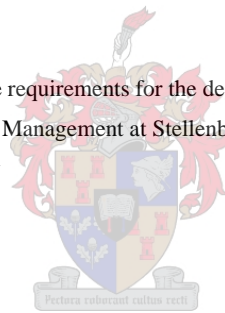


KNOWLEDGE OF RÖSSING URANIUM MINE EMPLOYEES ON HIV AND
AIDS TRANSMISSION, PREVENTION AND TREATMENT.

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Assignment presented in fulfilment of the requirements for the degree of
Masters of Philosophy (HIV and AIDS Management at Stellenbosch
University



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DECLARATION

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

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ABSTRACT

In the beginning HIV/AIDS was only seen as a health issue because of the impact it has on a person's health, as well as on the health sector, but the world of work is affected in numerous ways, such that in affected organisations, valuable skills and experience are lost, increased absenteeism, increase turnover and productivity has declined and this has resulted in National economics being weakened (International Finance Cooperation, 2004). Many organisations are becoming aware of the threat of the HIV/AIDS pandemic and as a result continue to commit resources towards managing HIV/AIDS in the workplace through HIV/AIDS programmes. However, the question remains whether such efforts are effective. Knowledge about HIV and AIDS is centred on information dissemination about the modes of transmission, means of prevention and behaviours that enhance susceptibility (Pirie & Coetzee, 2006). Therefore, knowledge is the first step in behavioural change and with accurate knowledge individuals are assisted to make informed choices.

A quantitative research using a cross-sectional, descriptive study design was used to establish Rössing Uranium Mine employees' knowledge with regard to HIV/AIDS prevention, transmission and treatment. The objective of the study were to assess the employees' knowledge on HIV transmission, identify practices employees use as measures to prevent HIV/AIDS, determine the level of knowledge of employees on HIV/AIDS treatment and to recommend strategies aimed at increasing Rössing Uranium Mine employees' knowledge on HIV/AIDS transmission, prevention and treatment on the current HIV/AIDS management program at Rössing Uranium Mine. A stratified sample consisting of 190 out of 1150 employees across the mine workforce served as respondents. A self administered questionnaire which primarily consisted of closed ended questions was used to answer the research question. Ethical approval was sought and obtained from the Ethical Committee of Stellenbosch University. Permission was requested and granted by the Health, Safety and Environment Manager of Rössing Uranium Mine to conduct the study. Study participants who agreed to take part in the study were also given a consent form to sign.

OPSOMMING

In die begin is MIV/Vigs net beskou as 'n gesondheidskwessie vanweë die impak daarvan op mense se gesondheid, asook op die gesondheidssektor, maar ook die werkomgewing word op verskeie maniere daardeur beïnvloed; in so 'n mate dat waardevolle vaardighede en ervaring verlore gaan, dat afwesigheid by die werk en personeelwisseling toeneem en dat produktiwiteit afneem. Dit het gelei tot 'n verswakking van die nasionale ekonomie (International Finance Cooperation, 2004). Baie organisasies raak bewus van die bedreiging wat die MIV/Vigs-pandemie inhou, en gevolglik wend hulle voortdurend hulpbronne aan om MIV/Vigs in die werkplek te bestuur deur middel van MIV/Vigs-programme. Die vraag kan egter gevra word of sulke pogings doeltreffend is. Kennis aangaande MIV en Vigs word gebaseer op inligting wat versprei word oor die manier van oordrag, metodes van voorkoming, en gedrag wat vatbaarheid vir die siekte verhoog (Pirie & Coetzee, 2006). Daarom is kennis die eerste tree in gedragsverandering. Met die regte kennis word mense gehelp om ingeligte keuses te maak.

Kwantitatiewe navorsing wat gebruik gemaak het van 'n deursnee, beskrywende studie-ontwerp is gebruik om vas te stel wat Rössing Uraanmyn se werknemers omtrent MIV/Vigs-voorkoming, -oordrag en -behandeling weet, en om strategieë aan te beveel wat gemik is op die uitbreiding van kennis rakende MIV/Vigs-oordrag, -voorkoming en -behandeling in die huidige MIV/Vigs-bestuursprogram by Rössing Uraanmyn. 'n Gestratifiseerde monster bestaande uit 190 van die 1150 werknemers by die myn het gedien as respondente. 'n Selfgeadministreerde vraelys wat hoofsaaklik bestaan het uit geslote vrae, is gebruik om die navorsingsvraag te beantwoord. Etiese goedkeuring is van die Etiese Komitee van die Stellenbosch Universiteit gevra en verkry. Verlof om die ondersoek te onderneem is van die Gesondheids-, Veiligheids- en Omgewingsbestuurder van Rössing Uraanmyn gevra en dit is toegestaan. Persone wat ingestem het om aan die studie deel te neem het ook 'n toestemmingsvorm ontvang wat hulle moes teken.

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To my sisters, Nonhutuzelo, Linda, Taree, and Mirjam and all my brothers, thank you for your fervent prayers and continuous support. God bless you all.

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ACRONYMS

AIDS - Acquired Immunodeficiency syndrome

ART - Antiretroviral Therapy

CDC - US Centre for Disease Control and Prevention

HIV – Human Immunodeficiency virus

HAART - Highly Active Antiretroviral Therapy

IOM - International Organization for Migration

MoHSS - Ministry of Health and Social Services

STI – Sexually Transmitted Infections

TB – Tuberculosis

UNAIDS – United Nations Joint Programme on HIV/AIDS

WHO - World Health Organization

VCT – Voluntary Counseling and Testing

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Chapter one (1) presents the background and the significance of the study, study question and specific objectives. The chapter will briefly describe the research methodology and a brief literature review. An overview of ethical considerations will also be discussed.

1.2 BACKGROUND OF THE STUDY

The Human Immunodeficiency Virus (HIV) and the Acquired Immune Deficiency Syndrome (AIDS) remains one of the major public health problems in the existing world, which contributes to high mortality and morbidity rate in the world. The spread of HIV/AIDS continues to increase, despite efforts committed globally, regionally and nationally to curb the impact of the HIV/AIDS pandemic (United Nations AIDS, 2009). However, HIV/AIDS is not just a public health issue. The impact of the HIV/AIDS epidemic is significant, affecting all spheres of life and all sectors; it is a workplace issue, a development challenge and the source of widespread insecurity (Rau, 2002). One of the most significant features is its impact on the working age group, which is the age group of 15-49. Hence, earned gains in employment and social protection are being reversed because of the epidemic. The impact is undeniable. HIV has globally been a threat to human development, destroying communities, businesses, and households (Rau, 2002). The impact of HIV/AIDS in Southern Africa is not just a health concern, but it poses serious threats to African societies and to the economic development of countries in ways that are not always directly noticeable (Beresford, 2001). The economic and developmental growth of the past few decades, such as improved health, life expectancy, education and literacy have been further undermined by the severity of the impact of HIV/AIDS especially in Southern Africa. Hence, according to Van Niekerk & Kopelman (2012) the Sub-Saharan region is accounting for over two thirds (67%) of all people living with HIV and for nearly three quarters (72%) of AIDS –related deaths in 2010. At the enterprise level, the effects of AIDS include loss of earnings, loss of skills, reduced productivity and the loss of markets as the consumer base is whittled away.

Namibia, without any exception and with the population of 2.2 million, is one of the Sub-Saharan African countries with a high HIV prevalence. According to the 2012 HIV Sentinel Survey done among pregnant women attending ANC country-wide, HIV prevalence was 18.4% (Ministry of Health and Social Services, 2012). Therefore, Namibia has a generalized HIV epidemic, with HIV primarily being transmitted through heterosexual transmission (USAID, 2010). The high prevalence of HIV/AIDS has further been underlined by the interactions between STI and HIV/AIDS in such a way that STIs act as a strong cofactor in the sexual transmission of HIV (World Health Organization, 2005). Furthermore, the presence of untreated sexual transmitted illness can cause a person to be three to five times more likely to be infected with HIV. In spite of the rapid spread of HIV, implementation of various HIV preventive programs such as Voluntary HIV Counselling and Testing (VCT), condom use promotion, promotion of abstinence, and treatment programs for sexually transmitted infections (STI's) has resulted in the remarkable decrease in HIV prevalence and incidence in some countries (International Finance Corporation (IFC), 2004). HIV can be prevented at all routes of transmission where exchange of body fluids takes place. There is still no effective cure for HIV/AIDS so prevention is the mainstay of controlling the epidemic. Behaviour change therefore remains the most important key to HIV prevention.

As with other SADC regions, Namibia's mining sector is one of the sectors that have been hit hard by the HIV epidemic. As indicated earlier, in the beginning HIV/AIDS was only seen as a health issue because of the impact it has on a person's health, as well as on the health sector, but the world of work is affected in numerous ways, such that in affected organisations, valuable skills and experience are lost, increased absenteeism, increase turnover and productivity has declined and this has resulted in National economics being weakened (International Finance Cooperation, 2004). Companies have lost top managers, workers have lost colleagues and huge amounts of time, energy and emotions have been spent on issues of illness and loss. In addition, Jackson (2002) as cited by Rukambe (2010), states that "how AIDS affects the workplace can be looked at both from the employees and employers point of view for example, employees needs for improved medical care and sick leave benefits; while employers are faced with increased costs, but at the same time the need to limit expenditure and sustain production." Therefore an effective management of

HIV/AIDS in the workplace is crucial in order to reduce the negative impact it has on the economy. Many organisations have embarked on managing HIV/AIDS at their workplaces through HIV/AIDS wellness workplace programmes such as voluntary counselling and testing, treatment, care and support as well as raising awareness through peer education programmes. However, all HIV/AIDS programmes, like any other programme, needs to be monitored and evaluated. According to the International Finance Cooperation (2004), one of the tools that can be used to develop effective workplace responses to HIV/AIDS, is to gather reliable information that is needed about the knowledge of the employees with regard to sexual behaviours. Swakopmund district is one of the 34 districts of Namibia. The district is composed of affluent minority and poor majority with an unemployment rate of 30%. One of the biggest mines in the country, Rössing Uranium Mine, is situated near Arandis town, in the Swakopmund district. Rössing Uranium is owned by Rio Tinto Group and mines ore from 500-million year old granitic rock in the Namib Desert. The workforce comprises of 1200 permanent employees and 300 contractors. Most of the workers at this mine are migrant labourers from the northern part of Namibia in search of greener pastures. A number of workers within our organisation has been infected and affected by the HIV/AIDS epidemic. The epidemic has affected the size, growth rate, age and skill composition of the current labour force. This is evident in the increased absenteeism, increased staff turnover and a decline in productivity (International Finance Cooperation, 2004). A number of factors are contributing to the high levels of HIV in Namibia such as, multiple and concurrent partnerships with inconsistent condom-use, inter-generational sex, transactional sex and alcohol abuse.

1.3 RESEARCH PROBLEM

Rio Tinto acknowledged HIV/AIDS as a workplace issue and that it had a significant impact in the number of communities in which it operates and that HIV/AIDS consequently poses a serious threat to the health of its employees, to the company reputation or business sustainability. Hence, an HIV/AIDS Health Standard was introduced by Rio Tinto during 2004 and revised in 2009. Rössing has a HIV/AIDS policy which was developed and signed off in 2000 by the General Manager and the Union representatives. The policy defines the organisation's position regarding HIV/AIDS and spells out ways in which the organisation will deal with the epidemic. In addition, Rössing has a fully functional peer educator programme with the aim to

raise awareness on HIV/AIDS since 1996. Thus, Rio Tinto had set indicators namely: 1) 85% annual participation by the employees in HIV counselling and testing at all operations, 2) Number of condoms taken per 1,000 employees and 3) To conduct a study on knowledge, attitudes and practices (KAP) on HIV/AIDS every third or fifth year.

