

# **Socio-demographic and Gendered Differentials in Attitudes towards People Living with HIV/AIDS (PLWHA) among Youths in South Africa.**

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A RESEARCH REPORT SUBMITTED TO THE SCHOOL OF SOCIAL SCIENCE, UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN THE FIELD OF DEMOGRAPHY AND POPULATION STUDIES FOR THE YEAR 2017.

## **DECLARATION**

I, **Kgothatso Mokgele**, herewith declare that this research report encompasses my own work. All secondary material that has been utilised in this study has been carefully acknowledged and referenced according to the American Psychological Association (APA) referencing style. This paper is being submitted to the Faculty of Humanities for a Master's Degree in the academic field of Demography and Population studies.

To the best of my knowledge, it has not been submitted before in part or in full for any degree examination at this or any other university.

**Candidate: Kgothatso Mokgele**

A handwritten signature in black ink. The signature consists of a large, stylized capital 'K' that loops around the first part of the name. The name 'MOKGELE' is written in a cursive, slightly slanted font. There is a small dot at the end of the signature.

**Date: 15 March 2017**

## **DEDICATION**

This paper is dedicated to my late mother Jersey Leah Mokgele, hearing about your character and strength makes me strive to achieve more in life, thank you for passing down that strength and love to my siblings, today they are teaching me how to love like you. To my other mother (my mother's twin sister) Joyce Thalita Lelaka, you have taught me strength and resilience, giving up in life is never an option. You deserve nothing but the best in life, may God bless you with years of grace and peace. To my late friend Johanna Shabangu, I know we would be celebrating this together, but am sure you are smiling down on me. My nephews and nieces, may this be an inspiration to you guys and learn that you can do and be anything you want to be in life.

## **ACKNOWLEDGEMENTS (Ditebogo)**

Bogolo ba gago bo a makatsa ka metlha le matsatsi. Ke rata go leboga matla le lerato la Modimo ge a ntshegofaditse ka botlhale le ketopele mo loetong la me ka di nako tsotlhe. Gontle le wena Morena ga ke sepe, mme tsotlhe tse ke tsamaiso ya gago. Tlotlo le tlhompho ruri di go tshwanetse senatla sa legodimo, malebo go wena.

Ke rata go leboga motsadi wame, Rre Simon Ramapekwa Mokgele go tloga ke le mosimanyana o na lenna o ntshegeditse. Lerato la gago le kgotlhelelo ke tsona tse di mphileng matla. Modimo a go tshegofatse ebile a go okeletse le matsatsi a botshelo, World best dad indeed. Mme Joyce Lelaka o tsotlhe gonna, ke lebogela thekgo ya gago, dithapelo le thotloetso ka nako tsotlhe. Research report ena keya rona rotlhe, ke leboga thata.

Ke leboga bonnake, Thabo Mokgele, Andries le Sharon Mokgele, Francis Mamiki Mokgele-Sepale, le Reneilwe Morongwa Mokgele. Bagaetsho kgale le botsisa gore ga ke fetse naa, mme ke feditse gompiano. Ke leboga thekgo le lerato le le mpontshitseng lona, gotloga tshimologong lena lenna gankitla ke tlogela go le leboga. Go ditlogolo tsame tsotlhe Omphile, Masego, Atlegang, Lerato, Entle, Kereditse, Bokang, Thoriso, Akaretsang le Ditheto, a se e nne bokao mo go lona, le tshepe gore leka kgona go dira sengwe le sengwe mo botshelong. Ka nako tsotlhe tshepang Modimo mme le dire ka natla.

Ke rata go leboga moeteledipele wame (supervisor) Dr Nicole De Wet. Tsamaiso ya rona go simolola ko tshimologolong go fitlha ko bokhutlong o ntshepile, ebile o nthotloetsa. Dinako tsotlhe ontse onale le mantswe a kgothatso, le thotloetso. Botlhale ba gago le boineelo mo baithuting ba gago ke di makatso, ke lebogile e le ruri. Morena a go okeletse, a go tswelletse pele Dr De Wet. Ke rata go leboga lelapa la thuto la Demography and Population Studies, Prof Clifford Odimegwu, Dr Sibusiso Mkwanzani, Dr Jeremy Gumbo, Mr Vesper Chisumpa, le baithuti ba PhD ke lebogela maele le tshegetso yotlhe. Ke sa lebale Khuthala Mabetha, tshegetso ya gago le thuso e o mpontshitseng yona ke e e makatsang. Morena a gofe tse dintle fela Khuthala.

Ke rata go leboga leloko la HSRC go dumela gore ke berekise tshedimosetso ya bone ya South African National HIV Prevalence, Incidence, Behaviour and Communication Survey (SABSSM), 2002. Ke lebogile go feta selekano. Ke leboga gape le Wits Financial Aid and Scholarships

department ka tshegetso ya madi gore ke kgone go fetsa dithuto tsame. Tswelelang go thusa bana ba bangwe ka botswapelo.

Ditebogo thata go baithuti mmogo ba Master's ba gompiano e leng ditsala tsame, Marifa Muchemwa, Mwiza Singini, le Tania Mazonde. Ke leboga Modimo go le tlisa mo botshelong bame, mme a le tshegofatse ka tse dintle fela. Marifa ke lebogile thata tsala yame, gontle le mantswe a gago a thotloetso nke ke sa bolo go tlogela. Ke rata gape go leboga Modimo ka ditsala tse lerato tse tlhokomelo ebile tse nkemang nokeng ka nako tsotlhe. Vasnaar Phoffu, Granny Manamela, Boitumelo Mofomme, Fikiswa Simelane, Hibist Kassa, Clarissa Erasmus, Bongani Motloun, Thabang Molomo le Thabiso Matlala, ruri le rometswe ke Morena gonna karolo ya botshelo bame.

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## **List of Acronyms**

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>EA's</b>	Enumerated Area's
<b>FBO</b>	Faith Based Organisations
<b>HBM</b>	Health Belief Model
<b>HEAIDS</b>	Higher Education and Training HIV and AIDS Programme
<b>HIV</b>	Human Immunodeficiency Virus
<b>HSRC</b>	Human Sciences Research Council
<b>IDU</b>	injection drug users
<b>LGBTQI</b>	Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, and Intersex
<b>MRC</b>	Medical Research Council's
<b>MSM</b>	Men who have sex with men
<b>PLWHA</b>	People living with HIV/AIDS
<b>SABSSM</b>	South African National HIV Prevalence, Incidence, Behaviour and Communication Survey
<b>TPB</b>	Theory of Planned Behaviour
<b>TRA</b>	Theory of Reasoned Action
<b>TVET</b>	Technical and Vocational Education and Training
<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>USAID</b>	United States Agency for International Development
<b>WHO</b>	World Health Organization

## **Abstract**

**Introduction:** HIV/AIDS epidemic has become one of the most rampant infections known to humanity. Although steps have been taken to eliminate HIV-related negative attitudes towards both the infection and People Living with HIV/AIDS in South Africa, studies depicts that at least one-third of people living with HIV/AIDS (PLWHA) have been discriminated and/or attacked, as a result of their HIV-positive status (Human Sciences Research Council, 2015). This research study sought to explore gender and sociodemographic differences in attitudes towards people living with HIV/AIDS (PLWHA). Furthermore, explore other demographic and socioeconomic characteristics that influence attitudes.

**Methodology:** The study utilised secondary data obtained from the South African National HIV Prevalence, Incidence, Behaviour and Communication Survey (SABSSM) published in 2008. The total number of individuals sampled for the survey was 23 369, who are between the ages 2-99 years old. Due to the population of interest being youth (15-24 years old) the analytic sample size utilised in this study was 5 344 (N). Data was managed using the STATA 12 and was analysed in a way that answers the objectives of the study. The outcome variable was attitudes towards PLWHA and the predictors were sex, age, highest level of education, marital status, home language, employment status, HIV-testing, Condom use, and race. The data analysis was done in different phases, for descriptive analysis the study provides a series of frequency tables and graphs. A chi-square test was conducted, to test for the association between socio-demographic factors and attitudes towards PLWHA, and for multivariate analysis the study employed Binary Logistic Regression.

**Results:** The results showed that 75% of youth have positive attitude while 24% have negative attitude towards PLWHA. Positive attitude towards PLWHA was not associated to gender of youth's. Socio-economic indicators such as age and condom use have indicated a positive association to positive attitude towards PLWHA.

**Conclusion:** The prevalence of stigma and discrimination needs to be addressed in South Africa, and more programs needs to be implemented. PLWHA not only have to suffer from medical problems which can deplete quality of life, but also affects the broader health perspective and increase social prejudice.

**Key Words:** Stigma, Discrimination, People Living With HIV/AIDS (PLWHA)

## **Chapter 1: Introduction**

### **1.1 Background**

The HIV/AIDS epidemic has become one of the most rampant infections known to humanity. The disease has weakened the overall health of the world's population, and continues to be a leading cause of mortality in many developing countries. An estimate of 36.9 million people in 2014 were living with HIV globally, and 25.3 million have died due to AIDS-related illnesses (UNAIDS, 2015). Additionally, 5 million people were reported as living with HIV in Asia and the Pacific Islands, 1.7 million in Latin America, 2.4 million in Western and central Europe and North America, and 280 000 in the Caribbean (UNAIDS, 2015). The lowest number of cases, in the same year, were found in North African and the Middle East, at 240 000 people (UNAIDS, 2015). Africa is one of the continents which have suffered severely from the HIV infection, especially Sub-Saharan Africa. It is estimated that 25.8 million people were living with HIV/AIDS in 2014 (UNAIDS, 2015), which constitutes the highest number of HIV-infection cases throughout the world (UNAIDS, 2015).

It has been 30 years since the discovery of AIDS (Troncoso, 2016), and three decades later after the epidemic became public, HIV/AIDS stigma and discrimination continue to pose a challenge, both to the state and the communities with regards to addressing the pandemic. Numerous international and local South African organisations have taken the lead in prioritising actions to combat HIV/AIDS-stigma and discrimination. This includes Higher Education and Training HIV and AIDS Programme (HEAIDS), Soul City, Medical Research Council's (MRC) and the AfroAIDSinfo project, World Health Organization (WHO), the Joint United Nations Programme on HIV and AIDS (UNAIDS) and the United States Agency for International Development (USAID), among many others. Stigma refers to a process in which people are identified and separated according to "differences" and consequently justifies social hierarchies and inequalities (Phelan, Lucas, Ridgeway, & Taylor, 2014). Although steps have been taken to eliminate HIV-related negative attitudes, a recent study depicts that at least one-third of people living with HIV/AIDS (PLWHA) have been discriminated and/or attacked, as a result of their HIV-positive status (Human Sciences Research Council, 2015). In addition, poverty and lack of access to HIV-prevention and care have exacerbated the epidemic, which has led to the continuation of HIV stigmatisation in low socio-economic environments (Sengupta et al., 2010). Notably, stigma has been found to be more common in

poorer, less-educated people, and those in rural areas (Amuri, Mitchell, Cockcroft, & Andersson, 2011). Low-SES plays a role in maintaining HIV stigma.

Considering that current global rates of HIV/AIDS shows that the pandemic is gradually decreasing, the progress is uneven amongst developing and developed countries. Ideas of HIV/AIDS are accompanied with morals, where the infected are said to lack them, this also includes concepts such as, blame towards the infected, responsibility and deservedness towards PLWHA (Bond, Elaine, & Aggleton, 2002). In most African countries stigma is exacerbated by religious ideas, gender disparities, poverty and unemployment. For instance, from a religious lens, HIV/AIDS-stigma and discrimination is seen as a punishment from God, a curse and a sinner's disease (Chase & Aggleton, 2001; Kopelman, 2002; & Cloete, 2015), and/or a deserving punishment for those who are promiscuous or homosexual (EngenderHealth, 2004).

South Africa, like most of the Sub-Saharan African countries, is greatly affected by the pandemic. There has been an increase in the number of people living with HIV/AIDS in South Africa. In 2002 the estimated number of people living with HIV was 4.02 million, which increased to 6.19 million in 2015 (Statistics South Africa, 2015a). This then resulted to an estimate of 11.2 million people being infected in 2015 (Statistics South Africa, 2015a). Furthermore, it is identified that in South Africa HIV-stigma and discrimination remains a hindrance to HIV/AIDS prevention and treatment (Guma, 2011). Moreover, 'othering'<sup>1</sup> and labelling sets people apart in communities. This is based on a number of characteristics, including physical attributes, socio-economic status, sexuality, religion, race and association with HIV-infection, and so on (Guma, 2011). It has been more than 30 years since the reporting of the first case of HIV infection, yet the disease still remains widespread (UNAIDS, 2011). UNAIDS (2008) highlights some of the factors that contribute to the development of HIV-stigma, including;

- The life-threatening characteristic of the disease(s); and therefore people have strong reactions to them.

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<sup>1</sup> Othering "the process of casting a group, an individual into the role of the 'other' and establishing one's own identity through opposition to and, frequently, vilification of this Other." (Yiannis, 2012)

- HIV infection is associated with behaviours (such as homosexuality, drug addiction, prostitution or promiscuity) that are already stigmatised in many societies.
- Most people become infected with HIV through sex, which often carries ethical weight.
- There is a vast amount of inaccurate information about how HIV is transmitted, creating irrational behaviour(s) and misperceptions of personal risk.
- HIV infection is often thought to be the result of personal irresponsibility.
- Religious or moral beliefs lead some people to believe that being infected with HIV is the result of moral fault (such as promiscuity or “deviant sex”) that deserves to be punished.
- The effects of antiretroviral therapy on people’s physical appearance can result in forced disclosure and discrimination based on appearance.” (UNAIDS, 2008)

Due to the high number of HIV-infections that are present in South Africa, there is a probability that PLWHA have become vulnerable to stigmatisation.

## **1.2 Problem Statement**

Negative attitudes and beliefs towards HIV/AIDS have proven to, and continue to weaken preventative efforts regarding the pandemic (Visser, Makin, Vandormael, Sikkema, & Forsyth, 2009). Although there is extensive literature on HIV/AIDS, there has not been much success in attempts to alleviate stigma with regard to testing attitudes, specifically those of the youth regarding the disease (van Wyk, 2006; Mahajan et al., 2008). In both developed and developing countries, it is identified that negative attitudes are not only from family, friends, and community members, but they are also exacerbated by strangers, work colleagues, and health care workers (Mawar, Sahay, Pandit, & Mahajan, 2005; Hossain & Kippax, 2011). These negative ideas about HIV infection have a powerful hold on communities, because their foundation is based on pre-existing prejudices and stereotypes (Cloete, 2015). Moreover, a study in South Africa revealed that 24% of people reported discrimination by their employer or colleagues, and 40% stated that their status has (either directly or indirectly) contributed to their dismissal at work (Human Sciences Research Council, 2015), highlighting the continuous effects of HIV stigmatisation and discrimination.

Stigmatisation is arguably the most concerning social issue related to the illness. Discriminatory attitudes towards people living with HIV/AIDS have been collectively experienced worldwide (Lau & Tsui, 2005). It is argued that HIV-stigma poses as a barrier that affects HIV infected individuals in matters regarding access to care, treatment and support (Mahajan et al., 2008, González-Rivera & Bauermeister, 2007). Notably, the stigmatisation and/or discrimination associated with the illness, leads individuals to the fear of getting tested, getting informed about prevention, learning about risky behaviours and how to engage in self - care (Meiberg, Bos, Onya, & Schaalma, 2008). Furthermore, it is easier for PLWHA to internalise and accept stigma as part of their identity, discouraging them to seek help from, both (other) communities and health care professionals.

