



UNIVERSITY OF GOTHENBURG  
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Masculinity and HIV  
The impact of men's masculinities on risky behaviour in  
Umgungundlovu district, Kwazulu-Natal, South Africa

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## Abstract

This study aimed at exploring the relationship between masculinities and HIV and AIDS. In so doing, the study sought to provide a thorough understanding of whether specific masculine identities influence men to indulge in unsafe sexual practices in uMgungundlovu District, KwaZulu-Natal, South Africa. Two central questions, that is, the measure of the relationship between masculinity and HIV risky behaviour as well as the relationship between HIV behaviour and HIV prevalence. The study used that baseline data of WAV two of data collection data collected through HIV Incidence Provincial Surveillance System (HIPSS), collected between 2015 and 2016. This was a longitudinal study to monitor HIV incidence trends in the uMgungundlovu District, KwaZulu-Natal-South Africa.

The point of departure for this was that men's masculinity mediated by men's socially ascribed roles and practices are likely to influence to engage in unsafe practices that increase their vulnerability to contract HIV or even increase their chances of spreading to the female partners. Three theories which included hegemonic masculinity, social role theory and social constructionism approach were used to provide a theoretical underpinning to the study. The main finding of the study demonstrated that there is a significant relationship between men's masculinity and the level of engagement in risky behaviour. Through an ordered ordinal regression, it was revealed increased masculinity was related to increased level of engagement in risk behaviour. There was also a significant relationship between the level of education and risky behaviour, whereby the increased level of education was associated with reduced level of risky behaviour. However, the results also showed that there was no statistically significant association between HIV behaviour and HIV prevalence. This could be attributed to the point of view of the study that looked at masculinity through the frames of men, assuming that masculinity is socially constructed and hence, understood as those traits that are associated with men. The study concludes that men's masculinities are implicit to be driving the epidemic through risky sexual behaviour. It is, therefore, necessary for HIV intervention programs, to consider the influence of men's masculinities on their engagement in risky behaviour, but also gain a deeper understanding of the socio-cultural and other factors contextual that create and sustain certain virility and sex-based norms and stereotypes. Thus, one can recommend a shift in HIV prevention programming from models of preventive programmes and interventions that are individual-based to a more cultural, contextual and multi-level explanations and interventions.

**Key words:** HIV and AIDS, Masculinity, Risky behaviour.

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## **List of Abbreviations**

AIDS	Acquired Immune Deficiency Syndrome
BREC	Biomedical Research Ethics Committee
EA	Enumeration Areas
CDC	Centre for Disease Control
GCP	Good Clinical Practices
HEARD	Health Economics and HIV AND AIDS Research Division
IRB	Internal Review Board
HIPSS	HIV Incidence Provincial Surveillance System
HIV	Human Immunodeficiency Virus
OHCHR	Office of the United Nations High Commissioner for Human Rights
PID	Participant Identification Number
UNAIDS	Joint United Nations Programme on HIV AND AIDS

# Chapter One

## Introduction

### 1.0. Motivation for choice of study.

This study on HIV and masculinity was inspired by my previous knowledge about HIV AND AIDS. I wrote my undergraduate dissertation on the level of utilisation of HIV Counseling and Testing among the Youth in Uganda. HIV AND AIDS is a critical component of social work, not only in social work education but also social work practice (IFSW, 2018). Because HIV remains of the most common social development and public health challenge, especially in the Global South, particularly in sub-Saharan Africa, it is still a prominent area with a plethora of open opportunities a helping profession like social work can leverage to create social impact. Moreover, according to Universal Declaration of Human Rights (OHCHR, 2018), health is a pertinent human rights issue, and this includes, its promotion and access to treatment when needed. Social workers are active practitioners in the provision of social work services in the health-related field. The role of social workers in HIV prevention and treatment span from providing direct support and prevention services, such as counselling, education to information and referrals, as well providing training and support to service providers (Wheeler and Darrell, 2007). Therefore, it was imperative for a student of social work and Human rights to explore the relationship between masculinities and HIV risky behaviour, intending to gain knowledge that could be of great importance in designing lasting response to the tenaciously growing HIV burden in Sub-Saharan Africa and the globe. Besides, the student wanted to gain insights into socio-cultural and structural inequalities that promote the spread of HIV. The student chose to focus on men's masculinity because of the prevalence of patriarchal system-that gives men more power and influence over women in the same social setting. The knowledge of masculinity and HIV is vital for the social work profession based on the presumption that it would implore policymakers to design services that target the real issues. There is evidence that HIV response needs a holistic approach including social, political and cultural aspects. Negation of any of the three aspects may render all the HIV interventions ineffective. It is important to note that social work has the mandate to promote social change and enhance people wellbeing (Hare, 2004). In fact, the National Association of Social Workers' (NASW) 2000 code of ethics, place a mandate on social workers to honour the imperative to work on behalf of vulnerable, oppressed and discriminated members of society (Cleaveland, 2010). The author of this study hopes to garner exciting findings that will be usable by HIV practitioners.

### 1.1 Background to the research

HIV and AIDS remain one of the world's most prevalent public health challenge, both regarding magnitude and effect. According to UNAIDS (2017) an estimated 36.7 million people, including 1.8 million children were living with HIV in 2016. Around 30% of these people were unaware of their HIV serostatus (UNAIDS, 2016). UNAIDS estimates that 78 million people have acquired the HIV and approximately 35 million people have lost their lives to AIDS-related illnesses since its discovery (UNAIDS, 2017). Global HIV statistics further indicate that a vivid majority of HIV positive people live in low and middle-income countries,

of which an estimated 25.5 million reside in Sub-Saharan Africa. Of these, an estimated 19.4 million people live in East and Southern Africa (UNAIDS, 2017). The Global Burden of Disease Study (2015) revealed that 75% of the new HIV infections occurred in Sub-Saharan Africa; of which only Nigeria, Uganda and South Africa account for 48% (UNAIDS, 2014).

South Africa bears the world's highest HIV burden by numbers, with a prevalence rate of 19% (third from Swaziland and Lesotho), an incidence rate of 15% and 11% of AIDS-related mortality rate. A whopping estimated 7.1 million people were HIV positive in 2016 (UNAIDS, 2017). Even though HIV prevalence is high across the entire population, it is clear that the burden is disproportionately shared among the regions of South Africa (*ibid*). For example, the KwaZulu Natal province alone harbours nearly 18% of the HIV positive people as compared to 6.8% and 5.6% in Northern Cape and Western Cape respectively (UNAIDS, 2017).

Besides, Nattrass (2008) states that HIV AND AIDS in sub-Saharan Africa are gendered and that it is predominantly transmitted through heterosexual encounters. Nattrass's study showed that women constitute 59% of HIV positive people. "Gender inequalities as well as gender norms and relations, including practices around sexuality, marriage and reproduction; harmful traditional practices; barriers to women's and girls' education; lack of access for women to health information and care; and inadequate access to economic, social, legal and political empowerment are significant contextual barriers to effective HIV prevention" (UNAIDS, 2005, p.25–6).

Several other studies have indicated that females stand an outstanding level of vulnerability to contract HIV as compared to their male counterparts. For example, a survey carried out by Lule et al. (2011) showed that almost 33.2 million of the people living with HIV were female. According to UNAIDS (2014), 80 percent of the women aged between 15 and 24 living with HIV across the globe reside in sub-Saharan Africa. In general, feminisation of the HIV pandemic was apparent in sub-Saharan Africa where female accounted for 61 percent of the HIV-positive people (Lule et al., 2011). Youthful women, reportedly have three times higher chances of getting infected with HIV than their male counterparts (UNAIDS, 2014) and hence, the former accounts for 31% of all new infections in sub-Saharan Africa (*ibid*).

The factors facilitating women's level of vulnerability spill beyond just biological and psychological gender differences to encompass economics and cultural factors (Lule et al., 2011). They contend that these factors produce power imbalances that have negative upshots for both men and women, especially in Sub-Saharan Africa. Women in sub-Saharan Africa have limited access and control over economic resources (*ibid*). As a result, they tend to depend on men who are usually the 'custodians of economic resources' for financial survival- a phenomenon that leads to lack of control over their bodies, hence increasing their vulnerability to infection. Lule et al. (2011) also document that men tend to indulge in behaviours that conform to societal beliefs of men's masculinity that often promote polygamy among men. Research further shows that; young women tend to have sex with experienced male partners who could have acquired HIV from their previous sexual relationships in exchange for material gains (Stoebenau et al., 2016). Women's increased economic dependence on men makes young women and girls want to voluntarily have sex with older men in exchange for material benefits, especially if they are destitute (*ibid*).

Norms and practices of masculinity that perpetuate the oppression of women by men tend to put both men and women at a higher risk of getting infected with HIV. These may include

among other things, unwillingness to negotiate sexual behaviour with women, (in preference of ‘live’) penetrative sex as well as multiple sexual partnerships (Simpson 2005 cited in Nattrass, 2008). Norms of masculinity dictate that men ought to be well versed and experienced in sexual matters, exhibit sexual prowess, and manhood as well belligerent in sexual matters and have a pivotal role to play in decision making (Rao Gupta, 2000). Such expectations increase the likelihood of male to female HIV transmission (Barker and Ricardo, 2006). Muula (2008) adds that masculinity puts not only men in a precariously perilous position of acquiring the virus (through behaving in risky ways), but also women (through male to female transmissions). Patriarchal structures, mostly in Sub-Saharan Africa, tend to exalt men’s ability to exercise power and control over women; hence the decision and authority over critical sexual decisions such as when, where and with whom, and how to have sexual activity is vested in men (Mane and Aggleton, 2001). Besides, men tend to have poor health-seeking behaviour, are more likely to engage in risky practices such as alcohol abuse, injecting drugs and use of other narcotic substances (Rosenfeld and Dana, 2010). Thus, the men often engage in unsafe sexual practices (Luck, Bamford and Williamson, 2000), such as unprotected sex, which increases their likelihood to contract HIV (Luke, 2005).

Hunter (2005) contends that the entrenchment of the practice of multiple sexual partnerships for the case of South Africa is blamed on the rise in unemployment from the 1970s. Campbell (1992) notes that when men fail to prove themselves as men in other ways, such as fulfilling their breadwinner role, they resort to having multiple sexual relationships where they do not need to be responsible for such tasks by avoiding establishing a permanent household.

Given that backdrop and the fact that there is scanty of information on the impact of masculinity on engagement in risky behaviour among men, it is imperative that this study focuses on this subject. For example, Shefer et al. (2008) link understanding of the relationship between masculinity, sexism, and power imbalances to reducing risky sexual relations. They argue that the latter could lead to mainstreaming of men’s behaviour in the design of HIV prevention programs to induce behaviour change among men, which in the process, could protect women. Although this is not a virgin subject of study, most of the studies have looked at gender in general with no focus on men’s masculinities. Unlike other reviews, this study examined the impact of men and masculinities on HIV risky behaviour in uMgungundlovu District, KwaZulu-Natal, South Africa to provide evidence which could trigger improved programs in HIV interventions’ designs and implementation.

## **1.2 Problem Situation**

South Africa has been and is still experiencing unprecedented magnitudes of a heterosexually driven HIV AND AIDS, with approximately 7.1 million people living with HIV today (UNAIDS, 2017). To respond to this, many actors, including government and non-governmental organisations have put in place a myriad of interventions, strategies, policies and programmes, spanning to HIV education, prevention, and free access to treatment and care for all aimed at curbing the epidemic. The chief objective of such undertakings is to provide a comprehensive and holistic response to minimise the effects of HIV. According to UNAIDS (2017), South Africa has the most extensive antiretroviral treatment (ART) programme in the world. For example, the country was injecting up to the tune of \$1.34 billion annually into its HIV programmes in 2015.

Indeed South Africa has attained an excellent level of achievements concerning its efforts to control the HIV epidemic. For example, the country has registered more than 50 percent reduction of the new HIV infections, from 600 000 in 2000 to 270 000 today, and over 3.7 million people (65% of the people living with HIV in the country) were on treatment (UNAIDS, 2017). However, despite these notable improvements in reducing HIV related morbidity and mortality, the rate of new HIV infections remains unacceptably high by any standards. The reasons for high HIV prevalence in South Africa tend to revolve around men's sexual risky practices and the impact of these on the vulnerability of both men and women to infection of HIV (Reardon and Govender, 2013).

### **1.2.1 Discrepancy**

The conventional knowledge would rule that in a high HIV prevalence setting such as South Africa, the provision HIV education, free and accessible HIV prevention services, provision Anti-retroviral therapy treatment services and increased awareness of the HIV would trickle down to a drastic decline in HIV-related mortality, incidence and prevalence in general. However, in the case of South Africa, such conventional wisdom has not held. The country still harbours the world's highest global HIV burden by numbers (UNAIDS, 2017). The effectiveness of the available services, targeting to reduce the epidemic, have hitherto not yielded many dividends. Therefore, the most prominent question here, is 'Why have a high prevalence and incidence of HIV amidst free and readily available HIV prevention, treatment and care services?'

While South Africa has a modern and extensively accessible healthcare infrastructure through which they implement all HIV-related services, one may wonder why it seems not to be easily accessible by some target groups such as the men. An attempt to provide an answer to the above-posed question seems to suggest that gendered norms significantly inhibit men's ability to admit weakness and seek medical attention which is one of the most plausible reasons for low proportions of men receiving or enrolled on HIV AND AIDS Anti-Retroviral Therapy (Nattrass, 2008). Several studies carried out in South Africa have shown that the number of women accessing HIV related services is disproportionately higher as compared to that of men, and yet little has been done to scale up men's uptake of these services. In the process, there has been increased HIV-related mortality of men (Nattrass, 2008), alongside a high rate of male to female HIV transmissions (Barker and Ricardo, 2006). Previous research in South Africa has indicated that there is a link between masculinity and HIV incidence and prevalence rate, hence making the need to target and engage men in HIV prevention extremely important.

Thus, in as far as the subject of Men and HIV in South Africa is concerned, there is little research to explain 'why' men behave the way they do; or whether and how men's sense of masculinity might mediate their indulgence in risky sexual practices. This study seeks to explore and document evidence on the relationship between clinging to traditional norms of masculinity in Kwazulu-Natal, South Africa. UNAIDS (2000), hails the importance of involving men and boys into the challenge of HIV sexual risk behaviours and considers it an integral part of the struggle against the HIV epidemic. The point of departure for this study is that a high degree of ascription to traditional norms of masculinity among men serve to magnify their intensity of engaging in sexual risk behaviours.

## **1.3 The aim of the study**

The primary objective of this study was to explore the relationship between men's masculinities and their level of engagement sexual risky behaviours in South Africa. The study sought to provide a thorough understanding of whether specific masculine identities influence men to indulge in unsafe sexual practices in South Africa. This aim was to provide the cohort of HIV policymakers and practitioners with the evidence-based knowledge that would enhance their capacity to formulate appropriate interventions against HIV and AIDS

### **1.3.1 Research questions**

1. What is the relationship between masculinity and HIV risk factors in uMgungundlovu District, KwaZulu-Natal, South Africa?
2. What is the relationship between risky behaviour and HIV prevalence in uMgungundlovu District, KwaZulu-Natal, South Africa?

## **1.4 Hypothesis**

The study hypothesised that masculinities, especially 'hegemonic masculinity' is positively associated with sexual risk and a higher likelihood of contracting HIV. The study was underpinned by the notion that men who ascribe to conservative, traditional masculine norms and practices were more likely to engage in risky sexual behaviours, resulting in increased chances of contracting HIV. The underlying idea is that the latter men are likely to shun safer behaviours such as practising safe sex through the increased use of condoms, sticking to one sexual partner, reduced transactional sex, reduced substance and drug use before sex among others.

## **1.5 Justification for research**

HIV AND AIDS is one of the most pressing development challenges faced by South Africa in the previous three decades (Tangwe Tanga, Khumalo and Gutura, 2017). Since early 1980's when the first cases of HIV were diagnosed in South Africa, the prevalence of the epidemic has, consistently and dramatically been on the rise. Notwithstanding a myriad of success stories registered by the country in the fight against the virus, HIV prevalence, HIV related mortality rate, the incidence are alarmingly high in the country (UNAIDS, 2017). According to UNAIDS, the country recorded 270,000 new infections and 110,000 deaths in HIV related illnesses in 2016, and the country accounts for one-third of the new infections in Southern Africa. An estimated 7.1 million (18.9%) South Africans are HIV positive, which makes the country one of the world's highest HIV hotspots in the world (UNAIDS, 2017). Even though the epidemic is still significantly onerous among all provinces of South Africa, it varies evidently between regions (UNAIDS, 2017). For example, the prevalence is almost 18% in Kwazulu Natal in comparison to 6.8% (Kwazulu Natal Provincial AIDS Council, 2017) in Northern Cape and 5.6% in Western Cape (UNAIDS, 2017).

It is apparent from statistics that the prevalence of HIV is disproportionately shared among men (9.9%) and women (14.4%), with the women constituting the most significant proportion of the current HIV prevalence rate (Shisana et al., 2014). Previous studies on gender and HIV have attributed this scenario to masculinities with an argument that men are the key drivers of HIV since they decide where, with whom and how to have sex (Fleming, Diclemente and Barrington, 2016). The situation is exacerbated by patriarchal and masculine norms which accord men a position of power on the social gender hierarchy (ibid). Socially constructed gender norms, especially, norms of masculinity, have not only immensely contributed to the spread, but also have frustrated interventions targeting the HIV epidemic (Stern and Burkeman, 2013). Heterosexual masculinities have posed significant challenges to the struggle against

HIV, especially in developing countries where the epidemic is dire (Paechter, 2006). Notably, ideological foundations of masculinities which legitimise men’s control over women’s sexuality, leave men with absolute power to determine the conditions regarding when, how and where the sexual activities occur (Jama Shai et al., 2012). Therefore, there is need to intensify efforts aimed at empowering women to insist on safe sex and to decline sexual advances where the man does not intend to use condoms (Rao Gupta, 2000). Women also need to be encouraged to discuss sexuality in public rather than within households where harmful masculinities are ingrained (Lefkowitz et al., 2014).

This study presents an excellent opportunity for discussing the impact of hegemonic masculinity on risky sexual behaviour among men in South Africa. In so doing, this research investigates the impact of masculinities on HIV AND AIDS risky behaviour in South Africa. First, it investigates the relationship between of masculinity and sexual risk. Then, it examined the relationship between risky behaviour and HIV prevalence. The results of this study hold implication for future interventions directed towards HIV risk reduction among both men and women in South Africa and globally.

### 1.5.1 Why focus on men?

According to UNAIDS (2000:9), there are five main reasons for focusing the understanding and discussion of HIV and AIDS fight on men. These are well articulated in table 1.1 below.

**Table 1. 1: Justification for focusing on men**

Justification	Effect
Men’s behaviour puts them at risk of HIV	In some settings, men are less likely to pay attention to their sexual health and safety than are women. Men are more likely to use alcohol and other substances that lead to unsafe sex and increase the risk of HIV transmission than women, and they are more likely to inject drugs, risking infection from needles and syringes contaminated with HIV.
Men’s behaviour puts women at risk of HIV.	On average, men have more sex partners than women. HIV is more easily transmitted sexually from men to women than vice versa. In addition, HIV-positive drug users’ who are mostly male can transmit the virus to both their drug partners and sex partners. A man with HIV is therefore likely to infect more people over a lifetime than an HIV-positive woman.
Unprotected sex between men endangers both men and women.	Most sex between men is hidden. According to surveys from across the world up to a sixth of all men report having had sex with another man. Many men who have sex with men also have sex with women, (their wives or regular or occasional girlfriends). Hostility and misconceptions about sex between men have resulted in inadequate HIV prevention measures in many countries.
Men’s health is important, but receives inadequate attention	In most settings, men are less likely to seek needed health care than women, and more likely to engage in behaviour that put their health at risk such as drinking, using illegal substances or driving recklessly. It is also said that, in stressful situations, such as living with AIDS, men often find it difficult to cope effectively than women.

Men need to consider AIDS as it affects the family.	Fathers and future fathers should be encouraged to consider the potential impact of their sexual behaviour on their partners and children, including leaving children behind as AIDS orphans and introducing HIV into the family. Men also need to take a greater role in caring for family members with HIV or AIDS.
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(UNAIDS, 2000:9)

The table above points out some of the principal justifications for placing the focus on men in this study. It shows that men hold a crucial position in society in that their ill-health might spill out to the spouses and children and the entire society. In this case, the study holds the view that HIV and AIDS does not only harm men but also women and children who get interact with these men indirectly or directly as fathers, brothers, spouses and friends.