Rössing has not been able to meet the HIV Voluntary Counselling and Testing (VCT) targets since 2004 to date. This is despite the additional efforts such as awareness talks by the peer educators and the various HIV/VCT campaigns that were held as means to achieve the target. Also, although the condoms are freely available, with distribution points mine wide, the uptake has been below the target. Furthermore, the recommended KAP HIV/AIDS study every third or fifth year was never conducted. Also, during a wellness screening that was conducted in 2011, a high number of employees were diagnosed with Hepatitis B. Hepatitis B is a sexually transmitted infection caused by the virus HBV (Hepatitis B Virus) and is spread by contact with infected blood, semen, and some other body fluids (World Health Organization, 2005). In view of the abovementioned facts, the Health Management team decided that a study on knowledge of Rössing Uranium Mine employees on HIV and AIDS transmission, prevention and treatment is an appropriate study.

1.4 RESEARCH QUESTION

In this study the researcher investigates the question: What are the levels of knowledge of Rössing Uranium Mine workers about HIV/AIDS transmission, prevention and treatments?

1.5 AIM OF THE STUDY

To establish the Rössing Uranium Mine employees' knowledge with regards to HIV/AIDS prevention, transmission and treatment in order to revamp the HIV/AIDS management program.

1.6 RESEARCH OBJECTIVES

The study is based on the hypothesis of best practice in HIV/AIDS programme design which requires an evidence based HIV/AIDS programme and periodical review of the programme in order to ensure successful implementation of the programme. Thus,

the objectives for the study would be to assess the employees' knowledge on HIV transmission, identify practices employees use as measures to prevent HIV/AIDS, determine the level of knowledge of employees on HIV/AIDS treatment and based on the results of the research, I will make recommendations on the current HIV/AIDS management program at Rössing Uranium Mine.

1.7 SIGNIFICANCE OF THE STUDY

The study will establish the employees' knowledge of HIV/AIDS prevention, transmission and treatment. The study will benefit the Health Management Team, in order to revamp the HIV/AIDS management program and have an evidence based HIV/AIDS program. The entire workforce will also benefit, since their level of knowledge on HIV transmission, prevention and treatment will be enhanced. The community in which the mine operates will also benefit from the study since the employees will have the correct information which they share with their family members.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of the literature review is to look at the work of other researchers from various sources. Thus this chapter will unpack the link between HIV and STI's, as well as the association of HIV/AIDS and the mining sector. Thereafter, the impact of HIV/AIDS on organisations will be discussed, highlighting the findings elicited by such studies. Finally, this chapter includes the knowledge of HIV/AIDS prevention, transmission, treatment, and the significance of workplace HIV/AIDS programs in general.

2.2 HIV LINK WITH STI

Sexually transmitted infections (STI's) are infections one gets when having unprotected sex with someone who has an infection. These infections are usually acquired when having vaginal intercourse, but it can also be acquired through skin-to-skin contact, anal or oral sex. STI's can be viral or bacterial. Sexually transmitted infections (STI's) are diseases such as syphilis, gonorrhoea, chancroid, herpes, chlamydia, trichomoniasis and Hepatitis B (International Finance Cooperation, 2004). Symptoms of STI's include ulcers or sores, discharge, burning or pain on passing urine, lower abdominal pain, testicular pain or swelling in men and swelling of lymph nodes in the groin. Sexually transmitted infections are among the most common causes of illness in adults in the world and have severe health, social and economic consequences for many countries. The HIV/AIDS/STD strategic plan for South Africa (2005) reported that STI's are major determinates of the HIV virus and also noted that even without the HIV epidemic, STI's poses a major public health problem (International Finance Cooperation, 2004). The same risk behaviours are involved in both HIV and STI transmission. The latter author furthermore reported that in South Africa 15% of adults have an STI in any one year. According to the Ministry of Health and Social Services (2005), Namibia reported a total of 88,971 STI cases (genital ulcer, pelvic inflammatory disease, urethral and vaginal discharge, other STI's) from first visits at outpatient departments of all public health facilities in Namibia. While this only accounts for about 4% of all first visits, true incidence may be much higher with an unknown number of cases remaining undetected (Ministry of

Health and Social Services, 2005). Research has further shown that the presence of an untreated STI, particularly an ulcerative STI, can multiply the risk of HIV transmission during unprotected sex up to ten fold (International Finance Cooperation, 2004). The Centres for Disease Control and Prevention (CDC), mentioned two mechanisms that explained the increased susceptibility to acquire HIV for individuals who are infected with an STI, namely breaks in the genital tract lining or skin that are caused by ulcerative STI's can provide easy entry for HIV and in addition the presence of STI's can stimulate an immune response in the genital area, which causes CD4+ cell concentrations to increase in genital secretions that can serve as targets for HIV (Centers for Disease Control and Prevention, 2005). Hence, an effective management of STI's is one of the cornerstones of STI control because it will prevent the development of complications and it will offer an unique opportunity for targeted education about HIV prevention.

2.3 HIV/AIDS AND MINING SECTOR

The mining sector is one of the sectors hard hit by the HIV/AIDS epidemic and also one of the major sectors in most national economies in the Southern African Development Community (SADC) region, not only in terms of the number of people employed but also the foreign exchange which is generated by mineral exports (International Finance Cooperation, 2004). Several studies have shown that the HIV infection has been rated from one quarter to almost one half of the country's miners. This is evident in countries like Zambia and Botswana (International Finance Cooperation, 2004). The latter author has noted that labour is an essential input in mining and the sector's use of labour contributes to unique risk situations in respect of HIV transmission. The reasons are because mineworkers tend to be young males and this is one of the high risk age groups affected by HIV/AIDS. The International Finance Cooperation, (2004, p.14) also noted that mineworkers engage in labour-intensive conditions and that the use of migrant labour is more common among mining industries and this consequently results in constant disruption of social support mechanisms, family structures, unpleasant living conditions and limited leisure opportunities. This, in turn, creates situations conducive to the establishment of new and/or casual sexual relations. Mines are often located in remote locations and often employ workers drawn from distant communities (IOM International Organization for Migration, 2003). According to UNAIDS (2010), high levels of mobility accelerates

the spread of HIV, because travelling away from home is associated with an increase in multiple partnerships in Namibia. Infections are passed on rapidly through a chain of interconnected sexual networks that are often distributed over various regions of the country. USAID (2010) has revealed that communities that are around mines, the fishing industries and large construction sites tend to have high levels of HIV infection. Rössing Uranium is not an exception, because it operates in the same region of the fishing industry and a number of construction sites. Migrant men are employed in these sectors and have money, thus, transactional sex, inter-generational sex, alcohol abuse, multiple and concurrent partnerships with inconsistent condom use take place. The question asked by many is why most mine workers indulge in risky sexual practices? (Jackson, 2002) (as cited in Rukambe, 2010:40) answered this: “if you work hundreds of meters underground, where every day you risk having a big stone fall on your head, then you will have a completely different perception of the risk of a virus that you can’t see and that will live in your body for ten years before you become sick.” This statement by mineworkers revealed that most mine workers have lack of control over their life circumstances in general and their health in particular which contributes to a risk-taking mentality and therefore advocates for high levels of sexual activity as a means of dealing with dangerous work environments and stressful lives. Furthermore, mining is regarded as a dangerous occupation and therefore considered AIDS as a distant threat compared to the more immediate dangers that miners faced during their daily jobs (Corno & Walque, 2012). In conclusion, it is however important to raise the awareness and educate mine workers that HIV/AIDS is preventable and can therefore minimise many social problems such as creation of orphans and vulnerable children (Rukambe, 2010).

2.4 IMPACT OF HIV/AIDS ON ORGANISATIONS

The HIV/AIDS epidemic has impacted all spheres of life. One of the most significant features is its impact on the working age group, which is the age group of 15-49. In other words the world of work is affected in numerous ways such that in affected countries as in Namibia, valuable skilled employees and experienced ones are lost, increased absenteeism, increased turnover and productivity has declined and this has resulted in National economics being weakened (International Finance Cooperation, 2004). The epidemic is affecting the size, growth rate and age and skill composition of both current and future labour forces in the private sectors. There are two ways in

which HIV/AIDS affect the macro-economy, namely direct and indirectly cost in the private sectors. This includes the cost associated with HIV/AIDS which resulted in significant implications in the country's budget. The direct costs in the private sectors are cost that has an impact on the employee's pension, life disability, medical benefit schemes and funeral expenses, while the indirect cost that the private sector has to face because of the epidemic are costs associated with increased absenteeism, training of new workers to replace those lost due to the HIV and AIDS epidemic, recruitment and low productivity (Bureau for Economic Research, 2001). It is however difficult to measure the magnitude of the direct cost to private sectors over a long period of time. This is because most companies tend to shift a large proportion of the benefits to the employees. A study done in Kenya, found that HIV positive workers produced lower output in terms of those not infected (The Kaiser Foundation, 2007). In other words, presenteeism is another impact on the employees and employers whereby that they are at work while they are sick causing them not to be productive. In addition, the impact of HIV/AIDS in organization is evident in terms of the stigma and discrimination that negatively affect production and work morale and thus, affects the tax contribution to the central government, while the need for public services, for example, the need for medical and health facilities increases.

2.5 KNOWLEDGE OF HIV/AIDS PREVENTION

Knowledge, a sound understanding of sexual behaviours, and tracking behaviour over time is part of the most crucial elements of an effective monitoring and evaluation system for HIV prevention and care programs. Knowledge about HIV and AIDS is centred on information dissemination about the modes of transmission, means of prevention and behaviours that enhance susceptibility (Pirie & Coetzee, 2006). Knowledge is the first step in behavioural change and with accurate knowledge individuals are assisted to make informed choices. Hence, the majority of HIV/AIDS interventions have a common goal of educating employees regarding HIV/AIDS transmission and prevention so as to reduce the number of new infections (Pirie & Coetzee, 2006). Furthermore, research has showed that the higher the levels of accurate knowledge about HIV/AIDS the less discrimination and stigmatisation would occur. Although several studies have found moderate to high levels of knowledge about HIV/AIDS across cultures, in another study done, it was found that although 90% of the participants answered two-thirds of questions correctly on

HIV/AIDS knowledge, one variable concerning the cause of HIV/AIDS was answered incorrectly by about 50% of the participants (Pirie & Coetzee, 2006). It is assumed that the higher the level of education a person attains, the more knowledgeable the person is about HIV/AIDS. However, it is not always the case as some studies have shown that there were low levels of HIV/AIDS knowledge among college students, showing that a large proportion of respondents did not have accurate knowledge of the causes and prevention of HIV/AIDS (Rukambe, 2010). In a mining study done in Namibia (Rukambe, 2010) the findings indicated that participants with a diploma, degree or post-graduate education scored higher in knowledge statements, with an average percentage of 87.9%, whilst participants with a lower level of education (Grade 10) scored the lowest, with an average knowledge statement score of 78%. In conclusion, being knowledgeable about HIV/AIDS is not enough, rather preventing oneself from HIV is better than cure.

2.6 KNOWLEDGE ON HIV/AIDS TRANSMISSION

HIV is transmitted through body fluids from infected people. Vaginal fluids, semen and breast milk are the most common infectious fluids that transmit the virus from one person to another. Unprotected sexual intercourse and mother to child transmission (MTCT) during pregnancy labour and delivery are the main modes of transmission. Once HIV enters the body it causes permanent infection by combining itself to the protective cells called the CD4 cells. These cells are part of the immune system responsible for protecting the body from germs that can cause diseases. Therefore, it cannot be transmitted through casual, everyday contact. Mosquitoes and other insects do not transmit HIV. Prevention of HIV is the cornerstone towards controlling further transmission. In a study conducted in a mining industry in Namibia, 82% of respondents correctly answered the knowledge statements in terms of HIV transmission while 25% answered incorrectly when asked if a person can be infected with HIV through a French (tongue) kiss. Instead of answering that HIV is transmitted by body fluids from infected people, 18% of participants answered incorrectly when asked if a person can be infected with HIV through a mosquito bite (Rukambe, 2010). Therefore, clear information on HIV transmission needs to be re-emphasised as part of HIV/AIDS prevention strategies.

