

**HIV AND AIDS KNOWLEDGE, ATTITUDES AND PRACTICES OF CONSTRUCTION
WORKERS: A COMPARATIVE STUDY OF RURAL AND URBAN BASED
CONSTRUCTION WORKERS IN KWAZULU-NATAL**

MANDISI SIPHIWENGESIHLE MABIKA



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

Africa Centre for HIV/AIDS Management

Faculty of Economic and Management Sciences

Supervisor: Ms Anja Laas

March 2011

Declaration

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Mandisi Siphiwengesihle Mabika (Mrs)

March 2011

TABLE OF CONTENT

Abstract

Opsomming

Introduction

Chapter 1: HIV and AIDS in the Construction industry in South Africa and in KwaZulu Natal

1.1 Introduction 4

1.2 HIV and AIDS in the construction industry in SA 4

1.3 HIV and AIDS in KwaZulu Natal 7

Chapter 2: Background to the study

2.1 Introduction 10

2.2 Background and rationale to the study 10

2.3 Significance of the study 11

2.4 Aim and objectives of the study 12

Chapter 3: Literature review

3.1 Introduction 13

3.2 Construction industry 13

3.3 HIV and AIDS in the construction industry 15

3.4 Response of the construction industry to HIV and AIDS 17

Chapter 4: Research design and methodology

4.1 Introduction 20

4.2 Research methodology 20

4.3 Target population and sampling method 21

4.4 Research questions	22
4.5 Data collection	25
4.6 Ethical consideration	26
Chapter 5: Data analysis and interpretation of findings	
5.1 Introduction	28
5.2 Data analysis and interpretation of findings	28
Chapter 6: Findings, recommendations and conclusion	
6.1 Introduction	47
6.2 Findings	47
6.3 Recommendations	49
6.4 Conclusion	40
References	51

Abstract

The aim of the study was to determine and compare HIV/AIDS related knowledge, attitudes and practices of construction workers in rural and urban settings in order to establish whether geographical location has an influence on these variables in these locations.

The findings illustrated that rural participants were more knowledgeable than urban participants regarding HIV and AIDS but their attitude and practices were the same. However the researcher concluded that the difference in knowledge was not because of the geographical location but there were other contributing factors. Therefore the researcher concluded that there is no relationship between HIV and AIDS knowledge, attitudes and practices of construction workers with the construction site location they are at.

Opsomming

Die doel van die studie was om die MIV/Vigs verwante kennis, houdings en praktyke van konstruksie werkers in plattelandse en stedelike gebiede te bepaal en te vergelyk, met die doel om te bepaal of geografiese ligging 'n invloed het op die veranderlikes in die onderskeie liggings.

Die resultate toon dat plattelandse deelnemers meer kennis rakende MIV/Vigs gehad het, maar dat daar nie 'n noemenswaardige verskil in hul houdings was nie. Die navorser toon aan dat die verskil in kennisvlakke nie aan geografiese ligging toegeskryf kan word nie, maar dat ander faktore daartoe bygedra het. Daar is dus geen verhouding tussen MIV/Vigs verwante kennis, houding en praktyke tussen konstruksie werkers en hul ligging is nie.

Introduction

According to the UNAIDS Global report on HIV and AIDS EPIDEMIC (2010), 22.5 million (20.9 million – 24.2 million) adults and children were living with HIV and AIDS in 2009. Of those numbers an estimated 5.6 million (5.4 million – 6.8 million) people were living in South Africa, which makes it the country with the largest population living with HIV and AIDS. The South African industry is said to have the third highest HIV and AIDS prevalence in the country, after the mining and transport industries.

The construction industry has a large number of semi-skilled and unskilled workers, who are primarily males between the ages of 18 – 40. The industry faces additional risks because of the migratory nature of their work that requires continuous movement of workers. Work-related mobility often significantly increases vulnerability to HIV infection. The International Organisation for Migration (IOM) mentions some of the factors that may increase the vulnerability of construction workers to HIV infection. It mentions factors like nature of work, lack of access to health care services for construction workers, increased sub-contracting trend, gender – male dominated sector and low knowledge about HIV and AIDS.

The study was done at two construction sites in KwaZulu Natal, one located in an urban area in Durban and the other site located at Hlabisa a rural area. The study was to determine and compare knowledge, attitudes and practices of construction workers in rural and urban settings in order to establish whether geographical location has an influence on HIV and AIDS knowledge, attitudes and practices of workers in these settings. The researcher believed that the study was going to generate necessary data which could be used to provide guidelines on designing and implementing appropriate HIV and AIDS intervention for construction workers.

Chapter 1: HIV and AIDS in the construction industry in South Africa and KwaZulu Natal

1.1 Introduction

This chapter gives a picture of the state of HIV and AIDS in the construction industry in South Africa and make special reference to the KwaZulu Natal province, since the study was done in this province.

1.2 HIV and AIDS in the construction industry in South Africa

In its health and safety report (Health and Safety in South Africa, 2009), the Construction Industry Development Board (CIDB, 2009) states that the South African construction industry has the third highest HIV and AIDS prevalence in the country, after the mining and transport industries. While HIV and AIDS prevalence is notably high in the construction sector, the industry faces additional risks posed by the nature of work that requires continuous migration of the labour force between work sites.

The construction sector in Southern Africa has grown over the years with numbers of semi-skilled and unskilled workers gaining employment. For example South Africa's construction industry has undergone remarkable growth since the early 2000s, when there were only 520 000 workers employed in both formal and informal positions in the sector. By 2009, the industry was employing over 1.1 million workers or 8.3% of the country's workforce; this was due to the preparations for the FIFA 2010 World Cup (IOM, 2010).

The construction industry has a large number of semi-skilled and unskilled workers, who are primarily males between the ages of 18–35. Most construction projects are once-off projects, meaning that when the work is completed the workers move to a new project site or are laid off. Hence, there is an inherent migratory nature to construction, which means that the movement of labour, in terms of time and space is relatively high compared to other industries. This also creates a process of circular migration whereby migrant workers return home once their job is completed, or returning to a job-site only when new work is available (IOM, 2010). In general

construction workers lead a roaming on-site lifestyle, sometimes in remote areas. Typically, they live in temporary accommodation away from families and support systems for long stretches of time.

The IOM report further mentions that the nature of work of construction workers creates an environment that could increase risky sexual behavior. It identifies seven major working environments that act as additional risks for the industry, thereby contributing to a high rate of HIV incidence amongst construction workers:

- (1) Dangerous working conditions and risk of physical injury, construction workers tend to be preoccupied with other immediate challenges and may regard HIV infection as a distant risk
- (2) Limited availability of recreational activities such as sport or entertainment at or around remote construction sites. The feelings of boredom, loneliness and isolation can result in a disregard for health among construction workers.
- (3) Construction sites are often located in or near underdeveloped areas with high levels of poverty, some members of the local community, especially poor women, may engage in transactional and commercial sex with construction workers who have disposable income.
- (4) Construction workers lack access to healthcare services because these services are either not available or accessible near the construction sites
- (5) Sub-contracting makes it difficult for general contractors to provide health benefit for workers because workers have different types of contracts, contract duration, remuneration, entitlement and benefits
- (6) Stereotypical notions of gender, including submissive roles for women and strong masculine roles for men, may exacerbate risk-taking sexual behavior for both men and women and create an environment conducive to discrimination and sexual harassment towards female co-workers and members of the communities near construction sites.

(7) Knowledge about HIV and STIs is low amongst construction workers, many believe in myths and have misconceptions about how HIV is transmitted. Low perceptions of risk may result in low or incorrect condom use.

HIV and AIDS are widespread among South African construction workers largely because the labour force is migratory. Construction camps are a breeding ground for the spread of the pandemic and sexually transmitted diseases and workers generally disregard the consequences of casual sexual relationships. HIV and AIDS in South Africa threatens to reduce the overall construction labour force, shift the age structure of the work force due to increased eventual mortality of HIV infected workers and change the skill composition of the construction labour supply and increase labour turn-over (Haupt & Smallwood, 2002).

The resultant absenteeism, medical incapacity, sick leave and disability pensions, medical care, pensions to surviving dependents, loss of productivity and the replacement and training of new recruits affect the direct costs of construction companies and thereby the cost of construction. In short the impact of HIV and AIDS on the productive labour force affects the companies directly, which in turn has an effect on the entire economy of the country (Haupt & Smallwood, 2002).

