


**ASSESSING KNOWLEDGE, ATTITUDE AND PRACTICES OF MALE CONDOM USE  
AMONG MALE EMPLOYEES FIFTY YEARS AND OLDER AT A DIAMOND MINING  
COMPANY IN NAMIBIA**

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**A MINI-THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE DEGREE,  
MASTERS IN PUBLIC HEALTH, IN THE FACULTY OF COMMUNITY AND  
HEALTH SCIENCES  
UNIVERSITY OF THE WESTERN CAPE**

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**DATE: NOVEMBER 2012**

**KEYWORDS:**

Knowledge

Attitude

Practices

Males

Condoms

HIV

AIDS

Sexually Transmitted Diseases

Single hostel,

Mining industry

HIV Prevalence

Oranjemund

Namibia



**DECLARATION:**

I declare that Assessing Knowledge, Attitude and Practice of Male Condom Use among male employees fifty years and older at a Diamond Mining company in Namibia is my own work, that it has not been submitted for any degree or examination in any other university, and that all sources I have used or quoted have been indicated and acknowledged by complete references.

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Date: November 2012



## ACKNOWLEDGEMENT

First and foremost I would like to thank the Almighty God for giving me direction to come across the MPH programme of the SoPH, UWC in my quest for professional growth and academic development. I further thank him for wisdom, health and courage which enabled me to juggle through the course process.

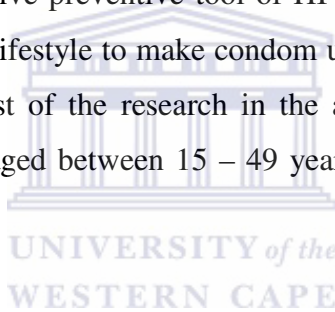
My sincere gratitude and appreciation goes to Dr Brian Van Wyk and Mr. Wondwossen Lerebo, my Supervisor and Co-supervisor, whom despite my challenges and struggle with learning and grasping the concept, they never gave up on me. Without your guidance, support and coaching, I wouldn't have completed this study. Words of mouth alone would never be enough in quantifying the expression of my appreciation for the help you offered during my study. I really thank you for everything. In addition, I also would like to thank Mrs. Corinne Carolissen and Mrs. Janine Kader, the SoPH Administrator for the administrative assistance they provided. In the same vain I would further like to thank Fredericka "Ndeshi" Feriis for assisting with some statistical analysis and academic writing. Many thanks, MeeNdeshi.

My appreciation further goes to Dessy Haufiku and Terthu Ngodji, my colleagues and fellow student in the programme. Guys you were very inspirational and I thank you for that.

Finally, many thanks to my wife, Sofy and our three boys, Pandulo, Nasimane and Megameno for being patient, understanding and encouraging throughout the study period. Sofy, thank you very much for taking care of our boys and house during my absence, while studying.

## ABSTRACT

**Background:** The HIV / AIDS pandemic have been characterized as the greatest natural challenge ever to confront humanity and one of the great moral causes of our time (World Bank, 2007). Although, the HIV and AIDS pandemic is a global problem, some regions of the world, notably sub-Saharan Africa are hardly hit by the pandemic. Namibia is one of the sub-Saharan African countries which are badly affected by the HIV and AIDS pandemic. It is estimated that about 360 000 Namibians were infected with HIV by 2010. This translates to a national HIV prevalence of (18.8%). The National HIV and AIDS Response Department has designed various interventions and strategies to curb the spread of the HIV. Promotion of male condoms promotion is one of the key strategies being advocated. If used consistently and correctly, male condoms are regarded as an effective preventive tool of HIV transmission. However, changing individual's sexual behaviors and lifestyle to make condom use part of their sexual life seems to be the challenge. In Namibia most of the research in the area of HIV and AIDS were done among the youth and population aged between 15 – 49 years. Hence, this study looks at older men as a neglected population.



**Aim:** The aim of the current study was to assess knowledge, attitudes and practices of condom use among male employees age 50 (fifty) years and older at a mining company in Southern Namibia.

**Methodology:** A descriptive, cross-sectional survey utilizing quantitative research approach was applied. Data was collected through face-to-face interviewing male employees, age fifty years and older, while at work at the Mine Area 1 (MA1). Data was captured in excel and imported into SPSS version 16.0. Chi-square test was used to determine the association between KAP variables and the socio-demographic characteristics of the respondents. The level of statistical significance was set at 0.05.

**Results:** Among 105 respondents (males, mean age 54.5 years), more than half lived in the single sex male hostels. Knowledge about condom use was good but there remained a significant

number of the respondents whose knowledge was insufficient. A high percentage of the respondents suggested that HIV positive individuals should always use condom every time they have sexual intercourse.

**Conclusion:** This study showed that respondents are not at a high risk of contracting HIV infection due to lack of knowledge on condom use though some of them possessed insufficient knowledge. Thus, to minimize the likelihood of HIV infection targeted interventions including peer education programmes were suggested, and working with the community in the area. Moreover, a more comprehensive knowledge attitude and practice study among mine employees from various sections of the mine would be beneficial to identify the level of risk within the total employee population.



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## ACRONYMS

<b>AIDS:</b>	Acquired Immune Deficiency Syndrome
<b>AFSA:</b>	AIDS Foundation of South Africa
<b>ABC</b>	Abstinence, Be Faithful and Condomise
<b>ANC</b>	Ante Natal Care
<b>ARV</b>	Antiretroviral Medicine
<b>DBMN:</b>	De Beers Marine Namibia
<b>CBS</b>	Central Bureau of Statistics
<b>CDC</b>	Center for Disease Control
<b>HAART</b>	Highly Active Antiretroviral Therapy
<b>FHI:</b>	Family Health International
<b>HIV:</b>	Human Immune Virus
<b>ILO:</b>	International Labour Organization
<b>MA1</b>	Mine Area 1
<b>MoHSS</b>	Ministry of Health and Social Services
<b>(MTP III)</b>	Medium Term Plan 200-2009.
<b>NCPD</b>	National Council for Population and Development
<b>NAMDEB:</b>	Namibia Diamond Cooperation
<b>NDHS:</b>	Namibia Demographic Survey
<b>NDP III</b>	National Development Plan

<b>NSF</b>	National Strategic Framework
<b>STDs</b>	Sexual Transmission Diseases
<b>STI</b>	Sexual Transmission Infection
<b>UNAIDS:</b>	Joint United Nations Programmes on HIV and AIDS
<b>UNFPA:</b>	United Nation Population Fund
<b>USNIH:</b>	United States of America's National Institute of Health
<b>UWC</b>	University of Western Cape
<b>WHO:</b>	World Health Organization



## CHAPTER 1

### INTRODUCTION

#### 1.1 Magnitude of the problem

The HIV and AIDS pandemic has been characterized as the greatest health and development challenge ever to confront humanity and one of the great moral curse of our time (World Bank, 2007). HIV and AIDS is not only a public health issue, but also a defined development problem of our era. The Joint United Nations Programme for HIV and AIDS (UNAIDS), 2009 reported that estimates of 30 million people are living with HIV worldwide. The global HIV pandemic differs in prevalence across the global regions, ranging from 59 000 in the Oceania islands to 22.4 in sub-Saharan Africa. The UNAIDS, (2009) report further showed a global decline in the number of individuals living with HIV and AIDS from an estimated 33.4 million in 2008 to 32.8 million in 2009. It is also estimated that the rate of new HIV infections is declining globally.

According to UNAIDS (2008), Sub-Saharan Africa is the region with the greatest burden of the HIV and AIDS pandemic and the number of people living with HIV continues to rise. In 2009 22.5 million people of the global total lived in Sub-Sahara Africa, although new HIV infections have decreased (UNAIDS 2009).

Southern Africa is the region most affected by HIV and AIDS, and almost all countries, with the exception of Angola, have generalized epidemics. Namibia is among the ten countries in the world with the highest HIV prevalence, estimated at by 18.8% by 2010 (Ministry of Health and Social Services [MoHSS], 2010). In Namibia the impact of the HIV/AIDS epidemic is deep, multi-sectoral and intergenerational. As a result of an HIV infection an estimated 28% die due to AIDS-related illnesses (MoHSS, 2010).

In Namibia, the most common mode of transmission of HIV is through heterosexual sex, and a number of factors such as cultural, social and economic contribute toward the spread of HIV. These includes poverty, inequality between women and men, low status of women in society, sexual violence against women and girls, multiple sexual partnership, low literacy rate, low and inconsistent and incorrect condom use, low rate of medical male circumcision, trans-generational sex, commercial sex, low and

limited access to quality health care services and overburdened health care system (National HIV Sentinel Survey, 2010).

According to the Namibia Demographic and Health Survey (NDHS) (2006-07), virtually, all Namibian men and women aged 15 – 49 years have heard about HIV and AIDS. More than 80% can understand the key preventive behavior; such as abstaining from sex, remaining faithful to one uninfected partner and the consistent and correct use of condom. In addition to HIV education Namibia has distributed 21,333,160 male and 340,000 female condoms by 2007. However, many Namibians continue to believe in misconceptions about HIV and AIDS, in addition to low and inconsistent condom use. Preventive knowledge related to condoms varies by regions. For example, only 64% of men in Omaheke region knew that using condom can prevent HIV transmission, compared to 90% in Khomas (Namibia Demographic and Health Survey, 2006-07).

## **1.2 Background**

Ever since the beginning of HIV and AIDS pandemic in Namibia, there have been campaigns to increase the production and distribution of male condoms at public and private places. Accordingly, in the year 2005/06, approximately 18 to 21 million male condoms were distributed in both public and private sectors (MoHSS, 2007). However, in spite of the availability, distribution and education, condom use remains low and inconsistently used (NDHS, 2006/07). For instance, only about 78% of men aged 18 - 49 years who had sexual intercourse in the last twelve months with a non-marital, non-cohabitating partner reported used condoms, and only 66% of them used condom consistently with last high risk partner (NDHS, 2006/07). Furthermore, although the distribution of condoms has improved significantly, monitoring consistent and correct use remains a challenge in Namibia. As a result there is no empirical data on the correct and consistent usage of male condoms.

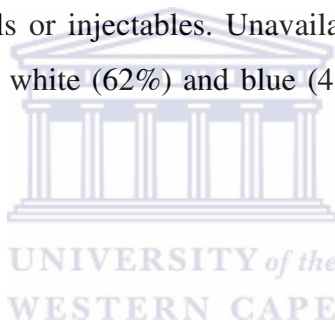
## **1.3 HIV and AIDS in the Mining Industry**

A number of authors have recognized that economic and social migration influence and facilitate the spread of HIV (Rivers and Aggleton, 1999). Family Health International reports that men who travel often or are separated from their families and communities for an extended period such as migrant workers are at high risk of contracting HIV (FHI, 2001)

Mobility and migration increase the risk of HIV infection, since mobile and migrant populations tend to have a higher number of multiple and concurrent sexual partners. It also shapes the distribution of the epidemic and the rate at which the epidemic spreads. Thus, mobility and migration are both individual and structural risk factors (Padian, 2008).

A study conducted among De Beers Marine Namibia (DBMN) (a Namdeb family and De Beers' subsidiary) in 2006 on knowledge, attitude and practices in HIV and AIDS has indicated general negative attitudes on condom use (Grotzinger, 2006).

A KAP study on HIV and AIDS by Hyde & Associate, 2007, among Namdeb employees and contractors, showed general knowledge and understanding about HIV and AIDS to be high. However, only 67% of the total 458 Namdeb employee's who participated in the survey knew that condom use prevents the spread of HIV and other STIs, and only 40% of them reported using condoms regularly. Barriers to condoms have been identified by other studies, as being in permanent stable relationship, fear of partner, the use of other contraceptives i.e. pills or injectables. Unavailability of condoms at times and partner refusal were also reported among both white (62%) and blue (48%) collar groups (Hyde & Associates, 2007; Evian, 2007).



#### **1.4 Study site**

Oranjemund town is located in the Namib Desert on the edge of the Orange River and the Atlantic Ocean in the far South of Namibia. This is a restricted diamond area under the Diamond Act, Act No. 13 of 1999. Since the discovery of diamonds at this area about hundred years ago and ultimately the establishment of the Oranjemund town, diamond mining activities have been the main dominant employment opportunity in Oranjemund.

Due to the colonial legacy of a migrant labour system, to date, the majority of Namdeb employees are from the Northern regions of the country. A large number of those employees live in single hostels and do not live with their spouses or children.

Generally, Oranjemund is one of the quiet towns in Namibia with little crime, hence the feeling of security among the town population. The town boasts various sporting facilities; such as soccer fields, rugby fields, hockey fields, volleyball courts, tennis courts, squash courts, netball courts, gym facilities,

and many others. Although the town offers numerous well maintained sporting facilities, the residents show minimum interest in using the. As a result, most of the Namdeb employees spend most of their off-duty leisure time at sheebens and drinking places. In 2007, the HIV prevalence rate was estimated at about 7.8% (Evian, 2007).

