnering with the late King Goodwill Zwelithini KaBhekuZulu, the former king of the Zulu nation, to initiate an extensive VMMC campaign to revive the tradition of circumcision for all males (Naidoo, Dawood & Driver, 2012:13).

The Ugu District, situated in the Province of KZN, South Africa, grapples with the dual burden of high HIV infection rates and a shortage of healthcare resources, which impacts negatively on public health service delivery in this region. In this context, understanding the attitudes and perceptions of healthcare workers towards VMMC is imperative for optimising the effectiveness of HIV prevention efforts in the region. By exploring the perspectives of these frontline healthcare providers, insights can be drawn into the challenges, facilitators, and potential roadblocks to the successful implementation of VMMC as a prevention method.

The research conducted, aimed to delve into the attitudes and perceptions of healthcare workers towards VMMC in the Ugu District, KZN, shedding light on the factors that shape their acceptance, understanding, and support for this intervention. Through a multi-dimensional approach, the study sought to provide a comprehensive assessment of healthcare workers' perspectives on VMMC. By doing so, it aims to contribute to the refinement and enhancement of VMMC programmes in the Ugu District and, by extension, inform HIV prevention strategies across similar settings in South Africa and beyond.

With successful HIV interventions implemented by various stakeholders, a significant portion of global efforts in HIV management is now directed toward HIV prevention interventions (Howard-Payne, 2015:02). The United States President's Emergency Fund for AIDS Relief (PEPFAR) is at the forefront, driving the re-prioritisation of resources and advocating for increased and sustained efforts in developing effective and on-going district and community-based HIV prevention programmes and related infrastructural components to combat HIV transmission (Howard-Payne, 2015:131).

The medical initiative of VMMC is frequently identified as a primary and effective approach to the curbing of HIV infections in countries considered, low and middle income, like Zimbabwe, Mozambique, South Africa and others in southern Africa (Auvert, Taljaard, Rech, Lissouba, 2013; Mehta, 2022:507; Tobian & Gray, 2011; UNAIDS, 2010; UNAIDS/WHO, 2013). This medical procedure makes it one of the most widely performed and practical surgeries globally (Lagarde, Taljaard, Puren, Rain-Taljaard & Auvert, 2003).

1.2 LINKING VMMC AND HIV/AIDS

In 1986, the fundamental concept of VMMC was first introduced as a potential strategy for HIV prevention. Subsequent research has demonstrated a correlation linking heterosexuality and HIV transmission, noting higher rates HIV infections in regions with lower rates of surgical male circumcision (Kigozi, Gray, Wawer & Serwadda, 2008). Kigozi *et al.* (2008:643) assert that "prevention (i.e., HIV prevention) is the only realistic hope since currently available measures have been unsuccessful." Integrating

VMMC into HIV prevention programmes, particularly in areas with low circumcision rates, has shown to have a significant impact in reducing HIV infections. Consequently, there is increasing emphasis on targeting males in settings like institutions of higher education, which were not previously prioritised in VMMC outreach efforts. Understanding the complexities of a pandemic is crucial for overcoming it. Studies show programmes implemented to prevent the transmission of HIV must be tailored to the local epidemiology and values by integrating both established and innovative approaches, while maintaining sustained, long-term efforts (Chung, 2023).

Male circumcision stands as a medically validated intervention and preventative measure that provides substantial protection against sexually acquired HIV infections. In 2019, the WHO and UNAIDS issued a recommendation advocating for the inclusion of VMMC in a comprehensive HIV prevention package for males. This recommendation emphasised the importance of integrating both medically and traditionally performed circumcision as a key strategy in reducing the transmission of HIV. The endorsement by these leading health organisations highlights the substantial evidence supporting VMMC as an effective intervention to curb heterosexually acquired HIV infections, particularly in regions with high prevalence rates. This recommendation also underscores the necessity of incorporating VMMC into broader public health efforts to achieve a synergistic effect in HIV prevention (WHO, 2019:2).

Mathematical estimates suggest that for every 5 to 15 VMMC's performed, a potential HIV infection could be prevented, offering cost efficiency for the government (Njeuhmeli *et al.*, 2011). The scaling-up of VMMC actively considered by the National Department of Health (NDoH) and other stakeholders has the potential to prevent millions of infections and deaths among South Africans, as well as reducing of the cost burden on the state in the long-term (Njeuhmeli, Emmanuel, Forsythe, Steven, 2011; Venter, Francois, 2012). The cost savings realised from proactive HIV prevention interventions in high-prevalence areas are estimated to range from US\$150 to nearly US\$900 for comprehensive VMMC services per individual infection prevented over a 10-year period, potentially saving the government \$2.4 million in HIV treatment costs (Kiyai, Ejalu & Kimuli, 2023).

In 2012, the NDoH set an objective to perform over one and a half million circumcisions on males aged 15 to 49 by 2015, initiating efforts to reach a target of over four million circumcisions by December 2016, equating to one million VMMC annually (DoH, 2012). The VMMC programme, a pioneering HIV prevention intervention, commenced in 2010, with around 140 000 VMMC procedures successfully completed that year in collaboration with the United States Government via PEPFAR. Therefore, when the HIV cascade is considered, HIV testing and prevention forms the basis of this philosophy; with this direction and guided by WHO on the test and treat strategy, it is considered to be a norm by the NDoH.

1.3 UPWARD TRAJECTORY OF VMMC IN SOUTH AFRICA

Medical and research-based reports from diverse countries have documented varying degrees of implementation and outcome related to VMMC. These findings demonstrate that VMMC can provide substantial benefits to the health and well-being of male patients undergoing the procedure. The benefit is two-fold, as it lowers the risk of transmission of HIV to women from HIV positive males (Weiss *et al.*, 2009). The Aurum Institute Annual Report (2011), produced in collaboration with the Department of Health (DoH) and the United States Agency for International Development (USAID), reported that the risk of HIV infection is reduced in women who exclusively engage in sexual activities when compared to those with uncircumcised partners. While the evidence confirms the effectiveness of male circumcisions in reducing the HIV transmission rate of their female sexual partners, this may take several years to become evident. Increased uptake of VMMC is anticipated to be a contributor in the effort to lower the risk of mother-to-child HIV transmissions over time (Wambura, Mahler, Grund & Larke, 2017:1025).

A direct biological protective measure for men, such as VMMC, is grounded in substantial epidemiological and clinical evidence demonstrating its efficacy in reducing the risk of heterosexually acquired HIV infections. The findings from these trials highlight the significance of expanding VMMC in countries with a high number of people living with HIV and low/minimal circumcision rates (Westercamp & Bailey, 2007). Scaling up VMMC can lead to the prevention of millions of infections and

deaths, as well as substantial long-term cost-savings (Njeuhmeli, Emmanuel, Forsythe & Catherine, 2011; Venter, Rees, Pillay & Serenata, 2012: 124).

Introduced in 2010 as a critical component of South Africa's comprehensive effort to curb HIV transmission rates and implementation strategy, the VMMC pilot programme, a joint effort with PEPFAR, conducted circa 140 000 VMMC procedures in its inaugural year. By 2012, the South African Government had identified VMMC as an essential component of the National Strategic Plan (NSP) to combat HIV, sexually transmitted infections (STIs), and tuberculosis (TB). This recognition was accompanied by the integration of VMMC into a comprehensive range of sexual and reproductive health services. The primary objective of this integration was to reduce new HIV infections and ultimately achieve a significant reduction in HIV prevalence rates. The strategic inclusion of VMMC in the NSP reflects a commitment to leveraging evidence-based interventions to address the multifaceted public health challenges posed by HIV, STIs, and TB (Pillay, 2016).

As a critical part in the fight against HIV transmissions, the medical practice of VMMC extends beyond the core surgical procedure; it seeks to provide patients with a range of prevention methods to increase its effectiveness. These methods include HIV counselling and testing (HCT), guidance on safe sexual, including education on the use of protection and the risks of engaging with multiple partners (DoH, 2012; Pillay, 2016).

1.4 MALE GENDER AND IMPLEMENTATION OF HIV PREVENTION

In 2020, adult males constituted 37% of the total adult population that tested positive for HIV in South Africa (WHO, 2020:2). Despite a decline in new infections in 2010, the incidence rate was persistently high, with an estimated 23% of pre-pubescent males (around 15 years of age) are expected to contract HIV before turning 60 (WHO, 2020:2). The imperative to target males in HIV prevention arises from previously published studies, which indicates the higher probability of males to engage in risky behaviours than the opposite sex, driven by generationally accepted societal norms. These norms include the belief that men are unlikely to be affected by. For instance,

research indicates that males are less inclined to undergo HIV testing, and if they do, seeking timely treatment and attention is unlikely (Collinge, Isbell, Karim & Sohn, 2013:2).

This heightened risk of males becoming infected by HIV is compounded by their reluctance to get tested, necessitating a focus on prevention strategies tailored specifically for men to increase its efficiency in societies. The WHO (2020:89) underscores the urgency of prevention of HIV infections in males: "Men's health requires urgent attention – for everybody's sake." Consequently, locally tailored efforts are crucial to educate males on the need for responsible sexual behaviour. Boyee *et al.* (2017) argue that there has been a noteworthy emphasis on delivering sexual health facilities and relevant content to younger males. Traditionally, HIV prevention programmes, such as those by UNAIDS, have predominantly focused on adolescent girls and women in Sub-Saharan Africa, where 450 000 new infections were reported in 2020 alone (WHO, 2021). Acknowledging that gender inequality contributes significantly to the high HIV infection rates among adolescent girls and women, addressing this issue necessitates including adolescent boys and men as the target audience (WHO, 2016:3).

Additionally, research investigating the connection between VMMC and women's health demonstrated that higher rates of VMMC were directly linked to a reduced risk of infections like syphilis and chlamydia among women (Grund, Onchiri, Mboya & Ussery, 2023). Hence, emphasising the advantages for heterosexual women could bolster the promotion of VMMC and increase its adoption amongst men.

1.5 PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF

The global initiative of PEPFAR was initiated in 2003 by former U.S. President George W. Bush, is often hailed as "the largest individual U.S. Senate approved assistance programme in history to address a single global health issue affecting all walks of life" (Boggiano, 2011:04). The initiative stands as a cornerstone of United States foreign policy on international health, with an international aid strategy allocating \$15 billion in HIV/AIDS funding for the initial 5-year period from 2003 to 2008. Subsequently, this

funding was increased to \$48 billion for the next 5-year cycle, widely recognised as one of President Bush's most successful foreign policy initiatives (Radelet, 2003:104).

It is noted that PEPFAR identified fifteen priority countries, spanning Africa, Southeast Asia, and other developing regions, making substantial strides in the global battle against HIV/AIDS. Since its inception, PEPFAR has connected over two million individuals living with HIV/AIDS to antiretroviral treatment through public healthcare facilities and workers. This programme, conceived to enhance U.S. foreign policy, has positively impacted more than ten million HIV-positive individuals (Boggiano, 2011:05).

The core mandate for PEPFAR within the South African landscape has been to work with the Department of Health, international non-profit organisations and other stakeholders in order to achieve a sustainable outlook on the HIV epidemic. This has been done through the investment of US government donor funds, that has been awarded as grant agreements to non-profit organisations responsible for HIV service delivery and technical assistance to the Department of Health (Chinyimba, 2017:15).

Since the inception of the PEPFAR presence in South Africa, in excess of \$4b has been committed to the fight against HIV/AIDS. With Phase III of the PEPFAR plan currently being in place, the core objective has shifted to producing an AIDS-free generation and these objectives are illustrated in the annual PEPFAR country operational plan (COP) that guides activities, implementation and service delivery in the country. During the PEPFAR era, South Africa has emerged as the leader in Southern Africa in the fight against HIV/AIDS, often taking the lead in HIV research, epidemic control and the scale up of service delivery in order to meet the increased burden on the health systems (Palen, El-Sadr, Phoya & Imitiaz, 2012).

Table 1.1 illustrates the PEPFAR supported VMMC procedures which have been undertaken in the previous five COP years, expanding on the age disaggregation of these VMMC procedures and how the performance of these procedures consolidates into the comprehensive HIV service package for males. In terms of the VMMC policy, critical to public healthcare policy implementation is the post-operative follow-up, which ensures the client is healing well after the procedure.

Table 1.1: VMMC procedures performance over a five-year period in South Africa

COP Year	No. of VMMC Performed	Annual Target Achieved	< 15	15 - 29	> 30	Clients - received HIV testing at a VMMC site	Clients - positive HIV test result	Clients - post operative follow-up within 14 days of VMMC
2017	232 198	94,30%	91 312	114 436	26 450	140 960	4 390	169 995
2018	284 202	81,70%	144 208	107 826	32 037	260 025	4 524	189 787
2019	332 096	109,10%	125 598	175 288	30 055	285 267	1 795	247 819
2020	144 622	46,40%	34 347	89 195	21 080	134 101	412	131 951
2021	165 995	52,40%	#	133 625	51 369	142 756	1 068	152 267
TOTAL:	1 158 113	75,90%		600 310	160 991	1 022 493	14 189	891 779

Source: US Department of health and human services – Centres for Disease Control and Prevention (CDC)

In relation to Table 1.1 and in order to overcome certain male stereotypes that have manifested within the programme over the years, PEPFAR has a long-standing engagement with His Royal Highness Prince Nhlenganiso KwaZwelithini Zulu to facilitate the roll-out of this Isibaya Samadoda (the men's kraal), which is primarily aimed at strengthening the HIV prevention and HIV care and treatment elements of the programme (COP PEPFAR South Africa, 2022).

1.6 UNITED NATIONS 95-95-95 STRATEGY

Countries worldwide have been given the mandate by UNAIDS to meet the ambitious fast-track targets of 90-90-90 by 2020 and 95-95-95 by 2030 in the fight against HIV/AIDS. These targets aim to ensure that 90% of people living with HIV are timeously diagnosed, 90% of those diagnosed are receiving adequate treatment, and 90% of those on treatment achieve viral suppression by 2020. By 2030, the targets escalate to 95% across these metrics. Achieving these goals would result in significant suppression of HIV, with 73% expected by 2020 and 86% by 2030 (Levi, Raymond, Pozniak & Vernazza, 2016). Reaching the 90-90-90 and 95-95-95 strategies will assist in transforming the element of epidemiology in many settings, which may directly lead to a fundamental shift in HIV control strategy.

However, the potential impact of meeting these targets on the global HIV epidemiology remains uncertain. The strategies furthermore needed to attain these targets by 2020, as well as their long-term epidemiologic effects, which are not fully understood. It is conceivable that strategies enabling rapid achievement of these targets may not sustainably impact HIV epidemiology. Conversely, interventions not meeting the 90-90-90 or 95-95-95 targets may still have lasting effects on HIV prevalence and incidence (Joint UN Programme on HIV/AIDS, 2015).

The country would need to additionally seek assess to the epidemiologic impact of these changes on HIV prevalence, incidence, and infections averted between 2014 and 2030. By comparing the impact of interventions that achieve fast-track targets with those that have sustained effects, the fundamental aim is to provide valuable insights into HIV/AIDS control strategies in South Africa (Scott, Stooze, Kelly & Wilson, 2018). The strategies outlined by the United Nations have established the multi-country need for global public health security, which would contribute to the foundation that focuses on ending the HIV pandemic.

1.7 RIGHT TO HEALTHCARE

It is the goal of the RSA Constitution (1996) to uphold and protect the rights of all its citizens and to re-affirm the democratic values of the country regarding human rights, dignity, equality, freedom, non-racialism, and non-sexism. Entrenched in Section 27(1) of the RSA Constitution is the human right for all to have access to healthcare. This section highlights both the right of people in South Africa to have access to healthcare and the responsibility of individuals to pay for healthcare services that are provided, based on affordability.

Currently having one of the highest HIV prevalence rates globally, the epidemic has placed a significant strain on the healthcare system of the country. However, over the years, significant improvements have been made to accommodate the increased pressure on the healthcare system, especially with the scale up of HIV prevention and HIV care and treatment activities. Under the component of HIV care and treatment,

South Africa has the largest ART programme in the world, and under the HIV prevention component, it has one of the most technologically advanced VMMC practices (Maesela, 2019).

Legislation cascades into policy to drive governance principles around policy development and the promotion of patient safety in the healthcare environment.

1.8 PUBLIC POLICY ELEMENT

The RSA Constitution (1996) paved the way for public policy within the legislative environment, entrenching a transformative dispensation. This foundation ensures that public policy is not developed or envisioned in a vacuum. The fundamental need for healthcare services is depicted in various sections of the constitution of the country. Though the constitution is limited when outlining the broad right to health, the bill of rights has the fundamental rights contained in it, which is inextricably interlinked and highlights the importance of healthcare for all (Maesela, 2019).

The new constitution resulted in a movement of transformation, which meant that many of the public policies developed by government started from inception. Public policy emanates from a general statement or problem statement that guides the decision making of an operations and service delivery. Sustainability of a comprehensive public policy document is achieved through the outcomes and outputs of the service delivery to healthcare clients (Nzimakwe, 2013).

Public policy within the public healthcare landscape sought to accelerate service delivery; this acceleration was critical to the public healthcare environment, as it detailed the aims and objectives that guided the HIV/AIDS prevention policy of the Department of Health at a national level. The policy is cascaded down to provincial and district level department of health facilities, to address the needs of communities and its people (Roux, 2002).

The definition of public policy is outlined by the Australian Jacob Morris, in 1943, as follows:

“the phrase public policy appears to mean the ideas which, for the time being, prevail in a community as to the conditions necessary to ensure its welfare, so that anything is treated as against public policy if it is generally regarded as injurious to the public interest (...). It is well settled, that a contract is not enforceable if its enforcement would be opposed to public policy (...). Public policy is not, however, fixed and stable. From generation to generation ideas change as to what is necessary or injurious, so that public policy is a variable thing.”

Public policy is entrenched into public healthcare and drives service delivery. The objective of public policy framework is to offer guidance to implementation; with regards to this study, this relates to VMMC policy and its implementation as a core HIV prevention strategy.

1.9 POTENTIAL EFFECTS OF DISRUPTION TO HIV PROGRAMMES GLOBALLY BY COVID-19

The COVID-19 pandemic has had a significant impact on our continued fight against HIV. According to the UNAIDS, a possible twelve-month complete disruption caused by the global effects of COVID-19 on the public healthcare system on HIV treatment could cause the sub-Saharan Africa region to experience 2008 AIDS mortality levels (Santos, Normando, da Silva & Acevedo, 2021). Globally, during the pandemic, governmental administrations in some of the regions that have been hardest affected by HIV/AIDS, had to shift the primary priority focus of their departments or ministries of Health from focusing on the HIV pandemic to the COVID-19 pandemic. The WHO expressed significant concern that in the regions such as sub-Saharan African with high HIV prevalence levels, the COVID-19 pandemic could affect access to health services and could negatively affect HIV related mortality and new infection levels (Jewell, Mudimu, Stover & Brink, 2020).

1.10 PROBLEM STATEMENT

The South African government has over the years undertaken numerous missions that are in the name of the good of its people; however, none surpasses the significance of public health and adequate healthcare service delivery for its citizens. Historically, pandemics and other public health crises globally have arguably inflicted vastly more

devastation on humanity than world wars fought. This cements the critical importance of public health initiatives, healthcare service delivery and the ability of healthcare policy to pivot to mitigating widespread human suffering. In order to address and mitigate these risks that face the country, government spheres must engage with each other, through on-going interactions, policy development and working towards key national developmental goals as set out (Holzer & Newbold, 2020:451).

The global challenge of preventing and controlling HIV/AIDS persists, presenting a significant hurdle for health departments and public healthcare providers worldwide (Castro, Debora, Jones & Lopez, 2010: 370). Male circumcision stands out as one of the most effective preventive measures against HIV. In response, the National Department of Health (NDoH) launched the VMMC programme in 2010, aiming to reduce the risk of HIV transmission across all nine provinces (DoH, 2012).

Several studies have underscored that regions in Sub-Saharan Africa, where medical male circumcision was less prevalent, coincide with the highest HIV prevalence rates (Castro *et al.*, 2010: 367). Prioritising effective intervention strategies for preventing new infections and controlling the epidemic is imperative. The introduction of VMMC in Africa encountered resistance at times, particularly due to conflicts with traditional circumcision practices (Castro *et al.*, 2010: 370). Despite robust evidence supporting the reduction of HIV infection through male circumcision, there is a scarcity of studies assessing the attitudes and perceptions (Knowledge, Attitudes, and Practices - KAP) of healthcare workers, especially when VMMC is offered as an HIV prevention measure within a comprehensive prevention package (Castro *et al.*, 2010: 370).