## 1.6 Outline of the report

Chapter 1 presents the introduction and background to the research; the research questions, research problem, hypothesis and justification of research and definitions of fundamental concepts. The literature review and theoretical and conceptual framework are presented in Chapter 2 and 3. Chapter 4 presents and discusses the study data sources and methodology. The study sampling and sample design, justification for the selected methods and analytical methods and procedures utilised to answer each research objective. Chapter 5 presents a description of the study population followed a presentation of results relating. Chapter 6 presents a summary of the main findings, discussions; conclusions and recommendations.



# Chapter Two

## Literature Review

This section presents an abridged summary of the previous scholarships on masculinities, with focus on those that link masculinities with behaviours of men, including HIV sexual risky behaviours and consequences. Gender differences/inequalities and its eventual impact on sexual relations between men and women acted as the springboard for this review of the previous literature search. The section, therefore, pays tribute to a plethora of previous scholars that have researched Masculinities and HIV. It highlights viewpoints of the earlier scholars, their epistemological and ontological underpinnings, their conclusions, with the view to identify the knowledge gaps. This is fundamental for both contextualisation and theorisation of the current study. The student used multiple to gain access to previous research; these included borrowing books from the university library, searching for journals and scholarly articles using university's online library/databases such as Scopus and ProQuest as well as Directory of Open Access Journals (DOAJ) and Google Scholar. Moreover, the student used different search terms such as "HIV and Masculinity", "Gender attitudes and HIV risky behaviours" and "Masculinity and HIV risky behaviour". The student did this to limit the search to only relevant literature as the online searches have large sums of information that cannot be exhausted in one study.

### 2.1 Understanding and contextualisation of masculinities

The term masculinity, in its everyday usage, is linked to biological male sex traits or appearance socially associated with men. However, in gender studies, the term is viewed as diverse, temporally, multi-faceted and culturally constructed, rather than a mere composite of biology genealogy. For example, Connell (1995) links masculinity to perceived ideas and expectations about how men should or ought to behave in a given social setting. Thus, masculinities are not universal, but rather vary from place to place (O'Brien et al., 2005). According to Women's Commission for Refugee Women and Children, practices of masculinity could be 'traced historically and that it is making is a political process that often affects the balance of interests in society and the direction of social change' (2005, p.5). The term masculinity denotes to;

a place in gender relations, and the practices through which men and women engage that place in a gender hierarchy, and the effects of these practices in real experiences, personality and culture (Connell, 1995, p.71).

Connell further states that masculinity is 'not specific to men, but rather the position of men in the gender structure and thus, she suggests that masculinity should instead be viewed as patterns of practice through which both men and women engage in that position' (Connell, 1995, p.71). However, many scholars have used the term to denote the pressures faced by men and boys to conform to specific descriptions of manhood (Paechter, 2006). Paechter alludes to a common notion that a man should be a provider or have a stable source of income alongside other ideas that men need sex more than women, should exercise power over women and should not participate in household chores. The term has also been widely used to understand how gender roles and power struggles vary within various domains in which social meanings and gender-related disparities are constructed (Marsiglio, 1988). The conventional understanding

is that the current configurations of masculinities strongly reflect legitimization of patriarchy which is taken to guarantee women's subordination and domination by men (Connell, 1995).

Consequently, many theorists have switched to the use of the term "hegemonic masculinity" coined by Connell. The centrality of hegemonic masculinities hinges on men's subordination and conquest over women because of gender-based power relations (Connell, 1995). Moreover, in many cultures, men tend to have absolute control over women (Jewkes et al., (2015). In fact, a study conducted in South Africa indicated that men who hitherto, ascribe to the traditional masculinity type were highly associated with endorsement of a hierarchical and individualist perception of gender relations (Reardon and Govender, 2013). Reardon and Govender noted that such people were also likely to be apathetic about some social risks such as crime and social instability risks as well as environmental risks as compared to the people who ascribe to progressive masculine norms which had a higher likelihood to embrace an egalitarian consideration of gender relations.

A study carried out in Nigeria confirmed that masculine norms are actively linkage to the social position in the family. These include the idea that men ought to possess sexual prowess to satisfy sexual needs of a female partner and determine the ability to have children (Olawoye et al., 2004). The study findings indicated that parents, families, relatives and communities tend to socialise young men into prefixed gender roles. The results further show that both the mother and father are responsible for socialisation and preparation of a boy child for the transition into manhood. In effect, the entire society monitors the progress of the boy's adherence to the socially expected adult male roles. The study also provided evidence that male dominance and its subsequent effects are widespread across cultures and ethnic groups (Olawoye et al., 2004).

A survey conducted among men and boys in the United States of America indicated that rigid gender norms have a significant contribution to numerous harmful practices, including among other things, use of physical violence against women, and preventing them from using contraceptives, which increases their chances of spreading sexually transmitted infections to their female sexual partners (Marsiglio, 1988). Rigid gender norms also tend to prevent men's engagement in caregiving, affect their health-seeking behaviour and contribute to increased use of drugs or alcohol (ibid). Therefore, the study on masculinities is of immense importance within the milieu of contemporary national and international efforts to enhance participation of men and boys in promoting gender equality (Paechter, 2006).

## **2.2 HIV risky behaviour**

According to Center for Disease Control (2018), having sex, sharing syringes and other injection equipment with an HIV positive person is one of the primary ways through which HIV is spread. Such behaviours account for the increased incident rates of HIV infections (Ojo et al., 2011). Besides, behaviours which include among other things, inconsistency condom-use or unprotected sex, having multiple sexual partners are considered risky to the lives of those indulging in it (Heere et al., 2014). In addition, the study carried out by Patra (2016) in Uganda found out that, among other factors, early sexual debut is one of the factors responsible for the high rate of prevalence of HIV in Uganda.

According to ILO (2002), having sexual intercourse after drinking as well as having sex with commercial sex workers are also potential risks for HIV transmission. However, ILO (2002) asserts that sex workers are not the only category exposed to the risk of contracting HIV, but also the risk is equally shared across all workers in occupational settings. Nonetheless, some occupations are considered highly risky than others; for example, those in the transport sector,

such as truck drivers, those in the military, those in the fishing and tourism industry are more at risk than the rest (Pandley, 2008). Long distance drivers and their assistants, bar and hotel workers are also classified among the most vulnerable groups when it comes to HIV risk of acquisition and transmission (Nzyuko, 1991).

A study conducted by Valleroy et al. (2000) to ascertain the association between HIV Prevalence and Associated Risks among Young Men Who Have Sex with Men revealed that men who have sex with men were highly vulnerable to acquisition and transmission of HIV. This scenario is exacerbated by the fact that most men are not aware about their serostatus. For example, the study indicated that 'HIV-positive men who did not know that they were infected were more likely to have had unprotected penetrative or receptive anal sex during the past six months' to the study (Valleroy et al., 2000, p.202). The same study suggests that engagement in unsafe anal penetrative sex was the most noticeable risky behaviour among these men. The investigation revealed that 41% and 31%, reported having engaged in penetrative and receptive unprotected anal sex respectively. Another study conducted to investigate the factors associated with high-risk sexual practices among HIV-seropositive men revealed that people who engage in unsafe sex with an HIV positive person stand a higher risk of contracting HIV. Other factors intimately associated with HIV sexual risk include poverty which compels those in dire poverty to engage in unprotected sex for money, drugs and other survival needs (Marks et al., 2004). For instance, a study carried out in Uganda revealed that women are often willing to have unprotected sex since men tend to pay highly for live sex. The study revealed that most men usually prefer, and tend to offer higher payments for sex without a condom (Ntozi et al., 2013 cited in Patra, 2016).

According to CDC (2018), substance abuse is also indirectly associated with a higher likelihood of contracting the HIV since it lowers people's judgement and makes them vulnerable to unprotected sexual encounters. This claim is consistent with the findings of the carried out by Davidson et al. (1992) which revealed a significant association between drug and alcohol abuse and the risk of engaging in unprotected sex. Such risky practices, among other disease-causing agents, hike the rate of HIV transmission, reinfection or co-infection (Valleroy et al., 2000). Wilson (2012) observes that riskier norms that underpin sexual behaviour are closely associated with impoverishment. To him, different norms tend to emerge and sustain themselves when impoverished neighbourhoods are socially isolated. Davey-Rothwell et al. (2015) also adds that perceived prevalence of sexual risk behaviours is hugely linked to neighbourhood disorder.

Scheibe et al. (2016) in a study carried out in five South African cities observed that drug use poses a potential risk for HIV infection. An estimated 19.4% of those who were injecting drugs in South Africa were HIV positive in 2015. The findings further indicated that 32% and 26% men and women respectively, shared syringes and other injecting equipment on a regular basis and approximately half re-used needles without sterilising them (ibid). Moreover, the study revealed that the injecting drugs were highly associated with increased risky sexual behaviours, notably sex work and engaging in unprotected sex. For instance, less than 50% of those who were surveyed in the study had practised unsafe sex in their last sexual intercourse (Scheibe et al., 2016).

Marks et al. (2005) contribute that the prevalence of high-risk sexual behaviour can reduce markedly with increased HIV testing and counselling. They argue that this would make people aware of their HIV serostatus. However, they submit that there is a need for increased efforts to prevent even those who already know their HIV status from continuing to engage in high-risk behaviour. Indeed, there is evidence that prevalence of high-risk sexual conduct is significantly lower in HIV positive persons who are aware of their seropositive status as

compared to those ignorant of their serostatus (Marks et al., 2004). There is also growing evidence that behavioural changes and behavioural intervention programs could contribute substantially to the reduction of HIV (UNAIDS, 2006; and Darbes, 2009)

## **2.3 Masculinities and risky sexual behaviours**

A study conducted by Odimegwu and Okemgbo (2008) in Nigeria indicated that unsafe sexual practices are significantly associated with ascriptions to traditional masculine ideologies. This study revealed that Igbo men who ascribed and were firmly attached to traditional male stereotypes, reported a higher likelihood to have more current and lifetime sexual partners and engage in transactional sex as compared to men with less concern about conventional masculine norms. Moreover, same men were found to have had less likelihood to use condoms while engaging in transactional sex. Davies et al. (2000) add, that gender role stereotypes and male socialisation that expect men to be energetic, industrious, self-reliant and aggressive. Davies et al.'s study presents that men's socialisation is a huge barrier to their emotional openness, affects their health-seeking behaviour and shape their perception of vulnerability whereby, in most cases, men are expected to be brave and not to 'fuss' about risks.

Another study on sexual practices of male and female adolescents in Botswana indicated that even though female adolescents tend to engage in sexual activities more than their male counterparts, the latter have a higher likelihood to participate in risky sexual activities. Such behaviour includes among others; early debut of sexual intercourse, engaging in sexual activities after drinking; having multiple sexual partners than female adolescents. Moreover, the study found out that latter's actions were associated with less likelihood of condom use which posed a higher risk of sexually transmitted infections (Rakgoasi and Campbell, 2004). Social expectations attached to gender roles often compel young men to engage in risky sexual behaviours. For example, a study carried out by Baylies and Bujra in Tanzania pointed out that cultural expectations tend to exert a considerable amount of pressure on men to adhere to societal standards concerning, non-use of condom, sexual prowess and promiscuity alongside having multiple partners (Baylies and Bujra, 2000).

Peer norms among the youth in Sub-Saharan Africa which include expressing manhood through having multiple sexual partners and early sexual conquests, tend to expose young African men to HIV AND AIDS infection and affect their willingness to adhere positive behaviour change interventions (Ganle, 2016). More so, a study carried out in Zimbabwe proved that having traits of masculinity is heavily associated with low uptake of HIV prevention and treatment services (Skovdal et al., 2011 in Ganle, 2016). Hoosen and Collins (2004) add that conforming to hegemonic masculine norms is an active catalyst for an increased likelihood of substance abuse, infidelity, and resistance to condom use due to issues of control and dominance over women. Such behaviours are hazardous for men and their partners, given that, men who practice unprotected sex with large numbers of concurrent partners have a higher likelihood of being infected or infecting others (Halperin and Epstein, 2004).

Patriarchal attitudes about male dominance that prevail, even in communities with matrilineal social structures explain the unequal sexual relations where men tend to have control over women's sexuality (Ampofo 2001 in Ganle 2016). Gender stereotypes are viewed as one of the many factors that contribute to the spread of HIV AND AIDS. For example, a study conducted in Tanzania highlighted the effect of gender inequalities in influencing sexual relations (Haram, 2005). Moreover, social norms and practices that validate gender disparities and coercive sex have put South African young men and women at significant risk of spreading and getting infected with HIV (Ganle, 2016).

Another study conducted by Bowleg et al. (2015) demonstrated that sexual scripts are expedient to determine culture-specific and commonly shared gender sexual behaviour. The latter is conceived to occur at three levels namely; cultural scenarios, interpersonal scripts, and intrapsychic scripts (Frith and Kitzinger, 2001). Here, cultural beliefs comprise traditionally shared social norms and values such as gender role norms, mass media images among others that influence interpersonal scripts. Interpersonal scripts inform sexual interactions regarding how partners interpret cultural scenarios. Intrapsychic scripts reflect individuals' sexual motives, such as sexual pleasure, sexual conquest, passion, and emotional intimacy (Seal et al., 2008, p.640).

However, it is said that traditional interpersonal sexual scripts dominate most of the sexual scripts literature for heterosexual interactions (Seal et al., 2008). The former encourages men to initiate sex, always be willing, ready, and able to have sex, be sexually skilled and have full control during the sex act (Masters et al., 2012). Bowleg et al. (2015) found out in their study titled 'Sexual Scripts and Sexual Risk Behaviours among black heterosexual men' that unprotected vaginal sex, and use of condoms inconsistently, polygamy and transactional sex were positively associated with a higher risk of contracting HIV among men. The South African national survey (2002) associated high percentages of Black men aged between 25- 49 as having a higher likelihood to engage in multiple sexual relationships (Townsend et al., 2011).

Previous research on understanding patterns of condom use have prioritised women's experiences and, yet, understanding men's experiences is equally vital in HIV risk reduction and designing strategies for involving men and boys (Harrison et al., 2006). They attribute the ineffectiveness of interventions aimed at promoting condom use among women to failure to involve men. They argue that the latter has hindered previous efforts on increasing condom use since the men tend to control condom usage. Hence, power relationships between men and women is a matter that should be given adequate consideration in the design of programmes aimed at reducing risky sexual behaviour and HIV risk.

### **2.3.1 Masculinities and HIV risky behaviour in South Africa**

Studies carried out in South Africa on prevention of HIV, reveal that gender power imbalances significantly hinder women's safe sexual practices (Jewkes and Morrell, 2011) and that men account for most of the spread of HIV among the women (Jama Shai et al., 2010). These studies indicate that inconsistent condom use is one of the most unsafe sexual practices and that persons who use condoms inconsistently are the most vulnerable to HIV infection (ibid). Jewkes and Morrell (2010) contend that male roughness, use of violence against women, having multiple sexual partners, and non-or inconsistent condom use can be attributed to hegemonic masculinity which promotes control of men over female partners and heterosexual prowess. Hence, men who cling onto traditional masculine values are most likely to engage in HIV sexual risky practices and therefore should form a crucial target group for HIV risk reduction (Jama Shai et al., 2012).

Jewkes et al., 2001 and Morrell, 2001 also contend that culture and gender roles foster power imbalances that expose women to a substantial risk of sexual assault and getting infected with Sexually Transmitted Infections (STIs) in South African communities. Masculinity is celebrated, and thus a boy child is expected to adhere to masculine social norms (Shefer and Ruiters, 1998). A boy is man enough, if: they are well educated, financially affluent, employed, well groomed, sexually active and aggressive (Varga, 2003). Masculinity in many African societies is often defined by the amount of power a man has over women, not only concerning sexuality but also in decision-making in other areas (Miles, 1992 in Kaufman et al., 2008, p. 434). Moreover, Varga (2003) in a study on the influence of gender roles on sexual and

reproductive health in South Africa, reported that girls are expected to react to males' sexual advances in coyness and always exhibit lack of knowledge on sexual matters, whereas the inverse is true for the men in society. Such expectations make both boys and girls vulnerable to an assortment of sexual health problems, including HIV and AIDS, since, it limits possibility for balanced negotiations of safe sex (Jewkes et al., 2001). Jewkes and Abrahams (2002) pointed out that women who lack the power of control over their sexual relationships stand a higher risk of being sexually assaulted and infected with HIV.

Studies in South Africa have revealed that endorsement of traditional gender roles in most communities, contributes to women's lack of power and control over their sexual relationships (Kaufman et al., 2008). This scenario makes it problematic for the women to negotiate safe sex which would potentially minimise the risk of HIV infection (ibid). Masculine identities are inextricably linked to violence and HIV risks and it usually perpetrated through heterosexual relationships (Shefer and Ruiters, 1998). Moreover, as Shefer et al. (2005) noted that, in South African communities, sex is regarded as a male domain, in which women are expected to be submissive and passive and accept to be led by men into sexuality. For instance, it was revealed in a study carried out in the Western Cape Province that men are expected to be the primary decision-makers whereas women ought to submit to their husbands (Strebel et al., 2006).

In more general view, masculinity is negatively associated with condom use and men who hold traditional masculine ideologies are less likely to use condoms (Ackermann and de Klerk, 2002). It is believed among the South African men that condoms reduce sexual pleasure and should be used only by sex workers (Ackermann and de Klerk, 2002). Morrell (2001) asserts that interventions to empower women to be in control of their sexual relationships in aimed at increasing condom use, need to be corroborated with an emphasis on men's behaviour change programmes. Morrell argues that the behaviour of men is often associated with traditional African gender roles, especially in most of the South African communities where conventional notions about masculinity are still predominant. There was an increased amount of pressure for late adolescents in South Africa to showcase their masculinity through claims of multiple sexual partners (Potgieter et al., 2012). Moreover, as per Jewkes (2009), the increased HIV infection in South Africa, could be linked to men's tendency to deny being vulnerable to HIV AND AIDS infection, since them (men) are socially expected to be robust, muscular, courageous and in control.

## **2.4 HIV and Masculinitie**

The early scholars of HIV often tackled the subject without due consideration of gender dynamics in its spread, prevention and treatment. However, later in the early 1990s, it came to the attention of many scholars to embrace the view that HIV and AIDS is highly gendered (Klinken and Chitando, 2015). They conveyed that women tend to be more vulnerable and disproportionately affected and infected by HIV than their male counterparts. Klinken and Chitando (2015) submit that this disproportionality could be partly attributed to structural gender inequalities and other physiological aspects which have a more significant impact on sexual economies that put women in a more precarious position in comparison with their male counterparts. Baylies and Bujra (2000) in Klinken and Chitando, (2015) add women are not only stigmatised for being HIV positive but also are also carry a disproportionate volume of AIDS-related care burden. Following these observations, most HIV and AIDS-related interventions, programmes and scholarships that emerged as part of the efforts to combat HIV and AIDS, focused more on women's empowerment for both prevention and treatment of the virus (UNAIDS, 2000).

However, many HIV practitioners are beginning to acknowledge that women's vulnerabilities are intimately linked to behaviours of men sanctioned by beliefs of masculinity (Barker and Ricardo, 2006). The duo adds that the former does not only put women a higher risk of acquiring the virus but also the men themselves. They hence, claim that men need to be targeted as both clients and change agents in the fight against HIV (ibid). Barker and Ricardo further submit that socialisation and behaviour of men be responsible for the spread of HIV in sub-Saharan Africa. Radical cultural values, living in poor economic conditions and processes of social change where men are expected to be energetic, emotionally robust, daring and virile, tend to lure men into indulging in risky sexual behaviours such as lack of condom use, cross-generational sex, multiple sexual partnership and sexual violence against women in the pursuit to fulfil their social expectations of manliness (UNAIDS, 2000).

Silberschmidt (2005) and Hunter (2010) in their studies on male sexuality in Kenya and South Africa respectively documented that 'high poverty levels and economic disempowerment are partly responsible for the contemporary patterns of multiple sexual partnerships and high-risk sexual behaviour (Klinken and Chitanda, 2015, p.128)'. They argue that poverty and unemployment disempower men, thereby threatening their ability to fulfil their breadwinner role in a home. In retaliation, they resort to sexual conquest over women as the only alternative way through which they can express their male identity. Moreover, UNAIDS (2007) states that traditional expectations, some of which assert that men should be risk takers, have frequent sexual intercourse and control over women tend to pose extra challenges for HIV prevention. UNAIDS argues that changing these attitudes and behaviours must be mainstreamed into interventions and efforts to curb the AIDS epidemic. However, UNAIDS (2000) further states that this new focus should not be misconstrued to mean termination of programmes that target women and girls, but to complement those programmes by working more directly with men. After this realisation, there has been a paradigm shift in the scholarships of gender and HIV in Africa to incorporate men and Masculinities (Bujra, 2002). The latter has been brought to the fore in the designing HIV prevention and treatment programmes both as part of the problem, and solution in the fight against the HIV epidemic (Foreman 1999; Bujra 2002). Klinken and Chitanda (2015) contend that there is an increasing body of literature on men, masculinities and HIV in Africa. However, this study would be a powerful addition to the already existing body of knowledge.