The impact of HIV and AIDS in the workplace is felt in many areas, for example the loss of productivity, increased cost of employee benefits, high production costs and lower workplace morale due to prolonged staff illness, increased absenteeism and mortality rates. This, in turn impacts negatively on the economy of the country as it slows down economic growth with less economically active persons able to contribute to the economy. The loss of an employee requires an appropriate replacement to be selected and trained, which is often a costly process (Department of Labour, 2002)

1.3 HIV and AIDS in KwaZulu Natal

The UNAIDS epidemic update reflects that Sub-Saharan Africa still bears an inordinate share of the global HIV burden, with Southern Africa still the most severely affected. South Africa is home to the world's largest population of people living with HIV, with an estimated 5.6 million (5.4 – 5.8 million) people living with HIV (UNAIDS, 2010).

South Africa has one of the highest HIV prevalence rates in the world and KwaZulu Natal (KZN) is its worst afflicted province with an estimation of 5.6 million people living with HIV and AIDS. Recent estimates indicate that 26.4% of KZN's working age population is HIV positive, compared to 15.9% in the rest of the country. Unemployment and poverty in the province are also much higher than the national average. More than the third of KZN's population live below the US\$2 a day poverty line and two-fifths of the population is unemployed.

HIV prevalence varies considerably throughout South Africa. Some provinces are more severely affected than others, with the highest antenatal prevalence of 39.1% in 2005 being in (KZN). The contextual factors that influence the high rate of HIV prevalence in SA of which KZN is also susceptible too are *poverty, gender-based violence, cultural attitudes and practices, stigma denial, exclusion and discrimination, mobility and labour migration*. (NSP 2007 – 2011)

Poverty operates through a variety of mechanisms as a risk factor for infection with HIV and AIDS. Its effects need to be understood within a socio-epidemiological context. It works through a multitude of interrelations, including unequal income distribution, economic inequalities between men and women which promote transactional sex, relatively poor public health education and inadequate public health system.

South Africa has one of the highest rates of *violence against women*. Sexual violence is linked with a culture of violence involving negative attitudes (e.g. deliberate intention to spread HIV)

and reduced capacity to make positive decisions or to respond appropriately to HIV prevention campaigns. The experience of sexual assault has also been linked to risks for HIV infection. Women with least power in their relationships are at risk for both sexual assault and HIV infection, both stemming from the inability of women to control the actions of their sexual partners. Men who have limited resources and lack the opportunity for social advancement often resort to power and control over women (NSP, 2007 – 2011).

Power and control disparities in relationships create a context for men to have multiple concurrent partners and fuel their reluctance to use condoms. Unfortunately, men's attitudes towards women obstruct HIV preventive actions and can culminate in the acceptance of violence against women. There is also evidence that men often hold attitudes that accept violence against women including beliefs that women should be held responsible for being raped. Some men have the belief that women are raped because of things that they say and do and some men believe that rape mainly happens when a woman sends a man sexual signals (NSP, 2007 – 2011)

There is some evidence that *cultural attitudes and practices* expose South Africans to HIV infections. Gender inequalities inherent in most patriarchal cultures where women are accorded a lower status than men impact significantly on the choices that women can make in their lives especially with regards to when, with whom and how sexual intercourse takes place. In particular, male partners either have sex with sex workers or engage in multiple relationships and their female partners or spouses are unable to insist on the use of condoms during sexual intercourse for fear of losing their main source of livelihood (NSP, 2007 – 2011)

Poverty and unemployment are linked to economic disempowerment and this affects sexual; choices-making and exposure to wider sexual networks. Over and above gender vulnerability that flows from economic disempowerment, individuals who engage in work-seeking, mobile forms of work or migrant labour are at increased vulnerability to HIV as a product of higher likelihood to have multiple sexual partners and higher exposure to sex for exchange of money. Mobile individuals include informal traders, migrant workers (for example, mine workers and

construction workers), and long-distance truck, bus and taxi drivers. Mobility and migration not only increase vulnerability to HIV of mobile individuals but also sending and receiving communities (NPS, 2007 – 2011)

Chapter 2: Background of the study

2.1 Introduction

This chapter looks at the background and rationale of the study, it explains why the researcher was interested in the study. It explains why it was significant to pursue the study. It then outlines the aim and objectives of the study and presents the hypothesis.

2.2 Background and rationale to the study

The Construction Industry Development Board (CIDB), states that the South African construction industry has the third highest HIV and AIDS prevalence in the country, after the mining and transport industries. The industry faces additional risks posed by the nature of work that requires continuous migration of labour force between the work sites. Confirming this assertion is UNAIDS report's (UNAIDS, 2009) re-iteration that work-related mobility often significantly increases vulnerability to HIV infection, thereby increasing sexual risk behavior.

In her study on the impact of HIV and AIDS on the construction industry, (Hlebel, 2009) identify five major working environments that act as additional risks for the industry, thereby contributing to a high rate of HIV incidence amongst construction workers: (1) Long distance between work site and home make it difficult for the worker to travel to and from home on a daily basis; (2) A place without preventative measures and promotional materials, including condoms and pamphlets; (3) Lack of facilities for extramural activities, such as sporting activities; (4) The place is not suitable for spouses to visit (shared tin houses or shacks or tents); and (5) There may also be after hours' boredom.

Since 2004, the Construction Industry Development Board and the Department of Public Works have, made it obligatory for all government infrastructure projects to implement programmes aiming at fighting HIV and AIDS for construction workers, because they have realized that the industry is highly affected by the pandemic. Even though there is a construction industry strategy on HIV and AIDS, research shows that the construction industry is among the top three

most affected industries in the country. Therefore, it is of vital importance that construction workers' knowledge of HIV and AIDS and their attitudes and practices towards it, are assessed.

The following questions were therefore critical for the researcher:

- What are the knowledge, attitudes and practices of construction workers?
- Are the knowledge, attitudes and practices of rural based construction workers different from those of urban based construction workers?

These questions were critical because HIV and AIDS programmes have been implemented for construction workers and the people of South Africa, yet the HIV prevalence was still very high not only for construction workers but for the whole country. It will be useful to establish if certain factors like cultural norms, beliefs and practices play a role in this state of HIV and AIDS. Rural communities have certain cultural norms, beliefs and practices that are different from those of urban communities.

2.3 Significance of the study

The researcher believed that the study was going to generate necessary data which could be used to provide guidelines on designing and implementing appropriate HIV and AIDS intervention for construction workers. The construction companies could also use the results to implement HIV and AIDS programmes that respond to common challenges as well as priority issues.

2.4 Aim and objectives of the study

Aim of the study

The aim of the study was to determine and compare knowledge, attitudes and practices of construction workers in rural and urban settings in order to establish whether geographical location has an influence to HIV and AIDS knowledge, attitudes and practices of workers in these settings.

Objectives of the study:

- To assess construction workers' HIV and AIDS knowledge;
- To assess construction workers' attitudes towards HIV and AIDS;
- To establish construction workers' practices regarding HIV and AIDS, especially in as far as protective measures are concerned;
- To compare rural and urban based construction workers' HIV and AIDS knowledge, attitudes and practices; and
- To recommend guidelines for designing and implementing effective HIV and AIDS programmes for construction workers in different settings based on the findings of the study.

Chapter 3: Literature review

3.1 Introduction

Reviewing the accumulated knowledge about a question is an essential early step in the research process, no matter which approach to social science one adopts. It is best to find out what is already known about a question before trying to answer it yourself. Neuman (2003) mention four goals of literature review: (1) To establish a familiarity with a body of knowledge and establish credibility; (2) To show a path of prior research and how a current project is linked to it; (3) To integrate and summarize what is known in an area and (4) To learn from others and stimulate new ideas. This chapter reveal what is already been noticed regarding HIV and AIDS in the construction industry and how the industry has responded to the epidemic so far.

3.2 The Construction industry

The Construction Industry Development Board (CIDB) is a statutory body established by Parliament, Act 38 of 2000, to stimulate reform, to improve the construction industry and to enhance the construction industry's role in the socio-economic development of the country. Based on the information that is presented in this document under the literature review section 3.3 (HIV and AIDS in the construction industry), HIV and AIDS is the biggest threat in the construction sector. Therefore, improving, stimulating and reforming the construction industry should certainly include carefully confronting the HIV and AIDS pandemic.