Further, an assessment of the VMMC policy could greatly enhance the determination of the effectiveness of its implementation as a HIV prevention strategy within the core mandate of healthcare service delivery. This research therefore investigates the attitudes and perceptions of healthcare workers towards VMMC based at SOKA Men's Clinic. Through this study, the researcher could also be able to discern the effectiveness of the currently deployed VMMC policy that is utilised for implementation of service delivery through the community healthcare facilities within the KZN Department of Health.

1.11 RESEARCH AIM

The primary objective of this study is to conduct a small-scale qualitative analysis to explore the perceptions and attitudes of healthcare workers towards VMMC in Ugu District, KZN, South Africa (Khanyile, 2021).

This research aims to enhance the understanding of healthcare workers' perspectives on VMMC and examine how these perceptions and attitudes influence the uptake of VMMC as an HIV prevention method in the Ugu District. Over the past two decades, South Africa has experienced persistently high levels of HIV prevalence, with men aged 15-49 years identified as particularly vulnerable to HIV infection due to a significant increase in risky behaviours (Shisana, Rehle, Simbayi & Zuma, 2014).

The research has underscored the significant HIV infection risk faced by men and has further demonstrated the safety and efficacy of VMMC as a prevention method that can substantially mitigate this risk (UNAIDS & WHO, 2007; Bailey, 2010; Thigpen *et al.*, 2012; Van Damme *et al.*, 2012). VMMC provides partial protection against HIV, supported by the notable increase in procedures performed, which rose from 2,268,519 in 2008 to 3,301,196 in 2012 (Bailey, 2010; Shisana *et al.*, 2014).

1.12 RESEARCH METHODOLOGY

During the development of this research study, a qualitative research design was utilised. The aim was to investigate the attitudes and perceptions of healthcare workers towards VMMC and to analyse the implementation of VMMC policy within the confines of public healthcare service delivery. Empirical evidence was required in order to gain a better understanding of the participants' attitudes and perceptions towards VMMC. Data was collected via questionnaires provided to participants and the researcher spent time at the SOKA Men's Clinic in order to observe the implementation of VMMC policy. Notes were taken by the researcher during these key observations. The findings identified have set the foundation for the challenges and the prospect of possible future research being conducted on this often sensitive yet challenging subject matter.

A transformative paradigm was employed in this study as a worldview, as it encapsulated the dynamic nature of participants' perceptions and attitudes concerning a specific area of focus within public health.

The target population included clinical and non-clinical healthcare workers who are involved in the implementation of VMMC at SOKA Men's Clinic and these participants are seen to be skilled in the research field that is being investigated. Additionally, the sampling technique deployed is non-probability. The strategy followed was to provide participants with questionnaires and the advantage of this method enabled a relationship to develop between the researcher and participants.

Data collected during the course of the study was transcribed from the participant questionnaires in the interviews, and information was assimilated into the research study. Additionally, data collected was organised in a manner that would allow for easy interpretation and presentation for the illustration of the research findings in a manner that is coherent to the reader.

Fouché (2002c:119) highlighted that one of the main objectives of qualitative methods is to uncover significant questions, processes, and relationships, rather than to test them. The author further explained that an exploratory study employing qualitative methods typically lacks a narrowly defined problem statement or specific hypothesis, in contrast to quantitative methods. Smith (1990:36) contends that selecting a research problem should be a deeply personal decision, influenced by one's background, interests, perceived research strengths, aesthetic judgments and personal commitments.

1.13 PURPOSE OF THE STUDY

The primary purpose of this study was to provide a better understanding on how healthcare workers in Ugu District responded to the call for VMMC by revealing challenges, their knowledge, perceptions and attitudes towards voluntary medical male circumcision. Findings of this study would be known to the Provincial Department of Health (KwaZulu-Natal) and Jhpiego where they would contribute positively to the

scaling-up and sustainability of VMMC services at healthcare facilities. Results of the study would outline baseline information and results that could guide healthcare workers and the Department of Health officials to design and enhance effective strategies in their policy directed towards dealing with challenges, perceptions and attitudes that potentially hinder the uptake of VMMC programme in the district and province.

1.14 RESEARCH QUESTIONS

The study aims to address the following critical questions.

- How is the policy on voluntary medical male circumcision programme being implemented to improve service delivery at the SOKA Men's Clinic in the Ugu District?
- What are the healthcare workers' perceptions and attitudes towards voluntary medical male circumcision?
- Can voluntary medical male circumcision be considered a cultural aspect that helps in diminishing the risk of HIV/AIDS?
- What are the healthcare barriers associated with medical male circumcision healthcare service delivery that prevents males from undertaking the procedure voluntarily?

1.15 RESEARCH OBJECTIVES

The aim of the study is to investigate the attitudes and perceptions of healthcare workers towards voluntary medical male circumcision.

The objectives of the study are to:

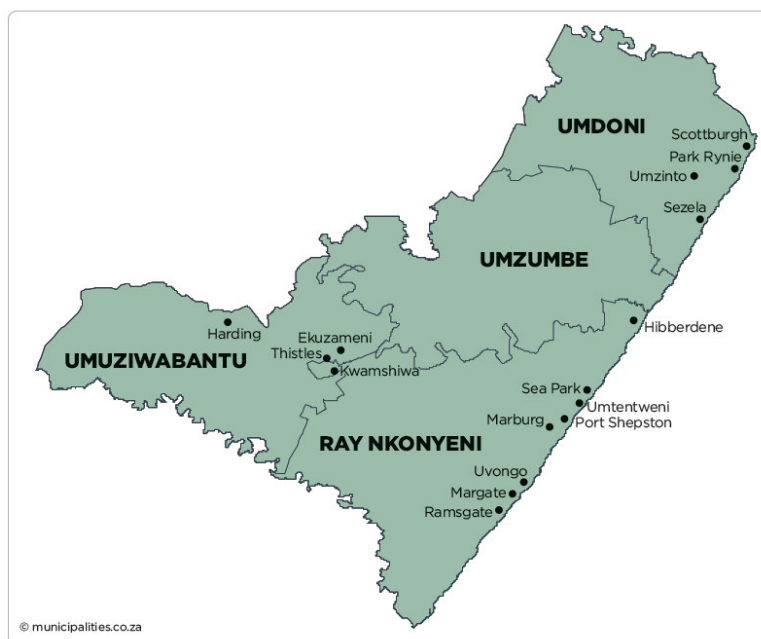
- Ascertain how the service delivery implementation of the policy on voluntary medical male circumcision is being implemented at SOKA Men's Clinic in Ugu District;
- Ascertain the healthcare workers' perceptions and attitudes towards voluntary medical male circumcision;

- Explore the ability of voluntary medical male circumcision as a cultural aspect that helps in diminishing the risk of HIV/AIDS; and
- Investigate the healthcare barriers that are associated with medical male circumcision healthcare service delivery that prevents males from undertaking the procedure voluntarily.

1.16 LOCATION OF THE STUDY

The research is situated in the Ugu District of KwaZulu-Natal, which is noted for having the highest HIV infections rates in South Africa as an area of research interest, with 27% of individuals within the 15-49 age bracket, testing positive for HIV (Human Sciences Research Council, 2018; Shisana *et al.*, 2014). The study was specifically carried out at the SOKA Men's Clinic in the Ugu District of KwaZulu-Natal. It involved engaging healthcare workers, both clinical and non-clinical, to explore their attitudes and perceptions regarding VMMC. The SOKA Men's Clinic is operated by Jhpiego, which is currently funded in South Africa under PEPFAR for the VMMC programme. The geographical location of the clinic is illustrated in a map of the Ugu District Municipality.

Figure 1.1: Geographical location of Ugu District



Source: Ugu District Municipality - Map (municipalities.co.za)

1.17 SIGNIFICANCE OF THE STUDY

Due to the high prevalence of HIV in South Africa, especially in KZN and other Southern African countries, and the UNAIDS objective of achieving zero HIV infections by 2030, it is crucial to enhance the adoption of evidence-based initiatives and programmes that promote HIV prevention. Lowering HIV transmission rates remains a top priority for sub-Saharan Africa, particularly Southern Africa, despite the current low uptake rates of most prevention methods available.

Since males must voluntarily choose to undergo VMMC, the uptake of this intervention depends significantly on how potential beneficiaries perceive medical male circumcision as a viable and effective prevention tool overall. The focus of this area of research is grounded in a core public health dynamic, mainly focused on HIV prevention and a public policy perspective, as these components are an important aspect of public service delivery in South Africa.

The South African government has undertaken substantial efforts to reform policies and service delivery mechanisms in order to correct the public healthcare disparities created by apartheid. However, the ongoing effective roll-out of these policies, specific to VMMC in particular, and essential for healthcare service delivery implementation, presents ongoing challenges. These efforts are supported by active partnerships including the private sector, civil society, and the public. They seek to ensure the sustainability and longevity of these mechanisms. Such strategic collaborative effort is necessary to overcome social, historical and economic barriers to accessing the VMMC services under public health.

1.18 LIMITATIONS OF THE STUDY

As defined by Creswell (1994), the limitations of a study refer to the potential weakness that may be inherent in the research. This study adopted a qualitative approach, intentionally excluding quantitative methods, which presents a limitation in the ability

to generalise findings across a broader population and to measure the statistical significance of the observed patterns and themes. In the event future research is considered, an evaluation should be considered to incorporate a mixed-methods approach to provide a more comprehensive understanding of the phenomena and to validate the qualitative insights with quantitative data.

The literature on healthcare workers' perceptions and attitudes towards VMMC is notably limited within the research space. As a result, many findings that stem from this study cannot be directly compared with previous research. This paucity of comparative literature restricts the ability to contextualise and validate the study's results within the broader field of existing knowledge. Therefore, while the study provides valuable insights into the attitudes and perceptions of healthcare workers towards VMMC in the Ugu District from a public health and policy perspective, the limitations identified ought to be considered.

1.19 STRUCTURE OF DISSERTATION

The structure of the dissertation is set out as follows:

Chapter One offers a general orientation and overview of the study. It introduces the topic and context of the study, discussing the background of the research, with a primary focus on VMMC, the research objective, research problems, and research questions. The significance of the study, definitions of key words and a brief description of research methods, limitations of the study and the setting of the research study are provided.

Chapter Two covers the theoretical framework aspects of voluntary medical male circumcision. This chapter assess the theoretical framework mechanisms that form the components of VMMC in South Africa. The application of the framework specific to VMMC is discussed and presented from a public healthcare and service delivery perspective. The chapter also includes a discussion on the aspects of VMMC policy implementation, within the context of public health, rolled out at community healthcare

facilities. Policy constructs encapsulate a critical role in informing the key theoretical perspectives of the study that was undertaken.

Chapter Three is a review of relevant literature that contributes to VMMC, and covers the aspects of VMMC and HIV/AIDS, both globally and in the South African context. Emphasis was placed on the critical factors around VMMC as a preventive method and the aspects that involve the VMMC within the public healthcare environment in South Africa.

Chapter Four focuses on the research design and methodology, highlighting research approach and research design followed by the researcher during the study. In order to accomplish the research aims and effectively address the research questions and objectives in the study, a qualitative research methodology was selected as the strategy for the study. The methodology involved a comprehensive examination and elucidation of the encounters and viewpoints to a particular setting. Additionally, an interpretation of the primary results of the qualitative study are also discussed inductively in the chapter. The chapter accesses various public healthcare management and VMMC literature from a variety of sources for the secondary data.

Chapter Five shares the research findings, analysis and discussion of the experiences and participant responses. Conclusions are drawn and fundamental recommendations are provided that merge from the qualitative research that was conducted. The results received from participant responses are presented in the form of quotes (presented as participants' direct quotes), followed by a discussion and interpretation from the perspective of the researcher.

Chapter Six highlights key recommendations and conclusions derived from the study's findings. It emphasises the need to enhance public health initiatives by integrating comprehensive educational programmes on the benefits of VMMC in reducing the risk of sexually transmitted infections (STIs). The chapter also highlights the necessity for further research on the long-term impacts of VMMC, especially in high STI prevalence areas.

1.20 CONCLUSION

The chapter presents the significance of this research and the contribution that it will make to public health service delivery within public administration. The chapter delineates the background to the study, key research questions and objectives that the study sought to answer, as well as the structure of the dissertation. The next chapter presents a review of pertinent scholarly literature on the area of research. The chapter highlights the groundwork that ensures this study is well situated within the broader context of current knowledge and builds its arguments on sound principles with regard to the attitudes and perceptions of healthcare workers towards VMMC. The theoretical framework and relevant legislative aspects applicable to the study are outlined and discussed in the next chapter within the paradigm of public administration and public health service delivery.

CHAPTER TWO:

THEORETICAL FRAMEWORK: MEDICAL CIRCUMCISION AND PUBLIC HEALTH SERVICE DELIVERY IMPERATIVES

2.1 INTRODUCTION

The previous chapter explored the underlying theme of the study and highlighted the salient issues that outline the research. This chapter sought to review the relevant literature that has been published on medical circumcision, linking it to public health service delivery, and forms part of the academic foundation to this study. This section introduces the theoretical framework that underscored the study undertaken. While there is a significant volume of research on HIV/AIDS and VMMC as a prevention method, the information gaps on attitudes and perceptions of health-care workers are extensive, as demonstrated in the research findings, presentation and analysis in Chapter 5.

This chapter highlights the theoretical components and fundamentals, the foundation on which this research study is premised. Current and relevant literature were examined with linkage to public healthcare and the healthcare response to the HIV/AIDS pandemic through prevention methods. This chapter draws upon the Health Belief Model (HBM) as one of the relevant theoretical constructs to inform the practical implications of public health service delivery for more effective policy implementation. Additionally, the chapter highlights the salient contemporary aspects of public administration, focusing on the New Public Governance beyond the New Public Management approach and the need for a whole-of-government approach to follow an effective programme of action that roots itself in VMMC, as a key HIV prevention method.

It is commonly understood that theory may be regarded as the metaphysical interpretation of a specific phenomenon (Van der Waldt, 2017:186). This influenced how the researcher outlined this research project around the theme of VMMC. The

theoretical aspects and the practical components of this research are integrated in this significant foundation chapter within the ambit of public administration.

There is some uncertainty around the origins of male circumcision; however, it can be understood that the procedure began as a type of religious sacrifice that was performed by various cultures, marking the milestone of a boy entering manhood and consolidating its significance as a rite of passage (Khawula, 2015). A comprehensive understanding of the cultural and religious significance of health practices is crucial for effective HIV prevention and public health strategies. By addressing these socio-cultural dimensions, public health initiatives can be more effectively tailored to meet the unique needs of diverse communities.

The discussion for the purposes of this study pivots to health service delivery as viewed from the Sustainable Development Goals to the National Development Plan, and which is cascaded down to public administration perspectives. This trajectory eventually leads to the South African scenario, with the Heath Belief Model viewed as a policy construct relating to VMMC vis-à-vis health service delivery.

2.2 SUSTAINABLE DEVELOPMENT GOALS AND PUBLIC HEALTH SERVICE DELIVERY

The Sustainable Development Goals (SDGs) were developed by the United Nations and integrated into the Millennium Development Goals (MDGs), urging governments like South Africa to achieve tangible results by the 2030 deadline. These resolutions address several key areas: the public's demand for greater transparency in policy design; the collective influence of experts in policy formulation and administration; the growing use of project management in daily administrative tasks; the diminishing credibility of public administrations, leading to a decline in public trust in government spending, and the increasing pressure to reduce public expenditure (Karver, Kenny & Summer, 2012: 13).

There exists a critical interplay between public health and trade in achieving the SDGs, whereby strong synergies have been developed. It underscores the centrality of good

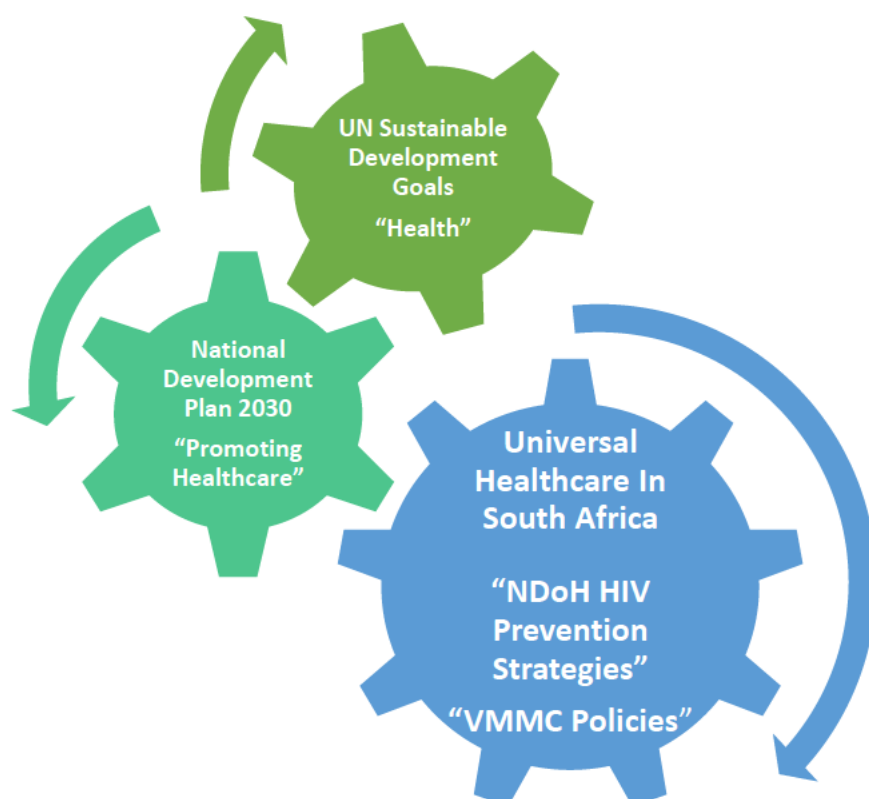
health and well-being (i.e. SDG 3) in fostering economic growth and reducing inequalities. Strengthening health systems, addressing social determinants of health, and ensuring global health security are pivotal for improving health outcomes. Integrated policies that align public health and trade goals, coupled with cross-sectoral collaboration and stakeholder engagement, are recommended. Strengthening capacity in both sectors through investment in research and data collection, along with fostering international cooperation and sustainable practices, is crucial. By addressing these interdependencies, policymakers can promote sustainable development, reduce inequalities, and improve health outcomes linked to DoH's key mandates (Nazar, Meo & Ali, 2022).

2.3 NATIONAL DEVELOPMENT PLAN 2030, ALIGNED TO PUBLIC HEALTH SERVICE

The South African National Development Plan (NDP) 2030 aligns itself to the SDGs and lists investing in healthcare and healthcare workers as a crucial component. The state of healthcare in South Africa faces challenges such as financial and infrastructural constraints. These constraints directly impact on the ability for public healthcare to ensure equitable healthcare for all, critical to the fight against HIV/AIDS. Policy development seeks to increase access to healthcare for all and strengthening partnerships between government and private sector stakeholders to improve health outcomes and inequities in South Africa (Van Staden, 2021:233). Significantly, policy instability was identified as a concern by the NDP 2030.

Figure 2.1 illustrates the interconnectedness of the SDGs and the NDP, especially as both frameworks aim to promote sustainability, social inclusion and economic growth. This ensures a holistic approach addressing local challenges and priorities.

Figure 2.1: Sustainable Development Goals and National Development Plan 2030



Source: Author's perspective, 2024

In South Africa, the alignment of SDGs with the NDP and the pursuit of universal healthcare exemplifies a comprehensive approach to sustainable development. The SDGs provide a global framework to eradicate poverty, ensure health and well-being, and promote sustainable economic growth, which are mirrored in South Africa's NDP objectives. Central to these goals is the enhancement of public health systems, with universal healthcare being a critical focus. It must be emphasised that VMMC is a key public health intervention in this context, significantly reducing the risk of HIV transmission and improving overall community health. By integrating VMMC into national healthcare strategies, South Africa not only advances its public health goals but also makes strides towards achieving broader SDG targets, demonstrating the synergy between global goals, national policies, and specific health interventions (Buse & Hawkes, 2015:6).