### **2.4.1 HIV and Masculinities in South Africa**

Girls and young women in South Africa are undoubtedly at a higher risk of contracting HIV than their male counterparts (Walsh and Mitchell, 2006). Walsh and Mitchell attribute the latter to numerous factors ranging from biological to social that place girls and young women in precarious and vulnerable positions. They point out sex for material gains, cross-generational sex and violence against women as the most common harmful social, cultural factors to women and girls.

Morrell (2003) explored the relationship between "silence" about HIV AND AIDS and societal gender disparities by employing gender theories. Morrell's findings revealed that silence is a component of gender relations that thwarts negotiation of safe sex among the South African women. He observes that harmful customs of masculinity can be traced from colonialism and apartheid that subjected people to dire oppression in South Africa. These customs of masculinity manifest in interpersonal relationships where men affirm their masculinity through use of power over women. Common traditional beliefs such as the belief about men's entitlement to women's bodies coupled with masculine gender norms and misogyny endorse subjugation of women through sex, and the male-controlled family structure. It is through

lenses of such structures that women are expected to obey and submit to their husbands and other men in society, have greatly contributed to the “silence”, a scenario that has exposed women to gender-based violence. Moreover, several studies have linked gender-based violence and HIV risk. For example, in a study on Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa, it was revealed that ‘physical intimate partner violence is associated with increased odds of HIV infection, both alone and in combination with sexual intimate partner violence; sexual intimate partner violence seemed only to be associated with HIV when co-occurring with physical violence from an intimate partner’ (Dunkle et al., 2004, p.1417)

The regional conference that took place in Pretoria South Africa recognised the urgency and need to revitalise and reconstruct masculinities to incorporate socio-economic conditions and other realms like rural-urban migrations, unemployment and HIV AND AIDS (UNAIDS, 2001). The conference acknowledged that the last decade has been awash with futile efforts to reduce the HIV epidemic because of failure to cater for the male perspective, masculine identities and the social construction of male characters that frustrate attainment of the envisaged outcomes of the HIV interventions (ibid). The conference echoed that exclusion of males and failure to pay attention to the male perspective makes young men lose interest and hence, drop out of the program since they feel that their exclusion is hinged on the fact they are considered ‘villains’ in the spread of HIV.

Overall, the miserable economic situation of women in Africa resulting from men’s control over economic resources has forced women to resort to transactional sex for their survival (UNAIDS, 2001). This explains women’s powerlessness to negotiate safe sex in intimate heterosexual relationships. Therefore, women are victims of the men’s privileged status; hence, the prevention of HIV transactional sex must involve women’s economic empowerment to minimise their dependency on men coupled with measures to protect women and girls from sexual exploitation and coercion from men and boys (ibid).

## **2.5. Conclusion**

The review of the previous literature provides profound evidence that masculinity and gender attitudes, in general, is pertinently associated with sexual behaviours of men and women. Whereas men seem to be actively viewed as the catalysts of odd and precarious sexual behaviours, women play an enormous role in sustaining such unequal relationships due to the socialisation that has taught them that men are the leaders and hence, have power and authority, including the power to influence a woman’s sexuality. This is apparent in patriarchal societies where women still lack the power to negotiate the conditions under which to have sex. Most scholars have linked this to basic traditional gender norms that tend to laud men’s masculinity. Economic situations and culture were identified as some of the conditions that have a great significance in sustaining men’s dominance over women. The most pervasive sexual risky behaviour that dominated the literature review include none or inconsistent condom use, multiple sexual partners, drug use and substance. Thus, hegemonic masculinity, social constructionism and social role theories were suitable and logical in providing a theoretical grounding for this study as they directly link with uneven social relationships predominant in male-controlled societies like South Africa.



# Chapter three

## Theoretical considerations

Cognisant of the availability of a plethora of theoretical perspectives that can be used to analyse the subject of masculinity and HIV risky behaviour, the student deemed it appropriate to employ three theories that are more complementary, and suitable to provide a sound theoretical standpoint for the study. These included; Hegemonic masculinity, Social role and Social Constructionism theories. This is because these theories/approaches all captured an element of social interaction which explains how masculinity is created and maintained. The student's choice of theories was motivated by previous research makes mention of these theories and commend their ability to provide a theoretical underpinning to a study of this calibre.

### 3.1 Hegemonic masculinity

The concept of hegemony was first mentioned in the writings of Gramsci, and it denotes a dominance attained through relative consensus rather than regular even if underpinned by force (Gramsci, 1971 in Jewkes et al., 2015). One key component in the construction of hegemonic masculinity is heterosexuality, and a gender position (Jewkes et al., 2015). Hegemonic masculinities can be understood as:

a set of values, established by men in power that functions to include and exclude, and to organise society in gender-unequal ways. It combines several features: a hierarchy of masculinities, differential access among men to power (over women and other men), and the interplay between men's identity, men's ideas, interactions, power, and patriarchy. (Jewkes and Morrell, 2012, p.40).

Hegemonic masculinity mirrors 'as the configuration of gender practice which embodies the currently accepted answer to the problem of the legitimacy of patriarchy, which guarantees (or is taken to guarantee) the dominant position of men and the subordination of women' (Connell, 2015, p.77). Heterosexuality and homophobia are the core foundations of hegemonic masculinity, in that, its nature and understandings reflects a common feminist insight that the socialisation of men and women is oppressive. According to Donaldson (1993, p. 645) hegemonic masculinity is 'a culturally idealised form' and 'is both a personal and a collective project'. Donaldson argues that there is no single form of masculinity, but rather masculinities are multiple, fluid and dynamic depending on time and place. The positions of masculinity are conditionally occupied, since practices, values and norms attached to masculinity in one social setting may be different from those of another (Jewkes et al., 2015). Dominant forms of masculinities are tied to hierarchy and power relations in a given society, and these may differ depending on cultures, ethnicity, age and social class (Rivers and Aggleton, 2002). Moreover, masculinities are manifold, disputed, dynamic and socially constructed and they affected by both time and place (O'Brien et al., 2005).

Hegemonic masculinity is associated with tendencies that devalue female dominated (feminine) roles, such as caregiving (Doucet, 2004). It extols male dominance over females concerning physical strength and views women as emotionally weak and less competitive and prone to violence (Sabo, 2000). At the centre of hegemonic masculinity sits a belief that women exist as potential sexual objects for men and not vice versa (Donaldson, 1993). The term holds a belief that women are less critical in 'big' matters and can be represented by men except in 'trivial' matters. It is a question [...] of men assume positions of power and wealth, and how

they legitimise and reproduce the social relationships that generate their dominance (Carrigan, Connell, and Lee in Donaldson, 1993, p.655). Moreover, to a handful of men, it involves exercising control over other men as well. In other words, the central difference between hegemonic masculinity and non-hegemonic masculinities is not necessarily men's control over women, but the control of men (Donaldson, 1993). It is thus, a coercive form of power for subordinated masculinities (ibid). The consensus about hegemonic masculinity is a construction of both those who benefit from it (men) and those who are oppressed by it (women). This is because it is not just for men, but is a cultural epitome of manhood, which is often reproduced by women's attention, efforts and interests to maintain this ideal among their male associates and relatives (Jewkes et al., 2015).

This study takes a stand that hegemonic masculinity as a concept infers that hegemonic masculinity is substantively harmful, and associated with domination, violence and devaluation of roles that are regarded feminine in nature (Doucet, 2004, Sabo et al., 1995). Therefore, the usage of the concept is to illustrate the power relations that exist between women and men, taking a stand that women's acceptance of male hegemony plays a crucial role in reproducing hierarchical differences between men and women (Jewkes et al., 2015).

The concept suits best in theorising power relations rather than for application in empirical studies on men (Meuser and Scholz, 2006b). Meuser and Scholz submit that the concept should be used to analyse relationships between groups of men, alongside understanding interactions between women and men and the interconnections between these relations. Cognisant of the fact that concept can be understood in diverse ways, this study will focus on men's control over women in sexual relations. To be specific, the study places its foundation on an application of the concept in defining sexual relationships between men and women.

The study hypothesises that hegemonic masculinity determines the nature of relationships that exist between men and women, especially in predominantly patriarchal societies among which is South Africa. Since the concept of hegemonic masculinity recognises a male-dominated society, where women are highly coerced, subordinated and stigmatised, it is deemed appropriate for understanding men's attitudes towards sex. The study envisages that hegemonic masculinities are likely to influence men in South Africa to behave in risky manners that are not only harmful to the men themselves but also to their sexual partners. This is based on the position mentioned earlier that hegemonic masculinity often puts men in positions of control and places women in powerless positions where they lack the power to negotiate safe sex. Thus, Hegemonic masculinity and the social representation of hegemonic masculinity is deemed a useful conceptual framework to investigate how masculinity influences HIV AND AIDS risk behaviour among men in South Africa.

## **3.2 Social role theory**

The social role theory emerged in the 1980s with the aim of explaining sex differences and social behaviour (Eagly, Wood and Diekmann, 2000). The theory was inspired prior psychological researchers who tried to understand the differences of male and female social behaviour through meta-analytic methods by aggregating research findings (Eagly, 1989 in Eagly, Wood and Diekmann, 2000). The underlying assumption of the social role theory is that people's perception of gender differences is obtained from observing the social roles of women and men. It suggests that people's understanding of social behaviour is shaped by the socially constructed division of labour among women and men and hierarchies in society (Connell, 1987).

The observed social behaviour and personality differences between women and men are a composite of contrasts in a distribution of gender roles into social roles (Eagly 1987; 1997b). The social role theory explains gender roles with a presumption that persons hold social positions with attached expectations that eventually determine their behaviours and those of others. Its primary concern is features of social life characteristic behavioural patterns, or roles (Biddle, 1986, p. 67). It is such beliefs that, through an assortment of intermediating processes, determine the real social behaviour towards the gender roles. Important to note is that the theory emphasises a sociological tradition of understanding social roles assigned to men and women. Parson and bales (1995) point out that personal adjustments and social interactions are hinged on gender roles.

According to this theory, gender roles are a subset of cultural dynamism and thus, shaped by typical work and family role of sexes in a given socio-cultural setting. It is also assumed that gender roles and occupations as dictated by societal norms often categorise men and women as breadwinners and homemakers respectively (Eagly, 1987). These roles reflect power relations and status differences, with apparently men placed above women in the gender hierarchy. The role of 'homemaker' is a low status as compared to the role of a 'breadwinner' in the gender hierarchy. Therefore, men tend to have more influence on routine decision making (Blood and Wolfe, 1960; Gillespie, 1971; Scanzoni, 1972, 1979 in Eagly in 1987). Moreover, previous studies have revealed even though a considerable percentage of women in paid labour force tend to earn lower wages in comparison to their male counterparts, and the latter group rarely makes it to the highest levels in the organisational hierarchies (Jacobs 1989; Tomaskovic-Devey 1995; Vilian 1987).

"Social role theory has engendered a great deal of theoretical work and seems to be of prime importance in explaining human behaviour from the individual up and the social structure down" (Lemay, 1999, p. 225). Therefore, the social role theory is instrumental and can be trusted to explain how social positions held by men and women in social structural hierarchies could result in gender-specific behaviour, including men's engagement in risky behaviour.

The application of the social role theory in this context will be premised on a profound assumption that social expectations attached to men's position tend to compel them to behave in specific ways that may result in HIV risky behaviour. Such risky behaviours may include among other things; having multiple sexual partners, sex after drinking, not using condoms and transactional sexual to fulfil the socially constructed expectations, for example, the expectation that a man ought to exhibit stronger sexual-prowess to live up to his manhood expectations (Baylies, and Bujra, 2000). In addition to that, the norms of masculinity expect male figures to have information and possess experience and skills in sexual matters and exhibit sexual prowess. Such expectations push men into sexual experimentations, hesitation to seek information or failure to admit lack of knowledge and practising unsafe sex, especially in their youthful age (Rao Gupta, 2000). Eagly and Wood (1987, p.26) also documented that, stereotypic beliefs that men are influential, and women are easily influenced and stored as rules of women and men should behave in distinct types of situations'. As Connell (1987) asserts, men tend to occupy superior positions to women especially in societies where patriarchy system is highly espoused. This, in practice, has a direct impact on sexual relations between women and men. It is therefore expected that this may have clear ramifications during negotiations safe sex, since men are likely to have control on when, how, where and with whom to have sexual intercourse.

### **3.3 Social Construction Theory (Constructing masculinities)**

Social constructionism remains an essential perspective within many disciplines including, Social work and social sciences. In fact, as Järvinen and Miller (2015) noted, social constructionist ideas have also spread to other contemporary applied professions such as urban planning, policy analysis, occupational therapy to mention but a few.

Social Construction Theory is concerned with the ways we think about and use categories to structure our experience and analysis of the world (Jackson & Penrose, n.d). Jackson & Penrose through their Nurture approach claim that reality is a composition of socially constructed ideas and categories, rather than a product of genetics or inborn traits. "Since time immemorial, human societies have constructed differences between people like themselves and the unfamiliar "others", who often are viewed with distrust, dislike, and even hatred" (Schneider & Ingram, 2005, p.1).

The approach is prominent for its role in providing an understanding of the social transactions between men and women (Bohan, 1993). These transactions are based on gender stereotypes on what the society believes is fond of men or women. Most social settings have socially agreed on characteristics that are considered masculine or feminine (Williams and Best, 1990). Therefore, the conception of gender is not just a subject of two categories, but instead "a set of socially constructed relationships which are produced and reproduced through people's actions" (Gerson and Peiss, 1985, p. 327). These stereotypes create widely shared beliefs about the innate identities of women and men and provide mutual, systematised and usually dichotomous connotations of gender (Pleck, 1987).

The pressure to adhere to stereotypic beliefs encourage people to adopt dominant feminine and masculine norms and behaviours (Eagly, 1983 and Bohan, 1993). In fact, research shows that men and boys experience a somewhat more enormous amount of social pressure to conform to gendered societal prescriptions than women and girls. For example, men are encouraged to adopt beliefs that they should be self-reliant, tough, independent and robust (Williams and Best, 1990). That is why beliefs and behaviours of men regarding gender are more stereotypical than those of women (Levant et al., 1998). However, the social construction theorists further argue that men are not just a product of socially constructed roles nor are they socialised by their cultures, but rather active agents in creation and recreation of dominant norms of masculinity (Courtenay, 2000). Courtenay introduces a concept of agency which holds a principal idea is the centrality of individuals in exerting power and producing in their lives is intimate to social constructionism.

Pyke (1996) states that micro level power practices is highly associated with the structuring of everyday social transactions. He claims that these transactions play a crucial role in sustaining and reproducing broader configurations of power and inequalities. The systematic subservience of women and patriarchy is enshrined in these gendered demonstrations (ibid). As Hall (2003) contends, a social constructionist theory is critical in explaining why some groups are advantaged more than others, in this case, men versus women- where men tend to be considered more powerful, superior and robust as compared to women (Connell, 1995). Hegemonic masculinity is the epicentre of constructed masculinity- according to Connell (1995), hegemonic masculinity is the form of masculinity that is prevailing in a given place and time.

The greatest tenet of this form of masculinity is that it places femininities and other forms of masculinity in subordinate positions. It shapes men’s social interactions with women and lower status men. It assumes that men have more power and authority over women and other weaker masculinities (Connell, 1995). Therefore, a discussion of power and social inequality is essential to comprehend the broader context of why men tend to adopt unhealthy behaviour and to deal with the social structures that nurture unhealthy practices amongst men (Courtenay, 2000). This study used this approach as a point of departure to explain the relationship between masculinity and HIV risky behaviour. Constructionism approach is envisaged to play a significant role in the construction and sustaining dominant masculinities that hinged on socially prescribed roles of men and women.

The point of departure here is that common constructed notions about gender such as that of hegemonic masculinity influence the way men exercise power in their interactions with women. This is exacerbated by the socially constructed-stereotypical gender roles and positions that often fuel men’s unsafe sexual behaviours. The intersection among the three theories used in this are illustrated in the model below.

**Figure 3. 1: The intersectionality among social constructionism approach, social role theory and hegemonic masculinity approach**

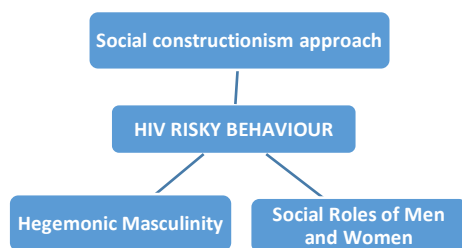


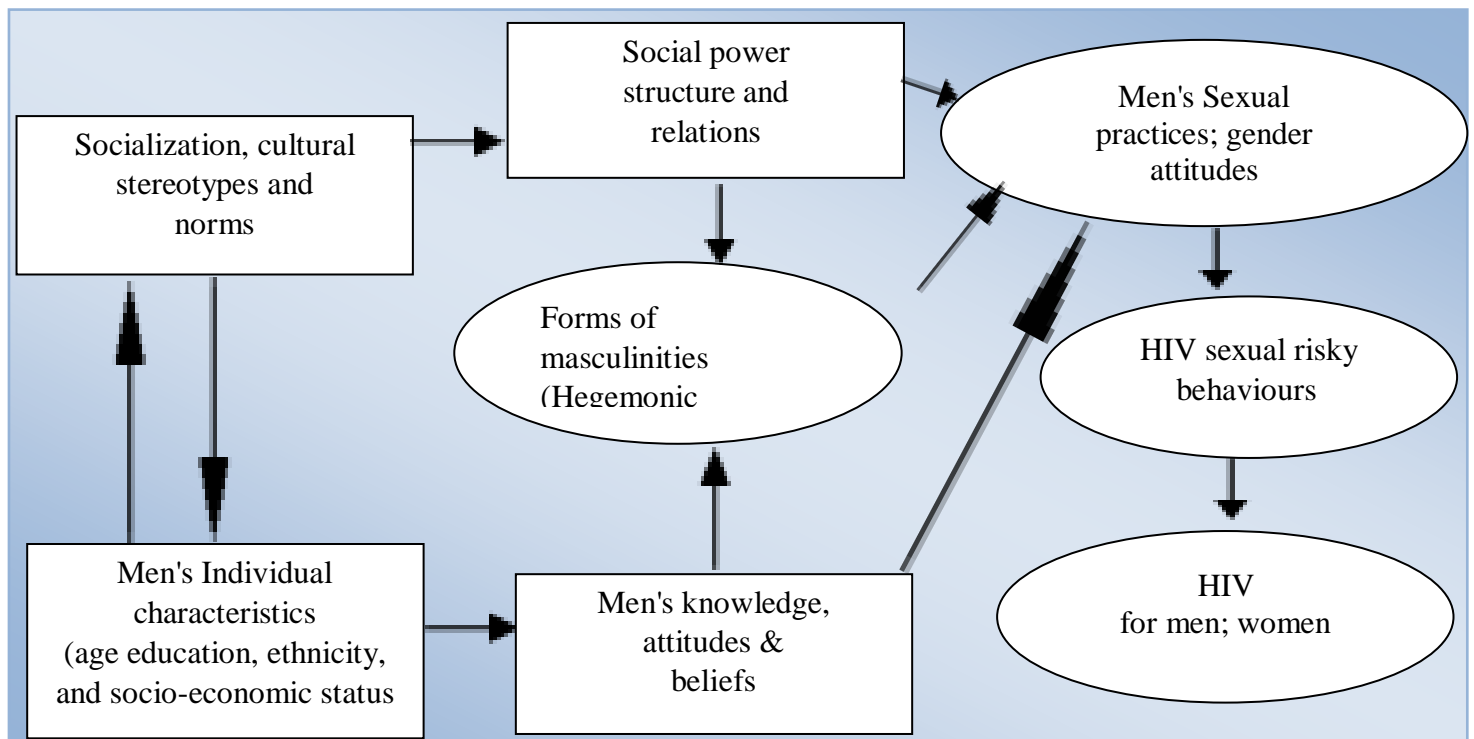
Figure 3.1 above illustrates how social constructionism approach, social role theory and the hegemonic masculinity approach interplay to create specific beliefs and norms as well as other informal rules that govern society. The position of the figure is based on the understanding that hegemonic masculinities are enshrined within the social settings with which people interact on a daily basis. Beliefs, norms, values and stereotypes and the socially constructed roles that are tied to men and women are a product of these social transactions. The underlying idea is that these tend to determine the ways through which people behave and relate with one another, most especially the interaction between men and women. Men are usually placed above the women, so, such interactions could be a hub for hidden coercion of women into risky sexual activities. However, men might also engage in sexual risky behaviours to fulfil the socially prescribed expectations attached to them.