In addition, it discourages people being open about their status to sexual partners (Gilbert & Walker, 2010), leading to denial and secrecy, which in turn enhances HIV transmission (Mbonu, van den Borne, & De Vries, 2009). Moreover, the associated prejudice poses a challenge to HIV/AIDS - related responses - socially, psychologically, culturally, politically, economically, and even physically (Gurmu & Etana, 2015). According to Kontomanolis, Michalopoulos, Gkasdaris, & Fasoulakis (2017), females infected by the virus are more likely to be rejected by their own family members, and this isolation creates a remarkable degree of tension. The discrimination against females in a patriarchal further threatens female's economic, social and family position (Kontomanolis et al., 2017). It is the existing prejudice and discrimination in our societies that is associated with prolonged and severe psychological trauma (Corrigan, Druss, & Perlick, 2014). Clearly as the key driver of the pandemic, stigma increases the rates of HIV-related morbidity and mortality (Campbell, Nair, Maimane, & Nicholson, 2007).

In this manner, discriminatory attitudes sometimes reinforces other social exclusion and inequalities that exists, for example racism, poverty, and religious conflict. Anderson et al., asserts that even if the levels of HIV risks are similar for both males and females, evidence in African youth research have shown that HIV-knowledge and sexual risk behaviour vary by gender (Anderson & Beutel, 2007). Historically, external stigmatisation was directed towards females, as it was believed that they are responsible for societal ills, such as HIV/AIDS (Airhihenbuwa et al., 2009). Evidently in communities gender-based beliefs are significant, as the differences in pressure, roles and power influences how males and females respond to

risks perceptions, condom use and attitudes towards PLWHA (Anderson & Beutel, 2007). With the disturbing rates reported in Sub-Saharan Africa, females and children are mostly affected by HIV, with females constituting half of the population living with HIV/AIDS in Sub-Saharan Africa (UNAIDS, 2015). Risks factors that are associated with the infection are complex and diverse.

### **1.3 Research Objective**

To determine the gendered differences in attitudes towards people living with HIV/AIDS among youth in South Africa.

#### **1.3.1 Specific Objectives**

1. To determine the relationship between gender and attitudes towards PLWHA.
2. To determine demographic and socioeconomic factors contributing to attitudes towards PLWHA among South African youth.

### **1.4 Research Question**

What are the gendered differences in attitudes towards people living with HIV/AIDS among youth in South Africa?

#### **1.4.1 Specific Questions**

1. What is the relationship between gender and HIV/AIDS attitudes among youth?
2. What are other demographic and socioeconomic factors contributing to HIV/AIDS attitudes among youth?

### **1.5 Justification**

Confronting HIV/AIDS-related stigma and discrimination is vital from the human rights perspective and for the benefit of public health (Hossain & Kippax, 2011). HIV/AIDS-related stigma acts as a barrier to alleviating the pandemic, therefore there is an urgent need to address the stigmatisation in South Africa in order to increase adequate, accessible and acceptable programs and services (Genberg et al., 2009). Notably, the field of psychology has explored stigma from a social cognition approach and therewith, focusing on the drivers of stigma from an individual perspective (Campbell, Nair, Maimane, & Nicholson, 2007). However, they fail to consider the social influences of the pandemic, highlighting a need to further explore the impact of stigma and discrimination. It is important to accurately identify

and measure stigma, as this will affect the societal response to HIV and towards PLWHA (Herek, Capitanio, & Widaman, 2002).

It is estimated that HIV/AIDS prevalence related to South African youth is among the world's highest (UNAIDS, 2011). The future of South Africa rests on the survival of youth -their attitude towards risky health behaviour is of critical importance. In South Africa, HIV risk - related behaviour among youth is closely monitored, highlighting the need to pay careful attention to the changes and developments in their attitudes towards PLWHA (Anderson & Beutel, 2007). One study highlighted that HIV/AIDS has an impact on South African universities. The increasing rates of home-based care, death, and financial constraints has negative effects on enrolment possibilities and/or opportunities (Mbatha, 2013). In turn, the business environment is affected, with few intellectuals produced for the labour market. In addition, the strength of the South African economy depends on the youth, thus, the effects of the pandemic will have serious negative consequences on the health resources and economy (van Wyk, 2006). High level of unemployment due to poor health, skills shortages, and income inequalities are some of the negative impacts. The youth form a larger part of the country's population, and because they are 'tomorrow's adults' and leaders their attitudes and knowledge towards HIV and PLWHA is important. Thus, it is vital that we invest in improving their knowledge and attitudes.

The reality is that many of the South African youth have personal experience with HIV/AIDS. This is due to the fact that 26% of youth know someone living with HIV, and 45% know someone who have died from HIV (Anderson & Beutel, 2007a; Kayiki & Renata, 2011). As a result, it may be difficult to maintain and increase the pool of sufficiently skilled people needed to match the skill demand as well as the expected economic growth. Moreover, it is reported that the situation may not ease, as HIV/AIDS is likely to exacerbate the current shortage of skilled labour in the absence of sufficient replacements and requalification (van Wyk, 2006).

Additionally, the lack of data that quantifies and describes stigma, poses a challenge in implementing programs and policies that are relevant (Mahajan et al., 2008). Numerous efforts have been invested in addressing stigma, but the results achieved have been inconsistent, partly because the focus has been on improving the knowledge about HIV,

rather than attitudes related to stigmatisation. Policies, such as the National Adolescent Sexual and Reproductive Health and Rights (ASRH&R) Framework Strategy, and the Youth and Adolescent Health Policy which both aim to improve long term youth health outcome in South Africa will benefit from this study (Department of Social Development, 2015).

Numerous studies focusing on the awareness of negative attitudes towards PLWHA have suggested programs that are helpful (Ehiri, Anyanwu, Donath, Kanu, & Jolly, 2005; Ndinda, Chimbwete, McGrath, & Pool, 2007; Saad, Subramaniam, & Tan, 2013), however it is important to consider gender specific policies that take into account gender disparities, religious beliefs, culture and other socio-demographic factors. Moreover, exploring the gender differences, creates an opportunity to administer interventions that are demographically tailored. The aim of this is to contribute to knowledge needed to understanding the recent levels and prevalence of HIV/AIDS stigma in South Africa and how PLWHA are being treated.

## **1.6 Definition of terms**

**Attitude** – A way of thinking, opinions and behaviours relating to specific issues, for example HIV/AIDS (Campbell, et al., 2007).

**Attitude towards PLWHA** – How people perceive individuals with HIV from their personal viewpoint (Campbell, et al., 2007). The personal viewpoints towards PLWHA are rooted in morality and values that have been ingrained since childhood and from different social interactions and the environment they live in, this includes religious, cultural, legal and environmental aspects (Campbell, et al., 2007).

**HIV/AIDS-related discrimination** – Biased treatment and acts towards an individual with HIV/AIDS or a person with perceived HIV-status (UNAIDS, 2011)

**HIV/AIDS-Stigmatisation and Discrimination** – A process where individual [s] are discredited or devalued based on their characteristics and/or associations. It is often linked to issues of power and social control in a society ( EngenderHealth, 2004; UNAIDS, 2015).

**Youth** - According to the National Youth Commission Act 1996 youth are individuals aged 15-35 (Government Gazette, 2015). However, in this study youth refers to individuals aged 15-24.

**Gender & sex** – It is associated with culture, it refers to attitudes, feelings and behaviours that relates to individuals biological sex (American Psychological Association, 2012). Behaving according to cultural association of gender is known as gender-normative (American Psychological Association, 2012). However, sex on the other hand refers to biological status of an individual, that categorises individuals as either males, females or intersex (American Psychological Association, 2012). Several biological indicators of sex includes reproductive organs, external genital, and sex chromosomes (American Psychological Association, 2012). The two are used interchangeably in this study, however gender is referred to as both sex and social construct of gender.

## Chapter 2: Literature Review

### 2.1 Introduction

The matter regarding HIV/AIDS and attitudes thereof is one that has been discussed in several fields, including health and social sciences. Debates, researches and conferences have taken place across the world in order to critically scrutinise stigma and discrimination towards PLWHA. In developing countries, especially where the pandemic is severe, stigma and discrimination poses multiple challenges that affect the lives of PLWHA. This section aims to unpack the body of literature on attitudes towards PLWHA, and the manifestation of stigma and discrimination.

### 2.2 Understanding Stigma

Stigmatisation refers to a social process derived from perceptions or experiences that consists of people being excluded, rejected, blamed and devalued (Genberg et al., 2009). It includes social judgement to a person or a group. Studies in the field of HIV/AIDS have highlighted the role of HIV-related stigma and discrimination, and how they threaten interventions and programs designed to combat this pandemic. Furthermore, scholars have identified two categories of HIV-related stigma; instrumental and symbolic. The fear of HIV/AIDS as an illness and to protect oneself it is an instrumental stigma (González-Rivera & Bauermeister, 2007). Symbolic stigma is when discriminated minority groups are associated with the disease simply because in most communities their behaviours are disapproved, for example injection drug users (IDU), men who have sex with other men (MSM), and prostitutes (Varas-Diaz, Serrano-Garcia, & Toro-Alfonso, 2005; González-Rivera & Bauermeister, 2007).

Stigma is a socially constructed concept. It is understood differently in different parts of the world. The work of Erving Goffman is mostly recognised when unpacking the dynamics of the term in social research. His 1963 work *'Stigma: Notes of the management of spoiled identity'* explains how stigma is understood and what effect it can have on people. According to Goffman, stigma occurs when some individuals (in society) have discredited characteristics and others do not (Goffman, 1963). Although stigma is a commonly known term, discovering its meaning is somewhat complex and has proven to be a challenge (Green, 2009). Scholars have noted that the meaning of the term is relative to different researchers, particularly their frame of reference (Link & Phelan, 2001). Labelling, discrimination, stereotyping, separation,

and loss of status are interlinked to the meaning of stigma (Link & Phelan, 2001). In addition, the essence of term largely relates to social degradation (Mbonu et al., 2009). HIV-stigma has a negative impact on those who are infected and affected by it (Mbonu et al., 2009). Those who are stigmatised are usually shunned, labelled, and devalued by the broader society, and individuals are more likely to believe and accept the labels and the resulting treatment thereof (Alonzo & Reynolds, 1995). Hence it is argued that the roots of stigmatisation, in this regard, are present at a societal level, where it is enabled by economic, social and political inequality (Sengupta et al., 2010).

The development of stigma is reinforced by negative attitudes that exists within societies. HIV/AIDS-stigma and the resulting discrimination has manifested in multiple ways, including rejection from family and friends, abuse (physical and verbal), job loss and eviction from homes, which in sum relates to and violates human rights. According to scholars, HIV-stigma and discrimination are inversely displayed. They suggest that discrimination constitute negative behaviour that is acted out towards PLWHA (Campbell, et al., 2007). However, stigma relates to thoughts, feelings and actions, making it more overt (Campbell, et al., 2007). Stigma is exhibited in two different ways, namely enacted and internal stigma.

### ***2.2.1 Enacted or External Stigma***

This relates to the actual experiences of stigmatisation - how the stigmatised person feels (Scambler & Paoli, 2008). It includes interpersonal actions expressed in overt ways including, labelling, being shunned, as well as rejection (EngenderHealth, 2004). Furthermore, it is seen as the personal, genuine experience of discrimination (Campbell, et al., 2007).

### ***2.2.2 Felt/Perceived or Internal Stigma***

This is the stigma that relates to the diagnosed person's imaginative expectations of others once their status becomes known (Mbonu et al., 2009). This kind of stigma is used by the diagnosed person as a protective mechanism in order to protect themselves from experiencing external stigma (Kalichman, Simbayi, Kaufman, Cain, & Jooste, 2007), which in turn leads to denial and reluctance to accept their HIV-status, and refusal to disclose their status (Kalichman et al., 2007).

## **2.3 Determinants of attitude towards PLWHA**

### **2.3.1 Culture and Attitudes towards PLWHA**

Patriarchy, culture and power play a role in enhancing attitudes about the disease and towards PLWHA, especially because there is an intersecting relation between them. One cannot look at patriarchy and ignore the power dynamics that occurs, especially in African ethos. Culture is largely influenced by the patriarchal system in South Africa and it is used to maintain social order (Mahajan et al., 2008). It is argued in literature that culture may influence how care givers deliver care for HIV infected persons (Umeh et al., 2008). African cultural cosmology influences the way in which South Africans build their attitudes towards PLWHA. For example, Campbell found that the belief in witchcraft as a cause of HIV/AIDS, enhances negative attitude (Campbell, et al., 2007). However, there seems to be hope that these beliefs are diminishing among South African communities, as one study completed in Tshwane, South Africa depicted that 5.7% of the study participants believe in the idea that those living with HIV are bewitched (Visser et al., 2009).

However, there are contradictory arguments in the design of measuring stigma. While on the one hand Weiss, Ramakrishna, & Somma (2006) argue that scales should be designed according to the cultural context limiting comparability across different sites, Van Brakel (2006) on the other hand believes that the root of stigma is from the same construct, and should therefore be applied in different cultural contexts. According to Airhihenbuwa et al., (2009), societal and health behaviour in particular, are shaped by culture and to change the current state in South Africa, we need focus on individual behaviour. This suggests the importance of noting the influence of culture on the pandemic. Cultural beliefs, practices such as male circumcision, age at marriage and native health practices contribute to both the spread of HIV/AIDS and attitude towards PLWHA (Mahajan et al., 2008). Noteworthy, language is used as a proxy for culture, this is because South Africa has 11 languages that represent 11 different cultures. Because each language is linked to the cultural beliefs and practices, for the purposes of this study, language will be adopted to represent different cultures.

### **2.3.2 Education and attitudes towards PLWHA**

Previous work shows that despite the abundant exposure to HIV-related knowledge, youths continue to adopt negative attitude towards PLWHA (Shiferaw et al., 2011). On the contrary,

one study reports that only youth with no education have less positive attitudes towards condom use, and would often have more than one sexual partner (Bekalu et al., 2014, Payiki & Forste, 2011). This increases their chances of contracting the infection. Likewise, Lau & Tsui, (2005) found similar results. This may be because individuals who are more educated have better knowledge and understanding about HIV/AIDS-infection, how it is treated, transmitted and avoided. In addition, South African youth with higher education proved to have less stigma according to Visser et al., (2009). Furthermore, Visser et al., adds that building knowledge in schools regarding HIV/AIDS-issues have made an impact in transforming and transferring awareness about the infection (Visser et al., 2009). Similarly, another study focusing on Kwazulu-Natal higher educational institutions, shows that students and staff are more positive towards PLWHA, as depicted by one study conducted in different Technical and Vocational Education and Training (TVET) colleges in South Africa (HEAIDS, 2010). However, both these studies can be criticised for focusing on educational institutions and, thus, concluding that university and college students are more tolerant towards PLWHA.

Interestingly, contradictory findings have been discovered in other scholarly work. Mbatha (2013) conducted a study in different universities in Kwazulu-Natal, South Africa, and found that university students have discriminatory attitudes towards PLWHA. She also found that students would choose to keep quiet about their HIV-status fearing that they might be excluded by their friends on campus (Mbatha, 2013). Furthermore, a study in Ghana discovered a correlation between negative attitudes towards PLWHA and higher education, where higher educated individuals exhibited more negative attitudes, and revealing their favour for policies denying employment for HIV infected individuals (Ulas et al., 2009). The scholars concluded that knowledge does not change behaviour - that the assumption that more educated individuals less likely to be discriminatory was rejected (Ulas et al., 2009). This proves that even if someone is educated, they can still hold discriminatory attitudes.

### **2.3.3 Age and attitudes towards PLWHA**

In the presence of high HIV-prevalence and risky sexual behaviours in South Africa and Sub-Saharan Africa, the youth continue to perceive themselves to be at low risk of contracting HIV/AIDS (Anderson & Beutel, 2007; Payiki & Forste, 2011). The assumption may be because admitting to being at risk means that they will have to accept that they are part of the stigmatised group, hence the personal risk is downplayed by youth (Anderson & Beutel,

2007). Several studies have highlighted the importance of age in their attempts to understand stigma and discrimination (Hazarika, 2010, Eguchi, Wada, & Smith, 2014). In one study, only 38% of students revealed that they will be supported by their friends if it is revealed that they are HIV-positive (HEAIDS, 2010), thus, revealing the prevalence of hidden negative attitudes that are present in societies. In addition, a study done in Cape Town revealed high levels of stigmatising attitudes (97%) (Maughan-Brown, 2006).