The construction industry is made up of the stakeholders that through their co-operation provide the infrastructure of a country. They build and maintain the infrastructure for utilities, the roads and the buildings used for residential, commercial, industrial or governmental purposes. The construction industry is one of the sectors that deal with large financial resources of any country. The amount of money that changes hands in the industry is significant (Onyango, 2010). Construction plays a crucial role in South Africa's economic and social development. It provides the physical infrastructure and backbone for economic activity and it is a large-scale provider of employment (CIDB, 2010)

The construction industry contributes significantly in terms of scale and share in the development process for both developed and developing countries. The construction products provide the necessary public infrastructure and private physical structures for many productive activities such as services, commerce, utilities and other industries. The industry is not only important for its finished product, but it also employs a large number of people and therefore has an effect on the economy of a country or region during the actual construction process.

The construction sector in Southern Africa has grown over the years with numbers of semi-skilled and unskilled workers gaining employment. For example South Africa's construction industry has undergone remarkable growth since the early 2000s, when there were only 520 000 workers employed in both formal and informal positions in the sector. By 2009, the industry was employing over 1.1 million workers or 8.3% of the country's workforce; this was due to the preparations for the FIFA 2010 World Cup (IOM 2010).

The construction sector is expected to grow consistently well beyond 2010. Experts predict that the South African government planned spending R787 billion on infrastructure development and this will continue to sustain a healthy growth rate. The construction sector is a national asset and it is the fastest growing economic sector in the country. With a 2007 growth rate of 18.1%, the construction sector made a 3.1% contribution to the Growth Domestic Product. Early in 2008 a record growth rate of 21.3%, the highest since 1989, was reported amidst predictions of continued and accelerated growth.

As mentioned above the construction industry is expected to, and is growing, as a result the government felt a compelling need to unlock growth constraints, to develop sustainable contracting capacity and to elevate enterprise development of previously disadvantaged individuals. In response, the National Contractor Development Programme (NCDP) was initiated as a sector-specific intervention within the framework of SA's Accelerated and Shared Growth initiative

Led by the Minister of Public Works and the Provincial MEC's, the NCDP is committed to the accelerated growth of the construction industry to meet rising national demand. The programme is geared to enhancing capacity and promoting equity ownership across the different contracting categories and grades, as well as improving skills and performance in the delivery of capital works and maintenance across the public sector. The NCDP is a government programme comprising of a partnership between the CIDB, national and provincial public works and other willing stakeholders, in which the participating stakeholders commit their resources to develop previously disadvantaged contractors (CIDB, 2009).

3.3 HIV and AIDS in the construction industry

South Africa's construction industry has one of the country's highest prevalence rates of HIV and AIDS of any economic sector, especially the permanently employed, semi-skilled operators and drivers; even the skilled employees are showing the highest prevalence rate in the sector – even greater than casual labourers. Van Der Merwe (2008) states that if HIV prevalence is assessed by age, middle-aged employees are most at risk, while geographically KwaZulu-Natal shows the highest HIV prevalence.

The spread of infectious diseases that are transmitted from person to person normally follows the movement of people (IOM, 2002). Migrants and mobile populations in general have played a significant role in the initial spread of HIV in the Southern African region. The largely seasonal or temporary character of migration in South Africa, with migrants returning home to their families on a regular basis, has facilitated the rapid spread of the virus. While mobility is not itself a risk factor for HIV, the circumstances associated with movement increase vulnerability to HIV infection. Evidence suggests that work related mobility often significantly increases vulnerability to HIV infection (UNAIDS, 2009).

HIV and AIDS are widespread among South African construction workers largely because the labour force is migratory. Construction camps are a breeding ground for the spread of the pandemic and sexually transmitted diseases and workers generally disregard the consequences of

casual sexual relationships. HIV and AIDS in South Africa threatens to reduce the overall construction labour force, shift the age structure of the work force due to increased eventual mortality of HIV infected workers, change the skill composition of the construction labour supply and increase labour turn-over (Haupt & Smallwood, 2002).

The resultant absenteeism, medical incapacity, sick leave and disability pensions, medical care, pensions to surviving dependents, loss of productivity and the replacement and training of new recruits affect the direct costs of construction companies and thereby the cost of construction. The impact of HIV and AIDS on the productive labour force affects companies directly, which in turn has an effect on the entire economy of the country (Haupt & Smallwood, 2002).

The impact of HIV and AIDS in the workplace is felt in many areas, for example the loss of productivity, increased cost of employee benefits, high production costs and lower workplace morale due to prolonged staff illness, increased absenteeism and mortality rates. This, in turn impacts negatively on the economy of the country as it slows down economic growth with less economically active persons able to contribute to the economy. The loss of an employee requires an appropriate replacement to be selected and trained, which is often a costly process (Department of Labour, 2002)

3.4 Response of the construction industry towards HIV and AIDS

As a strategy to fight HIV and AIDS, the Construction Industry Development Board (CIDB) and the Department of Public Works have, since 2004, made it obligatory for all government infrastructure projects to implement programmes aiming at fighting HIV and AIDS for construction workers. The aim of the strategy is to guide and direct the process of dealing with HIV and AIDS within the construction industry. The strategy provides the framework which the construction industry employers, workers and service providers will use to design, implement and monitor HIV and AIDS programmes on construction sites. The strategy forms part of the tendering document specification. Construction sites provide a convenient location for HIV and AIDS programmes to both construction workers and rural communities (CIDB, 2003).

The Department of Public Works' strategy has four strategies that are designed to build an HIV resilient workforce, as well as, communities associated with the workforce. The four strategies are:

- Raising awareness about HIV and AIDS;
- Ensuring that construction workers have access to condoms;
- HIV counseling, testing and referral services; and
- Sexually transmitted infection (STI) diagnosis and treatment.

The strategic objectives of the strategy include:

- Reducing the risk of transfer of the HI-virus between and among construction workers and the local community;
- Raising awareness amongst construction workers and the local community of the risk of infection with the HI-virus;
- Promoting early diagnosis; and
- Assisting affected individuals access to care and counseling

Contractors are prepared to raise awareness through on-site workshops, provide workers with access to condoms, facilitate HIV counseling, testing and referral services and support early STI diagnosis and treatment as specified by the construction industry employers. This assists the CIDB in the pricing and monitoring of HIV and AIDS awareness with the industry (Power Group, 2006)

For example the Power Group made contact with different big construction companies to assess what is happening on the ground. WBHO construction believes that in order to be successful in

their HIV and AIDS programme they need to analyze and understand the magnitude of the problem. They embarked on awareness, counseling and testing programmes with a recognized and experienced managed healthcare services provider. The campaign enabled the company to understand areas that they need to concentrate on to ensure WBHO is not detrimentally affected by the pandemic.

The Power Group of companies also assessed their response towards HIV and AIDS. They mention that their HIV positive infection rate is 9% of which they believe is low considering that for the rest of the industry it is about 18%. They mentioned that one of the reasons it is that low is because they embarked on an intensive prevention and treatment programme since 2001.

The Power Group also made contact with Grinaker-LTA another big company within the construction industry in South Africa. Grinaker-LTA said that they have a wellness programme throughout the company, which aims to support and encourage all measures and intentions aimed at minimizing the spread and impact of HIV and AIDS. They educate and keep employees and management informed of the basic HIV and AIDS issues, they encourage employees and managers to know their status and assist them to access appropriate health services providers. They said they created an environment in the workplace for dealing with the pandemic constructively by eliminating the stigma and discrimination on the basis of real or perceived HIV and AIDS status.

Clearly, the literature reveals systematic strategies and interventions adopted and employed by the respective government authorities and construction companies in ensuring that HIV and AIDS cases, including new infections are significantly curbed. However, obtaining workers' perspectives and voices in as far as HIV and AIDS issues are equally important.

Chapter 4: Research design and methodology

4.1 Introduction

Research is a process that involves the obtaining of scientific knowledge by means of various objective methods and procedures. The term objective indicates that these methods and procedures do not rely on personal feelings or opinions and those specific methods are used at each stage of the research process. These methods include procedures for drawing a sample, measuring variables, collecting information and analysing this information (Wellman, Kruger & Mitchell, 2005).

This chapter outlines the research methodology used in the study. It gives the background of the target population and how it was sampled. It presents the research questions and the whole process of collecting data and lastly it explains the ethical consideration that was used on participants.