### 3.4 Study conceptual framework

The creation, maintenance, modification, expression and manifestation of masculinities all reflect in social interactions. It is thus, imperative that this study on masculinities takes due consideration of the context and environment within which male gender identities and masculinity are founded and enshrined, looking at how these contexts interplay to influence the construct and sustain virility.

This conceptual framework illustrates how gender social power relations create and enable masculine norms to thrive in society. This study, as O'Brien et al. (2005), acknowledges the fact that masculinities are manifold, disputed, dynamic and socially constructed and they affected by both time and space. The author appreciates the fact that masculinities are diverse and hence, differ depending on the socio-cultural and historical contexts that uphold certain gender stereotypes and perpetuate certain forms of masculinities. It is understood men tend to be expected to adhere to certain prefixed gender social roles that, mostly laud maleness. The following diagram shows the study's conceptual framework of relations between various social factors, masculinities and men's sexual behaviours.

**Figure 3. 2: Conceptual framework: Masculinities and Men's Risky behaviours and its Outcomes**



### 1.7.1 Explanation of the Conceptual Framework

The above conceptual framework was derived from the review of previous literature. The framework shows conceptual interactions between men's background, individual traits and sexual and gender attitudes and sexually risky behaviours. It is probable that men's individual demographic characteristics such as age, level of education and socio-economic status play a significant role in influencing their sexual relationships, their attitudes and practices towards sex, especially in heterosexual relations.

Previous research has recognised the importance of contextual factors in constructing and maintaining masculine identities that often influence their attitudes towards sex. The framework highlights men's adherence to socially created notions about their virility coupled with individual characteristics influence their attitudes towards sex, which might compel them to indulge in risky behaviours. Contextual factors can also be part of men's early childhood socialisation, which may influence the kind of identity they embrace in their adulthood. This may include, actively identifying with or challenging the cultural 'harmful' cultural practices. The framework also recognises that male masculinities is a gendered process that often occurs

within a network of social and structural power relations usually based on the prevailing gender norms.

These power relations usually place women below men in socio-economic and personal relations. The social power structure between men and women is likely to be of considerable influence on men's sexual perilous behaviours, since the latter tend to have control over women's sexuality. The main idea behind this framework is that men's sense of masculinity is likely to influence their attitudes towards sex and hence, their engagement in dangerous sexual behaviours. In other words, the underlying notion is that positive (modern view) masculinities will most likely lead to sexual practices that reduce the risk of contracting and spreading HIV whereas negative (traditional view) masculinities will have the opposite effect.

### **3.8 Definitions of key concepts**

***Masculinity***- According to Itulua-Abumere (2013, p.42), the term masculinity “consists of those behaviours, languages and practices, existing in specific cultural and organizational locations, which are commonly associated with males and thus culturally defined as not feminine”. Moreover, Whitehead & Barrett (2001) postulates that is a product of social construction rather than a genetic trait. Therefore, the point of departure on the usage of the term masculinity is limited to the school of thought that masculinity is a social construct where men are socialised and viewed to behave in specific ways.

***HIV risky behaviour***-These are behaviours that make people vulnerable to the risk of contracting HIV (CDC, 2018).

***Hegemonic masculinity***- This the kind of masculinity that derives its meaning from “exaltation stabilizes a structure of dominance and oppression in the gender order as a whole” (Donaldson 1993, p.647).

# Chapter four

## Methodology

This chapter provides a detailed account of data sources; methods; research procedures and terms that were used in the Study. The chapter provides a detailed description of the processes undertaken to garner the data. It also justifies the choice of methods and discusses the strengths and limitations of each data source and methodology to facilitate a rigorous understanding of the results and conclusions presented in this thesis.

Important to note is that the author was not involved in the collection of the primary data used in this study, but instead utilised the data collected through HIV Incidence Provincial Surveillance System (HIPSS-WAV TWO). This was a longitudinal study to monitor HIV incidence trends in the uMgungundlovu District, KwaZulu-Natal-South Africa. The data that was collected between 2015 and 2016. However, the analysis in the current study, used the baseline given that data from the follow-up survey was not yet available for use, and yet this study had a limited time frame. The student chose to study this topic and in South Africa, mainly because of he got an opportunity through the Network between the University of Gothenburg and Health Economics and HIV AND AIDS Research Division (HEARD).

### 4.1 Study design

This chapter provides a detailed account of data sources; methods; research procedures and terms that were used in the Study. The chapter provides a detailed description of the processes undertaken to garner the data. It also justifies the choice of methods and discusses the strengths and limitations of each data source and methodology to facilitate a rigorous understanding of the results and conclusions presented in this thesis.

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#### 4.1.1 Ontological and epistemological considerations

This section presents the philosophical position that guided this study. According to Bryman (2012), ontology and epistemological stances give an account of what is known and how is it known. It is the engine upon which the whole idea of the study sails. This study followed a positivist position and of course, deductive approach.

##### 4.1.1.1 Positivism

A positivism research strategy has been widely used in the academic field over the years. This strategy is commonly used in naturalistic scientific studies (Bryman, 2012). The fundamental tenet of this theoretical approach is that the construction of truth about reality is derived from a scientific investigation that generates objective facts rather than from mere impressions and subjective interpretations (ibid). It holds the view of knowledge is obtained through observation



and scientific measurements. Therefore, positivist studies are restricted to data collection and interpretation of observable and quantifiable findings in an objective manner (Collins, 2010). Positivism follows an empiricist view that knowledge stems from human experience. It has “an atomistic, ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner” (Collins, 2010 p.38). From the theory, one can generate a hypothesis, which can be proved or disproved by the research. One of the chief advantages of the positivist approach is that the research is free of the researcher’s biases. This is because this approach assumes that the research is independent of the subject under study and so, there are limited chances that the researcher can influence the research findings (Bryman, 2012). However, this research cannot guarantee one hundred bias-free findings, as the author can be influenced his experience and knowledge about the subject area. Nonetheless, the study is based on the notion that knowledge about the truth is only gained.

#### **4.1.1.2 Deductive**

As a general rule, a positivist study adopts a deductive approach (Crowther and Lancaster, 2008). This study is supported by a deductive approach, which aims at generating quantifiable and empirical findings (Saunders, Lewis and Thornwill, 2007). Therefore, a quantitative research methodology to test the hypothesis was used. “The hypothesis should clarify testable proposition about the relationship between several concepts” (ibid, p. 105). In light of the deductive approach, a survey was conducted from which the data used in the analysis of this study was drawn.

## **4.2 Study site and population**

The region, uMgungundlovu District Municipality where the study was carried out, is located in central KwaZulu-Natal and is extremely diverse in terms of topography, climate and soils; the region presents a rich and complex natural environment with limited resources offering unique development opportunities. The region incorporates habitation in traditional settlements or farmlands through to informal, rural settlement and urban living. HIPSS was established in Vulindlela and Greater Edendale, two sub-districts of uMgungundlovu.

Vulindlela is situated to the west of Pietermaritzburg and northwest of the Greater Edendale area within the boundaries of uMsunduzi and uMgeni municipalities. The sub district is approximately 28 000 hectares in extent. This rural community has a population of just over 150 000 and is predominantly Zulu speaking. The majority of the land belongs to the traditional authority through the iNgonyama Trust and is made up of 9 wards, of which 5 are under the traditional leadership of the Amakhosi and 4 are under the ward counsellors of the local government municipal system.

The Greater Edendale area is the second largest urban centre within the Kwa-Zulu Natal province and is the main economic hub within the uMgungundlovu District Municipality. Its location has a strong influence on the regional channels of investment, movement and structuring of the provincial spatial framework for growth and development. The Greater Edendale area is situated some 10km south-west of the uMsunduzi City Centre. The two areas are linked by a dual carriage way which is more popularly known as the Edendale Corridor. This route serves not only as a path for economic growth but also as connection between various outlying rural areas in the north, including Vulindlela, to the city. Edendale is divided into two areas, the first of which is categorized as the traditional area of Edendale proper, where virtually all land is privately owned. The second area however, is regarded as the more

contemporary area of Edendale and it is here that all land vests within the ownership of either the state or the provincial government. Much of the Greater Edendale Area is densely developed with both formal and informal housing, supported in some areas by ancillary land uses and facilities. The current population within the Edendale area is about 210 000 people which comprises approximately 36% of the city's population.

### **4.3 Study size and Sampling**

The survey used a two-stage cluster-based sampling of enumeration areas (EA) to randomly select households and recruit a household-representative sample of men and women. The two areas, the Vulindlela and the greater Edendale were considered as the strata. The EA sampling frame has been triangulated from the Census 2011, the 2007 Community survey data (StatSA Community Survey) together with aerial imaging of dwellings supplied by Geo Terra Image (GTI) to obtain population number of household and persons on EA level. The sampling frame was further adjusted to the 2009-2010 GTI counts, other district council estimates, and StatsSA's released 2011 midyear estimates of population numbers per province, according to the 2009 province boundaries, race, five-year age groups and gender. This EA data were used as the sampling frame and consists of demographic information, estimated population counts of number of households, number of people as well as numbers per population group, gender and per five-year age interval. The study area consists of an estimated 95641 households with a total of 367906 individuals. Of these, an estimated 176418 are males and 191515 are females.

A total of 217278 are in the age range 15-49 years and 164302 are in age range 15-35 from whom were recruited for the cross sectional and follow-up cohort respectively. From a total of 409 EAs, 164 EAs were drawn randomly from the two districts. In the case that the EA data changes, the study would use the most up to date EA data. This would not change the sampling process as the proportion of EAs selected to the total number of EA in the study sub-districts would remain the same. Within an enumeration area the households was drawn systematically with a random start in a serpentine pattern. Study staff would identify households and use the Global Positioning Systems (GPS) receiver to record the geographic coordinates of each randomly selected household. The enrolled 61 households from each enumeration area. Sampling continued until was 10 000 households were enrolled. In incidences where a selected household abandoned, refused to complete the composition form or the members away for an extended period of time the household on the right side of the selected house, when facing the entrance of the selected household, would be used as a replacement. All replacement household would be authorised by a supervisor.

Once a household was selected, a list would be made of all the individuals who reside in the household and meet the eligibility criteria for the study. These individuals would be numbered and the handheld device would select one of these individuals at random to be included in the study. Only one individual per household was selected and enrolled in the study. In incidences where the selected individual refused to participate, the next individual would be selected. In case the second individual also refused the household would be replaced. The above-mentioned procedure for household replacement was followed where the household on the right side of the selected, when facing the entrance, would be used as a replacement. Figure 3 shows the location of Vulindlela and The Greater Edendale sub districts.

**Figure 4. 1:** Location of Vulindlela and The Greater Edendale sub districts



## **4.4 Data Collection methods and Tools**

The data were collected using some survey-structured questionnaires, through structures interviews where a survey staff would interface with the respondent in a face to face interaction (Bryman, 2012). The questionnaire consisted mostly closed ended questions where the respondent would be presented with a range of options and he/she would be required to put a ring on the best suitable answer. The main advantage of closed ended questions is that they help to minimize the potential of variability for the interviewer, thereby ensuring that the interviewer records everything that the respondent says or clarification sought where the respondent fails to understand the question (Bryman, 2012). Structured interviews were suitable as, it ensures that all interviewees are subjected to a similar framework of questioning (ibid). This implies that all respondents get a standard interview stimulus. This interviewing style creates an atmosphere where that interviewees' responses can be aggregated, and this can only be possible if all the responses are uniform (Bryman, 2012).

## **4.5 Validity, Reliability and Generalisability**

### **4.5.1 Validity**

Validity refers merely to the truthfulness or correctness of the measurements planned or intended. Seale (2004, p.74). The purpose of validity tests is to ensure that the measurements used can produce what they were intended to measure (Bryman, 2012). There are seven common threats to (internal) validity which include: maturation, history, instability and regression, testing, instrumentation, selection and experimental mortality (Seale, 2004). This study took account of the seven threats; for example, the survey tools were pre-tested to the respondents to test their suitability to generate valid results. This helped to prevent the threat of instrumentation and testing. This study was not liable to the threat of experimental mortality given that it was not an experimental study, but rather a survey.

### **4.5.2 Reliability**

Reliability refers to the consistency of a measure of a concept (Bryman, 2012, p.169). The purpose is to measure the consistency of the research to check whether it would yield the similar results if it were to be repeated under similar conditions (Seale, 2004). To ensure the reliability of the findings, this study used a standardised questionnaire with identical questions, and GPS of the households that participated were taken to locate the same household at the next survey in case one wanted to replicate the same study. The study was also based on a randomly selected

representative sample to generate generalisable findings. Besides, possible covariates were controlled for during the analysis (Bryman, 2012). Internal reliability was measured using Factor analysis and Cronbach alpha. This is useful when different categorical questions are used to create a score scale Bryman and Cramer (2011).

### **4.5.3 Generalisability**

Generalisability is concerned with the degree to which the findings of a given study applies to other settings than the one in which the study was conducted (Bryman and Cramer, 2011). In other words, it can be a subject of the external validity of the research findings (ibid). This study was based on representative same, using internationally recognised methods and procedures of data collection. Moreover, the study followed all the scientific procedures of producing valid and accurate results which are representative of the study sample. Basing on that, therefore, one could claim that findings of the study are not valid and reliable, but they generalisable.

## **4.6 Quality assurance**

The study was conducted under the oversight of the University of KwaZulu-Natal's Biomedical Research Ethics Committee (BREC) Internal Review Board (IRB). No study activities were approved to begin until all approvals could be obtained. After the initial review and approval, BREC reviewed the protocol at least annually. The study protocol, informed consent forms, participant recruitment materials, and other requested documents were reviewed and approved by BREC. Any future amendments will be conducted in full compliance with BREC requirements before implementation.

## **4.7 Ethical considerations**

Study staff made every effort to protect study participants privacy and confidentiality and provide support and referral to external agencies should this be required.

### **4.7.1 Informed consent and Self-determination**

During data collection, Verbal consent was obtained from the head of the household for the household composition assessments. The head of the household was informed that he/she would be compensated with an item to the approximate value of R10 for responding to the household composition form. Each potential study volunteer would be informed about the study and complete the English or isiZulu consent form prior to enrolment. The study volunteer would be informed that he/she would compensated with an item to the approximate value of R25 for their time should they wish to continue with study participation and for responding to the demographic, behavioural questionnaire and for the collection of biological samples. The consent / assent forms that were used in this study are:

All consent forms and data collection forms would be translated from English into isiZulu. Back translations were completed and reviewed by a bilingual independent source in order to ensure accuracy of translated information. Before beginning the informed consent process, the potential volunteer would be asked to select a relatively private location either inside or outside their home, so that the study activities may be conducted in as much privacy as possible, as appropriate. The informed consent discussion would take place in either English or isiZulu.

Participants would be given the opportunity to choose their preferred language. Prior to initiation of any study procedures, all potential volunteers would be given a printed copy of the consent form in either English or isiZulu depending upon their preference. A staff member then read the consent form aloud to the participant. At this time, potential participants were informed that their participation in the study is voluntary and that they may withdraw at any time and that withdrawal from the study would not compromise the participant's ability to access to health facilities or HIV related care in the district. Further, participants would be informed that they do not have to answer questions that make them uncomfortable and that any information that they disclosed during the course of the study they considered confidential (i.e., no personal identifiers will be used and only summary information across all participants will be reported).

#### **4.7.2 Potential risks**

The participants were made aware that the study involved minimal risk to them, that is, the collection of peripheral blood samples. As part of this study, participants were asked questions on personal information and sensitive topics, including sexual behaviour, HIV status, access to care and treatment for HIV and male circumcision. Since it was expected that some individuals could experience discomfort from taking part in these study activities. Study staff were trained to address any potential stress or discomfort that may result from study participation and to help make participants feel comfortable. As part of the informed consent procedure, all potential participants would be informed that they do not have to disclose personal information which they are uncomfortable sharing and that they can withdraw from the study at any time. There is a potential risk for participants to be "presumed" to be HIV positive by community members as study staff makes household visits for the survey. The put measures in place mitigate such misconceptions through extensive and continuous community engagement process informing the community on the purpose of the survey. Volunteers who may be HIV-infected may not have disclosed to family members and therefore feel distressed in responding to questions related to HIV. However, study staff supported study participants assuring them that all responses and information was to remain confidential.

There were also potential for a slight risk of discomfort to participants associated with blood collection. Feelings of discomfort could include feeling ill and/or having injection site complications such as slight bruising or tenderness. Study staff were trained in how to deal with these complications and would refer participants to local health facilities for additional care, as needed. Although every effort was made to keep volunteer information confidential, complete confidentiality cannot be guaranteed. Participants would be informed of this potential breach of confidentiality as part of the informed consent process. Study staff were trained in maintaining confidentiality of study participants and of any information collected.

#### **4.7.3 Potential benefits**

Potential benefits the study were explained to the participants: These included receiving information on HIV and getting a broader understanding of HIV in the community, information on accessing general health care. Participants would benefit from this study as it would be possible for early referral to HIV counselling and testing services. In addition, study staff would refer participants for management of HIV, TB, pregnancy or any other minor ailments, if necessary. Participants could also benefit from these referrals as they would be able to access care and treatment much earlier.

Societal benefits of this study include gaining a better understanding of the methods to minimise HIV acquisition. The study would also contribute to the understanding of whether risk compensation is an unintended consequence of large-scale HIV prevention programs. In addition, information from the study participants would help refine projections of HIV

infections that may be averted from prevention programs and the potential costs savings realized, compared to HIV care and treatment costs. The main member of the household completing the household composition form will receive a gift valued at R10 (+/- \$1) Enrolled participants would receive an item to the approximate value of R25 (+/- \$3) to compensate for their time at each visit.

#### **4.7.4 Confidentiality and anonymity**

The study took necessary measures to ensure confidentiality to the respondents. These included offering training to all the survey staff on procedures of protecting the participants, confidentiality and Good Clinical Practices (GCP). The staff all signed a confidentiality agreement as part of their employee contract binding them to ensure that the information obtained is kept entirely confidential. In addition, each participant was assigned a unique study participant identification number (PID) so that their name is not linked to any of their personal data or laboratory results. The PID was written on all data collection forms, HIV test results and would be matched only by this identification number, not by participants' names or other identifying information.

A master list with each participant's name and their assigned identification number was created and was accessible to only the Study Coordinator or designee. The master list would be securely maintained in password protected file at the local data management centre. All study data, including lab results, were stored securely in the study offices. All databases would be encrypted, and password protected. Study data was and is accessible only to study staff directly involved in this study. Personal locating information, including participant's name, address and phone numbers, is stored separately from study data in a filing cabinet in a secure room in the office.

All study consent forms included the contact information of Principal Investigator and local IRB if participants had questions about the study; if they wished to withdraw themselves as a participant; if they had concerns about their rights as a study participant; or if they believed that had been harmed by the study. This study involved collection of sensitive and extensive information from the participants such as personally identifying or potentially identifying information such as GPS coordinates, address, first names, and family or friends' names, listing of family member's sensitive sexual and behavioural information. Given the sensitive nature of all these data, ensuring confidentiality of these the participants was highly essential.

### **4.8 Limitations of the study**

Like any other scientific studies, this study had several limitations that are worth noting. First of all, the study had limited time to dig deep into the subject of masculinity and HIV as this is a broad subject to be exhausted within the time frames of this study. Nonetheless, the student chose to reduce the analysis and focused on one dimension of masculinity to reduce on the scope of the study.

In addition, it was challenging to navigate and work through a big dataset with 10,000 respondents within the time at hand. To solve this, the student kept close contact with the statistics office at HEARDS and all the concerns regarding the dataset were addressed.

The student faced challenges related to interpretation of dataset, given that he did not participate in the process of data collection, but rather utilised the already existing datasets from Health Economics and HIV AND AIDS Research Division (HEARD). This affected the analysis in the sense that the student lacked touch with the contextual setting in which the data

was collected. Nonetheless, the student sought support of the staff at HEARD who were familiar with the dataset and the whole study through which the data was drawn.

## **4.9 Data analysis**

The survey produced different types of data which included categorical, nominal and interval data (Bryman and Cramer, 2012). The values which could not be measured numerically were also classified into suitable categories and ranked where necessary (Bryman, 2012). These categories informed the choice of method of analysis used in this study. Simple frequencies and cross-tabulations were used to establish the levels and patterns of men's masculinity and their likelihood to indulge in HIV risky practices. To measure the relationship between variables, Bivariate, Non-parametric Measurements whereby Chi-square, Correlations and Pearson r. To simplify the interpretation of the findings by the reader, the findings were visualised in the form of tables and diagrams to show interdependences, compare proportions and patterns (Bryman, 2012). Beyond that, hierarchical multiple regression was used to isolate potential confounding factors associated with levels and patterns of men's masculinity and HIV risky behaviour. Analyses were done with Statistical Package for Social Science (SPSS). Even though the data were already coded and processed, some variables were recorded, and other were filtered to produce sensible results, but also to keep within the scope of the study.