Literature shows that in Japan the elderly have negative attitudes towards PLWHA, arguing that in 1987 they experienced the 'AIDS panic' where most of the elders believed HIV/AIDS is a curse (Eguchi, Wada, & Smith, 2014). A study conducted in South Africa showed that age was a predictor of HIV/AIDS-related negative attitudes (Hossain & Kippax, 2011). Their multivariate logistic regression confirms that the older generation had more discriminatory attitudes. This was done in two different South African townships (Soweto and Vulindlela, KZN). Unlike the older generation, youth displayed acceptance towards PLWHA. The role of knowledge and literacy play an important role in the lives of the youth, as are more likely to be exposed to relevant information regarding the infection. In the same vein, one study reported that youth between the ages of 15-19 years and 20-24 years old, both have positive attitudes towards HIV (Human Sciences Research Council, 2009). However, as much as the evidence proves that the older generation have negative attitudes, in Hong Kong scholars argued that age is not significant in determining attitudes towards PLWHA (Lau & Tsui, 2005). The differences in attitudes can be due to the exposure of knowledge regarding the infection, religious knowledge, the morality regarding the matter and cultural influence.

### **2.3.4 Gender and attitudes towards PLWHA**

Stigmatisation is associated with issues of gender disparities (Parker & Aggleton, 2003; Campbell, et al., 2007). The inferior role of females in societies, along with their ascribed responsibilities cannot be avoided. Most societal beliefs assert that females have no power and authority, and this means that they fail to protect themselves, even sexually (Campbell, et al., 2007). For example, it is acceptable for males to have multiple sexual partners, while females are expected to be monogamous (Mbonu et al., 2009), thus, this increases the risk of females contracting sexually transmitted infections, especially HIV/AIDS. This gender discrimination is worse for females living with HIV, as they are discriminated on multiple accounts. Firstly, on the basis of their gender, as perpetuated by patriarchy and secondly on

account of their HIV-status. Although males are also living with HIV, females counterparts are the ones who are mostly rejected and shunned (Kalichman et al., 2007).

There have been conflicting findings in literature regarding males' and females' attitudes towards PLWHA. Globally, findings regarding attitudes of males and females towards PLWHA have been inconsistent. A study done in Sweden showed that male students were more likely to have stigmatising attitudes towards people living with HIV/AIDS (Lundgren & Olausson, 2013). The scholars found that in light of education received in schools, males tend to hold more discriminatory attitudes than their female counterparts. In addition, similar findings were obtained in studies conducted in two Asian countries, China and Thailand. Results from the two studies indicate that females tend to have more positive attitudes towards HIV/AIDS and PLWHA (Zhu et al., 2015, Hasan, 2012).

In African literature, studies found that women are less tolerant towards PLWHA. Their attitudes and perceptions of people with HIV/AIDS were also found to be belligerent (Mutombo & Maina, 2014). However, although there are inconsistencies found at an international level, they are also noted locally. In a recent study conducted in South Africa, Mashinini & Pelton-Cooper (2012) found that attitudes of some men towards PLWHA are culturally influenced, as they believe that HIV is the outcome of witchcraft. However, Umeh et al., argue that Nigerian males had positive attitudes towards PLWHA and this was due to their advanced knowledge about the infection in comparison to females (Umeh, Essien, Ezedinach, & Ross, 2008).

While it is evident that various scholars have found an association between gender and attitudes towards PLWHA, Amuri, Mitchell, Cockcroft, & Andersson (2011) would argue differently, as they found no association between stigma and gender. In their findings they argue that religion and culture are the important factors associated with how males and females view and understand the infection, which in turn influences how they treat PLWHA. Another study's results indicate that gender alone cannot determine attitude, unless other factors are included (Young et al., 2010). Their results revealed that older (age), females, with high education have no negative attitudes towards people living with HIV (Young et al., 2010), indicating that different socio-demographic factors should be taken into account when identifying exhibitors of stigma and discrimination.

### **2.3.5 Employment status and attitudes towards PLWHA**

The rate(s) of HIV-infection have been intensified by the high levels of unemployment, illiteracy and poverty (Nyawose, 2001). It is argued that most people from low socio-economic status becomes bitter and resentful towards PLWHA in their households, especially if the family member is no longer economically active (Campbell, et al., 2007). Family members are burdened with the responsibility of caring for the person and, in most cases, do not know what to do. In addition, those who are unemployed express hostile attitudes towards PLWHA. This is only because they feel that since they are unemployed, they cannot afford to care for and provide best possible care for such individual(s).

However, not only unemployed persons express hostile attitudes towards PLWHA, as even in employment sectors, discrimination and stigma exists. One study found that employed males in Ghana and Zambia are more supportive towards PLWHA (Stephenson, 2009). In one study it is reported that 13% of participants said that PLWHA have lost their jobs because of their HIV-status (Haffejee, Ports, & Mosavel, 2016). As Kalichman et al., (2007) argued that HIV-stigma leads to discrimination and denied opportunities due to HIV-status. In light of this, several companies in South Africa have taken the lead in ensuring that PLWHA are not discriminated against based on their HIV-status. To assist employers, employees, trade unions and the South African government have developed a “code of good practice on aspects of HIV/AIDS employment” (Labour Protects, n.d.). The labour protect team which worked on the legal framework suggested that both employers and employees read the code with the constitution of South Africa Act, No. 108 of 1996, as well as other legislative policies including:

*(i) Employment Equity Act, No. 55 of 1998;*

*(ii) Labour Relations Act, No. 66 of 1995;*

*(iii) Occupational Health and Safety Act, No. 85 of 1993;*

*(iv) Medical Schemes Act, No. 131 of 1998.*

*(v) Promotion of Equality and Prevention of Unfair Discrimination Act, No. 4 of 2000. (Labour Protects, n.d.).*

The HIV-epidemic has had an impact in the workplace on a global scale. This includes high level of absenteeism due to staff illness, occupational health and safety, production levels and workplace optimism. Unfair discrimination in the workplace should not be allowed.

### **2.3.6 Religion and attitudes towards PLWHA**

Faith Based Organisations (FBO) have been reported to play a dichotomous (positive and unfavourable) role towards promoting attitudes directed to PLWHA (Campbell, et al., 2007; Airhihenbuwa et al., 2009; & Mbonu et al., 2009). Religion plays a role in shaping the attitudes and beliefs of people, which is supported by findings in both the research of Eguchi, Wada, & Smith (2014) and Hossain & Kippax (2011). Religious people conveyed negative attitudes with the general idea that HIV/AIDS is a form of punishment for unfaithful sexual behaviour (Hossain & Kippax, 2011; Eguchi, Wada, & Smith, 2014). Religious people often assume that 'immoral behaviour' leads people to contract the disease (Hossain & Kippax, 2011). In Hong Kong these kinds of beliefs are common. Individuals believe that HIV/AIDS is a result of promiscuous behaviour, hence, people are receiving the punishment they deserve (Lau & Tsui, 2005).

Additionally, a study conducted in South Africa, Kwa-Zulu Natal found that churches undermined HIV/AIDS related programs, with the church leader discouraging youth to attend life skills meetings that deal with sexual health issues (Campbell, et al., 2007). Moreover, literature highlights that non-Christians, especially Muslims are in favour of revealing HIV status, and were more sympathetic towards PLWHA (Ulasi et al., 2009). Faith Based Organisations (FBO) usually display compassion towards PLWHA, but refuse to promote condom use and provide sexual education. This is because they believe that it will encourage promiscuous behaviour (Merson, O'Malley, Serwadda, & Apisuk, 2008). Notions in different religious organisations such as 'us' and 'them', 'pure' and 'impure', 'saved' and 'sinners' further separate people in communities (Campbell, et al., 2007). In South Africa, religion especially, FBO, play an important role both politically and socially, as their teachings are valued and their views on HIV/AIDS influences how PLWHA are treated in communities (Merson et al., 2008; Airhihenbuwa et al., 2009; & Mbonu et al., 2009).

### **2.3.7 Condom use and Attitudes towards PLWHA**

Condom use in South Africa can be traced back to how, when and who introduced it. This played a role in shaping the view and use of condoms in South Africa, especially among specific racial groups (Blacks, Coloured and Indians). The use of condoms began during apartheid era, and this was the time in which the HIV pandemic was at the start of its emergence (Scott, 2009). During this time black South Africans viewed condoms as another

way of oppression and control from the superior white government (Scott, 2009). It is views such as these, that encourages negative attitude towards condom use and those infected with HIV/AIDS. Additionally, different social factors are associated with condom use, like power disparities in sexual relationships, risk factors associated with the non-use of condoms and also the accessibility of condoms (Campbell, et al., 2007). For instance, females who suggest condoms during sex might experience physical assault from their partners (Diep, 2015). The scholar suggests that females in abusive relationships re more likely to contract the HIV virus (Diep, 2015), as their partners might interpret it as lack of trust in the relationship. Health care workers reported that men are less likely to collect and use condoms (Haffejee et al., 2016). According to the workers, South African men prefer not using a condom during sex. Similarly, females would suggest condom use at the beginning of the relationship, but after few months with their partners, they stop because their partners suggest that not using condoms signifies trust in the relationship (Haffejee et al., 2016). Similarly, Technical and Vocational Education and Training (TVET) college students and staff expressed negative attitudes towards condom use, stating that they feel unnatural and they lose the respect of men when they insist on using condoms (HEAIDS, 2010).

### **2.3.8 Marital status and Attitude towards PLWHA**

One study conducted in Haiti and the Dominican Republic found that married couples have more positive attitudes in comparison to those who are single (Perrin, 2010). In the same vein, those who have never been married (in Kenya) expressed negative attitudes towards PLWHA (Hamra, Ross, Orrs, & D'Agostino, 2006). Weaknesses relating to both studies relates to the provision of an explanation regarding why single individuals have negative attitudes towards PLWHA. Moreover, Nwanna (2011) found that married people are linked to negative attitude in his study conducted in Lagos, Nigeria. The study found that those who are married relate HIV/AIDS to promiscuous behaviour (Nwanna, 2011). It has been noted that marital status is not only related to HIV/AIDS stigma and discrimination, but also linked with gender, HIV-knowledge and HIV-testing (Farotimi, Nwozichi, & Ojediran, 2015). This relates to what Perrin (2010) suggest; that marital status should be assessed with other demographic factors - arguing that marital status is not a sufficient factor that can explain attitudes towards PLWHA. (Perrin, 2010). People living with the infection are discriminated against, not only by family and friends, but also at work, as well as in and through health care facilities, when they visit

clinics for HIV testing (Mawar et al., 2005). Among married individuals, this symbolises unfaithfulness in marriage, single individuals associate it with promiscuous behaviour (Farotimi et al., 2015). Scholars add that this kind of treatment deters individuals from getting tested and disclosing their HIV status to their loved ones (Lundgren & Olausson, 2013).

## **2.4 Theoretical Framework**

There are multiple theories used by scholars to test attitudes and perceptions. This includes the Attribution theory, Ecological theory, Attitude theory, Theory of Planned Behaviour (TPB), Health Belief Model (HBM), and Theory of Reasoned Action (TRA). For the purpose of this study, the latter theory will be used.

### **2.4.1 Theory of Reasoned Action (TRA)**

The Theory of Reasoned Action (TRA) by Ajzen and Fishbein has been widely used to study behaviour and the prediction of behavioural intentions (Fishbein & Ajzen, 1975). It is used to predict an individual's outcome behaviour based on their attitude towards behavioural norms and subjective norms (Ajzen & Driver, 1991). Furthermore, it is used to connect individual behavioural intention to actual behaviour. The Theory of Reasoned Action (TRA) was firstly developed by Martin Fishbein in the 1967, and later the theory was revised and developed by Icek Ajzen together with Fishbein during 1970's (Fishbein & Ajzen, 1975). By 1980 TRA was utilised in studying human behaviour and developing interventions (Ajzen & Driver, 1991). It was in 1988 that the weaknesses of TRA were addressed by adding the Theory of Planned Behaviour (Godin & Kok, 1996).

At the core of TRA is the focus on the individual intention to behave in a particular way. In order to understand behavioural intention the TRA looks at attitudes towards behaviour and subjective norms that influences attitudes (Fishbein & Ajzen, 1975). Because TRA focuses on beliefs and norms it provides an underlying understanding on reasons why people intent to behave in a specified way.

The Theory of Reasoned Action makes an efforts to explain the relationship between beliefs, attitudes, intentions and behaviour. According to this theory attitudes are influenced by two factors, namely; our beliefs about the outcome of the behaviour and evaluation of the potential outcome of the behaviour (Madden, Ellen, & Ajzen, 1992). While behavioural beliefs

are said to influence individuals attitudes towards performing a specific behaviour, normative beliefs influences norms about performing specific behaviour (Madden et al., 1992). Moreover, it is noted that other external variables have an influence on behaviour, this affects mostly attitudes and norms (Godin & Kok, 1996). It is called The Theory of Reasoned Action because its main focus is on the reasons of action and not necessarily on whether the reasons are correct or not.

Attitude is a strong predictor of behaviour than norms (Kurland, 1995). It is argued that attitude looks at personal outlook one has toward a specific behaviour, while norms only focuses on the perceptions of others towards a behaviour (Kurland, 1995). The theory explains that; rational and systematic use of information allows individuals the opportunity to think of the implications of their actions in a specified time, before they decide to engage in a certain behaviour (Ajzen & Driver, 1991). Thus, positive beliefs that are associated with positive outcomes will in turn result in positive attitude towards behaviour, while negative beliefs will result in negative attitudes towards behaviour (Glanz, Rimer, & Viswanath, 2008).

Once we gain deeper and better understanding on attitudes and norms that influences intent behaviour, we are able to design interventions that also addresses these norms and beliefs. For example, once we understanding negative norms and beliefs towards HIV/AIDS, interventions to dismantle stigma and discrimination can be designed. TRA has been chosen as a theoretical framework for this as it has been used together with Theory of Planned Behaviour (TPB) to study HIV/AIDS-health behaviour.

#### **2.4.2 Theoretical constructs of the model**

**Behavioural Intention:** It is an indication of how hard people are willing to try and of how much an effort they are planning to exert, in order to perform the behaviour (Rimer & Glanz, 2005). This is influenced by three components: person's attitude toward performing the behaviour, the perceived social pressure (subjective norm) and perceived behavioural control (Rimer & Glanz, 2005).

**Attitude:** This looks at the individual attitude towards performing a specified behaviour. It is the first determinant of behavioural intention. It is the degree to which the person has a positive or negative evaluation of the behaviour (Rimer & Glanz, 2005). What influences attitude is individual's beliefs about the consequences of performing a specific behaviour

(Rimer & Glanz, 2005). Such attitudes have a strong influence on behavioural intention and they are linked to subjective norms and perceived behavioural control.

**Subjective Norm:** Social pressures that one experiences to perform a specific behaviour (Ajzen & Driver, 1991; Rimer & Glanz, 2005). They are also influenced by beliefs about those around us (Rimer & Glanz, 2005), including parents, friends, colleagues etc.

**Normative Beliefs:** Beliefs that are said to have an influence on subjective norms are called normative beliefs (Rimer & Glanz, 2005). Normative beliefs are considered the second predictor of behavioural intention. This is the influence of social pressure that is perceived by the individual to perform or not perform a certain behaviour (Rimer & Glanz, 2005).