## **1.5 Problem Statement**

In Namibia very little research has been done about male condom use among older men particularly those working in the mining sector in Namibia. This is despite the fact that they work away from their families for a long time. Most mining is conducted at sites far from population communities forcing workers to live apart from their families for extended periods of time. They often resort to commercial sex, and many become infected with HIV and spread that infection to their spouses and communities when they return home (Bollinger and Stover, 1999). Although the HIV prevalence rate is perceived to be equally higher in older population, most studies conducted on HIV/AIDS and sexual behaviors in Namibia have so far focused on the age group less than 49 years (National Demographic and Health Survey (NDHS) (2006/07). It is against this background that this study focuses on the knowledge, attitude, and practices of condom use among older men as a neglected population in order to design targeted intervention.

According to Namdeb HIV and AIDS Disease Management Programme database, more than 60% of employees enrolled on the programme for care, treatment and support are older men age fifty and above. Hence, it is imperative to assess their knowledge, attitude and practice on condom use as a tool of HIV prevention in an attempt to design age specific and problem oriented interventions.

## **1.6 Outline of Thesis**

This thesis is structured as follows. The first chapter provides background to the study, including the research problem. The second chapter gives an overview of the problem, taking into account international research evidence on the use of male condoms. Chapter 3 describes the methodological issues, study design, data collection and the instruments used. Chapter 4 presents the results, and chapter 5 gives an analytical discussion, conclusion and recommendations.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Background

This chapter looks at what other researcher have found regarding the use condom among older population. It further looks at gaps which exist upon where future study should look at.

#### 2.1 Introduction

According to Joint United Nations Programme on HIV/AIDS (UNAIDS, 32.8 million people are living with HIV and AIDS worldwide (UNAIDS, 2010). Sub-Sahara Africa remains the epicenter of HIV epidemic with about 22.5 million people, 60% of which are women (UNAIDS, Year). Southern Africa is most affected and nine countries have prevalence greater than 10%, though HIV incidence seems to be declining, with the exception of Angola where the incidence had been reported to be rising in rural areas.

During the 2010 HIV sentinel survey amongst pregnant woman in Namibia, the highest prevalence rate of 27% was observed among women aged 30-34 years. Amongst young women, it declined from 11% in 2002 to 5% in 2010 amongst 15-19 year old women, and from 22% in 2002 to 14% in 2010 among women aged 20-24 years

Whilst the infection rate has reduced from 22% in 2002 to 19.7% in 2004, and then to 18.8% in 2010 (MOHSS, 2010), it is still considered among the highest in the world (UNAIDS, 2009). This means that early interventions have not been effective, either because they have failed to consider scientific evidence on how best to do so or have not been implemented efficiently to show an impact. The National Strategic Framework for HIV and AIDS (2010/11-2014/15 states:

“Success under MTP III occurred in Prevention, Treatment, Care and Impact mitigation. MTP III however used a vertical approach in the response to HIV and AIDS that was not successful in achieving the intended results” (p 4.)

Hence, there is a need for new programmes to take into consideration the drivers of the epidemic in the long-term and with special focus on men. Most HIV and AIDS initiatives targeted or predominately

involved women (MOHSS, 2008). Additionally, it is well known that targeting men for HIV prevention is also a way to protect women and their families. The Namibia's Medium Term Plan (MTP III) National Strategic Plan on HIV and AIDS (2004-2009) and the Third Medium Plan (MTP III) Mid-Term Review highlighted the urgent need to scale up HIV prevention, with a specific call for additional efforts to enhance the involvement of men in the national response to the HIV and AIDS epidemic. The Minister of Health and Social Services, at the 1<sup>st</sup> National HIV and AIDS Male Leaders Conference in 2008 reported that efforts to scale up care activities were hampered by the lack of active participation of men. For instance, only one third of patients in Antiretroviral (ARV) programmes are male.

Thus, the National HIV and AIDS Male Leaders Conference in 2008 provided a platform for Namibia to deliberate on how to involve men in HIV prevention. The conference came up with a list of suggestions that would increase male participation.

## **2.2 HIV and AIDS problem in Namibia**

Namibia is among the ten countries in the world with the highest HIV prevalence rate of over 18.8% (MOHSS, 2010), and about 180,000 adults between 19-49 years of age are living with HIV in Namibia (UNAIDS, 2008). According to the MOHSS, in 2007/08, the estimated total number of new infections was 14,100, and this number is expected to increase over the next five years. This means the HIV prevalence will continue to be high because people who are on antiretroviral (ARV) are living longer compared to 8-10 years ago.

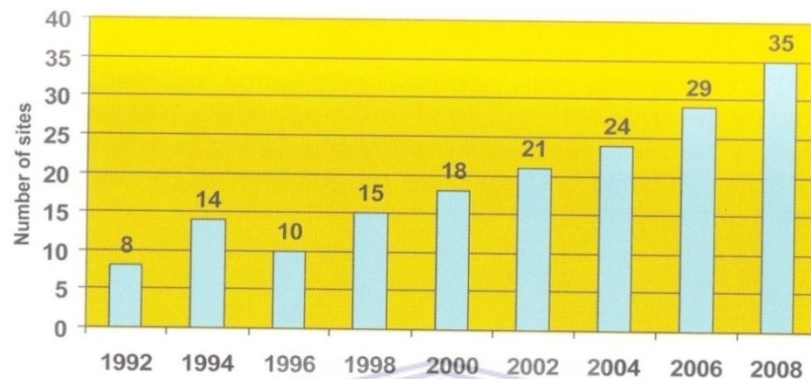
In Namibia, AIDS is the leading cause of death. The Report on the Estimation and Projections of the Impact of HIV and AIDS in Namibia reckons that in 2006/2007, 6,900 people died as a result of HIV and AIDS alone. UNAIDS (2008) indicated that this number may be as high 8,200.

In order to slow down the epidemic, measures have been put in place. The sentinel surveillance conducted every two years is one important milestone whereby HIV testing is carried out on blood samples collected from pregnant women attending ante natal clinics. The results analyzed are used to predict the national HIV prevalence.

Participating sentinel sites have been selected on the basis of regional coverage, geographic location (e.g. rural or urban) and the volume of antenatal clinic (ANC) attendees at each site. In 1992, eight health

facilities participated in the sentinel surveillance. This has been increased to fourteen in 1994 and to twenty-four by 2004. From 2004, the sentinel surveillance covered all thirteen regions of Namibia. Thus, the 2006 sentinel sites included 79 health facilities in 29 sites (urban and rural), and in 2008, all 34 districts in 35 main hospital sites, with 9 supporting satellite sites (health centers and clinics). See figure 1 below for further information.

**Figure 1. Number of participating Sentinel Surveillance main sites since 1992**

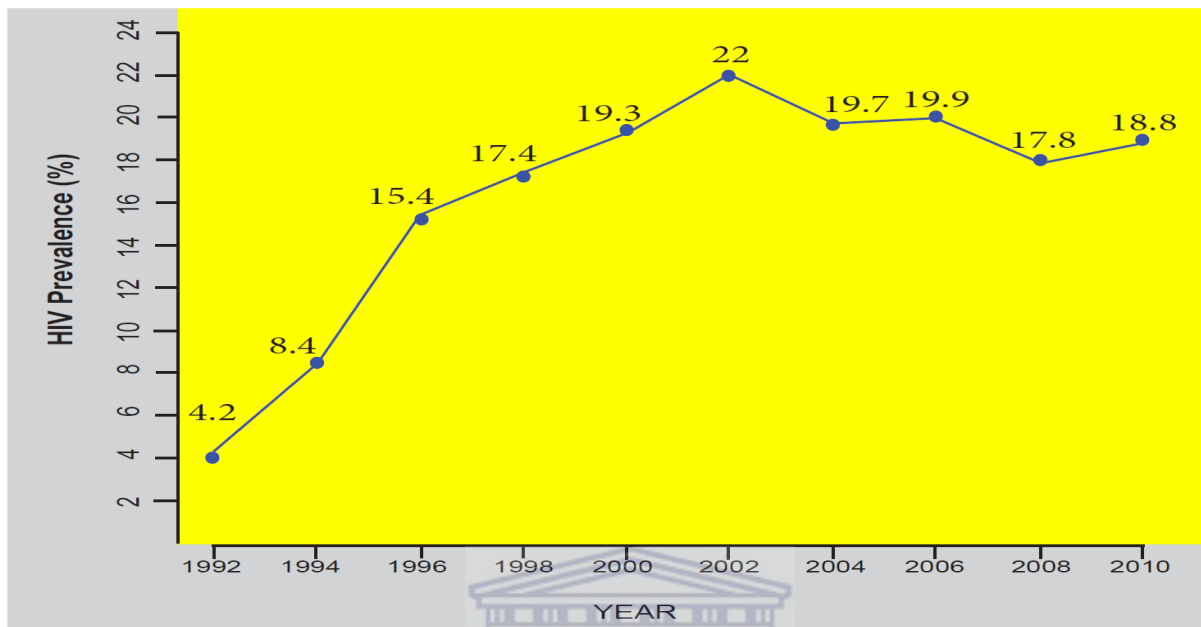


**Source: Report on the 2008 National HIV Sentinel Survey (MoHSS, 2008).**

Data on overall trends suggest a rapid increase in HIV prevalence from 4% in 1992 to over (17%) in 2008 among women attending antenatal clinics. It reached a peak of (22.3%) in 2002 before it showed signs of stabilization and statistical significance decline (DSNSF, 2010-2015). For example, the 2008 sentinel survey was conducted in 34 health districts with 8,174 pregnant women who attended ante natal clinics. The results showed a national prevalence of (17.8%), among pregnant women, ranging from 6 per cent to 32 per cent in the different testing centers in all the regions of Namibia (MOHSS, 2008). This means that Namibia has a generalized epidemic. In sum, HIV has spread beyond the original subpopulation with high risk behavior, and prevalence among pregnant women attending antenatal clinic is 5% or more. Refer to Figure 2 below.

**Figure 2. Analysis of HIV Prevalence rate by year**

*HIV Prevalence rate in pregnant woman, biannual survey 1992-2010, Namibia*



m

**Source: Sentinel survey 2010, (MoHSS, 2010)**



### **2.3 Condom use in Namibia**

It is well documented in Namibia that male condoms are one of the most common used preventative methods against Sexually Transmitted Infections (STIs), including HIV and are also used as contraceptive for the prevention of unwanted pregnancies (MoHSS, 2003). According to the MoHSS (2004), the total number of condoms distributed in both private and public places were approximately 1.1 millions. However, the question remains as to whether all the distributed condoms were actually used for the purpose.

In Namibia the use of condoms declines with increasing age of users. The study by National Social Marketing Programme (NASOMA) (2009) revealed that in the age group 19 – 24 years, 83.9% of the respondents had used condoms, whilst 74.9% in the age group 25 – 29 years and 60% in the age group 30 – 39 years. Further, according to MoHSS (2010), condoms were less used by spouse and cohabitating partners. The study also found that condom usage varies between regions. Generally, a high percentage of respondents having previously used condom was recorded at Opuwo (97.6%), Khorixas (95.2%) in the

Kunene region, Otavi (93.9%) in Otjozonjupa region and Aminus (92.0%) in the Ohameke region, respectively. Windhoek in the Khomas region was quite close to the national condom usage average of (81.0%), likely influenced by the share of migrants from all regions of the country. Remarkably low was the percentage of respondents who had previously used condoms in Katima Mulilo (60.0%) in the Caprivi region, Tsumeb (65.0%) in the Otjikoto region, Walvis Bay (97.0%) in the Erongo region and Oshikango (71.15) in the Ohangwena region, respectively (MoHSS, 2010).

Despite the differences in condom use figures and the relatively low usage by some sectors of the population, the general awareness about the existence of HIV and AIDS is high among the Namibian population. A study by John Hopkins Bloomberg School of Public Health (2003) in Namibia among youth in Windhoek found that 93.1% believed there were things one could do to avoid the HIV infection. The closely similar findings were also shown by Octopus Logistics (2003) which revealed that 99% of all the respondents (age 19 – 35 years) knew something about the HIV virus and the AIDS disease.

#### **2.4 Factors impacting on use of condoms during sexual intercourse**

Family Health International (FHI) (1998) pointed out that the general limited acceptance of condoms is influenced by individual's knowledge, attitude and awareness of risk as well as by the dynamics between sexual partners.

There is implicit assumption that knowledge should translate into behavior changes and safe sexual practices among the sexually active population, including older men (Joffe, 1996; Zellner, 1994). An individual's knowledge, attitudes, subjective norms and present practices determines and predicts one's HIV and AIDS related behavioral decisions and outcomes (Joffe, 1996). The underlying assumption in this model is that, health-related behaviors are the results of individual's rational conscious and consistent decision-making process. According to AIDS Foundation of South Africa (AFSA), people only change their attitude and behavior when they feel that they have vested interest in change. Thus, people must first believe that their lives will improve as a result of knowing and being able to manage their HIV status (AFSA, 2010).