2.7 KNOWLEDGE ON HIV/AIDS TREATMENT

Scientists worldwide have been carrying out trials aimed at finding an effective vaccine for HIV, because currently there is no cure for HIV. However so far there are still challenges in developing a vaccine that can protect uninfected individuals from getting infected. This is due to the fact that HIV is able to hide itself in other body cells such as those in the central nervous system. The virus also has the ability to change its structure in different ways so that the immune system cannot recognise it in the body (Anderson, 2012). Nevertheless, the introduction of antiretroviral drugs (ARVs) in 1996 transformed the treatment of HIV and AIDS, improving the quality and greatly prolonging the lives of many infected people. Antiretroviral (ARV's) drugs or Highly Active Antiretroviral Therapy (HAART) involves the treatment with two or more antiretroviral drugs for people with advanced HIV disease and evidence of a compromised immune system (International Finance Cooperation, 2004). ARV's reduce the amount of HIV in the blood. Thus, the onset of full-blown Aids is delayed and therefore allowing the HIV person to live longer. The availability of ARV's offers hope and take away much of the fear that people living with HIV/AIDS experienced and therefore enables them to face all the issues that they need to deal with. Furthermore, as argued by the International Finance Corporation (2004) ARV treatment is necessary for continuous economic development, because without treatment millions of adults in the prime of their working lives will die of AIDS and take with them the skills and knowledge base that are important for human and economic development.

2.8 SIGNIFICANCE OF WORKPLACE HIV/AIDS PROGRAMS

Prevention efforts should remain an important component of workplace response to HIV/AIDS. This is despite in situations where the HIV prevalence is high or the majority of employees are uninfected. Hence, an HIV/AIDS workplace program is important for any organization. In addition, according to International Finance Corporation (2004), a workplace HIV/AIDS program should consist of the following elements: Firstly, Prevention through Behaviour Change Communication (BCC). BCC is a multi-level tool for promoting and sustaining risk reducing behaviour change in individuals and communities by means of tailored messages and using a variety of communication channels (International Finance Corporation, 2004). Stigma and discrimination for those living with HIV/AIDS in the workplace will be

reduced, the demand for voluntary counseling and testing will be increased and an increase in the adoption and continued use of safer sex practices will be observed.

Secondly, workplace programs should establish peer education programs. Most organisations are becoming more aware of the threat of the HIV/AIDS pandemic and as a result many today commit resources towards managing the epidemic in the workplace. Worldwide peer education is one of the most widely used strategies to address the HIV/AIDS pandemic (UNAIDS, 2009). Peer education is used to effect change at the individual level by attempting to modify an individual's knowledge, attitudes, beliefs or behaviour. It may also bring about change within a group or society by modifying the norms and values and also to stimulate a collective action that leads to changes in programmes and policies. Peer educator programmes can be beneficial to the peer educator themselves. It promotes positive life skills such as leadership and communication and creates opportunities for mentoring and future job contracts. Peer educator programmes will have to be established as part of HIV/AIDS workplace programmes. People are more likely to listen to and follow the advice of their peers and peers also have a greater influence on co-workers than non-peers. The programme should address gender inequalities, stigma and discrimination that affect sexuality and HIV/AIDS transmission. Thirdly, workplace programs must promote condom use and distribution. Condom promotion and distribution aims at encouraging safer sexual practices through raising awareness and opening the debate about safer sex and condoms use (International Finance Corporation 2004). Since the earliest days of the HIV/AIDS pandemic, the use of male condoms has been a central component of prevention initiatives. Condoms are highly effective in the prevention of HIV and other STI's transmission when they are used correctly and consistently. In a study done in Namibia during 2006, overall 41% of women and 57% of men reported condom use at last sex (USAID, 2010).

Fourthly, as part of the workplace programs, organizations should have Voluntary Counseling and HIV Testing (VCT) centers. VCT refers to confidential HIV testing done on an individual basis to establish his/her HIV status and who after having undergone pre-test counselling, voluntarily consents to the test (International Finance Corporation 2004). Failed early detection of HIV infection prevents any possible early educational interventions or behaviour modifications and precludes pre-AIDS treatment with highly active antiretroviral therapy. In other words VCT is the entry

point to further HIV/AIDS services which are offered and made available within an organisational HIV/AIDS employee wellness programme. Furthermore, VCT is essential for the following reasons; it can promote behaviour change in individuals; it can result in decline in rates of sexually transmitted infections and it can also be regarded as precursor to access of antiretroviral therapy.

Lastly, wellness programmes should be part of the workplace programme. The International Finance Corporation (2004, p.153) defines “wellness programme as a multi-faceted, multi-disciplinary workplace treatment, care and support programme, into which HIV/AIDS has been integrated and aims to benefit the company by keeping HIV infected employees healthy and fit for work for as long as possible”. Wellness programmes are important since an enabling, caring and supportive working environment will be created. Wellness programmes should consist of the elements such as nutritional advice and support, lifestyle education, treatment of STI’s, prevention and treatment of opportunistic infections International Finance Corporation (2004).

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter outlines how the research process was carried out. The research design and methods used, including the sampling techniques, methods of data gathering and ethical consideration will be discussed.

3.2 RESEARCH QUESTION

In this study the researcher investigates the question:

What are the levels of knowledge of Rössing Uranium Mine Workers about HIV/AIDS transmission, prevention and treatments?

3.3 AIM OF THE STUDY

To establish the Rössing Uranium Mine employees' knowledge with regard to HIV/AIDS prevention, transmission and treatment in order to revamp the HIV/AIDS management program.

3.4 RESEARCH OBJECTIVES

The study is based on the hypothesis of best practice in HIV/AIDS programme design which requires an evidence based HIV/AIDS programme and periodical review of the programme in order to ensure successful implementation of the programme. Thus, the objectives for the study would be to assess the employees' knowledge on HIV transmission, identify practices employees use as measures to prevent HIV/AIDS, determine the level of knowledge of employees on HIV/AIDS treatment and based on the results of the research, I will make recommendations on the current HIV/AIDS management program at Rössing Uranium Mine.

3.5 RESEARCH DESIGN AND METHODS

This is a quantitative research method using a cross-sectional, descriptive study design. The reason for this approach is because the level of knowledge of Rössing Uranium Mine workers regarding HIV/AIDS transmission, prevention and treatments will be measured. A quantitative method is a systematic way of collecting numerical information and analysing it using statistical procedures (Christensen, Johnson, &

Turner 2011). Various variables are employed in the quantitative research method in order to answer the research question. According to Christensen, et al (2011) quantitative research methods are also useful because it provides an accurate description of a particular situation and identifies the variables that exist in that situation as well as the relationship that exists between these variables. A research design is a plan on how the researcher will envisage conducting the research. A cross-sectional descriptive study design was opted in order to determine the level of knowledge of Rössing Uranium Mine workers regarding HIV/AIDS transmission, prevention and treatments. The reason is that cross-sectional studies are relatively easy and economical to conduct and are useful for investigating exposures that are fixed characteristics of individuals (Beaglehole, Bonita & Kjellstrom, 2006).

3.6 TARGET POPULATION AND SAMPLE SIZE

A population is a full set of elements from where participants that will participate in the research study are selected, while a sample is a set of elements that are selected from the target population Christensen, et al. (2011). The study population for this study comprises of all Rössing Uranium Mine workers working on the mine. The inclusion criteria of the study were all employees selected by means of the stratified sampling method. Those employees working shifts, the questionnaire will be administered to them when they are working day shift. The study will take place on the mine.

A stratified sample method was used. Stratified samples are mainly used to ensure that the different groups or segments of a population are sufficiently represented in the sample. Different segments of the mine workforce, such as the top management, middle management and grade 11 and below, are represented in the research. An employee data list was obtained from the HR SAP Support Coordinator. The researcher then selected every 5th person from the employee data according to different categories. The process continued until all employees were represented.

3.7 DATA COLLECTION

Data from the participants were collected by means of a questionnaire. The Health, Safety and Environmental manager of Rössing Uranium Mine granted permission for the researcher to conduct the research. The top management and middle management

level were given self-reporting questionnaires while grade 11 and below were interviewed individually by the researcher and the research assistant. A questionnaire is a self-report data collection tool that is filled in by the study participants. This tool is used to collect study participants' perceptions and opinions of participants and give self report demographic information (Christensen et al., 2011). English based questionnaire was translated into the Afrikaans language; spoken among the employees on the mine. This was therefore done to ensure study participants that were not conversant in English could understand the content of the questionnaire. Consent forms were also translated into Afrikaans for the same purpose. Validation of the data collection tool was done and approved by the Stellenbosch Ethical Committee.

A self structured questionnaire were used in order to strengthen the validity of the study as questions were asked in exactly the same way for all the participants, thus increasing the potential of collecting unambiguous answers and making the data analysis process easier. Questions that will be included in the questionnaire are closed ended whereby the participants will select responses provided. All questionnaires consisted of questions related to the level of knowledge of Rössing employees with regard to HIV/AIDS prevention, transmission and treatment. The questionnaires were handed to the respondents and were cross checked for completeness on a daily basis on the mine during the data collection time. If there were missing sections and or inconsistency in the responses then the participant were re-interviewed. Completed questionnaire were stored at the researcher's residence in a lockable cupboard where accessibility was solely available to the researcher to maintain confidentiality. Completed consent forms were stored separately from the questionnaire to maintain anonymity. Data collection was completed during the month of October and November 2013. The questionnaires were broken down into four sections, namely, section A, B, C and D respectively.

SECTION A-SOCIO-DEMOGRAPHIC CHARACTERISTICS

This section aimed to collect information on the study participant's age, gender, marital status, formal education level and occupational category.

SECTION B-EMPLOYEES KNOWLEDGE ON HIV/AIDS TRANSMISSION

This section was aimed at measuring the study participants knowledge on HIV/AIDS transmission. Study participants were asked whether they know HIV was a sexually

transmitted infection, whether HIV can be spread by a mosquito bite and whether a person can be infected by HIV by a French kiss. The study participants were also asked whether a person can be infected with HIV when shaking hands with an HIV positive person and if having more than one sexual partner increases the risk of being infected with HIV/AIDS.

SECTION C-EMPLOYEES KNOWLEDGE ON HIV/AIDS PREVENTION

This section was aimed at measuring the study participants' knowledge on HIV/AIDS prevention. Study participants were asked whether having unprotected sexual intercourse increases the risk of contracting HIV. The study participants were also asked whether using a condom properly can protect someone from getting HIV and whether the same condom can be used five times. Furthermore, the study participants were asked whether circumcision reduces the risk of STI's and lastly if both partners are HIV positive, they do not need to use condoms.

SECTION C-EMPLOYEES KNOWLEDGE ON HIV/AIDS TREATMENT

This section was aimed at measuring the study participants knowledge on HIV/AIDS treatment. Various questions were asked on whether the employees agree or disagree, neutral or don't know whether HIV/AIDS can be cured by traditional healers, whether you can stop ARV's anytime, or whether you can drink and smoke as much as you like if you are HIV positive, and lastly is it important to know your HIV status.

3.8 VALIDITY AND RELIABILITY

The questionnaire was designed and discussed with the study supervisor. Validation of the data collection tool was done and approved by the Stellenbosch Ethical Committee. A statistician also reviewed the questionnaire to look at whether the information that will be collected can be analysed.

3.9 DATA ANALYSIS

Data collected during the research study was analysed to answer the research question. Data analysis was done by means of statistical software called Statistical Package for the Social Science (SPSS). The data was entered in Microsoft Excel 2010 and imported into EPIINFO version 3.5.1 for analysis. According to Christensen et al. (2011) statistical software make quantitative data analysis simpler

as the program performs all the calculations. The data, collected using questionnaires, were cleaned and coded. Frequency tables, bar graphs, charts and cross tabulation were employed to ensure efficient summary of all data collected. Percentages will also be used to display findings to clearly compare various figures. The findings will be displayed in bar graphs, pie charts and tables. A detailed description of data collected is discussed in the chapter four.