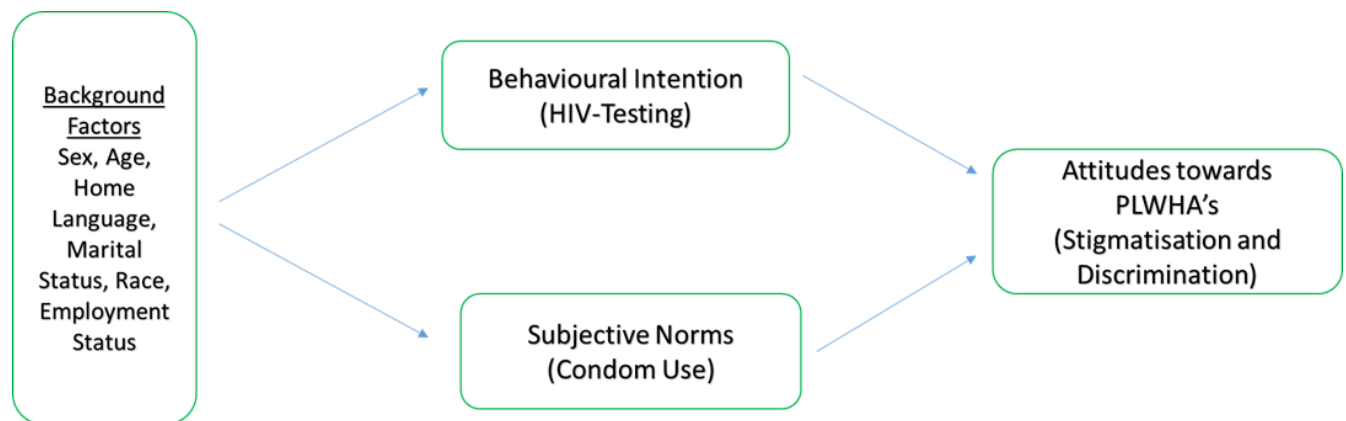
### **2.4.3 Limitations of the model**

Although the model is widely used by scientist to study behaviour, it is however not without weaknesses. One of the major limitation was related to the lack of power/control over attitudes and behaviours (Ajzen & Driver, 1991). Once Ajzen and his team discovered the limitations they set out to address this by adding a third element. The element became the new theory known as Theory of Planned Behaviour (TPB) (Ajzen & Driver, 1991). According to Ajzen and Driver, the construct covers situations where individuals believe that their behavioural intention is influenced by factors that is beyond their control (Ajzen & Driver, 1991). Moreover, TRA lacks a clear distinction between goal intention and behavioural distinction (Sheppard, Hartwick, & Warshaw, 1988). The authors explains that the model deals with behaviours and not the outcome of events that results from the behaviour. The model only focuses on the behaviour that are consciously made (Sheppard et al., 1988). However, TPB incorporates three main constructs that contribute to behavioural intention, which is considered the strongest predictor of behaviour (Hackman & Knowlden, 2014).

## **2.5 Conceptual framework**

The study made amendments to the Theory of Reasoned Action (TRA) model, mostly because the study want to focus on behavioural beliefs and norms that influences stigmatisation and discrimination towards PLWHA.

**Figure 2.1: Framework for analysing attitudes towards PLWHA**



Adapted from the Theory of Reasoned Action (Fishbein and Ajzen, 1975)

Figure 2 above shows the conceptual framework for this study. The Theory of Reasoned Action (TRA) was adapted where the first category shows the background factors. The second category shows the behavioural beliefs and the normative beliefs. These factors are used to determine stigmatising and discriminatory attitude towards PLWHA.

## Conclusion

The predominant attitude towards PLWHA is hostile and negative, and there are a wide range of harmful consequences associated with these negative attitudes. Even in the 3<sup>rd</sup> decade of the pandemic, stigma still threatens the efforts made to address the pandemic. In the literature analysis, it was evident that socio-demographic factors play a significant role in shaping HIV/AIDS-attitudes, as most research provides an indication of how people in different social categories express their negative attitudes.

## **Chapter 3: Methodology**

### **3.1 Introduction**

This chapter discusses the methodology applied to carry out this study in order to explore gender differences in attitudes towards PLWHA among South African youth. Aspects discussed in this chapter include the study design, study population, sample size, questionnaire design, study variables, data management, analysis plan, hypothesis, ethical issues and study limitations.

### **3.2 Study Design**

The study is a quantitative cross-sectional study, which aims to explore gender differences in attitudes towards PLWHA among youth (15-24 years old) in South Africa. The study utilised secondary data obtained from the South African National HIV Prevalence, Incidence, Behaviour and Communication Survey (SABSSM) published in 2008. The SABSSM 2002 and 2005 surveys included individuals of all ages (2+) from all nine provinces in the country while the 2008 survey included individuals of all ages, as well as infants (Shisana et al., 2009). Moreover, eligible individuals were those from selected households and hostels whilst individuals living in students accommodations, old age homes, hospitals, homeless and uniformed-service barracks were not included in the survey (Shisana et al., 2009).

The SABSSM is a cross-sectional population-based household survey which was conducted across all South African provinces in June 2008 to March 2009. The study is part of the surveillance of the HIV epidemic South Africa and it is the third series of the survey (Shisana et al., 2009). The previous surveys conducted in 2002 and 2005 were also used to add onto this survey. The key aim of the 2008 study was to explore the HIV prevalence and incidence including HIV-related behaviour and health (Shisana et al., 2009). This survey was designed to investigate from every 1 000 census enumerated areas (EA's) and 15 000 households were selected using the systematic sampling method. Moreover, individuals in different age groups were randomly selected in every household (Shisana et al., 2009). From the original 15 000 households that were identified for the study, only 13 440 households were willing to participate (Shisana et al., 2009).

Furthermore, 23 369 eligible individuals were interviewed although only 20 826 managed to complete the interviews (Shisana et al., 2009). Since the survey focused on individuals of all

ages who reside in all the nine provinces, the sampling method used to determine the sample size is multi-stage cluster stratified sample which was stratified by province (Shisana et al., 2009).

### **3.3 Fieldwork procedure**

The field work for the study commenced on May 2008 to early March 2009 by a team of researchers, field editors and health professionals. The group included 14 South African Human Science Research Council (HSRC) junior researchers and provincial survey coordinators which included research trainees studying towards their Masters and Doctorates. In addition, there was a total of 165 nurse fieldworkers, 27 nurse supervisors and 40 site editors. The study utilised the previous training manual from the previous research with the special focus on ethics, consent forms, interviewing skills, completing questionnaires, collecting the specimen, maintaining confidentiality and quality control procedures (Shisana et al., 2009).

Additional training was provided for supervisors and site editors to do more tasks including identifying the EA's using maps, GPS equipment and coordinates and identifying pre-selected households (Shisana et al., 2009). Furthermore, two teams of fieldworkers were assigned one provincial coordinator with each team comprising of one nurse supervisor, three to five nurse fieldworkers and one field editor (Shisana et al., 2009). Lastly, field workers were placed in demographically suitable spaces in terms of race, ethnicity and language when necessary.

### **3.4 Study Population and Sample Size**

In order to explore attitudes towards PLWHA, a subset of population from the SABSSM was selected as a sample for the study. The total number of individuals sampled for the survey was 23 369, which refers to individuals from the age of 2 to 99 (Shisana et al., 2009). The survey sample data was weighed to ensure that the report was representative to the population.

This research focuses on youth (15-24 years old) as the population of interest. The sample includes both males and females. There were 5 344 (N) participants in the youth category who completed the survey. All the relevant weighting methods were applied on the selected sample and all the youth who responded to the questions on HIV/AIDS attitudes are included.

### 3.5 Questionnaire Design

The questionnaire was developed by the South African Human Science Research Council (HSRC). The 2008 questionnaire is similar to the one used in both 2002 and 2005. However, for the 2008 survey, a new questionnaire of mother/guardians of children under the age of 2 was included. The survey comprised of six different questionnaires which constitute of the visiting questionnaire, questionnaire for mother/guardian of children aged under two years, parents/guardian of children aged 2-11 years, children aged 12-14 years, youth questionnaire for individuals aged 15-24 years and adult questionnaire for individuals aged 24+ (Shisana et al., 2009). Furthermore, the questionnaires, informed consent and the information sheets were translated to the local spoken languages and pre-tested before distribution. Since this study focused on youth, the youth questionnaire was utilised for this study.

### 3.6 Study area



**Figure 3.1:** Map of South Africa (Source: Buzz South Africa)

South Africa is at the tip of the Southern African continent. The mid-year population in 2016 was estimated to be 55.91 million (Statistics South Africa, 2015a). The majority of the population is Black African at 45.11 million (81%), the Coloured population constituted 4.90 million whilst 4.52 million are Whites and the estimates for the Indian/Asian population is 1.39 million (Statistics South Africa, 2015a). In addition, the female population is higher than

that of males, with estimates for females at 28 529 100 and 27 379 800 for males and estimates for the South African youth (15-24) was 10 189 163. The country is divided into nine provinces, and Gauteng has the largest population in the country (13.5 million) (Statistics South Africa, 2015a). It shares boundaries with Botswana, Namibia, Zimbabwe, Swaziland and Mozambique, while Lesotho is completely encircled inside the country. Additionally, 11 official languages are recognised and divided according to different ethnic groups; Nguni (Zulu, Xhosa, Ndebele, Swati), Sotho (Northern Sotho, Southern Sotho, Tswana), Tsonga, Venda and Afrikaans. In 2016, approximately 7.03 million people were living with HIV and 18.9% of adults (15-49 years old) were estimated to be HIV positive.

### **3.7 Study Variables and Definitions**

#### **3.7.1 Definition of the Outcome Variable**

People living with HIV/AIDS are persons who have tested positive for Human Immunodeficiency Virus and/or Acquired Immune Deficiency Syndrome. This is to reflect the fact that persons with HIV may continue to live well and productively for many years. People should never be referred to as an abbreviation, such as PLHIV, since this is dehumanizing. Instead, the name or identity of the group should be written out in full (UNAIDS: 2015, 10). The dependent variable in this study is the “attitude towards PLWHA”. This is created using a range of questions from the SABSSM questionnaire. A limited set of questions reflecting attitude towards PLWHA were used to create an approximate measure of attitude. The questions included are as follows; (a) If you knew that a shopkeeper or food seller had HIV, would you buy food from them? (b) Would you be willing to care for a family member with AIDS? (c) If a teacher has HIV but is not sick, should she or he be allowed to continue teaching? (d) Is it a waste of money to train or promote someone with HIV/AIDS? (e) Would you want to keep the HIV positive status of a family member a secret? (h) A person would be foolish to marry a person who is living with HIV/AIDS? All these questions were measured on a 3-point Likert scale (“Yes” “No” “Not sure”). The selected set of questions for this study are also supported by existing literature, including the SABSSM report by Shisana et al., (2009 & 2014), Dahlui et al., (2015) and Ramesh, Periyathambi, Bimal, & Ganeshan (2012). Furthermore, they represent a set of recommended questions that should be used in measuring stigma and discrimination (USAID, 2006; Genberg et al., 2009).

While previous studies (Shisana et al., (2009) Shisana et al., (2014), Dahlui et al., (2015) and Ramesh, Periyathambi, Bimal, & Ganeshan (2012)) have tested these questions individually, this study created an HIV index to test HIV stigma and discrimination. The HIV/AIDS-related index was constructed (attitude towards PLWH) by assigning and adding the values of the most accepting responses “yes” at a value of 1 and the least accepting, “not sure” and “No” at the value of 0. Participants need to have at least have four positive responses to be classified to have positive attitude, and three negative responses to be classified under negative attitudes. The variables relate to the HIV/AIDS stigma and discrimination and will aid in the quest to understand the level of positive attitudes amongst youth. These indicators were chosen as a measure of stigma and discrimination as they best represent attitudes towards PLWHA.

### 3.7.2 Definition of the Predictor Variables

In this study, multiple variables were analysed in order to gain a deeper understanding of the profile of the youth included. The other variables analysed in the study include socio-economic and demographic characteristics used to analyse the background characteristics of the youth. Table 1 below outlines other independent variables in the study that are relevant to understanding determinants and levels of attitudes towards PLWHA among South African youth.

**Table 3.1: Variables for the Study and their Definitions**

Variable	Question Asked	Operational Definition
<b>Outcome Variable</b>		
<b>Attitudes towards PLWHA</b>	(a) If you knew that a shopkeeper or food seller had HIV, would you buy food from them? (b) Would you be willing to care for a family member with AIDS? (c) If a teacher has HIV but is not sick, should she or he be allowed to continue teaching (d) Is it a waste of money to train or give a promotion to someone with	Negative attitudes <b>(0)</b> Positive attitudes <b>(1)</b>

	HIV/AIDS? (e) Would you want to keep the HIV positive status of a family member a secret? (h) Would a person be foolish to marry a person living with HIV/AIDS?	
<b>Predictor Variables</b>		
<b>Demographic Variables</b>		<b>Recorded Variables</b>
<b>Main predictor variable</b>		
<b>Sex</b>		Male <b>(1)</b> Female <b>(2)</b>
<b>Other Predictor variables</b>		
<b>Age</b>		15-19 <b>(1)</b> 20-24 <b>(2)</b>
<b>Home Language</b>	What is your home language?	Afrikaans <b>(1)</b> English <b>(2)</b> Nguni <b>(3)</b> Sotho <b>(4)</b> Tshivenda <b>(5)</b> Xitsonga <b>(6)</b>
<b>Marital Status</b>	What is your current marital status?	Single <b>(1)</b> Married/Cohabiting <b>(2)</b> Divorced/Separated <b>(3)</b>
<b>Race</b>		African <b>(1)</b> White <b>(2)</b> Coloured <b>(3)</b> Indian <b>(4)</b>
<b>Socio-economic Variables</b>		

<b>Highest level of Education</b>	What is your highest educational qualification?	No schooling <b>(1)</b> Primary education <b>(2)</b> Secondary education <b>(3)</b> Tertiary education <b>(4)</b>
<b>Employment Status</b>	How would you describe your current employment status?	Unemployed <b>(1)</b> Student/Pupil/Learner <b>(2)</b> Employed <b>(3)</b>
<b>HIV/AIDS-related Indicators</b>		
<b>Behavioural Practices (HIV-testing)</b>	Have you ever done an HIV test?	Yes <b>(1)</b> No <b>(2)</b>
<b>Normative Practices (Condom use)</b>	Do you and the person you recently had sex with use a condom every time during sexual intercourse?	Not applicable <b>(1)</b> Every time <b>(2)</b> Almost every time <b>(3)</b> Sometimes <b>(4)</b> Never <b>(5)</b>

The variables that indicate the socio-economic status of youth are indicated using “Highest level of education” which indicates the respondents highest level of education attained, and “Marital status” denoting the respondent’s state as either married, single or divorced. In addition, the demographic variables that will help to define the youth sample are “Sex” referring to the state of being male or female, “Age” denoting the respondents number of years during the time of the interview, “Race” indicating individual biological and genetic traits that categorise individuals into different groups, “Home language” denoting the respondents first language from the 11 official languages, “Employment status” meaning their state of either being economically active or not. To further understand the HIV/AIDS stigma and discrimination among youth, this study includes HIV/AIDS-related indicator questions that ask on “HIV testing” and “Condom use.” These variables were selected based on evidence in literature indicating that they have a direct and indirect effect on the HIV/AIDS stigma and discrimination.

### **3.8 Data Management**

The data management and analysis of this study was done according to the set objectives. In order to assess attitudes towards PLWHA among youth in South Africa, different levels of analysis was done. The analysis was done using a statistical software package Stata 13 which is a statistical package used for data management and analysis. Furthermore, Stata 13 was used to perform necessary data cleaning methods and recording of some variables. All the statistical tests were done at the 5% level of significance and 95% confidence interval. This section explains how the variables selected for this study was managed and how the analysis was conducted in detail.

#### **3.8.1 Dependent variable**

The outcome variable “attitudes towards PLWHA” includes questions on discrimination and stigmatisation towards PLWHA. All the selected questions were measured on a 3-point Likert scale (“Yes” “No” “Not sure”). For participants who answered yes to either question (a) If you knew that a shopkeeper or food seller had HIV, would you buy food from them? (b) Would you be willing to care for a family member with AIDS? (c) If a teacher has HIV but is not sick, should she or he be allowed to continue teaching were given the number “1” representing positive attitude, while all the responses for “No” and “Not sure” were merged together and given the number “0” representing negative attitude. For questions (d) Is it a waste of money to train or promote someone with HIV/AIDS? (e) Would you want to keep the HIV positive status of a family member a secret? (h) Would a person be foolish to marry a person who is living with HIV/AIDS, all those who answered “No” were assigned “1” representing positive attitude while “Yes” and “Not sure” were merged together and given the number “0” representing negative attitudes. The dependent variable was thus created is binary as it only had two outcomes; Negative attitude (0) and Positive attitude (1). To determine whether youths have positive or negative attitude there need to be at least have four positive responses to be classified under positive attitude, and three negative responses to be classified under negative attitudes.