FHI (1997) carried out two studies on knowledge about condom use among mine workers and commercial sex workers respectively, where 73% of mine workers and 83% of commercial sex workers indicated that they knew that condom use is a method of HIV and AIDS prevention. However, when it came to consistent and correct condom use, only 12% of mine workers reported using condoms every time they had sexual intercourse (FHI, 1997). Although, conducted in different contexts, these findings may be relevant to other mining industries. Men play a prominent role in initiating sex and sexual decisions, thus assessing their knowledge about safe sex including the consistent and correct use of condoms is crucial (FHI, 2001; WHO, 2004). Therefore their negative sexual behaviors, beliefs and actions can have unhealthy and harmful consequences. Hence, it is imperative that HIV and AIDS programmes need to focus on the health consequences of men's sexual behaviors (Kabbash *et al.*, 2007). Further, (Kabbash *et al.*, (2007) indicated that condom use was low among his research subjects with the reasons being that it decreases sexual sensation, the social stigma attached to buying condoms, the fear of rejection by a partner and the perceived harmful effects of condoms.

## 2.5 Condom Use and HIV Transmission

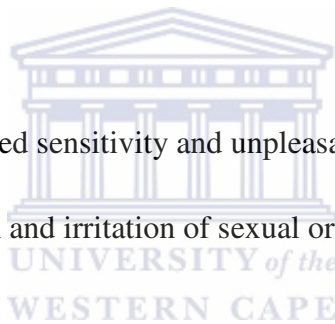
Male condoms are an important integral component of HIV prevention strategies. In-vitro tests for virus penetration of latex and polyurethane condoms show that intact condoms are essentially impenetrable to particles the size of sexually transmitted pathogen (UNAIDS, 2000). Recent studies showed that when used correctly and consistently, male condoms have been proven to offer up to 95% reduction in unintended pregnancies and sexually transmitted diseases including HIV/AIDS (Holmes, Levine and Weaver, 2004).

Twenty-four months follow up study by Lamptey and Goodbridge (1998) in Italy involving 343 HIV-positive men and their HIV-negative women revealed and supported the protection offered by condom use against HIV transmission. The findings demonstrated that only 2% of the women who practiced safe sex with their HIV positive men developed HIV compared to 15% of women who used condoms inconsistently or never used condoms. This study concluded that consistent and correct use of condoms decrease the risk of HIV infection, whilst inconsistent use of condoms carries a significant risk of HIV infection (Lamptey & Goodbridge, 1998).

Holmes *et al.* (2004) recommended that condom promotion and provision should represent an important component of comprehensive HIV and other STIs prevention strategies.

Despite the importance of male condoms in the protection against pregnancy, HIV and other STIs, the use of male condoms for this purpose is lower, especially in developing countries (Kabbash *et al.*, 2007). Although studies by Kabbash *et al.* (2007) were conducted in the Arab population, with a different culture and religious orientation; identified barriers to condom use among men, were not much different from other studies conducted in other African countries. According to Kabbash *et al.*, (2007), barriers to use of condoms include:

- Insufficient knowledge about proper condom use;
- Access to and availability of condoms ;
- Association of buying condoms with extramarital affairs;
- Lack of trust in partner;
- Personal reaction due to decreased sensitivity and unpleasant odor;
- Inhibition of sexual gratification and irritation of sexual organs.



## **2.6 The impact of HIV and AIDS in older populations**

To-date, an increasing number of people over the age of fifty years are living with HIV owing to Highly Active Antiretroviral Therapy (HAART) that prolong life and as a result of late HIV diagnosis. (Grabar *et al.*, (2006).

Since the emergence of the pandemic, late middle-aged and elderly populations have been neglected by campaigns that are directed towards the control and prevention of HIV (Engle and Wilder, 1998).

It is estimated that by 2010, there were about 3 million adults aged 50 years and older living with HIV globally. This represents 14.3% of all HIV positive people who are above the age of 15 years (Negin & Cumming, 2006). Despite the global attention being paid to HIV and AIDS pandemic, HIV infection among older adults, particularly in sub-Saharan Africa have been neglected and data reported by



UNAIDS and United Nation Assembly Special Sessions were drawn from prevalence rates of age groups 15 – 49 years leaving a significant blind spot in the global response to the HIV and AIDS epidemic (Negin & Coming (2006).

UNAIDS (2006) indicated that estimates about HIV prevalence within the older population were based on limited resources, as existing studies on HIV infection among older adults have focused mainly on the social and economic impact of HIV, such as the role of grandparents as caretakers of the AIDS-related orphans.

Traditionally, when people talk about HIV, they have a certain population in mind, the youth, women, transgender population, the homeless and the drug users, and seldom talk about HIV concerning senior citizens (About, Com: AIDS/HIV, undated).

Engle and Wilder (1998) argue that the apparent neglect of senior citizens on HIV prevention awareness campaigns is attributed to the myths that “seniors don’t have sex and therefore aren’t at risk for HIV, that old people are no longer interested in sex, no one is interested in them and if they have sex it only happens in a monogamous heterosexual relationship”. As a result, medical professionals are unlikely to ask for an HIV test and sometimes misinterpret HIV manifestation with aging (Engel & Wilder, 1998). Consequently, older people do not only miss out on preventive messages, but they also are likely to be started late on HIV care, treatment and support if they become infected with the HIV virus.

It should therefore be noted that senior citizens are no exception to risky sexual practices and intravenous drug use, hence they are also vulnerable to contracting HIV infection. Therefore, Engel and Wilder (1998) suggested that; proper and targeted HIV prevention education and awareness should be directed towards the senior population. Substance abuse treatment programmes must also consider including elders when developing programmes. Clinicians must routinely assess elders for HIV risk factors and counsel them on HIV tests.

## **2.7 Male Condom Use**

According to WHO and United States of America’s National Institute of Health (USNIH) (2004) “intact latex male condoms are essentially impermeable to particles of sizes of sexually transmitted disease pathogens, including the smallest sexually transmitted virus such as HIV”. They further indicated that



evidences from serodiscordant couples (where one partner is HIV positive and the other is not) show that using condoms consistently and correctly reduce the risk of sexually transmission by 90% and could be 100%, with the perfect use (UNAIDS, 2004).

As a contraceptive, when used correctly and consistently, male latex condom offers the best protection against STIs, and pregnancies. However, despite the proven effectiveness of male condoms against STIs, including HIV, many people at risk do not use them (FHI, 2001).

Beside sexual behaviors and beliefs; age, gender, marital status and educational standards are other strong predictors of condom use with educated young males and females more likely to use condoms than other age groups (UNFPA, 2004). Since men are more likely to transmit HIV to women than vice-versa, targeting men with behavior change, behavior modification and educational strategies may bring about a decrease in the HIV spread (UNAIDS/WHO, 2007).

Condom promotion plays an important role in HIV prevention. The question would be however, on how to strategically position it successful within the comprehensive HIV prevention strategies which include the promotion of informed, responsible and safer sexual behavior (UNFPA & UNAIDS 2004). According to UNFPA and UNAIDS (2004) any sound strategy for HIV prevention must include; reducing the average number of sexual partners, delayed age of onset of sexual activity, abstinence and the consistent and correct use of condoms.

One typical example of male condom use study among mineworkers was done by Williams *et al.* (1998-2000) at Carletonville mine in South Africa. This is one of the biggest gold mines in South Africa, with close to 100 000 men employees, largely migrants from other rural areas of South Africa and neighboring countries. Carletonville and the surrounding community had experienced the highest HIV prevalence in South Africa in late 80s and early 90s. As a result, the situation has attracted many researchers to conduct several HIV and AIDS related studies among mineworkers and the surrounding community in order to determine and understand ways in which mineworkers perceive their risks of contracting HIV and AIDS, methods of preventions and how their knowledge impacts on their day-to-day sexual behaviors (Williams *et al.*, 1998-2000).

Ahmed, Meekers and Molathegi, (2000) indicated that because education is not a prerequisite in lower category mining employment, most mineworkers are either illiterate or semi-illiterate. Consequently, they are unable to translate and understand critical messages of HIV and AIDS prevention. Living and working

conditions in the mines being highly dangerous and stressful, drinking and sex appeared as the most easily available remedies to reduce stress (Campbell, 1997). Mineworkers perform dangerous jobs, where injuries and even deaths can occur any time, thus their fear of dying from slow, chronic and invisible infection seems non-threatening (Williams *et al.*, 2003). In Campbell's (1997) study, some interviewees commented that "the risk of HIV and AIDS appeared minimal compared to the risk of the death underground, hence the reason why many mineworkers do not bother with condoms".

Carletonville studies concluded that, although knowledge and awareness of HIV and AIDS has increased among mineworkers and surrounding communities, behavior change, particularly with regard to male condom use was low (Williams *et al.*, 2003).

A study conducted in Nigeria among uniform personnel, aged 18 – 50 years has indicated that the intention of buying condoms for the purpose of using is influenced by individual's knowledge of condom use, gender, education, age and knowledge about HIV transmission (Yang *et al.*, 2005). This study showed that HIV testing and condom use is associated with being young, unemployed and not living with the partner (Sormanti, Mary, Shibuasana & Tozunko, 2007).

Some religions such as Islam, Catholicism and Christianity hold different ideas and feelings towards condom use and condemn its promotion as being the encouragement of illegal sexual practices and promotion of immoral sexual acts. As one Muslim, Yemen Health Policy Maker protested "If illegal sex is forbidden in our religious guidelines, how can we encourage condom use? Do you want to tell people who want to have illegal sex to use the condoms in order to prevent AIDS? This is unbelievable" (Busulwa, Yakiyaddin *et al.*, 2006). The Catholic Church in particular, has condemned the use of condoms as it considers it is a sin including in marriages where one person is HIV positive. However, there is a strong push from some Catholic priests and parishioners from the West for the church to change its stand and recognize the importance of condom use in the prevention of HIV/AIDS and unwanted pregnancies (The Lancet, 2006).

Much has been done to increase condom use among men and inconsistency and correctness in use seems to be problematic (Rivers & Aggleton, 1999; Hulton & Falkingham 1996). In Senegal, for example, it has been reported that men may suspect that a woman is a sex worker or has affairs if she request condom use (Niang, Benga, Camara *et al.*, 1997). Similarly, some men believe that condoms could make them impotent. Other men interpret condom requests by their partners as a betrayal or an attempt to deprive them of their right in sexual decision-making within the relationship (Amamoo, 1996).

## **CHAPTER 3**

### **RESEARCH DESIGN AND METHODOLOGY**

This chapter discusses the methods used to collect and analyze data for this study.

#### **3.1 Aim**

The aim of the study was to assess the knowledge, attitudes and practices of male condom use among employees age fifty years and older at a mining company in Namibia.

#### **3.2 Objectives**

1. To measure the knowledge of male condom use among male employees aged fifty years and older at a mining company in Namibia.
2. To describe attitudes of male condom use among male employees aged fifty years and older at a mining company in Namibia.
3. To describe sexual practices of condom use among male employee aged fifty years and older at a mining company in Namibia.
4. To analyze the association between knowledge, attitudes, and practices of male condom use among employees age fifty years and older at a mining company in Namibia.

#### **3.3 Study design**

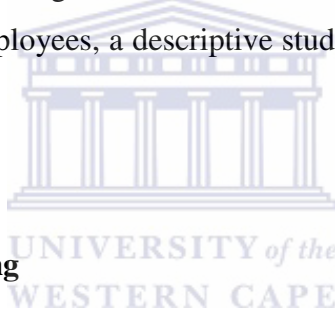
To address the research problem, the study used a quantitative, descriptive design method, and a cross-sectional survey. The survey is a descriptive research design as opposed to experimental research, aimed at providing an accurate description of the situation and the identification of the relationship between the variables (Christensen, 2007). Bell (1987) asserts that surveys are appropriate for investigating what already exists, and therefore can be used to collect information aimed at describing the nature of existing conditions.

According to Christensen, a survey is “a field study in which an interview technique is used to gather data on a given state of affairs in a representative sample of the population”.

Therefore, the research method selected was a survey method. In survey research, the questionnaire is the most common tool for the purpose of data collection (Borg and Gall, 1989). Hence, for the purpose of this study, a structured questionnaire was thought appropriate to collect data at Namdeb mine.

The study attempted to describe and measure the knowledge, attitudes and practices of male condom use as an HIV prevention method among Namdeb employees, age fifty (50) years and older. This would enable the researcher to objectively determine the magnitude of the problem with regards to knowledge, attitudes and practices of male condom use among Namdeb employees, age fifty years and older in order to advise the Namdeb management for a possible review and modification of their existing workplace wellness programme.

Because the study was focused on assessing the nature and extends of knowledge, attitude and practices of male condom use among elderly employees, a descriptive study was chosen as being more appropriate to address the research problem.



### **3.4 Study population and Sampling**

A study of knowledge, attitude and practice within a population of 143 male miners aged fifty years and older entailed the selection of subjects on a permanent and short term contract at Mining Area One (MA1), Namdeb, in Oranjemund town. Mining Area One (MA1) was chosen for the study as one of the areas with the majority of employees representing approximately 70% of the total Namdeb workforce.

The most likely accurate measurement and results can be obtained by including the entire Namdeb male employees' age fifty years and older, from all operation sites (including Bogenfels, Elizabeth Bay and Orange River Mine) in the study sample, as this would have been more representative of each one of Namdeb mining operation areas. However, the required administration, time, human and financial resources were a constraint for the researcher. This determined the decision to use a random sampling methodology. The proportion of respondents drawn from the MA1 took into account the stated objectives and special care was taken to ensure that only miners from Mining Areas One (MA1) participated in the studies.