3.10 ETHICAL CONSIDERATIONS

Christensen, et al. (2011, p.96) states that, “researchers have two basic categories of ethical responsibility, namely responsibility to all those, both human and non-human, who participate in a project; and responsibility to the discipline of science, to be accurate and honest in the reporting of their research”.

Prior to the resumption of the study, ethical clearance and approval were obtained from the Stellenbosch University Ethical Committee as well as from the Rössing Uranium Mine Health, Safety, Environment and Security Manager. A letter of informed consent was issued to all participants to inform them of the purpose of the study as well as the research procedures. Obtaining informed consent from study participants are done when the researcher fully informs study participants about all the aspects of the study. These aspects include the aim and objectives of the study, benefits, and implications of participating in the study and incentives, if any. After information is given to participants, they voluntarily made an informed decision whether or not to take part in the study (Christensen et al., 2011). Participants had the right to refuse to take part in the study or withdraw at any time during the study without any consequences. Furthermore, the participants were assured that their identities will be protected. Participants signed a consent form after verbal consent was obtained.

Christensen et al. (2011) emphasize that the consent form should be written in an easy to understand format and in a layman’s language. To ensure that participants who are not conversant in English clearly understand the consent form, it was translated into Afrikaans. This was done to ensure that participants feel relaxed and less threatened when completing the questionnaire. It also motivated research participants to complete the questionnaires. Participants were also informed that information

collected will solely be utilized to suggest various strategies that can revise the HIV/AIDS management program of Rössing Uranium Mine.

No information disclosing the identity of the respondents was requested or collected from individuals completing the questionnaire in order to ensure their privacy is maintained. Confidentiality, anonymity and privacy are critical issues that are important to be maintained in research. Confidentiality in the context of research refers to an agreement with researchers about what will be done with the data collected from study participants (Christensen, et.al.2011). Prior to data collection process participants were informed that the information they give will only be known by the researcher and the research assistant to maintain confidentiality during and after the study. At no time will individual research responses be showed to, or communicated with management. Anonymity in research means “keeping the identity of the research participants unknown” (Christensen et al., 2011, p. 124). Anonymity is attained when the researcher cannot connect information collected from study with specific research participants (Christensen et al., 2011). In order to ensure anonymity during the study, participants were not required to provide their names or addresses during the data collection process. According to Christensen et al (2011) privacy on the other hand is defined in the context of research as controlling other people’s access to data collected about a person. In order to ensure privacy of study participants, interviews were conducted in a safe and secure room with a door that can be closed to ensure privacy.

Electronic data are stored on a password-protected computer. This data is only accessible to the researcher. Hard copies of the questionnaires are stored in locked cupboards at the researcher’s residence when not in use for data entry or analysis. The key to the cupboard is safely stored and only the researcher has access to the key. This data will be destroyed after three (3) years. Data findings and recommendations were discussed with the health management team. An academic report is generated upon completion of the data analysis and submitted to the Stellenbosch University, Africa Centre for HIV/AIDS Management.

CHAPTER 4: RESEARCH RESULTS

4.1 INTRODUCTION

This chapter will present the analysis and interpretation of the data obtained from the respondents of the study. According to Christensen et al (2011), the use of statistical analysis is necessary to reach conclusions regarding the results of the experiment we have conducted. Data analysis was done by means of statistical software called Statistical Package for the Social Science (SPSS). The data was entered in Microsoft Excel 2010 and imported into EPIINFO version 3.5.1 for analysis.

4.2 SECTION A-SOCIO-DEMOGRAPHIC CHARACTERISTICS

Various socio-demographic characteristics provide the background of the respondents participating in this study.

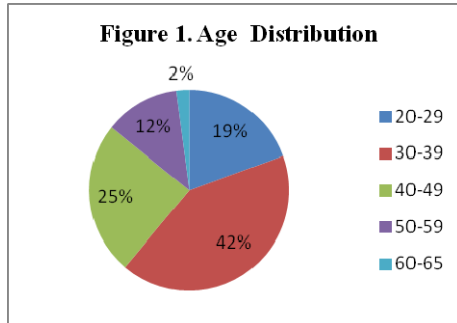
4.2.1 Variable 1: Age Distribution of Respondents

All participants responded to this question. The majority of participants fall in the age bracket of 30-39 (n=79/42%), followed by the age range of 40-49 (n=47/25%), then by the age group of 20-29 (n=37/20%). The lowest number of participants were in the range of 50-59 (n=23/12%) followed by the least participating age group of 60-65 (n=4/2%). As indicated previously in the literature review HIV/AIDS impacts all spheres of life and one of the most significant affected groups is the working age population which is 15-49.

Table 1. Age Distribution of Respondents

Age group	No. of Respondents	Percentage (%)
20-29	37	19.5
30-39	79	41.6
40-49	47	24.7
50-59	23	12.1
60-65	4	2.1
Total	190	100

The same breakdown is presented in the Pie chart below.



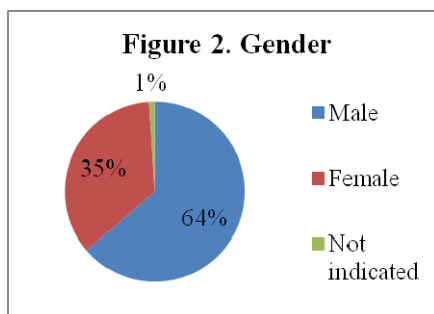
4.2.2 Variable 2: Gender of Respondents

The majority of the respondents were males. This is typical of the mining sector because it is still dominated by males. Hence, (n=121/ 64%) of the respondents were male and (n=67/35%) were female, however, 2 respondents did not indicate whether they were male or female. The opinions of both males and females were combined and presented without making reference to a specific gender.

Table 2. Gender of Respondents

Gender	No. of respondents	Percentage (%)
Male	121	63.7
Female	67	35.3
Not indicated	2	1.1
Total	190	100

The same breakdown is presented in the Pie chart below.



4.2.3 Variable 3: Marital Status of respondents

The majority of respondents that participated in the study were married (n=95/50%), followed by those that are single (n=72/38%) as shown in Table 3. Twelve

respondents indicated that they were living together but not married and eleven indicated that they were divorced. This is justified by that many mine workers are migrant labourers and they tend to have multiple concurrent partners and engage in risky sexual behaviour (International Organization for Migration(IOM), 2005).

Table: 3 Marital Status of respondents

Marital status	No. of respondents	Percentage (%)
Single	72	37.9
Married	95	50.0
Living together but not married	12	6.3
Divorced	11	5.8
Total	190	100

4.2.4 Variable 4: Formal educational level

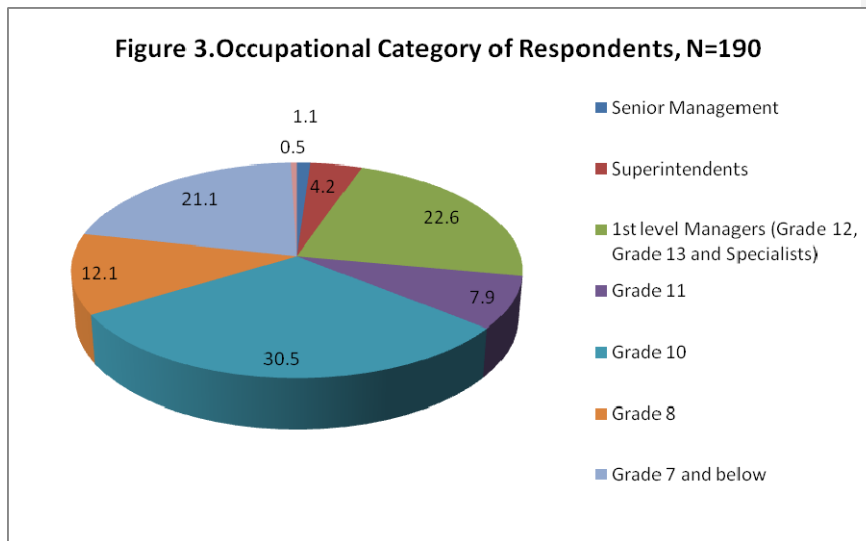
The table below depicts the formal educational level of the participants. The majority of participants (n=90/47%) achieved tertiary education as their highest level of education, while (n=63/33%) completed their grade 11 and 12. There were (n=25/13%) participants who completed their grade 8 to 10 and only ten respondents indicated that they only completed grade 7 and below. Two respondents did not indicate their education level. Education provides people with the knowledge and skills that can lead to a better quality of life.

Table 4: Formal Education level of respondents

Educational level	No. of respondents	Percentage (%)
Grade 7 and below	10	5.3
Grade 8 to Grade 10	25	13.2
Grade 11 and 12	63	33.2
Tertiary education	90	47.4
Missing/Not indicated	2	1.1
Total	190	100

4.2.5 Variable 5: Occupational Category

Figure 3 depicts the occupational category of the respondents. Majority of the workers who took part in the study are Grade 10 (n=58/31%), these are artisans, leading hands, operators and officers. They were followed by first level managers (n=43/23%), then followed by grade 7 and below (n=40/21).



4.3 SECTIONB-EMPLOYEES KNOWLEDGE ON HIV/AIDS TRANSMISSION

4.3.1 INTRODUCTION

This section presents results of outcomes of variables under this section as outlined below.

4.3.2 Variable 6: HIV stands for human insufficiency virus

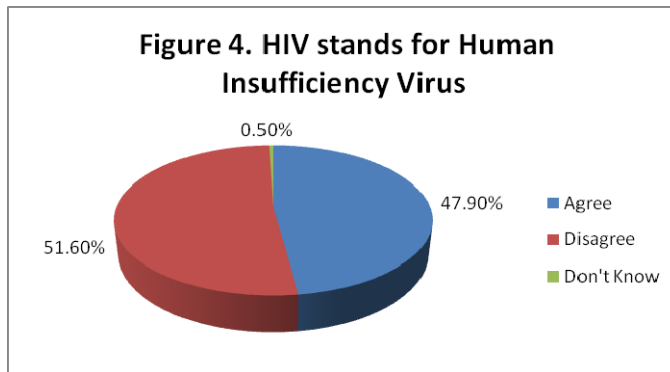
Only (n=188/100%) participants responded to this question. The table below depicts that majority (n=97/52%) of the respondents disagrees with the statement that HIV stands for human insufficiency virus. Subsequently (n=90/48%) agreed with the

statement that HIV stands for human insufficiency virus, while only one respondent indicated not knowing what the statement stands for.

Table 5: HIV stands for human insufficiency virus

	No. of respondents	Percentage
Agree	90	47.9
Disagree	97	51.6
Don't Know	1	0.5
Total	188	100

This breakdown is displaced in a pie chart.



4.3.3 Variable 7: HIV is a sexually transmitted Infection

Majority (n=179/94) of the participants indicated that they were knowledgeable that HIV is an STI. Only (n=10/5%) disagreed on the statement that HIV is an STI.

Table 6: HIV is a sexually transmitted infection

	No. of respondents	Percentage
Agree	179	94.2
Disagree	10	5.3
Missing	1	0.5
Total	190	100

4.3.4 Variable 8: AIDS is caused by a virus that attacks the immune system

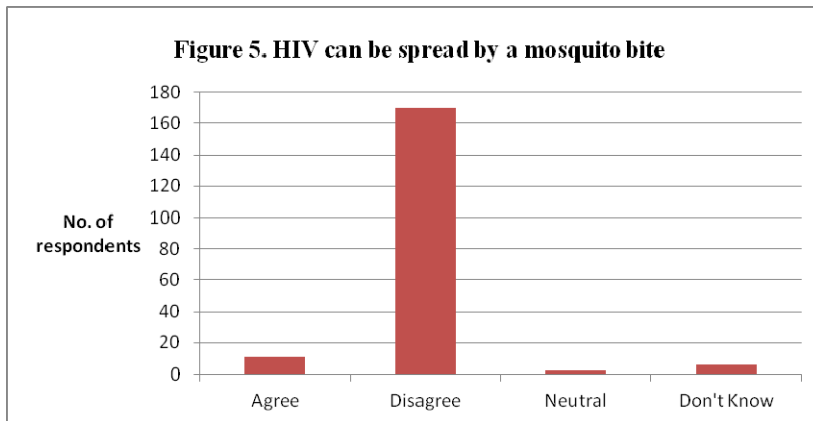
Table 7, below shows that the majority (n=189/99.4) of respondents agree that AIDS is caused by a virus that attacks the immune system. One (n=1/0.5%) respondents disagrees with this statement.