2.4 NEW PUBLIC MANAGEMENT PERSPECTIVE

The critical role of public administration in shaping the efficiency of public services delivery is underpinned by the New Public Management (NPM) approach. Stark, (2002) indicates that NPM refers to a managerial approach that had emerged during the 1990s in public administration and is characterised by principles borrowed from private sector management. This approach investigates various dimensions, including bureaucratic structures, leadership styles, decision-making processes, and resource allocation mechanisms within the public sector. The emphasis is on the streamlined bureaucratic processes and effective organisational structures, which are encouraged to enhance service delivery outcomes. A key factor within this approach is equitable resource allocation, which is identified as pivotal in ensuring efficient and fair service delivery provision. However, this factor in particular, is limiting within the public healthcare landscape, where financial resources are limited and demand routinely outpaces supply (Selepe, 2022).

2.5 NEW PUBLIC GOVERNANCE AND PUBLIC HEALTH SERVICES

In recent years, there has been a gradual shift away from the predominant New Public Management (NPM) paradigm towards the emerging concept of New Public Governance (NPG) within the realm of public administration. It can be noted that NPM, while initially influential, proved inadequate in tackling complex social challenges and promoting democratic governance. In contrast, NPG represents a contemporary approach to public administration that prioritises collaborative and networked forms of governance. This paradigm is increasingly gaining traction in public administration discourse and practices related to service delivery, given its emphasis on addressing these limitations. It is accepted then, that NPG recognises the interconnected nature of modern societal issues and underscores the importance of strategic coordination and effective governance across various levels of government (Dickinson, 2016:45).

This innovative concept known as NPG primarily emphasises the importance of pluralism. Sriram, Misomnai, Metasuttirat & Rajphaetyakhom (2019:33), argue that public administration must prioritise proactive network management to align with the

principles of good governance. This necessitates creating a framework that facilitates effective coordination among different stakeholders and sectors.

While the NPG approach represents an innovative concept, a broader framework involves adopting a whole-of-government approach. This approach allows the Department of Health to implement a comprehensive strategy for public healthcare service delivery and effectively manage programmes like VMMC.

2.6 OVERVIEW OF HIV/AIDS IN THE SOUTH AFRICAN CONTEXT

Internationally, South Africa has the largest population of individuals diagnosed with HIV (PLHIV), totalling 6.9 million individuals, which is approximately 13% of the national population. The prevalence rate is particularly high at 16.6% amongst the most vulnerable age group of 15 to 49 years. The World Health Organization (WHO) emphasises the clinical evidence supporting VMMC as a measure that can decrease the chances of males contracting HIV by almost 60%.

The high prevalence of HIV resulted in VMMC being presented as a global HIV/AIDS prevention approach that was enforced by the United Nations (UN) and WHO (2011). The complexity and severity of the HIV/AIDS epidemic required prevention strategies to be enacted that would be comprehensive and cater for the diverse geographical locations of countries severely burdened by this epidemic.

The expansion of VMMC in Southern Africa was driven by a collaborative effort between the UN and WHO, which identified thirteen priority countries in the South and East regions of Africa, including South Africa. Their goal was to prevent up to four million new HIV infections by 2015, through an 80% circumcision coverage target. By 2015, South Africa had reached 43% of its national target, completing 1.8 million out of the 4.3 million planned circumcisions (Lui, Sullivan, Khan & Singh, 2011).

The VMMC procedure is performed by professional healthcare workers in a clinical or healthcare facility. The potential of leveraging independent doctor facilities by the government and its stakeholders is significant in ensuring the maintenance of clinical

quality, enhancing health governance, and reducing the incidence of medical adverse events (Khawula, 2015).

Consequently, several public health organisations, including the WHO, have recommended the VMMC programme as a fundamental component for comprehensive HIV prevention strategy (UNAIDS/WHO, 2007; Potts *et al.*, 2008; White *et al.*, 2008). National health advocacy organisations have been pivotal in the successful implementation of VMMC in South Africa.

2.7 ESSENCE OF PUBLIC HEALTH IN SOUTH AFRICA

A single definition is difficult to attribute to the complexity and the vastness that is within the South African public health system. According to Pinger & Seabert (2016), the concept of public health could be interpreted broadly as “the science of protecting and improving the health of people and their communities”; within the South African context, this is envisioned in the work undertaken by the Department of Health and the various healthcare non-governmental organisations that operate as a cohesive unit in order to protect and improve the health of people.

Healthcare workers within the public health space consolidate their knowledge, technical expertise and their medical abilities in order to eliminate or suspend illness amongst the communities in which they operate in (Brownson *et al.*, 2017). This includes one of the most significant strains on the South African public healthcare system, which is HIVAIDS.

Effective public health communication around HIV and HIV prevention advises communities on the various locations and methods of obtaining the Department of Health’s support and how the community can utilise this support for their overall health and well-being. At its core, health care is geared to restore the health of the people it serves and healthcare workers ought to leverage their technical expertise to stop medical conditions from worsening (Lucas, Toledo, Davis & Martin, 2020:7). This is undertaken via service delivery driven by health care structures.

2.8 FUNDAMENTALS OF PUBLIC POLICY

Public administration encompasses distinct yet interconnected activities, including planning and governance resources. These functions can be categorised into four main groups: legislative, political executive, administrative executive and judicial. The development and implementation of policies emerge as one of the central and crucial activities within public institutions, which form the focus of this study. In this context, policymakers formulate policies, and bureaucrats are responsible for their implementation. The policy process initiates when a problem or challenge necessitating government intervention is identified (Meyer & Cloete in Cloete & Wissink, 2000: 97).

Kelly, Puddy, Siddiqi & Tomoaia-Cotisel (2024:03) explore the core principles and practices that are essential for developing and implementing effective public healthcare policies that are grounded in medical evidence. Governmental policy-makers should critically evaluate the quality and relevance of evidence, ensuring that policies are anchored on the most effective and current available. Challenges of economies of scale and the political landscape of the country can also influence the effectiveness and sustainability of adapted policies.

Policies are crafted to address societal or institutional needs, outlining fundamental principles to achieve specific goals while reflecting societal values in the management of relevant projects and programmes (De Coning in Cloete & Wissink, 2000: 3). The development of a policy necessitates the identification of a gap where intervention can bridge the existing disparity. At an operational level, policies articulate how specific actions would be executed to achieve anticipated outcomes (Craythorne, 2003: 253).

Upon adoption, a policy must be effectively implemented to rectify the undesirable situation that prompted its development. The 'implementability' of a policy, leading to the desired effects, hinges on considerations of affordability and sustainability in decision-making.

Within the South African environment, there are institutional and governmental factors that play a role in the influencing of public policy that is implemented; these are identified and expanded on by Cloete (2006:133), as listed below:

- Global health circumstances, specific to health-related matters, under which that particular global health institution (i.e. WHO) operates and provides both internal and external influence;
- The expectations and needs of communities and the people in these communities, which influence the public policy strategies specific to health;
- Interest groups and civil society groups which are routinely consulted, especially groups which have a core focus on HIV/AIDS;
- Manifestos and agendas of political parties which are routinely taken into consideration as these manifestos represent the will of the people, and
- Research and scientific investigations which help guide public policy; reliance is placed on recommendations by experienced senior academics on critical matters that directly affect the public.

This academic study investigated the interplay of various factors influencing public health policy and the implementation of VMMC programmes. Firstly, it considers the global health circumstances under which institutions like the WHO operate, noting their internal and external influences in shaping health-related interventions. Understanding these global dynamics is essential for contextualising local health strategies and their alignment with international standards. Secondly, the study emphasises the expectations and needs of communities, recognising how these factors drive public policy strategies specific to health. It underscores the importance of tailoring health interventions to meet community needs, ensuring policies are relevant and effective.

2.9 POLICY PERSPECTIVES ON VOLUNTARY MEDICAL MALE CIRCUMCISION

Public policy encompasses a multifaceted framework involving the formulation, implementation, and evaluation of governmental actions aimed at addressing societal issues. It integrates elements such as problem identification, goal-setting, policy

design, resource allocation, and the assessment of impacts to achieve desired social outcomes (Vedung, 2017).

2.9.1 Defining the element of public policy

At the core, public policy is commonly established as the moral framework for specific course of action implemented by the current head of state regarding matters affecting the country, aligning with legislation (Howlett & Ramesh, 2003). Houghton and Mifflin (1996: 36) characterise public policy as "whatever the executive and government choose to do or not to do."

Public policy is perceived as a premeditated series of steps envisioned by an individual, advocacy group, or government within an environment presenting challenges and opportunities. This developed policy aims to navigate obstacles, overcome challenges, and achieve government goals or key objectives (Houghton & Mifflin, 1996).

Public policy within the realm of public administration can be understood as the set of principles, objectives, and actions formulated and implemented by governmental entities to address societal needs, concerns, and challenges. It encompasses the decisions and initiatives undertaken by government officials, agencies, and institutions to regulate, guide, or influence various aspects of public life, including social, economic, environmental and political dimensions (Roux, 2002).

Within the discipline of public administration, the study and analysis of public policy involves understanding the processes through which policies are formulated, implemented, and evaluated. This includes assessing the political, social, economic, and institutional factors that shape policy decisions, as well as examining the roles and responsibilities of various actors involved in the policy-making process (Roux, 2002).

2.9.2 Implementation of HIV policy

Policy development and implementation are both crucial parts of strategic planning. Policy development establishes the framework, while implementation involves executing decisions based on this framework. The implementation of policy is a continuous, dynamic process that requires consensus-building, resolving conflicts, planning for contingencies, and adapting to new situations (Stutton, 1999).

According to Cloete, Wissink, and De Coning (2008), the success of policy implementation relies heavily on the actions of individuals or groups working towards the goals outlined in policy decisions. Although South Africa has a well-established policy framework, it faces challenges in effective policy delivery, primarily due to shortcomings in policy assessment and benchmarking compared to other nations. Successful policy implementation necessitates human resource development strategies focused on empowering staff and providing ongoing capacity-building opportunities.

2.9.3 Elements for consideration of Voluntary Medical Male Circumcision Policy

For many years, the procedure of VMMC has emerged as a safe and widely utilised practice of surgery on the male genitalia, without severe damage or complications. National and provincial departments of health and HIV prevention units have recognised this benefit and have over the years endorsed many campaigns for VMMC (Khawula, 2015). In 2010, government through the National Department of Health (NDoH), proposed the VMMC strategy, which aims to achieve 80% HIV-negative males between the ages of fifteen and forty-nine years by 2015 (Shisana *et al.*, 2012; Mathew, 2012; SANAC, 2011).

In numerous VMMC research studies conducted, subjects have historically expressed the principles of healthcare policies and practices that promote VMMC, often recommending that policy developers from governmental stakeholders should assess and understand cultural preferences, along with the need that healthcare workers, guided by policies, to understand and advocate for VMMC, especially in districts where

it is not common (Tarimo, 2012). As a result of advanced regulatory policy, VMMC has influenced the battle against HIV and STIs despite limitations to current policy documents that guide VMMC in South Africa (WHO and UNAIDs, 2012).

For more effective application, a key policy construct that was considered in the research is the utilisation of the Health Belief Model (HBM). Hence, beyond interrogation of the HBM, more effective implementation of the model is echoed through public policy focusing on VMMC, and the dynamic of effective public policy implementation through models and other constructs, is foregrounded.

2.10 HEALTH BELIEF MODEL AND HEALTHCARE

The concept to be introduced, defined and described, is the HBM. This is seen as a contemporary approach by the Department of Health under the VMMC programme. The theory seeks to address the core theme of why, what and how attitudes and perceptions are developed towards public health and in particular, how the subsequent HIV prevention strategy such as VMMC are formed by certain individuals. This section illustrated pertinent theoretical aspects of attitude and perception in relation VMMC.

The concept of a theory has been previously established by scholars to mean a "scheme or system of ideas and statements" regarded as a comprehensive description or a holistic representation for a set of truths or occurrences. Research, whether at a macro, middle range or on a grand scale, is fundamentally based on theoretical assumptions. Theoretical insights and social investigations are integral to social research, ensuring that evidence collection is informed by theory and interpreted accordingly (Ritchie & Lewis, 2003:347). When the research theory involves healthcare or public health, there is a significant focus on ideas related to the prevention, management, and cure of health-related diseases.

One of the key objectives of public health is to protect and improve the health of people and their communities, emphasising disease and illness control to mitigate their impact on the country's population. Public health practices concentrate on preventing risky lifestyles or personal behaviours that may lead to the occurrence of diseases. This

research aims to analyse the developed attitudes and perceptions of both clinical and non-clinical healthcare workers towards the VMMC programme, addressing gaps in the literature concerning the role of Health Care Workers in contributing to HIV prevention and VMMC programmes across Southern Africa.

The study utilises the HBM as its theoretical framework. Established in the 1950s by American psychologists specialising in public health, the HBM aims to explain why individuals opt for certain actions to prevent illness. Psychologists including Godfrey Hochbaum, Irwin Rosenstock, Howard Leventhal, and Stephen Kegeles, developed this model to enhance the acceptance of preventive measures, such as vaccinations and screenings for diseases like tuberculosis.

The HBM emphasises two core elements: the perceived threat of illness and the behavioural response to that threat. The foundation concepts include perceived susceptibility, perceived seriousness, perceived benefits, perceived barriers to behaviour, cues to action and self-efficacy. The model posits that health behaviour is influenced by an individual's beliefs and perceptions about a disease and the available strategies to mitigate its occurrence.

The HBM is a framework that centres on how individuals mentally process health-related behaviours and the essential components for predicting self-protective health behaviours (Albery & Munafo, 2008:48). Consequently, the model was chosen for the research study, as it specifically addresses the examination of healthcare workers' attitudes and perceptions toward VMMC.

The HBM provides a framework for understanding individuals' motivations and actions and is applied in various healthcare research contexts. It has demonstrated value as a predictor of both short-term and long-term health behaviours, including sexual risk behaviours and the spread of HIV/AIDS.

In this study, the HBM is applied to assess the attitudes and perceptions of healthcare workers at the SOKA Men's Clinic in the Ugu District regarding VMMC. It considers perceived susceptibility, perceived severity, and perceived benefits related to VMMC. The model serves as the basis for exploring how the attitudes and perceptions of

clinical and non-clinical healthcare workers influence behaviour and decision-making, particularly in the context of HIV prevention strategies globally.

Table 2.1: Summary of Health Belief Model

Concept	Definition	Application
Perceived Susceptibility	Assessment of the chances of contracting disease	Behaviour linked to risk levels
Perceived Severity	Seriousness of possibly contracting disease	Specify the seriousness
Perceived Benefits	Positive things that will happen linked to health behaviour	Define effective action to take
Perceived Barriers	Cost of adopting a new type of health behaviour	Engaging in preventive behaviours
Cues to Action	Prompts to trigger a state of 'readiness' to take action	Design effective health interventions and promote awareness
Self-Efficacy	Confidence to sustain health-promoting behaviour	On-going training to enhance capacity

Source: Janz & Becker (1984)

2.10.1 COMPONENTS OF THE HEALTH BELIEF MODEL

The HBM is a theoretical framework developed to understand and predict health-related behaviours by focusing on individuals' attitudes and beliefs. The model comprises several key components, outlined below.

2.10.1.1 Perceived susceptibility

Perceived susceptibility to health problems indicates individuals' beliefs or perceptions regarding the likelihood of experiencing either positive or negative health outcomes (Albery & Munafo, 2008:49). An individual may develop a "perception of the risk of getting a condition", which refers to the perceived susceptibility (Janz & Becker, 1984:

2). An individual's own belief that he/she is likely to contract the disease or medical condition relates to the concept of perceived susceptibility (Strecher & Rosenstock, 1997). It may be proposed that the concept of perceived susceptibility may be enlarged or reduced by the term referred to as 'peer pressure', as this concept can be the most influential perceptual element when health care workers attempt to advocate for males to embrace a sexual attitude which does not risk their well-being (Glanz, Rimer & Lewis, 2002).

2.10.1.2 Perceived severity

The HBM's second component is the element of perceived severity. An individual often associates a certain level of perceived seriousness with a given threat, and this construct therefore refers to this kind of thinking (Hochbaum 1958; Champion & Skinner, 2008: 6). The construct of perceived seriousness links to personal evaluations of social, economic and medical consequences that accompany a disease, should an individual contract that condition (Janz & Becker, 1984: 32).

2.10.1.3 Perceived benefits

In an effort to prolong and improve an individual's life, while also focusing on the possible reduction in HIV transmission (Kip, Ehlers and Van der Wal, 2009: 150), these are all linked to the perceived benefits to prevent the negative impact of particular diseases (Rosenstock, 1974: 9). This factor is regarded as a significant factor in embracing healthy behaviour. These 'benefits' are directly associated in a broad manner to an individual's opinions of the "value or usefulness" of a new healthy behavioural culture which would aid in diminishing the risk of the individual developing a medical disease (Hayden, 2009: 32; Mathew, 2012).

2.10.1.4 Perceived barriers

The HBM has been applied in diverse geographical contexts to develop strategies addressing issues in public healthcare environments where individuals may show reluctance toward health promotion due to perceived barriers. Pain, physical

discomfort, expense, and limitations on work during the healing process are perceived barriers associated with Voluntary Medical Male Circumcision (VMMC), potentially hindering males from undergoing the procedure.

In simpler terms, perceived barriers refer to any negative factors that might impede the adoption of a recommended public healthcare action aimed at preventing individuals from contracting HIV. The HBM's value lies in the understanding that individuals often weigh the positive and negative aspects associated with a particular behaviour.

2.10.1.5 Cues to action

Within the HBM, cues to action are conceptualised as internal or external stimuli that serve to facilitate understanding and support, thereby prompting individuals to undertake specific health-related behaviours (Mattson, 1999:243). These cues act as precipitating forces that influence an individual's perception of the necessity to act, ultimately encouraging the adoption of health-promoting actions. Internal cues might include personal experiences of symptoms or health scares, while external cues could encompass media campaigns, advice from healthcare professionals, or witnessing the health outcomes of others. The effective implementation of these cues is critical in health communication strategies, as they can significantly impact the likelihood of individuals engaging in preventive health measures or seeking timely medical intervention. By strategically leveraging these cues, public health initiatives can enhance the efficacy of health education programmes and improve overall health outcomes.

The cues to action that this study would seek to investigate are represented in the research design through precise questions that target peripheral cues to action linked to the Provincial and Ugu District VMMC campaign, which includes PEPFAR partners such as Jhpiego, who perform VMMC at SOKA Men's Clinic under DoH and PEPFAR banners.

2.10.1.6 Self-efficacy

Self-efficacy, the final construct of the HBM, is derived from Albert Bandura's (1977) Social Cognitive Theory. It refers to an individual's belief and confidence in their ability to effectively execute specific behaviours (Rosenstock *et al.*, 1988; Hayden, 1989). Research suggests that individuals are unlikely to attempt new behaviours unless they believe they can successfully and functionally perform them (Glanz *et al.*, 2002:12).

The concept of self-efficacy reflects on people's belief about their capacity to perform certain tasks in pre-determined situations. Self-efficacy plays a significant role in managing medical related diseases, because it influences both commencing and sustaining health related actions (Kip, Ehlers & Van der Wal 2009: 151) and the self-confidence in one's ability to initiate this action (Glanz & Rimmer 2005: 13).

The HBM was considered to be one of the most effective models for effective policy implementation of the VMMC programme pioneered by the Department of Health.

2.11 CONCLUSION

In this chapter, the researcher provided an overview of HIV/AIDS, examining its prevalence and impact on a regional scale and locally in South Africa. This analysis sets the stage for understanding the broader context in which VMMC operates as a preventive strategy. The chapter also delved into the theoretical framework adopted for exploring perceptions, attitudes, and the implementation process of VMMC, highlighting its significant preventive benefits. The perspectives of VMMC are examined through the lenses of public policy implementation theory and the HBM, both of which offer valuable insights into the factors influencing its adoption and effectiveness towards improving public health service delivery.

The transition from SDGs to NDPs signifies a shift towards integrating global sustainability targets with national development priorities. SDGs provide a universal framework for addressing pressing global challenges, such as poverty, inequality, and climate change, while NDPs contextualise these goals within local socioeconomic

contexts, guiding countries in achieving sustainable development through tailored policies and strategies.

Similarly, the evolution from New Public Management (NPM) to New Public Governance (NPG) and beyond to a whole-of-government approach reflects a progression in public administration paradigms. NPM initially emphasised market-oriented reforms and managerial efficiency in the public sector. A whole-of-government approach extends this further, advocating for integrated policy responses across governmental departments to achieve comprehensive and coordinated outcomes that align with broader national goals and priorities. For more effective application, a key policy construct that was considered in the research is the utilisation of the HBM. Hence, beyond interrogation of the HBM, more effective implementation of the model is echoed through public policy focusing on VMMC, and therefore the dynamic of effective public policy implementation through models and other constructs comes to the forefront.