Using computer software, Raosoft sample size calculation, a sample size 105 was determined from a study population of 143 employees. The proposed research expected a condom use rate to be 80%, thus it was thought that the sample size of 105 randomly selected employees, would give a 95% level of confidence and that the sample would be within 5% margin of error for the true population prevalence.

A random sampling method was then used to draw the sample size from the target population. This method gave all subjects in the study population an equal chance of being included in the study sample. It also minimized the chance of un-representativeness of the study population thereby reducing sampling bias (Katzellenbogen *et al.*, 1999). The researcher obtained a list of all the population included in the study from the human resource department. All male employees age fifty and above were allocated numbers next to their names and put in the drawing box. Those whose numbers were chosen from the drawing box were asked to voluntarily participate in the study. In cases where a selected employee refused to participate, another randomly selected employee, complying with the sample criteria was taken as a replacement. The same procedure was followed when a selected employee left employment during the course of the study period.



### **3.5 Data Collection Tool**

A structured questionnaire designed by the researcher was used. It contained thirty two separate items grouped into four sections. The questionnaire was designed in accordance with the objectives of the study. The respondents answered by crossing one or more items.

Questionnaires contained checklist type items.

The questionnaire sought to provide the researcher with information on the following:

1. Whether respondents knew what ABC is.
2. Whether respondents knew that condoms are an important component of the ABC strategies of HIV prevention.
3. If respondents thought that condoms were an effective measure for HIV prevention.

4. Comprehension of male condoms as a prevention strategy for unwanted pregnancies. The level of comprehension among miners at M1 of male condoms as a strategy for preventing pregnancy
5. Whether respondents discussed condoms with their partner(s). To what extent did respondents discuss condoms with their partner(s)?
6. The level of understanding among the respondents of the term consistent and correct use of male condom.
7. Whether respondents know how to use condoms and if they use them when having sexual intercourse.
8. Did respondents think of people of their age use condoms?

### **3.6 Data collection**

For this study the researcher used standardized structured interview-administered questionnaires to collect data. An interview method was used because personal contact during an interview is likely to facilitate a response and can lead to the provision of quality information. It also enables employees with no and low literacy to answer questions easily when interviewed. It further reduces measurement bias because all questions are standardized. The Interviews were conducted in a quiet environment in order to obtain a better concentration from respondents and to ensure confidentiality.

The principal researcher was assisted by two trained assistant researchers in conducting the interviews for a period of two weeks. Some questionnaires were translated from English to Oshiwambo as the majority of the older employees speak Oshiwambo language. These were retranslated back to English for data analysis and report writing. Participants were also asked to provide their socio- demographic data such as marital status, level of education and job categories.

### **3.7 Time period for data collection.**

Due to vastness of MA1 and the fact that study population is scattered along the entire operation, it took about two weeks to complete the process of data collection.



### **3.8 Pilot Study**

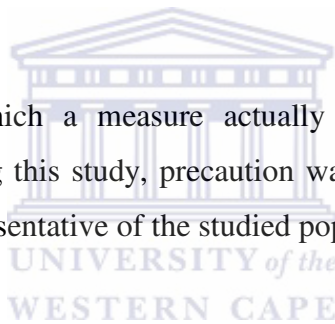
The initial questionnaire was piloted on 10 Namdeb employees who were not going to take part in the study. Following the piloting, the researcher met with the employees to receive feedback on the questionnaire. They reported that the questionnaire was easy to follow and elicited relevant information.

A pilot study was essential because it provided an invaluable check on the options in multiple-choice items, and on the feasibility of the proposed procedure for coding responses (Nesbit and Entwisted, 1970). Piloting the questionnaire also helped the researcher to assess the ease with which the questionnaire can be understood by the respondents.

Furthermore, a pilot study is important in determining reliability of the questionnaire. Reliability allows the test or procedures used in a study to be replicated by other researchers.

The validity was in the process of the survey method, which in this case, considered analysing miners' responses.

Validity relates to the extent to which a measure actually measures what it meant to measure (Katzellenbogen et a., 1999). During this study, precaution was taken to ensure internal validity such that the results obtained would be representative of the studied population



### **3.9 Procedures**

The study proposal was presented to Namdeb hospital management. Furthermore, for formality sake, a letter was sent to the Namdeb hospital management to seek permission to conduct the study. Only after permission was granted did the researcher start with the study. The researcher was assisted by two trained assistant researchers in conducting face-to-face interviews for two weeks. First, the research assistants received two day training on the skills required for interview techniques and data collection before starting with the interviews.

The questionnaires were then translated into Oshiwambo to aid understanding by the respondents, since the majority of them were Oshiwambo speakers. The answers were then translated into English for data analysis and report writing.



### **3.10 Data Management**

The data obtained was reduced to a controllable form for analysis. First, the questionnaires were coded for easy classification of answers to the set questions and then into meaningful categories with the intention to bring out any trends or patterns in the results. After coding, data were entered into the computer, and checked for possible errors by randomly selecting 10% samples questionnaires. When In case of errors, the necessary corrections were carried out and re-entered into Microsoft Excel spreadsheet, and subsequently, imported to the SPSS for analysis.

### **3.11 Statistical Analysis**

Quantitative data was gathered. To draw conclusions, elements of statistical data analysis were used. The quantitative method was employed in analyzing the collected data. Statistical calculation was employed using “Statistical Package for the Social Sciences” (SPSS) statistics package. The researcher transferred the collected data into tables for ease interpretation and displaying the results.

Proportion of demographic data such as age, employment category, educational level, marital status and its association as well as knowledge, attitude and practices were summarized using frequencies and percentages.

### **3.12 Study Limitations**

While the questionnaire was regarded as an appropriate data collection tool for this study, it is also recognized that the questionnaire as a tool has its weaknesses. Cohen and Minion (1994) argued that a questionnaire as a tool is limited in that it may result in a lower response rate and many questions might be left unanswered. Though a questionnaire method is being increasingly used in measuring behaviors, there must always be doubts as to the honesty of responses. For example, due to the nature and sensitivity of condom use which is linked to individual’s sexual lifestyle, respondents may falsely or under report their sexual behaviors and practices (Katzellenbogen *et al.*, 1999). Although attempts were made to make use of the assistant interviewers, who are of same age group as the target respondents, some participants

particularly the Oshiwambo speaking individuals, were still likely to opt out with the intention of not answering individual questions. This is because the Oshiwambo culture from which the majority of the respondents belong limits discussions about one's sexual experience and behaviors. Alternatively, they may falsely or under report their sexual behaviors and practices (Katzellenbogen *et al.*, 1999). Fortunately, all respondents answer to all questions in the questionnaires.

Moreover, the study was limited in the size of the sample since it was only a small sample of one hundred and five employees from a potential population of 143. It thus follows that the small size of the respondents does not allow for generalization of the results to the entire population but only to the targeted population.

### **3.13 Ethical Considerations**

No identification information was required on the completed questionnaires, so as to ensure confidentiality of participants. Respondents were also informed that participation is voluntary and one can withdraw any time without giving reason to the researcher. Participants were assured that data collected from the study will only be used for research purposes and that only the researcher will have access to the data. An Informed consent form was signed by each participant before the questionnaire is administered.

Research gives rise to many ethical issues and consideration must be given to all possible ethical issues in the design phase of the research. The guiding principles are that no harm must come to the participants and the researcher must take the responsibility to secure permission from all those involved in the study. This means that no participants should be coerced to take part in research without their consent. In observance to the research ethics, the study protocol was submitted to the UWC Faculty of Research and Ethical Committee and to Named Hospital Management for approval.

In addition, consent was obtained and consent forms distributed and signed by the respondents. At the end of the interview, the respondents were acknowledged and were informed that the report would be shared with the Mine Management and will be available from the researcher for participants who are interested.

Confidentiality, anonymity and privacy are the keystone of research ethics. In compliance to these principles, respondents were told that their names were not needed, and hence were not indicated on individual questionnaires. With regards to information provided by respondents, only the researcher,

research assistants and relevant individuals such as the statistician will access the information, and that it will only be used to better the workplace, wellness programme, to the benefits of all Named employees.



## **CHAPTER FOUR**

### **RESULTS**

#### **4.0 Introduction**

This chapter presents the findings on the knowledge, attitude and practices (KAP) regarding male condom use among male employees at Namdeb. Statistical Package for the Social Sciences (SPSS) was utilized to analyze the data. The first part of this chapter describes the sample population. The results are presented in the order that the research questions were presented on the questionnaire. That is, tables and graphs are presented starting with 4. to table 4.24. For the purpose of this survey, male condom use is characterized as one strategy to prevent sexual transmission infections including HIV and pregnancy.

#### **4.1 Description of study participants**

A total of 105 out of 143 Employees, age 50 years and older were interviewed who were working at the Mining Operation 1 (MA1) of Named (Table 1). The mean age of the sample population was 54.5 years and range from 50 – 59 years.

Most (89.5%) respondents were married. Just under half (49.6%) of the respondents had secondary education, (27.6%) had primary education and (24.8%) had tertiary educational training.

A high percentage of respondents (73.3%) were unskilled employees. For instance, those working in the field and mine plant as bedrock cleaners, machine operators and plant attendants, whilst (26.7%) was skilled employees like engineers, secretaries and foremen who work in offices.

More than half (58.1%) live in the single sex male hostels. A small percentage of the respondents (22.91%) lived with their wives or partners while a larger percentage (77.1%) lived in single hotels.

**Table 1: Socio-demographic characteristics of the participants**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Marital status</b>		
Single	11	10.5
Married	94	89.4
<b>Job category</b>		
Unskilled employees	77	73.3
Skilled employees	28	26.7
<b>Educational level</b>		
Primary school	29	27.6
Secondary school	50	49.6
Tertiary school	26	24.8
<b>Accommodation</b>		
Male hostel	61	58.1
Family house unit	43	41
Others	1	
<b>Living with wife/partner</b>		
Yes	24	22.9
No	81	77.1

## 4.2 Knowledge about male condoms

Knowledge about condoms in this study was classified into two categories; “knowledgeable” (should respondents answer correctly to seven or more of the nine questions about condom knowledge) and “insufficient knowledge” (should the respondents provide correct answers to less than seven of the questions).

Table 2 shows that a high percentage (94.3%) of the respondents have indicated that the use of male condoms is an important integral part of an “Abstinence, Be faithful and Condom use” (ABC) strategy for HIV prevention.

About (92.4%) showed that correct and consistent use of male condoms prevents HIV transmission. The majority of respondents (98.1%) said that the use of male condoms prevents pregnancies. A further (98.1%) of respondents reported that expired condoms burst easily when used. About (84.8%) of respondents indicated that a new condom must be used during each sexual encounter. A high percentage (97.1%) of respondents reported that HIV positive persons must always use a condom during sex. The majority (98.1%) of respondents also reported that it is best for HIV positive couples to use condom to prevent HIV transmission between each other.

About 97% of respondents indicated that correct and consistent condom use means; using condom during each and every sexual encounter following the manufacturer’s instructions.

Above half (52.4%; n=55) of the respondents obtained a score of more than eighty percent (80%) (Giving a correct answer to seven questions and more) suggesting that they were knowledgeable about condom use, whilst 47.6% had insufficient knowledge (Table 2).

**Table 2: Knowledge about male condoms**

	<b>Frequencies</b>	<b>Percentages</b>
Male condoms is an important component of ABC strategy of HIV prevention.	99	94.3
Correct and consistent use of condoms protects against HIV transmission.	97	92.4
Male condoms protects against pregnancies	103	98.1
Using expired condoms increases chances to bursts.	103	98.1
A new condom must be used with each and every sexual contact.	90	84.8
HIV positive partners can enjoy penetrative sex with no risk of re-infection, if they use condoms.	89	84.8
HIV positive persons must always use condoms.	102	97.1
Best sexual practice for HIV positive couples.	103	98.1
Correct and consistent condom use means.	83	79
Knowledge about condom use	55	52.4

### 4.3 Attitudes towards use of male condoms

More than half (54.5%) of the respondents reported that male condom tear easily (Table 3). Most (84.0%) of the respondents reported that male condoms are easier to use than female condom. A larger percentage (85.1%) of the respondents disagreed that older men must not learn how to use condom. About (71.3%) of the respondents disagreed that men who use condoms have sex many times. Almost half (51.1%) of the respondents indicated that condoms which are distributed free of charge are of poor quality. A large majority (78.3%) of the respondents could not agree that distributing condoms at workplaces encourage immorality.

Also, most (88.3%) of the respondents indicated that they are comfortable to ask for condoms from the health care workers.

More than ninety percent (94.7%) of the respondents indicated that it is correct for partners to ask one another to use condoms. The majority (86.2%) could not agree that male condom use weakens the erection of a penis.