Table 7: AIDS is caused by a virus that attacks the immune system

	No. of respondents	Percentage
Agree	189	99.4
Disagree	1	0.5
Total	190	100

4.3.5 Variable 9: HIV can be spread by a mosquito bite

The majority of respondents (n=170/90%) were clear that HIV cannot be transmitted by mosquito bite. However, eleven agree with the statement that HIV can be spread by a mosquito bite, while two were neutral and six did not know and one respondent did not answer the statement.



4.3.6 Variable 10: Coughing and sneezing do not spread HIV

As indicated in table 8, an uncertainty was expressed regarding the statement whether coughing and sneezing cannot spread HIV. Specifically, (n=48/25) indicated that they disagree with the statement that coughing and sneezing do not spread HIV, while

(n=140/74%) agreed with the statement. One respondent was uncertain in other words neutral and one did not respond.

Table 8: Coughing and sneezing do not spread HIV

	No. of respondents	Percentage
Agree	140	73.7
Disagree	48	25.3
Neutral	1	0.5
Missing	1	0.5
Total	190	100

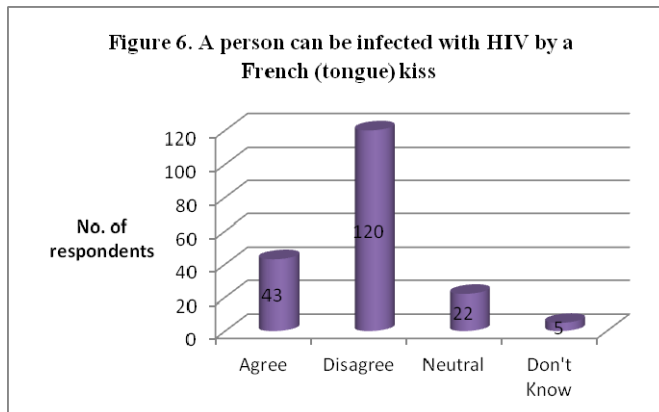
4.3.7 Variable 11: A person can be infected with HIV by a French (tongue) kiss

Furthermore, as table 9 below shows most respondents (n=120/63%) disagree whether a person can be infected with HIV by French kiss. Only (n=43/23%) agreed with the statement. Twenty two (12%) of the respondents were uncertain and were neutral not knowing whether to agree or disagree and five (3%) indicated that they don't know.

Table 9: A person can be infected with HIV by a French (tongue) kiss

	No. of respondents	Percentage
Agree	43	22.9
Disagree	120	63.1
Neutral	22	11.7
Don't Know	5	2.6
Total	190	100

The same breakdown is presented in the graph below.



4.3.8 Variable 11: A person can be infected by shaking hands with an HIV positive person

All though all scientific data available reveals that HIV cannot be transmitted through shaking hands with an HIV positive person, four (2%) agreed that a person can be infected by shaking hands with an HIV positive person, while two were unsure. However, the majority (n=184/97%) disagree with the statement that a person can be infected by shaking hands with an HIV positive person.

Table 10: A person can be infected by shaking hands with an HIV positive person

	No. of respondents	Percentage
Agree	4	2.1
Disagree	184	96.8
Don't Know	2	1.1
Total	190	100

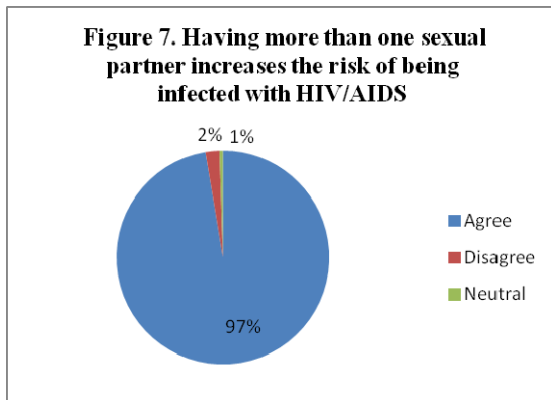
4.3.9. Variable 12: Having more than one sexual partner increases the risk of being infected with HIV/AIDS

All participants (n=190/100%) responded to this question. The majority of the participants (n=185/97%) indicated that they were knowledgeable that having more than one sexual partner increases the risk of being infected with HIV/AIDS, while (n=5/3%) disagree with the statement that having more than one sexual partner increases the risk of being infected with HIV/AIDS (Table 11).

Table 11: Having more than one sexual partner increases the risk of being infected with HIV/AIDS.

	No. of respondents	Percentage
Agree	185	97.3
Disagree	5	2.6
Total	190	100

The same breakdown is presented in figure 7 below.



4.4 SECTION C-EMPLOYEES KNOWLEDGE ON HIV/AIDS PREVENTION

This section presents results of outcomes of variables under this section as outlined below.

4.4.1 Variable 12: Having unprotected sexual intercourse increases your risk of contracting HIV

All participants (n=190/100%) responded to this question. From the findings it is evident that the participants are knowledgeable about the prevention of HIV/AIDS. The results indicated that the majority (n=188/99%) agreed to the statement that having unprotected sexual intercourse increases your risk of contracting HIV, while only (n=2/1%) disagreed.

Table 12: Having unprotected sexual intercourse increases your risk of contracting HIV

	No. of respondents	Percentage
Agree	188	98.9
Disagree	2	1.1
Total	190	100

4.4.2 Variable 13: Tattooing with unsterilized instruments is one possible way of becoming infected with HIV

A total of 188 participants' respondents to this question, while two did not answer the question. Encouragingly, (n=173/92) respondents correctly agreed that tattooing with unsterilized instruments is one possible way to contract HIV and only (n=8/4.3%) disagreed with the question, while (n=5/3%) were neutral and 2 (1%) did not know.

Table 13: Tattooing with unsterilized instruments is one possible way of becoming infected with HIV

	No. of respondents	Percentage
Agree	173	92.0
Disagree	8	4.3
Neutral	5	2.6
Don't Know	2	1.1
Total	188	100

4.4.3 Variable 14: Using a condom properly can protect someone from getting HIV

Knowledge is the first step in behavioural change and therefore accurate knowledge assists individuals in making appropriate choices. As indicated in table 14, the majority (n=175/92%) of the participants were aware that by using a condom properly it can protect someone from getting HIV. Only a minimal (n=7/4%) of the respondents disagreed and (n=7/4%) were neutral and only 1% did not know.

Table 14: If both partners are HIV positive do they need to use condoms?

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	No. of respondents	Percentage
Agree	7	3.7
Disagree	175	92.1
Neutral	7	3.7
Don't Know	1	0.5
Total	190	100

4.4.4 Variable 15: HIV infection can be prevented by washing after having sexual intercourse

All participants (n=190/100%) respondent to this question and all of them were encouragingly knowledgeable that HIV cannot be prevented by washing after having sexual intercourse.

Table 15: HIV infection can be prevented by washing after having sexual intercourse

	No. of respondents	Percentage
Disagree	190	100
Total	190	100

4.4.5 Variable 16: You can use the same condom 5 times

It is interesting to observe from the results that most participants were knowledgeable with regards to HIV prevention. When we look at table16, the majority of participants (n=189/97%) agree that someone cannot use the same condom five times, while only 1 (0.5%) respondent answered incorrectly.

Table:16 You can use the same condom 5 times

	No. of respondents	Percentage
Disagree	189	99.4
Don't Know	1	0.5
Total	190	100

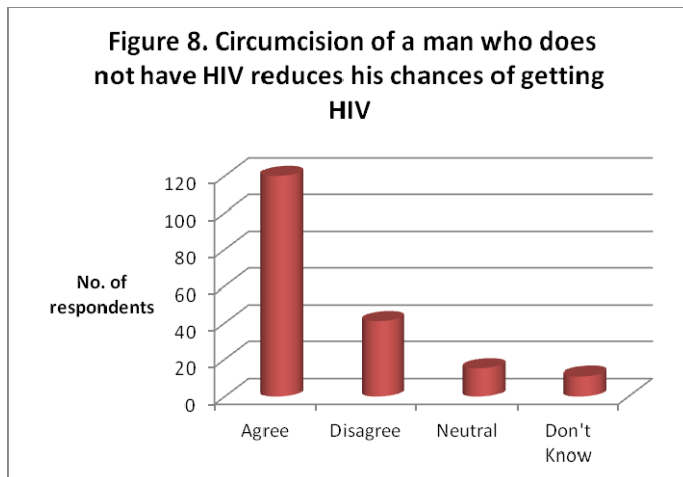
4.4.6 Variable 17: Circumcision of a man who does not have HIV reduces his chances of getting HIV

In this analysis the researcher observed that many of the responses were divided when it comes to answering this statement. Although the majority (n=120/62%) indicated that they agree that circumcision of a man does reduce his chances of getting HIV, one could see the division since some did not answer the question, others disagree (n=41/22%), others were neutral (n=15/8%) while others indicated that they did not know.

Table 17: Circumcision of a man who does not have HIV reduces his chances of getting HIV.

	No. of respondents	Percentage
Agree	120	64.2
Disagree	41	21.9
Neutral	15	8.0
Don't Know	11	5.9
Total	187	100

The same breakdown is presented in figure 8 below.



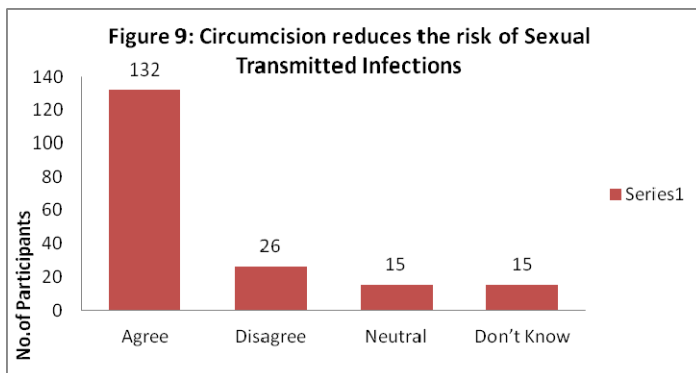
4.4.8 Variable 18. Circumcision reduces the risk of sexually transmitted infections

It is noted from the analysis that again at this question, most participants were not knowledgeable about male circumcision as an HIV prevention method. 26 (14%) respondents disagree with the statement, while 15(8%) were neutral and the other 15 (8%) indicated they were not aware that circumcision reduces the risk of sexually transmitted infections. Encouragingly, the majority (n=132/70%) responded positively to the statement. Also, 2 participants did not bother to answer the question.

Table 18: Circumcision reduces the risk of sexually transmitted infections

	No. of respondents	Percentage
Agree	132	70.2
Disagree	26	13.8
Neutral	15	8.0
Don't Know	15	8.0
Total	188	100

The same breakdown is presented in figure 8 below.



4.5 SECTION C-EMPLOYEES KNOWLEDGE ON HIV/AIDS TREATMENT

4.5.1 INTRODUCTION

This section presents results of outcomes of variables under this section as outlined below.

4.5.2 Variable 18: There is treatment that can completely remove the HI virus from your body

All participants did not respond to this question. Only 188 out of a total of 190 participants responded to this question. The vast majority of the respondents (n=174/93%) disagreed with the statement that there is treatment that can completely remove the HI virus from your body. The others were either unsure, did not know or answered incorrectly as depicted in table 19 below.