### **4.1.1 Descriptive analysis**

Here, frequencies and descriptive information concerning the variables under study were presented. These included, masculinity as an independent variable and HIV risky behaviour as a dependent variable. Other independent variables included in the analysis were age, level of education, HIV status, marital status and race. These were presented in tables and graphs basing on the type of data. The dependent variable was a composite of proxy variables for risky behaviour, which included transactional sex, condom use, and condom use after drinking and sex after drinking. Cronbach alpha  $\alpha$  and factor analysis were used to determine internal reliability of the within the variables used to create an index.

### **4.9.2 Explanatory analysis**

This level analysis was used to establish the association between the variables under study. The relationship was determined by measuring the level and strength of correlations between independent and the dependent variable. Analyses were done using SPSS. Bivariate, and Multi-variate, Non-parametric Measurements such as Pearson's r, cross tabulation, Chi-square analyses, and an ordered logistic regression was used to measure the relationship between variables.

### **4.9.3 Internal reliability analysis**

This was done using factor analysis and Cronbach's Alpha. The reason this analysis was to measure internal reliability of individual items used to create masculinity variable. According to Bryman & Cramer (2011), factor analysis and Cronbach's Alpha can offer a suitable measure for internal reliability when a multiple scale items' is created. It is therefore upon this understanding that the technique was included in this analysis as these fulfilled conditions for its application.

### 4.9.3.1 Factor Analysis

The factorability of four masculinity index items were examined. Several well recognised criteria for the factorability of a correlation were used. It was revealed that all items correlated well with each item, which suggests a reasonable factorability.

**Table 4. 1: Correlations matrix for factor analysis**

Correlation Matrix <sup>a</sup>		Man Decides	Man Needs	Man Dislike Condom	Man Partner	Multiple
Correlation	Man Decides	1.000	0.522	0.507	0.140	
	Man Needs	0.522	1.000	0.475	0.223	
	Man Dislike Condom	0.507	0.475	1.000	0.164	
	Man Multiple Partners	0.140	0.223	0.164	1.000	
Sig. (1-tailed)	Man Decides		0.000	0.000	0.000	
	Man Needs		0.000	0.000	0.000	
	Man Dislike Condom		0.000	0.000	0.000	
	Man Multiple Partners		0.000	0.000	0.000	

a. Determinant = .469

Source: Factor analysis

Secondly, the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.70, above the commonly recommended value of .6, and Bartlett's test of sphericity was significant (p=0.000).

**Table 4. 2: communalities between the items**

Communalities	Initial	Extraction
Man Multiple Partners	1.000	0.152
Man Dislike Condom	1.000	0.624
Man Needs	1.000	0.660
Man Decides	1.000	0.653

Extraction Method: Principal Component Analysis.

Table 4.2 shows that communalities were all above 0.3, except for one (Man have multiple partners). This further confirms that each item shared some common variance with other items. Hence, factor analysis was deemed suitable with 3 items excluding one.

Principal component analysis was used because the primary purpose was to identify and compute composite scores for the factors underlying the abridged version of the Masculinity index. Overall, these analyses indicated that three distinct factors were underlying Masculinity index items and that these factors were moderately internally consistent. One of the four items was eliminated, however the original factor structure proposed by Frydenberg and Lewis (1993) was retained. An approximately normal distribution was evident for the composite score data in the current study, thus the data were well suited for parametric statistical analyses.

### 4.9.3.2 Cronbach's Alpha

In addition to factor analysis, Cronbach's alpha  $\alpha$  was carried out to measure the reliability or internal consistency of the items used in creating an index for masculinity. These items included: Man decides when to have sex, Man needs sex more than women do, Men dislike using condoms and it is ok for a man to have multiple partners. The results of *Cronbach's Alpha* are laid out in the table below.



**Table 4. 3: Summary of how Cronbach’s alpha was computed**

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Man Decides on when to have sex	5.5032	3.378	0.562	0.359	0.562
Men Needs sex more than women	5.8757	3.171	0.580	0.348	0.546
Man Dislikes Condom	5.5771	3.431	0.543	0.320	0.575
Man Multiple Partners	6.5052	4.900	0.216	0.054	0.751

The results of Cronbach’s alpha showed that for scale to reach acceptable reliability,  $\alpha = 0.75$ , some items needed to have been deleted from the equation. Indeed, after deleting item four (It is ok for a man to have multiple partners), Cronbach’s alpha increased from  $\alpha=0.68$  to  $\alpha=0.75$ . This further proves that a three-item scale was appropriate for this composite variable of masculinity.

## 4.11 Defining the variables

### 4.11.1 Independent Variable

The independent variable (masculinity) did not have direct measure and as so proxy variables were used to capture masculinity of the respondent in regard to their sexual behaviours that can expose them HIV and AIDS. The proxy variables used to represent masculinity in men were; men need for sex more than women, men being the decision makers on the condom use, men dislikes condom. The responses form the respondents had three levels that is to say 1 Agree partially agree and disagree. The different responses were combined and an average weight which is representative of these variables was obtained for all the observation. Still all the final responses of the variable masculinity were recoded with an ordered rating (Low masculinity, moderate masculinity and high masculinity). Although the study had initially envisaged a four-item scale, the fourth item, that is, ‘*It is okay for a man to have multiple partners*’ was later excluded from the analysis because reliability tests for the score using both factor analysis and Cronbach’s alpha  $\alpha$  proved that it was not appropriate for the scale and would distort the results.

### 4.11.2 Dependent Variables

The dependent variable (HIV risky behaviour) was created using different variables such the level of engagement in transactional sex, condom use, sex after drinking and condom use after drinking. The responses form the respondents had three levels that is to say 1 Always, sometimes, and never. The different responses were combined and an average weight which is representative of these variables was obtained for all the observation. Still all the final responses of the variable HIV risky behaviour were recoded with an ordered rating (Less risky, fairly HIV risky behaviour and highly risky).

## 4.12 Limitations and reflections of the methodology

This study took a purely quantitative methodology that involved analysing dataset that comprised only quantitative data. Quantitative methodology was vital for understanding

associations between different variables and to provide a clear snapshot picture of the phenomenon being investigated through providing quantitative data (Bryman, 2012). This methodology, however, misses out one important ingredient, in that, it does not provide much information about the contextual setting under which knowledge being sought after is created (ibid). Nonetheless, the student used appropriate methods to gain maximum quantitative data and above all, the study was based on a random sampling which ensured a high degree of validity of the findings.

# Chapter Five

## Results and Findings

This section presents the results and findings obtained from the study. This were presented in three levels, namely univariate, bivariate and multivariate.

### 5.1 Univariate analysis

This section presents the data on sample that was used in the analysis of the study. It presents descriptive statistics as well as frequency information of the data. These data were useful in stratifying and explaining the findings.

#### 5.1.2 Demographic characteristics of the sample

Demographic characteristics selected for the sample, included income status, age, level of education and level of education. These are presented in the table below.

**Table 5. 1: Description of the sample’s demographic characteristics**

Variable	Frequency	Percentage	Cumulative percentage
<b>Age</b>			
Low (15-24)	382	19	19
Middle (25-34)	635	31	50
Older men(=>35)	1001	50	100
<b>Income status</b>			
No income	35	1.0	1.0
R1-R500	86	2.5	3.3
R501-R2500	670	18.9	22.2
R2501-R6000	554	15.6	37.8
R16001-R30,000	142	4.0	41.8
Greater than 30,000	8	0.2	42.0
No response	2058	57.9	100
<b>Education</b>			
No schooling	150	4.2	4.2
Primary	232	6.5	10.8
Incomplete	1549	43.6	54.3
Complete secondary	1414	39.8	94.1
Tertiary (diploma or degree)	206	5.8	100.0

Table 5.1 indicates that the majority 50%, N= 1005 were aged 35 and above, others 31%, N= 630 were 25 aged between and 34, while the least 19%, N=377 of the men were aged between 15 and 25 years. Concerning income status, the results show that most men (19%, N= 670) had a monthly ranging from R1-R2500, while 16%, N=554 had a monthly income ranging between R2501-R16, 000 per month, others 4.0%, N=142 had a monthly income of R16, 001-R30, 000 and a paltry 0.2%, N=8 earned 30,000 and above per month. Regarding the respondents’ level of education, 4.2%, N=150 had no formal education, while 6.5%, N=232 and 44%, N=1549 had primary and incomplete secondary education respectively, while 40%, N=1414 had completed secondary and only 6%, N= 206 had Tertiary (diploma or degree) education.

### 5.1.1 Masculinity

The independent variable (masculinity) did not have a direct measure and hence, proxy variables were used to capture the respondents' degree of ascription masculine norms. The proxy variables used to represent masculinity in men were; men need for sex more than women, men being the decision makers on condom use, men dislike to condom. The responses from the respondents were captured on a three-level Likert scale and they included: 1 Agree, 2 partially agree and 3 disagree. The different responses were combined and an average weight which is representative of these variables was obtained for all the observation. Still all the final responses of the variable masculinity were recoded with an ordered rating (Low masculinity, moderate masculinity and high masculinity).

**Table 5. 2Men's degree of ascription to Masculine norms**

Variable	Agree		Partially agree		Disagree	
	Frequency	Percent	Frequency	Per cent	Frequency	Per cent
Men need sex more than women.	1470	41.4	408	11.5	1675	47.1
Men dislike condoms.	1923	54.1	562	15.8	1068	30.1
Men decides on when to use condoms	2133	60	406	11.4	1014	28.5

Table 5.2 indicates that most (41%) men were of the view that men need sex more than women; while 15 and 47% partially agreed and disagreed respectively. In addition to that, the majority (54) of these men held the view that men do not like using condom and 16% and 30% partially agreed and disagreed respectively. Moreover, the vast majority (60%) embraced the notion that men should decide on when to use condoms, whereas 11% and 29% partially agreed and disagreed respectively. These responses were later combined to form an average weight as shown in the table below.

**Table 5. 3: An average weight for masculinity of the respondents**

Degree of masculinity	Frequency	Valid Percent	Cumulative Percent
High	320	9.0	9.0
Moderate	2082	58.6	67.6
Low	1151	32.4	100.0
Total	3553	100.0	

The table above shows that when responses were later combined to form an average weight, the majority (59%) of the men had moderate level of ascription to masculine norms as compared to 9% and 32% who had high and low levels of masculinity respectively.

### 5.1.2 HIV risky behaviour

The dependent variable (HIV risky behaviour) was created using different variables such the level of engagement in transactional sex, condom use, sex after drinking and condom use after drinking. The responses from the respondents had three levels (1=Always, 2= Sometimes, and 3=Never). The different responses were combined and an average weight which is representative of these variables was obtained for all the observation. Still all the final

responses of the variable HIV risky behaviour were recoded with an ordered rating (Less risky, fairly HIV risky behaviour and highly risky).

**Table 5. 4: HIV risky behaviour**

Variable	Never		Sometimes		Always	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Sex After Drinking	490	34.1	893	62.2	52	3.6
Condom Use	146	18	606	55	192	18
Condom use after drinking	488	34	892	62	52	04
Transactional sex	2437	85	395	14	27	01

Table 5.4 indicates that 34% had never used condom after alcohol consumption, while 62% were inconsistent users of condom after drinking, and a paltry 04% always used condoms after drinking. Regarding condom usage in general, 18% reported that they were not using condoms, while 55% were inconsistent users of condoms, and 18% were regular users of condoms. Furthermore, 34% had never participated in sex after drinking; while 62% participated in sex after drinking occasionally, and a dismal 04% percent always engaged in sex after drinking. On transactional sex, the results indicate that the majority 85% had never participated in transactional sex; while 14% participated occasionally and a paltry 01% percent always participated in transactional sex. These responses were later combined to form an average weight as shown in the table below.

**Table 5. 5: An average weight for masculinity of the respondents**

Level of risky behaviour	Frequency	Percent	Cumulative Percent
High risky behaviour	10	0.3	0.3
moderate risky behaviour	918	25.8	31.2
less risky behaviour	2014	56.7	68.5
Total	2942	82.8	100.0
Missing	611	17.2	

The table above shows that when responses were later combined to form an average weight, the majority (57%) of the men were less risky to masculine norms as compared to 0.3% and 31% who had high and moderate levels of masculinity respectively.

## 5.2 Bivariate analysis

### 5.2.1 Research question one: Bivariate analysis of the relationship between masculinity and HIV risk factors

This level of analysis was aimed at establishing the relationship between independent variables (Masculinity, and the dependent variable (HIV risk factors). The relationship between other variables such as Age, race, income status, level of education were also assessed against HIV risk factors. The relationship was assessed by the P-Value at 95% confidence interval. If p-value is less than 0.05, then there is significant relation otherwise, there is no relationship.

**Table 5. 6: The relationship between Masculinity and Risk sexual behaviour**

Risky * Mascindex Cross tabulation						
Variable			Mascindex			Total
			High Masculinity	Moderate masculinity	Low masculinity	
Risky	High risky	Count	4	4	2	10
		Percent	40.0%	40.0%	20.0%	100.0%
	moderate risky	Count	91	549	278	918
			9.9%	59.8%	30.3%	100.0%
	less risky	Count	143	1205	666	2014
		% within Risky	7.1%	59.8%	33.1%	100.0%
Total		Count	238	1758	946	2942
		% within Risky	8.1%	59.8%	32.2%	100.0%

P-value <0.005 (95% CI)

**Symmetric Measures** indicate that there is a weak ( $\Phi=0.085$ ,  $p <0.05$ ,  $CI=95\%$ ) and significant relationship between masculinity and HIV risk Behaviours (Bryman and Cramer, 2011). This implies that higher masculinity is associated with an increased engagement in risky behaviour. Therefore, the null hypothesis that assumed a non-significant relationship will be rejected. Hence there is a significant relationship between the two variables.

In addition, the study also measured the relationship between levels of education and HIV risky behaviour. The results are presented in the table below.

**Table 5. 7: The relationship between HIV risky behaviour and level of education**

			What's your highest level of education						Total
			Pre-primary/No schooling	Primary	Incomplete secondary	completed secondary	Tertiary	No response	
Risky	Highly risky	Count	0	1	6	2	1	0	10
		% within Risky	0.0%	10.0%	60.0%	20.0%	10.0%	0.0%	100.0%
	Moderately risky	Count	72	66	360	376	44	0	918
		% within Risky	7.8%	7.2%	39.2%	41.0%	4.8%	0.0%	100.0%
	less risky	Count	21	132	849	872	139	1	2014
		% within Risky	1.0%	6.6%	42.2%	43.3%	6.9%	0.0%	100.0%
Total		Count	93	199	1215	1250	184	1	2942
		% within Risky	3.2%	6.8%	41.3%	42.5%	6.3%	0.0%	100.0%
P-value		P=0.0001<0.05(CI=95% )	There is a significant relationship between the two variables						

The results indicated a significant relationship ( $r=19$ ,  $p<0.05$ ,  $CI=95\%$ ) between level of education and HIV risk factors (Bryman and Cramer, 2011). Therefore, to ascertain that direction of the relation whether negative or positive, the two variables that were statistically significant with HIV risky behaviour were taken further into multivariate analysis using an ordered logistic regression.

## 5.3 Multivariate Analysis

**Table 5. 8: An ordered logistic regression results**

HIV risk factors (Dep variable)	Odds Ratio	Std. Err.	z	P>z	[95% level]	Confidence
<b>1.Masculinity</b>						
Low Masculinity	<b>1.0000</b>					
Moderate masculinity	1.538416	0.234281	2.83	<b>0.005</b>	1.141424	2.073484
High masculinity	1.557012	0.22468	3.07	<b>0.002</b>	1.173443	2.06596
<b>2.Level of education</b>						
<b>Tertiary</b>						
Pre-primary	<b>1.000</b>					
Primary	9.694814	2.830379	7.78	<b>0.001</b>	5.470577	17.1809
Not completed secondary	7.34999	1.794058	8.17	<b>0.004</b>	4.555301	11.85923
Completed secondary	7.435237	1.813146	8.23	<b>0.000</b>	4.610224	11.99134
Completed secondary	6.33977	1.774448	6.6	<b>0.000</b>	3.662937	10.9728
/cut1	<b>-3.462269</b>	<b>0.398344</b>			<b>-4.24301</b>	<b>-2.68153</b>
/cut2	<b>1.562654</b>	<b>0.271291</b>			<b>1.030933</b>	<b>2.094374</b>

From the results above, masculinity among men and their level of education are significantly related to HIV risk factors ( $P < 0.05$ ,  $CI = 95\%$ ). The results show that as masculinity among men increases, an increased the likelihood of engagement in HIV risky behaviour. The findings are clear that moderate masculine men has a higher odds ratio ( $OR = 1.538$ ) as compared to the low masculine men while the men with higher masculinity ( $OR = 1.55$ ) have high HIV risk than their moderate ( $OR = 1.538$ ) and low masculine counterparts ( $OR = 1.00$ ). The level of education of men is also associated with the low HIV risk factors as shown in the table where HIV risk reduces with an increase in the level of education. This shows that as one's education level increases, there is a clear reduction in HIV risk behaviour. This is plausible in that the study hypothesized that men with high education ought to have increased knowledge of HIV and thus able to respond to HIV prevention information thereby reducing the risky behaviour.

### 5.2.3 Research question two: The relationship between HIV risk behaviour and HIV prevalence

The prevalence of HIV was captured using a question where the respondents were asked about their HIV status. The responses were recorded of three nominal levels, that is: positive, indeterminate and negative.

**Table 5. 9: Description of the sample on HIV status**

HIV Status	Frequency (N)	Percentage (%)
Indeterminate	8	0.4
Negative	1719	76
Positive	522	23
Missing data	1298	37
Total	3547	100

Table 5.9 above shows that the majority 76% (N=1719) were HIV negative and 23.2 (N=522) were HIV positive, whereas a paltry 0.4% (N=8) were not aware of their HIV status. The overall ( $SD=0.4$ ,  $mean=2.2$ ).

### 5.3.2 Bivariate analysis of the relationship between masculinity and HIV prevalence

This was used to determine the association between HIV risky behaviour and HIV prevalence. Since this analysis involved measuring the relationship between a nominal and ordinal variables, cross tabulation was used to measure the relationship between the two variables as recommended by Bryman and Cramer (2011). These results are presented in the table below.

**Table 5. 10: The relationship between risky behaviour and HIV prevalence**

		Risky * HIV status of the respondent Cross tabulation			
		HIV status of the respondent		Total	
		NEGATIVE	POSITIVE		
Risky	High risky	Count	7	3	10
		% within HIV status of the respondent	0.4%	0.3%	0.3%
	Moderately risky	Count	580	338	918
		% within HIV status of the respondent	29.2%	35.3%	31.2%
	less risky	Count	1398	616	2014
		% within HIV status of the respondent	70.4%	64.4%	68.5%
Total	Count	1985	957	2942	
	% within HIV status of the respondent	100.0%	100.0%	100.0%	

The table above shows that there is relationship between risky behaviour and HIV prevalence. It indicates that reduced HIV risky behaviour is associated with reduced HIV prevalence. However, the model revealed a non-statistically significant relationship as shown in the symmetric model below.

**Table 5. 11: Symmetric Measures for the relationship between risky behaviour and HIV prevalence**

		Value	Approx. Sig.
Nominal by Nominal	Phi	.035	.351
	Cramer's V	.025	.351
N of Valid Cases		3553	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.



The table shows that the (Phi =.035,  $p>0.05$ , CI=95%), which reveals a non-statistically significant relationship. This, hence, confirms the null hypothesis that there is no relationship between risky behaviour and HIV prevalence.

# Chapter six

## Discussion, Conclusion and Suggestion for further research

### 6.1 Discussion.

#### 6.1.1 Masculinity and HIV risky behaviour

The findings of the study demonstrated that masculinity has an impact on men's engagement in risky behaviour in UMgungundlovu District, Kwazulu-Natal, South Africa. The study found out that men with higher masculinity had almost ten times (odd ratio=1.557012) higher likelihood to engage in risky behaviour as compared to men with moderate and low masculinities. This finding is in line with the findings of previous studies that linked masculinity with HIV risky behaviour. For example, a study conducted by Odimegwu and Okemgbo (2008) in Nigeria indicated that unsafe sexual practices are significantly associated with ascriptions to traditional masculine ideologies. Moreover, at the univariate level, my study found out that most men were likely using condoms inconsistently both in 'normal' sexual relationships (55%) and after consumption of alcohol (62%). Inconsistent condom use has underscored by previous studies such as that of Jama Shai et al. (2010) as one of the deadliest HIV risky behaviours, in that, it puts both the men and their sexual partners on the verge of contracting HIV and AIDS. Moreover, poor condom usage is linked to traditional masculine norms where some South African men hold the belief that condoms reduce sexual pleasure and should be used only by sex workers (Ackermann and de Klerk, 2002). Viewing this from the window of hegemonic masculinity, one can argue that men's inconsistency use of a condom makes women more vulnerable to HIV contraction. This is because according to Morell (2001) men tend to have control over condom use, and they usually determine whether to use or not to use a condom. This scenario could be attributed to the fact that men have more power over women in the social gender hierarchy (Connell, 1995). Connell, using lenses of hegemonic, asserts that society tends to laud men's masculinity in society, a scenario that leaves women in socially disadvantaged positions.