#### **3.8.2 Independent variables**

The independent variables in this study are of demographic and socio-economic in nature. They are selected to describe the characteristics of the selected sample for this study. The selected variables are guided by literature, as they are known to have influence on attitudes

towards PLWHA. The following variables were recorded in order to be suitable for this study. Current age of the respondents initially included participants from the age of 2 – 99. For the purpose of this study, a dichotomous age variable was created; 1. 15-19 and 2. 20-24, all other ages were dropped. With regards to home language, 11 official South African home languages were included, however in this study Zulu, Xhosa, Ndebele and Swati were grouped together, and labelled “Nguni”. While, Sotho, Pedi and Tswana were also grouped to create one language group “Sotho”. As a result, the variable home language was recorded as 1. Afrikaans, 2. English, 3. Nguni, 4. Sotho, 5. Tshivenda, and 6. Xitsona. In addition, the variable marital status was recorded as 1. Single, 2. Married/Cohabiting, 3. Divorced/Separated. In terms of employment status, the variable was recorded as 1. Unemployed, 2. Student/pupil/learner, and 3. Employed. Furthermore, with race the other category was dropped, resulting to race category recorded to be 1. African, 2. White, 3. Coloured, and 4. Indian. Lastly, highest level of education was recorded as 1. No schooling, 2 Primary education, 3 Secondary education, and 4 Tertiary education.

### **3.9 Data Analysis**

The examination of the statistics obtained in the 2008 SABSSM was conducted in three selected phases used to meet the set objectives. The statistical tests were all conducted at a 5% level of significance and 95% confidence interval.

**Objective one:** A cross-tabulation of gender and attitudes towards PLWHA Stage one includes the descriptive method in which gender and the dependent variable used in this study were run using frequency tables. Additionally, the bivariate analysis of gender, demographic and socio-economic variables in this study was done using frequency tables and cross-tabulations.

**Objective two: To determine the relationship between gender and attitude towards PLWHA among youth in South Africa.**

Stage two included another bivariate analysis of all the variables in order to examine whether each independent variable had an influence on the dependent variable. This is done to examine if there was an association between each predictor and the dependent variable. Furthermore, a bivariate logistic regression that shows all the odds of attitude by each predictor variable is included. A Chi-square is a bivariate statistic used to test whether the distribution in a categorical variable is statistically different in two or more groups (Population Survey Analysis, 2014). A Chi-square test was thus selected and used to meet the set

objective. The use of a Chi-square shed more light on the differences in socio-economic and demographic factors of respondents among South African youth.

The Chi-square formula is:

$$\chi^2 = \sum \frac{(O - E)^2}{E} \quad (\text{Dietz \& Kalof, 2009})$$

Where:

$\chi^2$  = Chi-square

$O$  = Observed data

$E$  = Expected values

The third and final stage included a binary logistic regression model of all the independent variables which was run simultaneously and a stepwise regression model. The binary logistic regression indicated all the significant variables that have an influence on the dependent variable. Logistic regression showing all odds ratios (OR) was used to examine factors that affect attitude towards PLWHA. Logistic regression estimates the odd probabilities that occur as the independent variable values changes (Mertler & Vannatta, 2002). Using the binary logistic regression model allowed for the prediction of how independent variables related to the dichotomous response of the dependent variable (attitudes towards PLWHA) (Harrell, 2015). In most cases, the outcome of logistic regression is coded as 0 or 1, with 1 reflecting the occurrence of the event of interest (Harrell, 2015). Moreover, the outcome variable has only two possible categories or outcomes that can take only two values namely “0” which refers to the failure of a specific category and “1” which refers to the success of a specific category, usually a category of interest. Logistic regression aims not to assume linearity, normality, equal variance, and normally distributed error term variance.

$$\text{logit}(p) = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots + b_k X_k \quad (\text{Dietz \& Kalof, 2009})$$

$$\text{logit}(p) = \ln\left(\frac{p}{1 - p}\right)$$

The equation of the Logistic Regression approach is denoted by the following:

**Logit (p)** = refers to the log (to base e) of the odds ratio or likelihood ratio that the dependent variable is 1 (specifies whether or not the event will occur)

**p**= probability that a case is in a particular category

**b<sub>0</sub>**= the constant of the equation

**b<sub>1</sub>** = the coefficient of the predictor variables

### **3.10 Research Hypothesis**

**H<sub>0</sub>:** There is no relationship between gender and attitudes towards PLWHA among youth in South Africa.

**H<sub>a</sub>:** There is a relationship between gender and attitudes towards PLWHA among youth in South Africa.

### **3.11 Ethical Considerations**

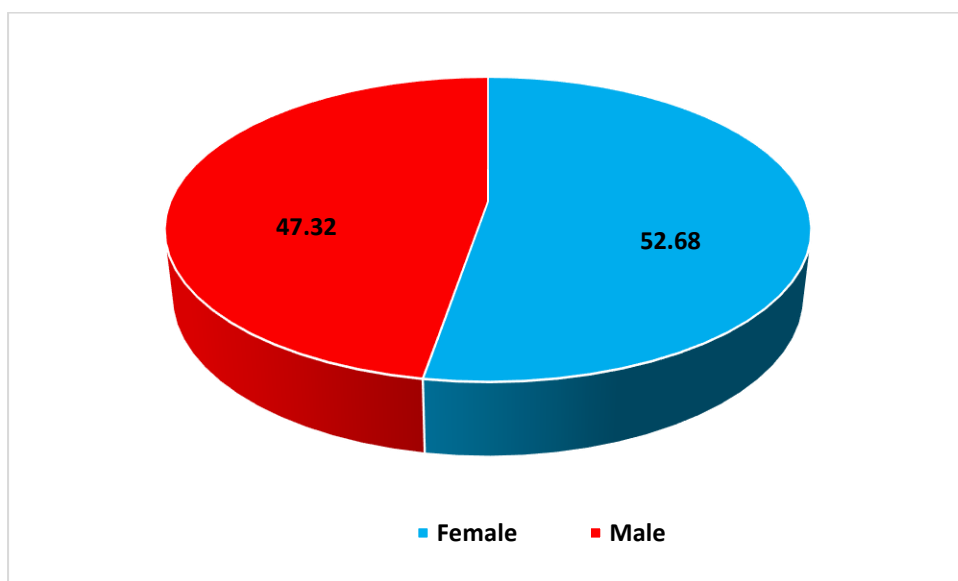
This study was conducted using secondary data from the South African National HIV Prevalence, Incidence, Behaviour and Communication Survey (SABSSM). Personal information of the participants remained unknown. This means that there is limited or no risk of the study violating participants' confidentiality and ensured anonymity. Lastly, since the survey was conducted anonymously with the participants, informed consent was not necessary.

## Chapter 4: Results

This chapter presents all the results obtained from different analytical methods. Firstly, the univariate result of youth attitude towards PLWHA. Secondly, the bivariate results will be presented; these results were conducted and analysed using two different methods. To begin with, by looking at demographic and socio-economic backgrounds of male and female youth. Furthermore, using Chi-square analysis. Finally, this chapter ends by conducting a bivariate logistic regression of each predictor variable, and a multivariate analysis. This includes a stepwise logistic regression and the adjusted odd ratios.

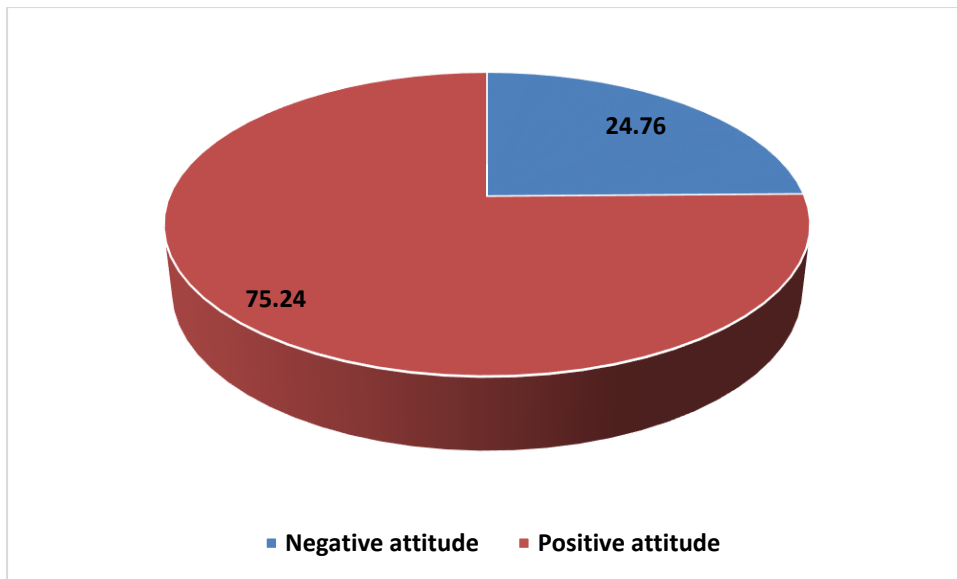
### 4.1 Sample Characteristics

The sample characteristics of the youth (15-24) included in the study has been conducted in order to examine the percentage distribution of gender of the sample and attitude towards PLWHA among South African youth, 2008.



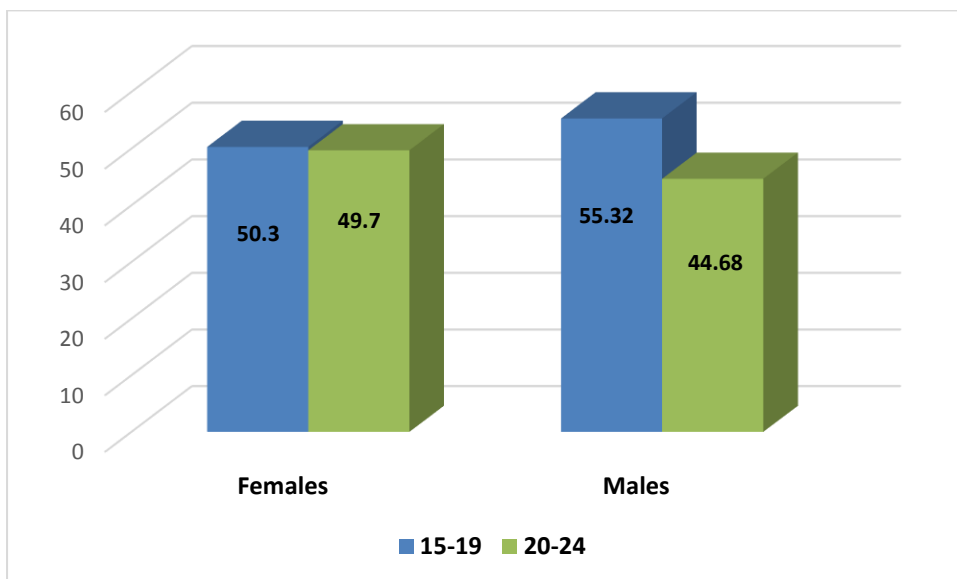
**Figure 4.1:** *Percentage distribution of males and females in the study*

Figure 4.1 shows a higher percentage distribution for female participants in the study compared to males. The figure shows that out of all the youth who met the inclusion criteria of the study, 53% (N= 2 815) were females and 47% (N= 2 529) were males.



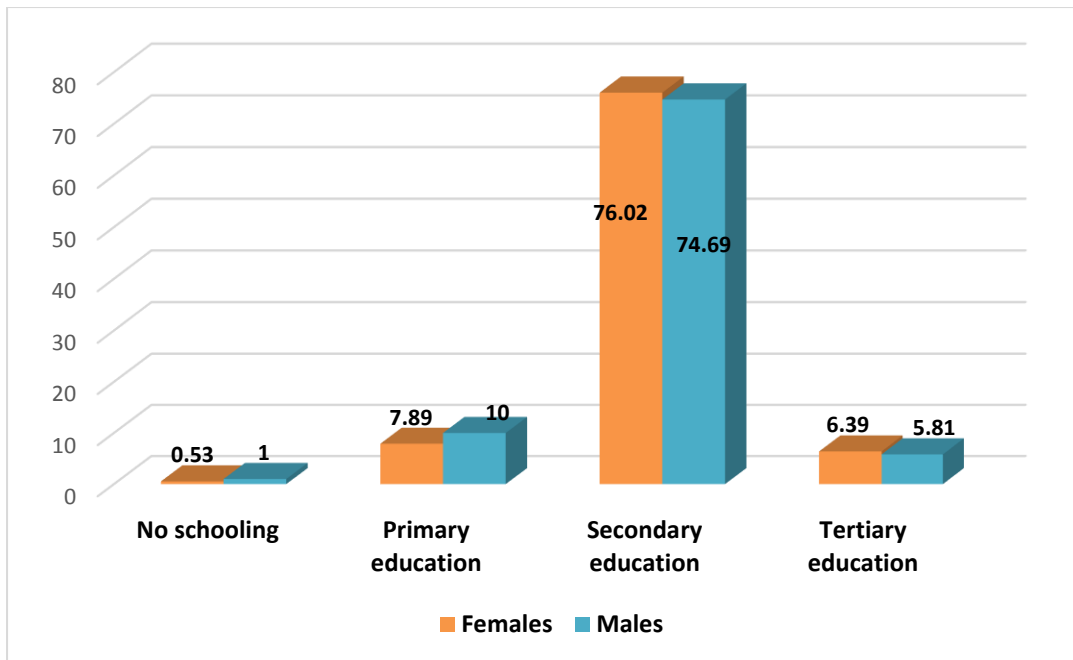
**Figure 4.2:** *Percentage distribution of attitude towards PLWHA among the sample*

Figure 4.2 Shows that most of the South African youth have positive attitude towards PLWHA. The results obtained indicate that 75% (N= 3 172) of youth have positive attitude while 24% (N= 1 044) have negative attitude towards PLWHA.



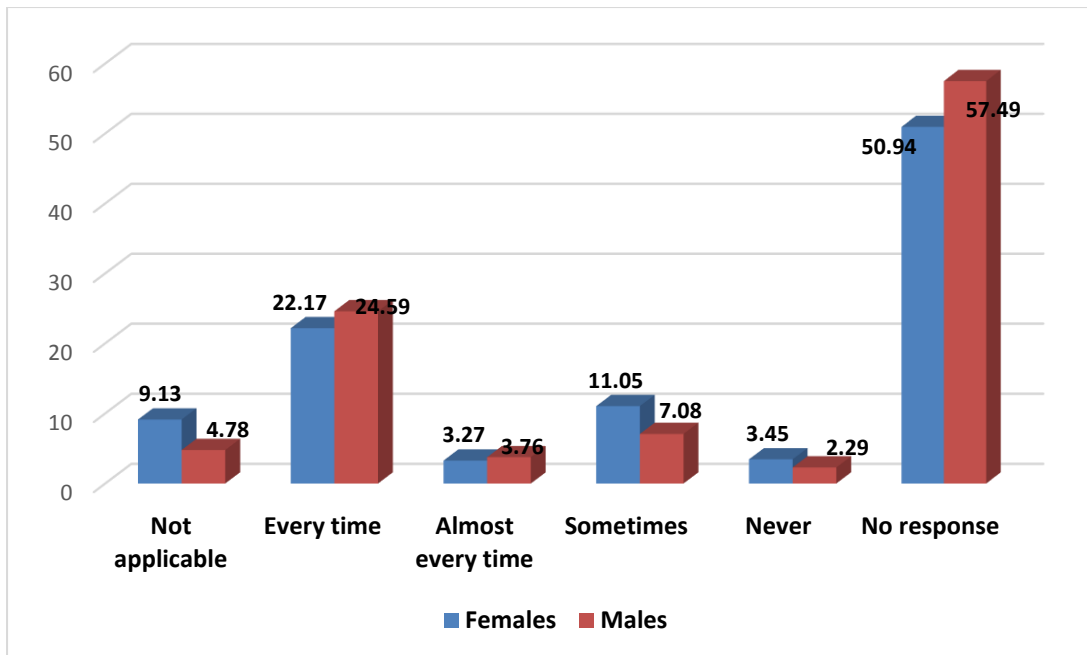
**Figure 4.3:** *Percentage distribution of age and sex of youth in the study*

Figure 4.3 shows the percentage distribution of the participant's age range. From the figure above, it is depicted that females in the age group 15-19 make up 50% (N= 1 416) while another 50% (N= 1 399) is made up of females aged 20-24. Although there is an almost equal representation of the two age groups for females, this was not the case for male participants. Among the males, 55% (N= 1 399) are among the 15-19 age range while 45% (N= 1 130) are males between the age of 20-24.