4.2 Research Methodology

The study was quantitative in nature; this means the researcher obtained the data from the participants by administering a survey questionnaire. A survey questionnaire may be used to obtain information such as

- Biographical details;
- Typical behaviour;
- Opinion, beliefs and convictions; and
- Attitudes

(Wellman, Kruger & Mitchell, 2005)

Survey researchers sample many respondents who answer the same questions, measure many variables, test multiple hypotheses and infer temporal order from questions about past behaviour, experience or characteristics (Neuman, 2003). Christensen (2007) describes a survey as a widely used non-experimental research technique. It is a method of collecting standardised information by interviewing a representative sample of some population.

4.3 Target population and sampling method

The target population for this study was 60 construction workers based in urban or rural construction sites. The inclusion criterion for the 60 participants was people who have worked in the construction field for a minimum of 12 months. The reasons for the stated sample size were: time constraints, limited resources and the nature of the construction industry whereby time wasted is money wasted, therefore the researcher had to make use of the limited time that the companies offered.

Neuman (2003) in his book *Social research Methods* defines the target population as the specific pool of cases that the researcher wants to study. He defines the sampling element as the unit of analysis or case in a population. It can be a person, a group or an organisation that is being measured. He then defines the sampling frame as a list of cases in a population or the best approximation of it.

The researcher's decision about the best sample size depends on three things:

- The degree of accuracy
- The degree of variability or diversity in the population
- The number of different variables examined simultaneously in data analysis.

In this study the researcher used purposive sampling method. Purposive sampling is a valuable kind of sampling for special situations. It selects cases with a specific purpose in mind. It is appropriate to select unique cases that are especially informative (Neuman, 2003). The researcher had a purpose of comparing HIV and AIDS knowledge, attitudes and practises of construction workers in rural and urban construction sites.

4.4 Research questions

The aim of the study was to determine and compare knowledge, attitudes and practices of construction workers in rural and urban settings in order to establish whether geographical location has an influence to HIV and AIDS knowledge, attitudes and practices of workers in these two settings. Therefore the following sets of questions and statements were used to get the necessary data:

4.4.1 Characteristics of the target group

- Gender
- Age
- Race
- Place of birth
- Marital status
- Level of education
- Period in the construction industry
- Current residential area
- Current position at work
- Current work setting

4.4.2 Questions or statements on knowledge regarding HIV and AIDS

- HIV and AIDS exists
- Someone with HIV has visible signs that he/she is sick

- HIV can live outside the human body
- HIV develops into AIDS
- If used properly, condoms can protect a person from HIV infection.
- I can still work after being infected with HIV
- HIV or AIDS are curable
- Someone can prevent himself/herself from being infected with the HI-virus
- There are drugs to manage HIV/AIDS IN South Africa
- You can determine your HIV status by taking a HIV test
- How is HIV transmitted
 - (a) Sharing a needle with an infected person
 - (b) Unprotected sex with an infected person
 - (c) Infected blood transfusion
 - (d) Mother to child transmission

4.4.3 Statement regarding Attitudes of construction workers

- People who get HIV through sex have themselves to blame
- An HIV- infected colleague should stop working
- Homosexual people deserve to get HIV
- HIV/AIDS is punishment from God or ancestors
- HIV/AIDS comes from being bewitched
- HIV/AIDS is a problem for black people only
- HIV infects poor people only
- People get HIV/AIDS because of their immoral sexual behaviour
- If you confidentially hear that your colleague is HIV positive, are you legally entitled to tell other colleagues about the other colleague status?

4.4.4. Statements on practices of construction workers towards HIV and AIDS

- I have more than one sex partners
- I use a condom during sexual intercourse
- I give my sexual partner (any woman) gifts or money in exchange for sexual favour

- In a relationship who is responsible for avoiding STIs and HIV/AIDS
- I have had unprotected sex with someone I do not know her/his s HIV status
- I know my HIV status
- Do you believe that flesh to flesh sex is masculinity and is necessary for male health?

4.5 Data collection

The study was quantitative in nature, a questionnaire with structured questions that were closed-ended and were administered by the researcher, because some of the participants could not read, therefore the researcher had to explain the questions and demonstrate to the participants how to make ticks in a questionnaire. The questionnaire was first developed in English, and then it was translated into isiZulu. Prior to the distribution of questionnaires a written consent was sort, however participants preferred to give an oral consent because they said they do not want to write their names on paper, therefore an oral consent was obtained in all the sites.

The questionnaire was field-piloted to five construction workers outside the selected work sites, to ensure the validity of the tool. The questionnaire was adjusted accordingly based on the results of the pilot process. The pilot process revealed that for example when asking the questions it was not necessary to give options of “strongly agree or strongly disagree” because that was confusing for most of the participants, even those who were able to read, therefore these options were removed from the questionnaire.

4.6 Ethical consideration

Christensen (2007) defines research ethics as a set of guidelines to assist the experimenter in conducting ethical research. He continues to spell out ethical guidelines that should be followed when conducting research using human participants. The study was approved by the ethical committee of Stellenbosch University. This report will mention few guidelines that were considered while doing the study:

4.6.1 Respect for persons and their autonomy

An autonomous person is a person who is capable of making decisions and following through on those decisions. Within the context of research, this means that a prospective research participant has the right to choose to participate in a research study (Christensen, 2007). Therefore the permission to conduct the study was sort from the construction companies and signed consent forms were obtained from the participants, prior to participating in the study. Participation was voluntary and no worker was forced to participate.

4.6.2 Beneficence and nonmaleficence

Beneficence means doing good and nonmaleficence means doing no harm. This principle states that we should design and conduct our research studies in a way that minimizes the probability of harm to the participant and maximizes the probability that the participants receive some benefits (Christensen, 2007). In this study workers were assured that their names will not appear in any of the oral, verbal or written report. They were assured that the management of the two companies will not be informed of who participated and who did not. They were also assured that their choice to participate will not in any way be held against them or cause any form of harm or ridicule. This means the choice of participation was not going to affect their current position at work, their relationship with each other as colleagues or affect their relationship with their employers, or affect their benefits at work.

4.6.3 Trust

The moral principle of trust states that the researcher should establish and maintain a relationship of trust with the research participants (Christensen, 2007). The researcher in this study had to establish a relationship with participants so they would open up and be honest in their answers. A friendly approach to explanation of questions was used. In some instances participants were asking the researcher to come back to them after the study so the researcher could share with them more information on HIV and AIDS.

Chapter 5: Data analysis and interpretation of findings

5.1 Introduction

This chapter presents data analysis and it also presents the interpretation of findings as understood by the researcher.

5.2 Data analysis and interpretation

Table 1: Characteristics of the study population

Variable	characteristic	Urban	Rural
gender	male	30	26
	female	0	4
total		30	30
age	18-30	11	13
	31-40	8	13
	41-50	4	3
	51+	4	0
missing		3	1
total		30	30
race	black	30	30
	Indian	0	0
	coloured	0	0
	white	0	0
total		30	30
marital status	single	15	18
	married	14	10
	divorced	0	

	widowed	0	
	cohabiting	1	2
total		30	30
place of birth	urban	3	10
	rural	25	14
missing		2	6
total		30	30
level of education	primary	11	3
	high school without matric	14	13
	high school with matric	4	13
	diploma	0	1
	degree	0	0
missing		1	0
total		30	30
period in the construction industry	0-2 years	5	6
	3-5 years	10	12
	6-10 years	5	5
	more than 11 years	10	6
missing		0	1
total		30	30
current residential area	home	9	3
	construction site	0	8
	renting so to be closer to work	21	16
missing		0	3
total		30	30

current position at work	general worker	10	9
	steel fixer	0	7
	plaster	0	1
	shutter hand	0	3
	supervisor	2	1
	site clerk	1	1
	health & safety officer	0	1
	carpenter	7	0
	driver & crane operator	1	0
	stores	5	0
missing		4	7
total		30	30
current work site		30	30

Analysis and interpretation of biographical data

Gender: There were 60 participants in the study. 30 were from a rural construction site in Hlabisa and 30 were from an urban construction site in Durban. The majority of participants were males, at Hlabisa 26 (86.7%) of participants were males and 4 (13.3 %) were females. In Durban 30 (100%) of participants were males.

Age: 11 (36.7%) of participants in an urban construction site were between 18 – 30 years of age compared to a rural construction site with 13 (43.3%) of participants in the same age. Urban site had 8 (26.7%) of participants in the age group of 31 – 40 years and the rural had 13 (43.3%) of the same age group. The category of 41 – 50 years had 4 (13.3%) of participants in an Urban site and 3 (10%) of participants in a rural site. The category of 51 years and above had 4 (13.3%) participants in an urban site and there were no participants of that age category in the rural site. However 3 (10%) of the information on age category from the urban site was missing.