Table: 19 There is treatment that can completely remove the HI virus from your body

	No. of respondents	Percentage
Agree	4	2.1
Disagree	174	92.6
Neutral	7	3.7
Don't Know	3	1.6
Total	188	100

4.5.3 Variable 19: Traditional healers can cure HIV/AIDS

When we look at table 20, it is interesting to note that some of the participants, although in minority (n=4/2%) believed that traditional healers can cure HIV/AIDS in this era. Similarly, 10 (5%), were neutral and one respondent indicated that he did not know. The rest of them had knowledge on this statement and disagree (N=175/93%) that traditional healers cannot cure HIV/AIDS.

Table: 20 Traditional healers can cure HIV/AIDS

	No. of respondents	Percentage
Agree	4	1.1
Disagree	175	93.1
Neutral	10	5.3
Don't Know	1	0.5
Total	190	100

4.5.4 Variable 20: Sexual intercourse with a virgin can cure HIV/AIDS

One of the biggest challenges we are faced with in the battle against HIV/AIDS is the myths that surrounds the HIV issue. Compared to the previous variable, the majority of the respondents (n=185/95%) revealed by disagreeing that sexual intercourse with a virgin can cure HIV/AIDS. This shows that the participants are knowledgeable that HIV/AIDS is not curable. Only (n=4/2%) agree and 1(1%) did not know whether sexual intercourse with a virgin can cure HIV/AIDS.

Table: 21 Sexual intercourse with a virgin can cure HIV/AIDS

	No. of respondents	Percentage
Agree	4	2.2
Disagree	186	94.6
Don't Know	1	0.5
Total	188	100

4.5.5 Variable 21: Anti-retroviral therapy (ARV) can enable HIV infected people to live longer, healthier lives

The majority (n=190/100%) of the participants responded to this question. However, 3 (2%) participants did not respond to the question neither indicated not knowing the answer. From the findings, it shows that almost 180 (95%) of the participants were well-informed that ARV's can enable HIV infected people to live longer and healthier lives. Likewise, 4 (2%) disagreed with the statement and 3 (2) were neutral.

Table: 22 Anti-retroviral therapy (ARV) can enable HIV infected people to live longer, healthier lives

	No. of respondents	Percentage
Agree	180	94.7
Disagree	4	2.1
Neutral	3	1.6
Missing	3	1.6
Total	190	100

4.5.6 Variable 22: You can stop ARVs anytime you feel better

In comparison to the previous variable, 174 (92%) participants disagreed with the statement that ARV's can be stop anytime you feel better, while 6(3%) were neutral, shockingly 3 (2%) agreed that ARV's can be stopped at any time. Also, 6 (3%) were neutral and 3 (2%) did not know.

Table: 23 You can stop ARVs anytime you feel better

	No. of respondents	Percentage
Agree	3	1.6
Disagree	174	91.6
Neutral	6	3.2
Don't Know	3	1.6
Missing	4	2.1
Total	190	100

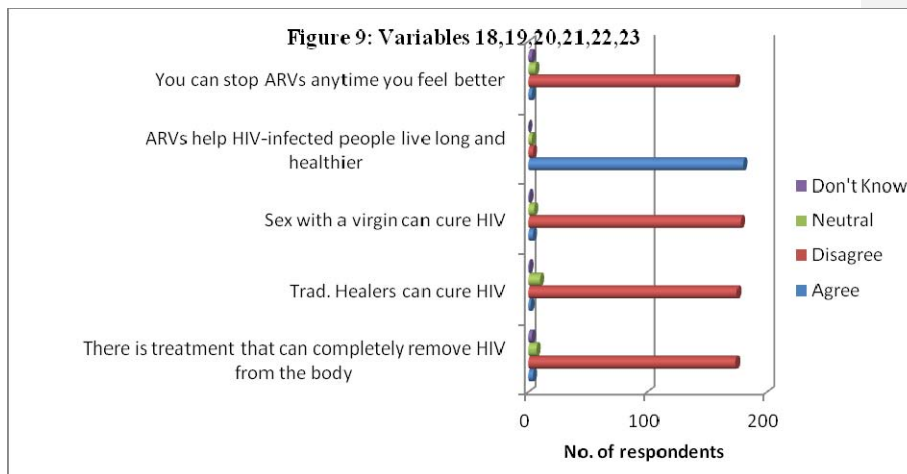
4.5.7 Variable 23: You can drink and smoke as much as you like if you have HIV already

The employees knowledge were tested whether they agree that living a healthy lifestyle, such as avoiding alcohol and smoking is important even if you are already HIV positive. As shown in table 24 below, almost 180 (95%) of the participants responded by disagreeing with the statement. Only 1 (1%) participants indicated that he did not know, 3 (2%) agree and 6 (3%) were neutral.

Table: 24 You can drink and smoke as much as you like if you have HIV already

	No. of respondents	Percentage
Agree	3	1.6
Disagree	180	94.7
Neutral	6	3.2
Don't Know	1	0.5
Total	190	100

Variables 18 to 23 breakdown is presented in figure 9 below.

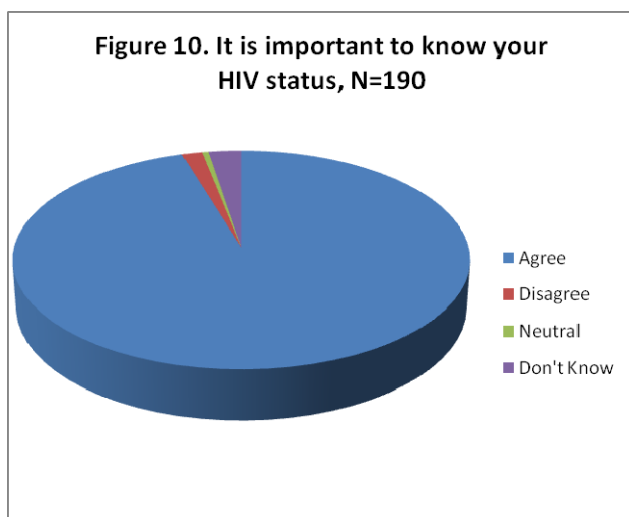


4.5.8 Variable 24: It is important to know your HIV status

The majority of the participants (n=181/96%) indicated the importance of knowing your HIV status by agreeing with the statement. However, there were some that disagreed (n=3/2%), while others did not know (n=5/3%) and lastly (n=1/1%) was neutral.

	No. of respondents	Percentage
Agree	181	95.6
Disagree	3	1.6
Neutral	1	0.5
Don't Know	5	2.6
Total	190	100

The same breakdown is presented in figure 10 below.



4.6 DISCUSSION OF RESULTS

4.6.1 Introduction

The main objective of this study was to establish Rössing Uranium Mine employees' knowledge with regards to HIV/AIDS prevention, transmission and treatment in order to revamp the HIV/AIDS management program. In this section, the findings of the study are discussed in relation to the literature and the aims and objective of the study.

4.6.2 Demographic Characteristics

Literature review has revealed that HIV/AIDS impacts all spheres of life and one of the most significant affected groups is the working age population which is 15-49.

Seventeen percent (190 employees) of the total workforce of Rössing Uranium Mine employees' participated in the research. The majority of respondents who took part were married males in the age category of 30-39 (n=79/42%), This is typical of the mining sector because it is still dominated by males. Education provides people with the knowledge and skills that can lead to a better quality of life, therefore the majority of the participants (n=90/47%) had achieved tertiary education as their highest level of education suggesting that the literacy levels might be high, and most of them were in the job category of Grade 10 (n=58/31%), these are artisans, leading hands, operators and officers workers. In a study conducted to examine whether the very high HIV prevalence recorded in Swaziland (26%) and Lesotho (23.2%) could be partially linked to migrant miners who were employed in South Africa mines, results indicated that the likelihood of infection increases with individuals employed in the mines in the age range of 30-44 years old (Corno & Walque, 2012). This is evident at Rössing since the majority (42%) of the participants in the study belong to the same age group. Surprisingly, majority of the participants respondent that they are married (50%), while 40% indicated that they were single. Although not a big significant difference were observed, literature has however revealed that women who have a husband or cohabitating partner employed in the mining sector are more likely to be HIV positive because miners and their wives are less likely to adopt safer sexual behaviours (Corno & Walque, 2012). The latter authors also mentioned that miners are less likely to abstain and to use condoms during occasional sexual intercourse. Hence, accurate knowledge is important for miners to make appropriate choices.

4.6.3 Employees knowledge on HIV/AIDS transmission

Knowledge has been known as a first step in behavioural change (Rukambe, 2010). Accurate knowledge assists individuals in making appropriate choices. The results suggested that the majority of respondents were clear that HIV is a sexual transmitted infection, HIV cannot be spread by mosquito bites or coughing and sneezing and having more than one sexual partner increases the risk of contracting HIV/AIDS. Comparing to the study conducted by Rukambe (2010) in one of Namibian mines, 82% of respondents correctly answered the knowledge statements in terms of HIV

transmission while 25% answered incorrectly when asked if a person can be infected with HIV through a French (tongue) kiss. Encouragingly, from the findings it is evident that Rössing Uranium Mine respondents are also generally knowledgeable about the transmission of HIV/AIDS. The majority (n= 179/94%) indicated that they were aware that HIV is a sexually transmitted infection, (n=170/90%) believed that HIV cannot be spread by mosquito bites, (n=140/74%) and that coughing and sneezing do not spread HIV. The majority of the participants (n=185/97%) indicated that they were knowledgeable that having more than one sexual partner increases the risk of being infected with HIV/AIDS. A greater uncertainty was expressed whether HIV can be contracted via exposure to an infected person's bodily fluids such as French or known as tongue kissing. Specifically a total of twenty two (12%) of the respondents were uncertain in other words, neutral not knowing whether to agree or disagree and five (3%) indicated that they don't know. This is the same in the Rukambe (2010) study of which 25% of the participants answered incorrectly when asked if a person can be infected with HIV through French kissing. It seems, although all scientific data leads to the conclusion that HIV cannot be transmitted through saliva, respondents appear not fully convinced to this fact as both studies suggest. Therefore, clear information on HIV transmission needs to be re-emphasised.

4.6.4 Employees knowledge on HIV/AIDS prevention

Literature has revealed that good and accurate knowledge of the basic facts about HIV/AIDS, how it is prevented and how it can be prevented is regarded as the first step in empowering people (Hyde & Associate, 2001). This is evident from the findings in which the majority (n=188/99%) of the respondents agreed to the statement that having unprotected sexual intercourse increases your risk of contracting HIV and (n=189/97%) agree that someone cannot use the same condom five times. What is worrisome though is the uncertainty that was observed when it comes to circumcision and HIV prevention. Many of the responses were divided when it came to answering this statement. Although the majority (n=120/62%) indicated that they agree that circumcision of a man reduces his chances of contracting HIV, one could see the division since some did not answer the question, others disagreed (n=41/22%), others were neutral (n=15/8%) while others indicated that they did not know. In comparison to a study done in an Tanzanian mine, which revealed that eighty-seven

percent of the respondents revealed that circumcision of an HIV negative man reduces HIV risk, moreover, 72.6% of the respondents revealed that male circumcision does not completely reduce HIV risk and 87. % of the respondents did not agree with the statement that circumcised men cannot get HIV (Mubekapi, 2012). This concluded that Rössing mine employees will need further information and education on male circumcision. Furthermore, the fact that the level of education was high among respondents suggests that the wellness advisor should utilise this vantage stance and focus on health educational campaigns to promote male circumcision education and awareness among the mine workers.