The study utilised the HBM to dissect the implementation nature of the VMMC programme, providing a structured approach to analyse the factors influencing healthcare workers' attitudes and perceptions towards VMMC in the Ugu District. The HBM is particularly useful in this context as it helps to identify the perceived benefits and interrogate the barriers, self-efficacy, and cues to action that shape healthcare workers' engagement with the VMMC programme, as highlighted in Chapter Five, which demonstrates the primary data analysis of the qualitative study. By situating the study within the framework of new VMMC strategies and programmes, the research focuses on the practical challenges of implementation, and the diverse attitudes and perceptions of stakeholders. This includes healthcare workers; whose views are critical for understanding the real-world dynamics of policy execution and the efficacy of VMMC as a public health intervention. The chapter underscored the importance of these theoretical perspectives in guiding the study's methodology and in interpreting its findings within the broader discourse on HIV prevention and public health policy aimed at good public administration and governance practices in public health service delivery.

CHAPTER THREE:

VOLUNTARY MEDICAL MALE CIRCUMCISION FOR HIV/AIDS PREVENTION AND RESEARCH IMPLICATIONS FOR IMPROVING PUBLIC HEALTH

3.1 INTRODUCTION

The previous chapter provided the underpinning theoretical framework on which the study was premised within a public administration, *vis-a-vis* public health service delivery perspective that steered this research study.

This chapter focuses on the literature review in relation to voluntary medical circumcision amongst males. A literature review involves investigating what previous researchers have explored about a specific topic, helping to identify knowledge gaps and illustrating the dynamics on how the research that is currently being undertaken by the researcher could positively contribute to the existing knowledge available (Grove, Gray & Burns, 2015:163). An essential component of new research that is being undertaken, is that this would inform the researcher whether a topic has been previously studied, and the extent to which the topic has been studied. It is hoped that the research would result in new ideas, perspectives and approaches towards improving the area of study (Leedy & Ormrod, 2015:70).

During the course of this study, the researcher initiated the literature review process by critically examining the concept of existing routine precautions, the strategy for prevention of HIV, and current statistical modelling that has been undertaken on the HIV/AIDS pandemic in Southern Africa.

Current scientific meta-analysis has investigated the prevalence of VMMC in sub-Saharan Africa from 2010 to 2023, revealing an overall prevalence of approximately 54.7%. There are significant variations between East African countries and West African countries, whereby the rates vary from between 25% to 50%. This analysis goes on to indicate an increasing trend in VMMC prevalence in regions with active VMMC programmes and strong demand generation campaigns. This is increasing in

urban areas where access to healthcare services is better, as compared with rural settings. The success of VMMC programmes in certain regions cannot be underscored, notably East and Southern Africa, where intensive efforts have been made to incorporate VMMC into HIV prevention strategies. Factors influencing VMMC prevalence include cultural practices, healthcare infrastructure and public health campaign efficacy (Elsayed, Elmarasi, Madzime & Chivese, 2024:2).

The literature review further delves into the efficacy and shortcomings of communication and findings stemming from previous research participation, encompassing both broad and comprehensive global perspectives, as well as focused, specific insights relevant to the South African context. This review synthesises a wide range of studies to evaluate how effectively communication strategies have conveyed information about VMMC and other public health initiatives. It critically examines previous research to identify common themes and patterns, including the factors that contribute to successful communication and those that pose barriers.

Globally, the review highlights diverse public healthcare methods used in various regions to promote VMMC and other health interventions, assessing their impact on awareness, acceptance and behavioural change. Focusing on the South African context, the review narrows down to specific insights pertinent to the country's unique socioeconomic and cultural landscape. It scrutinises local studies to understand how communication strategies have been tailored to address the specific needs and concerns of South African communities (Zulu, Mwamba, Rosen & Sichone, 2022:3).

Furthermore, it identifies gaps in existing research and communication practices, providing a nuanced understanding of where improvements are needed. By linking global perspectives with localised insights, the literature review offers a comprehensive evaluation of current practices and paves the way for developing more effective, context-specific communication strategies that can enhance the implementation and acceptance of VMMC in South Africa.

The literature aimed to investigate the diverse perceptions and attitudes toward VMMC amongst healthcare workers who are routinely involved in the procedure, whether at

the pre-operative or post-operative stages. The focus was specifically on their knowledge, practices and the factors influencing their perceptions and attitudes.

The VMMC programme involves the medical procedure on males. It is a practice commonly carried out for religious and cultural reasons among infants and adolescents (WHO, Jhpiego, 2009). According to a systematic review conducted by Weiss *et al.* (2000), there is a suggestion that male circumcision could serve as a preventive medical initiative against HIV acquisition and other diseases, such as sexually transmitted infections (STIs). The observed potential protective impact of VMMC against HIV and STIs, as indicated in numerous observational and research studies, has underscored the necessity for further exploration into the public health advantages associated with male circumcision.

The literature review sought to identify research literature published on the VMMC programme in Southern Africa and the vital role that VMMC plays as a pivotal prevention method for HIV/AIDS. The scholarly review of literature was concentrated in many African countries and Southern African countries, with specific focus on South Africa. Core objectives of this literature review are to examine recent academic inputs on the perceptions and attitudes of healthcare workers' towards VMMC. This focus is not an entirely new one, especially within the landscape of HIV prevention. However, conducting rigorous research into VMMC is essential for optimising HIV/AIDS prevention strategies, especially in South Africa, where the epidemic continues to pose a substantial public health challenge (Zulu *et al.*, 2022:6).

The VMMC programme is a topic that was actually recorded by the famous explorer, Christopher Columbus, on his travels and explorations. Until recently, there was a partial focus on the traditional aspect of male circumcision, practised in many African countries, and particularly concerning the cultural significance in non-Western societies. Given the extensive and varied literature available that focuses on male circumcision, a critical review that neglects the debates across different fields of study would be inadequate. Therefore, this literature review examines the predominant viewpoints and discussion areas on the practice from various academic disciplines, ensuring a comprehensive understanding and critical thinking on the subject (Chikusta, 2016).

Korenromp, Bershteyn, Mudimu and Johnson (2021) underscore the significant public health benefits of VMMC in reducing HIV incidence and prevalence. Analysis through scientific empirical study demonstrates a substantial reduction in HIV incidence, ranging from 25% to 30%, and a decline in HIV prevalence over a decade. This robust evidence highlights VMMC's effectiveness and cost-efficiency, projecting considerable healthcare savings due to fewer new infections and a reduced need for antiretroviral therapy. Therefore, this study emphasises the necessity of maintaining high VMMC coverage rates and integrating VMMC with other HIV prevention strategies for maximal impact. Further, it reinforces the critical role of VMMC in the comprehensive HIV prevention efforts rolled out by public health in South Africa, advocating for continued and expanded implementation.

The chapter offers a comprehensive and in-depth review of the VMMC Programme. The chapter is divided into six sections. The first section presents a conceptualisation of VMMC within the South African context, establishing its background and importance. The second section reviews the roles and significance of the religious and cultural impact of circumcision, along with the associated risks and challenges. In the third section, the religious and cultural aspect is extended to governmental initiatives within Traditional Male Circumcision (TMC). In the fourth section, the focus shifts to medical circumcision, exploring its challenges and the factors influencing the adoption of VMMC as a method for reducing sexually transmitted infections (STIs). The next two sections probe deeper into HIV/AIDS from a global prospective, cascading down to the South African context.

3.2 HIV/AIDS GLOBALLY

The magnitude of the HIV/AIDS epidemic has surpassed all initial projections since its identification two decades ago. Currently, it is estimated that 36 million people worldwide are living with HIV, and approximately 39 million have already succumbed to the disease, with the epicentre of the epidemic in sub-Saharan Africa (Lancet, 2019). The impact of HIV has not only been more extensive than anticipated in terms of its spread, but also in its effects on social capital, population structure and economic

growth. Addressing AIDS at a scale proportionate to the epidemic is a global necessity, and the effective response mechanisms are well-established (Piot *et al.*, 2001).

John, Natekar & Pateel (2023:2) explore contemporary strategies and emerging trends in the fight against HIV/AIDS, highlighting global efforts and interventions. Due to the COVID-19 pandemic, there is emphasis on the need for innovative approaches to address the ongoing challenges posed by HIV/AIDS, including the development of new prevention methods, treatment options, and policies. It underscores the importance of a multi-faceted approach that integrates medical, social and behavioural interventions to effectively combat the epidemic.

On a global scale, VMMC as a core prevention method remains a sound intervention and has been a constant in the HIV/AIDS strategy of most African countries. The role of global health organisations and international collaborations in supporting research and facilitating the implementation of effective interventions has never been more essential to catalyse these innovations. Robust and sustained healthcare, community engagement and strong policy implementation are fundamental when considering the social determinants of health, stigma and healthcare equity.

Payagala & Pozniak (2024:122) provide a comprehensive analysis of the current state of the HIV epidemic, revealing both significant progress and ongoing challenges. With approximately 38 million people living with HIV globally and 1.5 million new infections in the past year, the epidemic remains a substantial public health issue. Sub-Saharan Africa continues to bear the highest burden, although effective intervention programmes have led to notable reductions in incidence and mortality in this region. Conversely, regions like Eastern Europe and Central Asia have seen rising infection rates. The disproportionate impact on young women and key populations, as well as the emerging challenge of an aging HIV-positive population, are now more present than ever. Despite the expansion of antiretroviral therapy (ART) coverage to over 28 million people, gaps in treatment access and adherence persist, particularly in low-income areas. Key interventions such as equitable healthcare access and strengthened healthcare systems are required to address socio-economic disparities and support the diverse needs of affected populations, emphasising the critical need for sustained international support and innovative HIV prevention strategies.

3.3 CONCEPTUALISING VOLUNTARY MEDICAL MALE CIRCUMCISION WITHIN THE SOUTH AFRICAN CONTEXT

The Joint United Nations Programme on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) have officially endorsed male circumcision as a strategy for HIV prevention, incorporating it into all HIV prevention programmes. This endorsement applies to 13 sub-Saharan African countries, specifically the Southern African Development Community countries and east African countries, such as Rwanda, Kenya, Malawi, Uganda, the United Republic of Tanzania, and Zambia. It is noteworthy that these countries exhibit the highest HIV prevalence rates globally, according to UNAIDS and WHO reports from 2007, 2011, and 2013.

At this stage, South Africa and many of the countries in the region expedited clinical programmes to introduce safe VMMC and integrate these services as part of HIV/AIDS services provided at Department of Health facilities. This rapid expansion contributed significantly to the potential of VMMC services at healthcare facilities, as it fostered enhanced collaboration and integration with provincial and national government efforts. Such integration is pivotal in advancing the quality of health governance: it ensures that VMMC initiatives are aligned with broader public health strategies and policies. By leveraging governmental support and resources, these services can be more effectively scaled and standardised, ensuring consistent quality and accessibility across different regions. Furthermore, this alignment propels the worldwide fight against HIV/AIDS and other STIs, as it enhances the capacity of healthcare systems to deliver comprehensive and effective prevention programmes. The integration of VMMC services within the framework of national health governance not only improves the implementation and monitoring of these programmes, but also facilitates the mobilisation of resources and the dissemination of best practices, thereby strengthening the global response to HIV/AIDS and other STIs (UNAIDS/WHO 2007; Potts *et al.*, 2008; White *et al.*, 2008).

3.4 RELIGIOUS AND CULTURAL IMPACT OF CIRCUMCISION

The African population hold their tradition and culture in high regard, viewing them as crucial for understanding everyday occurrences. They adhere to the belief that events are not random but are instead predetermined by their supreme beings. George, Strauss, Chirawu & Govender (2014:181), argues that cultural beliefs offer explanations for human personality and biology that are often beyond the scope of current theories. This perspective underscores the significance of exploring beliefs surrounding illness, disease and traditional practices in the study. The perceptions and attitudes of female partners towards VMMC are also influenced by cultural, social and community factors. Therefore, when considering the religious element of traditional circumcision, it should also include the cultural dynamic, generally rooted in traditional beliefs of female partners (Nxumalo & Mchunu, 2019:11).

Religion plays a significant role in men being circumcised; globally it is recorded that around 40% of men are circumcised, and these men are circumcised in a traditional or religious setting during the period of adolescence (Khumalo, 2016). The practice of initiation rites and traditional circumcision is not a new phenomenon in Africa and other parts of the world. There is at least one ethnic group in each African country that performs traditional circumcision as a rite of passage for cultural or religious reasons. These countries include Kenya, Malawi, South Africa, Nigeria, Zambia and Zimbabwe (Gwandure, 2011:89). Ancient traditions have often influenced religious circumcision, and these are practices followed by religions such as Islam, Judaism and in South Africa, the amaXhosa people (Mark *et al.*, 2012:3). The Jewish people believed circumcision is a condition for salvation, and it is foretold that a man who is circumcised is clean and belongs to God (Mavhu *et al.*, 2016).

Ethnic groups in South Africa have over the years regularly practised circumcision. However, there have been some groups who have departed in their beliefs from this practice and have abandoned circumcision for religious beliefs. These groups are the Tswana people found in Northern South Africa; the Sotho people found mainly in Gauteng; the Shangaan people found mainly in the mountainous regions of Mpumalanga, and the Zulu people who hail from KwaZulu-Natal (Vincent, 2008).

Under the auspicious banner of cultural beliefs, circumcision is performed during a boy's adolescence and this procedure is performed outside of a formal public and/or private healthcare setting without anaesthesia, often in challenging traditional or rural settings (Schmid & Dick, 2008: 659).

Wilcken, Kiel, and Dick (2010) indicate that cultural circumcision, traditionally a rite of passage from childhood to manhood, is notably practised within the Zulu culture, particularly in KwaZulu-Natal (KZN). Historically widespread, this practice was suspended over 200 years ago by Zulu King Shaka. The historical and cultural relevance of circumcision in Southern Africa is significant in contemporary efforts to scale up medical male circumcision (MMC) services for HIV prevention.

Undergoing the circumcision ritual for males aged 15-25 is considered a complex and sacred period in a young man's life, involving numerous traditional requirements for the initiate. This form of traditional initiation roots itself in the community perception that traditional forms of circumcision are more authentic and culturally appropriate (Douglas *et al.*, 2018:459). For Xhosa males, this ritual enables them to become full-fledged members of their community, granting them privileges such as participating in community affairs (including the family court or standing in for their father), the right to marry, and the respect and knowledge that are otherwise seen as unattainable in the cultural context (Vincent, 2008).

3.5 GOVERNMENTAL INITIATIVES WITHIN TRADITIONAL MALE CIRCUMCISION

A core piece of legislation enacted to mitigate risks and challenges experienced during the performance of traditional circumcision is the Children's Act of 2005, where the prescripts seek to prevent the performance of traditional male circumcision (TMC) on underage male children, unless there is explicit permission provided by a parent or guardian, in which case TMC would be performed in a religious or medical setting (Vincent, 2008b:6).

The prescripts of the Children's Act further outline that the guidelines must be taken to traditional practitioners for consultation, even after approval is sought from the necessary traditional and health authorities, at community and district levels respectively. The guidelines set out in this legislation are intended to decrease the number of injuries experienced, the number of initiates suffering from dehydration during the process and most critically, the number of deaths sustained by initiates during TMC (Douglas & Maluleke, 2016:2).

The Universal Declaration of Human Rights (1948) affirms the right of all individuals to live in conditions that allow them to enjoy good health and access healthcare. The United Nations Convention on the Rights of the Child (1989) includes protection against male genital mutilation. Article 24(1) stipulates that every child has the right to the highest attainable standard of health and access to facilities for treatment of illness and rehabilitation of health.

Another fundamental piece of legislation is the Customary Initiation Act, that was passed in order to save lives and prevent the abuse that initiates may be subjected to because of unacceptable initiation practices. This legislation mandates that all prospective initiates undergo a medical examination and be certified fit by medical professionals before participating in traditional male circumcision (TMC). Additionally, prospective initiates under the age of 21 must provide a consent document from a parent or guardian before being admitted to circumcision schools (Customary Initiation Act, 02 of 2021).

3.6 CHALLENGES RELATING TO VOLUNTARY MEDICAL MALE CIRCUMCISION

The implementation of VMMC as a public health strategy has faced significant challenges despite notable progress.

Challenges associated with VMMC are linked to resource constraints, encompassing insufficient infrastructure, inadequate supplies at health sites, a shortage of essential equipment, and a lack of qualified staff. The term 'infrastructure and staffing' here

refers to tangible elements such as equipment and medical sites crucial for delivering VMMC services (USAID, 2012).

Bershteyn *et al.* (2022:531) outline some of the primary challenges facing VMMC implementation in South Africa, including cultural and religious resistance to circumcision. In many communities, traditional beliefs and practices are deeply entrenched, leading to reluctance or outright opposition to VMMC. Overcoming these cultural barriers requires culturally sensitive education and engagement strategies that respect local customs while promoting the health benefits of circumcision. Community-based education and engagement are vital for increasing the acceptance and uptake of VMMC. However, developing and implementing effective educational programmes that reach diverse populations can be challenging. Tailored communication strategies that address specific community concerns and misconceptions about VMMC are needed.

Contrarily, Science-Based Medicine (2008:16) presents several arguments against VMMC. One perspective is rooted in the belief that nature does not make mistakes, asserting that such procedures cannot definitively be considered a measure to reduce the risk of contracting diseases. Additionally, there are some religious factions, research academics and individuals of social standing who have for years contended that VMMC may constitute a form of genital mutilation and should be considered a violation of a male's basic human rights (Science-Based Medicine, 2008:16). A parallel argument suggests that males circumcised early in life may endure permanent physiological consequences, including increased sensitivity to pain later in life for those circumcised at birth. Another viewpoint posits that some males express that the practice is not viewed as favourable.

3.7 EARLY PUBLIC POLICY RELATING TO HIV/AIDS

The emergence of HIV/AIDS in post-apartheid South Africa marked a profound crisis for the nation. Initially, the virus significantly impacted workforce productivity, leading to a surge in morbidity and mortality rates, resulting in heightened employee absenteeism, sickness, and fatalities among workers (Mbali, 2003:35).

During the early post-apartheid era, the health sector faced substantial challenges rooted in the legacy of apartheid. Critical priorities in health policy included the integration of nine Bantustan health departments into a unified national structure with nine provincial departments. The broader challenges encompassed coordinating policies across local, provincial and national levels, striking a balance between health expenditure and other budgetary priorities, and ensuring equitable access to healthcare (Price, 1995).

However, none of these tasks proved to be straightforward and simple. Schneider and Stein (2001) argued that the complexities of coordinating health policies at different levels of government hindered the AIDS policy implementation process. Schneider (1998) further asserted that, concerning provincial allocations, varying levels of commitment amongst provinces led to disparate implementations of spending and policy recommendations.

3.8 STRATEGY DEVELOPMENT AND IMPLEMENTATION OF MALE CIRCUMCISION AMIDST PUBLIC HEALTH CONCERNS

VMMC has been recognised as a safe procedure with minimal risks, complications or mortality. In light of these benefits, the provincial and national spheres of Department of Health have over the years consistently launched nationwide campaigns that promote VMMC and illustrate the benefits of this procedure. Research studies on VMMC have routinely highlighted the importance of public health policies which detail and support male circumcision. Participants in these studies have urged policymakers to consider cultural preferences and emphasised the need to advocate for the benefits of VMMC, especially in areas with low circumcision rates. The Department of Health has been deliberating on VMMC policies, leading to the creation of strategies for the rollout of VMMC (Bershteyn *et al.*, 2022: 529).

Implementing VMMC strategies requires careful monitoring and evaluation of male circumcision services. Despite the lack of a specific policy for VMMC in South Africa, well-planned regulatory strategies have significantly impacted the fight against HIV

and STIs. The government significantly acknowledges the potential of VMMC in combating HIV and other STIs. The Joint Strategic Action Framework, which encompasses the WHO and UNAIDS, seeks to aim to accelerate the scale-up of VMMC for HIV prevention in Eastern and Southern Africa from 2012 to 2016, providing guidance for Ministries of Health and stakeholders at various levels (WHO and UNAIDS, 2012).

With declining funding for HIV/AIDS prevention in Africa, the focus has shifted to cost-effective and innovative HIV prevention programmes like VMMC (Meissner & David, 2007:159). Limited funding and inadequate resources hinder the progress of MMC practices in Africa. Meissner and David (2007:160) suggest that accurate estimates and projections of human resource needs, along with policies and strategies for task shifting and sharing, can optimise the use of trained healthcare personnel in resource-poor settings. They also emphasise the importance of involving traditional practitioners to ensure engagement and participation, especially in regions where both medical circumcision and traditional initiation practices co-exist. Efforts should be made to integrate medical circumcision with traditional initiation practices into manhood.