Interpretation: The majority of construction workers were males and the majority were between the age of 18–30 and 31-40. This is typical of the construction sector because it is still dominated by males. IOM construction sector report (2009) confirms this finding where it says the construction sector has a large number of semi-skilled and unskilled workers who are primarily males between the ages of 18–35.

Race: All the participants were of the black race; this means 100% of the construction workers who were willing to respond to the questionnaire were black, there were no whites or Indians or coloureds when the researcher approached the workers to participate in the study.

Marital status: 15 (50%) of participants in an urban site were single while 18 (60%) in a rural site were single. 14 (46.7%) in an urban site were married compared to 10 (33.3%) of participants in a rural site who were married. There were no divorced or widowed participants in both sites, however there was 1 (3.3%) participant in an urban site who mentioned that he is cohabiting compared with 2 (6.7%) in a rural area who agreed that they were cohabiting.

Interpretation: The majority of respondents were single and it came as no surprise when they were asked to indicate if they had more than one sexual partner and the majority confessed that they had more than one sexual partner.

Place of birth: The majority of participants in an urban site said they were born and raised in rural areas 25 (83.3%) as well as the majority of participants in rural site 14 (46.7%). Only 3 (10%) of participants in an urban site said they were born and raised in urban areas and 10 (33.3%) of participants in a rural site said they were born and raised in urban areas. 6.7% of participants in an urban site did not indicate where they were born and raised as well as 20% of participants in a rural site.

Level of education: Most respondents in an urban site 14 (46.7%) did go to high school but they did not get matric or senior certificate (matric), on the rural site 13 (43.3%) indicated that they went to high school but did not get their senior certificate. 13 (43.3%) of participant in a rural site indicated that they had senior certificate compared to 4 (13.3%) of participants from an

urban site. 11 (36.7%) of participants in an urban site agreed that they only had primary education level and only 3 (10%) of participant in a rural site indicated that they only had primary school education. 1 (3.3%) participant at the rural site indicated that he had a diploma, while none indicated that from the urban site. Only 1 (3.3%) participant did not indicate his/her level of education.

Period in the construction industry: 5 (16.7%) of urban respondents and 6 (20%) of rural respondents indicated that they have been in the construction industry for a period of 0-2 years. 10 (33.3%) of urban respondent and 12 (40%) of rural respondents indicated that they have been in the industry for 3 – 5 years. 5 (16.7%) of both urban and rural participants indicated that they have been in the construction industry for 6 – 10 years. Approximately 10 (33.3%) of urban participants and 6 (20%) of rural participants had more that 11 years in the industry. 1 (3.3%) of rural respondent did not indicate the period he/she had spent in the industry.

Current residential area: When respondents were asked about their current residential area, 9 (30%) of urban respondents and 3 (10%) of rural respondents indicated that they were staying at home, while 8 (26.7%) of rural respondents indicated that they were staying in the construction camps. 21 (70%) of urban respondents and 16(53.3%) of rural participants said that they were renting rooms so that they could be closer to work. 1 (3.3%) of rural participants did not indicate where they were staying.

Current position at work: Respondents indicated that they occupied different work positions. 10 urban and 9 rural participants were general workers. 7 rural respondents said they were steel fixers, 1 rural respondent said he/she was a plaster and 3 respondents indicated that they occupied positions of shutter hand. At an urban site 2 respondents mentioned that they were supervisors, while at the rural site only 1 respondent mentioned that he/she was a supervisor. There was 1 urban respondent and 1 rural respondent who indicated that they were supervisors.

1 site clerk at the urban site and 1 site clerk at the rural site. Data indicated that there was 1 health and safety officer at the rural site. 7 urban respondents indicated that they were carpenters. 1 urban respondent mentioned that he was a driver and crane operator and 5 urban respondents indicated that they were working in stores. 4 urban participants and 7 rural participants did not specify their current positions at work.

Interpretation: the majority of respondents were general workers in both sites. This is typical of the construction site because the majority of them have low levels of education and in this study the data indicated that the majority of the respondents have low levels of education.

5.2.2 Knowledge

Table 2: Construction workers Knowledge of HIV/AIDS

HIV/AIDS knowledge Questions	Agree	Urban don't know	Disagree	Agree	Rural don't know	Disagree
HIV/AIDS exist	12(40)	13(43.3)	4(13.3)	24(80)	4(13.3)	2(6.7)
someone with HIV has visible signs that he/she is sick	4(13.3)	13(43.3)	12(40)	5(16.7)	6(20)	17(56.7)
HIV can live outside the human body	2(6.7)	12(40)	16(53.3)	7(23.3)	7(23.3)	14(46.7)
HIV develops into AIDS	14(46.7)	12(40)	3(10)	21(70)	1(3.3)	2(6.7)
If used properly condoms can protect a person from HIV infection	14(46.7)	12(40)	2(6.7)	22(73.3)	2(6.7)	2(6.7)
I can still work after being infected with HIV	15(50)	9(30)	4(13.3)	20(66.7)	4(13.3)	3(10)
HIV or AIDS are curable	2(6.7)	12(40)	14(46.7)	7(23.3)	4(13.3)	16(53.3)
someone can prevent himself/herself from being infected with the HIV	14(46.7)	6(20)	7(23.3)	20(66.7)	2(6.7)	7(23.3)
there are drugs to manage HIV/AIDS in South Africa	22(73.3)	3(10)	5(16.7)	18(60)	2(6.7)	8(26.7)
you can determine your HIV status by taking a HIV test	22(73.3)	3(10)	5(16.7)	22(73.3)	1(3.3)	3(10)
touching an HIV infected blood can give me infection	16(53.3)	12(40)	2(10)	14(46.7)	6(20)	5(16.7)
how is HIV transmitted						
<i>unprotected sex an infected person</i>	25(83.3)			22(73.3)		
<i>sharing needles with infected person</i>	23(76.7)			18(60)		
<i>infected blood transfusion</i>	18(60)			18(60)		
<i>mother to child transmission</i>	22(73.3)			15(50)		

QUESTION 1: HIV and AIDS exist. 44% of urban respondents indicated that they don't know, 40% agreed that it exist while 13% disagreed saying it does not exist. Only 3% did not indicate their answer. The data from the rural respondents, who were asked if HIV and AIDS exist shows that the majority of respondents which is 24 or 80% agreed, while 4 or 13% said they don't know and 2 or 6.7% disagreed with the statement.

Interpretation: when comparing and interpreting the data from urban and rural respondents, it indicates that rural respondents are more knowledgeable than urban respondents. This meant that the rural respondents know that HIV and AIDS exist and it is a problem.

QUESTION 2: Someone with HIV has visible signs that s/he is sick: the table depicts that 13.3% of urban respondents agreed with the statement, 43.3% were not sure or they didn't know and 40% disagreed with the statement, 3.3% did not respond to the question. The table portray that 16.7% or rural respondents agreed with the statement, 20% didn't know if someone with HIV has visible signs that s/he is sick, while 56.7% disagreed with the statement and 6.7% did not respond to the question.

Interpretation: Someone with HIV does not have visible signs that s/he is sick, therefore the rural respondents showed that they were knowledgeable than urban respondents because 56.7% of rural respondents disagreed with the statement, while 40% of urban respondents disagreed.

QUESTION 3: HIV can live outside the human body: 6.7% of urban respondents agreed, 40% said they didn't know, while 53.3% disagreed with the statement. 23.3% of rural respondents agreed, another 23.3% said they didn't know, while 46.7% disagreed and 6.7% did not indicate their answer.

Interpretation: 53.3% of urban respondents disagreed. Even though the majority of urban respondents were right, the rural respondents still showed that they were knowledgeable because 46.7% disagreed with the statement. The majority of rural respondents knew that HIV cannot live outside the human body.

QUESTION 4: HIV develops into AIDS: 46.7% of urban respondents agreed, 40% said they didn't know, 10% disagreed with the statement while 3.3% did not indicate their answer. 70% of rural respondents agreed with the statement, 3.3% said they didn't know, while 6.7% disagreed and 20% did not indicate their answer.

Interpretation: the majority of respondents in both urban (46.7%) and rural (70%) sites agreed that HIV develops into AIDS. This illustrated that rural respondents have high knowledge on HIV and AIDS and the majority of urban respondents as well knew that HIV develops into AIDS.