4.6.5 Employees knowledge on HIV/AIDS treatment

One of the biggest challenges we are faced with in the battle against HIV/AIDS is the myths that surrounds the HIV issue. This challenge has further been emphasised with so many efforts to find a cure for HIV but to no avail. Nevertheless, the introduction of ARV's in order to ensure that people live longer and better lives, even with HIV, has given hope to many infected or affected by the HIV/AIDS epidemic. It is not surprising to find that a vast majority of the respondents (n=174/93%) disagreed with the statement that there is treatment that can completely remove the HI virus from your body. Although employees show a high level of knowledge on HIV/AIDS treatment, shockingly 3 (2%) agreed that ARV's can be stopped at any time while 6 (3%) were neutral and 3 (2%) did not know. It is interesting to note that some of the participants, although in minority (n=4/2%) believed that traditional healers can cure HIV/AIDS in this era. Similarly, 10 (5%), were neutral and one respondent indicated that he did not know. The rest of them had knowledge on this statement and disagreed (N=175/93%) that traditional healers cannot cure HIV/AIDS. Encouragingly, the majority of the respondents (n=181/96%) indicated the importance of knowing your HIV status by agreeing with the statement whether it is important to know your HIV status in order to make informed choices. However, there were some that disagreed (n=3/2%), while others did not know (n=5/3%) and lastly (n=1/1%) was neutral. Education regarding HIV/AIDS will have to continue to be a key component in any strategy to reduce HIV infection.

4.6.5 Conclusion

In this chapter the research findings have been reported and discussed in relation to the literature. The findings of the study were presented through tables and figures. From the findings it is evident that respondents are generally knowledgeable about the transmission, prevention and treatment of HIV/AIDS.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter will present conclusions and suggest some recommendations that came up as a result of the study in order to revamp the HIV/AIDS management program at Rössing Uranium Mine.

5.2 CONCLUSIONS

The study was conducted to establish Rössing Uranium Mine employees' knowledge with regard to HIV/AIDS prevention, transmission and treatment in order to revamp the HIV/AIDS management program. The study objectives were met and based on the findings of this study; it seems that the employees are generally knowledgeable about the transmission, prevention and treatment of HIV/AIDS.

Although the study sample was little and limited to a specific organisation which is Rössing Uranium Mine, findings cannot be generalised. The study produced useful findings that could be used to formulate further strategies aimed at improving knowledge on HIV/AIDS, such as more focus on male circumcision and more education to be given to the employees on HIV/AIDS prevention.

5.3 RECOMMENDATIONS

It is important that relevant interventions, that address contemporary issues of HIV/AIDS, should be developed and adopted to prevent the spread of HIV/AIDS.

- It is essential for the health management team to take into cognizance the communities at large where employees come from, because a community has a big influence on behavior change in the prevention of HIV/AIDS. The risk factors in the community can be addressed in the workplace as well.
- There is need to acknowledge the need for adequate education and awareness-raising campaigns on male circumcision for HIV prevention. It is essential to ensure the dissemination of accurate and factual information, highlighting the health benefits of male circumcision in STI and HIV prevention. The wellness advisor and the medical

team should collaborate with the Ministry of Health and Non- Governmental Organizations, in rolling out the male circumcision approach to all private sectors.

- Senior management must actively participate and be visible at HIV/AIDS activities or campaigns. A comprehensive HIV/AIDS approach requires first and foremost political will of the management of the company. Leaders are the role models in the society and in terms of fighting stigma and discrimination that hampers prevention.
- Due to the positive impact of the peer educator program, which has been in existence since 1996, annual refresher trainings should be conducted for the peer educators to increase their knowledge on the latest issues for HIV prevention. These trainings should be more innovative and not only focus on creating awareness only.
- Continuous monitoring and evaluation of the HIV/AIDS management program should be conducted after a period two years to determine whether any changes have transpired in the employees' knowledge, attitudes and practices in relation to HIV/AIDS. Annual institutional audits can be conducted to determine the extent to which an organization has been adversely affected by HIV/AIDS. Furthermore, institutional audits are useful to be able to distinguish whether employees are vulnerable or susceptible to HIV/AIDS as in the case of Debswana (Debswana UNAIDS Case study, 2002).
- Development of a group information system is recommended, to enable the company to extract accurate and reliable data pertaining to HIV/AIDS prevention, treatment and steps taken when the impact of HIV/AIDS is mitigated. There should be a link between the financial and human resource data.
- Lastly, further research is needed to ascertain the contributing factors that lead to HIV infection, despite employees having knowledge about HIV prevention, transmission and treatment. It will be worthwhile if this study can be conducted through the Chamber of Mines, to include all the mines in Namibia. Based on the finding, the Chamber of Mines can develop a comprehensive HIV/AIDS management program for all mineworkers in Namibia.

5.4 CONCLUSION

HIV and AIDS remains one of the biggest challenges facing the world of work, because people continue to be infected despite HIV/AIDS programmes and

interventions in place. Hence, those entrusted with HIV/AIDS programmes should be innovative, passionate and not only focus on the same old preventative interventions.

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APPENDICES

Appendix A- Permission to conduct a study at Rössing Uranium Mine

Appendix B- Questionnaire in English

Appendix C- Participant Informed Consent: English

Appendix D- Questionnaire in Afrikaans

Appendix E- Participant Informed Consent: Afrikaans

APPENDIX A

RioTinto

Rössing Uranium Limited
Registered in Namibia No. 201/1594
28 Hikinga Hamutenya Avenue
Private Bag 6005
Swakopmund
Namibia
T +264 (0)64 520 2372
F +264 (0)64 520 2384

Private and confidential

Ms. Marjorie Elago
P. O. Box 3326
Windhoek
Swakopmund
NAMIBIA

19 November 2013

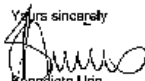
Dear Ms. Elago

Permission to conduct a research project about Rössing Uranium Mine employees' knowledge on HIV and AIDS transmission, prevention and treatment.

We would like to inform you that we have received and read your permission letter regarding the above-mentioned topic. Rössing Uranium Mine, therefore grant you permission to conduct a research project on the employees' knowledge with regard to HIV and AIDS transmission, prevention and treatment.

Kindly ensure that all the necessary confidentiality and data privacy issues are observed.

Yours sincerely



Benedicte Uris
Manager HBES

Directors: R B Howke (Chairman), W Duvwahoze* (Managing), A S T Angula, B H T Angula,
R J Tigge** (alternate), M-C Mwehi Kamanda***, P Patschick, J S Louw* (alternate), H J Louw*,
V B Goll*, E T Silu-olo (alternate), C W B Rugejambwa, S C Wenzel*** (alternate), S J Billore***

Company Secretary: G D Jacobs***

*South Africa **Australia ***Zimbabwe

APPENDIX B

ANNEXURE B – QUESTIONNAIRE

Knowledge of Rössing uranium mine employees on HIV and AIDS transmission, prevention and treatment.

KINDLY COMPLETE THE QUESTIONNAIRE BY PLACING A X IN THE BOX

SECTION A -SOCIO-DEMOGRAPHIC CHARACTERISTICS

Age

- 20-29
- 30-39
- 40-49
- 50-59
- 60-65

Gender

- Male
- Female

Marital Status

- Single
- Married
- Living together but not married
- Divorced
- Widowed

Formal educational level

- No schooling
- Grade 7 and below
- Grade 8 up to grade 10
- Grade 11 and 12
- Tertiary education
- Don't know

Occupational Category

- Senior management
- Superintendents

- First level managers (Grade 12, Grade 13 & Specialist)
- Grade 11
- Grade 10
- Grade 8
- Grade 7 and below

SECTION B Employees knowledge on HIV/AIDS transmission

HIV stands for human insufficiency virus.

- Agree Disagree Neutral Don't know

HIV is a Sexual Transmitted Infection.

- Agree Disagree Neutral Don't know

AIDS is caused by a virus that attacks the immune system.

- Agree Disagree Neutral Don't know

HIV can be spread by a mosquito bite

- Agree Disagree Neutral Don't know

Coughing and sneezing do not spread HIV

- Agree Disagree Neutral Don't know

A person can be infected with HIV by a French (tongue) kiss

- Agree Disagree Neutral Don't know

A person can be infected by shaking hands with an HIV positive person.

- Agree Disagree Neutral Don't know

Having more than one sexual partner increases the risk of being infected with HIV/AIDS.

- Agree Disagree Neutral Don't know

SECTION C – Employees knowledge on HIV/AIDS prevention

Having unprotected sexual intercourse increases your risk of contracting HIV.

- Agree Disagree Neutral Don't know

Tattooing with unsterilized instruments is one possible way of becoming infected with HIV.

- Agree Disagree Neutral Don't know

Using a condom properly can protect someone from getting HIV.

- Agree Disagree Neutral Don't know

If both partners are HIV positive they do not need to use condoms

Agree Disagree Neutral Don't know

HIV infection can be prevented by washing after having sexual intercourse

Agree Disagree Neutral Don't know

You can use the same condom 5 times

Agree Disagree Neutral Don't know

Circumcision of a man who does not have HIV reduces his chance of getting HIV

Agree Disagree Neutral Don't know

Circumcision reduces the risk of Sexual transmitted infections?

Agree Disagree Neutral Don't know

SECTION D – Employees knowledge on HIV/AIDS treatment

There is treatment that can completely remove the HIV virus from your body?

Agree Disagree Neutral Don't know

Traditional healers can cure HIV/AIDS

Agree Disagree Neutral Don't know

Sexual intercourse with a virgin can cure HIV/AIDS.

Agree Disagree Neutral Don't know

Anti-retroviral therapy (ARV) can enable HIV infected people to live longer, healthier lives.

Agree Disagree Neutral Don't know

You can stop your ARVs anytime you feel better.

Agree Disagree Neutral Don't know

You can drink and smoke as much as you like if you have HIV already.

Agree Disagree Neutral Don't know

It is important to know your HIV status.

Agree Disagree Neutral Don't know

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE!

APPENDIX C



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

Knowledge of Rössing uranium mine employees on HIV and AIDS transmission, prevention and treatment.

You are asked to participate in a research study conducted by Marjorie Elago from the Africa Centre for HIV and AIDS Management at Stellenbosch University. The results of the research study will contribute toward the researcher's Master's level as part of a requirement for the completion of the MPhil in HIV/AIDS Management programme. You were selected as a possible participant in this study because you have been selected after a stratified sampling method was used.

1. PURPOSE OF THE STUDY

The study is based on the hypothesis of best practice in HIV/AIDS programme design which requires evidence based HIV/AIDS programme and periodical review of the programme in order to ensure successful implementation of the programme. Thus, the objectives for the study would be to assess the employees knowledge on HIV transmission, identify practices employees use as measures to prevent HIV/AIDS, determine the level of knowledge of employees on HIV/AIDS treatment and based on the results of the research, I will make recommendations on the current HIV/AIDS management program at Rössing uranium mine

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:
The researcher will provide you with information on the impact of HIV/AIDS in the workplace. There are various questions in the questionnaire that you are requested to answer by ticking with and X in the blocks provided. These questions are divided in four sections such as socio-demographic information, knowledge on HIV/AIDS transmission, knowledge on HIV/AIDS prevention and knowledge on HIV/AIDS treatment. The researcher will read each questions

possible answers to the questions and ask you to answer the questions. The researcher requests you to answer all questions truthfully as your information will be kept confidential. The questionnaire will take about 20-25 minutes to complete.

3. POTENTIAL RISKS AND DISCOMFORTS

Although there is no foreseeable risk, participants may experience some discomfort in expressing their opinions regarding HIV/AIDS. You have a right to terminate your participation in the study at anytime during the process if you feel discomfort in any way. Participants will be assured of the confidentiality, anonymity, and privacy of the data and that answers to questions are voluntary.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There are no direct benefits that you will receive from this research. However, there are indirect benefits as findings from the study will be used by the health management team to revamp the HIV/AIDS management programme.

5. PAYMENT FOR PARTICIPATION

You will not receive any form of incentive for taking part in this study.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of coding of questionnaires and no names will be used. Information collected will be stored in a lockable cupboard and the key will be safely be kept by the researcher. The researcher will be the only person with access to the information collected.