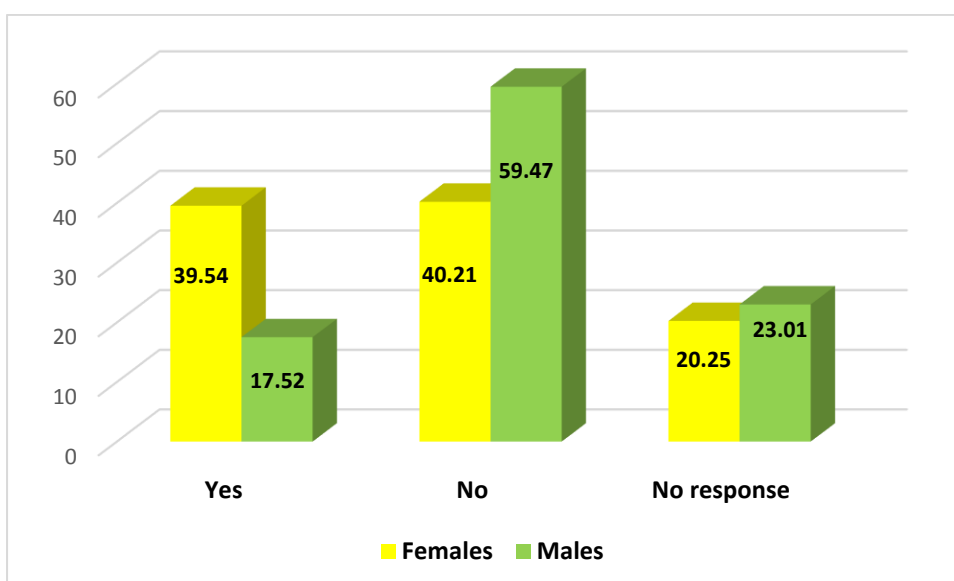
**Figure 4.4:** *Percentage distribution of study participants highest level of education*

Figure 4.4 shows the percentage distribution of level of education amongst male and female youth. From the graph, it is noted that most of the female participants have secondary education 76% (N= 2 140), followed by primary education 8% (N= 222), while 6% (N= 180) have tertiary education and only 1% (N= 15) of female participants have no schooling. Approximately 74% (N= 1 889) of male participants have secondary education, followed by 10% (N= 253) with primary education, 6% (N= 147) with tertiary education and similar to female participants, only 1% (N= 25) of males received no formal schooling. It is worth noting that the data had 9% of missing cases for both male and female education levels.



**Figure 4.5:** *Reported condom use at last sex by males and females in the study*

Interestingly, majority of female participants 22% (N= 624) reported condom use every time, 11% (N= 311) said sometimes and only 9% (N= 257) did not respond to the question on condom use. While 3% (N= 92) of female participants reported to using condoms almost every time and 3% (N= 97) said they never use a condom. Among male participants, 25% (N= 622) reported condom use every time while 7% (N= 179) said sometimes and 5% (N= 121) stated not applicable. Furthermore, 5% (N= 95) of males reported to using condoms almost every time and 2% (N= 58) said they never use a condom.



**Figure 4.6:** *HIV-testing behaviour among youth in the sample by sex*

Figure 4.6 shows that 40% (N= 1 113) of the females reported to have tested for HIV while the other 40% (N= 1 132) reported to have never tested for HIV. However, among the males, majority 59% (N= 1 504) have never tested for HIV and only 18% (N= 443) have tested for HIV.

Table 4.1 Shows percentages of select gender-specific characteristics of the sample. In addition, it provides the percentage and frequencies of the selected factors that describe the characteristics of the respondent.

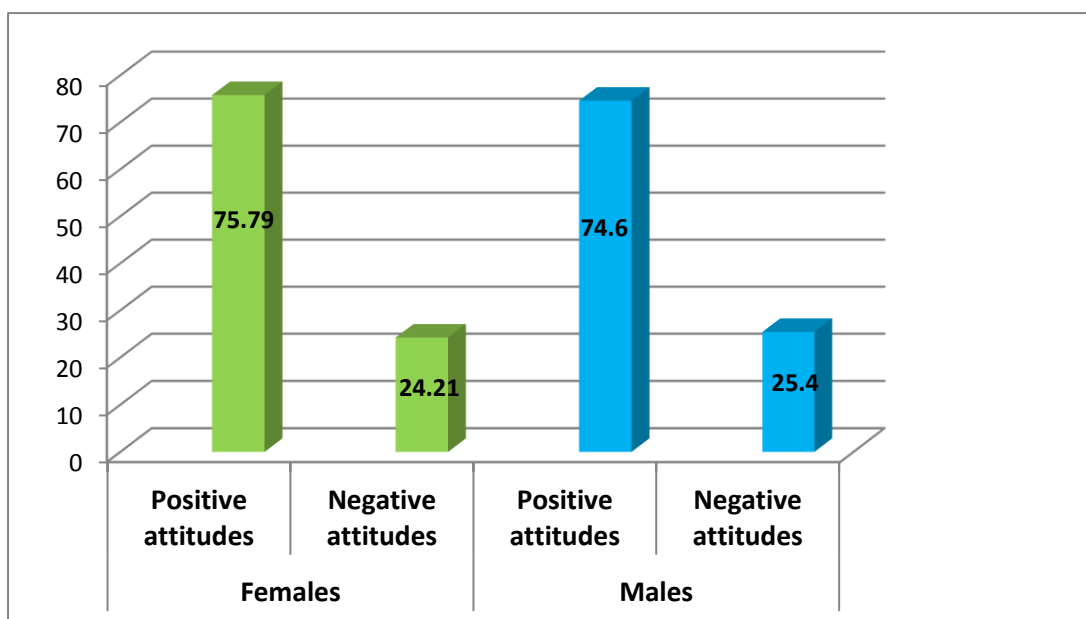
**Table 4.1: Describing the sample by select sex-specific characteristics**

Characteristics	Females		Males	
	Frequency	Percentage	Frequency	Percentage
<b>Race</b>				
African	1,796	63.80	1,481	58.56
White	229	8.13	241	9.53
Coloured	516	18.33	511	20.21
Indian	270	9.59	292	11.55
Missing	4	0.14	4	0.16
<b>Total</b>	<b>2,815</b>	<b>100</b>	<b>2,529</b>	<b>100</b>
<b>Marital Status</b>				
Single	1,999	71.01	1,871	73.98
Married/Cohabiting	230	8.17	55	2.17
Divorced/Separated	30	1.07	27	1.07
Missing	556	19.75	576	22.78
<b>Total</b>	<b>2,815</b>	<b>100</b>	<b>2,529</b>	<b>100</b>
<b>Employment status</b>				
Unemployed	804	28.56	430	17.00
Student/Pupil/Learner	1,103	39.18	1,144	45.24
Employed	336	11.94	384	15.18
Missing	572	20.32	571	22.58
<b>Total</b>	<b>2,815</b>	<b>100</b>	<b>2,529</b>	<b>100</b>
<b>Home Language</b>				
Afrikaans	478	16.98	436	17.24
English	314	11.15	370	14.63
Nguni	816	28.99	612	24.20
Sotho	544	19.33	439	17.36
Tshivenda	24	0.85	36	1.42
Xitsonga	85	3.02	58	2.29
Missing	554	19.68	578	22.85
<b>Total</b>	<b>2,815</b>	<b>100</b>	<b>2,529</b>	<b>100</b>

Table 4.1 shows that among female participants, 64% (N= 1 796) were African, 18% (N= 516) were Coloured, 10% (N= 270) were Indian and only 8% (N= 229) were White. Among the male youth participants in the study, 59% (N= 1 481) were African, Coloureds were 20% (N= 511), 12% (N= 292) were Indian and 10% (N= 241) were White. With regards to marital status, majority of the female participants 71% (N= 1 999) were single, 8% (N= 230) reported to be married or cohabiting and only 1% (N= 30) were divorced or separated. Among males, 74% (N= 1 871) were single, 2% (N=55) were married or cohabiting and only 1% (N= 27) were divorced or separated

In terms of employment status, the data shows that 39% (N= 1 103) of female youth participants were students/pupils/learners while, 29% (N= 804) reported to be unemployed and 12% (N= 336) were employed. Among males, those who were students/pupils/learners made up 45% (N= 1 144) while 17% (N= 430) were unemployed and only 15% (N= 384) of were employed.

The home language results depicted that approximately 29% (N= 816) of females reported speaking one of the Nguni languages while 19% (N= 544) identified languages in the Sotho category as their home language. In addition, 17% (N= 478) spoke Afrikaans and 11% (N= 314) spoke English as their home language. Lastly, 3% (N= 85) of females reported speaking Xitsonga and only 1% (N= 24) identified Tshivenda as their home language. Among the males, 24% (N= 612) reported speaking one of the Nguni languages whilst 17% (N= 439) reported speaking one of the Sotho languages. Furthermore, 17% (N= 436) identified Afrikaans as their home language and 15% (N= 612) said English. Lastly, only few males reported speaking Xitsonga 2% (N= 58) and Tshivenda 1% (N= 36) as their home languages.



**Figure 4.7:** Attitudes towards PLWHA by sex of the respondent

From figure 4.7, it can be deduced that both males and females have less negative attitudes as the figure shows that 76% (N= 1 712) of females have positive attitude while 24% (N= 547) have negative attitude. Moreover, the results show that 75% (N= 1 460) of males have positive attitude and only 25% (N= 497) have negative attitude towards PLWHA.

## 4.2 Relationship between Attitude towards PLWHA and Youth Characteristics

Table 4.2 Presents the Chi-square association of attitude towards PLWHA by socio-economic and demographic characteristics of female and male youth in South Africa, 2008. The results indicate that among females, factors including education, race, home language, employment status and condom use are significant predictors of attitude towards PLWHA at a 5% level of significance. Among males, the results indicate that only race and home language are predictors of positive attitude towards PLWHA at a 5% level of significance.

		Attitudes towards PLWHA					
Characteristics		Females			Males		
		Positive	Negative	Total	Positive	Negative	Total
Age							
	15-19	N 877	259	1,136	845	281	1,126
		% 77.20	22.80	100	75.04	24.96	100
20-24		N 835	288	1,123	615	216	831
		% 74.35	25.65	100	74.01	25.99	100
		Pearson chi2(1) = 2.4931 Pr =0.114			Pearson chi2(1) = 0.2715 Pr = 0.602		
Education level							
No education		N 4	3	7	8	5	13
		% 57.14	42.86	100	61.54	38.46	100
Primary education		N 131	54	185	158	55	213
		% 70.81	29.19	100	74.18	25.82	100

Secondary education	N	1,462	442	1,904	1,211	394	1,605
	%	76.79	23.21	100	75.45	24.55	100
Tertiary education	N	102	46	148	78	37	115
	%	68.92	31.08	100	67.83	32.17	100
		<b>Pearson chi2(3) = 8.6372 Pr =0.035</b>			<b>Pearson chi2(3) = 4.5807 Pr =0.205</b>		
<b>Race</b>							
African	N	1,205	303	1,508	935	255	1,190
	%	79.91	20.09	100	78.57	21.43	100
White	N	98	54	152	106	60	166
	%	64.47	35.53	100	63.86	36.14	100
Coloured	N	289	130	419	276	118	394
	%	68.97	31.03	100	70.05	29.95	100
Indian	N	117	59	176	141	64	205
	%	66.48	33.52	100	68.78	31.22	100
		<b>Pearson chi2(3) = 43.4645 Pr =0.000</b>			<b>Pearson chi2(3) =27.9699 Pr =0.000</b>		
<b>Marital status</b>							
Single	N	1,499	492	1,991	1,398	467	1,865
	%	75.29	24.71	100	74.96	25.04	100
Married/Cohabiting	N	183	46	229	34	20	54
	%	79.91	20.09	100	62.96	37.04	100
Divorced/Separated	N	24	6	30	22	5	27
	%	80.00	20.00	100	81.48	18.52	100
		<b>Pearson chi2(2) =2.6847 Pr =0.261</b>			<b>Pearson chi2(2) =4.6615 Pr =0.097</b>		
<b>Home language</b>							
Afrikaans	N	320	156	476	293	141	434
	%	67.23	32.77	100	67.51	32.49	100
English	N	216	95	311	259	109	368
	%	69.45	30.55	100	70.38	29.62	100
Nguni	N	618	195	813	458	152	610
	%	76.01	23.99	100	75.08	24.92	100
Sotho	N	463	80	543	368	70	438
	%	85.27	14.73	100	84.02	15.98	100
Tshivenda	N	19	4	23	27	7	34
	%	82.61	17.39	100	79.41	20.59	100
Xitsonga	N	70	15	85	48	9	57
	%	82.35	17.65	100	84.21	15.79	100
		<b>Pearson chi2(5) = 55.0052 Pr =0.000</b>			<b>Pearson chi2(5) =38.9335 Pr =0.000</b>		
<b>Employment status</b>							
Unemployed	N	614	186	800	328	96	424
	%	76.75	23.25	100	77.36	22.64	100
Student/Pupil/Learner	N	844	250	1,094	844	289	1,133
	%	77.15	22.85	100	74.49	25.51	100
Employed	N	230	104	334	271	104	375
	%	68.86	31.14	100	72.27	27.73	100
		<b>Pearson chi2(2)= 10.2290 Pr =0.006</b>			<b>Pearson chi2(2) =2.7854 Pr =0.248</b>		
<b>Condom use</b>							
Not applicable	N	174	83	257	85	35	120
	%	67.70	32.30	100	70.83	29.17	100
Every time	N	504	120	624	476	145	621
	%	80.77	19.23	100	76.65	23.35	100
Almost every time	N	66	26	92	69	26	95
	%	71.74	28.26	100	72.63	27.37	100
Sometimes	N	238	72	310	140	37	177
	%	76.77	23.23	100	79.10	20.90	100

Never	N	72	25	97	42	16	58
	%	74.23	25.77	100	72.41	27.59	100
		<b>Pearson chi2(4)=18.7582 Pr=0.001</b>			<b>Pearson chi2(4) =3.7910 Pr=0.435</b>		
<b>HIV-testing</b>							
Yes	N	855	256	1,111	340	102	442
	%	76.96	23.04	100	76.92	23.08	100
No	N	841	288	1,129	1,107	394	1,501
	%	74.49	25.51	100	73.75	26.25	100
		<b>Pearson chi2(1) = 1.8534 Pr = 0.173</b>			<b>Pearson chi2(1) = 1.8074 Pr = 0.179</b>		

**Table 4.2:** Chi-square association test of attitude towards PLWHA by demographic and socio-economic characteristics

Table 4.2 shows that age is not a significant predictor of attitude towards PLWHA for both male and females. However, the majority of females aged 15-19 have positive attitudes (77%) while only 23% have negative attitudes. Similarly, the majority of males in the same age group have positive attitudes (75%) and only 25% have negative attitudes. Results also show that both male and females in the 20-24 age group have positive attitudes (74%) and only 26% have negative attitudes.