3.9 INTERSECTION OF COVID-19 AND HIV/AIDS

Globally, the countries of the world have been waging a war against COVID-19, on a scale never seen before. This outbreak has been significantly catastrophic for healthcare systems, economics and unemployment. Apart from the recent COVID-19 epidemic, the spread of HIV/AIDS was so rife that it required global intervention and was regarded as a health epidemic like no other. When examining the impact on national healthcare systems, the toll of COVID-19 on the HIV landscape in developing countries is devastating. The pandemic has exacerbated existing challenges within healthcare infrastructure, diverting resources and attention away from HIV prevention, treatment, and care. The disruption of supply chains, reallocation of healthcare personnel, and increased burden on medical facilities have led to significant setbacks in HIV services (Khan, Khan & Shafiq, 2021:02).

A high-level preliminary assessment of the repercussions of COVID-19 on the supply of HIV/AIDS services in South Africa revealed that the disruption was not as severe as anticipated, because important supplies and services were re-routed. To significantly improve global and regional health security, it is essential for governmental health systems in South Africa to build adaptability and resistance to epidemics in the event of their occurrence in the future. Valuable teachings can be drawn from the HIV/AIDS strategy in the region that yielded positive results, particularly regarding how HIV/AIDS solutions and resources were effectively altered during the COVID-19 outbreak (Mangoya *et al.*, 2023).

In line with the Centres for Disease Control and Prevention (CDC), individuals that were older and with compromised immune systems due to infections (i.e. HIV) are regarded as having increased chances of contracting COVID-19. Additionally, for persons who may have contracted COVID-19, the chances of additional complications due to the virus is considered to be increased for HIV infected patients with CD4 cell counts which have been low, and for patients who are not actively on anti-retroviral regimens (ARVs). This has led to an element of fear amongst these patients in developing countries, where the healthcare infrastructure in many instances is strained under the COVID-19 pandemic.

Significant contrasts have been observed during the COVID-19 pandemic, when comparing the COVID-19 strategy to the HIV strategy and the subsequent programmes rolled out by the respective healthcare ministries, especially in developing countries like South Africa. The pandemic caused significant disruption to HIV treatment programmes lead by the National Department of Health (i.e. NDoH) and may lead to an increase in mortality owing to medical facilities being flooded with individuals infected with COVID-19 (Adadi & Kanwugu, 2021).

During the years of the pandemic, it has been identified globally that advances in confronting and combating the HIV pandemic has had a successful and influential effect on the COVID-19 response. These advances have resulted in enhanced study attempts and have called attention to the significance of rapid community intervention and guidance in pandemic response.

The established primary healthcare and diagnostic infrastructure developed by the NDoH during the HIV pandemic, significantly facilitated the response to COVID-19, particularly by supporting the transition to self-testing and community-led programmes. Additionally, the advancements and accelerated research initiatives driven by COVID-19 will benefit future HIV testing, treatment, and prevention efforts. The expansion of research infrastructure, including high-containment laboratories and animal facilities, will be crucial for addressing both viruses. Moreover, the pathways established for COVID-19 vaccine development, which resulted in increased funding and international focus, should be similarly applied to HIV challenges to enhance prevention resources and explore the potential for an HIV vaccine (McMahon *et al.*, 2020: 01).

Fonka (2024) revealed that there was a significant reduction in VMMC rates during the peak of the COVID-19 pandemic, with monthly circumcisions dropping by approximately 50%. Some of the fundamental challenges experienced by public healthcare facilities, which led to this significant reduction, include the reallocation of healthcare resources to COVID-19 response; lockdown restrictions limiting access to healthcare facilities, and increased fear of contracting COVID-19 among patients. The disruption of VMMC services underscores the vulnerability of public health programmes to global health crises. There is a critical need to implement safeguards in order to ensure the resilience of the healthcare systems capable of maintaining essential services during pandemics. Mitigation strategies employed included integrating VMMC services with COVID-19 testing and vaccination sites, enhancing community outreach, and adopting stringent infection control measures. The integration of pandemic preparedness into public health planning is crucial for sustaining essential services like VMMC, ensuring continued progress in HIV prevention despite challenges posed by global health emergencies.

The effects of the intersecting pandemics of HIV, TB and COVID-19 in southern Africa are still unknown to the medical community. The impact of the pandemic HIV, TB and COVID-19 overlapping in southern Africa, is still not clearly established. However, numerous studies are in progress to suggest a higher risk of unfavourable consequences in HIV co-infected patients. It is a possibility that PLHIV may encounter

COVID-19 symptoms that have a lasting or longer impact due to HIV related immunodeficiency (Davis, 2020).

3.10 VOLUNTARY MEDICAL MALE CIRCUMCISION DURING THE PERIOD OF COVID-19

VMMC is an impactful and successful HIV prevention method, decreasing the chances of becoming infected with HIV by circa 60% in heterosexuals, over the course of their life. Regardless of its significant part in mitigating HIV contraction, VMMC was interestingly one of the health services temporarily suspended by the government to curb the transmission of COVID-19 (Bailey *et al.*, 2007: 651).

The PEPFAR VMMC programme experienced a two (2) year disruption to programme implementation as a result of the COVID-19 outbreak globally. Additionally, the lockdown that had been implemented by the South African government in the preliminary stages of the COVID-19 outbreak resulted in a 5-month programme suspension, leading to a reduction in service delivery and significant negative impact on the fight against HIV/AIDS. Post August 2020, the VMMC programme restarted at a reduced level of service delivery implementation by PEPFAR partners.

Existing PEPFAR partners have leveraged the many lessons learned from the HIV/AIDS epidemic to pivot towards assisting government and the Department of Health in the COVID-19 response. Although the COVID-19 outbreak disrupted key HIV/AIDS health services, the systematic and adaptable strategy to combat the HIV epidemic granted PEPFAR partners the space to facilitate the re-routing of significant resources including funds, personnel, equipment, and health information, which became available on social media services for effective implementation of the emergency pandemic response (Mangoya *et al.*, 2023).

Teachings highlighted from the COVID-19 outbreak can be utilised to gain a deeper understanding on other elective surgical and prevention services and to reform VMMC policies and regulations to assist in global and national emergencies in the future (Peck *et al.*, 2020).

3.11 CONCLUSION

In Chapter Three, the discussion focused on an overview of circumcision, presented as a review of pertinent research into the literature on the VMMC programme that has emerged and evolved. This chapter systematically examined the existing body of knowledge, tracing the development and current state of VMMC interventions, while highlighting critical components and practices within both clinical and traditional settings. The literature reviewed comprehensively outlines the essential components of VMMC, detailing its application and implementation in clinical and traditional contexts. Through an extensive review of current studies, it is evident that there is a significant gap in HIV-related intervention programmes targeting males within clinical or community healthcare facilities. This gap underscores the necessity for expanding VMMC programmes in community settings and pioneering these initiatives through men's health forums held at the community level. Such forums can play a pivotal role in increasing awareness, acceptance, and uptake of VMMC by addressing specific concerns and misconceptions men may have.

Furthermore, the literature highlights various factors influencing men's willingness to undergo VMMC, such as cultural beliefs, perceived health benefits, and peer influence. Despite the positive outcomes associated with VMMC, the review identifies several gaps in the current VMMC policy, particularly in its adoption and implementation at the district level. These challenges include logistical issues, insufficient training for healthcare providers, and lack of sustained community engagement. The success of contemporary public health campaigns promoting VMMC and increasing men's willingness to undergo the procedure, is largely contingent upon the collaborative efforts of stakeholders. These stakeholders include the Department of Health, both provincially and nationally; VMMC implementing partners under the PEPFAR, and civil society organisations. By working together, these entities can address the identified challenges, such as policy gaps and implementation barriers, ensuring that VMMC programmes are more effective and widely accepted.

Finally, while significant progress has been made in promoting VMMC as a key HIV prevention strategy, there is a clear need for enhanced and more targeted interventions. Expanding community-based VMMC programmes and fostering robust collaborations among stakeholders are critical steps toward overcoming existing barriers and maximising the public health benefits of VMMC. This chapter's literature review provides a foundation for understanding the complexities of VMMC implementation and highlights areas requiring focused attention and improvement.

CHAPTER FOUR: RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

This chapter delineates the research design, methodology which underpin the study. The aims, that form the core empirical aspect of this study, as well as methods of sampling and data collection, are detailed. The “researcher” here has employed various methods and procedures in order to obtain the relevant data for this investigation.

The research design enables the researcher to structure the study. This chapter seeks to define the methodology that defined the inductive reasoning of this chapter. It includes the research design, the research setting, population and sample, data collection, data analysis and ethical considerations.

This study could benefit the provincial DoH as it could enhance the understanding of the current perceptions and attitudes of healthcare workers towards VMMC. It also reflects on the implementation of the VMMC policy, through the public administration practice in the department as a key indicator for enhancing HIV prevention in health service delivery.

The researcher collected data primarily through interviews guided by a structured question guide and supplemented by secondary literature sources such as documents, journals, and reports. The selection of qualitative methodology was driven by the belief that understanding human learning and lived experiences is best achieved through qualitative data analysis, as outlined by Creswell *et al.* (2003), Yin (2003), and Baxter & Jack (2008).

Throughout the research process, the researcher engaged continuously with healthcare workers at the SOKA Men's Clinic in the Ugu District region of KZN, fostering ongoing interaction to enrich the study's findings.

4.2 RESEARCH PARADIGM INFORMING THE STUDY

A paradigm is a worldview that defines the social world and is directly tied to relevant data sources and the most appropriate methods for accessing this data (Ulin, 2004: 155). This view is contingent upon a researcher's beliefs and philosophical assumptions (Guba & Lincoln, 1994:105). Typically, a paradigm is seen as a perspective that encapsulates the defining social world, closely connected with relevant information sources, and is described as the shared understanding of reality (Rossman, Thompson, Frederick & Maliarik, 2003: 37).

These worldviews are commonly referred to as research paradigms, and these concepts shape the design and execution of research studies (Wahyuni, 2012:69; Creswell, 2013). A paradigm comprises a collection of theories, ideas, and assumptions that fundamentally form part of the researcher's perspective and approach, influencing interactions with participants or other concepts. It serves as a lens through which a researcher views the world dynamics, evaluates research methodology, and selects the particular methods for data collection and analysis for presentation of findings and documentation of discussion (Kivunja & Kuyini, 2017:26).

This study adhered to the principles of the interpretive paradigm, which aims to understand human experiences through the lived experiences of participants (Thanh & Thanh, 2015). The research focused on how individuals' interpersonal and social characteristics influenced their perceptions and attitudes toward VMMC as an HIV prevention strategy, situating it within an interpretive paradigm through inductive reasoning.

Interpretivist researchers favour qualitative data, which offers detailed descriptions of social constructs. This approach allows researchers to uncover the insider's perspective or the true meanings of phenomena from the participants' point of view, thereby generating valuable social knowledge. The researcher aimed to explore the perceptions and attitudes of healthcare workers at SOKA Men's Clinic towards VMMC.

Thus, in-depth interviews were conducted with healthcare workers in order to obtain thick data.

The research that was undertaken was exploratory in terms of design. The exploratory method focuses on under-researched problems, such as the attitudes and perceptions of healthcare worker's towards VMMC (Brown, 2006). Although, the research questions indicated in this study are not intended to yield definitive answers, this type of research provides valuable insights and understanding into the issue being studied. However, it does not delve into the reasons behind occurrences (Punch, 2005:26). Exploratory research serves as a preliminary step for more conclusive studies and impacts aspects such as research design, sampling methods, and data collection techniques (Singh, 2007).

4.3 RESEARCH OBJECTIVES

The main objectives of the research study were as follows:

- Ascertain how the implementation of the policy on voluntary medical male circumcision is being implemented at SOKA Men's Clinic in Ugu District;
- Ascertain the healthcare workers' perceptions and attitudes towards voluntary medical male circumcision;
- Explore the ability of voluntary medical male circumcision to be considered a cultural aspect that helps in diminishing the risk of HIV/AIDS, and
- Investigate the healthcare barriers that are associated with medical male circumcision that prevents males from undertaking the procedure voluntarily.

4.4 RESEARCH QUESTIONS

The study aimed to address the following critical questions.

- How is the policy on voluntary medical male circumcision programme being implemented at the SOKA Men's Clinic in the Ugu District?
- What are the healthcare workers' perceptions and attitudes towards voluntary medical male circumcision?

- Can voluntary medical male circumcision be considered a cultural aspect that helps in diminishing the risk of HIV/AIDS?
- What are the healthcare barriers associated with medical male circumcision that prevents males from undertaking the procedure voluntarily?

4.5 RESEARCH METHODS AND DESIGN

Bluhm, Harman, Lee & Mitchell (2011:1867) emphasise that research questions are crucial in selecting the most suitable research design, whether qualitative, quantitative or mixed methods. Bhattacharjee (2012:35) describes the research design as a "blueprint" for conducting empirical research to address specific problems or theories. This process involves three key procedures: the method of information gathering, the procedure for tool formation and the sampling procedure.

The systematic and scientific procedures employed to derive the findings of a study are known as the research methodology (Nachamias *et al.*, 1996; Saunders *et al.*, 2007). For many years, researchers have debated on the choice between qualitative and quantitative approaches. The deployed quantitative paradigm emphasises that social science inquiry should be objective, with the observer remaining separate from the entities being observed (Johnson & Onwuegbuzie, 2004). The research study that had been conducted received empirical data from participants in order to gain an understanding of participants' perceptions and attitudes towards the VMMC.

Jayaratne and Stewart (1991: 85) categorise research methodology in the Social Sciences into two main types: qualitative and quantitative. In qualitative research, reflexivity plays a central role, focusing on individuals as self-reflective beings (Smith, 1994), and aims to achieve a deep understanding of the contextual realities experienced by research participants (Babbie & Mouton, 2001: 270). Qualitative research emphasises the study and interpretation of meanings, rooted in the belief that human experiences are valuable subjects of a study. According to Smith (1994: 86), "qualitative research is the interpretative study of a particular issue." This approach is particularly suited for exploratory research that seeks to understand the impact of new developments, such as technological and social processes (Robinson,

2002: 271). The qualitative constructs served as useful in considering the primary study that was undertaken. Qualitative data collection typically involves semi-structured interviews conducted in a conversational manner, allowing participants the freedom to explore issues they consider important (Kirchin & Tate, 2000: 210).

4.6 DATA ANALYSIS

The qualitative analysis method was applied to examine the data gathered in this research study. Qualitative research is viewed as an ongoing process, emphasising the interconnected nature of data collection, processing, analysis and reporting (Bernard & Ryan, 2010). De Vos (2002:339) outlines that the process of data analysis is regarded as the undertaking of bringing order, structure and meaning to the significant volume of collected data. According to Berg (2009: 53-54), the data analysis process involves documenting various analyses conducted by the researcher. Mouton (2001: 108) suggests that this process entails critiquing the study's acquired information to identify relevant themes, trends, and relationships based on the collected data. The researcher was able to interpret the data guided by the responses provided by participants. The similar and dissimilar aspects derived from the responses inform the qualitative findings. The connectivity between these themes and trends provides valued insights into causal factors through inductive reasoning.

Secondary data, sourced from external organisations, constitutes information not directly collected by the researcher (Welman, Kruger, & Mitchell, 2005: 149). In this study, secondary data analysis involved departmental reports, governmental publications, scholarly articles including research reports and books (Welman *et al.*, 2005: 149).

Content analysis, as defined by Elo and Kyngä (2008: 107), is a technique applicable to both qualitative and quantitative data, and it can be approached inductively or deductively. The inductive approach derives concepts directly from the data, while the deductive approach relies on prior knowledge to structure the analysis (Elo & Kyngä, 2008: 107).

Qualitative data from semi-structured interviews at the men's clinic was analysed using the inductive content analysis approach. The analysis focused on exploring potential relationships between the key themes, from the study, namely, VMMC policy implementation, attitudes and perceptions of healthcare workers towards VMMC and the element of traditional circumcision. The goal was to capture participants' descriptions and responses relating to the implementation of the VMMC policy. Themes identified from the qualitative data informed the formulation of general conclusions in the research.

4.7 POPULATION

According to Polit and Beck (2012: 273), the population is the entire aggregation of cases in which the researcher is interested; it is sometimes referred to as the target population. The target population in this study was the healthcare workers that are based at SOKA men's clinic in Ugu District, KZN. There is a great possibility of engaging with healthcare workers who are involved in providing and facilitating the wide range of HIV prevention services associated with VMMC at the SOKA Men's Clinic as this clinic provides comprehensive men's healthcare services. They will be an accessible population which, according to Grove, Burns and Gray (2013: 351), is that portion of the target population to which the researcher has reasonable access.

Additionally, the target population identified for the study are representative of a portion of the population of interest, while satisfying the need that the members of the identified target population, who are the healthcare workers involved in the VMMC programme implementation at the clinic, and who are described within the constraints of the population of interest (Casteel & Bridier, 2021).

4.7.1 Biographical data

The biographical data reflects the respondent healthcare worker group's gender.

Figure 4.1: Participant Gender breakdown

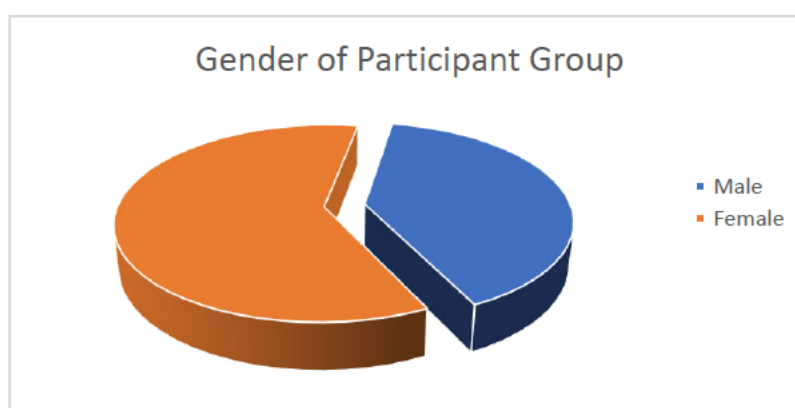


Figure 4.1 illustrates the gender disaggregation amongst the participants. Further, the above is reflective of the percentage of females verses males who are involved in the implementation of the VMMC programme at the clinic. Given that VMMC is a procedure performed on males, the number of female healthcare workers involved in the VMMC programme at the clinic exceeds the number of male healthcare workers involved.

Table 4.1: Category of Health Care Workers Interviewed

Category of Workers	Number of Participants
Medical Practitioner	2
Clinical Associate	4
Professional Nurse	6
Enrolled Nurse	2
Data Clerk	1
Demand Generation	1
HIV Counsellor	2
Other	4
Total	22

Table 4.1 illustrates the breakdown of healthcare workers who participated in the research study. Participants were identified from healthcare workers who are involved in the implementation of the VMMC programme.

4.8 STUDY SETTING

The present study was conducted in the district of Ugu in KZN. The site is the SOKA Men's Clinic based in Port Shepstone, Ugu District. The population of this location is made up of people from mixed socio-economic backgrounds. The selection of this study site was based on accessibility provided by the Department of Health and a historically high VMMC rate in the District of Ugu, currently under the PEPFAR programme.

4.9 DATA COLLECTION PROCEDURES

Grove, Gray & Burns (2015:47) define data collection as the systematic gathering of information required for the research purpose or to achieve the specified research objectives, questions or hypotheses. In qualitative research, interviews are the primary method for gathering data or information (Greeff, 2005:287). Babbie (2005:484) describes an interview as "a data collection encounter in which one person (i.e. an interviewer) asks questions of another (a respondent)." Qualitative researchers focus on understanding or explaining the subjective reality from the perspective of the participant (Fouché & Delport, 2002:79), hence placing significance on the nature of the study that was undertaken.

Greeff (2005:292) identifies three types of one-on-one interviews: unstructured, semi-structured, and ethnographic. Qualitative studies often employ semi-structured interviews (Greeff, 2005:297). These interviews are designed to capture a detailed understanding of a participant's beliefs, perceptions, or experiences regarding a specific phenomenon or topic.