Besides, this study found out that most (62%) were likely to engage in sexual activities after alcohol consumption. This is a critical finding owing to the fact that previous studies such as the one carried out by Schneider et al. (2012), has ranked alcohol consumption among the riskiest factors for acquisition of HIV and AIDS. Schneider et al. (2012), claim that even though the link between alcohol consumption and HIV is still under scrutiny in many countries, Schneider et al. claim that alcohol consumption is concomitant with HIV. They base their claim on the view that countries with a high alcohol consumption tend to double as the same countries with the highest HIV burden. They allude to South Africa which has the world's highest HIV burden alongside the highest alcohol consumption per drinker (ibid).

Epistemological studies have also shown that alcohol consumption causes myopia and alters cognitive ability, hence, soaring one's chances of engaging in usually, unprotected, transactional, coerced and regretted sexual encounters with casual or concurrent partners (Matzopoulos et al., 2012). Moreover, alcohol usage is invariably connected with high-risk sex with the already HIV positive people (Shuper et al., 2009). Thus, the impact of alcohol consumption on HIV risky behaviour cannot be negated (Matzopoulos et al., 2012). Theorising this using hegemonic masculinity and social role theory, it can be argued that socialisation of

men and the stereotypical nature of general roles have an influence on their alcohol use, whereby men drink as a form of expressing their idealized forms of masculinity to prove their superiority and power from and over women and other inferior men (Hinote, and Webber, 2012). Messerschmidt's (2005) argues that hegemonic masculinity encourages men to engage in unhealthy behaviours which may include drug use and unprotected sex after drinking.

The study also found out that level of education had a statistically significant relationship with men's risky behaviour. The study results, through an ordered logistic regression, demonstrated that an increase in one's level of education is likely to reduce their sexual risk almost ten times than those with lower levels of education. This result differs from the findings of the previous studies especially those that were conducted early in the days. For example, Hargreaves & Glynn (2002), found out that increased level of education was associated with increased HIV risky behaviour. The difference could be attributed to the fact that lots of HIV messages have been spread in the recent days. UNAIDS (2017) pointed out that South Africa has injected huge amounts of money in HIV education as a preventive measure. It is discernible that increased level of education enhances one's cognitive capacity thereby enabling them to comprehend and respond to HIV information. Therefore, behavioural likely to occur faster among the educated than those with low education (Hargreaves & Glynn, 2002).

However, we cannot conclude that only masculinity and education can fully explain risky behaviour since they did not correlate one hundred percent, other contextual and environmental and other socio-economic factors could have an influence on men's risk behaviour. For example, Davey-Rothwell et al. (2015) postulate that perceived prevalence of sexual risk behaviours is hugely linked to neighbourhood disorder. Also, Wilson (2012) observes that riskier norms that underpin sexual behaviour are closely associated with impoverishment. He claims that different norms tend to emerge and sustain themselves when impoverished neighbourhoods are socially isolated. Moreover, economic hardships tend to have severer effects on women than men since the latter usually control economic resources, especially in patrilineal societies (Hunter, 2002). This scenario could be understood using hegemonic masculinity and social construction theories which presume men's influence over women that emanate from gender stereotypes. Several studies, mainly from South Africa, have also attributed the gendered basis for women's position in transactional sex to masculinities (Stoebenau et al., 2016). Hegemonic masculinity is pointed out in several studies carried out in South Africa as a massive contributor of women's vulnerability in transactional sex. Jewkes and Morrell, (2012, p. 1729) claim that hegemonic masculinity is associated with "proving heterosexual success with women (gaining the 'best' and most female partners) and asserting control over women" through "unequal and often violent relationships" (Dunkle et al., 2007, p.8). Dunkle et al. (2007) postulate that providing material goods is one of the strategies used by men to secure female partners. Moreover, the socially prescribed roles of men and women have taught women to respect and submit to their male partners' demands (Strebel et al., 2006). This has an enormous impact on women's dependence on men without fighting back, but also women tend to keep silent even if they were coerced into unprotected sexual intercourse (Morrell, 2003).

### **6.1.2 Risky behaviour and HIV prevalence**

The study also involved measuring the relationship between risky behaviour and HIV prevalence. The results indicated a non-statistically significant relationship between HIV risky behaviour and HIV prevalence. These results affirm the null hypothesis that there is no relationship between risky behaviour and HIV status. These findings seem to differ from the findings of previous studies that have linked risky behaviour with HIV Acquisition (Valleroy et al., 2000). This though could be attributed to several reasons such as the sampling method,

the sample size itself and even the study area. It is also possible that even though risk behaviour is associated with HIV risk, the factors that promote high HIV prevalence go beyond just engaging risky behaviour. It may not suffice to measure HIV prevalence based on just risky behaviour or on social, cultural factors or lifestyle and neglect other biological avenues through which HIV is transmitted. These may include among others, mother-child HIV transmission, sharing sharp objects and blood transfusion (CDC, 2018).

Another plausible alternative could link to the study's point of departure, whereby the point of departure for this study focused on heterosexual relationships. However, the previous literature offers a legion of evidence that same-sex relationships also put men at an increased susceptibility to acquiring HIV and AIDS (Valleroy et al., 2000). Furthermore, my results could have been due to the fact that the study focused on only men filtering out the women and yet, according to some previous studies, men's engagement in risky behaviour have a grave impact on women regarding HIV acquisition than even the impact on men themselves. Therefore, one can not entirely conclude that risky behaviour has no impact on HIV prevalence since the prevalence rate is computed among the entire population not just based on men. Therefore, even though the study revealed a considerable rate of HIV prevalence among men (23%), the results do not show enough evidence that this caused by risky behaviour.

Moreover, according to Connell (1995), hegemonic masculinity also involves unequal relationships among men of weaker masculinities. At the same time, same-sex relationships are stigmatised based on cultural and socially constructed norms and values on sexual relationships. These results, therefore, differ from other studies that link masculinity to high prevalence (Valleroy et al., 2000).

One major limitation of this study is that it did not put into consideration behaviours such as sharing of sharp objects like needles and same-sex relationships that may also have an enormous impact on HIV acquisition than just risky behaviour. Besides, the study did not carry out an in-depth observation of men but instead focused on only self-reported risky behaviour, who could have given misleading responses.

In general, the study results provide substantial evidence that masculinity has a substantial impact on HIV risky behaviour. As the study hypothesised, men with a higher ascription to traditional masculine norms tend to have a higher likelihood to engage in sexually risky behaviours.

## **6.2 Conclusions**

The purpose of this study was to find out the impact of men's masculinities on HIV risky behaviour. In other words, the study intended to investigate whether men's masculinities influenced in determining how they (men) behave, amongst themselves and in their interaction with women in society. The study presumed that men's behaviour put them at the risk of contracting or spreading HIV. The study was carried out in the province of KwaZulu-Natal, South Africa. This study area and population were vital for obvious reasons, which included among others, the HIV burden concerning both prevalence and incidence. It is important to note that South Africa has the world's highest HIV burden, and it was captivating for one to get insights on some of the factors that contribute to the persistence of the epidemic despite a surfeit of interventions in place and effectively implemented in the country.

South Africa is a highly patriarchal society, where men have more power and control over women. So, the author intended to find out whether the HIV problem in South Africa was rooted in socio-cultural factors other than like HIV services. It was, therefore, worth to test the

hypothesis that assumed that men's masculinity is connected to a high degree of engagement in behaviours that may lead to acquisition or spread of HIV. The effects of engaging in HIV risky behaviour are not only limited to men but their female sexual partners. The situation is even direr for the women in patriarchal settings where the social norms give men almost absolute control over female sexuality (Ampofo 2001 in Ganle 2016), hence, putting the latter a higher risk of contracting the virus.

Overall, the study revealed that their masculinity is associated with HIV risky behaviour among men. However, the study did not produce any evidence that HIV risky behaviour leads to increased HIV prevalence. The latter result could have been because the study focused on only men. Despite such findings, the previous literature shows that most HIV interventions mostly target women. The literature revealed that there is a tendency to neglect men, especially, in the distribution of information and scholarships to understand men's perspective on HIV and potential socio-cultural factors that drive men's sexual behaviours. The study, therefore, provides persuading evidence that contextual and cultural factors have a profound impact in not only sustaining HIV risky behaviour but have also hindered the efficacy of HIV intervention programmes.

Interestingly, all the conventional HIV prevention measures, especially condom use is highly determined by men. This makes it plausible that involving and mainstreaming men's masculinities and behavioural changes into HIV programming could result in enormous dividends concerning the reduction of the epidemic. This study also offers substantial evidence that gender inequalities, power and social relations have profoundly influenced the spread of the epidemic and tend to hinder the utilisation of HIV services. This is exacerbated by the social systems and structures of gender that place women and girls in acquiescent position to men regarding making critical sexual decisions.

Men are implicit to be driving the epidemic through risky sexual behaviour such as transactional sex with a high preference for unprotected sex. It is, therefore, necessary for HIV intervention programs, to consider the influence of men's masculinities on their engagement in risky behaviour, but also gain a deeper understanding of the socio-cultural and other contextual factors that create and sustain certain virility and sex-based norms and stereotypes. Thus, one can recommend a shift in HIV prevention programming from models of preventive programmes and interventions that are individual-based to a more cultural, contextual and multi-level explanations and interventions. Otherwise, failures of HIV and other preventive programs targeting men to live to its desired outcomes will continue to be blamed on the individual, instead of the context that shapes the individual.

Whereas the exclusive attention on women has resulted in some dividends, one would wonder why these interventions have failed to provide impressive outcomes for reaching the anticipated HIV prevention goals. This justifies why this basing on this study, the researcher appreciates the necessity to poise the understanding of gender as a subset of socio-cultural systems that perpetuate specific behavioural patterns that affect both men and women (Mane and Aggleton, 2001). The study also demonstrates that whereas masculinity is not the only overruling factor impelling men's sexual and HIV risky behaviour and practices, it is definite that masculinity is central to men's perception, interpretation and reaction towards HIV AND AIDS prevention and treatment programs.

In a nutshell, the results provide evidence that policymakers can base on to design policies and other HIV related interventions. Therefore, research on men would improve formulation programmes that are user-friendly to both genders.

### **6.3 Implications for social work**

There is no doubt that HIV and AIDS are of paramount importance to the profession of social work. The results of this study provide an affirmation that social workers have an uphill task in response to the HIV pandemic. Moreover, the previous literature seems to support the notion that structural inequalities play a crucial role in sustainable practices that perpetuate spread and acquisition of HIV. The social work profession is mandated to promote social justice and wellbeing of people, primarily by uplifting the lives of the vulnerable groups (IFSW, 2018), through knowledge and empowerment. In this case, both women and men are highly susceptible to the infection of HIV through driving risky behaviours on the side of men and accepting and sustaining the same behaviours on the side of women. Promoting social change through promoting behaviour change especially for men and boys is, therefore, an area that needs considerable attention from the profession. These findings also provide insight that social work education needs to integrate HIV and AIDS in social work education to equip social worker students with appropriate knowledge and skills to work with HIV in their respective countries, but most especially in sub-Saharan Africa where HIV prevalence is unprecedented. There is a need for social workers who are skilled in HIV, mainly because social work is best situated to address the socio-cultural and context factors that drive HIV and AIDS (Bowen, 2013).

### **6.4 Suggestions for future research**

In suggesting future research on this subject, other scholars in the field of masculinity and HIV could replicate the same study but with from a qualitative point of view. This would enable them gain deeper insights on socio-cultural and contextual factors that could mediate the impact of masculinity on sexual risk. The findings of the current study are hinged on measuring associations but do not go deeper to explore the socio-cultural and contextual factors behind these associations. Qualitative methods such as Focused Group Discussions, In-depths interviews and participatory observations could help to provide such insights.

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## **Appendices**

### **Appendix 1: Informed Consent Form**

#### **INFORMED CONSENT FORM FOR SAMPLE STORAGE FOR POSSIBLE FUTURE RESEARCH FOR VOLUNTEERS 18 YEARS AND OLDER**

The Principal Investigator of study is  
Dr Ayesha BM Kharsany  
2nd Floor Doris Duke Medical Research Institute  
Nelson R Mandela School of Medicine  
Private Bag 7, Congella 4013, Durban, South Africa  
PHONE: 031-260 4555

#### **INTRODUCTION**

If you agree to take part in the HIPSS study, there may be some remaining blood, urine and vaginal swab samples (females) known as samples, taken from you during the study that might be useful for future research. You are being asked to agree to the storage of the left-over samples for possible future research that will include additional testing. This is research that will be conducted in the future that may or may not be related to the HIPSS study.

This consent form gives you information about the collection, storage, and use of your samples for possible future research. The study staff will talk to you about this information. Please ask if you have any questions. If you agree to the storage of your samples for possible future research, you will be asked to note this on this consent form. You will get a copy of this form to keep.

#### **HOW WILL YOU GET THE SAMPLES FROM ME?**

The HIPSS study staff will collect your blood, sputum ask you to collect the urine sample and they will ask females to collect a vaginal swab as part of the HIPSS study that you have consented to. These samples are needed to carry out the regular tests for the research study. If you agree to have your specimens stored for possible future research, we will store the remainder of the samples after the tests for the HIPSS study have been completed.

#### **HOW WILL YOU USE MY STORED SAMPLES?**

Researchers at CAPRISA and elsewhere will use your samples to look for HIV and other infections, or for damage caused by such infections, or the body's response to infection. Researchers may also look at your genes (DNA), since genes can affect the way the body responds to infections in important ways. Your genes might make you more or less likely to get infected, or make the responses to infection or to treatment stronger or weaker. If you become infected with HIV your genes might also affect how fast or slowly you develop AIDS.

Your samples may be shared with colleagues both in South Africa and outside of South Africa however, your stored samples will be sent with only your confidential PID number and will not be linked to any personal identifiers such as your name. All future research studies using your samples will be reviewed first by the CAPRISA Scientific Review Committee and a special committee at the Nelson R Mandela School of Medicine Biomedical



Research Ethics Committee. **It is important for you to know that your samples will not be sold or used in products that make money for the researchers.**

### **WHERE WILL MY SAMPLES BE STORED?**

If you agree to have your specimens stored they will be stored with your confidential PID number at special facilities that are designed to store blood samples safely and securely. The storage facilities are based at the CAPRISA research Laboratory, Doris Duke Medical Research Institute, Nelson R Mandela School of Medicine. The storage facilities are designed so that only approved researchers can have access to the samples.

### **HOW LONG WILL YOU KEEP MY SAMPLES?**

There is no time limit on how long your samples will be stored for.

### **DOES STORAGE OF MY SAMPLES BENEFIT ME?**

It is unlikely that you will have any direct benefit from the tests done on your stored specimens but there may be benefits to society of doing research on your stored specimens. These benefits may include learning more about HIV infection.

### **WHAT ARE THE RISKS?**

There are few risks related to storing your samples. When future tests are done on the stored samples, there is a very small but possible risk to your privacy. Some genetic testing may be done on your stored samples. Researchers will not have access to your personal information and it will not be possible for investigators to contact you or your family about the results.

### **WHAT ABOUT CONFIDENTIALITY?**

In order to keep your information private, your samples will be labelled with a code. Your personal information (name, address, phone number) will not be placed on the samples. Only the research staff will be able to link the code with your personal information. The results of tests done on your stored samples will not be included in your health records. Every effort will be made to keep your personal information confidential, but we cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law.

### **WHAT ARE MY RIGHTS?**

If you decide not to sign this form, the samples described below will be collected from you and after all the HIPSS study related testing has been completed all remaining samples will be destroyed for any future testing.

### **STUDY APPROVAL**

This study has been ethically reviewed and approved by the UKZN Biomedical research Ethics Committee (approval number BF269/13).

### **PERSONS TO CONTACT**

In the event of any problems or concerns/questions you may contact Dr Ayesha Kharsany on (031) 260 4555. CAPRISA, Second Floor Doris Duke Medical Research Institute, Durban or the study Field co-ordinator, Mr David Khanyile on 083 393 0603, EPICENTRE or the UKZN Biomedical Research Ethics Committee, contact details as follows:

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION  
Research Office, Westville Campus, Govan Mbeki Building  
Private Bag X 54001, Durban, 4000, KwaZulu-Natal, SOUTH AFRICA  
Tel: 27 31 2604769 - Fax: 27 31 2604609

Email: [BREC@ukzn.ac.za](mailto:BREC@ukzn.ac.za)

Thank you for your time.

**CONSENT STATEMENT AND SIGNATURE PAGE FOR SAMPLE STORAGE VOLUNTEERS 18 YEARS AND OLDER**

Please carefully read the statements below and think about your choice. No matter what you decide it will not affect your participation in the HIPSS study.

I agree to have my samples stored for future research and possible testing related to HIV and other infections.

Yes      No

\_\_\_\_\_  
\_\_\_\_\_  
Volunteer  
Name (print)      Date

\_\_\_\_\_  
\_\_\_\_\_  
Volunteer  
Signature

\_\_\_\_\_  
\_\_\_\_\_  
Study staff member who  
Date  
administered consent (print)

\_\_\_\_\_  
\_\_\_\_\_  
Staff staff  
Signature

\_\_\_\_\_  
\_\_\_\_\_  
Witness  
Name (print)      Date

\_\_\_\_\_  
\_\_\_\_\_  
Witness  
Signature

Was a copy of the signed copy given to the volunteer: Yes      No

If no, why not: \_\_\_\_\_

**Appendix 2: Informed Consent Form for Parent / Guardian / Care Giver to Consent  
INFORMED CONSENT FORM FOR PARENT / GUARDIAN / CARE GIVER TO  
CONSENT FOR SAMPLE STORAGE FOR VOLUNTEERS YOUNGER THAN 18  
YEARS**

The Principal Investigator of study is  
Dr Ayesha BM Kharsany  
2nd Floor Doris Duke Medical Research Institute  
Nelson R Mandela School of Medicine  
Private Bag 7, Congella 4013, Durban, South Africa  
PHONE: 031-260 4555

**INTRODUCTION**

If your child/ward agrees to take part in the HIPSS study, there may be some remaining blood, urine and vaginal swab samples (females) known as samples, taken from your child/ward during the study that might be useful for future research. You are being asked to agree for the storage of the left over samples collected from your child/ward for possible future research that will include additional testing. This is research that will be conducted in the future that may or may not be related to the HIPSS study.

This consent form gives you information about the collection, storage, and use of your child/wards samples for possible future research. The study staff will talk to you about this information. Please ask if you have any questions. If you agree to the storage of your child/wards samples for possible future research, you will be asked to note this on this consent form. You will get a copy of this form to keep.

**HOW WILL YOU GET THE SAMPLES FROM MY CHILD/WARD?**

The HIPSS study staff will collect your child/wards blood, ask your child/ward to collect the urine sample and they will ask females to collect a vaginal swab as part of the HIPSS study that you have consented for your child/ward and your child/ward has assented to. These samples are needed to carry out the regular tests for the research study. If you agree to have your child/wards specimens stored for possible future research, we will store the remainder of the samples after the tests for the HIPSS study have been completed.

**HOW WILL YOU USE MY CHILD/WARDS STORED SAMPLES ?**

Researchers at CAPRISA and elsewhere will use your samples to look for HIV and other infections, or for damage caused by such infections, or the body's response to infection. Researchers may also look at your child/wards genes (DNA), since genes can affect the way the body responds to infections in important ways. Your child/wards genes might make your child/ward more or less likely to get infected, or make the responses to infection or to treatment stronger or weaker. If your child/ward becomes infected with HIV their genes might also affect how fast or slowly they develop AIDS.

Your child/wards samples may be shared with colleagues both in South Africa and outside of South Africa however, your child/wards stored samples will be sent with only their confidential PID number and will not be linked to any personal identifiers such as your child/wards name. All future research studies using your child/wards samples will be reviewed first by the CAPRISA Scientific Review Committee and a special committee at the Nelson R Mandela School of Medicine, Biomedical Research Ethics Committee. **It is**

**important for you to know that your child/wards samples will not be sold or used in products that make money for the researchers.**

### **WHERE WILL MY CHILD/WARDS SAMPLES BE STORED?**

If you agree to have your child/wards specimens stored they will be stored with your child/wards confidential PID number at special facilities that are designed to store blood samples safely and securely. The storage facilities are based at the CAPRISA research Laboratory, Doris Duke Medical Research Institute, Nelson R Mandela School of Medicine. The storage facilities are designed so that only approved researchers can have access to the samples.