**Table 3: Attitudes towards use of male condoms**

	Frequencies	Percentages
Male condom tear easily	59	54.5
Male condom is more easy to use than female ones	79	84.0
Older men must not learn how to use condom	80	85.1
Men who use condom have sex many times	67	71.3
Distributing condoms at workplaces encourage immorality	82	78.1
Free of charge condoms are of poor quality	48	51.1
Is comfortable to ask for condom from health workers	83	88.3
It is correct for partner to ask one another to use condom	89	94.7
Using condom weaken erection	81	86.2
New condom must be used even when living with partners	21	69



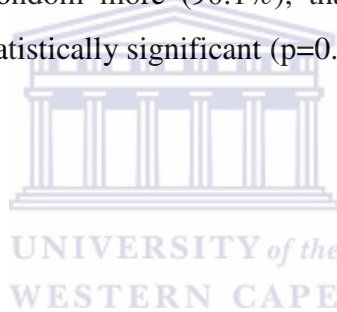
#### 4.4 Condom use

Almost hundred percent (93.6%) of the married respondents indicated that they used condoms. However, this difference was not statistically significant ( $p= 0.689$ ) (Table 4).

Almost hundred percent (96.7%) of the respondents with tertiary education used condoms more than those with secondary and primary education (93.5% and 93.1%). However, this difference was not statistically significant ( $p= 0.785$ ).

The majority (94.8%) of the unskilled respondents used condom more than the semi and the skilled respondents (92.9%) ( $p=0.962$ ). A high percentage (93.0%) of the respondents who lived in family houses reported using condoms more than the respondents who live in a single sex hostel (86.9%). But, this difference was not statistically significant ( $p=0.568$ ).

Respondents who lived alone used condom more (90.1%), than those that lived with their partners (87.5%). But, this difference was not statistically significant ( $p=0.712$ ).



**Table 4: Condom use**

Variables	Condom			P-value
	Yes N (%)	No N(%)	Total	
<b>Marital Status</b>				0.230
Single	11(11.7)	0(0)	11(10.5)	
Married	83(88.3)	11(11.7)	94(89.5)	
<b>Education level</b>				0.266
Primary school	24(25.5)	5(45.5)	29(27.6)	
Secondary school	42(44.7)	4(36.4)	46(43.8)	
Tertiary school	28(29.8)	2(18.2)	30(28.6)	
<b>Job category</b>				0.962
Non skilled & semi-skilled employees	25(26.6)	3(27.3)	28(26.7)	
Skilled employees	69(73.4)	8(72.7)	77(73.3)	
<b>Accommodation</b>				0.568
Single sex hostel	55(58.5)	7(63.6)	62(59.0)	
Family	93.0	7.0		
<b>Living with partner</b>				0.712
Yes	21(22.3)	3(27.3)	24(22.9)	
No	73(77.7)	8(72.7)	81(77.1)	

#### 4.5 Practice about male condoms

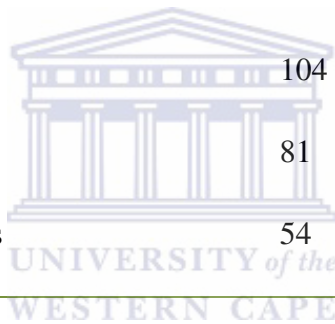
The majority (99.5%) of respondents has reported that they know how to use condoms and a high percentage of respondents (89.5%) has used one (Table 5).

The prevention of HIV transmission was the most common reason why the majority of respondents (77.1%) used condoms.

More than half (51.4%) of respondents reported that most older men maybe using condoms.

**Table 5: Practice of condom use**

	Frequencies	Percentages
Ever used condom	94	89.5
Know how to use condom	104	99.0
Most reason to use condom	81	77.1
Most older men use condoms nowadays	54	51.4



#### 4.6 Summary

The study was aimed to assess the knowledge, attitude and practices to male condom use among 50 years and older, male employees at a mining company in southern Namibia. The findings from the study indicated that the respondents were relatively knowledgeable about condom use with just above fifty percent (52.4%) of the respondents answering correctly to seven questions and more. The general attitudes of the participants to male condom use were also positive.

In addition, risky sexual practices were reported, and most of the respondents appeared to be practicing safer sex through the use of a male condom.

## CHAPTER 5

### DISCUSSION

#### 5.1 Introduction

The use of male condoms is a critical element in a comprehensive, effective and sustainable approach to HIV prevention and treatment (UNAIDS, 2009). According to UNAIDS (2004) male condoms remain the single most efficient available technology that reduce the transmission of HIV and other sexually transmitted diseases.

Further evidence from studies of discordant couples (where one partner is HIV positive and the other is negative) shows that using condoms correctly and consistently reduces the probability of HIV transmission during sex by about 90%.

To achieve the protective effect of condoms, people must use condoms correctly and consistently, at every sexual encounter. Failure to do so diminishes the protective effect and increases the risk of acquiring sexually transmitted infections (STI) as transmission can occur with even a single sexual encounter. In spite of existing evidence that correct and consistent use of condoms significantly reduces sexually transmitted infections, it should always be remembered that male condoms do not eliminate the risk of HIV infection completely. For that reason, condom use programs should strive to promote:

- The understanding that abstaining from sexual activity is the most effective and only certain way to avoid HIV infection;
- The understanding of how different behaviors increase risk of HIV infections;
- The importance of risk reduction and a consistent risk-reduction strategy when risk elimination is not practiced;
- The importance of correctly and consistently using condoms during every sexual encounter with partners known to be HIV-positive (discordant couples), or partners whose status is unknown;
- The critical role of HIV counseling and testing as a risk-reduction strategy;
- The development of skills for obtaining and correctly and consistently using condoms, including skills for vulnerable persons; and
- The knowledge that condoms do not protect against all STIs.

## **5.2 Description of the study participants**

The age range of the study participants was between 50-59 years, and the mean age was 54.5. A large proportion (89.4%) of the respondents was married. However, (77.1%) of the respondents did not live with their wives or partners at the mine, instead their spouses lived elsewhere. The World Health Organization (WHO (2005) argued that living away from one's own partner increases the vulnerability to HIV as the separation increases the likelihood of partners to be involved in other sexual relations leading to the spreading of HIV.

The present study found that (58.1%) of the respondents lived in single male hostels. This is an old practice from pre-independence of a contract labour system where families were not allowed to live together. This practice is one of the recognized drivers of the HIV epidemic, to which the government has not yet found a permanent solution.

With regards to education, even though (49.6%) of the respondents attained secondary school, this did not appear to have an effect on the knowledge, attitudes and practices on condom use when compared with those with primary and tertiary.

Concerning job category, the findings revealed that a high percentage (73.3%) of the respondents were unskilled. This is in line with the results from the National Development Programme III (2010) (NDP III, 2010), which indicated a shortage of technical skilled Namibians in the mining sectors (NDP III, 2010).

## **5.3 Knowledge about male condoms**

To ascertain whether respondents have appropriate knowledge about HIV and AIDS prevention, it was important to determine their knowledge about the correct HIV preventive measures including the use of male condoms (Rahman, 2009).

This study established that the respondents' level of knowledge was relatively low, with more than 52.4% of them having answered correctly to seven questions and more, suggesting that they were adequately knowledgeable about male condom use. This finding is in agreement with the Hyde (2007) finding, which demonstrated that 67% of the Namdeb general employees knew the importance of male condoms as an HIV prevention strategy.

### **5.3.1 Knowledge on other prevention strategies**

Besides, (94.3%) of the respondents in this study showed an awareness that condoms are an important component of the Abstinence, Be faithful and Condomise (ABC) strategy for HIV prevention. ABC approach employs population-specific interventions that emphasize abstinence for youth and other unmarried persons, including delay of sexual debut; mutual faithfulness, partner reduction for sexually active adults, correct and consistent use of condoms by those whose behavior places them at risk for transmitting or becoming infected with HIV. This targeted approach results in a comprehensive and effective prevention strategy that helps individuals personalize risk and develop tools to avoid risky behaviors under their control.

### **5.3. 2 Condon prevent pregnancies**

What is more, is that (98.1%) of the respondents knew that male condom use prevent pregnancies and thus can be utilized as a family planning method. It is well established that condoms are 82–98% effective at preventing pregnancy particularly when using water-based lubricants, that do not damage the condoms compared to oils-based lubricants that weaken the condom, causing it to tear or break (The Centers for Disease Control and Prevention (CDC 2012); World Health Organization (WHO 2011). The use of male condoms further provides an opportunity for men to share responsibility for pregnancy prevention and protection against Sexual Transmitted Infections (Palo Alto Medical Foundation, 2012).

Previous research indicated that condom use is not only important for family planning and reducing fertility indices but also a life saver by preventing HIV infection. When properly used, male condoms represent a proven and effective means for family planning and preventing transmission of HIV/AIDS and other STIs (UNAIDS, 2000). Men play a powerful and dominant role in the reproductive decisions sometimes regardless of their partner wishes or health. Therefore, it is important to focus of health programs to advocate for a healthy male sexual behavior (Lasse, 1997).

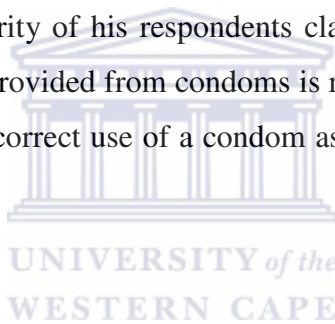
### **5.3.3 Expired condoms**

The majority (98.1%) of the respondents suggested that expired condoms burst easily, with only 1.9% disagreeing. It can be therefore concluded that the respondents were aware of the risky involved in using expired condoms.

Research evidence shows that one reason why expired condoms may burst easily is because they lose their structural integrity and using them can expose one to unwanted pregnancy, STDs or irritation. This is because after the expiration date of condoms is over, its latex starts to dry out making it brittle. With more drying, the flexibility and strength of the condoms keeps getting worse. The older the condom, the more likely it is to break. Even the spermicides used in some condoms become less effective after the expiry date as the substance that kills sperms loses its lubrication rendering it ineffectiveness.

The risk associated with using expired condoms ranges from unwanted pregnancy to sexually transmitted infections (STDs) and irritation as there is a risk of a break or tear in the weak material of the condom. Nonetheless, despite the risk, experts advised that in cases where there is no condom, it may be safer to use an expired condom, than not using one at all. (<http://www.onlymyhealth.com/risk-using-expired-condoms-1311759803>).

In the Muheua (2007) study, the majority of his respondents claimed that condoms are not 100% safe, although they accepted that the safety provided from condoms is related to the handling and storage of the condom. They further suggested the incorrect use of a condom as a major reason for failure in a condom in addition to bursting.



#### **5.3.4 HIV positive persons**

Respondents' views on the use of condom by HIV positive persons were sought, and revealed that (97.1%) of the respondents agreed HIV positive individuals should always use a condom. This demonstrates an understanding of the importance of using condoms even when one is already infected. Van Dyk (2005) emphasized the importance of condom use for HIV positive individuals to avoid re-infection. Re-infection means that a second viral strain can successfully establish infection despite prior infection with another HIV strain. Van Dyk therefore asserted that each new infection can cause an increase in the viral load in the blood, and the person infected for a second or subsequent time may get a new strain of the virus. This in turn weakens the immune system resulting in opportunistic infections.

The Majority of the correspondents (98.1%) said that the HIV positive couples “must always use condoms, to prevent further infection”. Evidence from literature shows that the condom is effective in preventing HIV if used consistently and correctly (Van DyK, 2005; CDC, 2012). It is thus follows that



HIV couples are required to use a condom every time they have sexual intercourse, if they are to avoid re-infection which can lead to health problems.

### **5.3.5 Correct and consistent use of condom**

With regard to the meaning of consistent and correct condom use, (79.0%) of the respondents said it “using condom during each and every sexual encounter following the manufacturers’ instructions”, (14.3%) “using condom with a partner who is not a wife, but never with wife”, (2.9%) said “using one condom more than once”, (1.9%) “using condom with wife”, and (1.9%) did not know.

Although the majority of the respondents understood what consistent and correct use of a condom meant, it is disturbing to know that over 17% of them provided incorrect meanings. Accordingly, the lack of understanding may result in the respondents using condoms incorrectly and inconsistently with the risk of sexual transmitted diseases including HIV. One way to improve workers understanding is for Namdeb to design an age appropriate, targeted, education information and communication workplace programmes to aid understanding of condom use.

To achieve correct and consistent condom use, the study population needs to be provided with full and accurate information and be supported to access condoms especially for those most at risk of transmitting or becoming infected with HIV. Correct and consistent condom usage is part of a wider behavioral change strategy. It is well known that accessibility to condoms and awareness of the risks of unprotected sex are no guarantee of behavioral change and that there are various social, economic and behavioral factors standing in the way of safer sexual practices (UNAIDS/UNFPA, 2004). These factors influence peoples’ ability to use condoms when engaging in risky sexual behavior. Poverty, gender inequality and cultural practices have been identified as important barriers to correct and consistent condom usage by several studies (e.g. Da Cruz, 2004; Kalipeni, Oppong & Zerai, 2007; Shisana *et al.*, 2005; UNAIDS/UNFPA, 2004).

## **5.4 Attitude toward male condom**

In this study, attitudes of the respondents toward male condom was assessed using eight questions, and the findings varied, possibly due to different factors such as background and experiences, the on-job information, education and communication about male condom use.