Although not statistically significant, results for education levels show that females who received no schooling have a positive attitude (57%), while 43% have a negative attitude. In addition, the majority of females with primary education have a positive attitude (71%) and only 30% have a negative attitude. Additionally, 77% of females with secondary education have a positive attitude while 23% have a negative attitude. Interestingly, only 69% of females with tertiary education have positive attitude and 31% have a negative attitude. Among males, education is also not a significant predictor of negative attitude towards PLWHA. Almost twice the number of males with no schooling have positive attitude (61%) while 38% have negative attitude. Majority of the males with primary education have positive attitude (74%) and 26% have negative attitude. For tertiary education, most males have positive attitude (75%) compared to only (25%) who have negative attitude. Lastly, 67% of males with tertiary education have positive attitude and 32% have negative attitude.

Results shows that among different racial groups, African females have positive attitude (80%) and only 20% have negative attitude. Among white females, 64% have positive attitude and 36% have negative attitude. Among Coloured females, (68%) have positive attitude and 31% have negative attitude. Lastly, 66% of Indian females have positive attitude and 34% have negative attitude towards PLWHA. In terms of male participants, approximately 79% of

Africans have positive attitude while 21% have negative attitude. (64%) of White males exhibit positive attitude and only 36% have negative attitude. Majority of Coloured males have less negative attitude as 70% of them have positive attitude and only 30% have negative attitude. Finally, 69% of Indian males have positive attitude and 31% have negative attitude.

The majority of female respondents who are single have positive attitude towards PLWHA (75%) as opposed to 25% with negative attitude. Results also shows that 80% of females who are married or cohabiting and those who have been divorced or separated have positive attitude compared to 20% with negative attitude. Even though marital status is not a significant predictor for both male and females, the results appear somewhat similar. Among single men, 75% have positive attitude while 25% have negative attitude. Surprisingly, the number of males with positive attitude among those who are married or cohabiting is less than their female counterparts as only 63% have positive attitude and 37% have negative attitude. Moreover, the results show that the number of males with positive attitude who are divorced or have separated is 1% higher than that of females (81%) as opposed to 19% with negative attitude.

Female respondents who speak Afrikaans as a home language have more positive attitude (67%), compared to 33% with negative attitude. Among English speaking females, 69% have positive attitude and 31% have negative attitude. Furthermore, 76% of Nguni speaking females have positive attitude as opposed to the 24% who have negative attitude. The majority (85%) of Sotho speaking females have positive attitude as opposed to 15% with negative attitude. Among the Tshivenda speaking females, 83% have positive attitude and 17% have negative attitude. This is similar to those who speak Xitsonga, 82% have positive attitude and 18% have negative attitude. With regards to males, the results for Afrikaans speaking men are similar to those of their female counterparts as 68% have positive attitude and 32% have negative attitude. Similarly, the results for males who speak English as their home language are similar to English speaking females as 70% have positive attitude and 30% have negative attitude. Male participants who speak Nguni languages mostly have positive attitude (75%) while 25% have negative attitude. The results also show that the majority of males who speak Sotho have positive attitude (84%) and 16% have negative attitude. Of the male respondents who speak Tshivenda, 79% of them have positive attitude and 21% have

negative attitude. Lastly, Xitsonga males have positive attitude (84%) as opposed to 16% with negative attitude.

Employment status is statistically significant among females whilst statistically insignificant among males. The data results show that unemployed females have positive attitude (77%) and only 23% have negative attitude. Females who are students or learners have positive attitude (77%) and 23% of their counterparts have negative attitude. Unemployed females have positive attitude towards PLWHA (69%) compared to 31% with negative attitude. For males, 77% of those employed have positive attitude and 23% have negative attitude. In addition, 74% of male students or learners have positive attitude while 26% have negative attitude. Finally, among unemployed men, 72% have positive attitude as opposed to 28% with negative attitude.

Results for condom use shows that 68% of female participants whom the question of condom use was not relevant to them have positive attitude while 32% have negative attitude. Among females who reported to using condoms all the time, majority have positive attitude (81%) as opposed to 19% with negative attitude. Furthermore, 72% of females who use condoms almost every time have positive attitude and 28% have negative attitude. Results also show that 77% of females who sometimes uses condoms have positive attitude and 23% have negative attitude. Among females who never use condoms, 74% have positive attitude, while 26% have negative attitude.

In addition, the results for males depict that 71% of those who did not respond to the question of condom use have positive attitude while 29% have negative attitude. Among those who use condoms every time, 77% have positive attitude and 23% have negative attitude. Similarly, positive attitude among males who use condoms almost every time is greater (73%) than for males with negative attitude (27%). Results also shows that 79% of males who sometimes use condoms have positive attitude towards PLWHA as opposed to 21% with negative attitude. Lastly, 74% of males who never uses condoms have positive attitude while 26% have negative attitude.

With regards to HIV-testing, the majority of females who have tested have positive attitude (77%) while 23% have negative attitude. Among females who have never tested, 74% have positive attitude and 26% have negative attitude. On the other hand, 78% of males who have

tested have positive attitude while 23% have negative attitude. Males who have never tested also have positive attitude in majority (74%) compared to those who never tested and have negative attitude (26%).

Table 4.3 shows the unadjusted odds ratios and the adjusted odds ratios for the logistic regression results of all independent socio-economic and demographic variables, run against attitudes towards PLWHA. Models are tested on 5% level of significance.

Table 4.3: Stepwise Logistic Regression showing Adjusted Odds of attitudes towards PLWHA by characteristics of youth

<b>Independent variables</b>	<b>Model 1 (Unadjusted)</b>			<b>Model 2 (Adjusted)</b>		
<b>Main independent</b>	<b>OR</b>	<b>P-value</b>	<b>CI</b>	<b>OR</b>	<b>P-value</b>	<b>CI</b>
<b>Sex</b>						
Male (RC)	1.00			1.00		
Female	1.07	0.375	0.93-1.23	0.88	0.24	0.71-1.09
<b>Age</b>						
15-19 (RC)	1.00			1.00		
20-24	0.90	0.15	0.78-1.04	0.77*	0.03	0.61-0.98
<b>Education Level</b>						
No education (RC)	1.00			1.00		
Primary education	1.77	0.23	0.70-4.44	0.82	0.78	0.21-3.21
Secondary education	2.13	0.10	0.87-5.23	1.04	0.95	0.28-3.96
Tertiary education	1.45	0.44	0.57-3.67	0.81	0.76	0.20-3.20
<b>Race</b>						
African (RC)	1.00			1.00		
White	0.47*	0.00	0.36-0.60	0.50	0.07	0.24-1.06
Coloured	0.59*	0.00	0.50-0.71	0.61	0.15	0.31-1.21
Indian	0.55*	0.00	0.43-0.69	0.66	0.31	0.30-1.46
<b>Marital status</b>						
Single (RC)	1.00			1.00		
Married/Cohabiting	1.09	0.56	0.82-1.45	1.28	0.17	0.90-1.81
Divorced/Separated	1.38	0.34	0.71-2.68	0.40	0.44	0.59-3.30
<b>Employment status</b>						
Unemployed (RC)	1.00					
Student/pupil/Learner	0.94	0.44	0.80-1.11	0.80	0.09	0.62-1.04
Employed	0.72*	0.00	0.58-0.89	0.85	0.24	0.66-1.11
<b>Home language</b>						
Afrikaans (RC)	1.00					
English	1.13	0.27	0.91-1.40	0.96	0.84	0.63-1.45
Nguni	1.50*	0.00	1.25-1.81	0.94	0.86	0.47-1.86
Sotho	2.68*	0.00	2.15-3.35	1.47	0.28	0.73-2.97
Tshivenda	2.03*	0.04	1.03-3.97	1.35	0.59	0.45-4.10
Xitsonga	2.38*	0.00	1.50-3.77	1.28	0.57	0.55-2.96
<b>Condom use</b>						
Not applicable (RC)	1.00					
Every time	1.68*	0.00	1.30-2.18	0.72*	0.00	1.31-2.26
Almost every time	1.18	0.40	0.80-1.74	1.39	0.11	0.92-2.11
Sometimes	1.58*	0.00	1.17-2.14	1.54*	0.00	1.12-2.12

Never	1.27	0.27	0.83-1.92	1.42	0.12	0.90-2.23
<b>HIV-testing</b>						
Yes (RC)	1.00					
No	0.86*	0.03	0.74-0.99	0.81	0.06	0.65-1.00

*RC=Reference Category, \*p<0.05 denotes significance as the tests were run at a 95% significance level*

The unadjusted odds ratio results shown on Model 1 indicate that race, employment status, home language, condom use and HIV-testing are significant predictors of attitude towards PLWHA. Interestingly, the results indicate that race is a significant predictor of positive attitude towards PLWHA among youth. In further elaboration, the results showed that the odds of having a positive attitude towards PLWHA are 0.47 times lower among White youth in relation to African youth. In addition, the odds of having positive attitude towards PLWHA are 0.59 times lower among Coloured youth in relation to African youth. The odds of having positive attitude towards PLWHA are 0.55 times less among Indian youth in relation to African youth.

In consideration of employment status, the results revealed that employment status is significantly associated with positive attitude towards PLWHA and this significance is evident at a 5% level of significance. The odds of having a positive attitude towards PLWHA are 0.94 times lower among youth who are students in relation to unemployed youth. Additionally, youth who are employed were 0.72 times less likely to exhibit positive attitude towards PLWHA in relation to youth who are unemployed. With regards to home language, the results show that home language was significantly associated with positive attitude towards PLWHA, with the association being particularly evident among the Nguni, Sotho Venda and Tsonga groups. The results show that the odds of exhibiting positive attitudes towards PLWHA are 1.50 times higher among Nguni speaking youth and 2.68 times higher among Sotho speaking youth in relation to Afrikaans speaking youth. In addition, Tshivenda speaking youth were 2.03 times more likely to have positive attitudes towards PLWHA in relation to Afrikaans speaking youth, while the odds of exhibiting positive attitudes towards PLWHA are 2.38 times higher among Xitsonga speaking youth compared to youth who speak Afrikaans as a home language.

Furthermore, the results showed that condom use was a significant predictor of attitude towards PLWHA. Youth who reported to use condoms every time were 1.68 times more likely to have positive attitudes towards PLWHA compared to those who did not provide a response on condom use. Moreover, those who use condoms almost every time were 1.18 times more

likely to have positive attitude towards PLWHA. The odds of exhibiting positive attitudes towards PLWHA are 1.58 times higher among youth who reported to using condoms sometimes in relation to youth who did not provide a response on condom use. Additionally, the odds of exhibiting positive attitudes towards PLWHA are 1.27 times higher among youth who reported to never using condoms. Interestingly, the results show that HIV-testing is a significant predictor of positive attitude towards PLWHA. The odds of exhibiting positive attitude towards PLWHA are 0.86 times lower among youth who have never tested for HIV in relation to those who have tested for HIV.

Table 4.3 Also shows the adjusted multivariate odds ratios (model 2) for the logistic regression results with all independent socio-economic and demographic variables run against attitude towards PLWHA. This was conducted to identify the importance of all variables in relation to each other in order to test for the adjusted effect variables have. Interestingly, when adjusted, only age and condom use were significant predictors of positive attitudes towards PLWHA and other variables that were significant in the bivariate analysis became insignificant in this model.

The analysis indicate that the odds of having positive attitude are 0.77 times lower among youth aged 20-24 in relation to youth aged 15-19. In addition, condom use remained a predictor of positive attitude towards PLWHA. The results show that youth who reported to using condoms every time were 0.72 times less likely to have positive attitude compared to those who did not provide a response on condom use. Youth who reported to using condoms almost every time were 1.39 times more likely to have positive attitude compared to those who did not provide a response for condom use. The odds of having positive attitude towards PLWHA were 1.54 times more likely for youth who sometimes uses condoms. Furthermore, the odds of exhibiting positive attitude towards PLWHA are 1.42 higher for youth who reported to never use condoms.

## Chapter 5: Discussions

This study examined the association between gender and attitude towards PLWHA among South African youth (15-24). HIV stigma and discrimination is amongst the prime obstacles of implementing HIV-treatment strategies, combat HIV, implement prevention methods, provide care and support for people living with HIV/AIDS (PLWHA). The prevalence of HIV/AIDS in Southern Africa is appalling, especially the increasing rates of infection among young females (UNAIDS, 2015). Youth in South Africa are mostly vulnerable to the infection. There is a need for a thoughtful understanding of youth's attitude towards PLWHA, which in turn will allow for better analysis on the views on the pandemic among South African youth and develop policies to protect PLWHA from being discriminated against.

Of the two set objectives in the study, one of the objective was to determine the relationship between gender and attitude towards PLWHA. Generally the results at first indicated that both males and females have positive attitude. However, further analysis of the results showed that a relationship does not exist between gender and positive attitude towards PLWHA. There are several factors that are attributed to the negative correlation between the two variables and these include; HIV-knowledge differences among males and females, differences in educational level, which are maintained by the patriarchal system in South Africa, the established relationship one has with the infected individual and differences in the socio-economic backgrounds. There is existing literature that both support and contradict the findings of this study.

A study conducted by Amuri et al., also found that gender played no role in determining positive attitude in Tanzania (Amuri et al., 2011). However, their findings are limited because they only used one indicator of stigma (belief that HIV/AIDS is punishment for sinning) in their study and the question asked showed little variability. One report found that in South Africa education enrolment gap between males and females were nearly closed by the 2010's, with 27.8% of males and 27.5% of females reporting to have secondary education, while 2.9% of males and 2.6% females have obtained a bachelor's degree (Statistics South Africa, 2011). Due to the decreasing rates of gender gaps in education accessibility education attainment is almost equal for both males and females in South Africa. HIV/AIDS-education in academic spaces is equally received by both males and females, levelling the gender differences in HIV-

education. This can be attributed as a factor influencing the lack of association between gender and positive attitude.

Another study conducted in Nigeria found that females are more likely to exhibit discriminatory attitude (Nwanna, 2011). In this study, gender was associated with low levels of education, living in rural areas and limited HIV-knowledge. However, a similar study conducted in the same country four years later found that younger people, males, people with low levels of education and from low wealth index agreed that people living with HIV should be ashamed of themselves and for bringing the infection into the community (Dahlui et al., 2015). The findings of both these studies indicates the importance of context, sampling methods and time. While conducted in the same area, the findings suggests that gender should be combined with other factors in order to determine a more reliable reflection of its influence on positive attitudes. In addition, males in Haiti have positive attitude more than females (Perrin, 2010), with more studies finding that males are more tolerant of PLWHA than females (Umeh et al., 2008; Mutombo & Maina, 2014). There is contradictory literature regarding female attitudes towards PLWHA. This includes a study conducted in Thailand that found females to be more sympathetic than males (Hasan, 2012), and another one conducted in American prisons where females exhibited positive attitudes than their male counterparts (Zhu et al., 2015).

Despite the traditional beliefs that females are naturally caring and sympathetic, as depicted in some of the more traditional careers they occupy such as nursing, teaching, social work, etc., cultural beliefs, religion and education are more likely to play a more significant role in influencing attitudes. Undoubtedly, different socio-demographic factors are noted when determining the role of gender. For example, one study found that males who were older, not married, with primary education had more stigmatising attitudes, but the results were different for males with the same characteristics (Visser et al., 2009), it is also alleged that stigmatising attitudes are mostly exhibited by individuals who have never tested for HIV (Genberg et al., 2009).

### **Demographic and socio-economic factors that play a role in determining attitude towards PLWHA.**

Surprisingly, with regards to age, the unadjusted results show that age is not associated with positive attitude towards PLWHA. These results are congruent to other studies conducted in South Africa, Zambia, and Nigeria. Maughan-Brown (2006) reported that although young adults in Cape Town, South Africa tend to express discrimination towards PLWHA, it is very uncommon for them to show high levels of negative attitudes. Similarly, Hossain & Kippax (2011) found similar results that age is associated with negative attitudes. Moreover, youth in Zambia (15-24) were less likely to have positive attitude (Mutombo & Maina, 2014)..