### **HOW LONG WILL YOU KEEP MY CHILD/WARDS SAMPLES?**

There is no time limit on how long your child/wards samples will be stored for.

### **DOES STORAGE OF MY SAMPLES BENEFIT ME?**

It is unlikely that your child/ward will have any direct benefit from the tests done on the stored specimens but there may be benefits to society of doing research on your child/wards stored specimens. These benefits may include learning more about HIV infection.

### **WHAT ARE THE RISKS?**

There are few risks related to storing your child/wards samples. When future tests are done on the stored samples, there is a very small but possible risk to your child/wards privacy. Some genetic testing may be done on your child/wards stored samples. Researchers will not have access to your child/wards personal information and it will not be possible for investigators to contact your child/ward or your child/wards family about the results.

### **WHAT ABOUT CONFIDENTIALITY?**

In order to keep your child/wards information private, your child/wards samples will be labelled with a code. Your child/wards personal information (name, address, phone number) will not be placed on the samples. Only the research staff will be able to link the code with your child/wards personal information. The results of tests done on your child/wards stored samples will not be included in your child/wards health records. Every effort will be made to keep your child/wards personal information confidential, but we cannot guarantee absolute confidentiality. Your child/wards personal information may be disclosed if required by law.

### **WHAT ARE MY RIGHTS?**

. If your child/ward decides not to sign this form, the samples described below will be collected from your child/ward and after all the HIPSS study related testing has been completed all remaining samples will be destroyed for any future testing.

### **STUDY APPROVAL**

This study has been ethically reviewed and approved by the UKZN Biomedical research Ethics Committee (approval number BF269/13\_).

### **PERSONS TO CONTACT**

In the event of any problems or concerns/questions you may contact Dr Ayesha Kharsany on (031) 260 4555. CAPRISA, Second Floor Doris Duke Medical Research Institute, Durban or the study Field co-ordinator, Mr David Khanyile on 083 393 0603, EPICENTRE or the UKZN Biomedical Research Ethics Committee, contact details as follows:

**BIOMEDICAL RESEARCH ETHICS ADMINISTRATION**

Research Office, Westville Campus, Govan Mbeki Building  
Private Bag X 54001, Durban, 4000, KwaZulu-Natal, SOUTH AFRICA  
Tel: 27 31 2604769 - Fax: 27 31 2604609  
Email: [BREC@ukzn.ac.za](mailto:BREC@ukzn.ac.za)  
Thank you for your time.

**CONSENT STATEMENT AND SIGNATURE PAGE FOR PARENT / GUARDIAN / CARE GIVER FOR SAMPLE STORAGE FOR VOLUNTEERS YOUNGER THAN 18 YEARS**

Please carefully read the statements below and think about your choice. No matter what you decide it will not affect your participation in the HIPSS study.

I agree to have my samples stored for future research and possible testing related to HIV and other infections.

Yes      No

\_\_\_\_\_  
\_\_\_\_\_  
Parent / Guardian / Care giver  
Date  
Name (print)

\_\_\_\_\_  
\_\_\_\_\_  
Parent / Guardian / Care giver  
Signature

\_\_\_\_\_  
\_\_\_\_\_  
Study staff member who  
Date  
administered consent (print)

\_\_\_\_\_  
\_\_\_\_\_  
Staff staff  
Signature

\_\_\_\_\_  
\_\_\_\_\_  
Witness  
Date  
Name (print)

\_\_\_\_\_  
\_\_\_\_\_  
Witness  
Signature

Was a copy of the signed copy given to the volunteer: Yes      No

If no, why not:\_\_\_\_\_

### Appendix 3 – Participant Identification

#### Team ID

<b>Participant Id number</b>		<b>GPS coordinate</b>	
<b>Team ID</b>		<b>Supervisor</b>	

#### Section 1 : Eligibility for enrolment into the cohort

<b>1. What is your age at your last birthday?</b>	
<input type="checkbox"/> Older than 35 <ul style="list-style-type: none"> <li>• Not eligible for the cohort study. Thank participant and terminate interview</li> </ul>	<input type="checkbox"/> Between 15-35 <ul style="list-style-type: none"> <li>• Eligible for possible selection for enrolment in the cohort</li> </ul>
<b>2. Are you planning to stay in this area for the next 12 months</b>	
<input type="checkbox"/> No	<input type="checkbox"/> Yes <ul style="list-style-type: none"> <li>• Eligible for possible selection for enrolment in the cohort</li> </ul>

<ul style="list-style-type: none"> <li>• <b>Not eligible for the cohort study</b> <b>Thank participant and terminate interview</b></li> </ul>	
<b>3. Are you willing to be involved in a follow up survey should you be selected (cohort)</b>	
<input type="checkbox"/> <b>No</b> <ul style="list-style-type: none"> <li>• <b>Not eligible for the cohort study interview and complete the refusal section 3</b></li> </ul>	<input type="checkbox"/> <b>Yes</b> <ul style="list-style-type: none"> <li>• <b>Enrol for possible selection for enrolment in the cohort. Complete section 2</b></li> </ul>

## Section 2: Participant Identification

Note: Only collect information if participant is between 15 – 35 years

Explain to the participant that people who are of the eligible (between 15 to 35) will be randomly selected to be followed up. Not all people will be contacted. Those that are selected will be notified and re-interviewed in 12 months' time.

<b>4. Participant first name</b>	
<b>5. Participant nick name</b>	
<b>6. Participants surname</b>	
<b>7. South African Identification number</b>	
<b>8. Home address + GPS coordinates</b>	
<b>9. Home telephone number (land line)</b>	
<b>10. Work telephone number (land line)</b>	
<b>11. Cell phone number</b>	
Can you provide the name of a relative or friend that can assist us to contact you should the above numbers change? Please note that this person will not be told that the participant has been enrolled in the study rather they will be told it is a routine call to confirm their contact details for a date based that they have given permission to be enrolled in	
<b>12. Friend / relatives first name</b>	
<b>13. Friend / relatives surname</b>	
<b>14. Friend / relatives Home telephone number</b>	
<b>15. Friend / relatives cell phone number</b>	
<b>16. Please indicate your preferred method of communication</b>  <b>(Please note that if we can not reach you by your preferred method we will try alternative methods and finally a home visit)</b>	<input type="checkbox"/> SMS <input type="checkbox"/> Cell phone call <input type="checkbox"/> Telephone call on home phone <input type="checkbox"/> Telephone call at work phone <input type="checkbox"/> Telephone call to friend / relative land line <input type="checkbox"/> Telephone call to friend / relative cell phone <input type="checkbox"/> Home visit

## Section 3: Refusal to participate in the cohort

**17. What are the reasons that you did not want to participate?<sup>1</sup>**



<ul style="list-style-type: none"> <li><input type="checkbox"/> Participant declined to give a reasons for refusal</li> <li><input type="checkbox"/> I don't have time to participant in the survey</li> <li><input type="checkbox"/> I am ready know I am HIV positive</li> <li><input type="checkbox"/> I don't wish to be retested for HIV</li> <li><input type="checkbox"/> I don't want blood drawn again</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Need partner / parental consent and they will not allow it</li> <li><input type="checkbox"/> Prefer to be tested away from home</li> <li><input type="checkbox"/> Prefer to test without a partner</li> <li><input type="checkbox"/> Fear breach of confidentiality</li> <li><input type="checkbox"/> I find the topics uncomfortable or embarrassing Other _____</li> </ul>
---	--

## **Section 4**

### **Finger Print scanning**

#### 4.1 Finger Print

Prompt: please place your finger print onto the scanning device .

Scan the finger print

## **Section 5**

### **Lab Samples**

5.1 Prompt: Thank you for agreeing to participate. We will start with the lab test specimens.

Please note that your results will be available from your local Department of Health Clinic.

Give the participant a card with the linked barcode and write the name of the clinic where the results will be sent on the card.

#### 5.2 Barcode

Scan the barcode in order to scan the barcode assigned to this participant's specimens

## **Appendix 4: Male Cross Sectional questionnaire**

**Title of Study: HIV Incidence Provincial Surveillance System (HIPSS)**

**A longitudinal study to monitor HIV incidence trends in the**

**uMgungundlovu District, KwaZulu-Natal, South Africa**

**Participant Identification**

Participant Id number		GPS coordinate	
Team id		Supervisor	
<b>Attempts to survey participant</b>			
1. Date	Time DD/MM/YYYY	Time DD/MM/YYYY T	Time DD/MM/YYYY
2. Staff id			
3. Next visit Date and time			
4. Result*			

**\*Result options:**

a) 1-consented + figure scanned, 2-refused + replaced, 3-refused+HH replaced 4 not found + replaced 5 not found + hh replaced 1-Member consented

(Rule: if 1<sup>st</sup> HH to refuses replace with 2<sup>nd</sup> selected member, if 2<sup>nd</sup> member refused replace HH)

**5. Confirm eligibility for the cross-sectional**

Not eligible if yes to any of the following questions :

- Younger than 15 years of age
- Older than 49 years of age
- Non-residents from the study area.
- Refusal by participant to participate in the study
- Refusal by participant to provide clinical samples of peripheral blood, urine, sputum and self-collected vulvo-vaginal swab samples (females)
- Unable to provide necessary assent or consents
- Cognitive or mental challenges (based on the assessment of the participants ability to comprehend the study information provided)
- Stated intent to leave study indefinitely for work or any other reason in the next 12 months

If not eligible end the survey and thank participant and replace. Must obtain supervisor sign off

## Section

### Finger Print scanning

#### 4.1 Finger Print

Prompt: please place your finger print onto the scanning device .

Scan the finger print

## Section

### Lab Samples

5.1 Prompt: Thank you for agreeing to participate. We will start with the lab test specimens

#### 5.2Barcode

Scan the bar code in order to scan the barcode assigned to this participant's specimens

## Section 1: Demographics

(age, gender, marital status, education, number of dependents)

<b>6. Are you</b>	<input type="checkbox"/> Male <input type="checkbox"/> Female
<b>7. How old were you at your last birthday?</b>	Years _____.
<b>8. What is your highest education qualification<sup>1</sup></b>	
<input type="checkbox"/> No schooling/ crèche/ pre-primary <input type="checkbox"/> Primary (grade 1 – 7) <input type="checkbox"/> Incomplete secondary (grade 8 – 11/NTC1/NTC2)	<input type="checkbox"/> Completed secondary (grade 12/NTC3), <input type="checkbox"/> Tertiary (diploma/ degree ) <input type="checkbox"/> No response
<b>9. What is your home language?<sup>1</sup></b>	
<input type="checkbox"/> Zulu <input type="checkbox"/> Xhosa <input type="checkbox"/> Sotho	<input type="checkbox"/> English <input type="checkbox"/> Afrikaans <input type="checkbox"/> Other _____.
<b>10. What is your race?<sup>1</sup></b>	
<input type="checkbox"/> African <input type="checkbox"/> Coloured	<input type="checkbox"/> White <input type="checkbox"/> Asian/Indian <input type="checkbox"/> Other _____.

<b>11. What is your nationality<sup>1</sup></b>	
<input type="checkbox"/> South African citizen → Do you have a SA identity document <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Other _____	<input type="checkbox"/> Non South African resident (non-citizen ) <input type="checkbox"/> How many years have you lived in South Africa _____.
<b>12. How long have you lived in this community?</b>	
<input type="checkbox"/> Always <input type="checkbox"/> No response	<input type="checkbox"/> YY____MM____. → Where did you move from <input type="checkbox"/> Within in this district <input type="checkbox"/> Outside this district but within Kwazulu Natal <input type="checkbox"/> Another province in South Africa <input type="checkbox"/> Outside South Africa
<b>13. In the last 12 months have you been away from your home for more than one consecutive month<sup>1</sup></b>	
<input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No response
<b>What is your marital status?<sup>1</sup></b>	
<input type="checkbox"/> Legally married <input type="checkbox"/> Living together like husband and wife <input type="checkbox"/> Divorced <input type="checkbox"/> Separated, but still legally married	<input type="checkbox"/> Widowed <input type="checkbox"/> Single, but have been living together with someone as husband/wife before <input type="checkbox"/> Single and have never been married/never lived together as husband/wife before

## Section 2: Knowledge and motivation

HIV knowledge of prevention

<sup>1</sup> Source : General Household Survey 2011, Statistics SA

**14. Can you tell me all the ways that you know that HIV can be prevented?<sup>1</sup>**

(Do not read out options. Multiple responses are possible)

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Using a condom.</li> <li><input type="checkbox"/> Abstaining from sex.</li> <li><input type="checkbox"/> Sticking to one sexual partner.</li> <li><input type="checkbox"/> Having fewer sexual partners.</li> <li><input type="checkbox"/> Not having sex before marriage.</li> <li><input type="checkbox"/> Avoid contact with blood/using gloves.</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Using drugs to prevent transmission of mother to child.</li> <li><input type="checkbox"/> Male circumcision.</li> <li><input type="checkbox"/> Taking ARV's within 72hours of being exposed to the HIV virus.</li> <li><input type="checkbox"/> Don't know.</li> </ul> |
|--|--|

Perceived risk for HIV

**15. How likely do you think you are you to contract HIV in the future?**

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> I am definitely going to be infected.</li> <li><input type="checkbox"/> I am probably going to get infected.</li> </ul> <p style="margin-left: 40px;">→ What are your reasons for believing so? (Multiple answers possible.)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I am sexually active.</li> <li><input type="checkbox"/> I have many sexual partners.</li> <li><input type="checkbox"/> I don't use condoms.</li> <li><input type="checkbox"/> I don't always use condoms.</li> <li><input type="checkbox"/> I don't trust my partner.</li> <li><input type="checkbox"/> I am sick.</li> <li><input type="checkbox"/> My partner is sick.</li> <li><input type="checkbox"/> My partner died of AIDs.</li> <li><input type="checkbox"/> I had an accident/cuts.</li> <li><input type="checkbox"/> Other_____.</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> I probably won't get infected.</li> <li><input type="checkbox"/> I will definitely not get infected.</li> </ul> <p style="margin-left: 40px;">→ What are your reasons for believing so? (Multiple reasons possible).</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I have never had sex.</li> <li><input type="checkbox"/> I have abstained from sex.</li> <li><input type="checkbox"/> I am faithful to my partner.</li> <li><input type="checkbox"/> I trust my partner.</li> <li><input type="checkbox"/> I use condoms.</li> <li><input type="checkbox"/> I know my HIV status.</li> <li><input type="checkbox"/> My partner is circumcised.</li> <li><input type="checkbox"/> I do not have sex with sex workers.</li> <li><input type="checkbox"/> My ancestors protect me.</li> <li><input type="checkbox"/> God protects me.</li> <li><input type="checkbox"/> I am not at risk for HIV.</li> <li><input type="checkbox"/> Other_____</li> </ul> |
|---|--|

Perceived power to prevent HIV transmission

<b>16. Please select the most appropriate option<sup>1</sup>:</b>	Agree	Partially agree	Don't agree
<ul style="list-style-type: none"> <li>→ It is the man who decides when to have sex.</li> <li>→ Men need sex more than women do.</li> <li>→ Men don't like using condoms.</li> <li>→ It is ok for a man to have more than one sexual partner.</li> </ul>			
<b>17. Select the most appropriate option<sup>1</sup>:</b>	Agree	Partially agree	Don't agree
<ul style="list-style-type: none"> <li><input type="checkbox"/> Using a condom seems like an insult to my partner.</li> <li><input type="checkbox"/> I don't enjoy sex with a condom.</li> </ul>			

#### Perceived consequence of contracting HIV

<b>18. Select the most appropriate option:</b>	Agree	Partially agree	Don't agree
<ul style="list-style-type: none"> <li><input type="checkbox"/> AIDS is probably the worst disease I could get.</li> <li><input type="checkbox"/> My friends/family would disown me if I was to contract HIV.</li> <li><input type="checkbox"/> I am not afraid of contracting HIV as there are effective drugs to treat it.</li> </ul>			

#### Attitudes to MMC

<b>19. Have you heard that circumcision has been shown to partly reduce the chance of HIV infection amongst men?</b>	
<ul style="list-style-type: none"> <li><input type="checkbox"/> No</li> <li><input type="checkbox"/> Don't know</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Yes</li> </ul>

### Section 3 - Situational action context

#### Alcohol and drug use

**20. Did you drink alcohol in the last year?<sup>1</sup>**

<input type="checkbox"/> No  [If never skip the next section]	<input type="checkbox"/> Yes → How often do you have 5 or more drinks on one occasion? <input type="checkbox"/> Never <input type="checkbox"/> Less the monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily (or almost daily)
---	---

**21. How often do you have sex after drinking?<sup>1</sup>**

<input type="checkbox"/> Never	<input type="checkbox"/> Always. <input type="checkbox"/> Sometimes. → How often do you use a condom in these instances? <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never → Who do you have sex with in these instances? <input type="checkbox"/> Stable partner. <input type="checkbox"/> Casual partner. <input type="checkbox"/> Stranger.
--------------------------------	---

Drug use

	Never	Monthly or less	2-4 times per month	2-3 times per week	4 or more times per week
22. Dagga					



In the last <u>6</u> months, how often have you used: <sup>1</sup>	23. Heroin					
	24. Cocaine					
	25. Glue					
	26. Tik					
	27. Wunga					
	28. Quh					
	29. Other					
<b>30. How often do you have sex after taking drugs?<sup>1</sup></b>						
<input type="checkbox"/> Always.		<input type="checkbox"/> Sometimes		<input type="checkbox"/> Never		

Depression.

We would like you to describe ways that you may have felt or behaved during the last week.

	Rarely (Less than 1 day)	Some of the time (1-2 days)	Occasionally (3-4 days)	All of the time (5-7 days)
31. I was bothered by things that don't usually bother me. <sup>1</sup>				
32. I had trouble keeping my mind on what I was doing.				
33. I felt depressed.				
34. I felt everything I did was an effort.				
35. I felt hopeful about the future.				
36. I felt fearful.				
37. My sleep was restless.				
38. I was happy.				
39. I felt lonely.				

<b>40. I could not get going.</b>					
<b>41. Have you ever accessed treatment to assist you with depression?</b>					
<input type="checkbox"/> No		<input type="checkbox"/> Yes → If yes, what services did you access? <ul style="list-style-type: none"> <li><input type="checkbox"/> Doctor /nurse in a public facility.</li> <li><input type="checkbox"/> Private Doctor or nurse.</li> <li><input type="checkbox"/> Private Counsellor.</li> <li><input type="checkbox"/> Support group.</li> <li><input type="checkbox"/> EAP in the workplace.</li> <li><input type="checkbox"/> Medication.</li> <li><input type="checkbox"/> Other_____</li> </ul>			

#### Section 4 - Social interactions

Access to social, financial and emotional support

<b>42. What forms of support, in the last month, have you received from important people/organisations in your life?</b>	<b>Tangible (money, food, care)</b>	<b>Educational/ Informational</b>	<b>Emotional /Relational (support/ bonding)</b>
Biological Father			
Biological Mother			
Sibling			
Grandparent			
Other Family member			
Other community member			
Teacher			
Nurse/Doctor			
Internet/sites cafes/Social media			
Stokvels			

Church groups			
Taverns			
Sport/ youth clubs			
Traditional leadership structures			
Work friends or employer			
Other			

### HIV stigma

43. Choose the best answer <sup>1</sup>	No	Yes	Unsure
<input type="checkbox"/> People with HIV AND AIDS should be ashamed.			
<input type="checkbox"/> People with HIV/ AIDS must have done something wrong.			
<input type="checkbox"/> I do not want to be friends with someone with HIV / AIDS.			