QUESTION 5: If used properly, condoms can protect a person from HIV infection: 46.7% of urban respondents agreed, 40% said they didn't know, while 6.7% disagreed and 6.6% did not tick their response for this statement. 73.3% of rural participants agreed, 6.7% said they didn't know if condoms protect a person from getting HIV infection if used properly, while 6.7% disagreed.

Interpretation: rural participants still showed that they were knowledgeable than urban participants and 6.7% of respondents from the rural site indicated that they didn't know if condoms protect a person from getting HIV compared to 40% of urban participants that indicated that they didn't know.

QUESTION 6: I can still work after being infected with HIV: 50% of urban participants agreed, 30% said they don't know, while 13.3% disagreed and 6.7% did not mark their answer for this statement. 66.7% of rural respondents agreed, 13.3% said they didn't know, while 10% disagreed and another 10% did not indicate their answer.

Interpretation: Yes an HIV infected person can still work and 66.7% of rural participants agreed and half of urban respondents 50% also agreed, however rural respondents still showed better knowledge than urban respondents.

QUESTION 7: HIV or AIDS are curable: 6.7% of urban respondents agreed, 40% said they didn't know, while 46.7% disagreed and 6.7% did not indicate their answer. 23.3% of rural respondents agreed, 13.3% said they didn't know, while 53.3% disagree and 10% did not indicate their answer.

Interpretation: HIV or AIDS are not curable. Again 53.3% of rural respondents were right and 46.7% of urban respondents were correct. 40% of urban respondents and 13.3% of rural respondents said they didn't know if HIV or AIDS were curable. This illustrated that rural respondents had better knowledge than urban respondents.

QUESTION 8: Someone can prevent himself/herself from being infected with the HIV: 46.7% of urban respondents agreed, 20% said they didn't know, 23.3% disagreed and 10% did not respond to this statement. 66.7% of rural respondents agreed, 6.7% said they didn't know, 23.3% disagree and 3.3% did not respond to this statement.

Interpretation: Yes one can prevent himself/herself from getting HIV infection. The majority of rural respondents agreed as well as the majority of urban respondents; however rural respondents maintained slightly high knowledge than the urban respondents.

QUESTION 9: There are drugs to manage HIV and AIDS in South Africa: 73.3% of urban respondents agreed, 10% said they didn't know and 16.7% disagreed. 60% of rural respondents agreed, 6.7% said they didn't know, while 26.7% disagreed and 6.7% did not indicate their answer.

Interpretation: the majority of respondents 73.3% urban and 60% rural agreed that there were drugs to manage HIV and AIDS in South Africa.

QUESTION 10: You can determine your HIV status by taking a HIV test: 73.3% of urban and rural respondents agreed however there was some difference in the percentages in other options. 10% of urban respondents said they didn't know and 16.7% disagreed. 3.3% of rural respondents said they didn't know, while 10% disagreed and 13.3% did not respond to this statement.

Interpretation: The majority of respondents showed that they knew how to determine their HIV status.

QUESTION 11: Touching a HIV infected person's blood can give you/me HIV infection: 53.3% of urban respondents agreed, 40% indicated that they didn't know and 10% disagreed. 46.7% of rural respondents agreed, 20% indicated that they didn't know, while 16.7% disagreed and another 16.7% did not indicate their choice.

Interpretation: The majority of respondents knew that touching a HIV infected person's blood can give you HIV infection if one didn't protect him/herself by wearing gloves.

QUESTION 12: How is HIV transmitted? 83.3% of urban respondents and 73.3% of rural respondents indicated that HIV is transmitted through unprotected sex with an infected person. 76.7% of urban respondent and 60% of rural respondents indicated that one can get HIV infection through sharing a needle with an infected person. 60% of urban respondents and 60% of rural respondents knew that infected blood transfusion can give you HIV infection. 73.3% of urban respondents and 50% of rural respondents mentioned that mother –to-child transmission spread HIV.

5.2.3 Attitude

Table 3: construction workers' attitudes towards HIV/AIDS

Attitude towards HIV/AIDS items	Urban			Rural		
	agree	don't know	disagree	agree	don't know	disagree
People who get HIV through sex have themselves to blame	22(73.3)	1(3.3)	6(20)	16(53.3)	4(13.3)	9(30)
An HIV infected colleague should stop working	8(26.7)	10(33.3)	11(36.7)	6(20)	3(10)	20(66.7)
Homosexual people deserve HIV	17(56.7)	5(16.7)	7(23.3)	4(13.3)	8(26.7)	17(56.7)
HIV/AIDS is a punishment from God or ancestors	4(13.3)	18(60)	7(23.3)	3(10)	9(30)	16(53.3)

HIV/AIDS come from being bewitched	4(13.3)	7(23.3)	18(60)	2(6.7)	2(6.7)	22(73.3)
HIV/AIDS is a problem for black people only	7(23.3)	3(10)	19(63.3)	3(10)	2(6.7)	23(76.7)
HIV infects poor people only	5(16.7)	2(6.7)	17(56.7)	1(3.3)	5(16.7)	22(73.3)
People get HIV because of their immoral sexual behavior	12(40)	8(26.7)	8(26.7)	6(20)	2(6.7)	19(63.3)
If you confidentially hear that your colleague is HIV positive are you legally entitled to tell other colleagues	3(10)	9(30)	17(56.7)	3(6.7)	1(3.3)	21(70)

Table 3: Portray responses from urban participants and rural participants regarding their attitude towards HIV and AIDS.

QUESTION 1: People who get HIV through sex have themselves to blame. 73.3% of urban respondents agreed, 3.3% said they didn't know, while 20% disagreed and 3.3% did not respond to the statement. 53.3% of rural respondent agreed, 13.3% said they don't know, 30% disagreed and 3.3% did not indicate their choice.

Interpretation: the above data reflects that urban respondents had the slightly negative attitude and the rural respondents as well show a slightly negative attitude towards HIV infected people. The researcher is of the opinion that if more than half of the respondents agreed with the statement than there was a negative attitude.

QUESTION 2: A HIV infected colleague should stop working. 26.7% of urban respondents agreed, 33.3% said they didn't know, while 36.7% disagreed and 3.3% did not respond to the statement. 20% of rural respondent agreed, 10% said they didn't know, 66.7% disagreed and 3.3% did not point to their choice.

Interpretation: again urban respondents showed a negative attitude towards HIV positive people. Even the rural respondent data showed a negative attitude towards HIV positive people but not as much as urban respondents.

QUESTION 3: Homosexual people deserve to get HIV. 56.7% of urban respondents agreed, 16.7% indicated they didn't know, while 23.3% disagreed and 3.3% did not respond to the statement. 13.3% of rural respondent agreed, 26.7% said they didn't know, 56.7% disagreed and 3.3% did indicate their choice.

Interpretation: more than half of urban respondents agreed with the statement which is a serious problem because it is pure discrimination against HIV positive people and homosexuals.

QUESTION 4: HIV/AIDS is a punishment from God or ancestors. 13.3% of urban respondents agreed, 60% said they didn't know, while 23.3% disagreed and 3.3% did not respond to the statement. 10% of rural respondent agreed, 30% said they didn't know, 53.3% disagreed and 6.7% did not specify their choice.

Interpretation: fewer respondents in both urban (13.3%) and rural (10%) sites agreed with the statement, this data revealed that there was a shift from believing that HIV and AIDS were a punishment from God or ancestors, which had been a myth for such a long time to people who lack HIV and AIDS knowledge.

QUESTION 5: HIV/AIDS comes from being bewitched. 13.3% of urban respondents agreed, 23.3% said they didn't know, while 60% disagreed and 3.3% did not respond to the statement. 6.7% of rural respondent agreed, 6.7% said they didn't know, 73.3% disagreed and 13.3% did not indicate their choice.

Interpretation: the majority of respondents from both urban site 60% and rural site 73.3% disagreed with the statement, which was a good attitude considering that many black people had always associated HIV and AIDS with being bewitched.

QUESTION 6: HIV/AIDS is a problem for Black people only. 23.3% of urban respondents agreed, 10% said they didn't know, while 63.3% disagreed and 3.3% did not respond to the statement. 10% of rural respondent agreed, 6.7% said they didn't know, 76.7% disagreed and 6.7% did not indicate their choice.

Interpretation: the majority of people realise that HIV and AIDS is a problems for everybody, whether Black or White or young or old. We are all affected and infected by this disease. 63.3% of urban respondents and 76.7% of rural respondents disagreed with the statement that says HIV and AIDS are a problem for Black people only. UNAIDS epidemic update (2009:23) re-iterate that HIV affects all social and economic groups in sub-Saharan Africa.