However, the adjusted results of this study depicts that age is associated with positive attitude towards PLWHA. This is in line with findings of one study which reported that youth between the ages of 15-24 have positive attitudes (Human Sciences Research Council, 2009). More youth in South Africa are receiving education, the statistics report an increase in the number of youth with education attainment (Statistics South Africa, 2011). The higher the education level, the more likely it is for a better understanding of the HIV-dynamics. Nonetheless, education plays a role in exposing individuals to more information regarding HIV/AIDS. Throughout literature it is established that individuals with high education level to have positive attitude than those with lower level or no education levels (Bekalu et al., 2014; Amuri et al., 2011; Payiki & Forste, 2011 & Ulas et al., 2009).

With regards to educational level, the results were surprisingly insignificant. Both the unadjusted and the adjusted proved that there is no relationship between education level and positive attitude towards PLWHA. One of the reasons for the lack of relation between positive attitude and education could be the sample size of this study. An argument can be made that a sample of 5 344 (N) was a contributing factor, however the number of participants who reported to have at least secondary education was higher than those with no education, primary, and tertiary education. Meaning that the sample is sufficient to determine the outcome of the results. Strong HIV-taboos in South Africa are more likely to play a more important role than formal education. As part of societies, people are more likely to be influenced by beliefs in communities than formal education. Youth exists in communities where they mature around myths surrounding HIV/AIDS and PLWHA, and the myths are more likely to have more influence than formal education.

On a different note, the findings from this study are incongruent to other studies which have documented an existing relationship between educational level and positive attitude towards PLWHA (Bekalu et al., 2014; Amuri et al., 2011; Payiki & Forste, 2011 & Ulas et al., 2009). These studies found that individuals with no education and/or lower education levels are more likely to hold negative attitude towards PLWHA, than individuals with secondary and tertiary education. Likewise, a study conducted in South Africa amongst youth have proven that those with higher education levels have less discriminatory attitude (Visser et al., 2009). Lastly, Nwanna (2011) concluded that the higher the level of education, the more likely individuals will have positive attitude.

The unadjusted Logistic Regression results of this study shows a strong association between race and positive attitude towards PLWHA. Although, there is very limited literature that explores race and attitudes towards PLWHA, one study concluded that stigma associated with race is usually shown through prejudice, stereotypes and discrimination (Mutombo & Maina, 2014). Concurrently, Sengupta et al., (2010) argues that there is insufficient literature that explores the impact of HIV-stigma on racial minorities. The authors claim that both qualitative and quantitative research on access to health care and stigma among racial minorities is scarce in literature, however more still need to be done on HIV-related issues and race. One study has found differences in tolerance towards PLWHA among different racial groups (Wong, 2013). According to Dovidio et al., some racial groups are associated with high risk of HIV infection and therefore excluded and discriminated against (Dovidio et al., 2008). In South Africa, race has played a significant role in creating hierarchies and discriminatory practices (Brown, BeLue, & Airhihenbuwa, 2010), this goes back to the history of apartheid in this country and how it has segregated people based on the colour of their skin. Race is thus a key factor in this study since HIV was regarded as an 'African disease' largely associated with black people.

One significant study on race and attitudes was conducted in South Africa, Cape Town (Maughan-Brown, 2006). The study tested different ways in which PLWHA of different racial groups (Blacks, Coloured's, Whites and Indians) are being treated. The findings assert that whites and coloured PLWHA were more likely to express stigma and discrimination based on fear of infection, while black youth expressed negative attitude influenced by symbolic stigma (Maughan-Brown, 2006). These differences in race can be attributed to other deep racial

disparities existing in South Africa, and cultural differences that influence different racial groups.

Overall, the results indicates that there is no relationship between marital status and positive attitude towards PLWHA. In a country like South Africa where practices such polygamy still exists and divorce rates have increased, the concept of marriage has changed. One of the reasons that influenced the results is the awareness of promiscuous behaviour among both married and single individuals. Conversely, these findings are incongruent to findings done in the Dominican Republic where marital status was associated with tolerance towards PLWHA (Perrin, 2010). However, the author also conducted the same study among youth in Haiti and found that marital status is an insufficient factor in explaining HIV related attitudes (Perrin, 2010). Although the two countries are very close to each other and share similar characteristics, findings we incongruent.

Furthermore, a concurrent view is held by other scholars who found that those who have never been married in Kenya expressed negative attitude towards PLWHA (Hamra et al., 2006). Marriage plays a role in shaping attitude towards HIV and PLWHA. Nwanna highlights that widows are more likely to experience discrimination as they are likely to be accused of infecting their husbands and causing their deaths (Nwanna, 2011). However, such treatment is not expressed towards male counterparts. It is therefore more likely that those who are divorced or separated are susceptible to discrimination since HIV infection is related to promiscuous behaviour. Due to gender inequality and discrimination, females are most likely to experience harsher treatment.

Results for employment status shows no association between the two variables. However, the unadjusted results show that this variable is significant when controlling for other variables. Employment affords individuals a sense of dignity and purpose, especially in a country deeply overwhelmed by unemployment. The unadjusted results are incongruent with the findings of a study conducted in Ghana and Zambia where employed males were more tolerant of PLWHA (Stephenson, 2009). In addition, employed individuals in Nigeria agreed that HIV-positive colleagues should stop working (Dahlui et al., 2015). More studies have revealed that HIV-positive people have lost their jobs because of their status ( Kerry et al., 2013; dos Santos et al., 2014; Human Sciences Research Council, 2015), they indicate that

HIV-positive employees suffer from being socially isolated, ridiculed and discriminated by employers and colleagues. The South African Employment Equity Act, the American Federal and state laws have prohibited discrimination against people living with HIV (PLWHIV). In sum, these laws protect people who are perceived to have HIV and those with HIV/AIDS. It further prohibits discrimination in all employment activities including recruitment, termination, promotion, work assignments, wages and benefits (Labour Protects, n.d.; Human Rights Campaign, n.d.). In addition, students are more likely to have positive attitude towards PLWHA, this acceptance can be linked with exposure to information and their level of education. Although this study found education to not be associated with positive attitude, other studies have found the existence of the relationship between education and positive attitude towards PLWHA (Shiferaw et al., 2011).

Data on home language being associated with positive attitude towards PLWHA in literature is scant. However, the unadjusted results from this study have found a relationship between the two. This contributes to knowledge, suggesting that there is a gap that needs to be explored in South Africa. There is a connection between home language and culture. The two can be interlinked, as culture is not only expressed in food, clothing and rituals, but also in home language. For instance, in Setswana idioms such as “monna ke selepe wa adimanwa”, (a connotation that implies that males can have multiple sexual partners, reflecting his masculinity) influence behaviour.

Just like assessing different studies on HIV-attitudes in South Africa, it is seen that there are similarities in attitude towards PLWHA in different geographical locations. For instance, a study conducted in the Tshwane Metropolitan area in two demographically similar townships (Atteridgeville and Mamelodi), found that there were high prevalence of stigmatisation and discrimination towards PLWHA, even in the face of much information about the pandemic (Visser et al., 2009). In these areas, Tswana is the common home language while other similar studies conducted in Cape Town, in the cape flats showed similar results and Afrikaans and English are common home languages (Kalichman et al., 2007). This is however not strongly supported in literature but highlights a gap that needs to be addressed.

It took South Africans a very long time to accept the existence and the severity of the disease. The denial played a major role towards condom use and its role in African society. Condom

use rates in Southern African countries like Zambia, Lesotho and Swaziland were reported to highlight the change in views of condoms and the recent increasing rate (Bhardwaj, 2016). Conversely, scholars (Amuri et al., 2011; Bhardwaj, 2016) are refuting the findings of this research by arguing that condom use is a problematic indicator to measure and that there is no data to prove the claim (Bhardwaj, 2016). Condoms in Africa are commonly perceived as tools that can help in reducing HIV-infection rates. This study has found a positive relationship between condom use and positive attitude towards PLWHA. Acknowledging the importance of safety during sexual intercourse highlights that youth are noting the consequences of risky sexual behaviours. Understanding the need to use condoms during sexual intercourse would likely assist in alleviate negative attitudes towards PLWHA.

Similar results were obtained in Tanzania where scholars linked refusal to use condoms with negative attitude (Amuri et al., 2011). A South African study found that males report more condom use during their recent sexual encounters than female youth (15-24) (Matseke, 2011). Furthermore, it is revealed that youth who perceived themselves to be at less at risk were less likely to use condoms (Matseke, 2011). Concurrently, there is evidence that condom use has decreased among youth in South Africa, with 17% decrease from 2008-2012 (85.2% to 67.5% in males and 66.5% to 49.8% in females) (Statistics South Africa, 2015). While the study found a positive relationship between condom use and attitude towards PLWHA, scholars have clearly argued that condom use is not a good predictor of attitudes towards PLWHA. Additionally, stigmatising attitude towards PLWHA creates a barrier for HIV-testing. Literature has found that individuals who have tested for HIV have lower levels of stigma and discrimination (Visser et al., 2009 & Kalichman et al., 2007). Incongruent to the findings in literature, HIV-testing is not associated with positive attitude in the present study. Whether individuals tests for HIV or not it does not influence their attitudes. These HIV testing stereotypes deters the youth from going to test for HIV.

The Theory of Reasoned Action (TRA) has assisted in guiding this study. The theory mainly focuses on norms and attitudes and their influence on behaviour. The theory explains that rational and systematic use of information gives individuals the opportunity to think of the implications of their actions before they decide to engage in a certain behaviour (Ajzen & Driver, 1991). Therefore, positive beliefs that are associated with positive outcomes will in turn result in positive attitude towards behaviour and negative beliefs will result in negative

attitude towards behaviour (Glanz et al., 2008). Understanding the attitudes of youth towards PLWHA brings an understanding on the behaviour of youth regarding sexual risks and HIV/AIDS care. Stigma can be addressed looking at normative beliefs and behavioural beliefs which are influenced by different socio-demographic statuses of individuals. The framework allows us to understand different social position and how they influence norms and beliefs, which sequentially influenced attitude towards PLWHA. Throughout literature the inter-relationship of variables is seen, highlighting how norms and beliefs are also influenced by different socio-demographic factors.

## **Chapter 6: Conclusion and Recommendations**

### **6.1 Conclusion**

The aim of this study was to examine socio-demographic and gendered differentials in attitudes towards people living with HIV/AIDS (PLWHA) among youths in South Africa. This study found the existence of stigma and discrimination towards PLWHA among South African youth. Positive attitudes towards PLWHA is not influenced by gender, as both males and females are more likely to have negative attitude. These findings are synonymous to others studies conducted in other Sub-African countries. Gender is not associated with positive attitude towards PLWHA, and these findings are in line with previous studies conducted in South Africa, Tanzania, Nigeria, Haiti and Thailand. There is evidence in literature that both male and women can have either positive or negative attitude towards PLWHA, and that is not dependent only on their sex. The findings in this study show that only condom use and age are the only predictors of positive attitude. While sex, marital status, level of education, HIV-testing, race, employment status and home language are not associated with positive attitude.

Based on the findings in this study condom use is predictor of positive attitude towards PLWHA. This is in line to findings from a study conducted in Tanzania, where similar findings that individuals who use condoms have positive attitude towards HIV/AIDS infection and towards PLWHA. While condom use in this study was found to be a predictor of positive attitude, scholars are clear in arguing that condom use is not a good predictor of positive attitude towards PLWHA. The other controlled variable for which it was associated to positive attitude is age. The findings are incongruent with the study findings conducted by the Human Science Research Council in South Africa. Other findings conducted in South African and Nigeria shows that older generation are more likely to have negative attitude than the youth. This study focused on the attitudes of youth and it is argued that youth are likely to express symbolic stigma, which is influenced by the values and societal meanings attached to the infection.

This study reveal that negative attitudes towards PLWHA is still an ongoing battle in South Africa. It can be argued that negative attitude towards PLWHA is a manifestation of stigma towards HIV/AIDS, successively leading to discrimination and prejudice. PLWHA not only have

to suffer from medical problems which can deplete quality of life, but also affects the broader health perspective and increase social prejudice. Stigma is a social process that involves accurately or inaccurately assigning HIV status to a person, assigning negative views to that person, and then discriminating against them based on their HIV-status.

This study contributes to the existing knowledge regarding stigma and discrimination towards PLWHA in South Africa. There is already extensive literature on HIV/AIDS stigma in South Africa and throughout the world, however in this study the aim was to determine the role of gender in the determining attitudes towards PLWHA. What is found in this study is that stigma and discrimination is not dependent on sex, as it is an insufficient predictor of positive attitude. Furthermore, the study highlights that stigma and discrimination towards PLWHA is still prevalent in South Africa.

## **6.2 Recommendations**

In order for the country to make progress and control the HIV epidemic, it is of most importance to adopt a more nuanced approach to understand and address stigma and discrimination. Furthermore, identifying appropriate recommendations, is very important to identify key social and psychological factors that influences stigma. Therefore, it is recommended that future research build on these findings, especially qualitatively, in order to obtain primary knowledge on the youth's views regarding attitudes towards PLWHA. The qualitative research will also provide experiences of youth's encounter with PLWHA. Because qualitative research explores real stories and experiences youth will provide their views on HIV/AIDS stigma and that of the communities they live in. This can be done by selecting participants of different race, religious beliefs, age, gender, socio-economic status, education level, and employment status. By so doing youth expressing negative attitude can be participate in further in-depth interviews to identify factors that continue to shape stigma and discrimination towards PLWHA. These stories will provide a clear picture on the continuing influences of negative views towards HIV/AIDS and towards PLWHA.

Positive attitude employed in this study is measured using a set a questions that speaks to stigma and discrimination. Because of social desirability bias the findings might reflect that youth's attitudes towards PLWHA is more positive than it is. It is inadequate to conclude that positive answers to questions such as 'Would you be willing to care for a family member with

AIDS and would you want to keep the HIV-positive status of a family member a secret?’ as positive attitude. More reasons from both PLWHA and those not living with HIV/AIDS to share their experiences and views. This could be achieved by using a qualitative method which will also look at the attitudes of public health workers, employees and colleagues, family members and the society at large. In addition, this will allow for further questions to be asked on whether any of the factors shape the views of individuals towards PLWHA.

The findings indicate that stigma and discrimination towards PLWHA differ from country to country. The factors that influence positive attitudes are not the same globally, with more developed countries showing more acceptance than the less developed countries. Culture and societal norms play a significant role in shaping views of the society, this is why the findings in this study were both similar and contrary to other studies. There is an urgent need for health care researchers and social scientists to understand factors that influence positive and negative attitudes towards PLWHA in different contexts in South Africa, this will allow for relevant policies to be put into place. In areas where HIV/AIDS is more prevalent, policies should be developed in a way that is easily understandable to the community, including using language that is easily understood. In addition, it is important that the person delivering the message is of the specific age, gender, race, etc., this might make recipient more comfortable and receptive. Not only should we note the psychosocial burden on PLWHA, issues of culture and taboo should be handled with sensitivity and care when addressing negative attitudes.

### **6.3 Limitations**

The study looks at a sensitive issue of sexual behaviour and HIV risks, and desirability bias is one of the limitations of the study. Social desirability bias is the tendency of people to report social desirable actions, while they deny/ignore undesirable ones (Chung & Monroe, 2003). During face-to-face survey, it is very likely that participants may have intentionally not discussed negative attitudes towards PLWHA, suggesting that the study may not reflect the true levels of attitudes in communities. This has an impact on the results of the study, meaning that incorrect beliefs regarding HIV-attitude may be reported. In addition, the differences between perceived attitude and personal attitude poses a challenge in learning the true reflection of attitude. Implicating that the true reflection of attitude among youth cannot be fully understood.

The created index to measure attitude was relatively simple, as it only comprised on six questions. Even though the index included significant questions, it is not enough to have a fair examination of attitudes towards PLWHA. In addition, another limitation is the use of secondary data, in the data set variables such as religion and/or religious affiliations were not asked, limiting the results of the study. Furthermore, because this was a cross-sectional study, causation cannot be inferred, making it challenging to identify the direction of the variables between the predictor and the outcome.

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