#### **5.4.1 Male condoms tears easily**

The study found that (54.5%) of the respondents disagreed that male condoms tear easily, more so if expired. One reason why expired condoms may burst easily is because they lose their structural integrity, become dry and lessens the flexibility and strength of the condom, using them thus may expose one to unwanted pregnancy, STIs or irritation. The older the condom, the more likely it is to break. Even the spermicides used in some condoms become less effective after the expiry date as the substance that kills sperms loses its lubrication and thus its effectiveness. It can be contended therefore that the majority of the respondents were aware of the risky involved in using expired condoms. However, despite the risk of using expired condoms, experts advised that in cases where there is no condom, it is considered safer to use an expired condom than not using one at all. (<http://www.onlymyhealth.com/risk-using-expired-condoms-1311759803>).

#### **5.4.2 Male condom easy to use**

A large percentage (84.0%) of the respondents agreed that male condoms are easier to use than females. This concurs with the Namibia National Strategic Framework for HIV and AIDS Response (2010/11-2015/16) where it was reported that both men and women have reported difficult to use female condoms, despite its promising effectiveness.

#### **5.4.3 Older men must not learn condom use**

It was also observed from this study that (85.1%) of the respondents clearly indicated that the respondents have an awareness that older men need to use condom.

However, the present findings contradict the findings of a cross-sectional survey in Kenya by (Kyobutungi, Ezh AC, Zulu E & Falkingham J, 2009) on HIV/AIDS and the health of older people in the slums of Nairobi, Kenya: The results indicated that a large number (71.6%) of men lacked knowledge of personal risks about HIV/AIDS, and thus do not use condoms. It further showed that condom use among men decrease with age, perhaps as a result of: not being concerned about STIs; difficulties in communication between partners and a high level of trust of partners (Kyobutungi C *et al.*, 2009).

Studies from Nigeria, Cameroon, Uganda, Zambia and Tanzania found that, in general older men are less aware of effective preventive measures and less knowledgeable about HIV-prevention measures than men age 15-49 years. For example, in Nigeria (68.9%) of men age 15-49 years knew that using condoms and having only one sexual partner are effective measures as opposed to only 58.3% of men age 50-59 years (Negin & Cumming, 2006). In Ghana, for example, while (12%) of all men reported current use of the condom (based on a question concerning pregnancy prevention), 21% of men aged 20-24 are currently using the method compared with only 6% of men aged 40-44 (Ghana Statistical Services & Macro International Inc., 1999).

With regard to the present findings, it is disconcerting though that 12% of the respondents agreed with the statement that “Men of your age must not use condoms”. This means that if they do not believe in using condoms at their age, they are more likely to engage in unprotected sex. These attitudes are not helpful in the prevention of HIV and AIDS, and other sexually transmitted diseases, and to the aspiration of the Namibia Government for an HIV-free generation or zero infections by 2015. For Namibia to achieve zero infections by 2015, individuals need to play their part in the fight against HIV/AIDS. Thus, these findings call for new communication initiatives that target specific individuals and groups that are at risk, especially with regard to changing behaviors and attitudes of males to condom use.

In the National Strategic Framework for HIV and AIDS Response in Namibia (2010/11 - 2015/16), preventing new infections remains the key priority strategy, including changing people’s sexual behavior, reducing the risk of infection through biomedical interventions and changing aspects of our culture and societal norms that make people vulnerable to HIV, e.g. alcohol abuse, poverty and gender inequalities). Furthermore, the NSF aims to reduce the annual number of new infections by 50% by 2015/16 with the end result being to reduce the incidence rates to a threshold level where the epidemic cannot sustain itself. In this effort, condom use has been identified as one of the necessary prevention strategies to reduce HIV and AIDS infection.

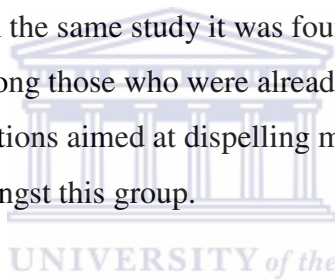
Thus, the NSF strategy is to increase the availability and access of both male and female condoms within the community in addition to the workplace and institutions of higher learning. The NSF will support interventions that specifically target most at risk populations and adults as these are likely to be key sources of new infections.

Moreover, individual sectors are encouraged to brand their specific condoms. This has been successfully demonstrated by the Namibian Defence Force. For example, branding condoms for young people is considered an attractive proposition as a condom promotion strategy.

Besides, strategies will be put in place to monitor condom distribution, availability and consistent and correct use of condoms. Special efforts will be made to monitor and ensure condom availability to most at risk populations.

#### **5.4.4 Men who use condom have sex many times**

The majority (71.3%) of the respondents disagreed that men who use condoms have sex many times. Interestingly, respondents in this study reported a belief that condoms promote sexual activity, however this belief is not borne out by research: in a study by Blake (2003) it was concluded that making condoms available in high schools does not increase sexual activity among students, but does raise their use by those already sexually active. Further in the same study it was found that condom availability was associated with greater condom use among those who were already sexually active - a highly positive result. The above suggests that interventions aimed at dispelling myths and incorrect perceptions about condoms can improve condom use amongst this group.



#### **5.4.5 Distributing condoms at workplaces encourage more sexual activity**

A positive attitude concerning male condom use is that (78.3%) of the respondents did not think distributing free condom at workplace encourages employees to engage in more sex. The debate whether making condoms accessible to the population will reduce HIV infection is difficult. For instance, in the Namibian media, distribution of condoms in schools is being viewed as encouraging sexual activities rather than helping students to practice safer sex, though teenage pregnancy is high. Proponents of condom distribution argue that free condom distribution will guarantee safer sex leading to the prevention of sexually transmitted infections and pregnancy (Kelly, (undated).

Even in the absence of research evidence, it is thought that refraining from sexual activities might be difficult. Thus, Namibia being one of the countries with a generalized HIV epidemic, it is beneficial to ensure accessibility to condoms at public places. This is even more important for NAMDEB considering

that a large number of its employees live away from their families, there is no guarantee that they will not get involved in temporary relationships.

#### **5.4.6 Free-of-charge condoms are of poor quality**

In this study, a relatively small proportion (51.1%) of the respondents disagreed that free of charge condoms are of poor quality compare to 42.9% who was in agreement. The percentage of respondents agreeing is sufficient to cause concern as their beliefs would prevent them from using workplace provided condoms. Negative perceptions about free-of-charge condoms being of a poor quality were reported by Muheua (2007), though this was based on low quality condoms with a lack of enhanced attributes such as dots and aroma. A similar perception was found in a study by the World Health Organization (2003) which suggested that color, smell and texture played an important role in the choice of condoms.

It is well documented that socially marketed and commercial condoms are of good quality. For example, Douglas *et al.* (1996) cited by Museum (2007) argued that Durex is amongst the best six tested brands with regards to the packaging being neat, attractive and clean, and is manufactured by a reputable international company. Therefore, Doughlas *et al.*, is of the opinion that these characteristics need to be incorporated into the condoms freely supplied, in order to dispel myths and other negative feelings towards free distributed condoms. Similarly, Finklestein and Brannick (2000) cited by Muheua (2007) concluded that those people who have a positive attitude about condoms are more likely to use condoms consistently, and thus are less likely to contract HIV. It is clear that one's attitude towards condoms influences whether or not they use a condom to practice safe sex.

In this study, it is therefore advised that Namdeb needs a different strategy in the way condoms are marketed in order to facilitate change in behaviours towards free distributed condoms. It is also recommended to examine existing strategy and also to look into the possibilities of other variables that may provide wrong information which elicits misperceptions.

#### **5.4.7 It is correct for a partner to ask one another to use a condom**

In this study, 94.7% of the respondents showed that it is correct for partners to ask one another to use condoms.

Cabral, J C *et al.*, (1998) in the study of "Condom Use: Requests and Partner Reactions", found that 50% had made requests in the previous 30 days, but 19% of all study women reported that they wanted their

main partner to use a condom, but did not ask. Furthermore, most of the women, 85%, reported that they had not experienced objections to condom use by their current partner; only 32% had ever experienced an objection, and only 15% reported an objection in the past 30 days. Among those who reported an objection by their partner in the past 30 days (n = 68), 75% reported they had refused unprotected sex one or more times. Cabral, J C *et al.* further stated that in order to understand better a women's behavior in making condom requests of her current partner, it is important to consider other contextual factors like her expectation of his reaction to a conflict over condom use. In their study therefore, they found that 62% of respondents predicted that if they were ever to refuse to have sex with their main partner without a condom, he would use a condom; 24%, that he would use the condom but be upset; 9%, that he would not have sex with them, 5%, that he would insist on unprotected sex; and 1%, that he would force them to have unprotected sex. Thus, 6% of respondents expressed some level of fear of sexual coercion as a result of conflict over condom use

#### **5.4.8 Using a condom weakens your erection**

The findings further indicated that about (86.2%) of the respondents reported that using a condom does not make them loose their erection. However, The International Planned Parenthood Federation/ UNFPA (undated) suggested some common myths about using condom and hence issues guidelines for health promoters and service providers to dispel these myths through:

- Presenting condoms as an effective technology to prevent unintended pregnancy and sexual transmission of HIV and other STIs as part of a wider HIV/STI prevention strategy that also includes promoting: delaying first sexual experience, abstinence from penetrative sex, and mutual fidelity between sexual partners.
- Challenging gender norms that reinforce inequalities, particularly regarding condom use, and seek ways to empower women to have a stronger voice in their own reproductive health.
- Debunking myths, correct misperceptions, and calm fears. This requires health promoters and service providers to:
  - Understand the people they are working with and their varied cultural beliefs.
  - Help people gain new insights and knowledge.
  - Convey the effectiveness of condoms for the prevention of infection and unintended pregnancy.
- Adopt acceptable language to discuss sexuality and condom use effectively with potential users.

- Create open attitudes about condoms and other sexual issues to help people communicate effectively with their partners.
- Respect people's level of awareness and help them balance their biases with the benefits of condom use, so that people accept condom use as a widespread social norm, practiced by influential peers and role models.

## 5.5 Condom use

In this study, respondents' total knowledge was analyzed according to the background details. The analysis clearly shows that the majority of the respondents (89.5%) said they use condoms. The results show a surprisingly high number compared to previous data concerning condom use in Namibia. For instance, the National Strategic Framework (NSF) (2010/11-2015/16) reported that Namibia distributed 21,332,160 male and 340,000 female condoms, and yet condom use was still low and inconsistent, with the exception of youth (15-24) where condom use was reported to be higher. The National Demographic Health Survey (2006-07), (41%) of women, and (57%) of men reported using condoms the last time they had sex. Further, (62%) women and (78%) of men aged 15-49 who had sexual intercourse in the last 12 months (prior to NDHS), with non-marital, non-cohabiting partners reported using a condom. With regards to higher risk sex, 64% women and 81% men engaged in higher risk sex, reported having used a condom in the last 12 month (prior to NDHS).

Findings from other countries in Sub-Sahara Africa such as Ghana and Kenya indicate an overall use of the condom is sometimes less than 10% of men aged 15-59 (Curtis & Neitzel, 1996).

With regards to the respondents knowledge on how to use a condom, a high percentage 99.0% know how to use condoms, 11.4% knew how to use it and 6.7% were not sure.

Those results are encouraging, as it suggests that the 89.5% of those who indicated as used condom had used it with the good know how.

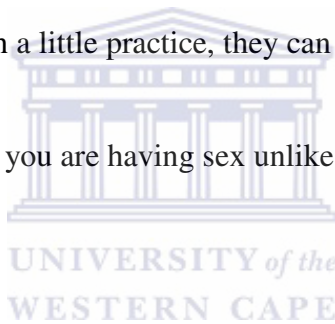
Further, condom use tends to be more prevalent among groups who engage in behaviors that put them at higher risks of STIs/HIV and unintended pregnancy. Thus, condom use is relatively high among sexually active unmarried men. In Kenya, 47% of men in this category reported using the condom at last intercourse, in 1998, compared to 8% of married men Also, in Kenya, among men who reported having a sexually transmitted disease during the 12 months prior to the survey in 1998, 10% said they used condoms in order to avoid infecting their partner(s) (National Council for Population and Development



(NCPD), Central Bureau of Statistics (CBS): Office of the Vice President and Ministry of Planning and National Development) [Kenya], & Macro International Inc. (MI), 1999).

Choice-HIV and AIDS Initiative (2009-2011) underscored the advantages condom use as follows:

- Condoms are the only contraceptive that help prevent both pregnancy and the spread of sexually transmitted diseases (including HIV) when used properly and consistently.
- Condoms are one of the most reliable methods of birth control when used properly and consistently.
- Condoms have none of the medical side-effects that some other birth control methods may have.
- Condoms are available in various shapes, colours, flavours, textures and sizes - to increase the fun of making love with condoms.
- Condoms are widely available in pharmacies, supermarkets and convenience stores. You don't need a prescription or have to visit a doctor.
- Condoms make sex less messy.
- Condoms are user friendly. With a little practice, they can also add confidence to the enjoyment of sex.
- Condoms are only needed when you are having sex unlike some other contraceptives.