### Section 5- HIV Status and risk

HIV status, HIV status of partner, HIV status of family members

HIV status information

44. Have you been tested to see if you are HIV positive? <sup>1</sup>	
<input type="checkbox"/> No → What are the reasons you did not have an HIV test? <input type="checkbox"/> Don't need to test <input type="checkbox"/> Do not want to know/am afraid. <input type="checkbox"/> It's better not to know. <input type="checkbox"/> Have to get my partners permission. <input type="checkbox"/> Want to test with my partner.	<input type="checkbox"/> Yes → How many times have you had a test in your life time?____. → When was the last time that you had an HIV test?(give best approximate date)____. → Did you get the result of this test? <input type="checkbox"/> No <input type="checkbox"/> Yes  [If no skip to the next section]

<input type="checkbox"/> Don't know where to test/don't have access to testing. <input type="checkbox"/> Other _____ — [If no skip next section]	
<b>41 Would you like me to refer you to our parallel HIV testing service?</b>	
<input type="checkbox"/> No	<input type="checkbox"/> Yes <u>If yes refer the participant using the referral process</u>
<b>42 What was the result of your latest HIV test?<sup>1</sup></b>	
<input type="checkbox"/> Negative. <input type="checkbox"/> Indeterminate. <input type="checkbox"/> Did not respond.	<input type="checkbox"/> Positive. → Are you currently being provided with any of the following support or treatment? <input type="checkbox"/> Nutritional support. <input type="checkbox"/> Emotional support (support groups). <input type="checkbox"/> Treatment buddy. <input type="checkbox"/> Home based care. <input type="checkbox"/> CD4 test. <input type="checkbox"/> Viral load test. <input type="checkbox"/> Financial support. <input type="checkbox"/> Treatment of opportunistic infections. → Has a Doctor or Nurse told you that you need to take ARV's? <input type="checkbox"/> No <input type="checkbox"/> Yes → If yes, which dose pill are you on? <input type="checkbox"/> Have not started ARV <input type="checkbox"/> Multiple dose <input type="checkbox"/> Fixed/single dose → Are you still on ARV's? <input type="checkbox"/> No <input type="checkbox"/> Yes

**45. Could you have been exposed to TB in the last 12 month?**

("Please note all of the following that are true"?)

- |   |  |
|---|--|
| <input type="checkbox"/> I was in prison in the last 12 months<br><input type="checkbox"/> I was in hospital in the 12 months | <input type="checkbox"/> I lived in a hostel or informal settlement in the 12 months<br><input type="checkbox"/> I was in contact with someone who has TB in the last 12 months<br><input type="checkbox"/> I had contact with someone who has resistant TB (MDR or XDR) in the last 12 months |
|---|--|

**46. In the past 2 weeks have you had any of the following symptoms? Select one or more the following**

- |   |  |
|---|--|
| <input type="checkbox"/> Unexplained persistent cough for more than 2 weeks<br><input type="checkbox"/> Coughed up blood<br><input type="checkbox"/> Loss of appetite | <input type="checkbox"/> Unexplained weight loss<br><input type="checkbox"/> Drenching night sweats<br><input type="checkbox"/> Fevers<br><input type="checkbox"/> None of the above |
|---|--|

**If the participant answer yes to any of these questions flag for referral to TB screening and take sputum sample**

**43 Have you ever been tested for TB1?**

- |                             |  |
|-----------------------------|--|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes<br>→ Are you on TB treatment<br><input type="checkbox"/> No<br><input type="checkbox"/> Yes |
|-----------------------------|--|

**44 Has a doctor or nurse ever told you that you have TB?**

- |  |   |
|--|---|
| <input type="checkbox"/> No<br>→ If no, are you currently taking medication to prevent TB (IPT)?<br><input type="checkbox"/> No<br><input type="checkbox"/> Yes<br><input type="checkbox"/> If yes when did you start IPT medication? MM__YY__ | <input type="checkbox"/> Yes<br>→ What was the date when you were first diagnosed with TB?<br>MM__YY__.<br>→ When did you first start your TB medication? MM__YY__<br>→ Have you completed your treatment?<br><input type="checkbox"/> No<br><input type="checkbox"/> Yes |
|--|---|

<input type="checkbox"/> If no have you taken IPT medication in the last 12 months? <input type="checkbox"/> No <input type="checkbox"/> Yes	
<b>45 Has a doctor or nurse ever told you that you have an STI?</b>	
<input type="checkbox"/> No → Do you currently have any possible symptoms of an STI such as ulcers and discharge area? <input type="checkbox"/> No <input type="checkbox"/> Yes → If yes may I refer your for STI screening to our parallel service?  <u><b>If the participant answer yes to any of these questions flag for referral to STI screening</b></u>	<input type="checkbox"/> Yes → What was the date when you were diagnosed with a STI? MM____YY____. → Have you completed your treatment? <input type="checkbox"/> No <input type="checkbox"/> Yes
<b>46 Has a doctor or nurse ever given you medication to prevent you contracting HIV because you were exposed (Raped, touched blood etc.) to the HIV virus?</b>	
<input type="checkbox"/> No	<input type="checkbox"/> Yes

### Section 6 - Sexual history

I now have to ask you very sensitive questions on sex and other sex-related matters. Please remember that your name will not be recorded anywhere in this questionnaire and the information you give will be kept confidential.

First

<b>47 Have you ever had sex?<sup>1</sup></b>	
<input type="checkbox"/> No → What was the main reason for not having sex? <input type="checkbox"/> No partner available.	<input type="checkbox"/> Yes → How old were you when you first had sex? <input type="checkbox"/> ____years.

<ul style="list-style-type: none"> <li><input type="checkbox"/> Do not want to have sex.</li> <li><input type="checkbox"/> Waiting for marriage.</li> <li><input type="checkbox"/> Religious reasons.</li> <li><input type="checkbox"/> Avoiding HIV or STI's.</li> <li><input type="checkbox"/> Avoiding pregnancy.</li> <li><input type="checkbox"/> Fear of authority.</li> <li><input type="checkbox"/> Other:_____</li> </ul> <p>[Skip section on sexual history]</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Don't remember.</li> <li><input type="checkbox"/> Did not respond.</li> <li>→ How old was your partner?</li> <li><input type="checkbox"/> ____years.</li> <li><input type="checkbox"/> Don't know.</li> <li><input type="checkbox"/> Did not respond.</li> <li>→ Did you use a condom?<sup>1</sup></li> <li><input type="checkbox"/> No</li> <li><input type="checkbox"/> Yes</li> <li><input type="checkbox"/> Don't remember</li> <li>→ Were you forced to have sex?</li> <li><input type="checkbox"/> No</li> <li><input type="checkbox"/> Yes</li> <li><input type="checkbox"/> Don't remember</li> </ul>
--	---

**Life time**

<p><b>48 How many people have you had sex with in your life time? (It is ok to estimate the number if you don't remember exactly).<sup>1</sup></b></p>	<p>_____ number.</p>
<p><b>49 How many people have you had sex with in the last 12 months?</b></p>	
<ul style="list-style-type: none"> <li><input type="checkbox"/> Have not had sex in the last 12 months.</li> </ul>	<p>_____ number.</p> <ul style="list-style-type: none"> <li>→ How often did you use a condom when you had sex?</li> <li><input type="checkbox"/> Sometime</li> <li><input type="checkbox"/> Always</li> <li><input type="checkbox"/> Never</li> <li>→ Have you ever taken ARV medication (PREP) to prevent getting HIV before you had sex?</li> <li><input type="checkbox"/> No</li> <li><input type="checkbox"/> Yes</li> </ul>

	<p>→ What type of PREP did you take?</p> <p><input type="checkbox"/> Oral medication</p> <p><input type="checkbox"/> Gel</p> <p>→ Did you know the HIV status of these partners?</p> <p><input type="checkbox"/> Yes, all of them.</p> <p><input type="checkbox"/> Yes, some of them.</p> <p><input type="checkbox"/> No, none of them.<sup>1</sup></p> <p>→ How many of these partners did you know were HIV positive?</p> <p><input type="checkbox"/> All of them.</p> <p><input type="checkbox"/> Some of them</p> <p><input type="checkbox"/> None of them.</p>
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### Last 3 sexual partners

Now I am going to ask you more details about the 3 most recent partners that you have had sex with. Please tell me about them starting with the most recent (newest) partner.

		<input type="checkbox"/> No second partner, skip to next section.	<input type="checkbox"/> No third partner, skip to next section.
	Partner 1	Partner 2	Partner 3
<b>50</b> Their first name/nick name.			
<b>51</b> What is the nature of your relationship? <sup>1</sup>	<input type="checkbox"/> Wife. <input type="checkbox"/> Regular partner. <input type="checkbox"/> Casual partner. <input type="checkbox"/> Commercial partner.	<input type="checkbox"/> Wife. <input type="checkbox"/> Regular partner. <input type="checkbox"/> Casual partner. <input type="checkbox"/> Commercial partner.	<input type="checkbox"/> Wife. <input type="checkbox"/> Regular partner. <input type="checkbox"/> Casual partner. <input type="checkbox"/> Commercial partner.
<b>52</b> What is the current age of	_____ years.	_____ years.	_____ years.



<b>your partner?<sup>1</sup></b>			
<b>53 Is this partner a member of your household?<sup>1</sup></b>	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
<b>54 Month and year sexual relationship began.<sup>1</sup></b>	MM__ YY__	MM__ YY__	MM__ YY__
<b>55 When did this sexual relationship end?</b>	MM__ YY__ <input type="checkbox"/> Not ended	MM__ YY__ <input type="checkbox"/> Not ended	MM__ YY__ <input type="checkbox"/> Not ended
<b>56 Partner's sex?<sup>1</sup></b>	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> Male <input type="checkbox"/> Female
<b>57 If male, is he circumcised? (skip if partner female)</b>	<input type="checkbox"/> Circumcised at start of relationship. <input type="checkbox"/> Not circumcised. <input type="checkbox"/> Became circumcised during relationship. <input type="checkbox"/> Don't know.	<input type="checkbox"/> Circumcised at start of relationship. <input type="checkbox"/> Not circumcised. <input type="checkbox"/> Became circumcised during relationship. <input type="checkbox"/> Don't know.	<input type="checkbox"/> Circumcised at start of relationship. <input type="checkbox"/> Not circumcised. <input type="checkbox"/> Became circumcised during relationship. <input type="checkbox"/> Don't know.
<b>58 How many times did you have sex with this partner in the last 12 months?<sup>1</sup></b>	<input type="checkbox"/> Never in the last 12 months. <input type="checkbox"/> Once. <input type="checkbox"/> 2 – 5 times. <input type="checkbox"/> 6 – 10 times. <input type="checkbox"/> 10 – 20 times. <input type="checkbox"/> More than 20 times.	<input type="checkbox"/> Never in the last 12 months. <input type="checkbox"/> Once. <input type="checkbox"/> 2 – 5 times. <input type="checkbox"/> 6 – 10 times. <input type="checkbox"/> 10 – 20 times. <input type="checkbox"/> More than 20 times.	<input type="checkbox"/> Never in the last 12 months. <input type="checkbox"/> Once. <input type="checkbox"/> 2 – 5 times. <input type="checkbox"/> 6 – 10 times. <input type="checkbox"/> 10 – 20 times. <input type="checkbox"/> More than 20 times.
<b>59 How often did you use a condom when you had sex?<sup>1</sup></b>	<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never	<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never	<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never

<p><b>60</b> If you never used a condom with this partner, was it because you battled to access condoms when having sex with this partner?</p>	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Sometimes	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Sometimes	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Sometimes
<p><b>61</b> How often did you give or receive money/gifts so that you could have sex with this person?<sup>1</sup></p>	<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never	<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never	<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never
<p><b>62</b> Did you and your partner have anal sex in the last 12 months?</p>	<input type="checkbox"/> No <input type="checkbox"/> Yes If no, skip the next question.	<input type="checkbox"/> No <input type="checkbox"/> Yes If no, skip the next question	<input type="checkbox"/> No <input type="checkbox"/> Yes If no skip the next question.
<p><b>63</b> How often did you and your partner use a condom when you had anal sex in the last 12 months?<sup>1</sup></p>	<input type="checkbox"/> Never had anal sex. <input type="checkbox"/> Always. <input type="checkbox"/> Sometimes. <input type="checkbox"/> Never.	<input type="checkbox"/> Never had anal sex. <input type="checkbox"/> Always. <input type="checkbox"/> Sometimes. <input type="checkbox"/> Never.	<input type="checkbox"/> Never had anal sex. <input type="checkbox"/> Always. <input type="checkbox"/> Sometimes. <input type="checkbox"/> Never.
<p><b>64</b> When you were having a sexual relationship with this partner, do you think that he/she was HIV positive?<sup>1</sup></p>	<input type="checkbox"/> No. <input type="checkbox"/> Don't know. <input type="checkbox"/> Yes. → Do you think that this partner was taking ARV's for HIV? <sup>1</sup>	<input type="checkbox"/> No. <input type="checkbox"/> Don't know. <input type="checkbox"/> Yes. → Do you think that this partner was taking ARV's for HIV? <sup>1</sup>	<input type="checkbox"/> No. <input type="checkbox"/> Don't know. <input type="checkbox"/> Yes. → Do you think that this partner was taking ARV's for HIV? <sup>1</sup> <input type="checkbox"/> No.

	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.	<input type="checkbox"/> No. <input type="checkbox"/> Yes. Don't know.	<input type="checkbox"/> Yes. Don't know.
<b>65</b> Have you told your partner your HIV status?	<input type="checkbox"/> No. <input type="checkbox"/> Yes.	<input type="checkbox"/> No. <input type="checkbox"/> Yes.	<input type="checkbox"/> No. <input type="checkbox"/> Yes.
<b>66</b> Has this partner had any STI's in the last 12 months?	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.
<b>67</b> Can you talk about safe sex with this partner?	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.
<b>68</b> Has this partner ever forced you to have sex when you did not want to?	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.	<input type="checkbox"/> No. <input type="checkbox"/> Yes. <input type="checkbox"/> Don't know.

## Section 7- Health access

Health status HIV, TB, chronic conditions, Pregnancy, disabilities

<b>69</b> Have you suffered any of the following illnesses in the past 12 months? <sup>1</sup>	
<input type="checkbox"/> Heart disease. <input type="checkbox"/> Stroke. <input type="checkbox"/> Arthritis. <input type="checkbox"/> Obesity (very over weight). <input type="checkbox"/> High blood pressure. <input type="checkbox"/> Diabetes. <input type="checkbox"/> TB. <input type="checkbox"/> Pneumonia. <input type="checkbox"/> Cancer. <input type="checkbox"/> Malaria.	<input type="checkbox"/> Depression/anxiety. <input type="checkbox"/> Asthma. <input type="checkbox"/> Hepatitis. <input type="checkbox"/> STI's. <input type="checkbox"/> Peptic Ulcers. <input type="checkbox"/> Kidney disease. <input type="checkbox"/> HIV. <input type="checkbox"/> Other_____. <p style="text-align: right;">→ Are you accessing medical assistance for your illness</p>

	<input type="checkbox"/> No <input type="checkbox"/> Yes
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**Access to contraception**

<b>70 Are you currently using a contraceptive method?</b>	
<input type="checkbox"/> No → Why not <ul style="list-style-type: none"> <li><input type="checkbox"/> My partner is trying to fall pregnant.</li> <li><input type="checkbox"/> Cannot access contraceptive methods.</li> <li><input type="checkbox"/> My partner is using contraceptives</li> <li><input type="checkbox"/> My partner cannot fall pregnant</li> <li><input type="checkbox"/> No reason.</li> </ul>	<input type="checkbox"/> Yes → Which kind <ul style="list-style-type: none"> <li><input type="checkbox"/> Condoms.</li> <li><input type="checkbox"/> Spermicides.</li> <li><input type="checkbox"/> Rhythm/calendar/safe period/Withdraw/Thigh sex /Masturbation.</li> <li><input type="checkbox"/> Emergency contraception.</li> <li><input type="checkbox"/> Anal sex.</li> <li><input type="checkbox"/> Female sterilisation.</li> <li><input type="checkbox"/> Male sterilisation.</li> <li><input type="checkbox"/> Oral sex.</li> <li><input type="checkbox"/> Other _____.</li> <li><input type="checkbox"/> No response.</li> </ul> → Are you able to access your contraceptive method whenever you need it? <ul style="list-style-type: none"> <li><input type="checkbox"/> No</li> <li><input type="checkbox"/> Yes</li> </ul>

**Exposure to prevention programmes.**

<b>71 In the past 12 months, from where/or whom have you received HIV information that has been useful to you?<sup>1</sup></b>	
<input type="checkbox"/> No one. <input type="checkbox"/> Billboard. <input type="checkbox"/> A child or learner of school going age. <input type="checkbox"/> A religion/faith based organisation. <input type="checkbox"/> The workplace. <input type="checkbox"/> Community meeting. <input type="checkbox"/> Traditional healer.	<input type="checkbox"/> Newspaper. <input type="checkbox"/> Television. <input type="checkbox"/> Clinic, hospital or doctor. <input type="checkbox"/> Telephone help line. <input type="checkbox"/> Pharmacy or chemist. <input type="checkbox"/> Parent, family or care giver. <input type="checkbox"/> Partner.

<input type="checkbox"/> AIDS or welfare organisation.	<input type="checkbox"/> Friend.
	<input type="checkbox"/> Other.

**72 Which of the following activities have you participated in, in the past 12 months?**

<input type="checkbox"/> Community meeting on HIV & AIDS. <input type="checkbox"/> Membership of an HIV organisation e.g. TAC <input type="checkbox"/> Volunteer for HIV activities e.g. fund raising. <input type="checkbox"/> Attended a local HIV rally or march. <input type="checkbox"/> Attended an HIV educational event in the workplace. <input type="checkbox"/> Attended an HIV play or event. <input type="checkbox"/> Attended a support group for HIV AND AIDS.	<input type="checkbox"/> Cared for a person who is sick with AIDS. <input type="checkbox"/> Helped a family who has someone sick with AIDS. <input type="checkbox"/> Helped a family who lost a member as a result of AIDS. <input type="checkbox"/> Other: _____. <input type="checkbox"/> No response.
---	--

**73 In the last 12 months, have you seen or heard any messages about the following topics related to HIV?<sup>1</sup>**

<input type="checkbox"/> Get an HIV test to know your status. <input type="checkbox"/> Reduce your number of sex partners. <input type="checkbox"/> Use condoms every time you have sex. <input type="checkbox"/> Male circumcision for HIV prevention.	<input type="checkbox"/> ARV's are available at clinics to treat HIV. <input type="checkbox"/> All pregnant women should get an HIV test. <input type="checkbox"/> ARV's are available to women to prevent mother to child transmission. <input type="checkbox"/> Other: _____
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**Section 8**

**Male Circumcision**

Now I would like to ask you about male circumcision. As a reminder, by male circumcision, I mean removal of the foreskin of the penis.

Before we begin, do you have any questions?

74 When you do NOT have an erection, would you say your penis is uncircumcised or circumcised? <sup>1</sup>	
<input type="checkbox"/> Uncircumcised → If uncircumcised, what are the reasons? <input type="checkbox"/> I am scared of pain. <input type="checkbox"/> I don't want an HIV test. <input type="checkbox"/> I think it will change the way I enjoy sex. <input type="checkbox"/> I think it's unnecessary. <input type="checkbox"/> I think it looks strange. <input type="checkbox"/> I do not need to be circumcised as I am not having sex. <input type="checkbox"/> It is against my religion. <input type="checkbox"/> My friends are not getting circumcised. <input type="checkbox"/> My partner doesn't want me to get circumcised. <input type="checkbox"/> Other_____.	<input type="checkbox"/> Circumcised → If circumcised, what are the reasons? <input type="checkbox"/> For hygienic reasons. <input type="checkbox"/> To prevent diseases (HIV and STI's). <input type="checkbox"/> For cultural reasons. <input type="checkbox"/> To enhance my sexual performance. <input type="checkbox"/> My friends are getting circumcised. <input type="checkbox"/> My partner wants me to. <input type="checkbox"/> Other_____
75 When were you circumcised?	
YYYY____ MM____ DD____	
76 Who circumcised you?	
<input type="checkbox"/> Medical Circumcision <input type="checkbox"/> Don't know	<input type="checkbox"/> Traditional Circumcision
77 On the day you got circumcised, did you have an HIV test?	
<input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes
78 Did anyone influence your decision to get circumcised? <sup>1</sup>	
<input type="checkbox"/> No	<input type="checkbox"/> Yes

	<p>→ If yes, who was it?</p> <p><input type="checkbox"/> Friend/colleague</p> <p><input type="checkbox"/> Traditional leader or healer</p> <p><input type="checkbox"/> Parents</p> <p><input type="checkbox"/> Partner</p> <p><input type="checkbox"/> Other _____</p> <p>_____.</p>
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**Complete the Eligibility Questionnaire for cohort**

**Appendix 5 – Confidentiality Agreement for Research Staff**

**Confidentiality Agreement for Research Staff**  
**Project title: HIV incidence Provincial Surveillance System (HIPSS)**  
**Principal Investigator: Ayesha Kharsany**

- I understand that all the information /that I will hear, record and/or transcribe is confidential
- I understand that the contents of the consent forms, questionnaires or interview can only be discussed with the researchers.
- I will not keep any copies of the information nor allow third parties to access them.

Research Staff members' signature:

\_\_\_\_\_

Research Staff's name:

\_\_\_\_\_

Date:

\_\_\_\_\_

Signature of PI:

\_\_\_\_\_

Name of PI: Ayesha Kharsany

Note: The Research Staff member will be given a copy of this form to retain for

her/his records