The report will be forwarded to Africa Centre for HIV/AIDS Management at Stellenbosch University as the institution where the researcher is pursuing her studies.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Marjorie Elago: Principal Investigator. Cell phone number: 0812845949 or speed dial 5632. You can

visit Marjorie at her office, at the Health Management building. You can also contact the supervisor of my study, Ms. Estelle Heideman at heidemane@ufs.ac.za or at +27 (0)82 821 1230.

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me by Marjorie Elago in Afrikaans/English and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of Subject/Participant

Name of Legal Representative (if applicable)

Signature of Subject/Participant or Legal Representative

Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____
[*name of the subject/participant*] and/or [his/her] representative _____
[*name of the representative*]. [He/she] was encouraged and given ample time to ask me any

questions. This conversation was conducted in *Afrikaans/ English* and this conversation was translated into Afrikaans by Marjorie **Elago**



Signature of Investigator

_17.06.2013

Date

APPENDIX D

BYLAE A – VRAELYS

Kennis van werknemers by Rössing Uraanmyn van die oordrag, voorkoming en behandeling van MIV en Vigs.

VOLTOOI ASSEBLIEF DIE VRAELYS DEUR 'N X IN DIE TOEPASLIKE BLOKKIE TE MAAK

AFDELING A - SOSIO-DEMOGRAFIESE EIENSKAPPE

Ouderdom

- 20-29
 30-39
 40-49
 50-59
 60-65

Geslag

- Manlik Vroulik

Huwelikstaat

- Ongetroud Getroud Woon saam maar is nie getroud nie

Geskei

- Weduwee of wewenaar

Vlak van formele opleidings

- Geen skoolonderrig
 Graad 7 en laer
 Graad 8 tot graad 10
 Graad 11 en 12
 Tersiêre opleiding
 Weet nie

Beroepskategorie

- Senior bestuur
 Superintendent
 Eerste vlak bestuurder (Graad 12, Graad 13 en Spesialis)
 Graad 11
 Graad 10

- Graad 8
 Graad 7 en laer

AFDELING B – Werknemers se kennis van MIV/Vigs-oordrag

MIV staan vir menslike ineffektiewiteitsvirus.

- Stem saam Stem nie saam nie Neutraal Weet nie

MIV is 'n seksueel oordraagbare infeksie.

- Stem saam Stem nie saam nie Neutraal Weet nie

Vigs word veroorsaak deur 'n virus wat die immuunstelsel aanval.

- Stem saam Stem nie saam nie Neutraal Weet nie

MIV kan deur 'n muskietbyt versprei word.

- Stem saam Stem nie saam nie Neutraal Weet nie

Hoes en nies versprei nie MIV nie.

- Stem saam Stem nie saam nie Neutraal Weet nie

'n Persoon kan met MIV besmet word deur 'n Franse soen (tongsoen).

- Stem saam Stem nie saam nie Neutraal Weet nie

'n Persoon kan met MIV besmet word deur hande te skud met 'n MIV-positiewe persoon.

- Stem saam Stem nie saam nie Neutraal Weet nie

Om meer as een seksmaat te hê vergroot die risiko van MIV/Vigs-infeksie.

- Stem saam Stem nie saam nie Neutraal Weet nie

AFDELING C – Werknemers se kennis van MIV/Vigs-voorkoming

Onbeskermd seks verhoog die risiko om MIV op te doen.

- Stem saam Stem nie saam nie Neutraal Weet nie

Tatoeëring met ongesteryliseerde instrumente is 'n moontlike manier om met MIV besmet te raak.

- Stem saam Stem nie saam nie Neutraal Weet nie

Die korrekte gebruik van 'n kondoom kan 'n persoon beskerm teen die opdoen van MIV.

- Stem saam Stem nie saam nie Neutraal Weet nie

As albei maats MIV-positief is, hoef hulle nie kondome te gebruik nie.

- Stem saam Stem nie saam nie Neutraal Weet nie

MIV-infeksie kan voorkom deur te was ná seksuele omgang.

Stem saam Stem nie saam nie Neutraal Weet nie

'n Mens kan dieselfde kondoom 5 keer gebruik.

Stem saam Stem nie saam nie Neutraal Weet nie

Besnydenis van 'n man wat nie MIV het nie, verminder sy kans om MIV op te doen.

Stem saam Stem nie saam nie Neutraal Weet nie

Besnydenis verminder die risiko van seksueel oordraagbare infeksies.

Stem saam Stem nie saam nie Neutraal Weet nie

AFDELING D – Werknemers se kennis van MIV/Vigs-behandeling

Daar is behandeling wat MIV heeltemal uit die liggaam kan verwyder.

Stem saam Stem nie saam nie Neutraal Weet nie

Tradisionele genesers kan MIV/Vigs gesond maak.

Stem saam Stem nie saam nie Neutraal Weet nie

Seksuele omgang met 'n maagd kan MIV/Vigs gesond maak.

Stem saam Stem nie saam nie Neutraal Weet nie

Anti-retrovirale terapie (ARV) kan dit vir mense met MIV moontlik maak om langer en gesonder te lewe.

Stem saam Stem nie saam nie Neutraal Weet nie

'n Mens kan enige tyd met ARV-behandeling ophou as hy beter voel.

Stem saam Stem nie saam nie Neutraal Weet nie

'n Mens kan soveel rook en drink as wat hy wil as hy reeds MIV het.

Stem saam Stem nie saam nie Neutraal Weet nie

Dit is belangrik om te weet wat 'n mens se MIV-status is.

Stem saam Stem nie saam nie Neutraal Weet nie

DANKIE DAT U HIERDIE VRAELYS VOLTOOI HET.

APPENDIX E



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

UNIVERSITEIT VAN STELLENBOSCH INSTEMMING OM AAN NAVORSING DEEL TE NEEM

Kennis van werknemers by Rössing Uraanmyn van die oordrag, voorkoming en behandeling van MIV en Vigs.

U word gevra om deel te neem aan 'n navorsingstudie wat onderneem word deur Marjorie Elago van die Afrika Sentrum vir MIV- en Vigsbestuur by die Universiteit van Stellenbosch. Die resultate van die navorsingstudie sal bydra tot die navorser se Meestersvlak as deel van 'n vereiste vir die voltooiing van die MPhil in MIV- en Vigsbestuurprogram. U is gekies as 'n moontlike deelnemer aan hierdie studie nadat die metode van gestratifiseerde steekproeftrekking gebruik is.

1. DOEL VAN DIE STUDIE

Die studie is gebaseer op die hipotese van beste praktyk in MIV/Vigs-programontwerp wat bewys-gebaseerde HIV/Vigs-programme en periodieke hersiening van die program vereis ten einde te verseker dat die program suksesvol geïmplementeer sal word. Daarom sal die oogmerke van die studie wees om werknemers se kennis van MIV-oordrag te evalueer, maatreëls wat werknemers gebruik om MIV/Vigs te voorkom te identifiseer en die kennisvlak van werknemers rakende MIV/Vigs-behandeling te bepaal. Op grond van die resultate van die navorsing sal ek dan aanbevelings maak oor die huidige MIV/Vigs Bestuursprogram by die Rössing Uraanmyn.

2. PROSEDURES

Indien u vrywillig onderneem om aan die studie deel te neem sal ons u vra om die volgende te doen: Die navorser sal u voorsien van inligting oor die impak van MIV/Vigs in die werkplek. Daar is verskeie vrae in die vraelys wat u versoek sal word om te beantwoord deur 'n X te maak in die blokkies wat daarvoor voorsien word. Die vrae word in vier afdelings verdeel, naamlik sosio-demografiese inligting, kennis van MIV/Vigs-oordrag, kennis van MIV/Vigs-voorkoming en kennis van MIV/Vigs-behandeling. Die navorser sal die moontlike antwoorde op elke vraag voorlees en u vra om die vrae te beantwoord. Die navorser versoek

dat u al die vrae waarheidsgetrou sal beantwoord, aangesien u inligting vertroulik sal wees. Die vraelys sal 20 tot 25 minute neem om te voltooi.

3. POTENSIËLE RISIKO'S EN ONGEMAKLIKHEDE

U kan dalk van die vrae wat die navorser gaan stel, ongemaklik vind om te beantwoord. Indien so 'n situasie hom voordoën, stel asseblief die navorser daarvan in kennis sodat sy die nodige ondersteuning en berading kan gee. U het die reg om u deelname aan die studie op enige punt van die proses te staak as u op enige manier ongemaklik voel daarmee.

4. POTENSIËLE VOORDELE VIR DEELNEMERS EN/OF DIE GEMEENSKAP

U sal geen direkte voordeel uit hierdie navorsing trek nie. Daar is egter indirekte voordele, omdat die bevindings van die studie deur die gesondheidsbestuurspan gebruik sal word om die MIV/Vigs-bestuursprogram te verbeter.

5. VERGOEDING VIR DEELNAME

U sal geen vorm van vergoeding ontvang vir u deelname aan hierdie studie nie.

6. VERTROULIKHEID

Enige inligting wat in verband met hierdie studie verkry word en wat met u geïdentifiseer kan word, sal vertroulik wees en sal net met u toestemming bekend gemaak word of wanneer die wet dit vereis. Vertroulikheid sal gehandhaaf word deur middel van die kodering van vraelyste en geen name sal gebruik word nie. Inligting wat ingesamel is, sal in 'n toesluitbare kas bewaar word en die sleutel sal in die veilige bewaring van die navorser wees. Die navorser sal die enigste persoon wees met toegang tot die inligting wat ingesamel is.

Die verslag sal gestuur word na die Afrika Sentrum vir MIV/Vigs-bestuur by die Universiteit van Stellenbosch, as die instituut waar die navorser haar studies doen.

7. DEELNAME EN ONTTREKING

U kan kies of u aan hierdie studie wil deelneem of nie. As u vrywillig onderneem om deel van die studie te wees, kan u enige tyd onttrek sonder gevolge van enige aard. U mag ook weier om vrae te beantwoord wat u nie wil beantwoord nie, en nog deel van die studie bly. Die navorser mag u uit die studie onttrek indien omstandighede hulle voordoën wat so 'n optrede nodig maak.

8. IDENTIFISERING VAN NAVORSERS

As u enige vrae of kwelings oor die navorsing het, neem asseblief die vrymoedigheid om Marjorie Elago: Hoofnavoser, te skakel by selnommer 081 284 5949 of spoedbel 5632. U kan Marjorie ook by haar kantoor in die gebou vir Gesondheidsbestuur besoek.

9. REGTE VAN DEELNEMERS AAN DIE NAVORSING

U mag u instemming enige tyd onttrek en deelname staak sonder enige strafmaatreëls. U doen nie afstand van enige wetlike eise, regte of geneesmiddels deur u deelname aan die studie nie. Indien u enige vrae het aangaande u regte as 'n deelnemer aan die navorsing, kontak me. Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] by die Afdeling vir Navorsingsontwikkeling.

HANDTEKENING VAN DEELNEMER AAN NAVORSING OF REGSVERTENWOORDIGER

Die inligting hierbo is deur Marjorie Elago in Afrikaans/Engels aan my verduidelik. Ek is vaardig in hierdie taal of dit is bevredigend vir my vertaal. Ek het die geleentheid gehad om vrae te vra en die vrae is bevredigend beantwoord.

Ek stem hiermee in om vrywillig aan die ondersoek deel te neem. Ek het 'n afskrif van hierdie vorm ontvang.

Naam van deelnemer

Naam van regsverteenvoordiger (indien van toepassing)

Handtekening van deelnemer of regsverteenvoordiger

Datum

HANDTEKENING VAN NAVORSER

Ek verklaar dat ek die inligting wat in hierdie dokument vervat is, verduidelik het vir _____ [naam van deelnemer] en/of [sy/haar] verteenwoordiger _____ [naam van verteenwoordiger]. [Hy/sy] is aangemoedig en genoeg tyd gegee om enige vrae aan my te stel. Hierdie gesprek is in *Afrikaans/ Engels* gevoer en hierdie gesprek is in Afrikaans vertaal deur Marjorie **Elago**.



Handtekening van navorser

_17.06.2013

Datum