## **5.6 Practice about male condoms**

### **5.6.1 Ever used condom**

The analysis clearly shows that the majority of the respondents (89.5%) use condoms. The results above are encouraging and inconsistent with previous data concerning condom use in Namibia. It was reported in the National Strategic Framework (NSF) (2015/2015/16) that Namibia distributed 21,332,160 male and 340,000 female condoms. Nevertheless, condom use continued to be low and inconsistent with the exception of youth (15-24) where condom use was reported to be higher. This is attributed to the fact that they are not married.

In the National Demographic Health Survey ( ) 41% of women, and 57% of men reported using condoms at the last sex. Further, 62% women and 78% men aged 15-49 who had sexual intercourse in the last 12 months (prior to NDHS) with a non-marital, non-cohabiting partners reported using a condom. With



regards to higher risk sex, 64% women and 81% men engaged in higher risk sex reported having used condom in the last 12 month (prior to NDHS).

Similarly, in a study conducted in sentinel STD clinics in 25 metropolitan areas in the United States amongst 10,037 heterosexual STD clients, among clients with both steady and non-steady partners, constant condom use was more common with the non-steady partners (28% vs. 3%, p less than 0.001) (McCray and Onorato, 1991).

### **5.6.2 Most reason to use condom**

As with regards the reasons why respondents were likely to use a condom, the majority (77.1%) identified 'to prevent HIV', and (10.5%) 'to prevent pregnancy' as the reasons. This shows that the respondents are aware of the threat of HIV. It is anticipated that this awareness would lead to condom use among the respondents.

### **5.6.3 Limitations**

There are several limitations to this study that may affect the validity and generalizability of the results.

1. The study was conducted among employees a small group of a specific age bracket, fifty years and older of one operation site of Namdeb, hence this study results may not be extrapolated to the entire population of older Namdeb employees.
2. The study used self-report instruments for assessing knowledge, attitude and practice of male condom use. This method of measuring is known to overestimate and prone to recall bias. The recall bias may be on whether respondents had ever used condom due to time lapsed and the sensitivity of the topic.
3. The methodology of relying on respondents self-reporting also has challenges of data bias and inconsistency.
4. This study did not include middle age and young employees. However, their participation would be of help in defining knowledge, attitude and practice of the entire Namdeb workforce about male condom.

5. This study did not have a qualitative component and therefore could not provide detailed information on the knowledge and attitude gaps found among the respondents.



## CHAPTER 6

### CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 Conclusions

This study looked at assessing knowledge, attitude and practices of male condom among Namdeb employees, fifty years and older, working at Mining Area 1.

The respondents' knowledge about male condoms appeared relatively moderate, as only 52.4% of the respondents have responded correct to more than eight of the nine questions about knowledge on condom use. The findings of this study may be comparable to other studies previously conducted within the general Namdeb employees' population (Hyde, 2007) and elsewhere in Africa.

The finding of the study suggested that there might be older Namdeb employees who may not be appreciate distribution of condom on a free-of-charges basis, therefore they may not be using it (condom), hence risk unprotected sex.

The study also revealed that there were respondents who indicated of not being comfortable to ask condoms from the health care workers, which suggest that stigma and discrimination exist toward employees seeking HIV and ADIS – related services.

The study further revealed that the attitude of the respondents toward male condom may be satisfactory. However, the study showed some gaps on some variables i.e. 54.5% of the respondents reported that male condoms tear easily and 51.1% of the respondents indicated that condoms distributed freely are of poor quality. Nevertheless, those gaps can be addressed through intensive education and awareness interventions that are age specific and sensitive (Hyde, 2007).

This study was conducted among MA1 older employees only; therefore finding may be extrapolated to the general population.

## 6.2 Recommendations

In order for Namdeb to improve the knowledge of condom use, and ultimately condom use, particularly among the elder segment of the employees population. The below recommendations were suggested based on the outcome/findings of this study.

The education and awareness classes should promote and clarify the value and effectiveness of male condoms as important tool of HIV prevention. The condom campaign messages must be translated in the indigenous languages e. g. Oshiwambo, Damara>Nama and Afrikaans. All employees must compulsory attend condom education and condom demonstration session, just like the Safety Health and Environment (SHE) sessions.

The marketing of condoms must be conducted in an innovative and appealing manner (i.e. Carry 1 and save a life campaign) that makes it mandatory for each employee to carry a condom at all times and it must be enforced in the same manner as the Personal Protective Equipments (PPE). Namdeb must consider procuring new condom supplies with a different name brand e.g. condoms with the diamond/Namdeb log, of which employees can associate with, and thus likely to increase use. Condom should be made a compulsory stock item to all sheebens and liquor outlets, attached to the operating license.

More elder employees must be trained to become Peer Educators, in order to learn and become HIV/AIDS and condom champions capable of influencing others sexual behaviors. A social marketing strategic framework must be designed to monitor the distribution, availability and the consistent and correct use of condoms.

The HIV and AIDS messages should also emphasize the teaching of moral practices, because abstinence remain the most effective and only certain way to avoid HIV infection.

Also, and HIV prevalence survey linked with KAP to determine the current magnitude of the HIV and AIDS problem among the entire employees population.

The findings and recommendations of this study must be made available to the entire Namdeb management.

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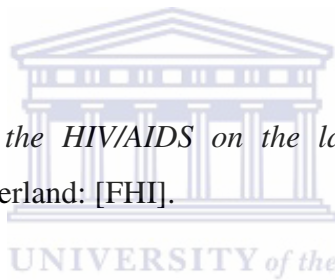
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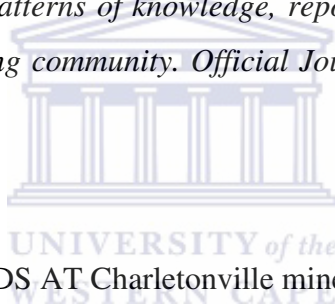
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**APPENDIX**

**APPENDIX 1. DATA COLLECTION TOOL**



**UNIVERSITY OF THE WESTERN CAPE**

**School of Public Health**  
 Private Bag X 17, Bellville 7535, South Africa  
 Tel: +27 21-9592809, Fax: 27 21-9592872  
<http://www.soph.uwc.ac.za>



**TITLE: Knowledge, attitude and practices of male condom use among male employees fifty (50) years and older at a mining company in southern Namibia.**

Thank you for taking time to fill in this questionnaire. It should take you ±20 minutes or less to complete. This questionnaire is totally anonymous. Do not put your name or employee number on it. All employees will complete the same questionnaire. Information acquired from this survey will help me to complete my Masters degree in Public Health at the University of the Western Cape in South Africa.

**Subject Number**

**Subject number**

--	--	--	--

<b>Date of interview</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>m</b>	<b>m</b>	<b>d</b>	<b>d</b>

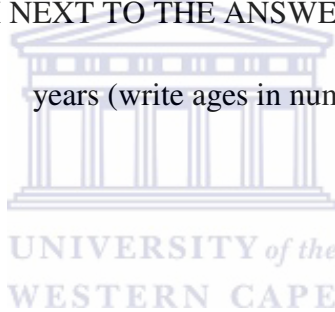
<b>Name of interviewer</b>		
<b>Language interview conducted</b>	<b>English</b>	
	<b>Oshiwambo</b>	

## 1. DEMOGRAPHIC INFORMATION

IF YOU ARE LESS THAN FIFTY (50) YEARS OF AGE, PLEASE DO NOT RESPOND TO THIS QUESTIONNAIRE.

CROSS (X) IN THE PROVIDED BOX NEXT TO THE ANSWER OF YOUR CHOICE.

1.1 What is your age at last birthday?  years (write ages in number)



1.2 What is your marital status?

1. single
2. married
3. others

1.3 What type of work accommodation you live in?

1. single sex male hostel
2. family housing unit
3. Others

1.4 Are you living together with your wife or partner at work residence?

1. Yes

2. No

1.5 What is the highest level of education you have completed?

1. Primary school
2. Secondary school
3. Tertiary school

1.6 What is your job category?

1. Blue collar
2. White collar



## **2. KNOWLEDGE – MALE CONDOM USE**

Now, I am going to ask you what you know about male condoms and its role in the prevention of HIV transmission.

2.1 Male condom is an important component of the ABC strategies of HIV prevention.

1. Agree
2. Disagree
3. Don't know

2.2 Using a condom correctly and consistently can protect you from getting HIV.

1. Agree
2. Disagree
3. Don't know

2.3 Male condoms can also be used for preventing pregnancies.

1. Agree
2. Disagree
3. Don't know

2.4 Using expired condom increase its chances to burst.

1. Agree
2. Disagree
3. Don't know



2.5 A new condom must always be used during each sexual encounter.

1. Agree
2. Disagree
3. Don't know

2.6 By using a condom people who tested HIV positive can enjoy penetrating sex without putting their partners at risk of getting HIV

1. True

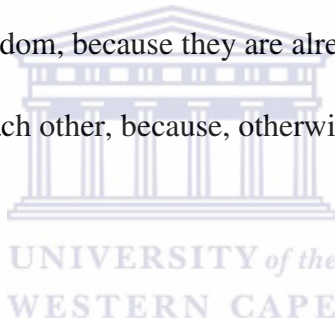
2. False
3. Don't know

2.7 People who tested HIV positive must always use condoms during penetrating sex.

1. Agree
2. Disagree
3. Don't know

2.8 If two couple/partners have HIV, what is the best thing for them to do?

1. They can have sex without condom, because they are already both HIV positive.
2. They must use condom with each other, because, otherwise, they will get more HIV from each other.
3. Don't know.



2.9 What does consistent and correct use of condom mean to you?

1. Using condom with my wife, only.
2. Using condom with a partner who is not my wife, but not with my wife.
3. Using one condom more than once.
4. Using condom during each and every sexual encounter, following the manufacturer's instructions.
5. Don't know.

### 3. ATTITUDE – MALE CONDOM USE

In this section, I would like to know your opinion (what you think) about the use of male condoms as a prevention of HIV transmission.

#### 3.1 Condoms tear easily.

1. Agree
2. Disagree
3. Don't know

#### 3.2 Male condoms are easy to use than female condoms.

1. Agree
2. Disagree
3. Don't know



#### 3.3 Some people think men of your age must not use condoms.

1. Agree
2. Disagree
3. Don't know

#### 3.4 Some people believe that men who use condoms have sex many times.

1. Agree

2. Disagree
3. Don't know

3.5 Distributing condoms at workplaces encourage people to engage in immoral sex.

1. Agree
2. Disagree
3. Don't know

3.6 Other people think that condoms which are distributed free-of- charges are of poor quality.

1. Agree
2. Disagree
3. Don't know



3.7 Would you be comfortable to ask condoms from a health worker (i.e. nurse, pharmacist, counselor, doctor)?

1. Yes
2. No
3. Don't know

3.8 Do you think it is ok for your partner to ask you to use a condom?

1. Yes
2. No

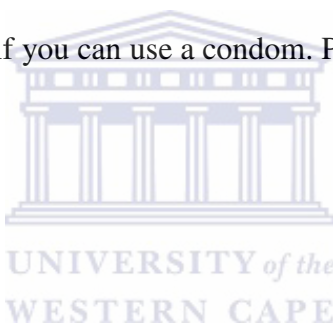
3. Don't know

3.9 Does using a condom weaken your erection?

1. Yes
2. No
3. Never used a condom before

#### 4. PRACTICES – MALE CONDOM USE

In this section, I am interested to know if you can use a condom. Please mark **only one** most appropriate answer.



4.1 Did you ever use a condom?

1. Yes
2. No

4.2 Do you know how to use a condom?

1. Yes
2. No

4.3 For which reason are you most likely to use a condom?

1. To prevent HIV



2. To prevent pregnancy
3. Both

4.4 If your partner is having HIV (HIV positive) would you have sex with her without using a condom?

1. Yes
2. No

4.5 Do you think that most people of your age now use condoms?

1. Yes
2. No
3. Not sure



THANK YOU FOR YOUR TIME!

## APPENDIX 2. PARTICIPANT INFORMATION SHEET



**UNIVERSITY OF THE WESTERN CAPE**

**School of Public Health**  
Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-9592809, Fax: 27 21-9592872  
<http://www.soph.uwc.ac.za>



**TITLE: Assessing knowledge, attitude and practices of condom use among male employee age fifty years and older at an open-cast mine in Namibia.**

Dear prospective participants

I am a student at the University of the Western Cape, South Africa. I am studying for a masters degree in public health. I am trying to collect information related to the understanding and use of male condoms among Namdeb male employees who are age fifty years and above, working at Mining Area One South (MA1) and living in Oranjemund town. This study is part of partial fulfilment towards the master's degree.

### **What is the aim of the study?**

The aim of the study is to collect information related to the knowledge, attitudes and practices of male condom use as an HIV prevention among Namdeb male employees age fifty years and above in order to recommend and suggest for appropriate and relevant intervention programmes which suits the age group population.

### **Who will take part in the study?**

About 178 employees of the total 640, 50 years and older, working at MA1 South will be randomly selected to participate in the study.