The deployment of semi-structured interviews for research purposes are particularly useful for exploring personal, controversial, and complex issues (Greeff, 2005:296). Considering the controversy surrounding the HIV and AIDS stigma in South Africa, the researcher determined that semi-structured interviews were deemed an appropriate data collection method for this study.

Document reviews, in-depth semi-structured interviews and focus group discussions constituted the data collection methods aligned with qualitative studies. In qualitative research methodologies, data collection and analysis typically occur concurrently, with researchers taking notes and initiating the analysis process immediately after data collection. This approach ensures that data collection and analysis are active, interactive and are considered as iterative processes, as described by scientists and researchers Yin (2003), Creswell *et al.* (2003), and De Vos (2002).

Merriam (1998:74) asserts that semi-structured interviews are instrumental in facilitating dynamic discussions and obtaining comprehensive insights into the researched phenomenon. Accordingly, the researcher intended to employ semi-structured interviews with healthcare workers responsible for the implementation of the VMMC under the HIV & AIDS programmes. The semi-structured format promoted fluid discussions, allowing for a deeper exploration of the participants' experiences during the implementation and delivery of the VMMC and HIV/AIDS education initiatives. By eliciting personal attitudes and perceptions from the healthcare workers, the researcher aims to gather valuable information pertinent to the phenomenon under investigation (O'Donoghue & Punch, 2003:57), which were deemed significant for the nature of the study that was undertaken.

Additionally, the researcher collected and analysed existing and previously published information, research articles and journals to obtain views and opinions that could be relevant to the research objectives set out in this study, and to support or corroborate with the findings. Analysis of documentation, research articles and journals is a technique that is utilised to evaluate and understand contemporary and historic information, and to give context to the nature of the study that was undertaken.

4.9.1 Field observations

During the field observations conducted for this study, several noteworthy patterns and behaviours were identified and documented. The fieldwork revealed a dynamic interplay between the attitudes and perceptions.

Considering that field observation is deemed essential in most qualitative research studies on healthcare workers' attitudes towards VMMC (McMillan & Schumacher, 2001:41), the researcher meticulously documented detailed descriptions of events, individuals, actions, and objects in their natural setting (Clinic in Ugu District, KZN) during the interviews.

Additionally, the researcher recorded these observations in detail during and immediately after the interviews to capture a more vivid picture, including non-verbal cues that occurred during the verbal conversations. These nuances and cues were considered significant aspects especially in relation to the nature of the study.

Overall, the field observations offered invaluable insights that enriched the qualitative data collected. These observations not only contextualised the findings identified, but also uncovered subtle nuances that might have otherwise been overlooked had the research not been undertaken in assessing the efficacy of the overall programme. This comprehensive approach ensured a more holistic understanding of the research subject.

4.10 DATA QUALITY AND CONTROL

The research instruments utilised during the study were interrogated by the researcher to ensure that these sources and information are trustworthy, credible, dependable for research purposes and to ensure transparency. A cornerstone of any research study is the element of quality control, and this element was implemented to ensure that data collection instruments that were deployed, measured what they were intended to measure as part of the study.

4.10.1 Credibility

The information collected during the course of the study was plausible and was recognised by the institution of Jhpiego as it was obtained from sources that are considered to be legitimate and credible. The researcher spent time at the SOKA

Men's Clinic, and while there, observed whether the VMMC activities taking place were in accordance with implementation of the current VMMC policy.

4.10.2 Dependability

During the course of the study, the researcher utilised information from documents and policy documents received from the NDoH, WHO and Jhpigo. An audit review of the information was performed on the research process and to assess the deployed data analysis methods, as this would give root to ensure that any future studies that may be conducted, could depend on these research processes and findings.

4.11 RELIABILITY THROUGH DATA SATURATION

Reliability refers to the consistency with which an instrument measures an attribute. Key aspects of reliability include stability, internal consistency, and equivalence. Stability is defined as the degree to which the instrument yields similar results on different occasions (Polit & Beck, 2012: 372). The researcher employed systematic random sampling to select respondents.

During the main study, the same interview instrument was administered to respondents who meet the inclusion criteria until the required sample number was reached. Data saturation was considered by the researcher in terms of the number of respondents who participated in the qualitative research.

The issue of data saturation is a crucial consideration in the data collection process, particularly in qualitative research. Bekele and Ago (2022:48) highlighted that there is increasing support for a sample size of 15 to 25 participants, suggesting that this range is substantial for homogeneous populations.

Saunders, Sim, Kingstone, Baker, (2018:1896) further elaborated that saturation is reached in qualitative research when the interviewer takes note that participants begin to provide repetitive responses during interview responses. It can be challenging to predict when saturation would occur in a study, and it is generally suspected that

saturation would depend on the specificity of the study being conducted and the level of homogeneity among participants.

During the course of this study, it was identified by the researcher that data saturation was reached after interviewing 22 participants who were involved in VMMC service delivery at SOKA Men's Clinic in Ugu District. The sample size that was utilised in this study was guided by the number of participants in the VMMC implementation programme unit that contributed to the research. No additional number of respondents would have generated a different response, hence the total number who participated in the study were deemed to be reliable and sufficient for the study.

4.12 LIMITATIONS OF THE STUDY

Limitations of the study included the use of a qualitative approach instead of a quantitative approach, in terms of the ability to generalise findings across a broader population and to measure the statistical significance of the observed patterns and themes. In the event future research is considered, an evaluation should be considered to incorporate a mixed-methods approach to provide a more comprehensive understanding of the phenomena and to validate the qualitative insights with quantitative data.

The study made use of inclusion and exclusion criteria.

4.12.1 Inclusion criteria

The inclusions criteria of this study outline the characteristics that participants should possess in order to be a part of this study. All participants to this study were based at the SOKA Men's Clinic in Ugu and healthcare workers who are actively involved in the VMMC programme on a day-to-day basis.

4.12.2 Exclusion criteria

The exclusion criteria of this study highlight the characteristics that would disqualify a possible participant from being considered a part of the study. This included healthcare workers who are within the VMMC programme for Jhpiego, but who are not based at the SOKA Men's Clinic in Ugu District. Further, healthcare workers who are not part of the VMMC programme, but who are based at the clinic in Ugu, were not considered for this research. These exclusions assisted in ensuring the close alignment with the research objectives of the study.

4.13 ETHICAL CONSIDERATIONS

Ethics constitutes a set of moral principles developed by individuals or groups and widely recognised, providing guidelines and behavioural expectations for appropriate conduct towards various stakeholders involved in the research process. These principles pertain to interactions with respondents, employers, sponsors, fellow researchers, assistants, and participants (De Vos *et al.*, 2011: 114).

Maintaining strong ethical awareness is essential in all aspects of research design (Maxwell, 2013: 7). Ethical conduct is critical, addressing issues like plagiarism and honesty in reporting throughout the study (Welman, Kruger, & Mitchell, 2005: 181). The researcher emphasised objectivity in recording, collecting, and storing data, ensuring confidentiality and anonymity of interviewees throughout the process. Data collection was conducted neutrally, without disclosing any personal or confidential information from the department.

Prior to commencing the study, ethical clearance was obtained from the University of KwaZulu-Natal Research Office. Respondents received letters of informed consent, and their confidentiality was protected by not revealing personal details or confidential information. The research adhered to ethical standards, treating participants with respect and fairness, and ensuring no harm came to any participant. Participants were assured that their notes would remain confidential and their identities undisclosed. They were informed that there would be no direct compensation for participating in the

research but that their contributions would significantly contribute to the generation of knowledge.

4.14 CONFIDENTIALITY ELEMENT

In safeguarding the confidentiality of participants, the researcher eliminated personal information from transcriptions of in-depth interviews while documenting the findings. Each participant was identified by a numerical code to uphold privacy. Subsequently, all data was stored on a secure, password-protected laptop with exclusive access granted to the researcher and the academic supervisor. This measure aimed to prevent unauthorised entry into the research findings. Furthermore, a back-up of all data was maintained on an external hard drive to mitigate the risk of data loss.

4.15 TRUSTWORTHINESS

In the realm of research ethics, qualitative researchers are obligated to uphold trustworthiness in their research endeavours. To enhance the credibility of our findings, it was incumbent on the researcher to take the necessary measures to ensure that participants were made to feel comfortable during interviews. Additionally, the research applied triangulation by gathering responses from diverse sources to uncover subtleties in experiences and perceptions. The researcher utilised triangulation during the study and multiple data sources were consolidated and therefore this approach increased the credibility and validity of the findings identified from the participant responses (Natow, 2020). To address concerns of transferability, careful consideration was given to the selection of the sample. While the scope of the study was confined to meet degree requirements, the researcher employed detailed descriptions of the findings to address questions regarding transferability. Recognising the potential for personal bias, steps were taken from the tool design through analysis to secure the confirmability of the results. The supervisor's double-coding of transcripts was also employed to assess the study's dependability.

4.16 RESEARCH ETHICS

In accordance with the University's research policy, ethical clearance through the Protocol Number: HSSREC/00006013/2023 was secured from the University's Humanities and Social Sciences Research Ethics (HSSREC) committee, together with a gatekeeper letter from the relevant organisation granting permission to access the clinic and resources within the Department of Health. To ensure ethical compliance, all participants were provided with a consent form that clearly outlined the purpose and requirements of the study. The process emphasised that participation was voluntary and anonymous.

The consent form stated that participants could withdraw from the study at any time if they chose to do so, and that they were not obligated to answer any questions that they felt made them uncomfortable. Participants were assured that the notes taken during the research would be kept confidential and would not reveal their identities. It was made clear that there would be no direct compensation for participation to participants. Participants were also informed of the valuable contributions their participation would make to the generation of new knowledge to address and improve the VMMC programme in particular, and public health service delivery in general. Consequently, the researcher encountered no difficulties in the data collection process despite the sensitivity of the research topic.

4.16.1 Gatekeeper's Permission

The researcher obtained the appropriate consent from the Country Director of Jhpiego, based in the South Africa country office. This consent was received via a gatekeeper's letter of permission for access to information relating to the research study. Literature from scholarly works was used to support the findings of the qualitative study, and such information was deemed to be from public domains.

The research findings and recommendations could be implemented to enhance the effectiveness of the HIV healthcare services provided in the SOKA Men's Clinic in Ugu District and is considered one of the fundamental aspects of public administration in the South African context.

4.17 IMPACT OF THE STUDY ON PUBLIC HEALTHCARE SERVICE DELIVERY

The VMMC programme has been identified as a key HIV prevention strategy deployed by the national department of health through VMMC policy implementation. Public and community-based healthcare facilities ensure a more vigorous implementation of VMMC as a key component of the comprehensive HIV package provided by public health.

The value of this study as a core model for HIV services deployed in the Ugu District is explored further in the following chapters, where relevant themes of the study are discussed and findings emanating from the participant responses are integrated into the discussion.

4.18 CONCLUSION

In this chapter, the comprehensive research design and methodology employed to investigate the assessment of healthcare workers' attitudes and perceptions towards VMMC in the Ugu District, KZN, were discussed. The researcher focused on the methodological aspects of the research study, systematically detailing the research approach and emphasising the key objectives and primary research questions. This process was initiated by delineating the research design, specifically the qualitative approach, which was considered most suitable for addressing the research questions. This approach facilitated in-depth exploration and understanding of the complex attitudes and perceptions of healthcare workers, allowing for rich, contextual insights through fieldwork in the study setting.

Additionally, the chapter outlined the sampling strategies, data collection methods, and data analysis techniques employed. Purposive sampling was utilised to select participants who could provide relevant and diverse perspectives on VMMC. Data collection involved semi-structured interviews and field observations, enabling the researcher to gather comprehensive and nuanced data. Thematic analysis was applied to identify and interpret patterns within the data, ensuring a thorough

examination of the research questions. The ethical considerations undertaken in this study were also detailed, including obtaining informed consent, ensuring confidentiality, and addressing potential biases. The researcher's reflexivity and transparency in documenting the research process further contributed to the study's rigour.

Overall, the detailed account of the research design and methodology provides a solid foundation for the subsequent analysis and discussion chapter. The chosen methods and approaches were carefully selected to ensure that the integrity and rigour of the study were maintained, thereby enhancing the credibility and applicability of the research outcomes. This robust methodological framework supports the study's aim to contribute valuable insights into healthcare workers' attitudes and perceptions towards VMMC, informing future interventions and policy decisions in the region.

CHAPTER FIVE:

RESEARCH FINDINGS, PRESENTATION AND ANALYSIS

5.1 INTRODUCTION

This chapter highlights the results and findings from the interviews conducted with healthcare workers (i.e. participants). The chapter outlines and presents the findings from the empirical component of the research conducted at the men's clinic.

When a qualitative inquiry is deployed by research, it is to ensure that the presentation of findings is done in a systematic and comprehensive manner (Ndzinisa, 2017; Merriam & Tisdell, 2015). The essence of qualitative research hinges on the manner in which people understand and perceive the world around them (Holloway and Galvin, 2016). Additionally, in a qualitative research study, there are copious amounts of usable data that are generated (Miles *et al.*, 2013). When analysing and interpreting the data, the process followed is to identify, explore and explain the themes and patterns in the extracted data, and then determine how the emerging themes answer the research questions put forth by the researcher (Ritchie *et al.*, 2013).

Findings in this chapter are presented thematically; the researcher was guided by the Health Belief Model (HBM) framework, as the constructs of this integral model address the research questions. Therefore, the themes focused specifically on issues of perceived risk, perceived barriers, perceived susceptibility, perceived severity, perceived benefits, and cues to action. The focus on individuals is important to this study because it is critical to understand the factors that influence the perceptions and attitudes of healthcare workers towards VMMC.

According to Miller, Wojcik, Ramirez & Ritt-Olsen (2017:358), the factors that influence self-efficacy are crucial for these individuals who seek to undergo VMMC, as they take the step towards HIV prevention. Self-efficacy in this context refers to the survivors' confidence in their ability to manage their own health and navigate the healthcare system effectively. An individual's confidence in their ability to engage in preventive

behaviours can significantly influence their willingness to adopt healthy practices, adhere to medical recommendations, and make informed lifestyle choices that reduce the risk of illness and enhance overall well-being. In the context of the HBM, individuals are more likely to adopt health behaviours when they perceive themselves as capable of successfully implementing them. Perceived susceptibility in this study refers to healthcare workers' perceptions of VMMC and its effectiveness in reducing HIV infection risks amongst men.

5.2 RESEARCH DISCUSSION

This section presents the research discussion from the interviews that were administered with participants who are healthcare workers, routinely involved in the programmatic implementation of VMMC, and based at the Soka Men's Clinic in Ugu District.

In an effort to structure the study, background information was sourced from participants and the responses are detailed in this chapter.

5.2.1 Description of sample

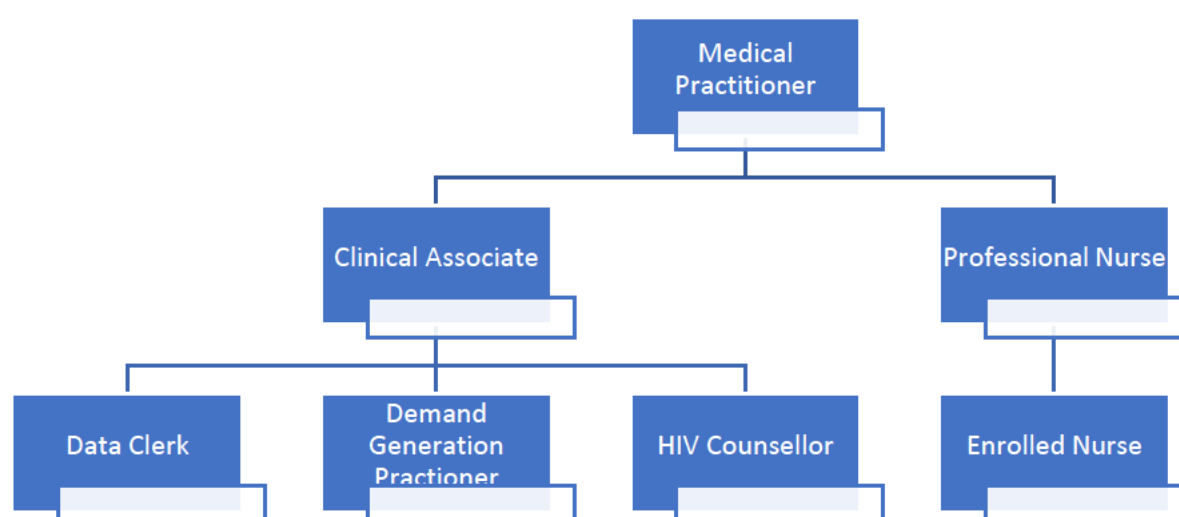
The sample comprised of participants who were part of the inclusive criteria in the study, namely, the healthcare workers (i.e. clinical and non-clinical) based at the district clinic. These healthcare workers were provided interview questions in order to participate in the study. The healthcare workers who participated in the study were directly and actively involved in providing and engaging in VMMC services, under the category of HIV prevention services funded by PEPFAR, working with the Department of Health; hence their participation was based on their lived experiences relating to the research.

In South Africa, healthcare workers are the key focal persons within a public health facility, and inherently play a pivotal role in advocating for, performing, and educating the community about VMMC. It stands to reason then, that the perception of a healthcare worker towards VMMC can significantly influence the uptake and

effectiveness of the programme within a community. Positive perceptions may often be linked to comprehensive VMMC training undertaken by the professional, ongoing and sustained support from health system strengthening and observed community health benefits. Equally, negative attitudes may stem from inadequate public health resources, lack of adequate VMMC training, and the challenges of addressing misconceptions within the community, especially without the healthcare worker having access to information and educational material on the often-sensitive topic of VMMC.

The figure that follows illustrates the structure of the healthcare workers who are assigned to the VMMC implementation unit at SOKA Men's Clinic.

Figure 5.1: Current healthcare structure under VMMC Programme at SOKA Men's Clinic



Source: Author's perspective, 2024.

Figure 5.1 illustrates the organisational structure speaks to the link between the healthcare workers at the clinic and their respective service delivery components that converge to provide the comprehensive VMMC services to clients.

5.2.2 Demographic profile

The study was performed on the sample of healthcare workers involved in performing VMMC services at the SOKA Men's Clinic in Ugu District. Distribution of respondents

from the urban area was 80% and from the rural area, 20%. These results show that people from the urban areas are in the majority of healthcare workers at the facility that are responsible for performing VMMC services. The rationale for this could be the fact that the clinic is based in the urban area of Port Shepstone known as Ugu, and generally, the personnel employed come from in and around the local community and surrounding area. Additionally, the fact that the majority of the healthcare workers are from urban areas, could affect their attitudes and perceptions towards the VMMC programme.

Majority of the respondents (68.5%) had a secondary education which indicated a high rate of literacy. Education provides people with knowledge and skills that can lead to a better quality of life. The fact that the level of education was high amongst the respondents, suggests that VMMC implementers should utilise this as an advantage and focus on health education campaigns to promote the practice of VMMC in the local communities. This is supported by Castro *et al.* (2010: 368), who state that knowledge and support are beneficial in dealing with issues relating to circumcision.

5.2.3 Knowledge on voluntary circumcision amongst males

At least 88% of the respondents had knowledge that having unprotected sex with circumcised men will not prevent women from contracting HIV. A significant portion of the respondents demonstrated a solid understanding that VMMC does not offer complete protection against HIV for uninfected men. They were also aware that non-adherence to regular condom compliance could result in HIV infection. In accordance with Rennie, Perry, Corneli & Chilungo (2015:679), participants understood that circumcision provides only partial protection against HIV, thus indicating knowledge and conscientisation on the associated risks. Similarly, participants reported that they had undergone VMMC for HIV prevention reasons but were aware that consistent condom compliance is essential as part of the comprehensive HIV prevention healthcare package. These findings align with the HBM, illustrating that individuals who recognise the limitations of circumcision are more likely to adopt a comprehensive HIV protection outlook, making the use of the HBM relevant for this study.

No less than 70% of the respondents possessed knowledge that women are more likely to get HIV from men who are uncircumcised than from those that are in fact circumcised, thereby placing women at risk and ultimately creating a huge burden on public health service delivery.

A significant portion of respondents perceived VMMC as very important in curbing the acquisition of HIV virus. They also perceived medical reasons to be the most common reasons as to why people underwent VMMC. Religious, traditional and cultural leadership were found to be very important factors that contribute to delivering information on VMMC amongst men in the community, thereby enhancing public health service delivery.