QUESTION 7: HIV infects poor people only. 16.7% of urban respondents agreed, 6.7% said they don't know, while 56.7% disagreed and 20% did not respond to the statement. 3.3% of rural respondent agreed, 16.7% said they don't know, 73.3% disagreed and 6.7% did not indicate their choice.

Interpretation: construction workers in both urban and rural construction site realised that HIV infection knows no boundaries. Considering their level of education one could have thought that the majority will agree but the majority which was 56.7% urban respondents and 73.3% rural respondents disagreed with the statement that HIV infects poor people only. UNAIDS epidemic update (2009:23) mentions that survey in different settings in sub-Saharan Africa have detected a wide variation in the relationship between HIV and income. They say in eight African countries where surveys have been conducted, HIV prevalence is higher among adults in the wealthiest quintiles than among those in the poorest quintile.

QUESTION 8: People get HIV and AIDS through their immoral sexual behaviour. 40% of urban respondents agreed, 26.7% said they didn't know, while 26.7% disagreed and 6.7% did not respond to the statement. 20% of rural respondent agreed, 6.7% said they didn't know, 63.3% disagreed and 10% did not indicate their choice.

Interpretation: people get HIV infection by having sexual intercourse with an infected person. According to the UNAIDS epidemic update report (2009: 29), heterosexual intercourse remains the primary mode of HIV transmission in sub-Saharan Africa. However this does not mean that if one is sexually immoral s/he is bound to get HIV infection. The data on this statement showed contrasting opinion, 40% of urban respondents agreed with the statement while 63.3% of rural respondents disagreed with the statement.

QUESTION 9: If you confidentially hear that your colleague is HIV positive, are you legally entitled to tell other colleagues about the other colleague's status. 10% of urban respondents agreed, 30% said they didn't know, while 56.7% disagreed and 3.3% did not respond to the statement. 6.7% of rural respondent agreed, 3.3% said they don't know, 70% disagreed and 3.3% did not indicate their choice.

Interpretation: 56.7% of urban respondent and 70% of rural respondents disagreed. This means they know and respect individual right to privacy, which is also recognised and protected by the South African constitution.

5.2.4 Practises

Table 4: Practices that may cause HIV/AIDS

practices that may cause HIV/AIDS	Rural			Urban		
	Yes	No	Not sure	Yes	No	Not Sure
I have more than one sexual partners	24(80)	5(16.7)	0 (0)	12(40)	12(40)	6(20)
I use a condom during sexual intercourse	12(40)	13(43.3)	1(3.3)	11(36.7)	13(43.3)	3(10)
I give my sexual partner (any woman) gifts or money in exchange for sexual favor	1(3.3)	24(80)	1(3.3)	4(13.3)	21(70)	4(13.3)
I have had unprotected sex with someone I do not know his/her HIV status	15(50)	7(23.3)	8(26.7)	12(40)	13(43.3)	4(13.3)
I know my HIV status	7(23.3)	17(56.7)	4(13.3)	16(53.3)	7(23.3)	5(16.7)
I believe that flesh to flesh sex is masculinity and is necessary for male health	18(60)	8(26.7)	3(10)	14(46.7)	10(33.3)	4(13.3)
In a relationship who is responsible for avoiding STIS and HIV/AIDS						
Man	1(3.3)			0(0)		
Woman	0(0)			0(0)		
Both	25(83.3)			25(83.3)		

Table 4 illustrate responses from urban respondents and rural respondents regarding practices that may cause HIV/AIDS.

QUESTION 1: I have more than one sexual partner. 80% of urban respondents agreed while only 40% of rural respondents agreed that they had more than one sexual partner. 16.7% of urban respondents said no they only had one sexual partner and 40% of rural respondents said the same. 20% of rural respondents said they were not sure of whether they had more than one sexual partner and 3.3% of urban respondents did not indicate their answer for this statement.

Interpretation: 80% of urban respondents and 40% of rural respondents indicated that they had more than one sexual partner. The above data confirms that indeed construction workers are exposed to casual sexual contacts. One can conclude that this is caused by the fact that they are away from their stable partners for long periods of time.

QUESTION 2: I use a condom during sexual intercourse. 40% of urban respondents agreed, 43.3% indicated that they did not use condoms during their sexual encounter, while 3.3% said they were not sure and 13.3% did not respond to this statement. 36.7% of rural respondents agreed, 43.3% indicated that they did not use a condom during their sexual intercourse, 10% said they were not sure and another 10% of participants did not indicate their choice for this question.

Interpretation: 43.3% of both rural and urban respondents indicated that they did not use condoms during their sexual intercourse; this was confirming that construction workers are engaging in high-risk sexual behaviour. And considering that 80% of urban respondents and 40% of rural respondents indicated that they had more than one sexual partner, one will then conclude that they might be at high risk of contracting HIV.

QUESTION 3: I give my sexual partner (any woman) gifts or money in exchange for sexual favour. 3.3% of urban respondents agreed that he gives his sexual partner or any woman gifts and many for some sexual favour, while 80% indicated that they did not give women gifts or money for sexual favours. 3.3% said they were not sure and 13.3% did not respond to the question. 13.3% of rural respondents indicated that they do give money or gifts to women for

sexual favours, 70% disagreed with the statement, while 13.3% indicated that they were not sure whether what they had done might be translated to giving a gift in exchange for a sexual favour.

Interpretation: the data indicate that only 1 in 30 urban respondents and 4 in 30 rural respondents indicated that they give money or gifts to sexual partners for sexual favours. One could say that few construction workers exchange money or gifts for sexual favours, which can mean the construction workers don't usually buy sex rather they develop relationships.

QUESTION 4: I have had unprotected sex with someone I do not know her/his HIV status. 50% of urban respondents indicated that they have had sex with someone they didn't know his/her HIV status, 23.3% indicated that they have never had sex with someone they don't know his/her status, and 26.7% said they were not sure. 40% of rural respondents agreed with the statement, 43.3% indicated that they have never had sex with someone they don't know her/his HIV status, while 13.3% indicated that they were not sure and 3.3% did not respond to the question.

Interpretation: half of urban respondents 50% and almost half 40% of rural respondents agreed that they have had unprotected sex with someone they did not know her/his HIV status. This data still confirms that construction workers engage in high-risk sexual behaviour.

QUESTION 5: I know my HIV status. 23.3% of urban respondents know their HIV status, 56.7% did not know their status, while 13.3% were not sure of their status and 6.7% did not indicate their answers. 53.3% of rural respondents knew their status, 23.3% did not know their status, while 16.7% were not sure of their status and 6.7% did not respond to this question.

Interpretation: more than half of rural respondents 53.3% know their HIV status and only a quarter of urban respondents 23.3% knew their HIV status. This data illustrate that construction workers need to be motivated to take action and control their lives.

QUESTION 6: Do you believe that flesh to flesh sex is masculinity and is necessary for male health? 60% of urban respondents agreed, 26.7% disagreed, 10% were not sure and 3.3% did not

respond to this question. 46.7% of rural respondents agreed, 33.3% disagreed, 13.3% were not sure and 6.7% did not respond to this question.

Interpretation: the above data, (60% of urban respondents and 46.7% of rural respondents) depicts that construction workers still believe that flesh to flesh sex is masculinity, which is detrimental to the fight against HIV and AIDS. IOM construction sector report (2009:9) says that in the traditionally male-dominated construction sector, stereotypical notions of gender, including submissive roles for women and strong, masculine roles for men may exacerbate risk-taking sexual behaviour for both men and women and create an environment conducive to discrimination and sexual harassment towards female co-workers and members of the communities near construction sites.

QUESTION 7: In a relationship who is responsible for avoiding STIs and HIV and AIDS? 13.3% of urban respondents indicated that a man was responsible for avoiding STIs and HIV, while 83.3% indicated that partners, man and woman are responsible for avoiding STIs and HIV and 3.3% did not indicate their choice. . 83.3% of rural respondents indicated that both partners were responsible for avoiding HIV and STIs and 16.7% did not indicate their choice.

Interpretation: the majority of respondents 83.3% in both urban and rural sites believed that avoiding STIs and HIV was the responsibility of both partners, which was good because they were aware that they also had to take precautionary measures and not wait for the other partner to take charge of their lives.

Chapter 6: Findings, recommendations and conclusion

6.1 Introduction

This chapter discusses the findings of the study taking into consideration the aims and objectives of the study. It gives recommendations to the construction sector and the policy makers and it concludes the study.