### **What you expect from the study**

As a participant you are expected to answer questions as honest as possible. Questions will be about your age, marital status, job category, residence, sexual experience with regards male condom use and opinion your opinion on male condom use as a prevention of HIV/AIDS.

Information will be collected by me and other two researcher assistants. Information will be collected by means of interview which will be conducted at quiet and private rooms. Interviews will take about approximately 30 – 40 minutes per person.

### **How will you benefit from the study?**

You will benefit from the study by providing accurate and honestly information which will enable the researcher to compile suggestive report about appropriate interventions to the management.

### **Can I withdraw from the study?**

Yes, you can withdraw from the study at any point without giving any reason. You may also refuse to answer to some questions should you wish to do so. The study is completely voluntary and your employment will not be influenced by your participation decision.

### **Any further information**

More information may be obtained from Mr. Pillemon Nakathingo at tel: 264 63 238093(w), or 264812519920. Or my Supervisor, Mr. Wonderwossen Lerebo on below indicated details.

If you are willing to take part in the study, please read and sign the consent form below.

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the student researcher or the study supervisor:

Student Researcher: Phillemon Kashiimbi Nakathingo

Student Number: 2616971

Tel: 264 63 238093(W)

264 812519920 (Mobile)

E-mail: Phillemon.nakathingo@namdeb.com

Supervisor: Mr. Wondwossen Lerebo

Tel: 021 959307 (w)

0730414555 (cell)

E-mail: wlerebo@uwc.ac.za

University of the Western Cape



### APPENDIX 3. PARTICIPANT INFORMATION SHEET (OSHIWAMBO TRASLATED)



**UNIVERSITY OF THE WESTERN CAPE**

**School of Public Health**  
Private Bag X 17, Bellville 7535, South Africa  
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<http://www.soph.wuc.ac.za>



Translated Information sheet (Oshiwambo)

Ombapila yomauelele nomakonakono pendiki lyuundolowele mo Oranjemund

Omusimanekwa

Ngame omuilongi moUniversity ya Western Cape, moSouth Africa. Otandi ilongele onkatu yo pombapa yuundjolowele wo pashigwana. Otandi gongele omauelele genasha nelongitho lyoo ngumi (male condoms) mokati kaaniilongo aalumentu yaNamdeb yepipi lyomivo omilongo ntano sigo opombanda, mbono hayalongele mo Mining Area one (MA1), no haya kala mondoolopa ya Oranjemund. Ekonakono ndika olili oshitopolwa shegwanithepo lyiipumbiwa oku mono onkatu yo pombanda yuundjolowele wa kehegumwe.

Oshilalakanenwa she konakono osha shike?

Oshilalakanenwa she konakono osho oku gongela omauelele genasha notseyo, omikalo no showoelongitho lyo ngumi onga ekelelo lye taandelo lyombuto yo HIV mokati kaaniilonga yatumbulwa opo ku gandjwe omayele taga opalele metotopo lyo milandu dhokukelela oHIV mokati koshigwana sha tumbulwa pombanda.

Oolye a tegelelwa okukakutha ombinga

Aaniilonga aalumentu 178 yomomwaalu 640 yomivo omilongo ntano sigo okkukaka pombanda otaya ka ho gololwa mongundu kamuna tate opo aka kuthe ombinga mekonakono.

Shoka wa tegelela okuziilila mekonakono.

Onga omukuthimbinga owa tegelelwa wuka yamukule omapulo agehe paushili nopauyuuki ngaashi tashi vulika. Ngame opamwe naa kwatheli yandje yeli yaali otse tatu ka pula omapulo. Omapulapulo otaga ka kwata uule wominute omilongo ndatu sigo omilongo ne lwaampoka.

Mekonakono ota mu kuzile uuwanawa was hike?

Pakugandja omauyebele geli mondjila oto kwathele omukonakoni amone shoka aanilonga yu uvite kombinga yelongitho lyongumi ye alombwele aanambelewa yendiki lyuundjolowele litote omisindalongo ndhoka dhu ukilila kondandalunde aaniilonga yomapipi gakonakonwa.

Otandi vulu tu okwiikutha mo mekonakono?

Eeno, oto vulu okwiikutha mo mekuthombinga momakonakono kehe ethimbo, ino gandja nando etompelo lyasha. Oto vulu wo oku tinda oku yamulula omapula gamwe, uuna wu uvite ngaaka. Ekonakono olyo paumwene lela ne kutho mbinga lyoye ita li kaguma iilonga yoye nando okashona.

Ngele owa tokola oku kutha ombinga, lesa etoshayina ombapila yeziminino pevi.

Ngele owa hala omauyebele ga gwedha po, monathana nomunasikola omukonakoni nenge komuwiliki gwekonakono:

Omunasikola omukonakoni: Phillemon Kahiimbi Nakathingo

Onomola yongondi: 264 63 238093 (kiilonga)

264 812519920 (yomepaya)

Email: phillemon. anakathingo@namdeb.com

Omutonateli gwekonakono: Wondwossen Lerebo

Ongodhi: 021 959 307 (w)

0730414555 (cell)

E-mail: [wlerebo@uwc.ac.za](mailto:wlerebo@uwc.ac.za)



**APPENDIX 4: CONSENT FORM**



**UNIVERSITY OF THE WESTERN CAPE**

**School of Public Health**  
Private Bag X 17, Bellville 7535, South Africa  
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<http://www.soph.uwc.ac.za>



**Title of Research Project: Knowledge, attitude and practices of male condom use among male  
Named employees, age fifty years and above in Oranjemund.**

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect my employment in any way.

Participant's name..... Date.....

Participant's signature..... Date.....

Interviewer's name..... Date.....

Interviewer's signature..... Date.....

**THANK YOU FOR YOUR TIME!**



**APPENDIX 5. CONSENT FORM (OSHIWAMBO TRASLATED)**



**UNIVERSITY OF THE WESTERN CAPE**

**School of Public Health**  
Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-9592809, Fax: 27 21-9592872  
<http://www.soph.uwc.ac.za>



**Ombapila yeziminino (Consent Form)**

**Title: Knowledge, attitude and practice of male condom use among male employees age fifty years and above at Namdeb, Oranjemund, Namibia.**

Ekonakono ndika olya fatululilwa ndje nawa melaka ndjoka handi uvu, no ndi iyamba ndi kuthe ombinga kungame mwene. Omapulapulo nomalimbililo gandje agehe kombinga yekonakono oga yamukulwa no ga yelithwa nawa. Onda tseyithilwa no ndi uviteko kutya uukwatya wandje ita u katseyitwa ngele onda kutha ombinga mekonakono ndika. Ondu uvite ko wo kutya ota ndi vulu okwiikuthamo ethimbo kehe mokukutha ombinga mekonakono ndika no ina ndi tegelelwa ndi gandje omatompelo. Ondi uvite ko wo kutya okukutha ombinga mekonakono ita kuka guma onkalo yandje yiilonga nando okashona.

Edhina lyomukuthimbinga..... Esiku.....

Eshayinokaha lyomukuthimbinga..... Esiku.....

Edhina lyomupulapuli..... Esiku.....

Eshayinokaha lyomupulapuli..... Esiku.....

**TANGI UNENE SHO WALI WAKUTHA OMBINGA!**

**APPENDIX 6. ETHICAL APPROVAL FORM**

SR1



**UNIVERSITY of the WESTERN CAPE  
DEPARTMENT OF RESEARCH DEVELOPMENT**

**UWC RESEARCH PROJECT REGISTRATION AND ETHICS CLEARANCE  
APPLICATION FORM**

This application will be considered by UWC Faculty Board Research and Ethics Committees, then by the UWC Senate Research Committee, which may also consult outsiders on ethics questions, or consult the UWC ethics subcommittees, before registration of the project and clearance of the ethics. No project should proceed before project registration and ethical clearance has been granted.

<b>A. PARTICULARS OF INDIVIDUAL APPLICANT</b>			
NAME: <b>Phillemon Kashiimbi Nakathingo</b>		TITLE: Mr.	
DEPARTMENT: <b>School of Public Health</b>		FACULTY: <b>Community and Health Science</b>	
FIELD OF STUDY: <b>Masters of Public Health</b>			
ARE YOU:		Yes	No
A member of UWC academic staff?		<input type="checkbox"/>	<input type="checkbox"/>
A member of UWC support staff?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
A registered UWC student?		X <input checked="" type="checkbox"/>	No <input type="checkbox"/>
From outside UWC, wishing to research at or with UWC?		<input type="checkbox"/>	No <input type="checkbox"/>

<b>B. PARTICULARS OF PROJECT</b>
PROJECT NUMBER: TO BE ALLOCATED BY SENATE RESEARCH COMMITTEE:
EXPECTED COMPLETION DATE: September 2009
PROJECT TITLE: <b>Knowledge, attitude and practices of male condom use among male employees, age fifty years and older at a mining company in Namibia.</b>
THREE KEY WORDS DESCRIBING PROJECT: <b>Knowledge, attitude and practices, male condoms, mining company</b>

PURPOSE OF THE PROJECT:	
M-DEGREE: X	D-DEGREE:
POST GRADUATE RESEARCH:	

**C. PARTICULARS REGARDING PARTICULAR RESEARCHERS**

FAMILY NAME: <b>Nakathingo</b>	INITIALS: P.K	TITLE: Mr.
PRINCIPAL RESEARCHER: <b>Phillemon Kashiimbi Nakathingo</b>		
OTHER RESEARCH PROJECT LEADERS:		
OTHER CO-RESEARCHERS:		
THESIS: STUDENT RESEARCHER: <b>Phillemon Kashiimbi Nakathingo</b>		
THESIS: SUPERVISOR: <b>Wondwossen Lerebo (Mr.)</b>		

**C. GENERAL INFORMATION**

STUDY LEAVE TO BE TAKEN DURING PROECT (days): None	
IS IT INTENDED THAT THE OUTCOME WILL BE SUBMITTED FOR PEER REVIEWED PUBLICATION? YES <input type="checkbox"/> NO X <input checked="" type="checkbox"/>	
COMMENTS:	DEPARTMENTAL CHAIRPERSON:
SIGNATURE OF THESIS STUDENT RESEARCHER – WHERE APPROPRIATE: <i>Nakathingo</i>	
DATE: 2008. 02. 11	
SIGNATURE OF THESIS SUPERVISOR – WHERE APPROPRIATE:	
DATE	
SIGNATURE OF PRINCIPAL RESEARCHER – WHERE APROPRIATE: <i>Nakathingo</i>	
DATE: 2008. 02. 11	
SIGNATURE OF DEPARTMENTAL CHAIRPERSON:	



fifty years and older in order to advice management for possible response programme review and modification.

The most likely accurate measurement and results can be obtained by including the entire Namdeb male employees age fifty years and older, from all operation sites (including Bogenfels, Elizabeth Bay and Orange River Mine) in the study sample. However, due to constraints in terms of; time, logistics, human and financial resources it will be impossible to study the entire target population.

Raosoft sample size calculation, computer software will be used to obtain a sample size of 178 from the total of 640 of study population. The proposed research expect condom use rate to be 80%, so the sample size of 178 randomly selected employees will give a 95% level of confidence that the sample will be within 5% margin of error for the true population prevalence.

Random sampling method will then be used to draw the sample size from the target population. This method gives all subjects in the study population equal chance of being included in the study sample. It also minimizes the chance of unrepresentativeness of the study population by the study sample, thereby reducing sampling bias (Katzellenbogen et al., 1999). The researcher will obtain a complete list of all the population under study from the human resource department. All male employees age fifty and above will be allocated numbers next to their names and put in the drawing box. Those whose numbers are chosen from the drawing box will be asked to voluntarily participate in the study. In case where a selected employee refuses to participate, another randomly selected employee complying with the sample criteria will replace him. The same procedure will be followed when a selected employee leave employment during the course of the study period.

#### **Ethical consideration**

The study protocol will be submitted to the UWC Faculty of Research and Ethical Committee and to Namdeb Hospital Management for approval. All participants will be given information sheet explaining the purpose of the study, that participation in the study is voluntary and that participants could withdraw at any stage. No identification information will be required on questionnaires to ensure participants confidentiality. Participants will be ensured data collected from the study will only be used for research purposes and that only the researcher will have access to the data. Informed consent form will be signed by participant before data collection.

Form issued by: Professor Renfrew Christie, UWC Dean of Research, February 2002.  
(959 2949; 959 2948 secretary, 959 3170 fax, email: rchristie@uwc.ac.za)



**APPENDIX 7. LETTER OF PERMISSION**



Namdeb Hospital  
P.O. Box 1435  
Oranjemund

Date: 27/02/2013

**RE: PERMISSION LETTER**

Dear Mr. Phillemon Kashiimbi Nakathingo

This letter refers to your application for the request of health survey among Namdeb employees.

I am pleased to inform you that the Namdeb management and in particular the Health Care Management agreed to grant you permission to conduct your study as per your plan and guiding academic schedule.

We trust that the outcome of your study will add value to the delivery of health care services toward Namdeb employees.

Should you have any query or need further assistance, contact my office at; 063 238001.

We wish you success and all the best of lucky.

Yours in Health

.....  
Oscar Simbwae (Mr.)  
Namdeb Hospital Manager