Healthcare workers' perceptions of VMMC were mostly positive and encouraging; these participants perceived VMMC to be a key HIV/AIDS prevention strategy. They exhibited a belief that effective implementation, strong policy roll-out and ensuring that VMMC remains a key component of the comprehensive HIV services provided by public health, would considerably assist in the reduction of the HIV infection rate in South Africa; they also noted this to be a national phenomenon currently in the health sector.

5.2.4 Triggers for behavioural response

Regional countries have integrated VMMC into their health ministry HIV prevention strategies that are deployed into the public health environment to ensure that these strategies are comprehensive and effective in combating the epidemic. Increased awareness of the protective effects of male circumcision has led to greater acceptance, particularly amongst communities that do not traditionally practice circumcision. However, challenges persist in effectively disseminating information to the public. The study's results indicated that the most common motivating factor for VMMC, as cited by 82% of respondents, was health posters about circumcision. It can be said that this aligns with Osamor and Owumi's viewpoint (2011: 16), that social networks play a crucial role in motivating individuals to undergo VMMC.

Attitudes and perceptions of healthcare workers toward VMMC were predominantly positive and aligned with the standards set by the WHO and clinical practice guidelines, including aspects of safety, benefits and educational outreach. Nonetheless, a minority of the responses (10%) highlighted negative perceptions influenced by misconceptions and the socio-cultural backgrounds of the respondents, as was revealed by the scores of interviews.

Critical issues identified in the recommendations for VMMC practice and policy include concerns about potential sexual disinhibition. This concern arises from the possibility that circumcision might create a false sense of security, leading to risky behaviours which could have a negative and adverse effect on society at large. The study's findings underscore that VMMC is a safe procedure when performed by trained professionals in a medical setting as opposed to other attempts to avoid the formal medical route. This phenomenon has been evidentially highlighted in and through this primary study.

5.3 BARRIERS TO VMMC IMPLEMENTATION IN SOKA MEN'S CLINIC

5.3.1 Current age restrictions imposed by PEPFAR for boys undergoing VMMC

Participants indicated that the current PEPFAR age restrictions implemented in order to only allow boys older than 15 years old to undergo VMMC through a PEPFAR-funded VMMC programme. This policy aims to ensure that individuals undergoing the procedure are mature enough to provide informed consent and are at an appropriate developmental stage for both the procedure and post-operative care. This is seen as a significant barrier to VMMC implementation in communities, as the previous age restriction was 10 years old.

Peck, Ong, Lucas & Thomas (2023:69) noted that while the PEPFAR-funded VMMC programme aims to reduce HIV transmission amongst adolescent boys and young men in high-burden regions of Sub-Saharan Africa, the age restrictions that have been implemented by the current PEPFAR regulations have negatively influenced the programme's scalability, operational challenges, and strategies to increase uptake and

sustainability. It emphasises the importance of community engagement and education on the new PEPFAR regulations relating only to boys over 15 years who can undergo VMMC through a PEPFAR-funded programme. The integration of VMMC with other HIV prevention and health services is key to future sustainability.

One participant (P1) said:

“Client age restrictions to undergo VMMC, that have been implemented and imposed by PEPFAR.”

Participants indicated the possible need for PEPFAR to review this current regulation as it is damaging the long-term sustainability of the programme and also decreasing demand generation within communities where PEPFAR-funded VMMC programmes currently operate.

5.3.2 Service delivery complexities within healthcare facilities

What some of the participants indicated that the manner in which HIV prevention, especially VMMC service delivery within public healthcare facilities are set up, may contribute to being a barrier to VMMC implementation.

Another participant (P2) highlighted:

“Lack of integration of services as part of men’s health services, often leading to fear and anxiety amongst older men.”

The introductory engagements with participants, while observing at SOKA Men’s Clinic, included some general questions and observations about the possible fear and anxiety of men towards undertaking VMMC. As outlined in this chapter, participants’ responses included the issue of the lack of integration of VMMC service as part of the comprehensive men’s health service. Often, within a public healthcare environment, VMMC is seen as its own stand-alone elective procedure that could be undertaken. This highlighted the widespread challenges that plague the current VMMC programmes, including the lack of sustained commitment by political and administrative leadership within the department (Bershteyn, Mudimu, Platais & Mwalili, 2022:529).

A further participant (P3) indicated:

“Lack of segregation of young men and older men at clinics when they are electing to undergo VMMC procedure.”

Bershteyn, Mudumi, Platais & Mwalili (2022:532) illustrate the infrastructural challenges at public healthcare facilities, where younger boys and older men are made to sit together while waiting for VMMC procedures to be undertaken. It is emphasised that while VMMC offers significant public health benefits to the community, overcoming these challenges and long-term financial commitment is key to improvement in this aspect. Law and Wright (2022:2) describe surgical waiting time as the interval commencing from the moment a clinical decision is made to treat a patient, extending to the completion of the surgery. The norm of having younger boys and older men sit together while awaiting VMMC services in public healthcare facilities contributes to hesitancy amongst older men and is seen as a direct barrier to VMMC implementation. Men view their time are constrained, and therefore may not appreciate sitting in a waiting room with younger boys, while waiting for their VMMC procedure.

Participants indicated that a current barrier to the uptake in implementation for VMMC, especially amongst men who are not fully aware of the benefits thereof, is that the programme is currently treated as a stand-alone health matter, as opposed to the significance of VMMC as a prevention strategy. It should be consolidated as a fundamental component of the HIV health package.

Responses from another participant (P4) highlighted the concern of the Department of Health:

“Department of Health [is] treating VMMC as a stand-alone health matter and not considering it as a key part of the HIV health package.”

The WHO 2016 report emphasised the need for integrating VMMC with broader HIV health services, such as sexual and reproductive health initiatives. It should therefore, be seen as an entry point for adolescent boys and men to access essential health services at public healthcare facilities. This will constitute a multi-faceted approach which would ensure continuous and comprehensive health strategies for all communities.

Public healthcare facilities are overburdened and this often leads to service delivery being silo-ed in certain aspects due to time, resource and funding constraints. Healthcare facilities which fall under the public sector experience significant shortages of resources and under-funding for auxiliary healthcare procedures, which make the sector a national concern in the South African context. Healthcare facilities within the public sector face significant shortages of essential resources. Chronic underfunding exacerbates these shortages, particularly auxiliary healthcare procedures. These limitations hinder the ability to provide comprehensive care, ultimately impacting patient outcomes and increasing the burden on the healthcare system.

Steffen & Mustak (2022:199) explain that existing constraints in the public healthcare sector were further burdened by the onslaught of COVID-19, and this has extended backlogs and bottlenecks amongst healthcare procedures.

5.3.3 HIV testing for males during VMMC procedures

During the pre-operation period, it is necessary through the VMMC policy for a male to be tested for HIV. However, participants indicated that this could possibly be a barrier to VMMC implementation as not all males would like to have mandatory HIV testing as a pre-operation requirement before undergoing VMMC.

Responses from another participant (P4) highlighted the following:

“Conducting HIV testing on males who undergo VMMC, although it is not compulsory. Clients may feel compelled which makes them uncomfortable.”

The integration of HIV testing into VMMC service healthcare package does increase the rate of HIV testing, especially amongst males. However, barriers that challenge this initiative are the lack of awareness, stigma attached to HIV testing and limited healthcare accessibility. There are also behaviour factors that influence an older male from wanting to voluntarily take an HIV test before undergoing an elective VMMC procedure (Kikaya, Skolnik, Garcia & Asheng, 2014:2).

5.4 HIGH LEVEL DISCUSSION OF FUNDINGS

Since 1994, South Africa has significantly reformed its healthcare system to enhance quality of life and address the inequities of the apartheid era. Equitable health service delivery, however, remains hampered by the uneven distribution of services, primarily due to a fragmented public administrative system within the health sector, sub-optimal resource allocation, and inadequate infrastructure.

Research assessing healthcare workers' perceptions and attitudes toward VMMC reveals a range of concerns that varies amongst individuals and different levels of healthcare professionals. The predominant view is that VMMC is crucial to the HIV prevention efforts in South Africa. The literature indicates that VMMC is expanding and gaining priority across many African countries.

The persistent shortage of resources, alongside the growing demand for health services, continues to pose significant challenges. These factors exacerbate the barriers to the uptake and sustainability of the VMMC programme in South Africa and warrants attention with immediacy.

5.5 CONCLUSION

The analysis in this chapter of the study's findings, is derived from the themes identified during data collection, namely, the knowledge, attitudes and perceptions of healthcare workers towards VMMC. The discussion was expanded by the responses from participants and supported by references to scholarly literature relevant to HIV/AIDS and VMMC, in order to corroborate the primary data from key empirical findings. As a result of the research undertaken, a new and deeper understanding of the subject matter and research area has been gained, thereby offering a novel contribution.

Each theme was explored in depth, with direct quotations from participants to illustrate their perspectives and provide authenticity to the findings. The analysis also highlighted discrepancies and diverse opinions among healthcare workers, offering a

nuanced understanding of the complexities involved in their attitudes and perceptions towards VMMC.

Moreover, the chapter discussed the implications of these findings for practice, policy, and further research. The insights gained from the analysis provided valuable recommendations for enhancing VMMC programmes, such as the need for targeted training for healthcare workers, increased community engagement, and addressing logistical barriers.

The enhanced views emerging from the research could be proposed to the national Department of Health as potential solutions to the barriers in VMMC implementation within the public healthcare service delivery landscape. Additionally, these insights could address ongoing policy implementation issues affecting public health facilities in both urban and rural areas of KZN. This chapter, therefore, not only presents a thorough analysis of the findings but also suggests practical recommendations for improving VMMC programmes, contributing to more effective HIV prevention strategies in the region.

CHAPTER SIX: RECOMMENDATIONS AND CONCLUSION

6.1 INTRODUCTION

The aim of the study was to ascertain the attitudes and perceptions of healthcare workers towards Voluntary Medical Male Circumcision (VMMC). This chapter provides the findings on the key research questions and offers general conclusions and recommendations with regard to the objectives of the study. In addition, the chapter offers suggestions for future research and ends with a brief conclusion.

6.2 SUMMARY OF FINDINGS OF THE STUDY

A discussion of how each of the research objectives was met through the study that was undertaken, is presented in this chapter.

6.2.1 Research Objective One: Ascertain how the implementation of the policy on voluntary medical male circumcision is being implemented at SOKA Men's Clinic in Ugu District

Findings related to this research objective indicate that the VMMC policy implementation at the SOKA Men's Clinic in Ugu District is being conducted by healthcare workers with substantial experience in VMMC. Data obtained from the interview questions underscore the policy directive that VMMC is an effective, scientifically-proven method for reducing the risk of HIV transmission in men. The findings also show that healthcare workers at SOKA Men's Clinic are well aware of the benefits associated with VMMC. The roles of healthcare workers in guiding clients through the VMMC process are clearly defined within their respective healthcare portfolios and are executed in accordance with the VMMC policy and guidelines set forth by the DoH and WHO.

In addition to the healthcare workers' awareness and adherence to VMMC policy guidelines, the study reveals a robust clinical support system and infrastructure at the SOKA Men's Clinic, which facilitates the smooth execution of the VMMC policy. Moreover, continuous training and professional development opportunities are provided to healthcare workers to keep them updated on the latest practices and protocols in VMMC. This commitment to professional growth ensures that the healthcare workers are well-prepared to address any complications or concerns that may arise during the procedure, thereby enhancing the overall effectiveness of the VMMC programme. The collaborative efforts between the healthcare workers and the Department of Health further solidify the programme's foundation, ensuring a comprehensive approach to HIV prevention in the Ugu District.

It was noted during the study that communication does play a significant role relating to the implementation of VMMC policy. Healthcare workers who are directly involved in VMMC implementation at public health facilities should, however, be adequately informed of changes in policy, and how these changes in policy could ostensibly affect public health service delivery.

In accordance with the research study findings, it is apparent that there are sound structures in place within the SOKA Men's Clinic that ensures the effective implementation of VMMC policy. Participants asserted that VMMC would aid in the prevention of HIV, improve personal hygiene and substantially reduce the risk of HIV transmission for circumcised males.

What was emphasised by participants in the research, is that circumcised men could still contract HIV if they are negligent with infected women and hence, post-VMMC counselling must be provided to clients to encourage continuous responsible behaviour.

Based on the responses received from participants, several key discussion points can be sourced from the interviews related to VMMC policy implementation to enhance the perceptions and attitudes of healthcare workers towards VMMC. These responses are deemed significant for the SOKA Men's Clinic and are highlighted as follows:

- National and Provincial Departments of Health should prioritise and enhance VMMC training materials and resources. Through such efforts, they would ensure that comprehensive VMMC training programmes are provided for healthcare workers to equip the medical professionals with the necessary skills and knowledge to promote and perform VMMC in a safe and effective manner.
- Within policy documents issued by the Department of Health both nationally and provincially, there should be an element of cultural sensitivity. This would seek to ensure the integration of both cultural and traditional practices with medical circumcision to increase acceptance in communities where traditional circumcision is common, and has been largely practised.
- Ongoing distribution of information and educational campaign material by the Department of Health and non-governmental healthcare organisations should ensure the consistent implementation of targeted educational campaigns to dispel myths and misconceptions about VMMC, and at the same time highlight the health benefits thereto.
- To ensure the sustainability of VMMC in communities, there needs to be sustained community involvement. Ensuring that community leaders and traditional practitioners are engaged during the process in order to aid in the promotion of VMMC to foster community support and acceptance, is another fundamental aspect for due consideration.
- Participants commented that most of them are aware of and have knowledge of the VMMC policy that is utilised in respect to public health service delivery implementation.

6.2.2 Research Objective Two: Ascertain the healthcare workers perceptions and attitudes towards voluntary medical male circumcision

Findings stem from the responses provided relating to the perceptions and attitudes of healthcare workers towards VMMC. The responses outlined by the healthcare workers attitudes and perceptions towards VMMC were revealed in the discussions held with them.

Most participants agreed that VMMC would cause pain to the client when the procedure is performed and during the post-operation period. However, participants strongly disagreed that undergoing VMMC could prevent a male from potentially having children. Through additional analysis, it was determined that the majority of participants disagreed strongly that undergoing circumcision could contribute to male dysfunctionality, have a diminishing effect when males are circumcised, and that circumcision is only intended for younger males.

Table 6.1: Attitudes of Healthcare Workers towards VMMC

Participant responses relating to HCW Attitudes of VMMC					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Medical male circumcision is something all males should have done				7	15
It is good for children to be circumcised			2	6	14
Married men should not be circumcised	19	3			
As a health care worker, would you recommend VMMC?				3	19
As a health care worker would you motivate males to undergo VMMC?				3	19

Reflecting on the participants' responses relating to the healthcare workers' attitudes towards VMMC, it was identified that the majority of participants strongly agreed that VMMC is a healthcare initiative that all males should undergo, with the notion that it is good for children to be circumcised. It was also clear that participants agreed that healthcare workers should recommend VMMC to male clients and healthcare workers should motivate males to undergo VMMC.

A significant portion of the participants indicated that they disagreed strongly that married men should not be circumcised. All participants in the study suggested that

they had positive attitudes and perceptions of VMMC. Responses received from the interviews indicated that the majority of healthcare workers recognised the significant and critical role of VMMC in reducing HIV transmission. The study findings suggest that participants believed VMMC to be a procedure that men should undergo, and this included married men as well.

This is consistent with the overwhelming clinical and research evidence supporting VMMC as a partial protective measure against HIV infection (Westercamp & Bailey, 2007; Jimmyns *et al.*, 2013). Healthcare workers acknowledged the reduction in HIV risk by up to 60% amongst circumcised men, which has also been validated through randomised controlled trials in Africa (Auvert *et al.*, 2006; Bailey *et al.*, 2007; Gray *et al.*, 2007).

Participants in this study strongly agreed that younger males should undergo VMMC, and that undergoing this procedure did not diminish a male's ability to have children. Healthcare workers viewed it as a crucial intervention within the broader context of HIV prevention programmes. They also recognised the comprehensive nature of the VMMC package, which includes HIV counselling and testing, promotion of condom compliance, and behavioural change counselling (DoH, 2012; Pillay, 2016). This holistic approach was seen as beneficial in health promotion and addressing multiple facets of HIV prevention beyond the surgical procedure.

6.2.3 Research Objective Three: Explore the ability of voluntary medical male circumcision to be considered a cultural aspect that helps in diminishing the risk of HIV/AIDS

Under this objective, participants responded that the National Department of Health should include community-based groups and civil society to ensure that traditional African beliefs are incorporated into the HIV/AIDS prevention strategies as an important consideration.

Traditional circumcision and the belief system engraved in this practice holds deep cultural significance in various South African communities, symbolising the transition

from boyhood to manhood. This cultural importance often leads to a preference for traditional circumcision over VMMC, despite the inherent health risks involved with such procedures. These risks, including dehydration, infections and surgical complications are exacerbated by inadequate training of traditional surgeons and the isolated nature of initiation schools where traditional circumcision is performed (Douglas, Maluleke, Manyapelo & Pinkey-Atkinson, 2018); It is a growing concern in several communities and government.

Circumcision has deep-rooted cultural and traditional significance in many communities within sub-Saharan Africa. In a research report by Siyamkela (2003:13), 10 % of the participants had mentioned the perception of HIV as an African disease, as well as the apparent apathy in other communities, especially the white community. The researcher is of the view that traditional male circumcision has a significant impact to play in the country's response to the HIV/AIDS epidemic as a prevention strategy and one which also significantly consolidates traditional and cultural aspects.

The participant responses indicate that the potential to integrate VMMC with traditional circumcision practices is promising. The process of integrating male circumcision into cultural rites of passage can enhance its acceptance within the traditional elements of society and uptake amongst communities, especially in rural communities, where traditional circumcision is prevalent and remains widely practised as a form of initiation of a boy into manhood.

This integration requires comprehensive collaboration with traditional leaders and practitioners, and at early stages in the engagement process, to ensure that medical circumcision is seen as a complementing practice rather than replacing traditional practices that have been maintained for many years. With many of these cultural practices being passed down from generation to generation, the importance of the traditional aspect amongst these rural communities cannot be ignored. It stands to reason then, that efforts to involve traditional practitioners and align VMMC with cultural values can facilitate broader and more inclusive community engagement and support (Meissner & David, 2007).

6.2.4 Research Objective Four: Investigate the healthcare barriers that are associated with medical male circumcision that prevents males from undertaking the procedure voluntarily

It was noted during the study that 70% of the participants highlighted that there are perceived barriers that are present that prevent males from undertaking the VMMC procedure voluntarily.

According to the HBM, perceived barriers or obstacles to a recommended course of action are important factors in determining change in behaviour (Janz & Becker, 1984).

A comprehensive investigation into the barriers perceived by healthcare workers that deter males from voluntarily undergoing VMMC is essential. This investigation should consider factors such as cultural beliefs, misconceptions about the procedure, fears related to pain and recovery and concerns about sexual performance and social stigma. By systematically identifying and analysing these barriers through qualitative and quantitative research methods, one can develop informed and targeted interventions. The incorporation of these insights into public health strategies is critical for enhancing the acceptance and uptake of VMMC.

In aligning the research findings, participants brought to attention the various perceived barriers that are associated with VMMC that prevent males from undertaking the procedure voluntarily. It is critical to note that within the public health environment, such barriers, highlighted by the participants are investigated, and that remedial actions should be put in place to assist in mitigating the challenges which could prevent males from undertaking VMMC voluntarily.