6.2 Findings

The aim of the study was to determine and compare knowledge, attitudes and practices of construction workers in rural and urban construction sites in order to establish whether geographical location has an influence to HIV and AIDS knowledge, attitudes and practices of workers in these settings.

The following findings were extracted from the study:

- The majority of respondents were Black, males and the majority were between the ages of 18 – 30 and 31 -40. This is typical of the construction sector because it is still dominated by males. IOM construction sector report (2009:8) confirms this finding where it says the construction sector has a large number of semi-skilled and unskilled workers who are primarily males between the ages of 18 – 35.
- More than half of respondents in both urban and rural construction site were single and it came as no surprise when they were asked to indicate if they had more than one sexual partner and the majority confessed that they had more than one sexual partner.
- The study also showed that the majority of respondents in both construction sites were born and raised in rural areas and the levels of their education were low, more than half did not have senior certificates (matric)
- The majority of the respondents had been working in the construction sector for 3-5 years and the majority of respondents occupied the positions of general workers.

- The respondents were asked similar questions to determine their knowledge of HIV and AIDS. However rural respondents showed that they were knowledgeable than urban participants.
- Out of 15 questions that all the participants were asked regarding their knowledge, the majority of rural participants opted for the right choice on the majority of the questions compared to choices of urban participants this indicated that rural participants were knowledgeable.
- Again the respondents were asked similar questions to determine their attitude towards HIV and AIDS.
- The majority of urban respondents showed a negative attitude towards HIV and AIDS and the people who suffer from this disease. This was picked up from the responses they gave for the first 3 questions regarding attitudes.
- However data also revealed that both urban and rural participants understood that neither HIV and AIDS was a punishment from God and ancestors nor did it come from being bewitched which has been a myth for such a long time to people who lack HIV and AIDS knowledge.
- Again the majority of respondents from both urban and rural sites agreed that HIV and AIDS is neither a problem for black people only nor does it infects poor people only.
- The majority of respondents knew and respect the individual right to privacy.
- The majority of respondents in both urban and rural sites indicated that they had more than one sexual partner and they did not use condoms, however they did not buy sexual favours. This meant they had different casual relationships.
- Construction workers engage in high-risk sexual behaviour. This was confirmed by the data which indicated that most of the participants have had sex with someone they didn't know his/her HIV status and they didn't use condoms.
- However they realised that in a relationship both partners were responsible for avoiding STIs and HIV.

The above summary of findings illustrate that rural participants were knowledgeable than urban participants regarding HIV and AIDS but their attitude and practices were the same. However the difference in knowledge was not because of the geographical location but the contributing factors might be that within the rural participants there were females, who normally are more clued up when it comes to health and HIV and AIDS issues and the fact the level of education for rural participants 43.3% was slightly high compared to urban site where only 13.3% of respondents had senior certificate and 3.3% had a diploma

Therefore the researcher will conclude that there is no relationship between HIV and AIDS knowledge, attitudes and practices of construction workers with the construction site location they are at, whether rural or urban. Therefore the hypothesis which was a null hypothesis for this study is hereby accepted.

6.3 Recommendations

The researcher would like to make the following recommendations regarding HIV and AIDS in the construction industry:

- The CIDB should make it compulsory for all companies registered and registering to be in their data base, to have HIV and AIDS policy for its workers both full time and casual workers.
- Continuous provision of HIV and AIDS education and awareness (VCT and support) for construction workers
- Provision of condoms on construction sites
- The researcher would also like to recommend the use of cultural approach to HIV and AIDS prevention, sensitivity and care. This would entail tackling HIV and AIDS from a position of values, norms, traditions and cultural institutions as a way of discussing and communicating HIV and AIDS.
- Therefore the researcher would recommend further studies that would look at implications of tackling HIV and AIDS from a cultural approach considering that the

majority of construction workers within the industry are normally black, born and raised in traditional ways.

6.4 Conclusion

The researcher acknowledges that there were some degree of error during the collection of data, however the data used in the study was the original data from the respondents, and no alteration of data was done. The researcher can safely state that there is no relationship between HIV and AIDS knowledge, attitudes and practices of construction workers with the construction site location, however more needs to be done if we would like to curb the spread of HIV and AIDS within the construction sector and considering that it is a male dominated sector.

References

1. CIDB (2003). Specification for HIV and AIDS Awareness (Electronic version). Retrieved May, 16, 2010; from <http://www.cidb.org.za/knowledgecentre/Document>.
2. CIDB (2009). Construction Health and Safety in South Africa: status and recommendations. Online report. Retrieved May, 16, 2010 from http://www.cidb.org.za/Documents/KC/cidb_Publications/Ind_Reps_Other/ind_reps_construction_h_s_in_SA_status_recommendations.pdf.
3. Christensen, L. B. (2007). Experimental Methodology. Tenth edition. Boston
4. Council for the built environment (2007). The role of the built environment professions in meeting South Africa's socio-economic development needs. Retrieved May, 20, 2010 from http://www.cbe.org.za/Invite/Invite/The_role_of_BE.pdf.
5. Department of Labour (2002). Technical Assistance Guidelines. Electronic version. Retrieved July, 27, 2009 from <http://www.labour.gov.za/documents/useful-documents/employment-equity/hiv-aids-technical-assistance-guidelines>.
6. Department of Health (2006). HIV & AIDS and STI: Strategic plan for South Africa, 2007 – 2011.
7. Department of Public works (2004). HIV and AIDS specification. Retrieved May, 20, 2010 from <http://www.publicworks.gov.za/consultantsguidelines.html>
8. Haupt, T. and Smallwood, J. (2002). HIV and AIDS: construction employers can do more. Peninsula Technikon and University of Port Elizabeth. Electronic version. Retrieved May, 16, 2010 from <http://www.nmmu.ac.za/documents/construction/HIV&AIDSDOC.pdf>.
10. Hlebela, T. F. (2009). Impact of HIV/AIDS in the construction industry. Stellenbosch University.
11. IOM (2002). Labour migration and HIV and AIDS in Southern Africa. Electronic version. Retrieved May, 26, 2010 from <http://www.iom.org.za>.

12. IOM (2010, February). Regional assessment on HIV – prevention needs of migrants and mobile populations in Southern Africa: Construction Sector Report. Retrieved July, 06, 2010 from <http://www.iom.org.za>
13. Neuman, W. L. (2003). Social Research Methods. Qualitative and Quantitative Approaches. Sixth edition.
14. Onyango, E. (2010, March). Every construction work is a boom to the National Economy. Tanzania. (Online). Retrieved May, 24, 2010 from <http://eonyango.blogspot.com/2010/03/every-construction-work-is-boom-to.html>.
15. Power Group (2006, March). Will HIV and AIDS cripple SA construction? (Electronic article). Retrieved May, 17, 2010 from <http://www.powergrp.co.za>.
16. Report of the Portfolio Committee on Public Works on HIV and AIDS workshop in construction industry (2003). Online report. Retrieved May 20, 2010 from <http://www.pmg.org.za/docs/2003/comreports/030910pcpworksreport.htm>
17. RSA Department of Public Works (2004). HIV and AIDS awareness programme: Training manual. Retrieved May, 20, 2010 from <http://www.publicworks.gov.za/consultantsguidelines.html>
18. Thurlow, J., Gow, J., George, G. (2009). HIV and AIDS, growth and poverty in KwaZulu Natal and South Africa: an integrated survey, demographic and economy-wide analysis. (Electronic version). Retrieved May, 26, 2010 from <http://www.heard.org.za/downloads/the-economic-impact-of-hiv-aids.pdf>.
19. UNAIDS (2009). AIDS epidemic update report. Retrieved April, 09, 2010 from <http://www.unaids.org>.
20. UNAIDS (2010). UNAIDS report on the Global AIDS epidemic. Retrieved January. 03, 2010 from <http://www.unaids.org>
21. Van der Merwe, C. (2008, October, 10). High HIV and AIDS prevalence found in South Africa construction industry. Electronic article. Retrieved May, 22, 2010 from

<http://www.engineeringnews.co.za/article/high-hiv-aids-prevalence-found-in-sa-construction-industry-2008-10-10>.

22. WBHO (2006). Responsibility report. Electronic version. Retrieve May, 22, 2010 from http://www.wbho.co.za/page.php?p_id=79.
23. Wellman, Kruger and Mitchell (2005). Research Methodology. Third Edition. Oxford Southern Africa.