This is one of the key aspects that the Department of Health in general, and the primary healthcare facilities in larger urban areas such as clinics in eThekweni and Msunduzi in particular, should consider in order to ensure good governance practice in health service delivery. Good governance in health service delivery is multi-faceted, encompassing several critical dimensions such as confidentiality, privacy, efficiency, equity and responsiveness. Each of these elements should be integrated into the

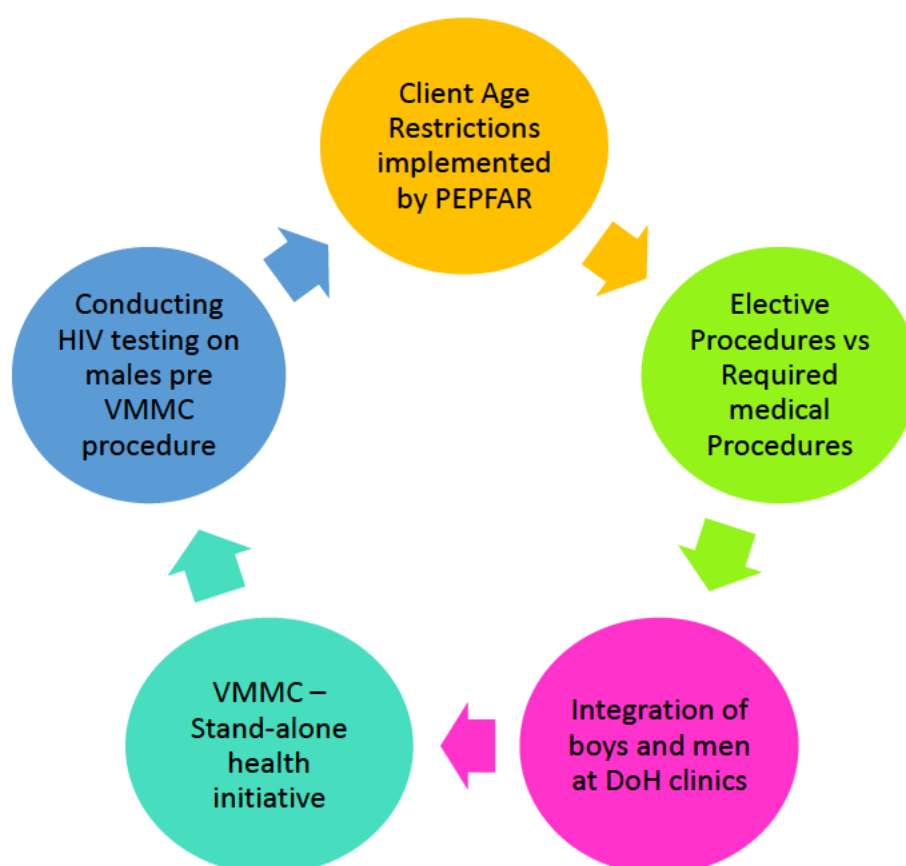
operational frameworks of the health department and individual clinics to ensure that health services meet the targeted needs of the population as effectively as possible.

Fundamental to democracy is the right to healthcare for all, hence VMMC services must be accessible to all segments of the population, regardless of socioeconomic status, geographic location or other barriers. In addition to this, healthcare service delivery should be efficiently managed to ensure maximisation of the limited resources within the public healthcare landscape.

Due to the semi-rural nature of Ugu District, participants had identified the availability and accessibility of VMMC services as a critical barrier to accessing VMMC services. In many regions, especially rural areas, healthcare facilities offering VMMC may be scarce, and the distance to these facilities can be seen as prohibitive. In semi-rural and rural areas, healthcare facilities are often sparsely distributed. This means that individuals seeking VMMC services may have to travel long distances to reach the nearest clinic or hospital offering these services. This geographical barrier can deter many from undergoing the procedure, especially in communities where transportation options are limited or costly (UNAIDS, 2016).

Participants identified that a lack of integration of services is a possible barrier. It should therefore be emphasised that there is a consistent need for comprehensive VMMC information and education campaigns that provide clear and accurate information to ensure that fear and anxiety are reduced amongst eligible men, and the role of VMMC in HIV prevention. Figure 6.1 illustrates the common barriers identified by participants, which are associated with VMMC and are perceived to prevent males from undertaking the voluntary procedure.

Figure 6.1: Cyclic recurrence of barriers affecting VMMC implementation



Source: Author's perspective, 2024.

Figure 6.1 links the common barriers that have been identified in the research study as possible challenges to the uptake of VMMC in healthcare facilities in Ugu District, KwaZulu-Natal. These barriers are outlined in Chapter Five, through the participant responses received. It is these barriers that lead to the several cross-cutting recommendations put forward in the study.

6.3 CROSS-CUTTING RECOMMENDATIONS

These recommendations aim to enhance the effectiveness of VMMC as an HIV prevention strategy, and to address any identified gaps in the current implementation process. By providing targeted actions and strategic improvements, this section of the final chapter seeks to contribute to the ongoing efforts of healthcare providers, policymakers, and stakeholders in reducing HIV transmission rates through the effective deployment of VMMC programmes. The recommendations are intended to serve as a guide for future policy interventions, ensuring that VMMC services are not

only accessible and safe, but also sustainable and responsive to the health needs of the community.

6.3.1 Communication is key for VMMC

Given that communication via social media, press and media are significant components of public health, these can be utilised as key avenues for engagement with communities and target populations for HIV prevention awareness campaigns. It is recommended that the Ministry of Health enforces extensive mass campaigns that include the provision of information and enhance the use of various communication approaches.

In accordance with Mphepo, Muula, Suzi, Phuka & Mfutso (2023), WHO has advised that in order to create demand for VMMC in the communities, communication interventions are integral. These key interventions should include continuous clear messages of delivery on VMMC and that health promotion is fundamental. It is essential to ensure the dissemination of accurate and factual information highlighting the health benefits of VMMC in HIV prevention.

It is further recommended that health education campaigns and more structured programmes of health promotion on the benefits of VMMC are enforced and echoed during community healthcare facility mobilisation. These structured programmes can be conducted at the clinics, churches and workplaces. Health facilities should be prepared to accommodate and scale up on consideration of circumcision of male children. The involvement of traditional healers to ensure the adoption of VMMC procedure should be enhanced. It must be emphasised that healthcare workers are critical to the interface between the public and public healthcare initiatives (Boros, 2010).

Communication between departments is also critical in that the DoH should engage with the Department of Education in an intergovernmental relationship with initiatives to facilitate HIV awareness campaigns at primary and secondary school levels.

6.3.2 Continuous training of healthcare workers

Extensive training of healthcare personnel who perform VMMC is crucial in ensuring that safety is maintained and risks related to the MMC procedure are minimised. This would in effect reduce barriers to circumcision and enhance acceptability for improved health outcomes in this context.

Participants indicated that there is a need to close the gap on limitations with current VMMC training. Primary sources of information acknowledged by respondents was lacking and is the educational component necessary for effectively disseminating knowledge about VMMC, including its associated benefits and risks. Tobain, Dam, Lith & Marcell (2018), noted that the lack of training of healthcare workers poses a significant risk to the public healthcare environment and patient safety. This means that healthcare workers are not able to adequately influence and create demand for VMMC at the healthcare facility level due to lack of training. Evidence from participant responses demonstrate the need for extensive and ongoing training, so that healthcare workers are adequately trained on updates in VMMC policy implementation and the alignment of objectives contained in the policy that enhance and improve public healthcare service delivery.

6.3.3 Older men and young boys undertaking VMMC at clinic level

The DoH (at both national and provincial level) must also address barriers to accessing VMMC services at healthcare facilities, and in particular, the provision of accurate HIV-related information and counselling relating to VMMC, risks associated with the procedure, maintaining client confidentiality and follow-up assessments post procedure.

Participants noted that to increase demand for VMMC amongst older men, qualitative studies should be conducted to obtain more detailed information on factors that could encourage more men to be circumcised and explore the current barriers that prevent men from undergoing VMMC in public healthcare facilities.

6.4 AREAS FOR POSSIBLE FUTURE RESEARCH

Future research on healthcare workers' attitudes and perceptions in Ugu District, KZN should explore the long-term impact of interventions, factors influencing attitudes, policy changes, workplace environment, patient interaction, cultural influences, and burnout. Longitudinal studies are essential to capture the dynamic nature of these attitudes, track changes in response to interventions and identify causal relationships. This approach could provide a deeper understanding of how various factors, including socio-economic background, education, policy shifts, and workplace conditions, shape healthcare workers' perceptions over time.

Longitudinal research can evaluate the sustainability of interventions, such as training programmes or policy changes, by monitoring their long-term effects on attitudes and practices. A mixed methodology would also allow for the identification of contextual influences, such as cultural attitudes and systemic changes that impact healthcare workers. By providing insights into the evolving needs and challenges faced by healthcare workers, longitudinal studies can inform more effective and sustainable healthcare policies and practices, ultimately improving healthcare delivery and patient outcomes in the region.

6.5 CONCLUDING REMARKS

Public healthcare service delivery is a cornerstone for the South African democracy. Universal healthcare for all citizens, along with key interventions to combat the HIV pandemic, involves ensuring that every individual has access to comprehensive health services without financial hardship. This approach includes preventive, curative, rehabilitative, and palliative care tailored to the needs of people living with or at risk of HIV. Key interventions to combat the HIV pandemic encompass a wide range of strategies aimed at reducing transmission, improving treatment outcomes, and addressing social determinants of health.

Addressing social determinants of health involves tackling the stigma and discrimination associated with HIV, ensuring legal protections for people living with HIV, and promoting policies that support gender equality and reduce economic

disparities. Community engagement and the involvement of people living with HIV in the design and implementation of programmes are also key to ensuring that interventions are culturally appropriate and effective.

Finally, this research has shed light on and raised awareness of the significant role of VMMC in HIV prevention within the context of the SOKA Men's Clinic in Ugu District. The findings underscore the commitment and competence of healthcare workers in implementing the VMMC effectively, supported by robust infrastructure and adherence to policy guidelines. Moving forward, it is crucial to sustain these efforts through continued training, adequate resource allocation, and active community engagement to ensure widespread awareness and positive uptake of VMMC. By addressing challenges identified in this study and building upon the strengths observed, stakeholders can further strengthen the impact of VMMC in reducing HIV transmission rates, thereby contributing to improved public health outcomes both provincially and nationally.

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[20million%E2%80%9344.5,AIDS%2Drelated%20illnesses%20in%202019](https://www.unaids.org/en/resources/factsheet#:~:text=GLOBAL%20HIV%20STATISTICS&text=38.0%20million%20%5B31.6%20million%E2%80%9344.5,AIDS%2Drelated%20illnesses%20in%202019). Accessed 05 August 2023.

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[20million%E2%80%9344.5,AIDS%2Drelated%20illnesses%20in%202019](https://www.unaids.org/en/resources/factsheet#:~:text=GLOBAL%20HIV%20STATISTICS&text=38.0%20million%20%5B31.6%20million%E2%80%9344.5,AIDS%2Drelated%20illnesses%20in%202019). Accessed 05 August 2023.

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ANNEXURES

ANNEXURE A: ETHICAL CLEARANCE CERTIFICATE



13 September 2023

Shivesh Jadoo (210503838)
School Of Man Info Tech & Gov
Westville Campus

Dear S Jadoo,

Protocol reference number: HSSREC/00006013/2023

Project title: Assessment of health care workers' attitudes and perceptions towards voluntary medical male circumcision at Ugu District, KwaZulu-Natal

Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 02 August 2023 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

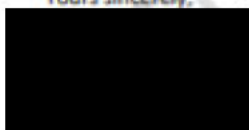
Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 13 September 2024.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Dipane Hlalele (Chair)

/dd

Humanities and Social Sciences Research Ethics Committee

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 260 8350/4557/3587 Email: hssrec@ukzn.ac.za Website: <http://research.ukzn.ac.za/research-Ethics>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS

ANNEXURE B: INFORMED CONSENT

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL
For research with human participants

INFORMED CONSENT RESOURCE

Information Sheet and Consent to Participate in Research

School of Management, Information Technology and Governance
Master's in Public Administration Research Project

Researcher: Shivesh Jadoo (210503838@stu.ukzn.ac.za) ([REDACTED])

Supervisor: Prof M. Subban (Subbanm@ukzn.ac.za) (031 260 7763)

Date:

Greetings,

My name is Shivesh Jadoo, I am a Master's Student in Public Administration (MPA) at the School of Management, Information Technology and Governance, University of KwaZulu-Natal, Westville Campus, Durban. My contact details are: 210503838@stu.ukzn.ac.za or on [REDACTED]

As part of my study, you are being invited to consider participating in research titled "Assessment of health care workers' attitudes and perceptions towards voluntary medical male circumcision at Ugu District, KwaZulu-Natal". The primary purpose of the study involves research relating to the attitudes and perceptions of health care workers' towards voluntary medical male circumcision. Male circumcision is a medically proven intervention and prevention technique that offers significant protection against HIV which a male may acquire through sexual means. It is significant that the research also seeks to evaluate the implementation of the voluntary medical male circumcision program at the clinic. This research will be conducted in the Ugu District of KwaZulu-Natal, and targets health care workers' as respondents to the research questions underpinning the study. The duration of your participation if you choose to enroll and remain in the study, is expected to be limited to the time taken to complete the research questionnaire.

Due to Covid-19 restrictions being relaxed by national government, the research will be able to meet face-to-face with participants when conducting the interviews. Pre-scheduled meetings at the Ugu District, Jhpiego SOKA men's clinic will be arranged with participants, at their convenience. The interview will be expected to take approximately 20 - 25 minutes per participant.

Participants are free to raise concerns or questions if they are unsure of the aspects raised in the research. The study would involve no risk or discomfort to you as a participant. It is hoped that the study would add value to the field. Your contribution and participation would assist in enhancing the attitudes and perceptions of health care workers' towards voluntary medical male circumcision.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number _____).

In the event of any problems or concerns/questions you may contact the researcher at 210503838@stu.ukzn.ac.za or on [REDACTED] or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSBEC@ukzn.ac.za

Your participation in this research is voluntary (and participants may withdraw participation at any point), and that in the event of refusal/withdrawal of participation the participants will not incur penalty or loss of treatment or other benefit to which they are normally entitled. There is no risks attached to participation in this case study. Input and insight from each participant will be of paramount importance for the successful completion of the study. The study was approved by the University of KwaZulu-Natal higher Degree committee. You have a right to withdraw from this interview at any point, if you wish to do so.

Your anonymity will be maintained by the researcher and the School of Management, I.T. & Governance and your responses will not be used for any purposes outside of this study.

All data both electronic and hard copy will be stored in a safe keeping during the study and achieved for a period of five (5) years. All the data will be destroyed once 5 years has passed in accordance with the University policies and procedures. Information collected will be processed and maintain in line with the prescripts of and University policy on the Protection of Personal Information (POPI) Act.

If you have any queries or concerns about participating in the study, please contact the researcher or the supervisor on the details mentioned above.

Sincerely,

Mr Shivesh Jadoo
Student Researcher

CONSENT TO PARTICIPATE

I, _____ have been informed about the study entitled "Assessment of health care workers' attitudes and perceptions towards voluntary medical male circumcision at Ugu District, KwaZulu-Natal" by is Shivesh Jadoo, under the School of Management, Information Technology and Governance, University of KwaZulu-Natal, Westville Campus, eThekweni.

I understand the purpose and procedures of the study.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at 210503838@stu.ukzn.ac.za or on _____

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview

YES / NO

Signature of Participant

Date

ANNEXURE C: INTERVIEW SCHEDULE

INTERVIEW QUESTIONNAIRE SCHEDULE ON VOLUNTARY MEDICAL MALE CIRCUMCISION FOR HEALTH CARE WORKERS

STUDY TITLE:

*“Assessment of health care workers’ attitudes and perceptions towards voluntary
medical male circumcision at Ugu District, KwaZulu-Natal”*

INSTRUCTIONS FOR COMPLETION OF THE INTERVIEW SCHEDULE

1. Please read all instructions carefully.
2. A comment and explanation space are offered for you to provide additional information supporting your response.
3. Please answer all questions.
4. The interview should take you about 20- 25 minutes.

1. BIOGRAPHICAL DATA:

1.1 Gender of Participant: (please indicate with an “X”)

Male	
Female	
Prefer not to say	

1.2 Residential Area: (please indicate with an “X”)

Urban District	
Rural District	

1.3 Age Group: (please indicate with an “X”)

Below 21	
21 – 30	
31 – 40	
41 – 50	
51 – 60	
Above 60	

1.4 Race Group: (please indicate with an “X”)

Black	
White	
Indian	
Coloured	
Other: Please Provide Details	

1.5 State your academic level: (please indicate with an “X”)

Primary and/or Secondary Education	
Certificate	
Diploma	
Degree	
Honours	
Masters	
Doctorate	
Other: please provide details	

1.6 Category of health care worker: (please indicate with an “X”)

Medical Doctor	
Clinical Associate	
Professional Nurse	
Enrolled Nurse	
Data Clerk	
Demand Generation – Mobiliser	
Demand Generation Officer	
Other: please provide details	

1.7 Number of years working at this health care facility/clinic:

Kindly Specify:	
------------------------	--

2. KNOWLEDGE REGARDING VOLUNTARY MEDICAL MALE CIRCUMCISION (VMMC):

Please indicate your agreement with the following statements:		
	YES	NO
2.1 You are more likely to get HIV from men who are circumcised than from those who are not circumcised		
2.2 VMMC is as effective as condom use in HIV prevention		
2.3 VMMC will reduce the risk of men contracting HIV		
2.4 VMMC improves personal hygiene		
2.5 Medical male circumcision will reduce HIV transmission		
2.6 A circumcised man can still contract HIV if he has unprotected sex with infected women		
2.7 Risk of contracting HIV is higher in males who are not circumcised		
2.8 It is important to be circumcised at a younger age		
2.9 Presence of the foreskin increases the chances of getting HIV		
2.10 VMMC will aid in the prevention of HIV		

3. ATTITUDES CONCERNING VOLUNTARY MEDICAL MALE CIRCUMCISION (VMMC):

Please indicate your response to the following statements:					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1 Medical male circumcision is something all males should have done					
3.2 It is good for children to be circumcised					
3.3 Married men should not be circumcised					
3.4 As a health care worker, would you recommend VMMC					
3.5 As a health care worker would you motivate males to undergo VMMC					

4. PERCEPTIONS OF VOLUNTARY MEDICAL MALE CIRCUMCISION:

Please indicate your response to the following statements:					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.1 VMMC will cause pain					
4.2 There is a chance that after VMMC a male may not be productive					
4.3 VMMC would increase risk behaviour amongst males					
4.4 Having VMMC could prevent a male from potentially having children					
4.5 Being circumcised could contribute to male dysfunctionality					
4.6 Sexual pleasure diminishes when males are circumcised					

4.7 Circumcision is only intended for younger males					
4.8 VMMC may inhibit a male's ability to masturbate after VMMC					

5. CHALLENGES RELATING TO VMMC:

5.1 What do you think are some of the healthcare barriers that relate to the implementation of VMMC policy at the clinic?

Any other comments:

Thank you very much for your time and participation

ANNEXURE D: GATEKEEPERS LETTER



13 APRIL 2023

Mr Shivesh Jadoo
Student No. 210503838
School of Management, IT & Governance
College of Law & Management Studies
Westville Campus
University of KwaZulu-Natal
Email: shivesh.jadoo@jhpiego.org

Dear Shivesh Jadoo (Student No. 210503838)

RE: PERMISSION TO CONDUCT RESEARCH AT SOKA MEN'S CLINIC IN UGU DISTRICT

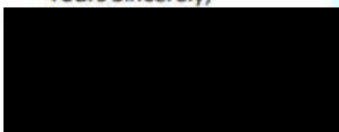
Gatekeeper's permission is hereby granted to you to conduct research at the Jhpiego SOKA Men's Clinic in the Ugu District, towards your post-graduate studies. Once you have obtained Ethical Clearance from the University, you may proceed to obtain the information for your research project entitled:

**"Assessment of health care workers' attitudes and perceptions towards
voluntary medical male circumcision at Ugu District, KwaZulu-Natal"**

If you have any queries please do not hesitate to contact myself, Meheub Mahomed, Country Director (Jhpiego, South Africa) on Meheub.Mahomed@jhpiego.org.

Wishing you all the best in your studies.

Yours Sincerely,



Dr. Meheub Mahomed MD MPH MS
Cell: +[REDACTED]
Meheub.Mahomed@jhpiego.org
Country Director
Jhpiego, South Africa

15 Ennisdale Dr, Durban North 4051. T: +[REDACTED]
Durban, South Africa Reg No. 20177371931

Johns Hopkins University Affiliate

ANNEXURE E: LETTER FROM LANGUAGE PRACTITIONER

THE WRITING STUDIO
Writing and Editing Practice

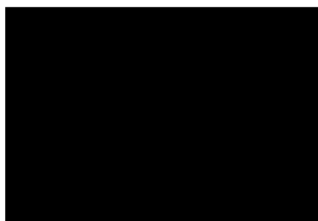
Certificate 1/7

TO WHOM IT MAY CONCERN

18 July 2024

This dissertation, entitled **Assessment of health care workers attitudes and perceptions towards voluntary medical male circumcision at Ugu District, KwaZulu-Natal** by **Shivesh Jadoo**, has been edited and reviewed to ensure technically accurate and contextually appropriate use of language for advanced research.

Yours sincerely



CM ISRAEL, BA Hons (UDW) MA (UND) MA (US) PhD (UNH)
LANGUAGE EDITOR AND WRITING CONSULTANT

[\[Redacted Email Address\]](#) Mobile [\[Redacted Phone Number\]](#)